



REPORT

GEOLOGY REPORT

Exide Technologies Frisco Recycling Center



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Geoscience Firm Registration
Certificate Number 50369

RCRA Permit Renewal Application

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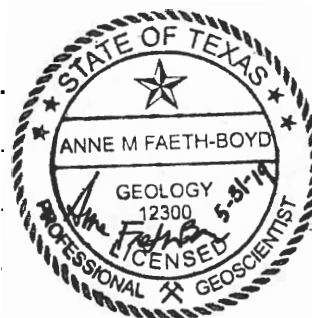
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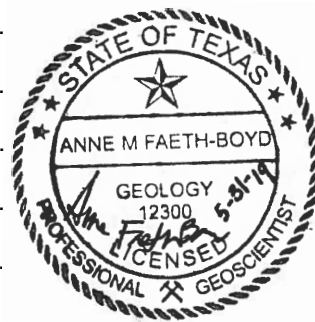
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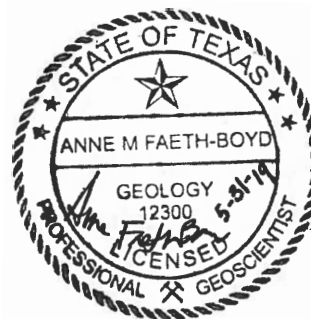


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INTRODUCTION

This Geology Report was prepared by Golder Associates (Golder) on behalf of Exide Technologies (Exide) as a part of the Resource Conservation and Recovery Act (RCRA) Part B permit renewal and amendment application supplemental filing submitted to the Texas Commission on Environmental Quality (TCEQ) in May 2019 (referred to throughout as the Part B RCRA Permit Renewal Application).

The Exide Technologies Former Operating Plant (FOP) is a former oxide manufacturing, battery recycling and secondary lead smelting facility located at 7471 Old Fifth Street in Frisco, Collin County, Texas. The location of the FOP is shown on Figure VI.A-1. The Part B RCRA Permit Renewal Application and this Geology Report cover the existing RCRA-permitted area of the former operating plant, which includes the recycling center's former operational areas, two closed pre-RCRA landfills (the North Disposal Area and the South Disposal Area), one inactive class 2 landfill (the Slag Landfill), other ancillary facilities, and additionally now covers the following:

- a) The active Class 2 Landfill Corrective Action Management Unit (listed on the Notice of Registration as the "Landfill, North Property, 1996," and referred to herein as the North CAMU) as addressed in Agreed Order 2013-2207-IHW-E and
- b) The Remediation Consolidation Area (RCA), a proposed CAMU which will contain consolidated wastes.

The North CAMU and the RCA are the only active RCRA-permitted units at the Frisco Recycling Center. For purposes of this application, the requested RCRA-permitted area is referred to as the "FOP" or "Site."

A. GEOLOGY AND TOPOGRAPHY

A.1 Active Geological Processes

The following subsections describe the active geological processes in the vicinity of and at the FOP.

A.1.a Identification of Faults

Based on the literature review described below, there are no faults (active or otherwise) in the area of the FOP.

A.1.a.1 Geologic Literature Review

The FOP is situated along the Gulf Basin margin which acts as a divider of the East Texas Basin, which is comprised of the Austin Chalk or the top of Edwards Group Cretaceous formations, and the top of the Ellenburger Paleozoic formation of the Fort Worth Basin.

The following three structural interpretations of the vicinity of the Site were reviewed:

- The 1991 Regional Geology Map from the Geologic Atlas of Texas (Figure VI.A-2)
- The 1997 Tectonic Map of Texas by the University of Texas at Austin BEG (Figure VI.A-3)

- The 1982 report, “Fault Tectonics of the East Texas Basin,” by M.P.A. Jackson

Based on these studies, there is no seismic activity in the vicinity and, as Jackson notes, Quaternary terraces across basin faulting have not been offset, which indicates that faulting ended during the Tertiary.

Additionally, metadata downloaded online from the United States Geological Survey (USGS) Texas Geologic Map indicates no active fault lines are identified in the general vicinity of the FOP. The USGS metadata indicates the closest fault lines to the Exide FOP run north-south near Forney, Texas, approximately 30 miles to the southeast of the Site. According to the 2008 and 2014 USGS Earthquake Hazards Program National Seismic Hazard Map studies, the closest Quaternary fault to the Site is the Meers fault located approximately 140 miles north in Oklahoma.

A.1.a.2 Faulting, Fracturing, and Lineations

Based on the USGS documentation described above, the Site is not considered a high hazard for seismic activity. Field surveillance of the Site for surface features such as lineations and potential surface faults has not identified any indicators of seismic activity. Additionally, the results of the historical investigations at the FOP and reviews of aerial photos, topographic maps, and seismic and subsurface structural maps did not identify any indicators of seismic activity.

A.1.a.3 Geologic Maps and Cross-Sections

Geologic maps and cross-sections of the area are summarized below. A topographic map of the area is included as Figure VI.A-6.

A.1.a.4 Structural Cross-Sections

A regional geologic cross-section is included as Figure VI.A-7. Cross-sections of the Site's subsurface are included as Figures VI.A-8 through VI.A-17. Cross-sections E-E' (Figure VI.A-13), F-F' (Figure VI.A-14), and I-I' (Figure VI.A-17) cover the area around the North CAMU, and cross-sections B-B' (Figure VI.A-10), C-C' (Figure VI.A-11), F-F' (Figure VI.A-14) intersect the RCA, fence diagram J-J' (Figure VI.A-18) covers adjacent to the Flood Wall and along Stewart Creek, and fence diagram K-K' (Figure VI.A-19) covers the area between the RCA, the North Disposal Area, and the North CAMU. Additional cross sections were created for the design of the groundwater response actions for the FOP. These cross sections are included as Appendix 3.7 of Attachment M to the Part B RCRA Permit Renewal Application.

A.1.a.5 Structural Subsurface Maps

As shown on Figures VI.A-9 through VI.A-19, the Eagle Ford Shale is generally located 10 to 30 feet below ground surface at the FOP.

A.1.a.6 Field Surveillance

Field surveillance of the Site for surface features such as lineations and potential surface faults has not identified any indicators of seismic activity. Additionally, the results of the historical investigations at the FOP and reviews of aerial photos, topographic maps, and seismic and subsurface structural maps did not identify any indicators of seismic activity.

A.1.a.7 Additional Information to Define Geology

No additional information aside from that cited above was required to define the geology of the Site.

A.1.a.8 Fault Displacement

No faulting exists within 3,000 feet of the North CAMU or RCA.

A.1.a.9 Fault Activity

No faulting exists within 3,000 feet of the North CAMU or RCA.

A.1.b Land Surface Subsidence

Land surface subsidence is the settlement and downward movement of the ground surface. Subsidence can be naturally occurring or a result of fluid withdrawal.

Natural subsidence is a product of dissolution of the soluble substrate, seismic activity, faulting, and sediment compaction. According to the Closure Plan, which is included with the Part B RCRA Permit Renewal Application as Attachment C, the North CAMU and RCA are not expected to experience settling or subsidence due to the stable physical nature of the materials (e.g., high density slag and compacted soils).

According to the online USGS Texas Water Science Center, the only records of subsidence in Texas are in the Harris-Galveston coastal region and the Fort Bend region of Houston.

Fluid withdrawal can be associated with processes such as groundwater extraction, oil and gas production, and coastal effects. Fluid withdrawal in the vicinity of and at the FOP is unlikely to cause subsidence:

- Removal of groundwater from the monitoring wells at the FOP and surrounding buffer property is for sampling purposes only. The overall volume of water removed during groundwater sampling is very small.
- According to the online Public Geographical Information Systems (GIS) Viewer Map provided by the Railroad Commission of Texas (RRC), one plugged gas well is located approximately four miles to the northwest of the FOP. Oil production is not occurring within the general vicinity of the Site.
- Based on a water well survey, which incorporated the Banks Environmental Data's database review included as Attachment G to the Part A of the RCRA permit renewal and amendment application supplemental filing submitted to the TCEQ in May 2019, only 12 active water wells are located within one mile of the Site. Most

of these wells are used for stock watering, irrigation, or domestic purposes; one well located approximately 2,000 feet to the northeast of the Site is used for public supply. No information on the rate of water extraction from these surrounding wells was found; however, given their uses and locations, it is unlikely that groundwater extraction from these wells would cause subsidence at the FOP.

- Finally, according to Lon Langley's 1999 report, "Updated Evaluation of Water Resources in Part of North-Central Texas," despite a substantial increase in population growth in the region, a significant reduction of groundwater use was observed between the 1980s and 1999 as surface water became more heavily used in the region.

A.1.c Erosion Susceptibility

Based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service Online Web Soil Survey, the soils located at the FOP are comprised of primarily silty clay, gravelly clay loam, and clays. A plan view of the soils at the FOP is presented in Figure VI.A-4. Additional detailed information obtained from investigation activities performed at the Site generally supports the information provided by the USDA (see boring logs included in Appendix B).

The Online Web Soil Survey indicated the off-road, off-trail erosion hazard at the FOP as "slight" which indicates that erosion is not likely to occur under normal climatic conditions. The road, trail erosion hazard was listed as "slight" to "moderate," indicating that the roads or trails may require occasional maintenance and only minor erosion control measures are necessary. The majority of the FOP area is listed under surface water management as "somewhat limited" indicating that the soil features are moderately likely to convey surface water across the landscape, which is indicative of a low erosion environment for surface water features.

According to the USDA, in the area of the North CAMU, Austin silty clay is the primary soil; it has approximately two to five percent slopes and is listed as eroded. The soil is well drained, has a low amount of available water in storage, is in the medium runoff class, and, with a saturated hydraulic conductivity (K_{sat}) of 0.06 to 0.57 inches per hour (in/hr), has a moderately low to moderately high capacity to transmit water. The secondary soil found around the North CAMU is Houston black clay with 1 to 3 percent slopes. The soil is moderately well drained, contains a high amount of available water in storage, is in the very high runoff class, and has a low to moderately low capacity to transmit water given a K_{sat} of up to 0.06 in/hr.

Tinn clay is the primary soil in the vicinity of the RCA. It has 0 to 1 percent slopes, is moderately well drained, has a moderate amount of available water in storage, and is in the high runoff class. It has a very low K_{sat} range of up to 0.06 in/hr. The secondary soils found in the vicinity of the RCA are Austin silty clay and Houston black clay, described above.

A.1.d Major Geologic Formations

Table VI.A.1, attached, summarizes the major geologic formations beneath the facility.

A.2 Regional Physiography and Topography

A.2.a Distance and Direction to Nearest Surface Water Body

According to Golder Associates' 2014 Affected Property Assessment Report for the Site (the 2014 APAR, which is included as Attachment H to the Part B RCRA Permit Renewal Application), the Site is located within a shallow valley created by the drainages of two streams that flow in a general east to west direction through the Site. The on-site streams include Stewart Creek, which runs along the south side of the former production area, and an unnamed tributary of Stewart Creek (the North Tributary), which runs north of the North Disposal Area and the Slag Landfill. The confluence of these streams occurs northwest of the Site's former production area. Beyond the western boundary of the Site, Stewart Creek flows to the southwest and eventually into Lake Lewisville, located approximately 4.5 miles to the southwest of the Site. The surface water elevation on Lake Lewisville is approximately 515 feet above mean sea level (AMSL) and has a 0.4% average stream-bed slope.

A.2.b Slope of Land Surface

According to the University of Texas at Austin BEG Physiographic Map of Texas, dated 1996, the Site lies in the northwestern portion of the Blackland Prairies province. A copy of this map is presented in Figure VI.A-5. The Blackland Prairies are defined as low undulating terrains comprised of chalk and marl bedrocks with elevations ranging from 450 to 1,000 AMSL. Chalks and marls weather to deep, black, fertile clay soils, typical of the soils encountered during investigations at the FOP. The Grand Prairie physiographic province lies to the west of the Blackland Prairies province.

The Site is located on the 2016 USGS 7.5 minute, Frisco, TX topographic quadrangle map, as shown on Figure VI.A-6. According to the 2016 topographic map, the topography in the vicinity of the Site is generally flat with small slopes towards the various creeks in the area such as Stewart Creek, Cottonwood Branch, and Panther Creek, which all flow into Lake Lewisville to the west of the Site (not pictured in Figure VI.A-6). At the regional scale, the Site is part of the Black Prairie (or Blacklands Prairie province), which is relatively flat with a gentle slope to the east and a gentle rolling surface (Nordstrom 1982). The soils are listed as poorly drained.

A.2.c Direction of Slope

In general, the ground surface at the Site slopes either towards Stewart Creek or the North Tributary.

A.2.d Maximum Elevation of Facility

Based on survey data from the Site, the maximum ground surface elevation of the facility is approximately 685 feet AMSL in the southeastern portion of the Site at an outcrop of the Austin Group (the Austin Chalk).

A.2.e Minimum Elevation of Facility

Based on survey data from the Site, the minimum ground surface elevation of the facility is approximately 610 feet AMSL at Stewart Creek near the western boundary of the Site.

A.3 Regional Geology

The following information describes the regional geology in the vicinity of and at the FOP.

A.3.a Geologic Map of the Region

A geologic map of the region from the Geologic Atlas of Texas is included as Figure VI.A-2. A description of the map units presented on Figure VI.A-2 that are encountered at the FOP is included in Section A.4.c. and additional description of the units shown on Figure VI.A-2 is included in Table VI.A.1.

A.3.b Generalized Stratigraphic Column

During the Paleozoic era, the north-central Texas region consisted of a sedimentary basin comprised of sediments of limestone, sandstone, carbonaceous shales, and other marine sediments (Nordstrom 1982). The sediments continued to be deposited in this basin until the Llano Uplift and Ouachita Fold Belt created faulting in the uplift areas and regional tilting to the west. During Permian time, this basin shifted to the west and only the northwest corner of the north-central region received sediments while the remainder of the area experienced widespread erosion.

There was a withdrawal of the seas in the north-central Texas region during the Triassic and Jurassic periods of the early Mesozoic era. With the withdrawal of the seas during these periods, as well as subsidence in the Gulf Coast, there was a reversal of drainage directions (Nordstrom 1982). At the end of the Jurassic time, Paleozoic rocks had been eroded to a peneplain, on which marine sediments were placed during the Cretaceous period. The Gulf Series (late Cretaceous) invasion of seas, produced a general uplift in the west as the seas withdrew and only covered the eastern segment of the north-central region.

Due to the western uplift and the subsidence of the coastal areas during the Cretaceous period, Tertiary and Quaternary sediments were deposited (Nordstrom 1982). During Tertiary time, the region underwent repeated transgression and regression of the sea resulting in marine and continental deposits in interchanging sequences that were then modified by the erosion of streams within the region. The streams then deposited alluvial sediments during the Quaternary time.

The age range of the stratigraphic units that produce slightly saline to fresh water to wells in the north-central region are Paleozoic to Recent (Nordstrom 1982). Stratigraphic units and their water-bearing properties for the north-central Texas region are presented in Attachment A (Nordstrom 1982). A regional geologic cross section is shown on Figure VI.A-7.

A.4 Subsurface Soils Investigation Report

The following information contains the results of an investigation of subsurface conditions in the vicinity of and at the FOP.

A.4.a Field Exploration

The 2014 APAR describes numerous investigations conducted since 1983 to characterize the Site soil, groundwater, surface water, and sediments at the FOP. Additional work was performed in 2015, 2018, and 2019 as described in Attachments I (the 2015 Supplement to the APAR) and M (Response Action Plan).

Multiple soil samples were collected at various depth intervals from borings completed at the Site and were analyzed, as necessary, to evaluate/delineate affected property areas at the Site. All available boring logs are presented in Attachment B.

A.4.b Soil Strata Profile

A geologic cross-section and fence diagram location map for cross sections and fence diagrams constructed using soil boring data from the Site is provided as Figure VI.A-8. Geologic cross-sections and fence diagrams A-A' through K-K' (Figures VI.A-9 through VI.A-19) display cross sections throughout the FOP (the construction diagrams for the wells included in these cross sections are included in Attachment C).

A.4.c Investigator's Interpretations

The geology encountered at the Site generally consists of approximately 10 to 30 feet of dry, and moist to wet, clay-rich, colluvial soils (Quaternary undivided surficial deposits) overlying the Eagle Ford Shale Formation. Colluvium is a general term used to define soil material and rock debris that accumulates at the base of slopes due to erosional forces such as slides, slumps, sheet-floods, or debris flows. It is typically characterized by heterogeneous and poorly sorted material. As displayed in the cross-sections, the colluvial soils at the Site typically consist of clay or silty clay with minor occurrences of gravelly clay (gravel suspended in a clay matrix), sand, and clayey gravel lenses. In addition, soil classifications at the FOP as listed on the USGS' Web Soil Survey are shown on Figure VI.A-4. There are also areas of fill material and waste as noted on Figures VI.A-9 through VI.A-16.

The Site is situated along the north-south trending contacts between the Cretaceous-aged Austin Group (Austin Chalk), the Cretaceous-aged Eagle Ford Formation (Eagle Ford Shale), and Quaternary-aged undivided surficial deposits, as shown in Figure VI.A-2. Regional dip is to the east and southeast such that outcropping rock formations become relatively younger from west to east, with the exception of Quaternary deposits, which are generally controlled by variations in topography. The following regional geologic units (listed from youngest to oldest) are encountered at the surface or in the shallow subsurface at the Site:

- Quaternary Undivided Surficial Deposits:

- Sand, clay, silt, and gravel
- Mostly colluvium and minor alluvium (McGowen et al. 1991)
- At the FOP, this unit generally consists of clay or silty clay with minor occurrences of gravelly clay (gravel suspended in a clay matrix), sand, and clayey gravel lenses, especially in the vicinity of current and former creek channels.
- Austin Chalk:
 - Upper and lower parts consist of light gray massive chalk (limestone primarily composed of the calcareous skeletons of micro-organisms) with some calcareous clay interbeds and partings.
 - The middle part mainly consists of light gray bedded marl with massive chalk interbeds (McGowen et al. 1991).
- Eagle Ford Shale:
 - Medium to dark gray shale (fine-grained, fissile, sedimentary rock composed of clay-sized and silt-sized particles)
 - Commonly selenitic (contains gypsum) and bituminous with thin platy beds of sandstone and sandy limestone in middle and upper parts (McGowen et al. 1991)

The Austin Chalk forms steep hillsides to the north, east, and south of the Site. Within the FOP property boundary, the drainages of Stewart Creek and the North Tributary have eroded the Austin Chalk such that the Quaternary surficial deposits typically lie directly on top of the Eagle Ford Shale. The surface of the Eagle Ford Shale has also been eroded in the vicinity of the Site such that it and the overlying Quaternary surficial deposits generally slope north-south toward Stewart Creek or North Tributary and then toward the west in the downstream direction of these drainages.

A.4.d Waste Management Area Subsurface Conditions

Subsurface Conditions at the North CAMU

Soil samples collected from borings in the vicinity of the North CAMU were tested for geotechnical properties as part of the initial notification for construction of an on-site class 2 industrial landfill, which was provided to the Texas Natural Resource Conservation Commission (TNRCC) in August 1995 (1995 Notification).

The geotechnical properties of the subsurface soil materials are summarized in Table VI.A.4-1 and discussed below.

According to the 1995 Notification, the following geotechnical laboratory and field tests were performed per ASTM standards or standard engineering practice:

1. Atterberg limits (ASTM D-4318)

2. Sieve analysis (ASTM D-421/D-422)
3. Hydraulic conductivity (ASTM D-5084), falling head technique
4. Standard Proctor compaction tests (ASTM D-698)
5. Unconfined compressive strength (ASTM D-2166)
6. CU triaxial tests (ASTM D-4767)
7. UU triaxial tests (ASTM D-2850)
8. Consolidation tests (ASTM D-2435)
9. Field slug test (ASTM D-4044)
10. Field pumping test (ASTM D-6034)

Site investigations indicate that the soil strata is made up mostly of two layers of clay (identified as a dark upper, near surface and deeper clay strata). The upper, near surface clay layer includes organics and appears to have been cultivated in the past. The upper layer typically extends from the ground surface to 5 to 9 feet in depth. The deeper clay layer has layers of clayey gravel typically 2 to 4 feet thick and is separated from the underlying Eagle Ford shale by thin layers of sand in several of the referenced borings. The deeper clay layer extends from depths of 5 to 9 feet to the Eagle Ford Shale located 13.5 to 26 feet below ground surface (bgs). The gravel and sand layers at the North CAMU are considered minor and were therefore not considered individual soil units (i.e., sand and gravel were identified within and as part of the major strata defined during the Site investigation).

Testing of the upper, near surface clay stratum indicated unconfined compressive strengths of 1.8 kip/square foot (kip/ft^2) to 9.6 kip/ft^2 at their *in situ* moisture contents (16% to 36%). CU triaxial compression tests indicated an effective friction angle of internal friction of 6.8° and an effective cohesion of 331 pounds/square foot (lb/ft^2). Associated soil parameters for strength tests include a moisture content of 26.3%, a dry unit weight of 94.7 lb/ft^3 , a degree of saturation of 93.4%, a specific gravity of 2.65, and a void ratio of 0.75. Standard Proctor tests on the upper, near surface clay layer resulted in a maximum dry density of 89.4 lb/ft^3 and optimum moisture content of 24.5%. Consolidation testing indicated a modified compression index of 0.07 with an initial void ratio of 0.609, initial moisture content of 21%, and final degree of saturation at 114%.

Testing of the deeper clay stratum indicated unconfined compressive strengths of 3.0 kip/ft^2 to 4.8 kip/ft^2 at their *in situ* moisture contents (18 to 32%). CU triaxial compression tests indicated an effective friction angle of internal friction of 22.8° to 27.1° and effective cohesions of 216 lb/ft^2 to 460 lb/ft^2 . Associated soil parameters for strength tests include moisture contents of 18.9% and 29.4%, dry unit weights of 99.5 lb/ft^3 and 88.9 lb/ft^3 , degrees of saturation of 75.7% and 88.7%, specific gravities of 2.65 & 2.7, and void ratios of 0.66 and 0.89, respectively. Standard Proctor tests on the upper, near surface clay layer resulted in a maximum dry density of 103.6 lb/ft^3 and optimum moisture content of 17.5%. Consolidation testing indicated a modified compression index of 0.17 with an initial void ratio of 0.899, initial moisture content of 30.6%, and final degree of saturation at 99.1%.

Testing of the underlying Eagle Ford shale indicated a plasticity index (PI) of 31, a liquid limit (LL) of 55, a moisture content of 16.5%, and an unconfined compressive strength of 11.9 kip/ft².

Subsurface Conditions at the RCA

Soil samples collected in July 2018 from borings in the vicinity of the proposed RCA were tested for geotechnical properties for the design of the Flood Wall modification as part of this Part B RCRA Permit Renewal Application.

The geotechnical properties of the subsurface soil materials are summarized in Table VI.A.4-2 and are discussed below.

During the 2018 investigation, the following geotechnical laboratory and field tests were performed per ASTM standards or standard engineering practice:

1. Water Content (ASTM D-2216)
2. Atterberg limits (ASTM D-4318)
3. Sieve analysis (ASTM D-421/D-422)
4. Hydraulic conductivity (ASTM D-5084), rising and falling head techniques
5. UU triaxial tests (ASTM D-2850)
6. Field slug test (ASTM D-4044)

Site investigations indicate that the soil strata is made up mostly of two major layer units of clay (identified as a lighter colored upper silty clay [CL designation] and a deeper higher plasticity clay [CH designation]). The CL upper layer typically extends from the ground surface to 2 to 20 feet below ground surface (bgs). The deeper CH clay layer extends from the silty clay layer of 3 to 16 feet to the Eagle Ford Shale located 10.5 to 25 feet bgs. Gravel and sand layers were encountered in several of the boring locations but were encountered inconsistently and minor in nature and were therefore not considered individual soil units (i.e., sand and gravel were identified within and as part of the major strata defined during the site investigation).

Testing of the upper, near surface CL clay stratum indicated an unconfined compressive strength of 1.2 kip/square foot (kip/ft²) at its *in situ* moisture content (24.5%). Associated soil parameters for strength tests include an average moisture content of the soil layer of 28.5%, an average dry unit weight of 91.1 lb/ft³, and an average void ratio of 0.0.85. Permeability in the upper stratum was measured between 4.47E-07 centimeters per second (cm/s) and 2.94E-08 cm/s.

Testing of the deeper CH clay stratum indicated unconfined compressive strengths of 1.6 kip/ft² to 2.6 kip/ft² at their *in situ* moisture contents (24 to 36%, respectively). Associated soil parameters for strength tests of the

deeper CH clay included an average moisture content of 28.0%, an average dry unit weight of 93.7 lb/ft³ and an average void ratio of 0.75. Hydraulic conductivity in the lower stratum was measured at 2.4E-08 cm/s.

As shown on Figure VI.A-4, the USDA classifies the natural soils in the vicinity of the RCA as primarily Tinn clay, followed by Austin silty clay, Houston Black clay, and Heiden clay. Selected geotechnical properties of these soils are included in Table VI.A.4-2.

Soil Contamination at the Site

Extensive investigations regarding soil impacts from Site operations have been conducted at the Site. A detailed discussion of the investigations and extent of soil affected properties is provided in the 2014 APAR (Attachment H), the 2015 Supplement to the APAR (Attachment I), and the Parkwood Boulevard Parcel Investigation Report (Attachment M, Appendix 3.4). Soil affected properties are outlined in the Response Action Plan (Attachment M).

A.4.e Surficial Soils at the Site

This section is not applicable because no land treatment units are proposed as part of the Part B RCRA Permit Renewal Application.

B. FACILITY GROUNDWATER

B.1 Regional Aquifers

The following information describes the regional aquifers in the vicinity of and at the FOP.

B.1.a Names and Association

Cretaceous age formations make up the most important of the water-bearing formations in the north-central Texas region. The water-bearing formations in the region include the Gulf and the Comanche series. The Gulf Series is further divided into the Navarro, Taylor, Austin, Eagle Ford, and Woodbine series groups. The Comanche Series is further divided into Washita, Fredricksburg, and Trinity. The Trinity consists of Paluxy, Glen Rose, Twin Mountains, and Antlers Formations (Nordstrom 1982).

The Woodbine Formation, which lies directly below the Eagle Ford Shale, is considered by the Texas Water Development Board (TWDB) to be a minor aquifer of Texas. The Paluxy and Twin Mountains formations lie at deeper depths and comprise the upper and lower portions, respectively, of the Trinity Aquifer, which is considered by the TWDB to be a major aquifer of Texas (George et al. 2011).

B.1.b Constituent Materials

The Eagle Ford and Taylor groups are chiefly limestone, clay, shale, and marl. The only important aquifer of the Gulf Series is reportedly the Woodbine Group and is made up of sandstone, sand, and clay (Nordstrom 1982). The Austin and Navarro are comprised of mainly limestone, chalk, marl, clay, and sand. The Washita and Fredricksburg

Groups consist of clay, shale, limestone, and marl. The Paluxy is comprised of shale and sand and the Glen Rose is largely limestone. The Twin Mountains aquifer is generally made up of conglomerate, shale and sand.

B.1.c Water-bearing and Transmitting Properties

The TWBD does not consider the Austin Chalk, the Eagle Ford Shale, or the Quaternary undivided surficial deposits in the vicinity of the Site to be major or minor water-producing formations of Texas (George et al. 2011). The Eagle Ford and Taylor groups have very low groundwater yields. With the exception of the Nacatoch and Blossom Sands, which yield a moderate supply of water, the Austin and Navarro groups generally produce small amounts of localized water. The Woodbine Group produces small to large yields of water (Nordstrom 1982).

The Washita and Fredericksburg Groups have very low groundwater yields. The main water-bearing group of the Comanche Series is the Trinity. The Paluxy can produce small to moderate amounts of water and the Glen Rose produces small amounts of localized water. The Twin Mountains aquifer is the principal water-bearing Cretaceous Age formation, yielding great amounts of water locally. Stratigraphic units and their water bearing properties for the north-central Texas region are described in and are presented in Attachment A (Nordstrom 1982).

Nordstrom (1982) performed pumping tests in all of the counties in the area of study (north-central region). From this research, pumping tests from five different wells were compiled. For wells within the Woodbine Group aquifer, yields within Collin County were reported at 150 gallons per minute (gal/min) with a coefficient of transmissivity of 1,885 (gal/day)/foot. For the Twin Mountains Formation wells within Collin County, yields averaged 1,315 gal/min and had an average coefficient of transmissivity of approximately 25,204 (gal/day)/foot. The Paluxy Formation well within Collin County had a reported yield of 235 gal/min and a coefficient of transmissivity of 1,263 (gal/day)/foot.

B.1.d Aquifer Type

Gulf and Camanche series aquifers are thought to have groundwater present under both artesian and water table conditions. Based on a regional cross-section (Nordstrom 1982), shown on Figure VI.A-7, the approximate depths of these formations in the vicinity of the Site are as follows:

- Eagle Ford Shale: near surface to 550 feet bgs;
- Woodbine Formation: 550 to 850 feet bgs;
- Washita Group: 850 to 1,325 feet bgs;
- Fredericksburg Group: 1,325 to 1,400 feet bgs;
- Paluxy Formation: 1,400 to 1,650 feet bgs;
- Glen Rose Formation: 1,650 to 2,100 feet bgs; and
- Twin Mountains Formation: 2,100 to 2,650 feet bgs.

B.1.e Hydraulic Connectivity

The Paluxy Formation is separated from the Woodbine Formation by the Washita and Fredericksburg Groups, which are not considered by the TWDB to be major or minor aquifers of Texas (George et al. 2011). The Paluxy and Twin Mountains Formations are separated by the relatively impermeable Glen Rose Formation, which is composed primarily of argillaceous limestone. Gulf and Camanche series aquifers appear to be hydraulically connected. The Blossom Sands are the only reported aquifer presented in Nordstrom (1982) that are probably not hydrologically connected due to the intervening beds being impervious in nature.

B.1.f Regional Potentiometric Surface

Langley (1999) presents potentiometric surface maps for the Woodbine, the Antlers and Twin Mountains Formations, and the Paluxy Formation. Copies of these regional potentiometric surface maps are presented as Attachments C, D and E, respectively.

B.1.g Rate of Groundwater Flow

Groundwater flow rates at the FOP are discussed below in Section B.2.e.

B.1.h Total Dissolved Solids Content

Total dissolved solids (TDS) concentrations for samples collected within the Antlers and Twin Mountains Formations and the Woodbine Aquifer are likely to increase downdip, towards to the eastern part of the north-central region (Langley 1999). TDS in the Antlers and Twin Mountains Formations were reported with an average of approximately 718 milligrams per liter (mg/L) while the Woodbine Aquifer was reported with an average of approximately 877 mg/L.

B.1.i Areas of Recharge

The primary source of recharge for the Trinity and Woodbine aquifers is precipitation falling onto the outcrop; however, the recharge is approximated to be less than one inch per year (Nordstrom 1982).

B.1.j Present Use of Withdrawn Groundwater

Golder ordered a water well survey from Banks Environmental Data and accessed water well records from the TWDB, TCEQ, and the North Texas Groundwater Conservation District to determine the locations and uses of water wells within in the vicinity of the FOP. According to those records, there are 12 active wells within a one-mile radius of the FOP. The locations of the wells are shown on Attachment C, Figure 1, of the Part A of the RCRA permit renewal and amendment application supplemental filing submitted to the TCEQ in May 2019. Well G0430005, which likely draws water from the Paluxy and Twin Mountains formations, is used for public supply. The other 11 wells are used for either domestic purposes, stock watering or irrigation.

B.2 Groundwater Conditions at Each Unit

The following information describes the groundwater conditions at each unit.

B.2.a Water Level Measurements

During the investigations for the Site Investigation Report (SIR), prepared by PBW and dated July 2012, and APARs, as presented in the 2014 APAR, a total of seven groundwater gauging events (three gauging events during the SIR investigation in 2012, three gauging events during the APAR investigation in 2013, and one gauging event during the APAR investigation in 2014) were conducted using monitoring wells completed in the upper groundwater-bearing unit (GWBW) at the Site. Since the submittal of the APAR in 2014, a Site-wide groundwater gauging event has not been performed; however, additional groundwater information has been recorded during the quarterly North CAMU groundwater monitoring events, French drain inspections, and during the 2018 Deep Groundwater Pre-Design Investigation (2018 DGWPD). Water levels measured as part of these investigations are presented in Table VI.B.2. The locations of the current monitoring wells at the Site are shown on Figure VI.B-1.

B.2.b Historical Maximum and Minimum Static Water Level Measurements

Historical maximum and minimum static water levels are presented in Table VI.B.2.

B.2.c Upper and Lower Limits of Hydraulically Connected Aquifers

According to the 2014 APAR, the 2018 DGWPD and the July 2018 Geotechnical Investigation, the uppermost GWBU at the Site is comprised of the clay-rich colluvial soils that lie on top of the Eagle Ford Shale. The Eagle Ford Shale acts as an aquiclude unit at the base of the uppermost GWBU. As indicated in boring logs for surrounding groundwater monitoring wells, the Eagle Ford Formation occurs at depths between approximately 13.5 to 26 feet bgs in the vicinity of the North CAMU and at depths between approximately 10 and 30 feet bgs in the vicinity of the RCA.

Groundwater within the upper GWBU generally occurs under unconfined conditions at depths between approximately 10 and 25 feet bgs; however, more shallow (perched) water has been recorded at depths of less than one foot bgs in the vicinity of the Production Area (most likely attributing to stormwater seeping through cracks in the concrete). Monitoring well locations are shown on Figure VI.B-1. A more detailed discussion of shallow and deeper groundwater within the upper GWBU in the vicinity of the FOP is included in Appendix 3.1 of Attachment H to the 2019 Part B RCRA Permit Renewal Application.

B.2.d Site-Specific Potentiometric Surface

A potentiometric surface map for the upper GWBU across the FOP (collected on January 21, 2014) is included as Figure VI.B-2. A more recent potentiometric surface map for the upper GWBU in the vicinity of the North CAMU is included as Figure VI.B-3. Additional potentiometric surface maps from the 2018 DGWPD are included as Appendix 3.1 to the Response Action Plan (Attachment M to the 2019 Part B RCRA Permit Renewal Application). The

potentiometric surface at the Site, as depicted on these figures, slopes toward Stewart Creek and/or the North Tributary, suggesting that groundwater flow within the upper GWBU at the Site is strongly controlled by topography and that groundwater discharges to the on-Site creeks.

B.2.e Hydraulic Gradient Variation

FOP

Pastor, Behling & Wheeler (PBW) conducted slug tests in ten monitoring wells located at the Site to determine variability of hydraulic conductivity (PBW 2013). Wells that were completed in the clay (non-gravel) unit had a hydraulic conductivity geometric mean of $3.3\text{E-}06$ cm/s. These tests were performed in the clay (non-gravel containing unit), clayey gravel, and gravels, and sands. Results from this investigation are provided in Attachments G and H to this report. The average geometric mean hydraulic conductivity (K) calculated for the three types of materials is as follows: clay at $3.0\text{E-}06$ cm/s, clayey gravel at $1.7\text{E-}03$ cm/s, and gravel or sands at $2.0\text{E-}2$ cm/s. B7N, MW-14, MW-17, MW-19, MW-20, and LMW-9 were analyzed using a slug test in the clay (no gravels) unit. B5N, MW-16S, B9N, LMW-7, and LMW-8 were analyzed using a slug test in the clayey gravel unit. MW-15 and MW-13 were analyzed using a slug test while LMW-17 was analyzed using a pumping test, all within the gravels and sands unit.

Golder conducted slug tests in fourteen monitoring wells located at the Site to determine variability of hydraulic conductivity as part of the 2018 DGWPDI activities. Hydraulic conductivities at the Site ranged from $2\text{E-}02$ to $2\text{E-}06$ cm/s with the highest hydraulic conductivities measured in wells with the most coarse-grained soils and the lowest hydraulic conductivities measured in wells with the least amount of coarse-grained material. The wells were grouped into two groups based on a detailed review of boring logs. New wells that were installed targeting the deeper transmissive unit and had higher hydraulic conductivities had a hydraulic conductivity geometric mean of $2\text{E-}03$ cm/s (DGW-MW-1 through DGW-MW-10). Results from the investigation are presented in the Appendix 3.1 of the Response Action Plan (Attachment M).

In January 2019, Golder installed and developed a new monitoring well to the west of the Slag Landfill (DGW-MW-12) as part of the 2019 Response Action Plan Site Investigation. Both a slug test and a pumping test were completed at DGW-MW-12 in 2019 to further evaluate groundwater movement in the area to the west of the Slag Landfill. Results from the 2019 RAP Site Investigation were consistent with previous Site data, with a hydraulic conductivity value of $3\text{E-}04$ cm/s, as presented in Appendix 3.5 of the Response Action Plan (Attachment M).

A 1983 groundwater investigation conducted by Dames & Moore (D&M 1983) concluded that the groundwater velocity was toward Stewart Creek and its tributaries at rates of approximately $1.0\text{E-}08$ to $3.1\text{E-}05$ cm/sec (or 0.01 to 32 feet/year) in the vicinity of the RCA.

In 2018, Golder Associates conducted the DGWPDI. A five-week groundwater elevation survey was conducted as part of the DGWPDI activities to evaluate groundwater gradient and discharge potential into Stewart Creek. Results from the DGWPDI showed water had a velocity toward Stewart Creek and its tributaries at rate of approximately $5.8\text{E-}05$ cm/sec (or approximately 12 feet/year) in the vicinity of the RCA.

North CAMU

As described in Section A.1.c, the range of K_{sat} values for the primary soil at the North CAMU, Austin silty clay, is 0.06 to 0.57 inches per hour, or approximately $4\text{x}10^{-5}$ to $4\text{x}10^{-4}$ centimeters per second (cm/sec). As shown on Figure VI.B-3, the potentiometric surface drops approximately 36 feet between PMW-19R and LMW-5, yielding a hydraulic gradient of approximately 0.04 feet/feet across the North CAMU. Therefore, according to Darcy's Law, the groundwater flow rate through the unconsolidated sediments in the upper groundwater-bearing unit is estimated to range from 2 to 17 feet/year.

Four slug tests and one pumping test were conducted as part of the 1995 Notification. The results of these tests are provided in Attachment I.

B.2.f Pollutant Migration Pathways

In the event of a failure of the North CAMU liner and cap or the RCA cap and flood wall, contaminants could migrate through the soils to the groundwater table and then discharge into the on-Site portions of the North Tributary or Stewart Creek. As described in the 2014 APAR, contaminants of concern (COCs) at the Site have the potential to move within environmental media (e.g., soil) to some degree. The ability for a compound to be transported within a medium or between media is based on the chemical and physical characteristics of the compound(s), the source medium and the receiving medium. Physical characteristics include parameters such as grain size and moisture content for surface soil particles. Chemical characteristics include parameters such as soil/water distribution coefficients, adsorption potential, and degradation characteristics for potential contaminants. These chemical characteristics are specific to each chemical present, and may be affected by the physical characteristics of the media in which the chemical is present. In surface water, physical and chemical characteristics are both important because transport may occur in solution or in association with suspended sediment. Dissolved-phase transport is the dominant contaminant migration mechanism in groundwater; therefore, chemical characteristics are also often important with respect to that medium.

Leaching and infiltration of COCs from surface and subsurface soils into groundwater may occur with the appropriate physical and/or chemical characteristics. The transportation of COCs in groundwater to surface water and sediments was evaluated and discussed in the 2014 APAR provided as Part B Attachment H and is further discussed in the updated Site conceptual model presented in Appendix 3.1 of the Response Action Plan (Attachment M to the Part B RCRA Permit Renewal Application). Groundwater contaminant plume maps are included as Figures VI.B-4 and VI.B-5. Surface water monitoring data for Stewart Creek have not indicated

exceedances above applicable Protective Concentration Levels (PCLs, see 2014 APAR included as Attachment H to the Permit Renewal Application).

At the request of TCEQ, a groundwater protection element has been added to address the potential for groundwater moving between the footprint of the RCA and Stewart Creek, including the potential migration through deeper debris fill. Detailed investigations, evaluation and discussion is presented in the Response Action Plan provided as Attachment M.

B.3 Groundwater Monitoring Plans

The detection monitoring plan for the North CAMU is included as Attachment K to the Part B RCRA Permit Renewal Application, and the groundwater monitoring plan for the FOP a is included as Attachment L to the Part B RCRA Permit Renewal Application. The two detection monitoring programs are described below.

B.3.a Description of the detection monitoring programs

Groundwater monitoring programs for both the North CAMU and other disposal areas within the FOP, including the RCA, are summarized below in Sections B.3.b through B.3.i. These sections include the following information:

- Justification of monitoring parameters
- Sampling and analysis plan
- Statistical methods
- Monitoring well network
- Sampling parameters
- Monitoring well design
- Description of Site groundwater

The detection monitoring program for the North CAMU is also described in the Revised Class 2 Landfill Groundwater Monitoring Plan, prepared by PBW and dated July 2013, which TCEQ approved in a letter dated April 4, 2014.

B.3.b Justification of waste-specific parameters

North CAMU

As listed in Table VI.B.3.c-1, the COCs for the North CAMU are arsenic, cadmium, lead, selenium, antimony, barium, chromium, copper, mercury, silver, and zinc. These parameters were chosen for the following reasons:

- The types of waste historically placed in the North CAMU would be expected to contain metals and/or selenium.

- Monitoring between June 2014 and May 2018 has found arsenic, barium, cadmium, chromium, copper, lead, selenium, and zinc at concentrations above detection limits in groundwater near the North CAMU.
- According to the Agency for Toxic Substances and Disease Registry's (ATSDR) toxicological profiles, exposure to the constituents listed above can cause both acute and chronic health problems including skin irritation, reproductive impairment, and cancer.

FOP

As listed in Table VI.B.3.c-2, the constituents of concern for other disposal areas within the FOP are arsenic, cadmium, lead, antimony, and selenium. These parameters were chosen for the following reasons:

- The types of waste historically generated at the FOP would be expected to contain metals and/or selenium.
- Monitoring conducted in 2018 and early 2019 has found antimony, arsenic, cadmium, and lead above critical PCLs in groundwater near the vicinity of the proposed RCA.
- Soil investigations conducted as part of the 2014 APAR and the supplement to the 2014 APAR and supplemental investigations on Stewart Creek found that these metals were present in soil and sediment at the Site and downstream areas at concentrations exceeding critical PCLs. Soils and sediment containing these compounds will be consolidated at the FOP as a part of the response actions at the Site.
- According to the ATSDR's toxicological profiles, exposure to the constituents listed above can cause both acute and chronic health problems including skin irritation, reproductive impairment and cancer.

B.3.c Sampling and analysis plan

The following description of the sampling and analysis procedures are adapted from the detection monitoring plans referenced above.

Equipment Assembly and Preparation

Activities to occur during groundwater sampling are summarized as follows:

- Pre-arrangement of sample analytical requests with analytical testing laboratory
- Assembly and preparation of sampling equipment and supplies
- Groundwater sampling
- Water-level measurements
- Well purging
- Field parameter measurements
- Sample collection
- Filtration (if needed)

- Sample preservation
- Sample labeling
- Completion of sample records
- Completion of chain-of-custody records
- Sample shipment

Prior to the sampling event, equipment to be used will be assembled, properly cleaned and its operating condition verified. In addition, all record-keeping materials will be prepared. Sampling procedures will be conducted in general accordance with EPA SW-846 methods.

Equipment Check

This activity includes the verification that all equipment is in proper operating condition. An equipment check will be performed prior to each sampling event. Also, arrangements for repair or replacement of any equipment that is inoperative will be made and such repair or replacement will be completed prior to the sampling event.

Equipment Cleaning (Decontamination)

Decontamination of all non-disposable or non-dedicated field measurement, purging, and sampling equipment will be performed for each sampling event before any purging/sampling activities begin, after each well is sampled and at the end of the sampling event. Decontamination procedures are summarized below:

- Wash with low-residue soap and/or detergent solution
- Rinse with distilled water
- Repeat steps (1) and (2) above, as necessary

If non-dedicated, submersible pumps are used for purging and sampling, the outside casing will be washed following the steps outlined above. The interior of the pump will be rinsed by drawing distilled water through the pump. Decontamination water will be collected in a 55-gallon drum pending receipt of groundwater analytical results and properly disposed of at an approved facility.

Groundwater Sampling Procedures

Well Inspection

Prior to each sampling event, each well will be inspected for signs of damage to the well protective casing and well pad. The lock on each well will be checked to make sure it is present and operable. The well numbering on each well will also be checked for legibility.

Prevention of Cross-Contamination

Special care will be exercised to prevent contamination of the groundwater and extracted samples during the sampling activities. The primary way in which such contamination can occur is contact with improperly cleaned equipment. To prevent such contamination, all non-dedicated sampling equipment will be thoroughly cleaned before and between uses at different sampling locations in accordance with the decontamination procedures described above. In addition to the use of properly cleaned equipment, a new pair of disposable latex (or similar) gloves will be worn for each well.

Groundwater Level Measurements

Groundwater levels will be measured before well purging. Using a pre-cleaned water level meter, the groundwater surface will be measured from the casing datum to the nearest 0.01-foot. Total depths will also be measured in the monitoring wells annually. Water level measurements and total depths will be recorded on a Fluid Level Monitoring Record.

Well Purging and Sampling

Prior to each sampling event, the wells will be purged using a peristaltic pump and low-flow technique. Submersible pumps will be used if water levels are too low to allow the use of a peristaltic pump. The objective is to withdraw water in a manner that minimizes stress (drawdown) to the system to the extent practicable. When the pump intake is located within the screened interval, the water pumped will be drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

Purging rates during sample collection will be performed at 0.5 liters per minute (L/min) or less. The field parameters will be used to determine when the well has been adequately purged (stabilized). Stabilization will be confirmed when successive field parameters (specific conductance, pH and temperature) readings are within approximately $\pm 10\%$. Turbidity will also be collected during purging. Each field instrument will be calibrated according to the manufacturer's instructions.

A dedicated, decontaminated pump line will be attached to the peristaltic pump. The line inlet will be placed within the saturated portion of the well screen. The pump will then be turned on and measurements started for flow rate and field parameters. The pump line will be changed between wells. The pump rate and the parameter measurements will be recorded on a Groundwater Sampling Record Form. If a well goes dry during purging, sampling will be performed the following day provided the well has sufficiently recharged to allow sample collection. Sample extraction will be accomplished by using the peristaltic pump previously used to purge the well. The sample bottle will be filled directly from the pump line. If the turbidity exceeds 10 Nephelometric Turbidity Units (NTUs), the sample will be filtered through a disposable 10 micron filter prior to collection.

Container and Labels

The analytical testing laboratory will provide pre-preserved containers and appropriate container lids. The containers will be filled and container lids will be tightly closed. The following information will be legibly and indelibly written on the label:

- Project identification
- Sample identification
- Name or initials of collector
- Date and time of collection
- Analysis requested
- Sample preservative, if applicable
- Filtered or unfiltered, if applicable

Sample Shipment

The following packaging and labeling requirements will be employed:

- Preserve samples with ice
- Package sample so that it does not leak from its packaging
- Label package with the following:
 - Sample collector's name, address, and telephone number
 - Laboratory's name, address, and telephone number
 - Date of shipment
- Attach chain-of-custody forms inside sample shipment container.

Chain-of-Custody Control

After samples have been obtained, chain-of-custody procedures will be followed to establish a written record concerning sample movement between the sampling site and the testing laboratory. Each shipping container will have a chain-of-custody form completed by the sampling personnel packing the samples. The chain-of-custody form for each container will be completed in triplicate and sealed in the container. One copy of this form will be maintained by the project manager and the other copies will be maintained at the laboratory. One of the laboratory copies will become a part of the permanent record for the sample and the other copy returned with the sample analyses report. Samples will be analyzed by a laboratory that is accredited by the National Environmental

Laboratory Accreditation Conference (NELAC) and sample analyses will be performed in accordance with EPA SW-846 methods, as listed in Tables VI.B.3.c-1 and VI.B.3.c-2.

Quality Assurance/Quality Control

One of the monitoring wells will be sampled in duplicate for each sampling event. The duplicate sample will be analyzed for all parameters for which the original sample is analyzed. Also, equipment blanks may be obtained to evaluate the effectiveness of decontamination procedures. Equipment blanks will be obtained by rinsing the decontaminated equipment with deionized water and collecting the rinsate. The rinsate samples will be analyzed for arsenic, cadmium, lead, and selenium.

B.3.d Statistical methods

Once the analytical data is received from the laboratory, the laboratory report will be reviewed for any narratives or comments indicating qualified data. Any qualified data will be closely evaluated with the laboratory. Next, the data will be reviewed for results in expected ranges. Anomalous results will be noted for additional review. The laboratory quality control report will also be reviewed to note any qualified data or other indications of anomalous runs. The data will then be deemed validated as appropriate. A Data Usability Summary (DUS) per TRRP 13 guidance will be prepared.

Groundwater analytical data will be compared to TRRP PCLs for each potentially complete exposure pathway. The applicable PCLs are shown on Tables VI.B.3.c-1 and VI.B.3.c-2.

Where an initial sampling indicates a PCL exceedance in a monitoring well, appropriate notification will be provided in writing to the TCEQ within 15 days of the receipt of final sampling results documenting the exceedance. Resampling to confirm the existence or non-existence of the exceedance will be conducted within two weeks of the documentation of the initial exceedance, and the results of the confirmation sampling will be reported in writing to the TCEQ within 15 days of the receipt of the final confirmation sampling results.

If a release is indicated by a confirmed PCL exceedance in a down-gradient monitoring well, this will be considered an indication of affected groundwater and an investigation to determine the extent of the release will be conducted and a report documenting the results of the investigation will be submitted to the TCEQ within 120 days of receipt of the final confirmation sampling results, along with a proposed remedial action plan. Additional monitoring and/or investigation will be performed at the written direction of the TCEQ to evaluate whether an exceedance in a cross-gradient or up-gradient well is related to an on-Site release.

North CAMU

Down-gradient monitoring well sampling results will be qualitatively compared to background monitoring well data as the background data set is developed using groundwater data from PMW-19R and from MW-45.

Following two years of quarterly sampling, each well's data will be assessed for increasing trends (though the values may still be less than the PCL) by using the Mann-Kendall Test for Monotonic Trends. Statistical analysis will begin after the minimum four samplings have been acquired for the Mann-Kendall Test. Additional monitoring and/or investigation will be performed at the written direction of the TCEQ to evaluate whether an exceedance in a cross-gradient or up-gradient well is related to an on-Site release.

Down-gradient monitoring well sampling results will be qualitatively compared to background monitoring well data from PMW-19R and MW-45, which have been monitored as background wells since June 2014 as a part of the North CAMU groundwater monitoring program. A more detailed, statistical approach for comparing background data and down-gradient data may be developed once the background data set is sufficiently robust for such a comparison. Electronic and hard copies of all laboratory analytical results, including a database of analytical results from background wells, will be maintained to allow for determination of statistical significance in the future.

FOP

COC concentrations and water level elevations will be monitored both upgradient and downgradient of each section of the funnel and gate PRB. The funnel and gate PRB will be determined to be functioning properly as long as COC concentrations downgradient of the funnel and gate PRB are below the applicable PCLs. Increased water levels along the slurry wall portions of the funnel and gate PRB or increased COC concentrations (above applicable PCLs) downgradient of the PRB will indicate additional evaluation or actions are required. If downgradient COC concentrations are detected above applicable PCLs and confirmed through resampling (as indicated in the FOP groundwater monitoring plan), additional groundwater monitoring may be conducted or additional response actions may be evaluated, proposed, or implemented, if conditions warrant.

B.3.e Monitoring well network

The well systems for groundwater monitoring at the North CAMU and other disposal areas within the FOP are shown on Tables VI.B.3.b-1 and VI.B.3.b-2, respectively. These tables include designations for wells that are a part of both corrective action groundwater monitoring (applicable to the FOP and North CAMU) and detection monitoring (applicable to the North CAMU).

B.3.f Sampling parameters

The sampling parameters for detection monitoring at the North CAMU and other disposal areas within the FOP are shown on Tables VI.B.3.c-1 and VI.B.3.c-2, respectively.

B.3.g Monitoring well design

Well construction diagrams for the monitoring wells listed in Table VI.B.3.b-1 are included in Attachment C to this Geology Report. It is noted that in some instances, insufficient space was available in the column for placement of both two feet of bentonite above the sand interval and two feet of concrete above the bentonite interval due to the

length of the screened interval. Additionally, there are instances where Texas State Well Reports submitted by the drilling contractors differ from construction information provided on the well construction logs prepared by the geologist performing field oversight. For wells that are not proposed to be abandoned, Golder will request a variance from the TWDB for wells that have alternate construction due to Site conditions and will work with the drilling contractors to have the Texas State Well Reports corrected where appropriate. If the variance is not granted by TWDB or the drilling contractors responsible for submitting well reports are not able to correct the reports, the surface completions and/or wells will be replaced with wells that meet applicable requirements.

B.3.h Monitoring well network

The locations of the monitoring wells at the Site are shown on Figure VI.B-1. A recent potentiometric surface map showing the direction of groundwater flow at the North CAMU is included as Figure VI.B-3. A historical potentiometric surface map covering the rest of the FOP is included as Figure VI.B-2.

B.3.i Site-specific groundwater

Based on an average of groundwater elevations measured in the proposed detection monitoring wells between December 2011 and May 2018, groundwater is typically encountered at approximately 10 feet below grade (635 feet amsl) in the uppermost aquifer. The uppermost aquifer is situated above the Eagle Ford Formation and consists of clay-rich alluvial soils of Quaternary age ranging in thickness from 14 to 24 feet. Groundwater at the Site generally flows towards the North Tributary or Stewart Creek.

C. EXEMPTION FROM GROUNDWATER MONITORING FOR AN ENTIRE FACILITY

No exemption from groundwater monitoring is requested for the FOP as part of this Part B RCRA Permit Renewal Application.

D. UNSATURATED ZONE MONITORING

This section is not applicable - no land treatment units are present at the FOP.

REFERENCES

- Dames and Moore (D&M). Groundwater Investigation, Frisco, Texas Plant, Dames and Moore. 1983.
- George, Peter; Robert Mace; and Rima Petrossian. Aquifers of Texas. Texas Water Development Board Report 380. July 2011.
- Golder Associates (Golder) 2014. Affected Property Assessment Report. May 2014.
- Golder 2015. Supplement to the Affected Property Assessment Report. September 2015.
- Langley, Lon. Updated Evaluation of Water Resources in Part of North-Central Texas. 1999.
- McGowen, J.H.; T.F. Hentz; T.F. Owen; D.E. Owen; M.K. Pieper; C.A. Shelby; and V.E. Barnes. Geological Atlas of Texas, Sherman Sheet. 1991.
- Nordstrom, Phillip L. "Occurrence, Availability, and Chemical Quality of Ground Water in the Cretaceous Aquifers of North-Central Texas." The Texas Department of Water Resources Report 269. 1982.
- Pastor, Behling & Wheeler. Updated Groundwater Resource Classification Evaluation, Exide Frisco Recycling Center. July 9, 2013.

TABLES

Table VI.A.1: Major Geologic Formations
Unit/Waste Management Area: Former Operating Plant

Names of Major Geologic Formation(s) Beneath the Facility	Lithology of the Major Geologic Formation	Formation Thickness	Depth to Top of Formation	
			feet above/below MSL	feet BGS
Quaternary Undivided Surficial Deposits	Sand, clay, silt, and gravel; mostly colluvium and minor alluvium. ¹	10-30 feet ²	Approximately 610 to 685 ft above MSL based on boring logs and survey data	Typically 0 ft BGS
Austin Chalk	Light gray massive chalk with some calcareous interbeds and parting; middle part mainly light gray bedded marl with massive chalk interbeds. ¹	600 feet ³	Not found due to erosion caused by Stewart Creek and the North Tributary	Not found due to erosion caused by Stewart Creek and the North Tributary
Eagle Ford Shale	Medium to dark gray shale (fine-grained, fissile, sedimentary rock composed of clay-sized and silt-sized particles); commonly selenitic (contains gypsum) and bituminous with thin platy beds of sandstone and sandy limestone in middle and upper parts. ¹	300-400 feet ³	Approximately 580 to 685 ft above MSL based on boring logs and survey data	Near surface to approximately 3 ft BGS based on boring logs
Woodbine Group	Marine beds of sand, clay, sandstone, and shale	500 feet ³	Approximately 180 to 385 ft above MSL based on formation thickness above	Approximately 300 to 430 ft BGS based on formation thickness above
Washita Group	Predominantly limestone, shale, clay, and marl and yield only small amounts of water. ⁴	250 feet ⁴	Approximately 115 to 320 ft below MSL based on formation thickness above	Approximately 800 ft BGS

Notes:

BGS - below ground surface

MSL - mean sea level

References

¹ McGowen, J.H.; T.F. Hentz; T.F. Owen; D.E. Owen; M.K. Pieper; C.A. Shelby; and V.E. Barnes. "Geological Atlas of Texas, Sherman Sheet." 1991.

² Golder Associates. "Affected Property Assessment Report, Exide Frisco Recycling Facility." May 2014.

³ United States Geological Survey. Texas Geology Web Map Viewer. <http://txpub.usgs.gov/DSS/texasgeology/>. Accessed July 18, 2016.

⁴ Nordstrom, Phillip L. "Occurrence, Availability, and Chemical Quality of Ground Water in the Cretaceous Aquifers of North-Central Texas." 1982.

Reviewed by AMF

Table VI.A.4-1: Waste Management Area Subsurface Conditions
North CAMU

Boring Number	Depth Below Grade (ft)	Stratum	USC Symbol	Liquid Limit	Plasticity Index	Percent Passing #200 Sieve	Permeability (cm/s)		Percent Porosity		
							Horizontal	Vertical			
SB-6	3-4	Uppermost layer consisting of dark colored clays of moderate plasticity. This layer contains organics near the surface.	CH	Minimum: 39 Maximum: 75 Average: 59.7	Minimum: 21 Maximum: 47 Average: 37.3	Minimum: 54.4 Maximum: 88.1 Average: 71.3	NA	Minimum: 1.5*10 ⁸ Maximum: NA Average: NA	Minimum: 0.50 Maximum: NA Average: NA		
SB-8	4.5-6										
SB-9	1-2										
SB-10	3-4										
SB-15	0-2										
SB-15	4-6	Deeper clays of moderate to high plasticity. There are layers of clayey gravel, typically 2 to 4 feet thick, present within this stratum. The clayey gravel pinches out near the actual CAMU footprint but may be present in the southwest corner of the CAMU. Clays extend to the top of Eagle Ford Shale though in some locations clays are separated from the shale by a thin layer of sand.	CH	Minimum: 27 Maximum: 81 Average: 63.6	Minimum: 10 Maximum: 54 Average: 40	Minimum: 24.8 Maximum: 97 Average: 52.4	Minimum: 2.2*10 ⁶ Maximum: 3.4*10 ² Average: 8.7*10 ³	Minimum: 2.7*10 ⁹ Maximum: NA Average: NA	Minimum: 0.55 Maximum: NA Average: NA		
SB-3	14-15										
SB-4	20-21										
SB-5	14-16										
SB-5	18-19										
SB-9	15-16										
SB-10	10-11										
SB-15	9-11										
SB-15	14-16										
SB-15	19-21										
SB-17	0-2										
SB-17	4-6										
SB-17	9-11										
SB-17	14-16										
SB-17	19-21										
SB-3	8-9	Eagle Ford Shale	CH	Minimum: 55 Maximum: 70 Average: 62.5	Minimum: 31 Maximum: 43 Average: 37	Minimum: NA Maximum: NA Average: NA	NA	NA	Minimum: 0.05 Maximum: NA Average: NA		
SB-1	19-20										
SB-6	20-21										
SB-15	24-26			NA	NA	NA			NA		
2013-C2L-01	13.5-15										
2013-C2L-02	14-18										
2013-C2L-07	17.5-18										

Notes:

cm/s - centimeters per second

NA - not analyzed

Data obtained from RMT/Jones and Neuse Notification of an On-Site Class II Industrial Waste Landfill, September 1995.

Percent porosity calculations are based off of Freeze, R.A. and J.A. Cherry, Groundwater, 1979.

Additional information on subsurface conditions is included on boring logs included as Attachment B.

Prepared by VK, BCW
Checked by GS, EPW
Reviewed by TR, AMF

Table VI.A.4-2: Waste Management Area Subsurface Conditions
Remediation Consolidation Area (RCA)

Boring Number	Depth Below Grade (ft)	Stratum	USC Symbol	Liquid Limit	Plasticity Index	Percent Passing #200 Sieve	Permeability (cm/s)	
							Horizontal	Vertical
RCA-BH-01	2-3.5	Uppermost layer consisting of dark colored clays of low to moderate plasticity. This layer contains organics near the surface.	CL	Minimum: 46 Maximum: 50 Average: 48	Minimum: 33 Maximum: 36 Average: 35	Minimum: 67.3 Maximum: 88.3 Average: 77.8	NA	Minimum: 4.47×10^{-7} Maximum: 2.94×10^{-8} Average: 2.38×10^{-8}
RCA-BH-01	3.5-5							
RCA-BH-02	1.5-3							
RCA-BH-02	3-4.5							
RCA-BH-03	1.5-3							
RCA-BH-03	8.5-10							
RCA-BH-03	10-12							
RCA-BH-03	13.5-15							
RCA-BH-03	23.5-25							
RCA-BH-04	2-3.5							
RCA-BH-04	3.5-5							
RCA-BH-04	7-9							
RCA-BH-04	9-10.5							
RCA-BH-04	14-15.5							
RCA-BH-04	18.5-20							
RCA-BH-05	2-3.5	Deeper clays of moderate to high plasticity. Clays extend to the top of Eagle Ford Shale.	CH	Minimum: 51 Maximum: 64 Average: 58	Minimum: 33 Maximum: 47 Average: 40	NA	NA	Minimum: 2.42×10^{-8} Maximum: NA Average: NA
RCA-BH-05	3.5-5							
RCA-BH-01	10.5-12							
RCA-BH-01	14-16							
RCA-BH-02	9-10.5							
RCA-BH-02	11-13							
RCA-BH-02	14-15.5							
RCA-BH-03	3-4.5							
RCA-BH-04	12-14							
RCA-BH-05	8.5-10.5							
RCA-BH-05	10.5-12	Eagle Ford Shale	CH	NA	NA	NA	NA	NA
RCA-BH-05	13.5-15.5							
RCA-BH-01	19-20.5							
RCA-BH-01	23.5-25							
RCA-BH-02	19-20.5							
RCA-BH-02	23.5-25							
RCA-BH-03	18.5-20							
RCA-BH-04	23.5-25							
RCA-BH-05	18.5-20							
RCA-BH-05	23.5-25							
MW-21	10.5-15							
MW-22	12.3-15							
2012-NDA-2	13.3-18							

Notes:

cm/s - centimeters per second

NA - not analyzed

Data obtained by Golder in July 2018

Additional information on subsurface conditions is included on boring logs included as Attachment B.

Prepared by PJJ, BCW

Checked by MSG, EPW

Reviewed by KMB, AMF

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
North CAMU Monitoring Wells							
MW-45	660.86	10-20	01/21/14	13.29	647.57	646.68	651.12
			06/17/14	13.12	647.74		
			09/22/14	13.78	647.08		
			12/16/14	14.18	646.68		
			03/16/15	12.04	648.82		
			06/04/15	9.74	651.12		
			09/09/15	13.28	647.58		
			12/14/15	11.30	649.56		
			03/03/16	11.73	649.13		
			05/31/16	11.79	649.07		
			09/07/16	13.11	647.75		
			12/01/16	13.26	647.60		
			03/01/17	12.60	648.26		
			07/11/17	12.70	648.16		
			08/28/17	12.93	647.93		
			11/28/17	13.50	647.36		
			02/12/18	13.22	647.64		
			05/09/18	12.71	648.15		
			09/24/18	12.18	648.68		
			12/04/18	12.49	648.37		
LMW-5	646.07	7-21	03/11/13	17.69	628.38	626.92	636.42
			04/05/13	17.02	629.05		
			04/29/13	17.29	628.78		
			01/21/14	18.10	627.97		
			06/17/14	17.15	628.92		
			09/22/14	18.65	627.42		
			12/16/14	19.15	626.92		
			03/16/15	17.30	628.77		
			06/04/15	9.65	636.42		
			09/09/15	16.23	629.84		
			12/14/15	12.97	633.10		
			03/03/16	10.28	635.79		
			05/31/16	10.81	635.26		
			09/07/16	15.64	630.43		
			12/01/16	15.76	630.31		
			03/01/17	13.44	632.63		
			07/11/17	13.32	632.75		
			08/28/17	14.89	631.18		
			11/28/17	16.31	629.76		
			02/12/18	14.95	631.12		
			05/09/18	12.66	633.41		
			09/24/18	16.34	629.73		
			12/04/18	11.74	634.33		
LMW-8	648.72	7-21	03/11/13	14.93	633.79	632.40	640.60
			04/05/13	14.52	634.20		
			04/29/13	14.63	634.09		
			01/21/14	14.87	633.85		
			06/17/14	15.32	633.40		
			09/22/14	16.32	632.40		
			12/16/14	15.37	633.35		
			03/16/15	14.08	634.64		
			06/04/15	8.12	640.60		
			09/09/15	15.27	633.45		
			12/14/15	11.57	637.15		
			03/03/16	9.90	638.82		
			05/31/16	11.56	637.16		
			09/07/16	15.14	633.58		
			12/01/16	15.06	633.66		
			03/01/17	14.30	634.42		
			07/11/17	14.84	633.88		
			08/28/17	15.08	633.64		
			11/28/17	15.18	633.54		
			02/12/18	15.09	633.63		
			05/09/18	13.28	635.44		
			09/24/18	14.28	634.44		
			12/04/18	11.66	637.06		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
LMW-9	663.66	9-23	03/11/13	16.24	647.42	637.81	647.42
			04/05/13	20.21	643.45		
			04/29/13	22.14	641.52		
			01/21/14	19.85	643.81		
			06/17/14	18.78	644.88		
			09/23/14	23.77	639.89		
			12/16/14	25.75	637.91		
			03/16/15	24.99	638.67		
			06/04/15	25.61	638.05		
			09/09/15	25.85	637.81		
			12/14/15	25.64	638.02		
LMW-9R	664.31	15-30	03/03/16	WELL DAMAGED	WELL DAMAGED	634.35	659.27
			06/07/16	29.96	634.35		
			09/07/16	20.74	643.57		
			12/01/16	13.54	650.77		
			03/01/17	8.22	656.09		
			07/11/17	13.54	650.77		
			08/28/17	15.89	648.42		
			11/28/17	16.70	647.61		
			02/12/18	15.67	648.64		
			05/09/18	15.35	648.96		
			09/24/18	5.04	659.27		
LMW-17	648.70	10-20	12/04/18	9.36	654.95	628.80	638.47
			03/11/13	18.52	630.18		
			04/05/13	18.34	630.36		
			04/29/13	16.81	631.89		
			01/21/14	19.44	629.26		
			06/17/14	19.45	629.25		
			09/23/14	19.71	628.99		
			12/16/14	19.90	628.80		
			03/16/15	19.34	629.36		
			06/04/15	10.23	638.47		
			09/09/15	18.15	630.55		
			12/14/15	15.61	633.09		
			03/03/16	11.93	636.77		
			05/31/16	11.51	637.19		
			09/07/16	17.71	630.99		
			12/01/16	18.08	630.62		
			03/01/17	16.16	632.54		
			07/11/17	16.31	632.39		
			08/28/17	17.49	631.21		
			11/28/17	18.68	630.02		
LMW-21	648.28	10-25	02/12/18	17.21	631.49	626.17	636.51
			05/09/18	14.80	633.90		
			09/24/18	19.00	629.70		
			12/04/18	13.51	635.19		
			03/11/13	20.11	628.17		
			04/05/13	19.29	628.99		
			04/29/13	19.62	628.66		
			01/21/14	20.18	628.10		
			06/17/14	19.31	628.97		
			09/22/14	21.81	626.47		
			12/16/14	22.11	626.17		
			03/16/15	18.95	629.33		
			06/04/15	11.77	636.51		
			09/09/15	18.60	629.68		
			12/14/15	14.75	633.53		
			03/03/16	12.60	635.68		
			05/31/16	12.11	636.17		
			09/07/16	18.14	630.14		
			12/01/16	18.10	630.18		
			03/01/17	15.43	632.85		
			07/11/17	15.18	633.10		
			08/28/17	17.06	631.22		
			11/28/17	18.68	629.60		
			02/12/18	17.24	631.04		
			05/09/18	14.85	633.43		
			09/24/18	18.15	630.13		
			12/04/18	13.96	634.32		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
LMW-22	646.99	5-20	03/11/13	17.18	629.81	626.13	636.94
			04/05/13	16.93	630.06		
			04/29/13	17.16	629.83		
			01/21/14	19.81	627.18		
			06/17/14	18.52	628.47		
			09/22/14	20.31	626.68		
			12/16/14	20.86	626.13		
			03/16/15	19.24	627.75		
			06/04/15	10.05	636.94		
			09/09/15	16.78	630.21		
			12/14/15	14.00	632.99		
			03/03/16	10.51	636.48		
			05/31/16	10.67	636.32		
			09/07/16	16.19	630.80		
			12/01/16	16.42	630.57		
			03/01/17	14.40	632.59		
			07/11/17	14.51	632.48		
			08/28/17	15.80	631.19		
			11/28/17	17.03	629.96		
			02/12/18	15.58	631.41		
			05/09/18	13.30	633.69		
			09/24/18	17.27	629.72		
			12/04/18	12.06	634.93		
PMW-19R	681.79	4-19	03/11/13	DRY	DRY	659.54	675.70
			04/05/13	DRY	DRY		
			04/29/13	DRY	DRY		
			01/21/14	22.22	659.57		
			06/17/14	22.25	659.54		
			09/23/14	22.05	659.74		
			12/16/14	DRY	DRY		
			03/16/15	18.23	663.56		
			06/04/15	7.60	674.19		
			09/09/15	20.47	661.32		
			12/14/15	6.09	675.70		
			03/03/16	9.83	671.96		
			05/31/16	17.51	664.28		
			09/07/16	19.33	662.46		
			12/01/16	15.33	666.46		
			03/01/17	6.89	674.90		
			07/11/17	10.88	670.91		
			08/28/17	19.19	662.60		
			11/28/17	20.75	661.04		
			02/12/18	20.61	661.18		
			05/09/18	19.24	662.55		
			09/24/18	7.58	674.21		
			12/04/18	10.98	670.81		
PMW-20R	648.09	10-25	03/11/13	18.91	629.18	626.28	636.63
			04/05/13	19.06	629.03		
			04/29/13	19.16	628.93		
			01/21/14	19.90	628.19		
			06/17/14	18.98	629.11		
			09/22/14	21.52	626.57		
			12/16/14	21.81	626.28		
			03/16/15	18.55	629.54		
			06/04/15	11.46	636.63		
			09/09/15	18.52	629.57		
			12/14/15	14.36	633.73		
			03/03/16	12.34	635.75		
			05/31/16	12.03	636.06		
			09/07/16	17.86	630.23		
			12/01/16	17.75	630.34		
			03/01/17	15.09	633.00		
			07/11/17	14.84	633.25		
			08/28/17	17.77	630.32		
			11/28/17	18.41	629.68		
			02/12/18	16.98	631.11		
			05/09/18	14.54	633.55		
			09/24/18	17.67	630.42		
			12/04/18	13.65	634.44		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)					
MW-41	642.17	6-16	01/21/14	11.38	630.79	630.79	632.19					
			07/11/17	10.41	631.76							
			08/28/17	10.65	631.52							
			11/28/17	10.90	631.27							
			02/12/18	10.66	631.51							
			05/09/18	10.44	631.73							
			09/24/18	9.98	632.19							
			12/04/18	10.01	632.16							
			01/21/14	9.38	632.86			632.86	635.54			
			07/11/17	9.04	633.20							
			08/28/17	8.82	633.42							
			11/28/17	8.51	633.73							
			02/12/18	8.21	634.03							
			05/09/18	8.86	633.38							
MW-42	642.24	5-15	09/24/18	6.70	635.54							
			12/04/18	7.45	634.79							
			07/11/17	6.17	632.11			631.47	633.75			
			08/28/17	6.51	631.77							
			11/28/17	6.81	631.47							
			02/12/18	6.04	632.24							
			05/09/18	5.75	632.53							
09/24/18	4.78	633.50										
MW-47	638.28	7.5-15	12/04/18	4.53	633.75							
			12/13/11	11.54	635.70			633.33	638.21			
			01/16/12	11.47	635.77							
			04/29/13	13.72	633.52							
			01/21/14	11.38	635.86							
			07/11/17	10.92	636.32							
			08/28/17	11.42	635.82							
P-1	647.24	10-20	11/28/17	11.47	635.77							
			02/12/18	11.03	636.21							
			05/09/18	10.05	637.19							
			09/24/18	9.05	638.19							
			12/04/18	9.03	638.21							
			Former Operating Plant Monitoring Wells									
			B1R	682.72	49.5-59.5			12/13/11	3.62	679.10	677.25	680.85
								01/16/12	3.74	678.98		
								02/13/12	1.87	680.85		
								03/11/13	4.64	678.08		
04/05/13	4.52	678.20										
04/29/13	4.81	677.91										
01/21/14	5.47	677.25										
B3R	650.23	4-14	12/13/11	DRY	DRY	635.27	640.82					
			01/16/12	DRY	DRY							
			02/13/12	9.41	640.82							
			03/11/13	14.92	635.31							
			04/05/13	14.96	635.27							
			04/29/13	12.96	637.27							
			01/21/14	12.66	637.57							
B4R	664.58	4-9	12/13/11	8.67	655.91	652.69	657.01					
			01/16/12	8.01	656.57							
			02/13/12	11.89	652.69							
			03/11/13	7.66	656.92							
			04/05/13	7.57	657.01							
			04/29/13	8.79	655.79							
			01/21/14	11.86	652.72							
B7N	645.60	14-24	12/13/11	NM	NM	630.55	632.89					
			01/16/12	13.84	631.76							
			02/13/12	13.09	632.51							
			03/11/13	14.33	631.27							
			04/05/13	14.31	631.29							
			04/29/13	14.52	631.08							
			01/21/14	15.05	630.55							
			05/09/18	12.71	632.89							
			05/22/18	13.04	632.56							
			05/27/18	13.21	632.39							
			06/05/18	13.59	632.01							
			06/12/18	13.67	631.93							

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
B9N	640.69	7-17	12/13/11	7.31	633.38	631.08	633.38
			01/16/12	8.78	631.91		
			02/13/12	8.84	631.85		
			03/11/13	8.39	632.30		
			04/05/13	8.76	631.93		
			04/29/13	9.06	631.63		
			01/21/14	9.14	631.55		
			05/09/18	9.30	631.39		
			05/22/18	9.22	631.47		
			05/27/18	9.61	631.08		
			06/05/18	9.44	631.25		
MW-16	628.88	67.5-77.5	06/12/18	9.43	631.26	616.81	619.85
			12/13/11	10.26	618.62		
			01/16/12	10.33	618.55		
			02/13/12	10.92	617.96		
			03/11/13	9.67	619.21		
			04/05/13	9.61	619.27		
			04/29/13	10.01	618.87		
			01/21/14	12.07	616.81		
			04/25/18	9.03	619.85		
			05/09/18	9.21	619.67		
			05/22/18	9.14	619.74		
			05/27/18	9.14	619.74		
			06/05/18	11.78	617.10		
MW-16S	628.00	7-17	06/12/18	11.82	617.06	618.56	619.33
			01/24/19	9.07	619.81		
			12/13/11	9.05	618.95		
			01/16/12	9.12	618.88		
			02/13/12	8.67	619.33		
			03/11/13	8.92	619.08		
			04/05/13	8.84	619.16		
			04/29/13	9.22	618.78		
			01/21/14	9.42	618.58		
			04/25/18	9.02	618.98		
			05/09/18	9.03	618.97		
			05/22/18	9.15	618.85		
			05/27/18	9.28	618.72		
MW-17	629.00	7-17	06/05/18	9.38	618.62	620.29	620.73
			06/12/18	9.44	618.56		
			01/24/19	8.77	619.23		
			12/13/11	8.55	620.45		
			01/16/12	8.62	620.38		
			02/13/12	8.28	620.72		
			03/11/13	8.29	620.71		
			04/05/13	8.27	620.73		
			04/29/13	8.71	620.29		
			01/21/14	8.53	620.47		
			04/25/18	8.48	620.52		
MW-18	633.00	5.5-15.5	05/09/18	8.56	620.44	628.34	631.14
			05/22/18	8.55	620.45		
			05/27/18	8.65	620.35		
			06/05/18	8.61	620.39		
			06/12/18	8.59	620.41		
			12/13/11	1.86	631.14		
			01/16/12	1.96	631.04		
			02/13/12	1.86	631.14		
			03/11/13	2.53	630.47		
			04/05/13	2.51	630.49		
			04/29/13	3.19	629.81		
			01/21/14	4.25	628.75		
			05/09/18	4.21	628.79		
			05/22/18	4.04	628.96		
			05/27/18	4.66	628.34		
			06/05/18	4.58	628.42		
			06/12/18	4.25	629.73		
			01/24/19	3.27	629.73		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
MW-22	636.89	3-13	03/11/13	3.71	633.18	629.87	633.27
			04/05/13	3.62	633.27		
			04/29/13	4.59	632.30		
			01/21/14	4.21	632.68		
			05/09/18	3.64	633.25		
			05/22/18	5.66	631.23		
			05/27/18	6.46	630.43		
			06/05/18	7.02	629.87		
MW-23	644.15	4.5-19.5	06/12/18	5.41	631.48	635.27	637.89
			03/11/13	7.13	637.02		
			04/05/13	7.04	637.11		
			04/29/13	7.34	636.81		
			01/21/14	7.52	636.63		
			05/09/18	6.26	637.89		
			05/22/18	6.50	637.65		
			05/27/18	6.48	637.67		
MW-26	631.93	5-15	06/05/18	8.88	635.27	621.95	626.61
			06/12/18	6.93	637.22		
			03/11/13	9.98	621.95		
			04/05/13	9.52	622.41		
			04/29/13	9.21	622.72		
			01/21/14	5.80	626.13		
			07/29/14	5.79	626.14		
			09/23/14	8.90	623.03		
			06/12/15	5.32	626.61		
			09/08/15	5.72	626.21		
			12/17/15	5.32	626.61		
			02/29/16	5.41	626.52		
			09/08/16	5.51	626.42		
			12/02/16	5.65	626.28		
			03/02/17	5.81	626.12		
			05/04/17	6.21	625.72		
			08/28/17	5.56	626.37		
			11/27/17	5.71	626.22		
			02/15/18	5.75	626.18		
			04/25/18	5.65	626.28		
MW-27	633.42	5-15	05/09/18	5.65	626.28	626.80	628.52
			05/22/18	5.61	626.32		
			05/27/18	5.51	626.42		
			06/05/18	8.05	623.88		
			06/12/18	5.59	626.34		
			09/24/18	NM	NM		
			12/04/18	5.60	626.33		
			03/11/13	6.03	627.39		
			04/05/13	5.92	627.50		
			04/29/13	5.64	627.78		
MW-27	633.42	5-15	01/21/14	4.90	628.52	626.80	628.52
			04/24/18	5.67	627.75		
			05/09/18	5.74	627.68		
			05/22/18	5.84	627.58		
			05/27/18	5.96	627.46		
			06/05/18	5.98	627.44		
			06/12/18	6.02	627.40		
			08/01/18	6.62	626.80		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
MW-29	633.51	4.5-14.5	03/11/13	13.08	620.43	620.43	628.30
			04/05/13	6.96	626.55		
			04/29/13	6.56	626.95		
			01/21/14	6.62	626.89		
			07/29/14	6.57	626.94		
			09/23/14	6.04	627.47		
			06/12/15	5.21	628.30		
			09/08/15	6.35	627.16		
			12/17/15	5.67	627.84		
			02/29/16	5.79	627.72		
			09/08/16	5.67	627.84		
			12/02/16	6.25	627.26		
			03/02/17	6.51	627.00		
			05/04/17	5.80	627.71		
			08/28/17	5.90	627.61		
			11/27/17	6.77	626.74		
			02/15/18	6.77	626.74		
			04/24/18	6.07	627.44		
			05/09/18	5.95	627.56		
			05/22/18	6.08	627.43		
			05/27/18	5.97	627.54		
			06/05/18	7.09	626.42		
			06/12/18	5.94	627.57		
			09/24/18	NM	NM		
			12/04/18	6.12	627.39		
MW-39	639.70	10-20	01/21/14	10.41	629.29	627.34	630.46
			05/09/18	10.27	629.43		
			05/22/18	11.07	628.63		
			05/27/18	11.58	628.12		
			06/05/18	12.32	627.38		
			06/12/18	12.36	627.34		
			01/24/19	9.24	630.46		
MW-40	635.51	5-15	01/21/14	5.40	630.11	628.35	630.11
			05/09/18	5.90	629.61		
			05/22/18	6.61	628.90		
			05/27/18	6.77	628.74		
			06/05/18	7.06	628.45		
			06/12/18	7.16	628.35		
MW-43	645.45	10-20	01/21/14	14.93	630.52	630.52	630.52
			05/09/18	WELL COMPROMISED	WELL COMPROMISED		
MW-44	637.50	5-15	01/21/14	9.21	628.29	626.83	628.29
			04/24/18	9.76	627.74		
			05/09/18	9.71	627.79		
			05/22/18	10.18	627.32		
			05/27/18	10.38	627.12		
			06/05/18	10.55	626.95		
			06/12/18	10.67	626.83		
Additional Former Operating Plant Wells							
B5N	631.43	6.5-16.5	12/13/11	9.95	621.48	621.02	621.75
			01/16/12	9.91	621.52		
			02/13/12	9.76	621.67		
			03/11/13	9.72	621.71		
			04/05/13	9.68	621.75		
			04/29/13	10.04	621.39		
			01/21/14	10.31	621.12		
			04/25/18	10.21	621.22		
			05/09/18	10.21	621.22		
			05/22/18	10.32	621.11		
			05/27/18	10.41	621.02		
			06/05/18	10.39	621.04		
LMW-1	638.74	5-20	04/29/13	9.14	629.60	627.44	629.60
			01/21/14	11.30	627.44		
LMW-2	641.01	6-21	04/29/13	11.12	629.89	628.78	629.89
			01/21/14	12.23	628.78		
LMW-3	639.78	6-16	04/29/13	12.08	627.70	626.37	627.70
			01/21/14	13.41	626.37		
LMW-4	641.42	12-22	04/29/13	11.69	629.73	628.35	629.73
			01/21/14	13.07	628.35		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
MW-10	644.82	7-17	12/13/11	8.76	636.06	636.06	638.22
			01/16/12	8.71	636.11		
			02/13/12	6.64	638.18		
			03/11/13	8.71	636.11		
			04/05/13	8.63	636.19		
			04/29/13	8.37	636.45		
			01/21/14	8.22	636.60		
			05/09/18	6.60	638.22		
			05/22/18	6.79	638.03		
			05/27/18	6.72	638.10		
			06/05/18	7.11	637.71		
			06/12/18	7.23	637.59		
			08/01/18	8.15	636.67		
MW-11	626.54	7-17	12/13/11	8.62	617.92	606.93	620.60
			01/16/12	19.61	606.93		
			02/13/12	7.73	618.81		
			03/11/13	5.94	620.60		
			04/05/13	7.64	618.90		
			04/29/13	9.13	617.41		
			01/21/14	10.05	616.49		
MW-12	635.16	8-18.5	12/13/11	8.54	626.62	626.42	627.02
			01/16/12	8.62	626.54		
			02/13/12	8.14	627.02		
			03/11/13	8.22	626.94		
			04/05/13	8.17	626.99		
			04/29/13	8.47	626.69		
			01/21/14	8.55	626.61		
			05/09/18	8.35	626.81		
			05/22/18	8.14	627.02		
			05/27/18	8.74	626.42		
			06/05/18	8.37	626.79		
			06/12/18	8.42	626.74		
MW-13	637.08	12-22	12/13/11	15.75	621.33	620.63	621.75
			01/16/12	15.83	621.25		
			02/13/12	15.57	621.51		
			03/11/13	15.42	621.66		
			04/05/13	15.33	621.75		
			04/29/13	15.79	621.29		
			01/21/14	16.20	620.88		
			05/09/18	15.96	621.12		
			05/22/18	16.25	620.83		
			05/27/18	16.32	620.76		
			06/05/18	16.45	620.63		
			06/11/18	16.40	620.68		
MW-14	631.01	7-17	12/13/11	5.88	625.13	624.81	625.27
			01/16/12	5.94	625.07		
			02/13/12	5.79	625.22		
			03/11/13	5.81	625.20		
			04/05/13	5.74	625.27		
			04/29/13	6.03	624.98		
			01/21/14	6.20	624.81		
			05/09/18	6.07	624.94		
			05/22/18	5.97	625.04		
			05/27/18	5.99	625.02		
			06/05/18	6.02	624.99		
			06/12/18	6.06	624.95		
MW-15	626.58	12-22	12/13/11	12.08	614.50	612.74	619.75
			01/16/12	12.13	614.45		
			02/13/12	6.83	619.75		
			03/11/13	11.53	615.05		
			04/05/13	10.97	615.61		
			04/29/13	10.62	615.96		
			01/21/14	13.84	612.74		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
MW-21	635.99	3-13	03/11/13	3.24	632.75	631.60	633.08
			04/05/13	3.17	632.82		
			04/29/13	4.39	631.60		
			01/21/14	3.50	632.49		
			05/09/18	2.91	633.08		
			05/22/18	3.65	632.34		
			05/27/18	4.10	631.89		
			06/05/18	4.35	631.64		
MW-24	642.96	14-29	06/12/18	3.87	632.12	620.42	621.24
			03/11/13	21.77	621.19		
			04/05/13	21.72	621.24		
			04/29/13	22.26	620.70		
			01/21/14	22.54	620.42		
			04/25/18	21.94	621.02		
			05/09/18	21.91	621.05		
			05/22/18	22.17	620.79		
MW-25	635.85	7-22	05/27/18	22.33	620.63	623.56	624.46
			06/05/18	22.41	620.55		
			06/12/18	22.33	620.63		
			03/11/13	12.29	623.56		
MW-30	645.15	12-32	04/05/13	11.71	624.14	632.85	634.38
			04/29/13	11.39	624.46		
			01/21/14	11.59	624.26		
			04/05/13	11.47	633.68		
			04/29/13	11.26	633.89		
			01/21/14	11.85	633.30		
			05/22/18	11.15	634.00		
			05/27/18	11.22	633.93		
MW-31	636.71	8-23	06/05/18	11.41	633.74	624.48	627.29
			06/12/18	11.31	633.84		
			08/01/18	12.30	632.85		
			12/03/18	10.77	634.38		
			05/13/13	10.58	626.13		
			01/21/14	10.87	625.84		
			07/29/14	10.81	625.90		
			09/23/14	11.32	625.39		
			06/12/15	9.61	627.10		
			09/08/15	10.53	626.18		
			12/17/15	9.42	627.29		
			02/29/16	9.78	626.93		
			09/08/16	9.90	626.81		
			12/02/16	10.21	626.50		
			03/02/17	12.23	624.48		
			05/04/17	10.58	626.13		
			08/28/17	9.99	626.72		
			11/27/17	10.82	625.89		
			02/15/18	10.90	625.81		
			04/24/18	10.35	626.36		
			05/09/18	10.19	626.52		
			05/22/18	10.42	626.29		
			05/27/18	10.40	626.31		
			06/05/18	10.52	626.19		
			06/12/18	10.31	626.40		
			08/01/18	10.31	626.40		
			09/24/18	NM	NM		
			12/04/18	10.42	626.29		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
MW-32	630.96	2.5-5	01/21/14	4.16	626.80	626.37	628.26
			07/29/14	4.59	626.37		
			09/23/14	4.59	626.37		
			06/12/15	3.79	627.17		
			09/08/15	R	R		
			02/29/16	3.57	627.39		
			06/01/16	3.62	627.34		
			09/08/16	3.83	627.13		
			12/02/16	3.40	627.56		
			03/02/17	3.26	627.70		
			05/04/17	3.49	627.47		
			08/28/17	3.55	627.41		
			11/27/17	3.54	627.42		
			02/15/18	3.21	627.75		
			04/24/18	3.24	627.72		
			05/09/18	3.30	627.66		
			05/22/18	3.17	627.79		
			05/27/18	3.18	627.78		
			06/05/18	3.11	627.85		
			06/12/18	3.06	627.90		
			09/24/18	NM	NM		
			12/04/18	2.70	628.26		
MW-33	632.59	2.5-5	01/21/14	1.09	631.50	630.45	631.79
			07/29/14	2.14	630.45		
			09/23/14	1.55	631.04		
			12/17/15	1.21	631.38		
			02/29/16	1.07	631.52		
			06/01/16	1.09	631.50		
			09/08/16	1.07	631.52		
			12/02/16	0.95	631.64		
			03/02/17	0.88	631.71		
			05/04/17	0.91	631.68		
			08/28/17	0.86	631.73		
			11/27/17	0.85	631.74		
			02/15/18	0.81	631.78		
			04/24/18	0.85	631.74		
			05/09/18	0.80	631.79		
			05/22/18	0.85	631.74		
			05/27/18	0.81	631.78		
			06/05/18	R	R		
			06/12/18	0.91	631.68		
			09/24/18	NM	NM		
			12/04/18	0.95	631.64		
MW-34	632.83	2.5-5	01/21/14	4.31	628.52	628.38	630.88
			07/29/14	4.45	628.38		
			09/23/14	4.45	628.38		
			06/12/15	3.42	629.41		
			12/17/15	3.03	629.80		
			02/29/16	1.95	630.88		
			06/01/16	2.04	630.79		
			09/08/16	2.59	630.24		
			12/02/16	2.50	630.33		
			03/02/17	2.75	630.08		
			05/04/17	3.93	628.90		
			08/28/17	2.95	629.88		
			11/27/17	3.62	629.21		
			02/15/18	3.71	629.12		
			04/24/18	3.58	629.25		
			05/09/18	3.57	629.26		
			05/22/18	3.51	629.32		
			05/27/18	3.47	629.36		
			06/05/18	3.46	629.37		
			06/12/18	3.39	629.44		
			09/24/18	NM	NM		
			12/04/18	3.08	629.75		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
MW-35	632.55	2.5-5	01/21/14	DRY	DRY	627.58	628.81
			07/29/14	DRY	DRY		
			09/23/14	DRY	DRY		
			06/12/15	4.97	627.58		
			09/08/15	DRY	DRY		
			12/17/15	4.10	628.45		
			02/29/16	3.86	628.69		
			06/01/16	3.99	628.56		
			09/08/16	4.13	628.42		
			12/02/16	3.85	628.70		
			03/02/17	3.94	628.61		
			05/04/17	4.58	627.97		
			08/28/17	4.16	628.39		
			11/27/17	3.98	628.57		
			02/15/18	3.81	628.74		
			04/24/18	3.88	628.67		
			05/09/18	3.92	628.63		
			05/22/18	3.81	628.74		
			05/27/18	3.76	628.79		
			06/05/18	3.81	628.74		
			06/12/18	3.81	628.74		
			09/24/18	NM	NM		
			12/04/18	3.74	628.81		
MW-36	633.63	2.5-5	01/21/14	DRY	DRY	630.38	630.58
			04/24/18	3.21	630.42		
			05/09/18	3.25	630.38		
			05/22/18	3.12	630.51		
			05/27/18	3.11	630.52		
			06/05/18	3.05	630.58		
MW-37	620.95	5-10	01/21/14	8.11	612.84	612.84	612.84
MW-38	623.14	5-15	01/21/14	7.10	616.04	615.39	616.49
			05/10/18	6.65	616.49		
			05/22/18	6.91	616.23		
			05/27/18	7.25	615.89		
			06/05/18	7.47	615.67		
			06/12/18	7.75	615.39		
MW-46	630.98	10-20	01/21/14	5.21	625.77	625.17	627.03
			07/29/14	5.47	625.51		
			09/23/14	5.08	625.90		
			06/12/15	5.50	625.48		
			09/08/15	4.17	626.81		
			12/17/15	NOT ACCESSIBLE	NOT ACCESSIBLE		
			02/29/16	5.23	625.75		
			09/08/16	5.41	625.57		
			12/02/16	4.96	626.02		
			03/02/17	5.00	625.98		
			05/04/17	5.50	625.48		
			08/28/17	4.44	626.54		
			11/27/17	5.41	625.57		
			02/15/18	5.81	625.17		
			04/24/18	3.95	627.03		
			05/08/18	4.24	626.74		
			05/22/18	4.41	626.57		
			05/27/18	4.51	626.47		
			06/05/18	4.59	626.39		
			06/12/18	4.53	626.45		
			08/01/18	5.16	625.82		
			09/24/18	NM	NM		
			11/06/18	4.92	626.06		
			12/03/18	4.32	626.66		
			12/04/18	4.61	626.37		
P-2	643.55	10-20	12/13/11	15.91	627.64	627.15	629.24
			01/16/12	15.94	627.61		
			02/13/12	14.31	629.24		
			03/11/13	16.34	627.21		
			04/05/13	16.31	627.24		
			04/29/13	15.44	628.11		
			01/21/14	16.40	627.15		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
Deep Groundwater Pre-Design Investigation Monitoring Wells							
DGW-MW-1	638.97	10.2-29.7	05/22/18	10.91	628.06	627.16	628.06
			05/27/18	11.09	627.88		
			06/05/18	11.24	627.73		
			06/12/18	11.30	627.67		
			08/01/18	11.81	627.16		
DGW-MW-2	634.05	10.2-19.7	05/22/18	6.30	627.75	627.11	627.75
			05/27/18	6.41	627.64		
			06/05/18	6.49	627.56		
			06/12/18	6.51	627.54		
			08/01/18	6.94	627.11		
DGW-MW-3	633.00	5.2-19.7	05/22/18	5.30	627.70	626.97	628.54
			05/27/18	5.39	627.61		
			06/05/18	5.47	627.53		
			06/12/18	5.54	627.46		
			08/01/18	6.03	626.97		
			11/05/18	4.46	628.54		
			03/08/19	5.04	627.96		
			03/20/19	4.87	628.13		
			04/23/19	4.93	628.07		
DGW-MW-4	632.12	10.2-19.7	05/22/18	3.61	628.51	627.67	628.51
			05/27/18	3.70	628.42		
			06/05/18	3.81	628.31		
			06/12/18	3.76	628.36		
			08/01/18	4.45	627.67		
DGW-MW-5	630.12	5.2-19.7	05/22/18	9.95	620.17	620.07	620.17
			05/27/18	10.03	620.09		
			06/05/18	10.01	620.11		
			06/12/18	10.02	620.10		
			08/01/18	10.05	620.07		
DGW-MW-6	642.98	15.2-29.7	05/22/18	12.92	630.06	628.51	630.06
			05/27/18	13.01	629.97		
			06/05/18	13.21	629.77		
			06/12/18	13.01	629.97		
			08/01/18	14.47	628.51		
DGW-MW-7	643.01	15.2-29.7	05/22/18	13.20	629.81	628.35	629.81
			05/27/18	13.26	629.75		
			06/05/18	13.48	629.53		
			06/12/18	13.26	629.75		
			08/01/18	14.66	628.35		
DGW-MW-8 ^a	643.92	15.2-29.7	05/22/18	24.24	619.89	618.91	620.75
			05/27/18	24.34	619.79		
			06/05/18	24.49	619.64		
			06/12/18	24.48	619.65		
			08/01/18	25.22	618.91		
			01/24/19	23.17	620.75		
DGW-MW-9	644.81	10.2-24.7	05/22/18	16.85	627.96	627.42	627.96
			05/27/18	17.02	627.79		
			06/05/18	17.14	627.67		
			06/12/18	17.18	627.63		
			08/01/18	17.39	627.42		
DGW-MW-10	631.55	15.2-19.7	05/22/18	2.64	628.91	627.96	628.97
			05/27/18	2.58	628.97		
			06/05/18	2.74	628.81		
			06/12/18	2.67	628.88		
			08/01/18	3.59	627.96		
DGW-MW-10S	631.66	2.7-7.2	05/22/18	7.08	624.58	624.58	628.75
			05/27/18	5.60	626.06		
			06/05/18	6.35	625.31		
			06/12/18	5.15	626.51		
			08/01/18	2.91	628.75		

Table VI.B-2
Historical Groundwater Elevation Data

Well ID	TOC Elevation	Screen Interval	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Minimum Elevation (ft amsl)	Maximum Elevation (ft amsl)
DGW-MW-11	631.28	10.2-17.2	05/22/18	16.86	614.42	614.42	626.21
			05/27/18	10.00	621.28		
			06/05/18	7.80	623.48		
			06/12/18	6.83	624.45		
			08/01/18	6.50	624.78		
			12/03/18	5.34	625.94		
			01/02/19	5.45	625.83		
			01/23/19	5.07	626.21		
			03/08/19	5.67	625.61		
DGW-MW-11S	631.54	2.2-6.7	03/19/19	6.39	624.89	624.84	629.68
			05/22/18	5.47	626.07		
			05/27/18	4.71	626.83		
			06/05/18	6.70	624.84		
			06/12/18	1.86	629.68		
			08/01/18	2.13	629.41		
DGW-MW-12	640.22	14.2-23.7	12/03/18	2.16	629.38	626.96	627.04
			01/26/19	13.26	626.96		
			04/10/19	13.18	627.04		

Notes:

Prepared by: JJ 01/29/14

1. TOC - top of casing

Updated by: AM 09/22/16, GS 06/25/17, BCW 08/06/2018, AGA 02/28/2019, EPW 04/30/2019

2. ft btoc - below top of casing.

Checked by: KK 09/23/16, KM 06/27/17, JS 06/13/18, EPW 08/06/2018, EPW 04/29/2019, BEF 05/01/2019

3. ft amsl - feet above mean sea level.

Reviewed by: THR 09/2016, AMF 08/14/2018, 05/30/2019

4. NM - not measured.

5. Stewart Creek staff gauges were re-surveyed on May 16, 2013 as a result of displacement that occurred since the previous survey event in 2012 due to a storm event.

6. * - Staff Gauge No. 1 damaged during storm event. No measurement collected.

7. R - Depth to groundwater was disqualified as a field error because depth was greater than total depth of the well.

8. DGW-MW-8 resurveyed in January 2019 for new top of casing measurement of 643.91 ft amsl. Former top of casing measurement from May 2018 to January 2019 measured as 644.13 ft amsl.

Table VI.B.3.b-1: Unit Groundwater Detection Monitoring Systems
North Corrective Action Management Unit (CAMU)

Well Number	LMW-5	LMW-8	LMW-9R	LMW-17	LMW-21	LMW-22	PMW-19R	PMW-20R	MW-45
Hydrogeologic Unit Monitored	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU
Type	Observation/APOE	Observation/APOE	Observation/APOE	Observation/AMP	Observation	Observation/AMP	Background	Observation	Background
Upgradient or downgradient	Down-gradient	Cross-gradient	Cross-gradient	Down-gradient	Down-gradient	Down-gradient	Up-gradient	Down-gradient	Up-gradient
Casing Diameter and Material	2" ID Sch 40 PVC	2" ID Sch 40 PVC	2" Sch 40 PVC	4" ID Sch 40 PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 PVC
Screen Diameter and Material	2" ID machine slot PVC	2" ID machine slot PVC	2" Sch 40 PVC	4" ID machine slot PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 PVC slotted
Screen Slot Size (inches)	0.01	0.01	0.010	0.01	0.010	0.010	0.010	0.010	0.010
Top of Casing Elevation (feet AMSL)	646.61	648.68	664.31	648.84	648.28	646.99	681.79	648.09	660.86
Grade or Surface Elevation (feet AMSL)	643.27	645.57	661.39	646.34	645.11	643.32	678.45	645.2	657.90
Well Depth (feet BGS)	22.0	22.0	30	23.0	25.0	20.0	19.0	25.0	20.0
Well Depth (feet BTOC)	25.34	25.11	32.92	25.5	28.17	23.67	22.34	27.89	22.96
Screened Interval	From (feet BGS)	7.0	15	10.0	10.0	5.0	4.0	10.0	10.0
	To (feet BGS)	21.5	21.5	30	20.0	20.0	19.0	25.0	20.0
	From (feet BTOC)	10.34	10.11	17.92	12.50	13.17	7.34	12.89	12.96
	To (feet BTOC)	24.84	24.61	32.92	22.50	28.17	22.34	27.89	22.96
Facility Coordinates	Northing (feet)	5706.3200*	5539.0400*	7103254.02	5626.1663*	7103205.9759	7102891.2829	7,103,664.08	7,103,914.51
	Easting (feet)	4174.7100*	4812.0100*	2480865.36	4507.0130*	2480099.7956	2480355.4657	2,480,920.37	2,480,303.20

Notes:

*Site coordinates

GWBU - groundwater-bearing unit

AMSL - above mean sea level

BGS - below ground surface

BTOC - below top of casing

PVC - polyvinyl chloride

APOE - Alternate Point of Exposure for Corrective Action Monitoring

AMP - Attenuation Monitoring Point for Corrective Action Monitoring

POC - Point of Compliance for Corrective Action Monitoring

Entered by EPW

Checked by GS

Reviewed by TR, AMF

Table VI.B.3.b-2: Unit Detection Groundwater Monitoring Systems
Former Operating Plant (excluding the North CAMU)

Well Number		B3R	B4R	B7N	B9N	DGW-MW-9	MW-10	MW-17	MW-18
Hydrogeologic Unit Monitored		Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU
Type		POC/APOE	POC/APOE	POC/APOE	POC/APOE	POC/APOE	Observation	POC/APOE	POC/APOE
Upgradient or downgradient		Downgradient	Downgradient	Upgradient/cross-gradient	Upgradient/cross-gradient	Upgradient/cross-gradient	Upgradient	Downgradient	Downgradient
Casing Diameter and Material		4" Sch 40 PVC	4" Sch 40 PVC	4" Sch 40 PVC	4" Sch 40 PVC	2" Sch 40 PVC	4" Sch 40 PVC	4" Sch 40 PVC	4" Sch 40 PVC
Screen Diameter and Material		4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	2" Sch 40 PVC slotted	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted
Screen Slot Size (inches)		0.01	0.01	0.01	0.01	0.010	0.01	0.01	0.01
Top of Casing Elevation (feet AMSL)		650.23	664.58	645.60	640.69	644.81	644.80	629.00	633.00
Grade or Surface Elevation (feet AMSL)		649.23	661.40	644.08	637.02	642.22	645.12	628.58	631.84
Well Depth (feet BGS)		14.0	9.0	24.0	17.0	25.0	17.0	17.0	15.5
Well Depth (feet BTOC)		15.0	12.2	25.5	20.7	27.6	16.7	17.4	16.7
Screened Interval	From (feet BGS)	4.0	4.0	14.0	7.0	10.2	7.0	7.0	5.5
	To (feet BGS)	14.0	9.0	24.0	17.0	24.7	17.0	17.0	15.5
	From (feet BTOC)	5.0	7.2	15.5	10.7	12.8	6.7	7.4	6.7
	To (feet BTOC)	15.0	12.2	25.5	20.7	27.3	16.7	17.4	16.7
Facility Coordinates	Northing (feet)	7,101,507.14	7,101,429.46	7,102,466.56	7,102,614.47	7,101,770.76	7,101,996.62	7,102,093.46	7,102,462.37
	Easting (feet)	2,480,077.05	2,479,941.99	2,480,687.51	2,480,057.47	2,480,655.11	2,480,965.05	2,479,609.56	2,479,342.35

Notes:
GWBU - groundwater-bearing unit
AMSL - above mean sea level
BGS - below ground surface
BTOC - below top of casing
PVC - polyvinyl chloride

APOE - Alternate Point of Exposure for Corrective Action Monitoring
POC - Point of Compliance for Corrective Action Monitoring

Well construction information was compiled from 1) Table 5D of the Affected Property Assessment Report for the Exide Frisco Recycling Facility prepared by Golder Associates and dated May 2014, 2) well construction logs and survey information included in the Affected Property Assessment Report prepared by Pastor, Behling & Wheeler and dated 2013, and 3) well construction logs and survey information included in the Deep Groundwater Preliminary Design Investigation Report prepared by Golder and included as Appendix 3.1 to Attachment M to the Part B of this RCRA Permit Renewal Application.

Entered by GS, BEF
Updated by EPW
Checked by EPW, BEF
Reviewed by TR, AMF

Table VI.B.3.b-2: Unit Detection Groundwater Monitoring Systems
Former Operating Plant (excluding the North CAMU)

Well Number		MW-21	MW-22	MW-23	MW-26	MW-27	MW-29	MW-44
Hydrogeologic Unit Monitored		Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU
Type		POC/APOE	POC/APOE	Observation	POC/APOE	POC/APOE	POC/APOE	POC/APOE
Upgradient or downgradient		Upgradient/cross-gradient	Upgradient/cross-gradient	Upgradient/cross-gradient	Downgradient	Downgradient	Downgradient	Downgradient
Casing Diameter and Material		2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC	2.0" Sch 40 PVC
Screen Diameter and Material		2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted
Screen Slot Size (inches)		0.01	0.01	0.01	0.01	0.01	0.01	0.01
Top of Casing Elevation (feet AMSL)		635.99	636.89	644.15	631.93	633.42	633.51	637.50
Grade or Surface Elevation (feet AMSL)		633.66	633.29	644.32	628.34	629.89	629.39	634.33
Well Depth (feet BGS)		13.0	13.0	19.5	15.0	15.0	14.5	15.0
Well Depth (feet BTOC)		15.3	16.6	19.3	18.6	18.5	18.6	18.2
Screened Interval	From (feet BGS)	3.0	3.0	4.5	5.0	5.0	4.5	5.0
	To (feet BGS)	13.0	13.0	19.5	15.0	15.0	14.5	15.0
	From (feet BTOC)	5.3	6.6	4.3	8.6	8.5	8.6	8.2
	To (feet BTOC)	15.3	16.6	19.3	18.6	18.5	18.6	18.2
Facility Coordinates	Northing (feet)	7,102,518.90	7,102,440.57	7,102,124.84	7,101,865.00	7,101,675.23	7,101,741.68	7,101,659.80
	Easting (feet)	2,480,490.82	2,480,046.67	2,480,769.44	2,479,876.33	2,480,260.29	2,480,041.87	2,480,549.86

Notes:
GWBU - groundwater-bearing unit
AMSL - above mean sea level
BGS - below ground surface
BTOC - below top of casing
PVC - polyvinyl chloride

APOE - Alternate Point of Exposure for Corrective Action Monitoring
POC - Point of Compliance for Corrective Action Monitoring

Well construction information was compiled from 1) Table 5D of the Affected Property Assessment Report for the Exide Frisco Recycling Facility prepared by Golder Associates and dated May 2014, 2) well construction logs and survey information included in the Affected Property Assessment Report prepared by Pastor, Behling & Wheeler and dated 2013, and 3) well construction logs and survey information included in the Deep Groundwater Preliminary Design Investigation Report prepared by Golder and included as Appendix 3.1 to Attachment M to the Part B of this RCRA Permit Renewal Application.

Entered by GS, BEF
Updated by EPW
Checked by EPW, BEF
Reviewed by TR, AMF

Table VI.B.3.c-1: Groundwater Detection Monitoring Parameters**Unit/Waste Management Area:**North Corrective Action Management Unit (North CAMU)**Well Numbers:** PMW-19R, MW-41, MW-45, LMW-8, LMW-9R, LMW-5, LMW-17, PMW-20R, LMW-21, and LMW-22

Parameter	Sampling Frequency	Analytical Method	Unadjusted MQL (mg/L)	Concentration Limit (mg/L)		
				TRRP Tier 1 Residential ^{GW} GW _{Ing} PCL	TRRP Tier 1 Commercial/Industrial ^{GW} GW _{Ing} PCL	^{SW} GW PCL
Arsenic (total and dissolved)	Quarterly (2 years)/Semiannually (after 2 years)	SW-6010B/6020A	0.003	0.01	0.010	0.34 (dissolved)
Cadmium (total and dissolved)		SW-6010B/6020A	0.000500	0.005	0.0050	0.00908 (dissolved)
Lead (total and dissolved)		SW-6010B/6020A	0.00250	0.015	0.015	0.0688 (dissolved)
Selenium (total and dissolved)		SW-6010B/6020A	0.00250	0.050	0.050	0.02 (total)
Antimony (total and dissolved)	Annually	SW-6010B/6020A	0.00500	0.0060	0.0060	1.33
Barium (total and dissolved)		SW-6010B/6020A	0.00500	2.0	2.0	16
Chromium (total and dissolved)		SW-6010B/6020A	0.00500	0.10	0.10	0.598
Copper (total and dissolved)		SW-6010B/6020A	0.00500	1.3	1.3	0.015
Mercury (total and dissolved)		SW-7470A	0.000200	0.0020	0.0020	0.0024
Silver (total and dissolved)		SW-6010B/6020A	0.00100	0.12	0.37	0.0008
Zinc (total and dissolved)		SW-6010B/6020A	0.0200	7.3	22	0.123

Notes:

mg/L - milligrams per liter

MQL - method quantitation limit

TRRP - Texas Risk Reduction Program

PCL - protective concentration limit

TRRP PCLs are obtained from the April 2018 Tier 1 PCL and supporting tables accessed at <http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html>.

The ^{SW}GW PCLs were approved in the Revised Class 2 Landfill Groundwater Monitoring Plan by Pastor, Behling & Wheeler and dated July 31, 2013, and approved by TCEQ in a letter dated April 4, 2014. As described in that report, "TRRP Rules §350.37(i) and §350.51(f) indicate that the ^{SW}GW PCL applies for monitoring wells in locations where there is a potential point of discharge of groundwater to surface water (e.g., down-gradient wells LMW-5, LMW-17 and LMW-22 and cross-gradient well LMW-8). Per TRRP-24, specific aquatic life criteria apply to dissolved rather than total concentrations since the dissolved phase represents the bioavailable form. SWGW PCLs were conservatively set to ^{SW}SW RBELs (i.e., no dilution factor). ^{SW}SW RBELs are based on acute ecological criteria for Stewart Creek and the North Tributary (intermittent streams), except those for barium and antimony, which are based on chronic ecological criteria because acute criteria are not established for these constituents. Per TRRP-24, RBELs for cadmium, copper, lead and zinc were adjusted based on a hardness value of 106 mg/L for Lake Lewisville, Segment 0823."

Entered by BEF

Checked by GS

Reviewed by TR, AMF

Table VI.B.3.c-2: Groundwater Corrective Action Monitoring Parameters**Unit/Waste Management Area:** Former Operating Plant (excluding the North CAMU)**Well Numbers:** B3R, B4R, B7N, B9N, DGW-MW-9, MW-10, MW-17, MW-18, MW-21, MW-22, MW-23, MW-26, MW-27, MW-29, MW-44

Parameter	Sampling Frequency	Analytical Method	Unadjusted MQL (mg/L)	Concentration Limit (mg/L)				
				TRRP Tier 1 Residential ^{GW} PCL	TRRP Tier 1 Commercial/Industrial ^{GW} PCL	^{SW} GW PCL (with dilution factor of 0.15, based on chronic aquatic life criteria) ^{1,2}	^{SW} GW PCL (based on acute aquatic life criteria) ^{1,2}	^{SW} GW PCL (with dilution factor of 0.15, based on contact recreation)
Antimony (total and dissolved)	Quarterly (2 years)/Semiannually (after 2 years)	SW-6010B/6020A	0.00500	0.006	0.006	14.7 (total)	6.60 (total)	1.33
Arsenic (total and dissolved)		SW-6010B/6020A	0.00300	0.01	0.01	1.00 (dissolved)	0.34 (dissolved)	0.19
Cadmium (total and dissolved)		SW-6010B/6020A	0.000500	0.005	0.005	0.0017 (dissolved)	0.00908 (dissolved)	0.99
Lead (total and dissolved)		SW-6010B/6020A	0.00250	0.015	0.015	0.0179 (dissolved)	0.0688 (dissolved)	0.10
Selenium (total and dissolved)		SW-6010B/6020A	0.00250	0.050	0.050	0.0333 (total)	0.02 (total)	27.5

Notes:

mg/L - milligrams per liter

MQL - method quantitation limit

TRRP - Texas Risk Reduction Program

PCL - protective concentration level

TRRP PCLs are copied from the April 2018 Tier 1 PCL and supporting tables accessed at <http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html>.

(1) The antimony, arsenic, and selenium ^{SW}GW PCLs are set to the TCEQ's aquatic life surface water benchmarks, updated in August 2018. The cadmium and lead ^{SW}GW PCLs are set to the ^{SW}SW risk-based exposure limits (RBELs) as approved in the 2014 Affected Property Assessment Report. Per TRRP-24, the ^{SW}GW PCLs apply to monitoring wells where there is a potential point of discharge of groundwater to surface water (i.e., in the near vicinity of Stewart Creek or the North Tributary). Chronic ecological criteria apply to monitoring wells along Stewart Creek (a perennial stream) assuming a 0.15 dilution factor (MW-17, MW-26, MW-27, MW-29, and MW-44). Acute ecological criteria apply to wells B9N and MW-18 along the North Tributary (an intermittent stream).

(2) Per TRRP-24, specific aquatic life criteria for arsenic, cadmium and lead apply to dissolved rather than total concentrations since the dissolved phase represents the bioavailable form. Also per TRRP-24, the ^{SW}GW PCL applies to monitoring wells where there is a potential to discharge to surface water. Arsenic, cadmium, and lead RBELs based on hardness value of 106 mg/L for Segment 0823.

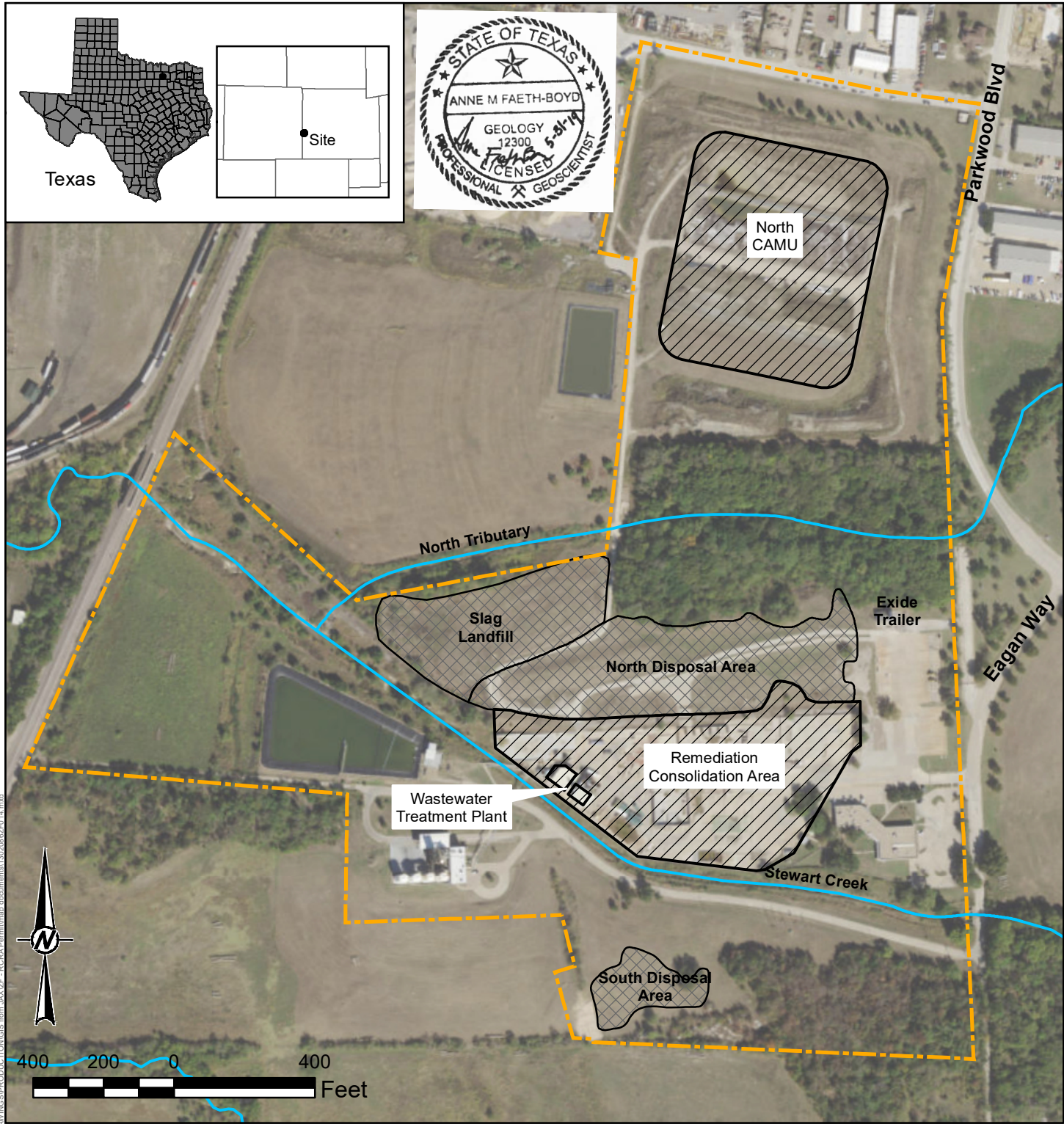
Entered by GS, BEF

Updated by EPW

Checked by EPW, BEF

Reviewed by TR, AMF

FIGURES



LEGEND

- Creek Centerline
- Existing Building
- Corrective Action Management Unit
- Disposal Area
- Approximate RCRA Permitted Boundary

REFERENCE

1. AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

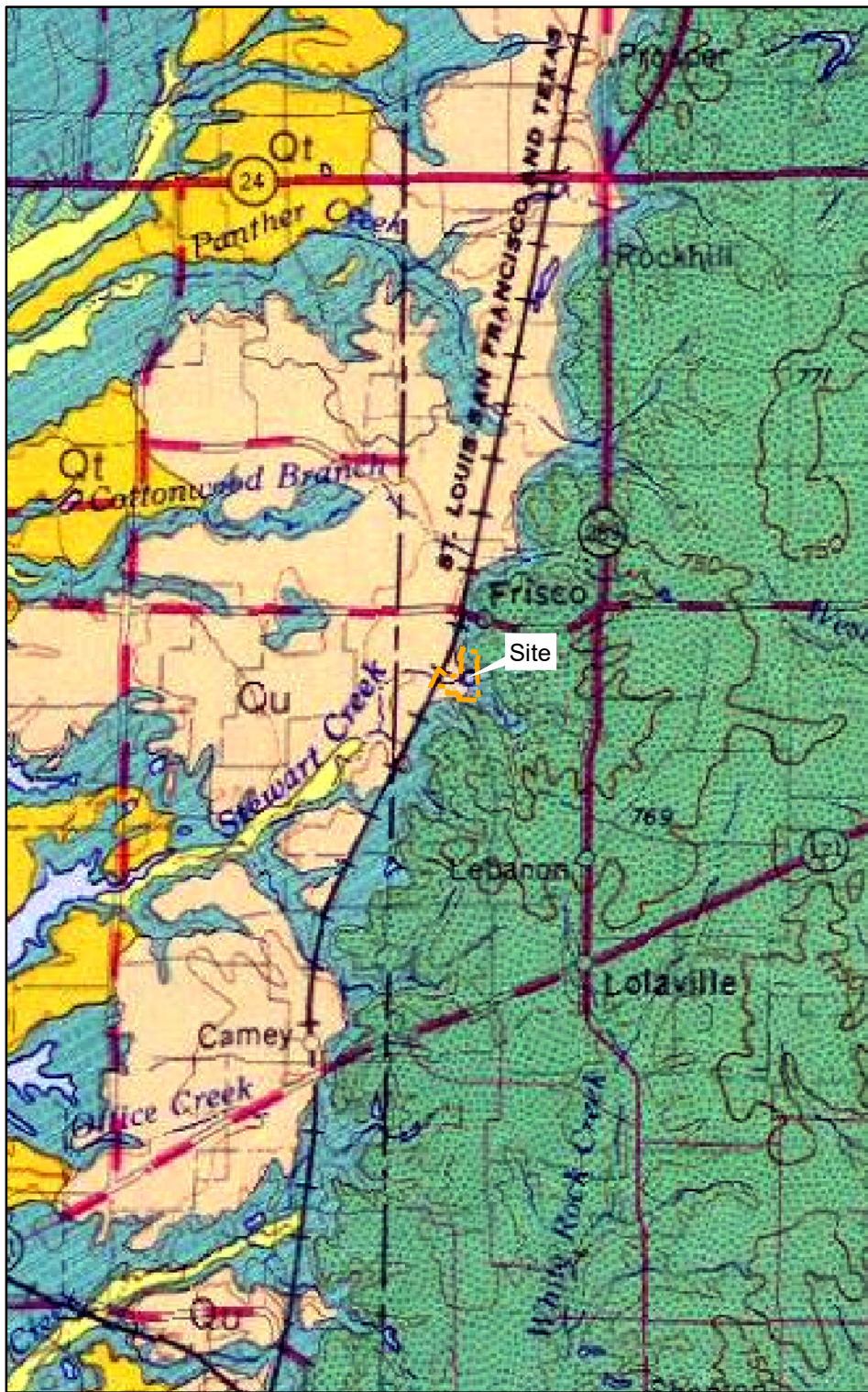
TITLE
ONSITE PROPERTY MAP

CONSULTANT	YYYY-MM-DD	2019-05-28
	PREPARED	EFT
	DESIGN	JWT
	REVIEW	EPW
	APPROVED	AMF

PROJECT No. 13-02086-06	CONTROL 1302086ZF014.mxd	Rev. 0	FIGURE VI.A-1
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1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/A

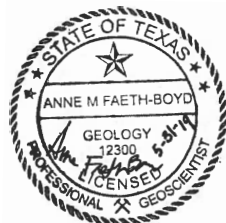


EXPLANATION

Pleistocene	Holocene		QUATERNARY
Upper Cretaceous			CRETACEOUS

LEGEND

Approximate RCRA Permitted Boundary



REFERENCE

1. BASEMAP - GEOLOGIC ATLAS OF TEXAS, SHERMAN SHEET (MCGOWEN ET AL., 1991)

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
REGIONAL GEOLOGIC MAP

CONSULTANT	YYYY-MM-DD	2019-05-30
	PREPARED	JWT
	DESIGN	JWT
	REVIEW	GS
	APPROVED	AMF



PROJECT No.
13-02086

CONTROL
1302086ZF015.mxd

Rev.
0

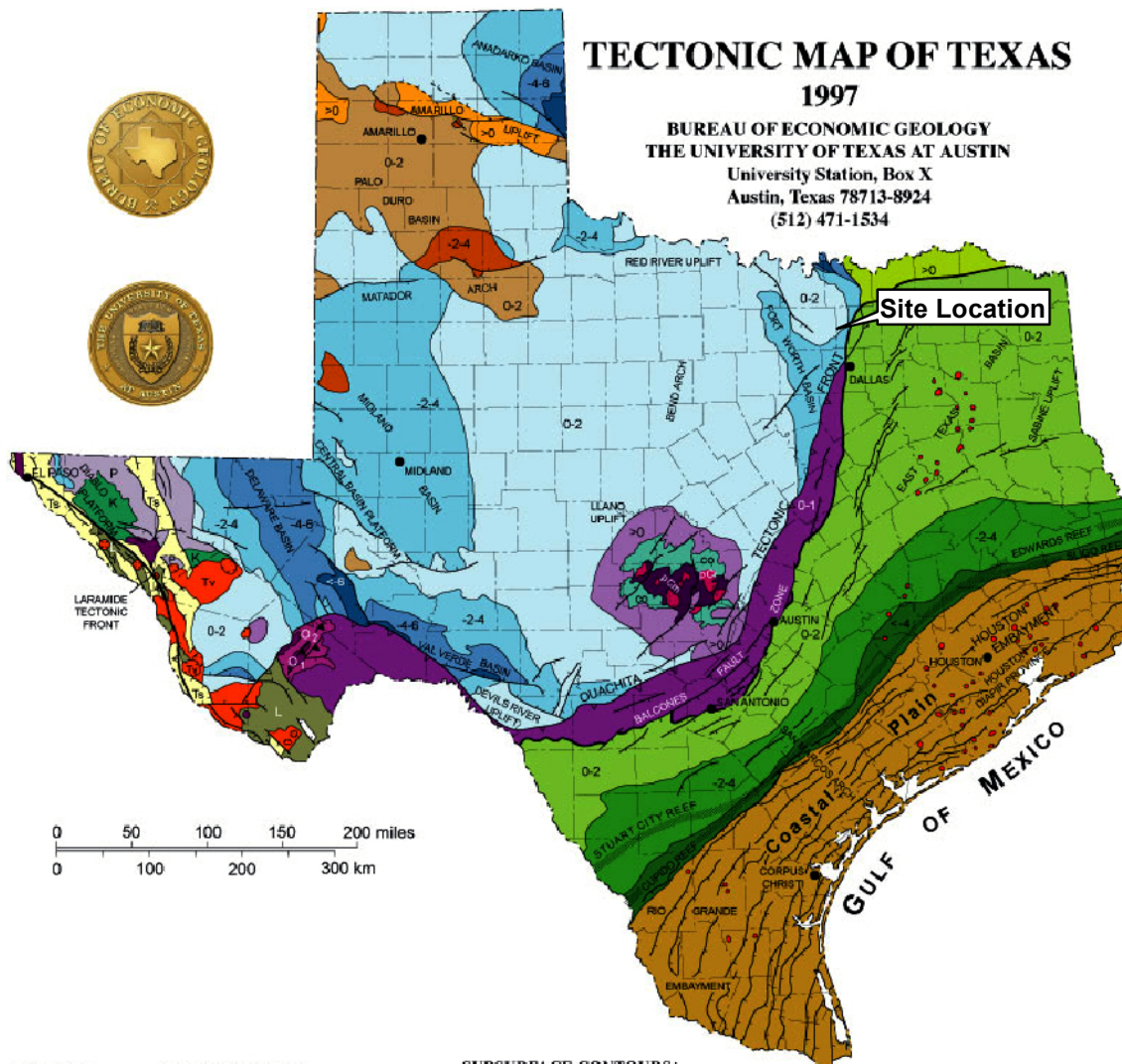
FIGURE
VI.A-2



TECTONIC MAP OF TEXAS

1997

BUREAU OF ECONOMIC GEOLOGY
THE UNIVERSITY OF TEXAS AT AUSTIN
University Station, Box X
Austin, Texas 78713-8924
(512) 471-1534



0 50 100 150 200 miles
0 100 200 300 km

TECTONIC EPISODE	EXPOSED UNITS*
Tertiary	Ts Late Tertiary extensional basin
	Tv Trans-Pecos igneous
Laramide	L Deformed Cretaceous strata
Gulf Coast	K Cretaceous strata
Ouachita	Foreland:
	P Upper Paleozoic
	CO Lower Paleozoic
	Marathon:
	O₂ Upper Paleozoic flysch
	O₁ Lower Paleozoic
Llano	pCi Precambrian igneous
	pCm Precambrian metamorphic

SUBSURFACE CONTOURS*

(elevation in kilometers**)

Top of pre-Tertiary

<-4

Base of Austin Chalk or
Top of Edwards Group
Cretaceous

>0 0 to -2 -2 to -4 <-4

Top of Ellenburger
Paleozoic

>0 0 to -2 -2 to -4 -4 to -6 <-6

Top of Precambrian

>0 0 to -2 -2 to -4

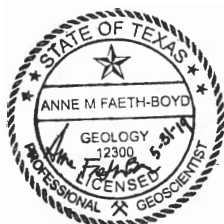
Buried Ouachita facies
Paleozoic

0 to -1

* Note changes in mapped horizon.
** >0, elevation greater than sea level;
<-6, depths greater than 6 km below sea level

OTHER FEATURES

- Caldera
- Salt diapirs
- Lower Cretaceous reef trend
- Normal fault, indicating downthrown side
- Thrust fault, teeth on upper plate
- TECTONIC FRONTS**
- Laramide tectonic front
- Ouachita tectonic front
- Gulf Basin margin



REFERENCE

1. BASEMAP - BUREAU OF ECONOMIC GEOLOGY, THE UNIVERSITY OF TEXAS AT AUSTIN, 1997 -
[HTTPS://WWW.LIB.UTEXAS.EDU/GEO/PICS/TECTONIC2.JPG](https://www.lib.utexas.edu/geology/pics/tectonic2.jpg)

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
TECTONIC MAP OF TEXAS

CONSULTANT	YYYY-MM-DD	2019-05-02
	PREPARED	JWT
	DESIGN	JWT
	REVIEW	GS
	APPROVED	AMF

PROJECT No.
13-02086

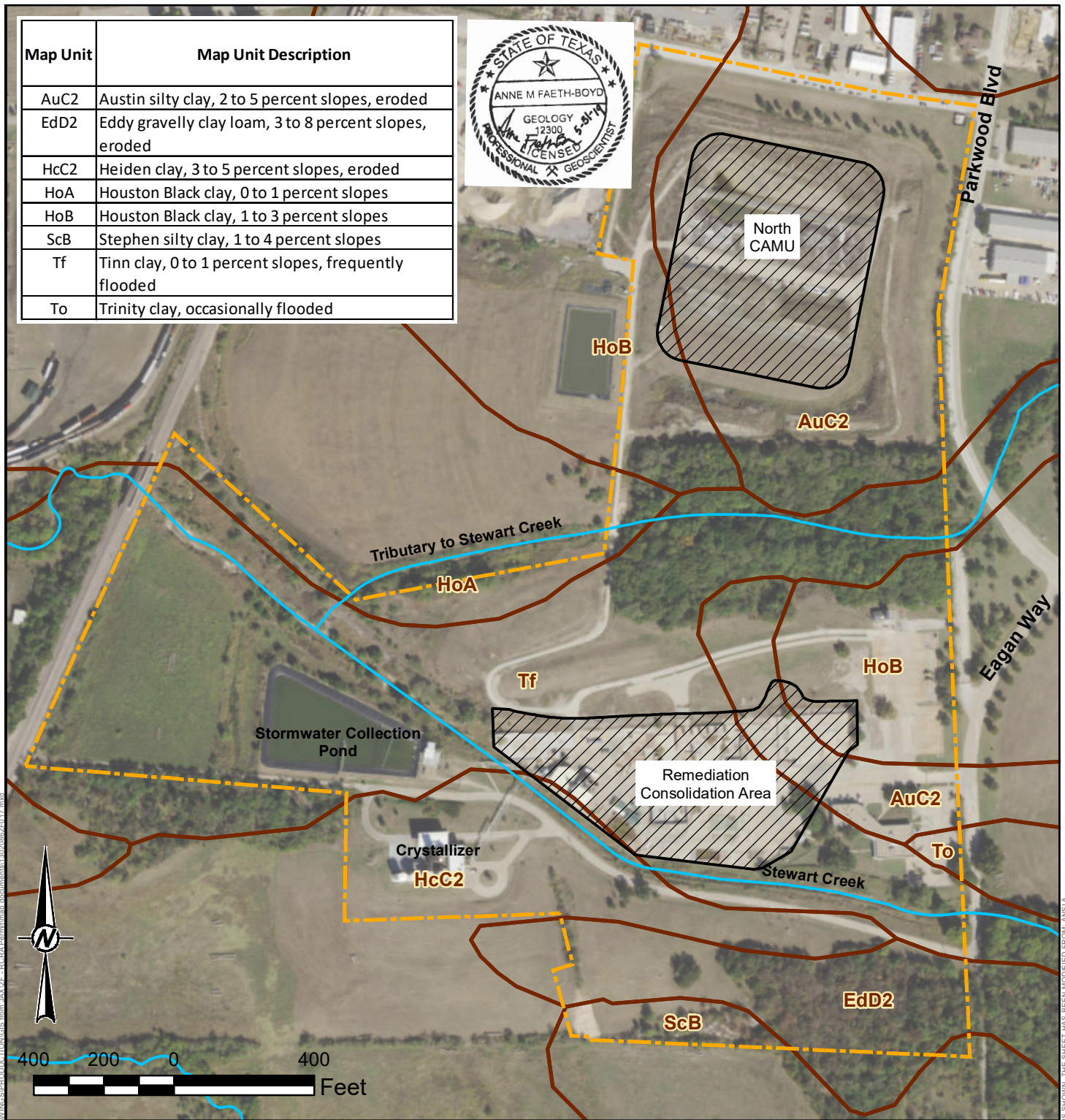
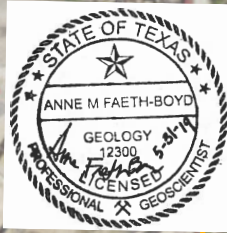
CONTROL
1302086ZF016.mxd

Rev.
0

FIGURE
VI.A-3



Map Unit	Map Unit Description
AuC2	Austin silty clay, 2 to 5 percent slopes, eroded
EdD2	Eddy gravelly clay loam, 3 to 8 percent slopes, eroded
HcC2	Heiden clay, 3 to 5 percent slopes, eroded
HoA	Houston Black clay, 0 to 1 percent slopes
HoB	Houston Black clay, 1 to 3 percent slopes
ScB	Stephen silty clay, 1 to 4 percent slopes
Tf	Tinn clay, 0 to 1 percent slopes, frequently flooded
To	Trinity clay, occasionally flooded



LEGEND

- Creek Centerline
- Corrective Action Management Unit
- Approximate RCRA Permitted Boundary

REFERENCE

1. AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY.
2. SOIL DATA - UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) NATURAL RESOURCES CONSERVATION SERVICE ONLINE WEB SOIL SURVEY, 2016.

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
ONSITE SOILS MAP

CONSULTANT	YYYY-MM-DD	2019-05-30
	PREPARED	EFT
	DESIGN	JWT
	REVIEW	EPW
	APPROVED	AMF



GOLDER

PROJECT No.
13-02086-06

CONTROL
1302086ZF017.mxd

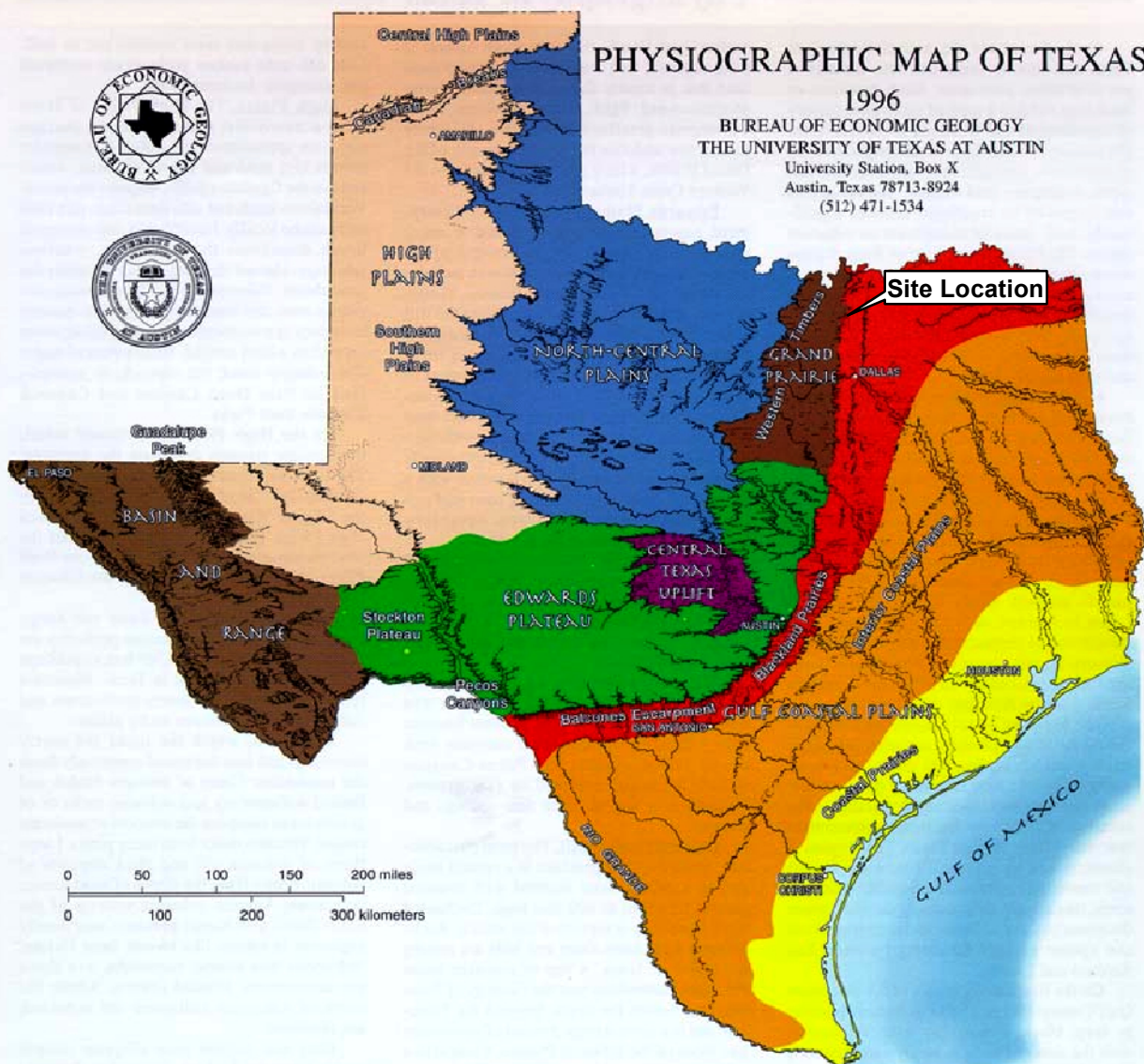
Rev.
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FIGURE
VI.A-4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/A 1 in



Guadalupe Peak



PROVINCE	MAX. ELEV. (ft)	MIN. ELEV. (ft)	TOPOGRAPHY	GEOLOGIC STRUCTURE	BEDROCK TYPES
Gulf Coastal Plains					
Coastal Prairies	300	0	Nearly flat prairie, <1 ft/mi to Gulf	Nearly flat strata	Deltaic sands and muds
Interior Coastal Plains	800	300	Parallel ridges (questas) and valleys	Beds tilted toward Gulf	Unconsolidated sands and muds
Blackland Prairies	1000	450	Low rolling terrain	Beds tilted south and east	Chalks and marls
Grand Prairie	1250	450	Low stair-step hills west; plains east	Strata dip east	Calcareous east; sandy west
Edwards Plateau					
Principal	3000	450	Flat upper surface with box canyons	Beds dip south; normal faulted	Limestones and dolomites
Pecos Canyons	2000	1200	Steep-walled canyons		Limestones and dolomites
Stockton Plateau	4200	1700	Mesa-formed terrain; highs to west	Unfaulted, near-horizontal beds	Carbonates and alluvial sediments
Central Texas Uplift					
Principal	2000	800	Knobby plain; surrounded by questas	Centripetal dips, strongly faulted	Granites; metamorphics; sediments
North-Central Plains	3000	900	Low north-south ridges (questas)	West dip; minor faults	Limestones; sandstones; shales
High Plains					
Central	4750	2900	Flat prairies slope east and south	Slight dips east and south	Eolian silts and fine sands
Canadian Breaks	3800	2350	Highly dissected; local solution valleys		
Southern	3800	2200	Flat; many playas; local dune fields		
Basin and Range					
Principal	8750	1700	North-south mountains and basins	Some complex folding and faulting	Igneous; metamorphics; sediments



REFERENCE

1. BASEMAP - BUREAU OF ECONOMIC GEOLOGY, THE UNIVERSITY OF TEXAS AT AUSTIN, 1997 - [HTTPS://WWW.LIB.UTEXAS.EDU/GEO/PICS/TXPHYSIO.JPG](https://www.lib.utexas.edu/gEO/pics/txphysio.jpg)

CLIENT

EXIDE TECHNOLOGIES

PROJECT

RCRA PERMIT RENEWAL

TITLE

PHYSIOGRAPHIC MAP OF TEXAS

CONSULTANT

YYYY-MM-DD 2019-05-02

PREPARED JWT

DESIGN JWT

REVIEW GS

APPROVED AMF



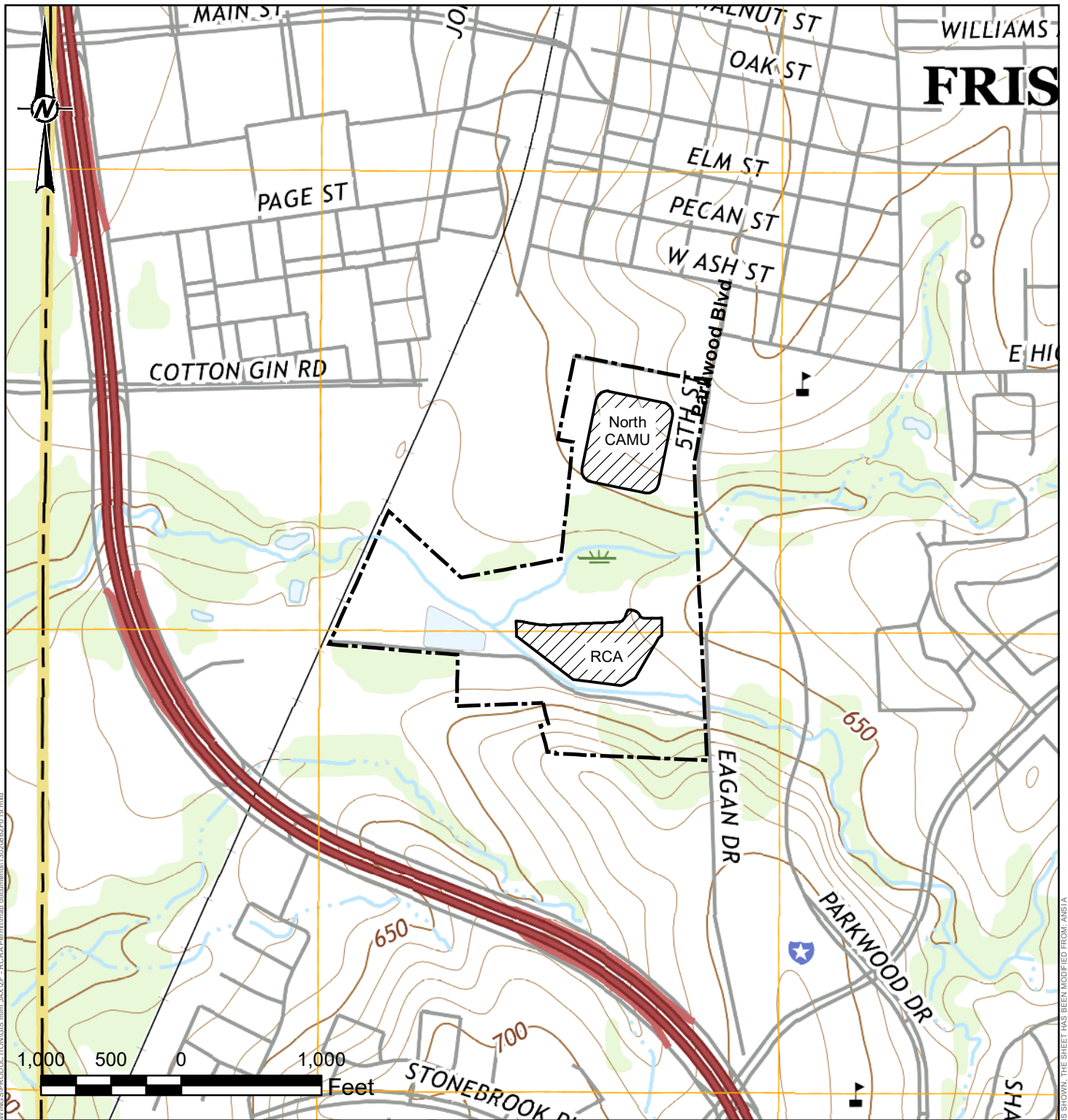
GOLDER

PROJECT No.
13-02086



CONTROL
1302086ZF018.mxd

Rev.
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FIGURE
VI.A-5



LEGEND

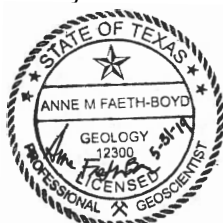
-  Corrective Action Management Unit
-  Approximate RCRA Permitted Boundary

NOTES

1. RCA - REMEDIATION CONSOLIDATION AREA

REFERENCE

1. BASEMAP - USGS DIGITAL RASTER GRAPHIC FRISCO, TX 2016, UNITED STATES GEOLOGICAL SURVEY GEOPDF 2016



CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
TOPOGRAPHIC MAP

CONSULTANT

YYYY-MM-DD 2019-05-28

PREPARED EFT

DESIGN JWT

REVIEW EPW

APPROVED AMF



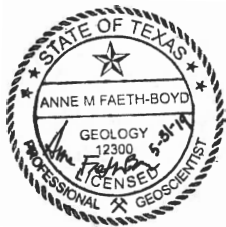
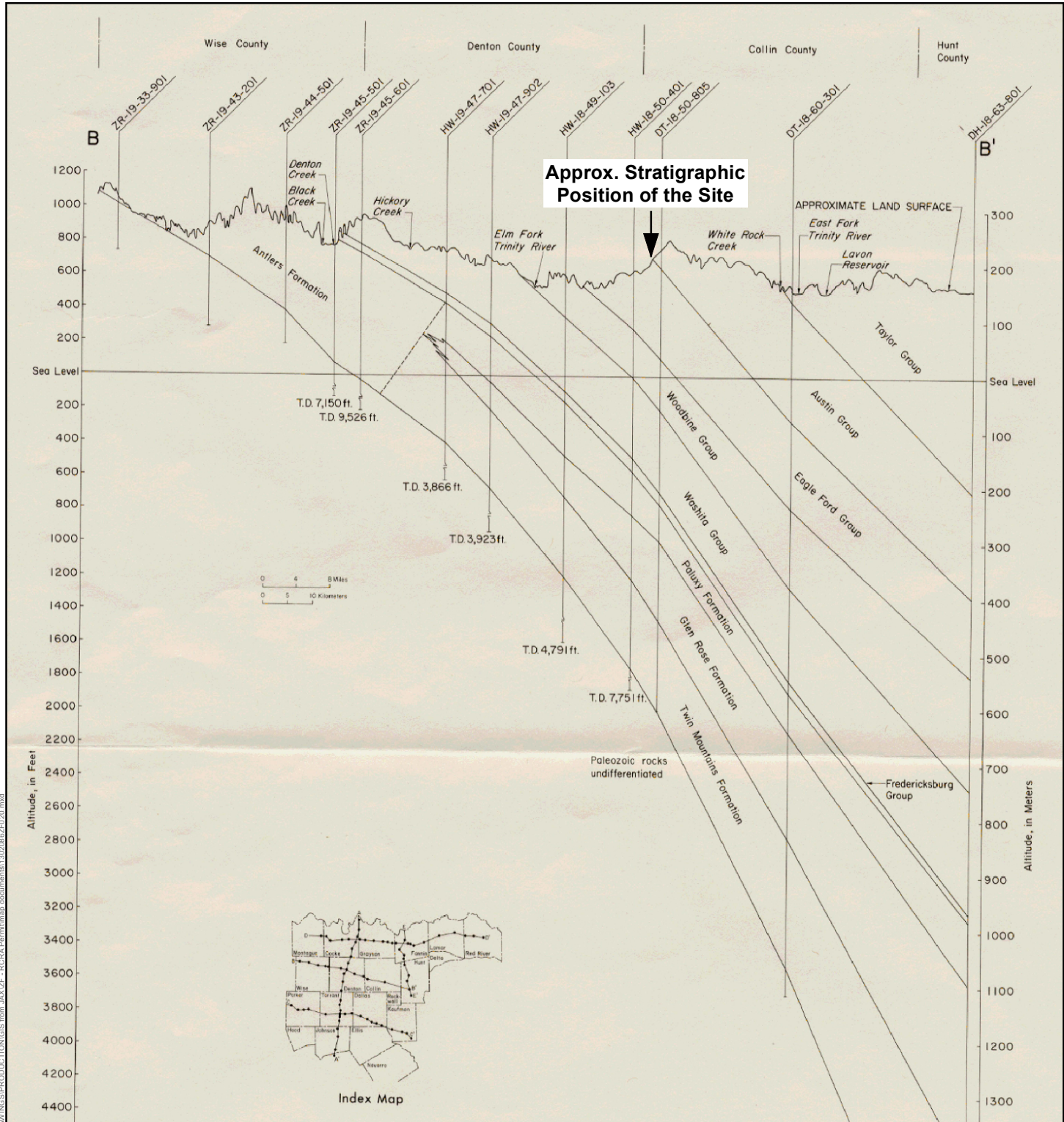
GOLDER

PROJECT No.
13-02086-06

CONTROL
1302086ZF019.mxd

Rev.
0

FIGURE
VI.A-6



REFERENCE

1. AFTER NORDSTROM (1982) - APAR 2013, PASTOR, BEHLING & WHEELER, LLC

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
REGIONAL GEOLOGIC CROSS SECTION MAP

CONSULTANT	YYYY-MM-DD	2019-05-02
PREPARED	JWT	
DESIGN	JWT	
REVIEW	GS	
APPROVED	AMF	



PROJECT No.
13-02086

CONTROL
1302086ZF020.mxd

Rev.
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FIGURE
VI.A-7



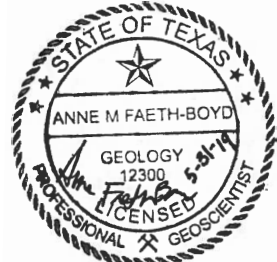
Legend

- Monitoring Well Location
- Soil Boring / Soil Sample Location (2012 - 2019)
- Stewart Creek (Approximate Creek Centerline)
- North Tributary (Approximate Creek Centerline)
- Critical PCL Exceedance Zone (PCLE Zone)
- Approximate Extent of Disposal Area
- Approximate RCRA Permitted Boundary
- Former Undeveloped Buffer Property
- Corrective Action Management Unit
- Undeveloped Buffer Property Excavation

Cross Section Transect

- A - A'
- B - B'
- C - C'
- D - D'
- E - E'
- F - F'
- G - G'
- H - H'
- I - I'
- J - J'
- K - K'

Source:
1. Basemap by PBW as part of the APAR dated July 9, 2013.
2. Modified by Golder May 2014 - May 2019.
3. Locations - PBW and Golder, 2012 - 2019.
4. Aerial Imagery: NCTCOG, 2009 photography, Dallas Aerial Survey, April 2017.



150 75 0 150 Feet

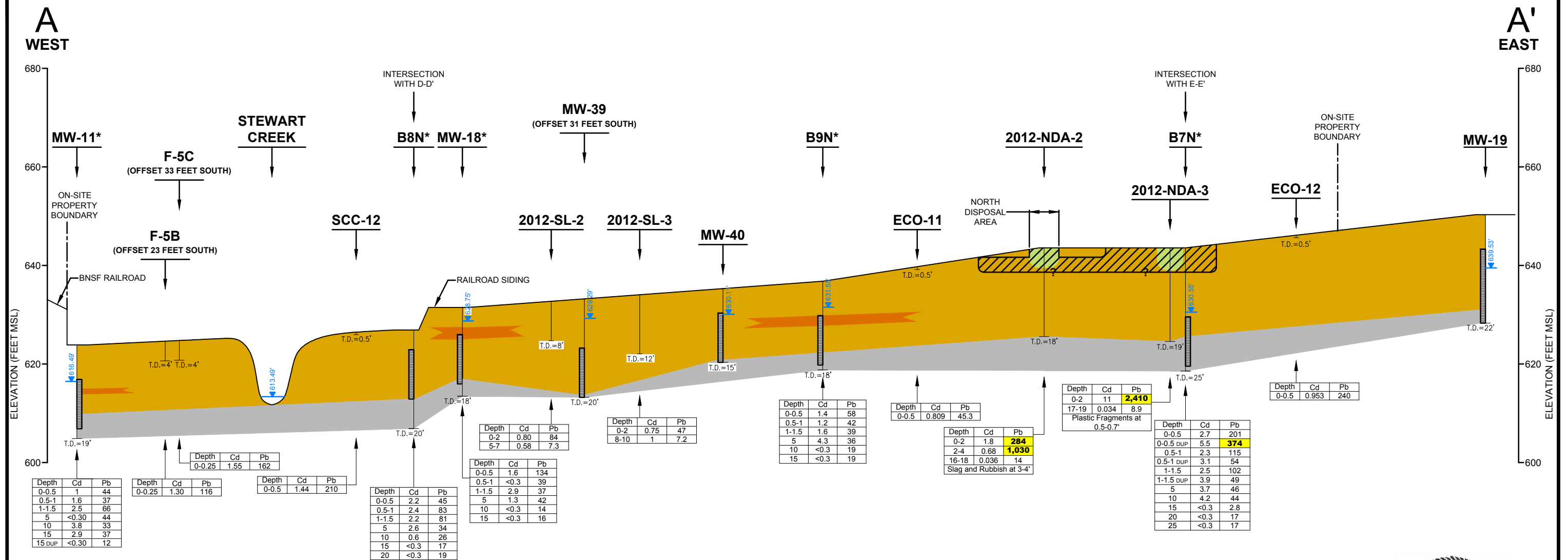
Scale: AS SHOWN
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**FORMER OPERATING PLANT
FRISCO RECYCLING CENTER
FRISCO, TEXAS**

FIGURE VIA-8
**CROSS SECTION AND FENCE DIAGRAM
LOCATION MAP**

PROJECT NO. 13020862	BY: JMT	REVISIONS
DATE: 5/31/2019	CHECKED: JMT	

GOLDER ASSOCIATES INC.

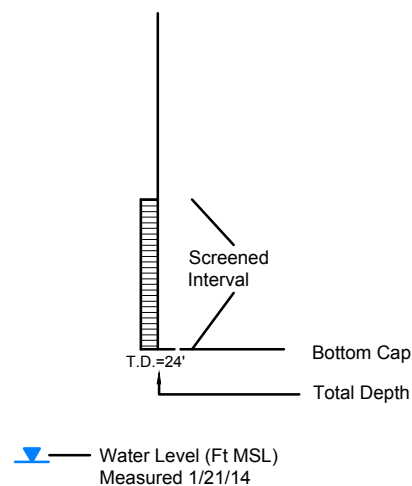


EXPLANATION

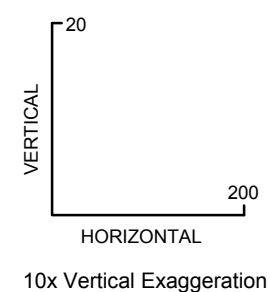
GENERALIZED LITHOLOGIC ABBREVIATIONS

- Fill
- Clay or Silty Clay with Minor Occurrences of Clayey Silt, Clayey Sand, and Gravelly Clay
- Clayey Gravel or Sand
- Eagle Ford Shale
- RAL/Critical PCL Exceedance Zone

MONITORING WELL CONSTRUCTION



SCALE IN FEET



Notes:

- Ground surface and creek bed topography are estimated. Monitoring well ground surface elevations were surveyed by a licensed surveyor.
- See Figure VI.A-8 for cross section location.
- Stewart Creek water elevation inferred from Staff Gauge 2.
- * - Soil sample results based on historical data (see Appendix 17 2014 APAR).
- ^ - Soil samples not collected at this location.
- Based on historical use, the North Disposal Area, South disposal area, and Slag Landfill are included entirely within the affected property and critical PCLE Zone boundaries.
- Surface soil RALs/PCLs (0-15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
- Subsurface soil RALs/PCLs (greater than 15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
- Soil sample results that exceed the applicable RAL/PCL are highlighted and bolded.
- Depths given in feet below ground surface.
- MSL = above mean sea level.
- ? - Boundary uncertain.
- Soil analytical data not available.
- "Rubbish" is used as defined in 30 TAC 330.3(A)(130).
- Historical data not used to delineate RAL exceedance zone.
- Stewart Creek water levels were interpolated from stream gauge readings.
- Original figure prepared by PBW as part of the APAR dated July 9, 2013. Modified by Golder in May 2014.

EXIDE FRISCO RECYCLING CENTER RCRA PERMIT RENEWAL APPLICATION GEOLOGY REPORT

Figure VI.A-9

VI.A-9 GEOLOGIC CROSS SECTION A-A' (1 OF 11)

PROJECT: 13-02086

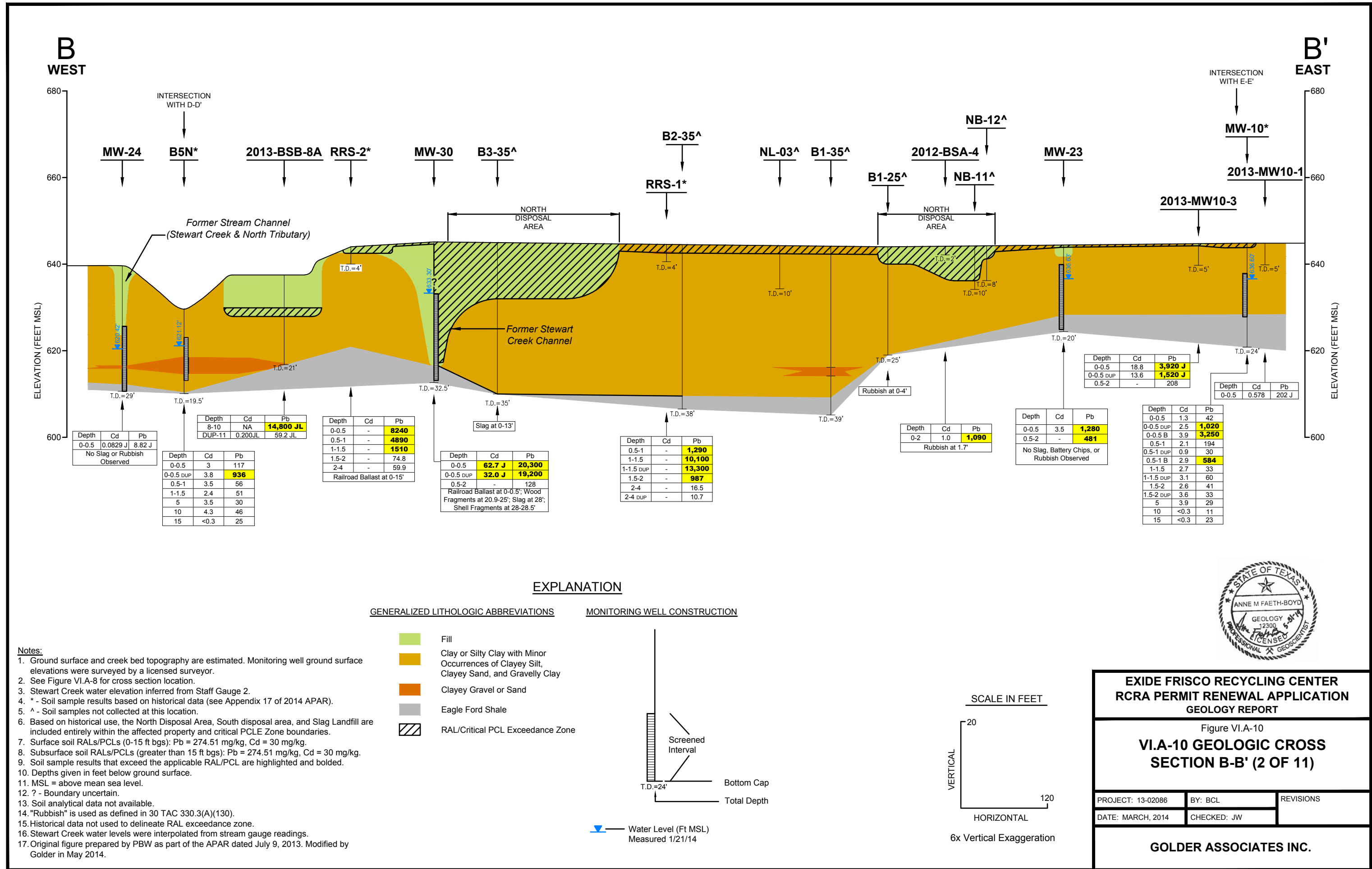
BY: BCL

REVISIONS

DATE: MARCH, 2014

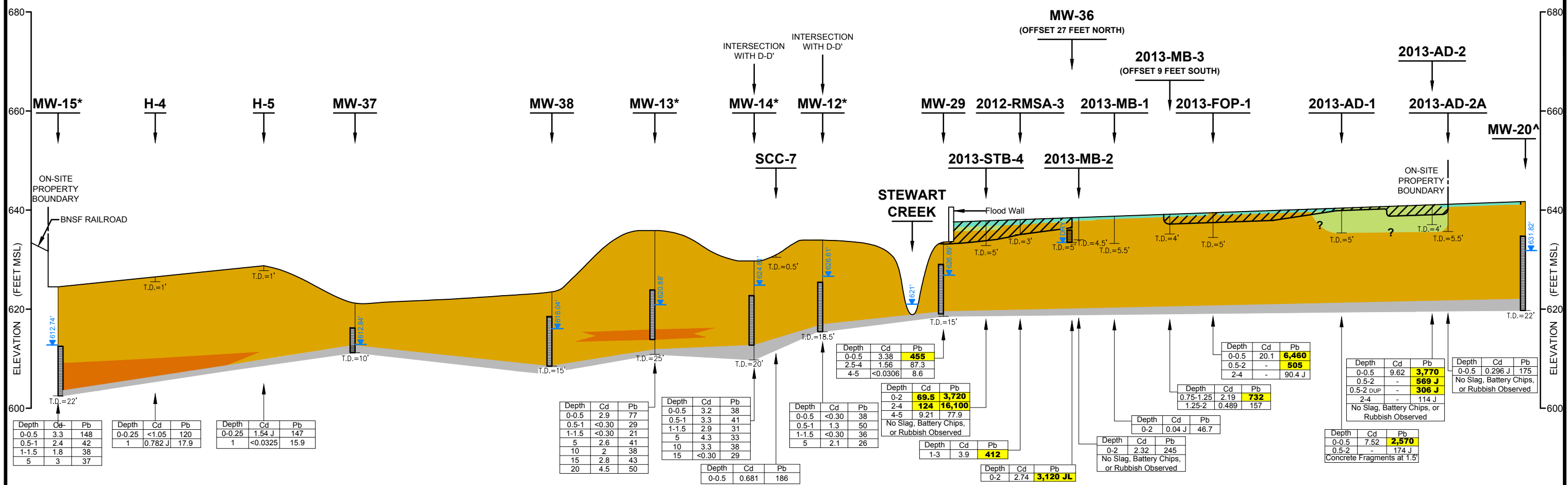
CHECKED: JW

GOLDER ASSOCIATES INC.



C
WEST

C'
EAST

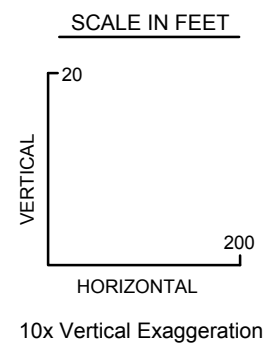
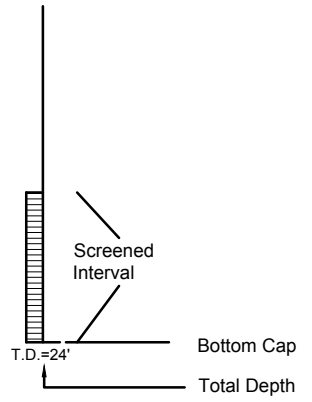


EXPLANATION

GENERALIZED LITHOLOGIC ABBREVIATIONS

MONITORING WELL CONSTRUCTION

- Concrete
- Fill
- Clay or Silty Clay with Minor Occurrences of Clayey Silt, Clayey Sand, and Gravelly Clay
- Clayey Gravel or Sand
- Eagle Ford Shale
- RAL/Critical PCL Exceedance Zone



Notes:

- Ground surface and creek bed topography are estimated. Monitoring well ground surface elevations were surveyed by a licensed surveyor.
- See Figure VI.A-8 for cross section location.
- Stewart Creek water elevation inferred from Staff Gauge 2.
- * - Soil sample results based on historical data (see Appendix 17 of 2014 APAR).
- ^ - Soil samples not collected at this location.
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- Soil sample results that exceed the applicable RAL/PCL are highlighted and bolded.
- Depths given in feet below ground surface.
- MSL = above mean sea level.
- ? - Boundary uncertain.
- Soil analytical data not available.
- "Rubbish" is used as defined in 30 TAC 330.3(A)(130).
- Historical data not used to delineate RAL exceedance zone.
- Original figure prepared by PBW as part of the APAR dated July 9, 2013. Modified by Golder in May 2014.
- Stewart Creek water levels were interpolated from stream gauge readings.

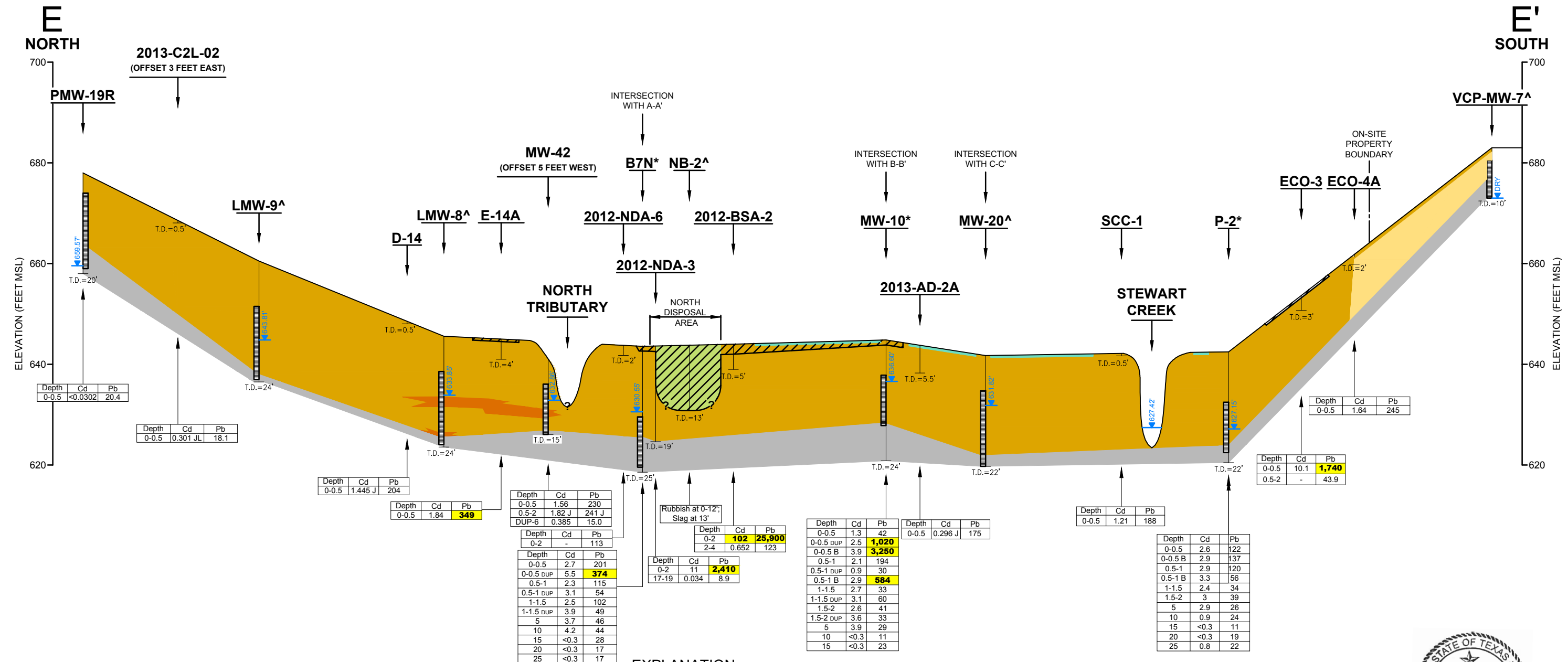


EXIDE FRISCO RECYCLING CENTER
RCRA PERMIT RENEWAL APPLICATION
GEOLOGY REPORT

Figure VI.A-11
VI.A-11 GEOLOGIC CROSS
SECTION C-C' (3 OF 11)

PROJECT: 13-02086	BY: BCL	REVISIONS
DATE: MARCH, 2014	CHECKED: JW	

GOLDER ASSOCIATES INC.

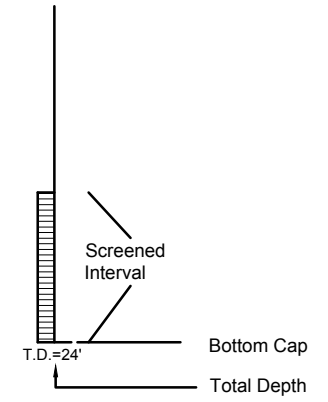


- Notes:
1. Ground surface and creek bed topography are estimated. Monitoring well ground surface elevations were surveyed by a licensed surveyor.
 2. See Figure VI.A-8 for cross section location.
 3. Stewart Creek water elevation inferred from Staff Gauge 2.
 4. * - Soil sample results based on historical data (see Appendix 17 of 2014 APAR).
 5. ^ - Soil samples not collected at this location.
 6. Based on historical use, the North Disposal Area, South disposal area, and Slag Landfill are included entirely within the affected property and critical PCLE Zone boundaries.
 7. Surface soil RALs/PCLs (0-15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
 8. Subsurface soil RALs/PCLs (greater than 15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
 9. Soil sample results that exceed the applicable RAL/PCL are highlighted and bolded.
 10. Depths given in feet below ground surface.
 11. MSL = above mean sea level.
 12. ? - Boundary uncertain.
 13. Soil analytical data not available.
 14. "Rubbish" is used as defined in 30 TAC 330.3(A)(130).
 15. Historical data not used to delineate RAL exceedance zone.
 16. Stewart Creek water levels were interpolated from stream gauge readings.
 17. Original figure prepared by PBW as part of the APAR dated July 9, 2013. Modified by Golder in May 2014.

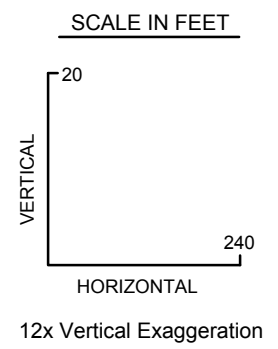
GENERALIZED LITHOLOGIC ABBREVIATIONS

- Concrete
- Fill
- Clay or Silty Clay with Minor Occurrences of Clayey Silt, Clayey Sand, and Gravelly Clay
- Clayey Gravel or Sand
- Austin Chalk Limestone
- Eagle Ford Shale
- RAL/Critical PCL Exceedance Zone

MONITORING WELL CONSTRUCTION



Water Level (Ft MSL)
Measured 1/21/14



EXIDE FRISCO RECYCLING CENTER
RCRA PERMIT RENEWAL APPLICATION
GEOLOGY REPORT

Figure VI.A-13
**VI.A-13 GEOLOGIC CROSS
SECTION E-E' (5 OF 11)**

PROJECT: 13-02086

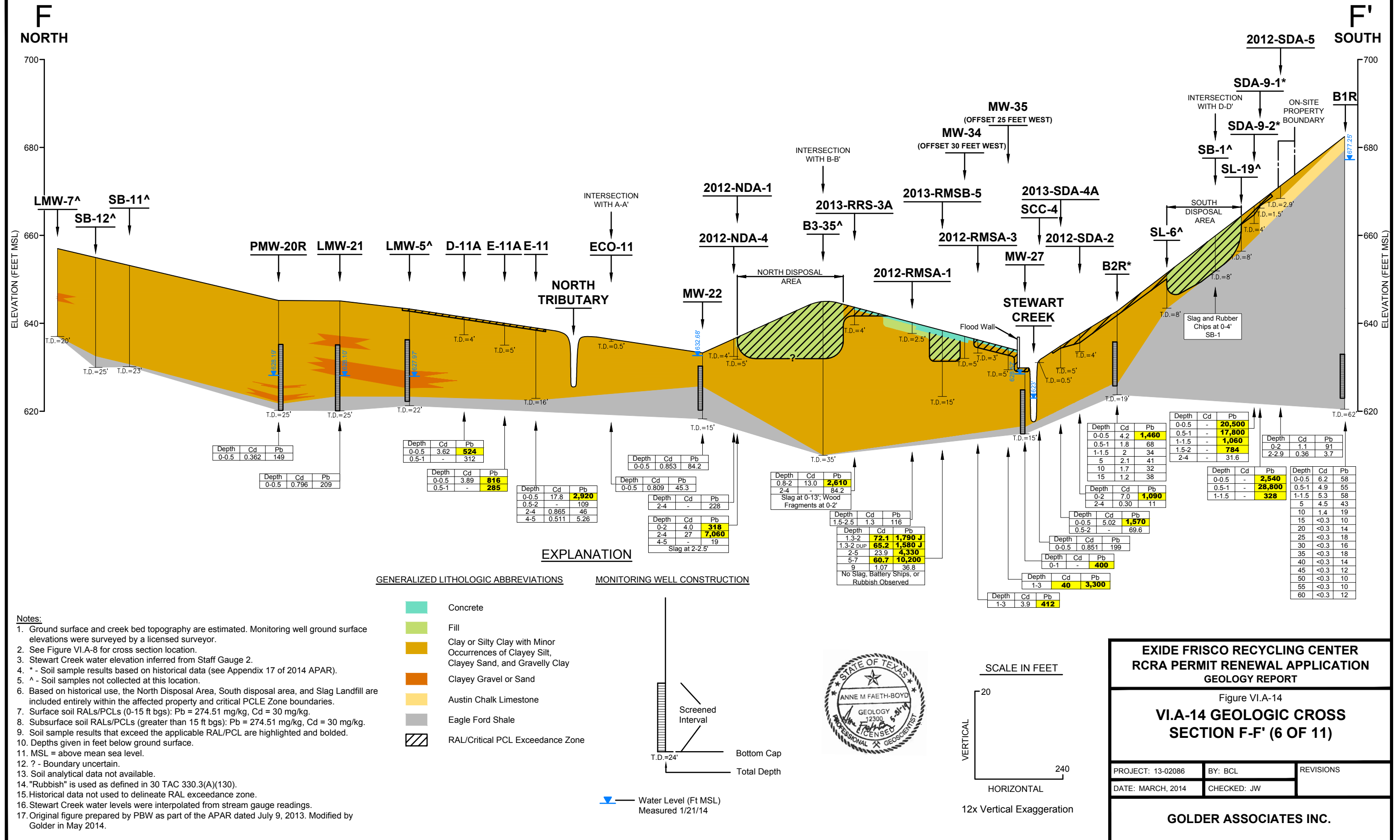
BY: BCL

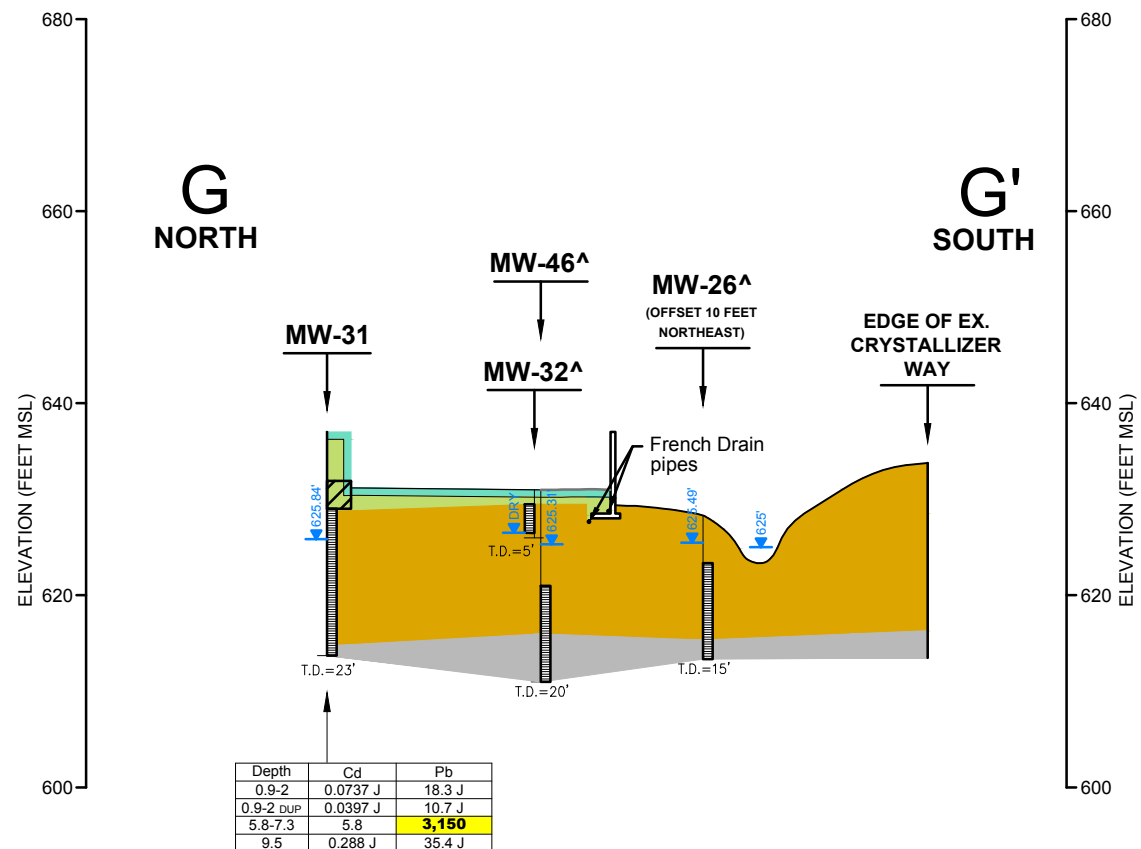
REVISIONS

DATE: MARCH, 2014

CHECKED: JW

GOLDER ASSOCIATES INC.



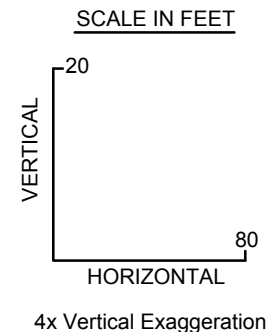
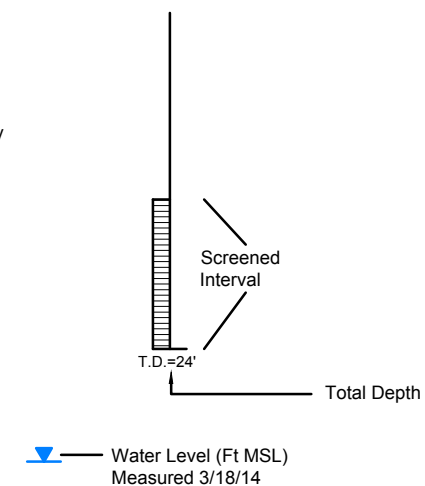


EXPLANATION

GENERALIZED LITHOLOGIC ABBREVIATIONS

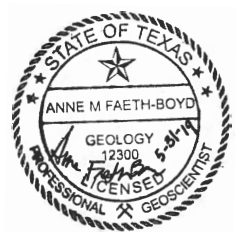
	Concrete
	Fill
	Clay or Silty Clay with Minor Occurrences of Silt and Gravelly Clay (Gravel Suspended in Clay Matrix)
	Gravel or Sand (Typically Clayey)
	Austin Chalk Limestone
	Eagle Ford Shale
	RAL/Critical PCL Exceedance Zone

MONITORING WELL CONSTRUCTION



Notes:

- Ground surface and creek bed topography are estimated. Monitoring well ground surface elevations were surveyed by a licensed surveyor.
- See Figure VI.A-8 for cross section locations.
- Ground surface elevations and creek bed topography are estimated. Monitoring well elevations were surveyed by a professional surveyor.
- ^ - Soil samples not collected at this location.
- Surface soil RALs/PCLs (0-15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
- Subsurface soil RALs/PCLs (greater than 15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
- Soil sample results that exceed the applicable RAL/PCL are highlighted and bolded.
- Depths given in feet below ground surface.
- Surface water elevations in Stewart Creek inferred from staff gauge elevations measured 1/21/2014. The staff gauge was observed to be damaged from from flooding prior to the 3/18/2014 site visit.
- Approximately 0.4 feet of water was observed in the end cap of MW-32. However, water was not observed within the screened interval of the well.
- MSL - Above mean sea level.
- NS - Not selected for use.
- Stewart Creek water levels were interpolated from stream gauge readings.



EXIDE FRISCO RECYCLING CENTER RCRA PERMIT RENEWAL APPLICATION GEOLOGY REPORT

Figure VI.A-15

VI.A-15 GEOLOGIC CROSS SECTION G-G' (7 OF 11)

PROJECT: 13-02086

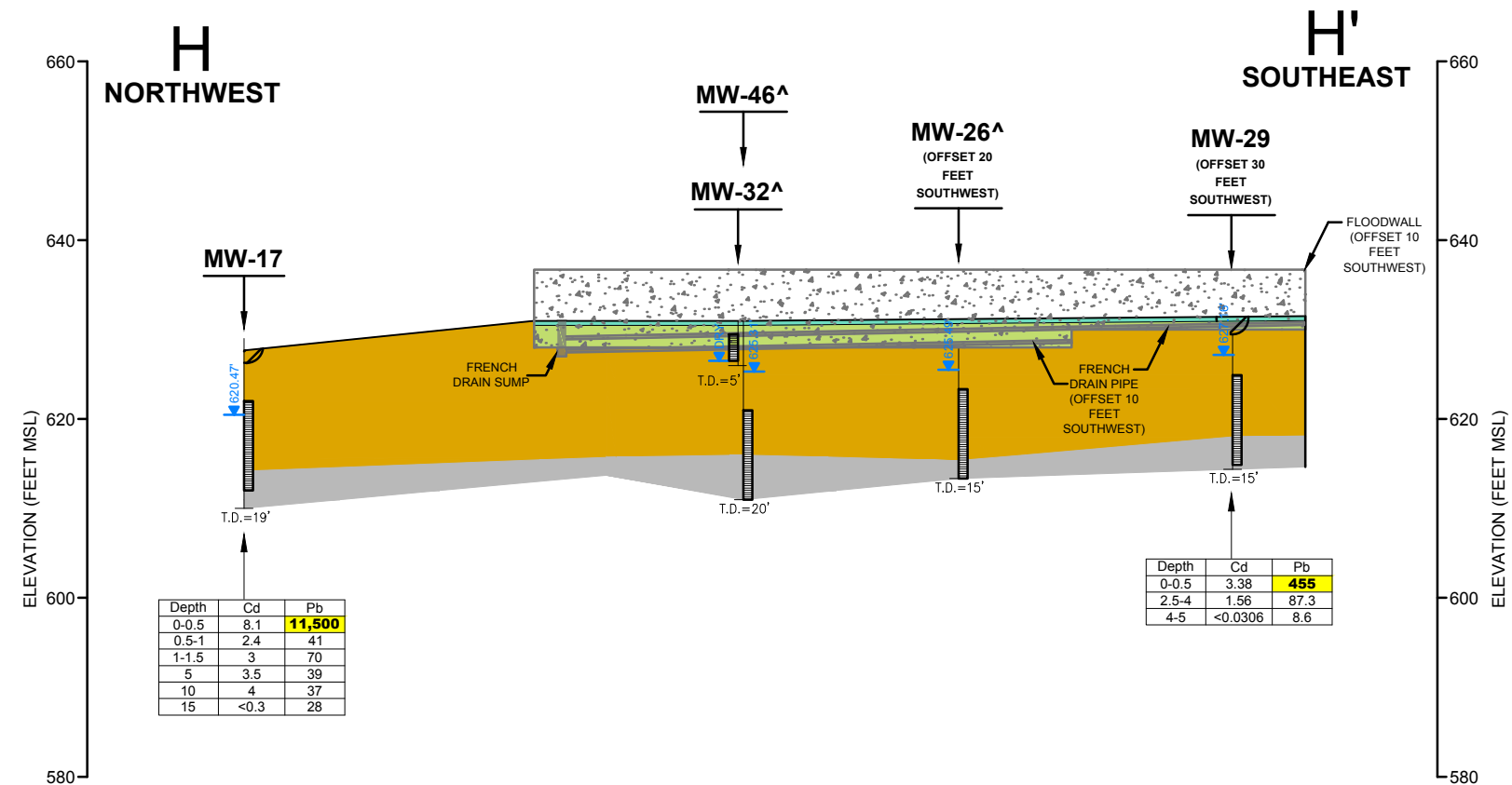
BY: BCL

REVISIONS

DATE: MARCH, 2014

CHECKED: JW

GOLDER ASSOCIATES INC.



EXPLANATION

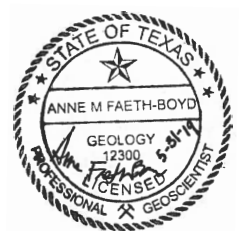
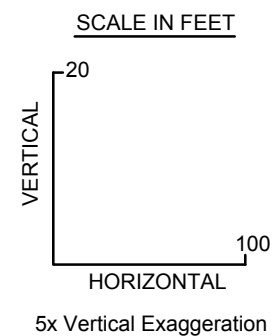
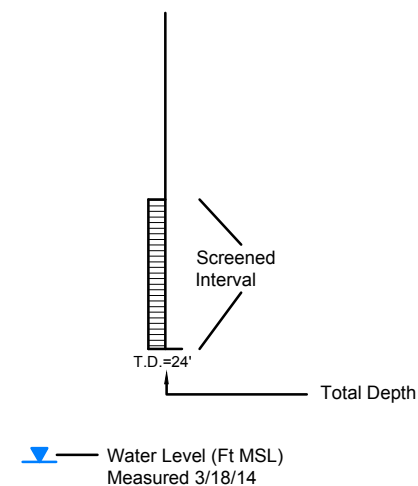
Notes:

- Ground surface and creek bed topography are estimated. Monitoring well ground surface elevations were surveyed by a licensed surveyor.
- See Figure VI.A-8 for cross section locations.
- Ground surface elevations and creek bed topography are estimated. Monitoring well elevations were surveyed by a professional surveyor.
- ^ - Soil samples not collected at this location.
- Surface soil RALs/PCLs (0-15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
- Subsurface soil RALs/PCLs (greater than 15 ft bgs): Pb = 274.51 mg/kg, Cd = 30 mg/kg.
- Soil sample results that exceed the applicable RAL/PCL are highlighted and bolded.
- Depths given in feet below ground surface.
- Surface water elevations in Stewart Creek inferred from staff gauge elevations measured 1/21/2014. The staff gauge was observed to be damaged from from flooding prior to the 3/18/2014 site visit.
- Approximately 0.4 feet of water was observed in the end cap of MW-32. However, water was not observed within the screened interval of the well.
- MSL - Above mean sea level.
- NS - Not selected for use.
- Stewart Creek water levels were interpolated from stream gauge readings.
- Fill depth along floodwall based on as-built drawings in the Wall Seepage Project Construction Report by W&M Environmental Group, Inc., dated May 10, 2013.

GENERALIZED LITHOLOGIC ABBREVIATIONS

	Concrete
	Fill
	Clay or Silty Clay with Minor Occurrences of Silt and Gravelly Clay (Gravel Suspended in Clay Matrix)
	Gravel or Sand (Typically Clayey)
	Austin Chalk Limestone
	Eagle Ford Shale
	RAL/Critical PCL Exceedance Zone

MONITORING WELL CONSTRUCTION



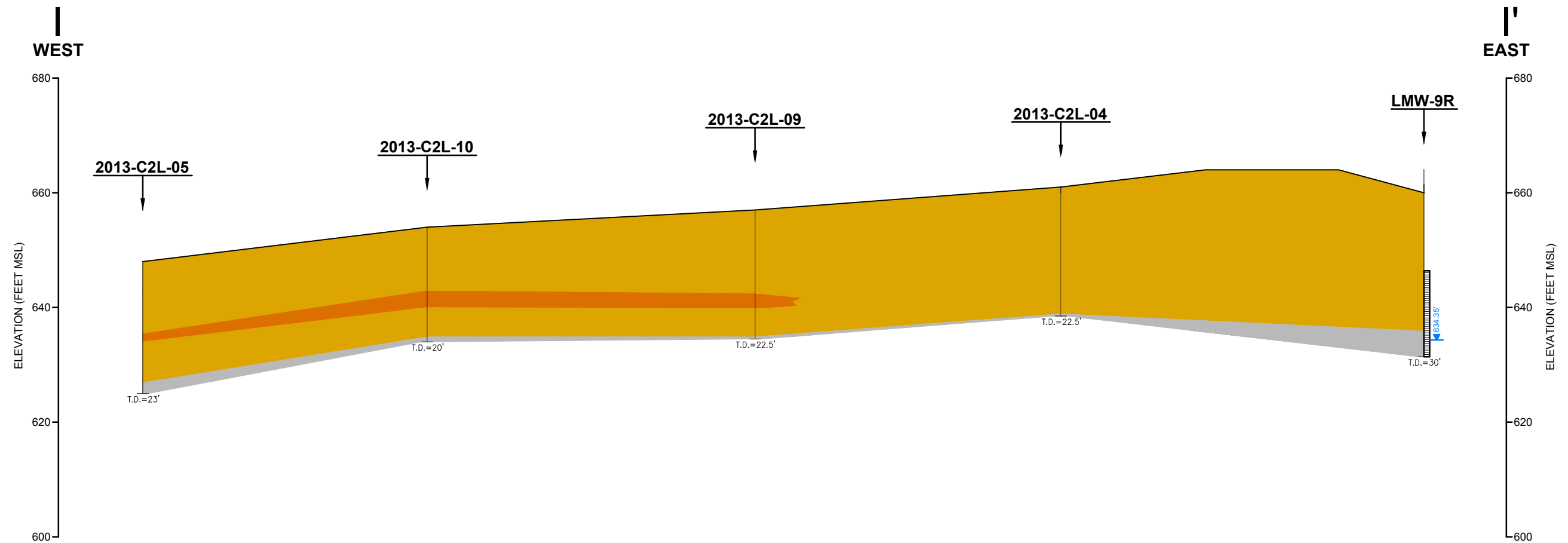
EXIDE FRISCO RECYCLING CENTER RCRA PERMIT RENEWAL APPLICATION GEOLOGY REPORT

Figure VI.A-16

VI.A-16 GEOLOGIC CROSS SECTION H-H' (8 OF 11)

PROJECT: 13-02086	BY: BCL	REVISIONS
DATE: MARCH, 2014	CHECKED: JW	

GOLDER ASSOCIATES INC.

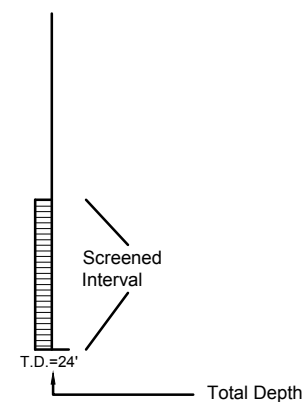


EXPLANATION

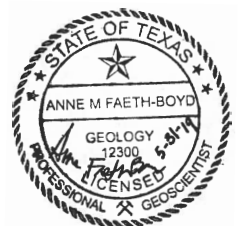
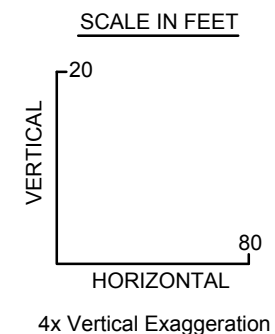
GENERALIZED LITHOLOGIC ABBREVIATIONS

- Clay or Silty Clay with Minor Occurrences of Silt and Gravelly Clay (Gravel Suspended in Clay Matrix)
- Gravel or Sand (Typically Clayey)
- Eagle Ford Shale

MONITORING WELL CONSTRUCTION



Water Level (Ft MSL)
Measured 6/7/2016



Notes:

1. Ground surface and creek bed topography are estimated. Monitoring well ground surface elevations were surveyed by a licensed surveyor.
2. See Figure VI.A-8 for cross section location.
3. Depths given in feet below ground surface.
4. MSL = above mean sea level.

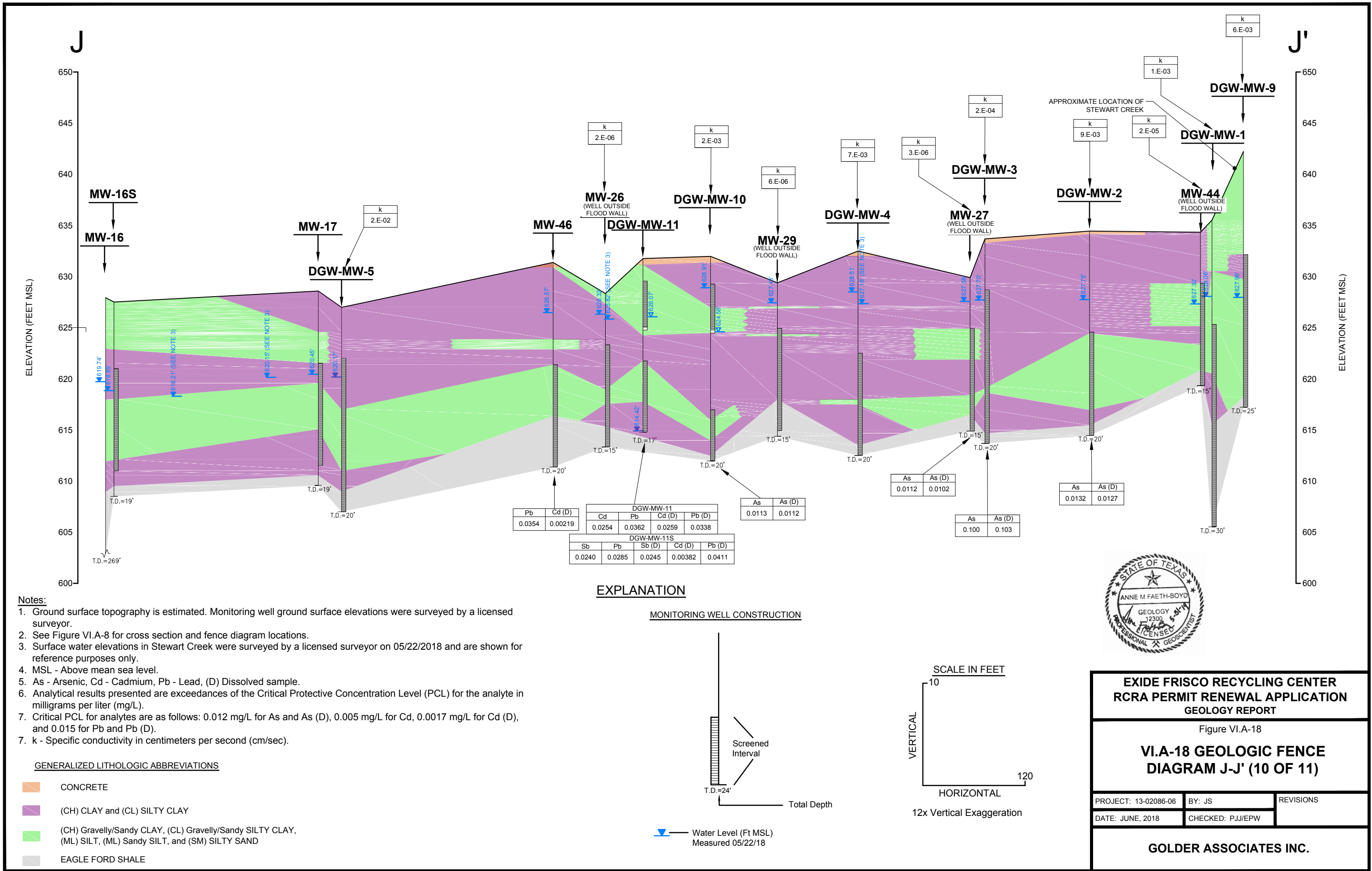
EXIDE FRISCO RECYCLING CENTER RCRA PERMIT RENEWAL APPLICATION GEOLOGY REPORT

Figure VI.A-17

VI.A-17 GEOLOGIC CROSS SECTION I-I' (9 OF 11)

PROJECT: 13-02086	BY: JCW	REVISIONS
DATE: SEPT., 2016	CHECKED: EPW	

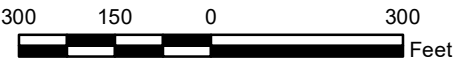
GOLDER ASSOCIATES INC.





LEGEND

- North CAMU Detection Monitoring Well
- North CAMU Detection/Corrective Action Monitoring Well
- North CAMU Corrective Action Monitoring Well
- SDA Detection Monitoring Well
- FOP Corrective Action Monitoring Well
- Existing Wells to be Decommissioned
- Piezometer Location
- Sump Reactor Monitoring Point
- Surface Water Centerline
- Disposal Area
- Remediation Consolidation Area
- Approximate North CAMU Extent
- Approximate RCRA Permitted Boundary



REFERENCE

- SITE FEATURES - GOLDER, 2014
- AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY AND SITE AERIAL IMAGERY PROVIDED BY DALLAS AERIAL SURVEY DATED APRIL, 2017
- * - PROPOSED NEW MONITORING WELL/PIEZOMETER LOCATION, NOT YET INSTALLED.

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EXIDE TECHNOLOGIES

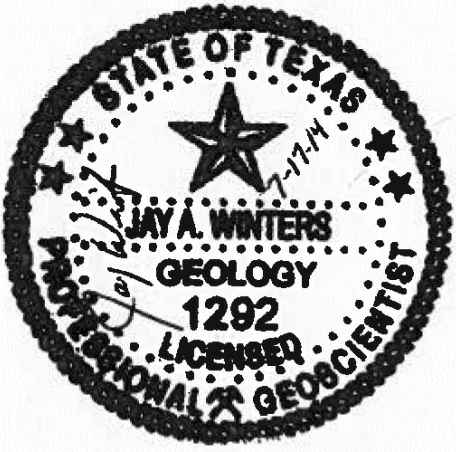
PROJECT
RCRA PERMIT RENEWAL

TITLE
GROUNDWATER MONITORING NETWORK

CONSULTANT	YYYY-MM-DD	2019-05-28
	PREPARED	EFT
	DESIGN	BEF
	REVIEW	EPW
	APPROVED	AMF

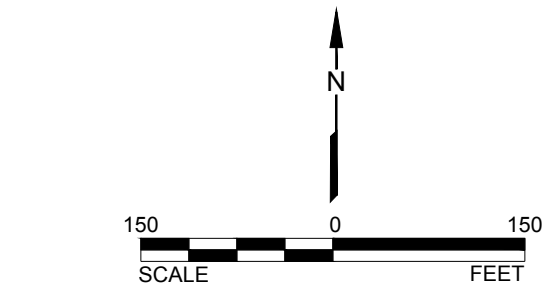
PROJECT No. 13-0208606 CONTROL 1302086ZF033.mxd Rev. 0

FIGURE VI.B-1



- LEGEND**
- Well Location
 - Approximate Boundary of the Former Operating Plant
 - Undeveloped Buffer Property
 - 645 — Groundwater Contour Interval (Dashed Where Inferred)
 - Staff Gauge
 - Water Table Elevations Measured 01/21/2014 (Ft MSL)
 - Estimated Groundwater Flow Direction

- NOTES**
- Monitoring Wells MW-32, 33, 34, 35, and 36 are perched wells and not included in the contouring.
 - VCP-MW-12 and VCP-MW-13 are not included in the contouring.
 - Staff Gauge No. 1 damaged during storm event. No measurement collected.
 - Basemap by PBW as part of the APAR dated July 9, 2013.
 - All buildings, except for the Wastewater Treatment Plant, and operational areas at the Site have been demolished or removed.



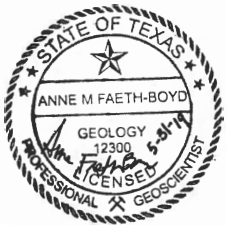
Source of photo: Imagery from NCTCOG, 2009 photography.

FORMER OPERATING PLANT FRISCO RECYCLING CENTER FRISCO, TEXAS		
FIGURE VI.B-2 GROUNDWATER POTENTIOMETRIC SURFACE MAP (JANUARY 21, 2014)		
PROJECT: 13-02086	BY: BCL	REVISIONS
DATE: MARCH, 2014	CHECKED: BEF	
GOLDER ASSOCIATES, INC.		



LEGEND

- Monitoring Well Location and Groundwater Elevation (In Feet above MSL)
- Groundwater Potentiometric Surface Contour
- Approximate Extent of Disposal Area
- Approximate Boundary of Former Operating Plant

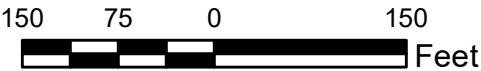


NOTES

- GROUNDWATER ELEVATIONS MEASURED DECEMBER 4, 2018.
- MSL = MEAN SEA LEVEL
- CONTOUR INTERVAL = 5 FEET
- LMW-9 COLLAPSED AND WAS REPLACED WITH LMW-9R IN MARCH 2016 AND LMW-9 WAS SUBSEQUENTLY ABANDONED IN MAY 2017.
- CAMU – CORRECTIVE ACTION MANAGEMENT UNIT

REFERENCE

1.) AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEX, GETMAPPING, AEROGRIID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY
SITE AERIAL IMAGERY - PROVIDED BY DALLAS AERIAL SURVEY, DATED APRIL, 2017.



CLIENT
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FRISCO, TX

PROJECT
RCRA PERMIT RENEWAL

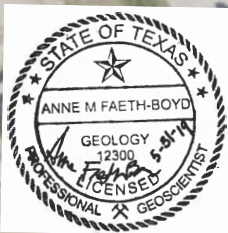
TITLE
**POTENTIOMETRIC SURFACE MAP
DECEMBER 2018**

CONSULTANT	YYYY-MM-DD	01/09/2019
	PREPARED	CDS
	DESIGN	EPW
	REVIEW	EPW
	APPROVED	AMF



PROJECT No. 130208606 CONTROL 1302086L026.mxd Rev. 0

FIGURE
VI.B-3



REFERENCE

1. AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEX, GETMAPPING, AEROGRIID, IGN, IGP, SWISSTOPO, AND THE GIS USER



- Background Well
- Observation Well
- APOE Well
- Attenuation Monitoring Point
- Abandoned Well
- APOE Well/POC
- Creek Centerline
- Corrective Action Management Unit
- Approximate RCRA Permitted Boundary
- Groundwater Protective Concentration Level Exceedance (PCLE) Zone (Metals)

Permit Number: HW-50206
Solid Waste Registration Number: 30516
NOR Unit Number: 012
Unit Description: North Corrective Action Management Unit

NOTES

1. APOE - ALTERNATE POINT OF EXPOSURE
2. BGS - BELOW GROUND SURFACE
3. AAL - ATTENUATION ACTION LEVEL
4. POC - POINT OF COMPLIANCE

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
**NORTH CAMU GROUNDWATER PCLE ZONE MAP
(GROUNDWATER PLUME MAP)**

CONSULTANT	YYYY-MM-DD	2019-05-28
	PREPARED	EPW
	DESIGN	EPW
	REVIEW	BEF
	APPROVED	AMF

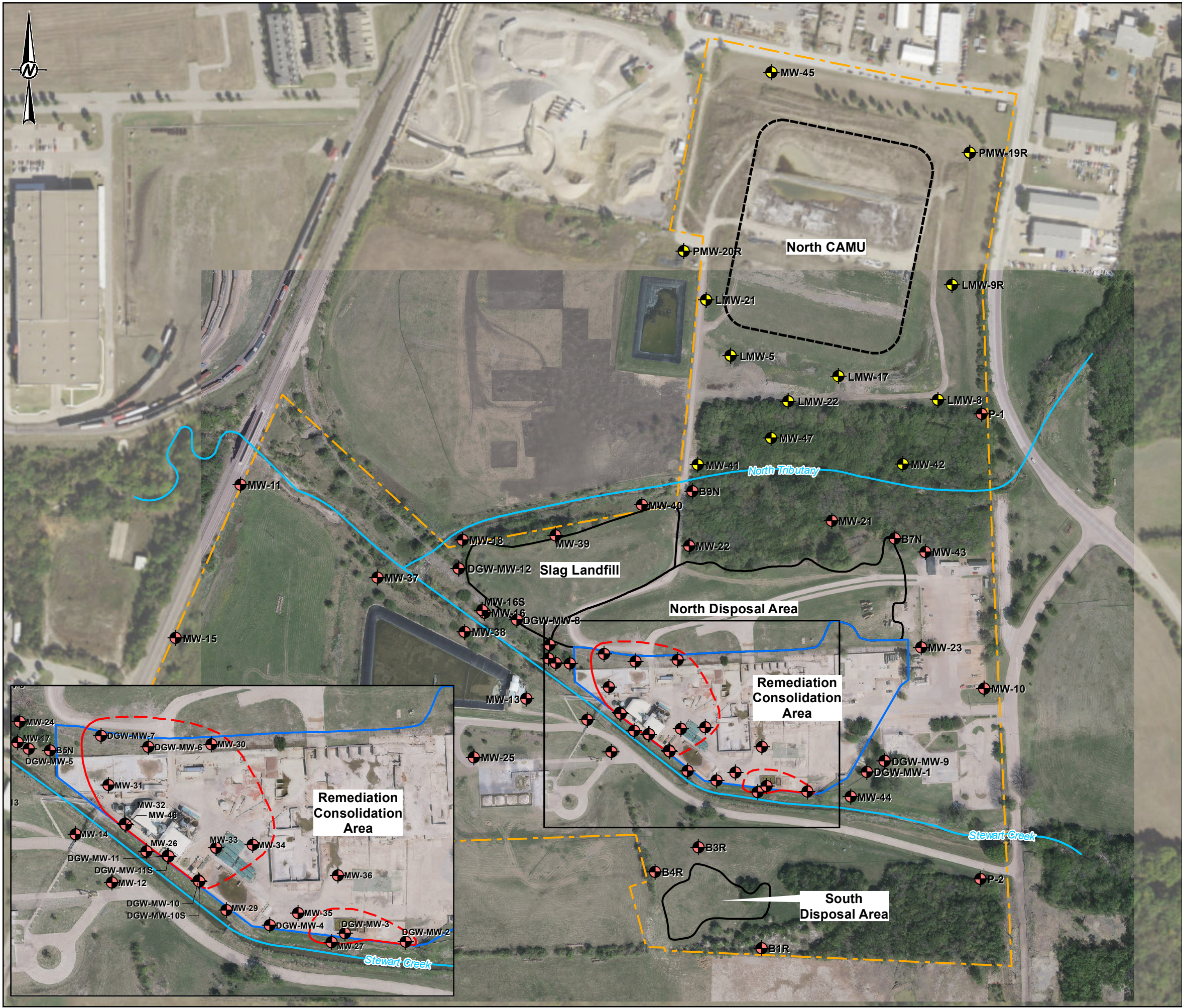


PROJECT No. 13-02086-06
CONTROL 1302086ZF036.mxd

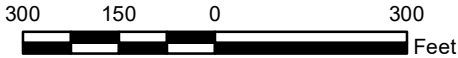
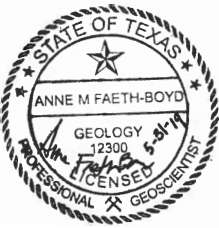
Rev. 0

FIGURE
VI.B-4

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/A



- LEGEND**
- North CAMU Monitoring Well
 - FOP Monitoring Well
 - Surface Water Centerline
 - Groundwater Protective Concentration Level Exceedance (PCLE) Zone (Metals)
 - Disposal Area
 - Remediation Consolidation Area
 - Approximate North CAMU Extent
 - Approximate RCRA Permitted Boundary



- REFERENCE**
- SITE FEATURES - GOLDER, 2014
 - AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY AND AERIAL IMAGERY PROVIDED BY DALLAS AERIAL SURVEY DATED APRIL, 2017

CLIENT
EXIDE TECHNOLOGIES

PROJECT
GEOLOGY REPORT

TITLE
FOP GROUNDWATER PCLE ZONE MAP (GROUNDWATER PLUME MAP)

CONSULTANT	YYYY-MM-DD	2019-05-28
	PREPARED	EFT
	DESIGN	BEF
	REVIEW	EPW
	APPROVED	AMF



PROJECT No. 13-0208606	CONTROL 1302086ZF040.mxd	Rev. 0	FIGURE VI.B-5
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Path: G:\Projects\130 Projects\130 208606 - Exide Filco RCRA Permit Mod\000 - FIGURES\DRAWINGS\PRODUCTION\GIS from JAX\2F - RCRA Permit\map documents\1302086ZF040.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B

ATTACHMENT A
STRATIGRAPHIC UNITS AND THEIR WATER-BEARING PROPERTIES

Table 1.—Stratigraphic Units and Their Water-bearing Properties
Yield, in gallons per minute (gal/min): small, less than 100 gal/min; moderate, 100–1,000 gal/min; large, more than 1,000 gal/min.

Era	System	Series	Group	Stratigraphic units	Approximate maximum thickness (feet)	Character of rocks	Water-bearing characteristics
Cenozoic	Quaternary	Recent		Alluvium	75	Sand, silt, clay and gravel.	Yields small to large amounts of water to wells along the Red River
		Pleistocene		Fluviatile terrace deposits			
	Tertiary	Eocene	Wilcox		100	Fine to medium sand with silt and clay	Yields small quantities of water to wells in the eastern part of the area.
		Paleocene	Midway		150	Gray, calcareous clay, in part silty to sandy	Do.
Mesozoic	Cretaceous	Gulf	Navarro	Kemp Clay Corsicana Marl	300	Fossiliferous clay and hard limy marl	Not known to yield water to wells in the area.
				Nacatoch Sand	500	Fine sand and marl, fossiliferous	Yields small to moderate quantities of water near the outcrop.
			Taylor	Marlbrook Marl Pecan Gap Chalk Wolfe City - Ozan Formations	1,500	Clay, marl, mudstone, and chalk	Yields small quantities of water to shallow wells.
			Austin	Gober Chalk Brownstown Marl Blossom Sand Bonham Formation	700	Chalk, limestone, and marl; fine to medium sand, fossiliferous	Yields small to moderate quantities of water to wells in the northeastern part of the area; very limited as an aquifer.
			Eagle Ford		650	Shale with thin beds of sandstone and limestone	Yields small quantities of water to shallow wells.
			Woodbine		700	Medium to coarse iron sand, sandstone, clay and some lignite	Yields moderate to large quantities of water to municipal, industrial and irrigation wells.
		Comanche	Washita	Grayson Marl - Mainstreet Limestone Pawpaw Formation - Weno Limestone - Denton Clay Fort Worth - Duck Creek Kiamichi Formation	1,000	Fossiliferous limestone, marl, and clay; some sand near top	Yields small quantities of water to shallow wells.
			Fredericksburg	Edwards Limestone Comanche Peak Formation	250	Limestone, clay, marl, shale, and shell agglomerates	Do.
				Walnut Formation			
			Trinity	Paluxy Formation	400	Fine sand, sandy shale, and shale	Yields small to moderate quantities of water to wells.
				Glen Rose Formation	1,500	Limestone, marl, shale, and anhydrite	Yields small quantities of water in localized areas.
				Twin Mountains Formation	1,000	Fine to coarse sand, shale, clay, and basal gravel and conglomerate	Yields moderate to large quantities of water to wells.
Paleozoic				Paleozoic rocks undifferentiated		Sandstone, limestone, shale and conglomerate	Yields small quantities of water in the western part of the area.

**ATTACHMENT B
BORING LOGS**



LOG OF 2014-AD-03A

DRILLING METHOD: Direct Push

NORTHING: 7,101,762 FT

DATE/TIME: 04/04/2014, 1215

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,926 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 636 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.0 4.0	2-4 (1244)	ML		0-0.5 FT, Concrete
							0.5-2.0 FT, (ML) CLAYEY SILT; dark brown/black; dry, firm.
							2.0-4.0 FT, (CH) CLAY; dark brown/black; dry, firm.
	2		4.0 4.0	4-6 (1245) 6-8 (1246)	CL		4.0-6.0 FT, (CL) SILTY CLAY; dark brown/black; dry, firm. 6.0 FT, moist.
10							End of borehole at 8 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Administrative Area

REVIEWED BY: JW



LOG OF 2014-AD-06

DRILLING METHOD: Direct Push

NORTHING: 7,101,642 FT

DATE/TIME: 04/04/2014, 1300

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,942 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 636 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.0 4.0	0.5-1 (1309)	CL		0-0.5 FT, Concrete
				1-2.5 (1310)	CL		0.5-1.0 FT, (CL) SILTY CLAY, trace gravel; dark brown/black; dry, soft to firm.
				2.5-4 (1311)	CL		1.0-4.0 FT, (CL) SILTY CLAY; dark brown/black; dry, soft to firm.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Administrative Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-AD-1	
Frisco Recycling Center Frisco, TX				Completion Date:	3/14/2013
				Driller:	Dan Spaust
PBW Project No. 1755				Driller's License:	3038
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	4" Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101895.7037
				Easting:	2480807.5725
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0		0 - 0.5	FILL	(0 - 5.0) FILL, dark grayish brown, moist, soft to slightly firm, low plasticity, concrete fragment at 1.5', moderately organic clay at 0-0.6' with abundant root fragments, very fine clayey sand with Fe staining 0.6-2.9', silty clay with trace limestone granules from 2.9-4', wet clayey sand with Fe staining at 4-5'.	
1		0.5 - 2			
2	4/4				
3		2 - 4			
4	1/1				
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF 2013-AD-1A

DATE/TIME: 01/09/2014, 1345

DRILLING METHOD: Direct Push

NORTHING: 7,101,873 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,792 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-0.5 (1342)	ML		0-0.5 FT, (ML) CLAYEY SILT; brown; dry, soft.
				0.5-2.0 (1343)	CL		0.5-2.0 FT, (CL) SILTY CLAY; brown; moist, soft.
				2.0-2.5 (1343)	SM		2.0-2.5 FT, (SM) SILTY SAND; gray/brown; moist, compact.
				2.5-3.0 (1343)	CL/SC		2.5-3.0 FT, (CL/SC) sandy SILTY CLAY; brown; dry, firm.
				3.0-4.0 (1344)	ML		3.0-4.0 FT, (ML) SANDY SILT; brown, friable; dry, soft.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Admin Bldg

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-AD-2	
Frisco Recycling Center Frisco, TX				Completion Date:	4/29/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	4' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101914.0818
				Easting:	2480989.7962
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	3.5/4	0.5 - 2	FILL	(0 - 4.0) FILL, sandy to silty clay, sandy clay from 0-3', silty clay from 3-4', brown, very dark gray from 3-4', common limestone granules, trace limestone pebbles, trace root/plant material.	
1					
2					
3	1/1	2 - 4	FILL		
4					
5		4 - 5		(4.0 - 5.0) FILL, clayey sand, gray, wet, no cementation, soft, abundant pebble and granule sized gravel.	
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-AD-2A	
Frisco Recycling Center Frisco, TX				Completion Date:	3/27/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Tim Jennings, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	6
				Northing:	7101930.698
				Easting:	2481017.163
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (w/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.5) CONCRETE SLAB	
1		0.5 - 2	CH	(0.5 - 1.7) Silty CLAY, grayish brown, trace fine gravel, moist, no cementation, soft, high plasticity.	
2	5/5			(1.7 - 5.5) Silty CLAY, light brownish-orange, few carbonate nodules (fine-very fine), moist, wet below 5.3', firm to soft, medium plasticity.	
3		2 - 4			
4		4 - 5	CL		
5	0.5/1				
6					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF 2013-AD-3

DATE/TIME: 01/09/2014, 1300

DRILLING METHOD: Direct Push

NORTHING: 7,101,762 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,927 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0.0-0.5 (1310)			0-0.5 FT, Concrete
					CL		0.5-1.0 FT, (CL) SILTY CLAY; black/dark gray; dry, stiff.
					CH		1.0-1.5 FT, (CH) CLAY; brown; dry, firm.
				0.5-2.0 (1312)			1.5-4.0 FT, (CL) CLAY, trace gravel; black/dark gray; dry, firm.
				2.0-4.0 (1313)	CL		
10							End of borehole at 4 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Admin Bldg

REVIEWED BY: JW

LOG OF 2013-AD-4

DRILLING METHOD: Direct Push

NORTHING: 7,101,685 FT

DATE/TIME: 01/09/2014, 1330






DRILLER: SCI, Margarito Estrada

EASTING: 2,480,811 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0.0-0.5 (1326)	ML		0-0.25 FT, TOPSOIL, (ML) SILT; brown, organics; dry.
				ML		0.25-0.5 FT, (ML) SANDY SILT; light brown; dry, soft.	
				CH		0.5-1.0 FT, (CL) CLAY; black; dry, very stiff.	
				CH		1.0-1.5 FT, (CL) CLAY; light brown/gray; dry, stiff.	
				CL		1.5-4.0 FT, (CL) SILTY CLAY, some fine gravel; black/dark gray, friable, trace calcareous nodules; dry, hard.	
10							End of borehole at 4 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Admin Bldg

REVIEWED BY: JW



LOG OF 2013-AD-5

DRILLING METHOD: Direct Push

NORTHING: 7,101,826 FT

DATE/TIME: 01/09/2014, 1415

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,595 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	3.8 4.0	0.0-0.5 (1412)	CL		0-2.0 FT, (CL) SILTY CLAY; dark brown, orange mottling; dry, firm.
				0.5-2.0 (1413)			
				2.0-4.0 (1414)	CL		2.0-4.0 FT, (CL) SILTY CLAY, trace fine gravel; black, friable, trace calcareous nodules; dry, hard.
10							
15							
							End of borehole at 4 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Admin Bldg

REVIEWED BY: JW



LOG OF B3RA

DATE/TIME: 03/31/2014, 1615

DRILLING METHOD: Direct Push

NORTHING: 7,101,497 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,989 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 653 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.3 5.0	0.0-0.5 (1614)	CL		0.0-2.5 FT, (CL) CLAY, some silt, trace gravel; dark brown and black; dry, firm-stiff.
				0.5-2.0 (1615)			
				2.0-4.0 (1616)	CH		2.5-4.0 FT, (CH) CLAY; brown; dry, soft-firm.
							4.0-5.0 FT, Not Logged.
10							
15							
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: West of South Disposal Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-B4R-A			
Frisco Recycling Center Frisco, TX				Completion Date: 4/29/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
				Driller's License: 58164		Total Depth (ft): 5	
PBW Project No. 1755				Field Supervisor: Will Vienne, P.G.		Northing: 7101414.5525	
				Logged By: Will Vienne, P.G.		Easting: 2479942.58	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	3.6/4	0 - 0.5	CL	(0 - 5.0) Silty CLAY, brownish gray, slightly sandy at 4.0-5.0', some fissile fragments near base, dry, common Fe staining, no to moderate cementation, some cementation at 4.4-4.5', low plasticity.			
1		0.5 - 2					
2		2 - 4					
3	1/1	4 - 5					
4							
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies			Log of Boring: 2013-BB-1	
Frisco Recycling Center Frisco, TX			Completion Date:	5/21/2013
			Driller:	Dan Spaust
PBW Project No. 1755			Driller's License:	3038
			Field Supervisor:	Tim Jennings, P.G.
			Logged By:	Tim Jennings, P.G.
			Sampling Method:	4' Lined Tube
			Drilling Method:	DPT
			Borehole Diameter (in.):	2
			Total Depth (ft):	8
			Northing:	7102006.534
			Easting:	2480117.377
			Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description
0	3.1/4		CON	(0 - 0.9) CONCRETE SLAB
1			FILL	(0.9 - 1.3) FILL, sand and gravel road base.
2		0.9 - 2		(1.3 - 3.1) Clayey SILT, silty CLAY, dark grayish brown, ~20% medium sand from 1.3-1.6', wet, very soft, high plasticity.
3		2 - 3	CH/MH	
4	1.4/4		NR	(3.1 - 4.0) No recovery.
5		4 - 5	CH	(4.0 - 5.4) Silty CLAY, light gray to black, wet, soft to firm, high plasticity.
6				(5.4 - 8.0) No recovery.
7			NR	
8				
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.	


Exide Technologies				Log of Boring: 2012-BG-1			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7098992.01
				Logged By:	Christopher Moore, P.G.	Easting:	2476012.67
				Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) CLAY, CH, light brown, moist, soft to firm, medium to high plasticity, no staining or foreign material observed, no odor.			
1	0.9/2.0	0-2	CH				
2							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

[illegible]

Exide Technologies				Log of Boring: 2012-BG-3			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7099093.22
				Logged By:	Christopher Moore, P.G.	Easting:	2475820.22
				Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, dark brown, moist, soft to firm, medium plasticity, trace roots, no staining or foreign material observed, no odor.			
1	1.5/2.0	0-2	CL				
2							
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BG-4			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7099222.60
				Logged By:	Christopher Moore, P.G.	Easting:	2475950.23
				Sampling Method:	Hand Auger	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, grayish brown, moist, soft to firm, medium plasticity, trace roots, no staining or foreign material observed, no odor.			
1	2.0/2.0	0-2	CL				
2							
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BG-5			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7099109.89
				Logged By:	Christopher Moore, P.G.	Easting:	2475620.3
				Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, grayish brown, moist, soft to firm, medium plasticity, trace sand, trace roots, no staining or foreign material observed, no odor.			
1	1.4/2.0	0-2	CL				
2							
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BG-6			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7099308.28
				Logged By:	Christopher Moore, P.G.	Easting:	2475765.83
				Sampling Method:	Hand Auger	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, grayish brown, moist, soft to firm, medium plasticity, trace roots, no staining or foreign material observed, no odor.			
1	2.0/2.0	0-2	CL				
2							
<div style="text-align: center;">  </div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

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Exide Technologies				Log of Boring: 2012-BG-8			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
				Driller:	NA	Total Depth (ft):	2
PBW Project No. 1755				Driller's License:	NA	Northing:	7099468.68
				Logged By:	Christopher Moore, P.G.	Easting:	2475553.85
				Sampling Method:	Hand Auger	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, grayish brown, moist, soft to firm, medium plasticity, trace roots, no staining or foreign material observed, no odor.			
1	2.0/2.0	0-2	CL				
2							
				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BG-9			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7099228.98
				Logged By:	Christopher Moore, P.G.	Easting:	2474750.45
				Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, dark grayish brown, moist, soft to firm, medium plasticity, trace limestone gravel, trace roots, some dark red oxidized staining, no foreign material observed, no odor.			
1	1.6/2.0	0-2	CL				
2							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BG-10			
Frisco Recycling Center Frisco, TX				Completion Date:	3/29/2012	Drilling Method:	Hand Sampler
				Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	NA	Total Depth (ft):	2
				Driller's License:	NA	Northing:	7099466.86
				Logged By:	Christopher Moore, P.G.	Easting:	2474833.08
				Sampling Method:	Hand Auger	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, grayish brown, moist, soft to firm, medium plasticity, trace roots, no staining or foreign material observed, no odor.			
1	2.0/2.0	0-2	CL				
2							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole backfilled with cuttings upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-BS2-1	
Frisco Recycling Center Frisco, TX				Completion Date:	4/29/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	4" Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101512.9229
				Easting:	2480177.639
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CL	(0 - 5.0) Silty CLAY, common limestone granules and calcareous precipitates, brownish gray, trace mottled Fe staining, dry, soft to firm, low to medium plasticity.	
1		0.5 - 2			
2	3.7/4				
3		2 - 4			
4	1/1	4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: BS-3	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
				Driller's License:	58164
PBW Project No. 1755				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101491.1574
				Easting:	2480214.5135
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5		CL	(0 - 5.0) CLAY/silty CLAY, dark brownish gray, roots and clay with abundant limestone and shale pebbles at 0-0.6', soft clay with abundant limestone clay granules at 0.6-3.3', firm silty clay at 3.3-5', slightly moist, soft to firm, low to medium plasticity.	
1		1 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-BS5-1			
Frisco Recycling Center Frisco, TX				Completion Date: 4/29/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Will Vienne, P.G.		Northing: 7101471.5118	
				Logged By: Will Vienne, P.G.		Easting: 2480114.1188	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0			CL	(0 - 5.0) Sandy, silty CLAY, brownish gray, trace yellow precipitate below 2.9', moderate to abundant Fe staining, moist, soft, low plasticity.			
1		0.5 - 2					
2	4/4						
3		2 - 4					
4							
5	1/1	4 - 5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BSA-1			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	2
				Driller's License:	52694	Northing:	7102274.07
				Logged By:	Christopher Moore, P.G.	Easting:	2480624.4
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 2.0) SILTY CLAY, CL, mottled black and brown, moist, soft to firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed, no odor.			
1	2.0/2.0	0-2	CL				
2							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Boring location hand probed to 3 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BSA-2	
Frisco Recycling Center Frisco, TX				Completion Date:	4/29/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	4" Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102274.2792
				Easting:	2480735.1448
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (in/ft)	Sample Interval	USCS	Lithologic Description	
0			CL	(0 - 5.0) CLAY and Silty CLAY, very dark gray, trace orange Fe mottling, trace limestone pebbles, moderately abundant limestone granules, dry to slightly moist, firm, low to medium plasticity.	
1					
2	4/4				
3		2 - 4			
4	1/1	4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF 2013-BSA-2A

DRILLING METHOD: Direct Push

NORTHING: 7,102,283 FT

DATE/TIME: 01/09/2014, 1245



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,731 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-2.0 (1250)	ML/SM		0-1.5 FT, FILL (ML/SM) GRAVELLY SILT and SAND; brown/gray; dry.
					CL/CH		1.5-4.0 FT, (CL/CH) SILTY CLAY and CLAY; dark gray; dry, very stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Bale Stabilization Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2012-BSA-3	
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012
				Drilling Method:	Geoprobe
PBW Project No. 1755				Drilling Company:	StrataCore
				Borehole Diameter (in.):	2.25
				Driller:	Mario Robles
				Total Depth (ft):	2
				Driller's License:	52694
				Northing:	7102224.29
				Logged By:	Christopher Moore, P.G.
				Easting:	2480672.30
				Sampling Method:	2"x 4' Barrel
				Ground Elev. (ft AMSL):	-
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description	
0				(0 - 2.0) CLAY, CL/CH, very dark brown, moist, firm, medium to high plasticity, some sand size carbonate nodules, gravel fill on surface, no staining observed, no odor.	
1	2.0/2.0	0-2	CL/CH		
2					
<p>PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>					
<p>Notes: Boring location hand probed to 3 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.</p>					

Exide Technologies				Log of Boring: 2012-BSA-4			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	2
				Driller's License:	52694	Northing:	7102173.2055
				Logged By:	Christopher Moore, P.G.	Easting:	2480638.61
				Sampling Method:	2"x 4" Barrel	Ground Elev. (ft AMSL):	-
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description			
0			CL	(0 - 0.5) SILTY CLAY, CL, brownish yellow, moist, soft, medium plasticity, trace gravel, no staining or foreign material observed, no odor.			
1	2.0/2.0	0-2	CL/CH	(0.5 - 2.0) CLAY, CL/CH, very dark brown, moist, firm, medium to high plasticity, some sand size carbonate nodules, no staining observed, no odor. 1.7: black plastic fragment (1" x 1", 1/8" thick).			
2							
				Notes: Boring location hand probed to 3 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-BSA-5			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	2
				Driller's License:	52894	Northing:	7102185.32
				Logged By:	Christopher Moore, P.G.	Easting:	2480739.17
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description			
0	2.0/2.0	0-2	CL	(0 - 0.7) SILTY CLAY, CL, mottled very dark grayish brown and brown, moist, soft-firm, medium plasticity, some sand size carbonate nodules, gravel fill on surface, no staining observed, no odor.			
1			CL/CH	(0.7 - 2.0) CLAY, CLCH, dark gray, moist, firm, medium to high plasticity, trace sand size carbonate nodules, no staining or foreign material observed, no odor.			
2							
<p>PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>							
<p>Notes: Boring location hand probed to 3 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.</p>							

Exide Technologies				Log of Boring: 2013-BSA-6	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102200.9899
				Easting:	2480652.3935
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0				(0 - 0.3) FILL, sand w/gravel, light reddish brown, unconsolidated, dry, hard.	
1		0 - 2		(0.3 - 5.0) FILL, silty clay, trace gravel, reddish brown, plastic bag fragment and mulch @ 4.9',	
2				moist, firm, low plasticity.	
3	5/5		FILL		
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-BSA-7	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Drilling Method:	DPT
PBW Project No. 1755				Driller:	Margarito Estrada
				Borehole Diameter (in.):	2
				Driller's License:	58164
				Total Depth (ft):	5
				Field Supervisor:	Tim Jennings, P.G.
				Northing:	7102250.9587
				Logged By:	Roberta Russell
				Easting:	2480715.8882
				Sampling Method:	5' Lined Tube
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 2	FILL	(0 - 1.3) FILL, surficial fill not associated with NDA, clay with sand and gravel, ~30-40% medium gravel and sand, no foreign objects (e.g. slag, battery chips or trash) observed, light reddish brown, dry, firm, low plasticity.	
1				(1.3 - 5.0) Silty CLAY, dark reddish brown, trace calcareous nodules from 4.5-5', moist, firm, low plasticity.	
2		CL			
3					
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-BSB-1			
Frisco Recycling Center Frisco, TX				Completion Date: 4/11/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 12	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102047.0799	
				Logged By: Roberta Russell		Easting: 2479711.821	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0			CON	(0 - 0.9) CONCRETE SLAB			
1		0.9 - 2		(0.9 - 6.3) FILL, clayey sand, reddish yellow, increasing clay content with depth, with trace black, very fine gravel, moist, soft, low plasticity.			
2	3.4/4						
3		2 - 4					
4		4 - 5					
5			FILL				
6	4/4						
7		6.3 - 7.7		(6.3 - 9.3) FILL, silty clay, dark reddish brown, trace slag (<0.1") from 6.3-7.7', gravel lens at 9.2-9.3', moist, firm, low plasticity.			
8							
9		8 - 10					
10	4/4						
11			CL	(9.3 - 12.0) Silty CLAY, dark reddish brown, trace red mottling, trace calcareous nodules, moist, wet at 11.6', firm, low plasticity.			
12		11.6					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-BSB-2			
Frisco Recycling Center Frisco, TX				Completion Date:	4/11/2013	Drilling Method:	DPT
				Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755				Driller's License:	58164	Total Depth (ft):	12
				Field Supervisor:	Tim Jennings, P.G.	Northing:	7102035.3349
				Logged By:	Roberta Russell	Easting:	2479770.635
				Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0			CON	(0 - 0.9) CONCRETE SLAB			
1		0.9 - 2		(0.9 - 5.4) FILL, clayey sand, reddish yellow, trace black staining from 4.0-5.4', greater clay content with depth, with trace black, well-rounded, very fine gravel from 0.9-1.1', moist, soft.			
2	3.4/4						
3		2 - 4					
4		4 - 5					
5			FILL				
6	4/4			(5.4 - 8.9) FILL, silty clay, dark reddish brown, trace slag fragments (<0.1") from 5.7-6.6', large battery chip (~1.5") at 6.4', gravel lens at 7.2-7.4' (~40% fine-medium gravel in silty clay matrix), moist, soft, low plasticity.			
7							
8							
9		8 - 10		(8.9 - 12.0) Silty CLAY, dark reddish brown, moist, wet at 11.2', soft to firm, low plasticity.			
10	4/4		CL				
11		11.2					
12							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-BSB-3			
Frisco Recycling Center Frisco, TX				Completion Date: 4/10/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 12	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102029.7369	
				Logged By: Roberta Russell		Easting: 2479797.551	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0			CON	(0 - 0.9) CONCRETE SLAB			
1		0.9 - 2		(0.9 - 4.0) FILL, silty, clayey sand, reddish yellow, with a black, well-rounded and hard coarse pebble at 2.6' (likely Fe nodule), moist, soft to firm.			
2	4/4						
3		2 - 4					
4		4 - 5	FILL	(4.0 - 5.0) FILL, sandy clay, reddish yellow, moist, soft, low plasticity.			
5				(5.0 - 7.1) FILL, silty clay, dark reddish brown, silty gravel lens from 7-7.1' (~50% medium to coarse gravel), moist, soft to firm, low plasticity.			
6	4/4						
7				(7.1 - 12.0) Silty CLAY, dark reddish brown, moist, wet at 11.0', firm, low plasticity.			
8							
9		8 - 10	CL				
10	4/4						
11		11					
12							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-BSB-4	
Frisco Recycling Center Frisco, TX				Completion Date:	4/10/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	4' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	12
				Northing:	7102020.0503
				Easting:	2479814.7476
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2	FILL	(0.9 - 4.8) FILL, silty, clayey sand, reddish yellow, moist, soft.	
2	3.1/4				
3		2 - 4			
4		4 - 5			
5				(4.8 - 7.2) FILL, silty clay, dark reddish brown, gravel lens (~70% fine to medium gravel) from 7.0-7.2'; moist, soft to firm, low plasticity.	
6	4/4				
7				(7.2 - 12.0) Silty CLAY, dark reddish brown, moist, wet at 11.0', firm, low plasticity.	
8					
9		8 - 10	CL		
10	4/4				
11		11			
12					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies		Log of Boring: 2013-BSB-5			
Frisco Recycling Center Frisco, TX		Completion Date: 4/11/2013		Drilling Method:	DPT
		Driller: Margarito Estrada		Borehole Diameter (in.):	2
PBW Project No. 1755		Driller's License: 58164		Total Depth (ft):	12
		Field Supervisor: Tim Jennings, P.G.		Northing:	7102021.0899
		Logged By: Roberta Russell		Easting:	2479781.149
		Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2		(0.9 - 5.6) FILL, clayey sand, reddish yellow, trace black staining, moist, soft, increasing clay content with depth.	
2	3.1/4				
3		2 - 4			
4					
5		4 - 5	FILL		
6	4/4			(5.6 - 8.6) FILL, silty clay, dark reddish brown, trace slag fragments from 5.6-8', trace coarse gravel lens from 7.6-7.7'.	
7					
8					
9		8 - 10		(8.6 - 12.0) Silty CLAY, dark reddish brown, moist, wet at 11.2', firm, low plasticity.	
10	4/4		CL		
11		11.2			
12					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.		

Exide Technologies				Log of Boring: 2013-BSB-6	
Frisco Recycling Center Frisco, TX				Completion Date:	4/11/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	4" Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	12
				Northing:	7102030.9419
				Easting:	2479850.401
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2	FILL	(0.9 - 5.7) FILL, clayey sand, reddish yellow, moist, soft to firm, low plasticity.	
2	2.5/4				
3		2 - 4			
4		4 - 5			
5					
6	4/4			(5.7 - 9.3) FILL, silty clay, dark reddish brown, gravel lens (~40% medium to coarse gravel in silty clay matrix) with abundant slag (~30% fine gravel-sized) at 7.2-7.3', slag fragment (<0.2") at 8.7', moist, firm, low plasticity.	
7					
8					
9		8 - 10			
10	4/4			(9.3 - 12.0) Silty CLAY, dark reddish brown, trace calcareous precipitates, moist, wet at 11.1', soft to firm, low plasticity.	
11		11.1	CL		
12					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies			Log of Boring: 2013-BSB-7			
Frisco Recycling Center Frisco, TX			Completion Date:	4/10/2013	Drilling Method:	DPT
			Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755			Driller's License:	58164	Total Depth (ft):	12
			Field Supervisor:	Tim Jennings, P.G.	Northing:	7102020.6659
			Logged By:	Roberta Russell	Easting:	2479830.487
			Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	—
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description		
0			CON	(0 - 0.9) CONCRETE SLAB		
1		0.9 - 2	FILL	(0.9 - 5.3) FILL, clayey sand/sandy clay, reddish yellow, ~10% black and red well-rounded very fine gravel, moderate black staining, moist, soft to firm, low plasticity.		
2	3.4/4					
3		2 - 4				
4		4 - 5				
5			CL	(5.3 - 9.1) FILL, silty clay, dark reddish brown with moderate yellowish brown staining, gravel lens from 7.0-7.1', slag fragments with some black metallic and trace red oxidized material at 7.1', moist, firm, low plasticity.		
6	4/4					
7						
8						
9		8 - 10	CL	(9.1 - 12.0) Silty CLAY, dark reddish brown, trace calcareous precipitates, moist, wet at 11.0', soft to firm, low plasticity.		
10	4/4					
11		11				
12						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-BSB-8	
Frisco Recycling Center Frisco, TX			Completion Date: 4/10/2013		Drilling Method: DPT
			Driller: Margarito Estrada	Borehole Diameter (in.): 2	
PBW Project No. 1755			Driller's License: 58164		Total Depth (ft): 12
			Field Supervisor: Tim Jennings, P.G.	Northing: 7102044.5099	
			Logged By: Roberta Russell		Easting: 2479811.731
			Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2	FILL	(0.9 - 3.5) FILL, silty sand, reddish yellow, moist, unconsolidated.	
2	3.5/4				
3		2 - 4			
4				(3.5 - 5.9) FILL, silty, sandy clay, reddish brown, moist, soft, low plasticity.	
5		4 - 5			
6	2.5/4			(5.9 - 9.5) FILL, silty clay, dark reddish brown, slag fragments at 8.0 and 9.3', moist, soft, low plasticity.	
7					
8					
9		8 - 10			
10	3.5/4			(9.5 - 12.0) Silty CLAY, dark reddish brown, moist, wet at 11.0', firm, low plasticity.	
11		11	CL		
12					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.		



LOG OF 2013-BSB-8A

DRILLING METHOD: Direct Push

NORTHING: 7,102,056 FT

DATE/TIME: 01/13/2014, 0930

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,815 FT

TOTAL DEPTH: 20.75 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0-0.75 FT, Concrete
	1		3.5 4.0		ML		0.75-2.75 FT, FILL, (ML) SANDY SILT, some gravel; light brown; moist, soft.
					CL/SC		2.75-5.5 FT, (CL/SC) sandy SILTY CLAY; light brown; dry, soft-firm.
5	2		4.0 4.0		CL		5.5-7.5 FT, (CL) SILTY CLAY, trace fine gravel; brown/gray; moist, soft.
					CH		7.5-9.0 FT, (CL) CLAY; black; dry, very stiff.
10	3	NA	4.0 4.0	8-10 (0950)	ML/SM		9.0-9.5 FT, (ML/SM) sandy CLAYEY SILT; light brown/black; moist, soft.
					CH		9.5-13.0 FT, (CL) CLAY; black; slightly moist, soft-firm.
					ML/SM		13.0-13.5 FT, (ML/SM) sandy CLAYEY SILT; light brown/black; damp, soft.
15	4		3.8 4.0		CH		13.5-15.5 FT, (CL) CLAY; black; damp-wet, very soft.
					CH		15.5-16.75 FT, (CL) CLAY, some gravel at 16 FT; black; dry, firm.
	5		4.0 4.0		CH		16.75-19.75 FT, (CL) CLAY, some gravel at 19 FT; black; wet, very soft.
					GC/ML		

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Battery/Receiving Storage

REVIEWED BY: JW



LOG OF 2013-BSB-8A

DRILLING METHOD: Direct Push

NORTHING: 7,102,056 FT

DATE/TIME: 01/13/2014, 0930


DRILLER: SCI, Margarito Estrada

EASTING: 2,479,815 FT

TOTAL DEPTH: 20.75 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
					GC/ML		19.75-20.75 FT, (GC/ML) CLAYEY GRAVEL and SILT; brown; wet, dense. (Continued)
							End of borehole at 20.75 FT BGS
25							
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Battery/Receiving Storage

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-BSB-9			
Frisco Recycling Center Frisco, TX				Completion Date: 4/10/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 20	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102065.3359	
				Logged By: Roberta Russell		Easting: 2479812.374	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4/4	0.9 - 2	CON	(0 - 0.9) CONCRETE SLAB			
1			FILL	(0.9 - 3.3) FILL, silty sand, reddish yellow, very moist (possibly from concrete corer), soft.			
2							
3	4 - 5	(3.3 - 6.0) FILL, sandy clay, reddish yellow, gravelly clay lens at 6.0', moist, soft, low plasticity.					
4							
5		3/4	(6.0 - 8.1) FILL, silty clay, dark reddish brown, moderate orange staining, moist, soft, low plasticity.				
6							
7	8 - 10		(8.1 - 9.2) FILL, sandy clay, reddish brown, moist, soft, low plasticity.				
8							
9		4/4	(9.2 - 16.6) Silty CLAY, dark reddish brown, moist, wet at 11.0', firm, low plasticity.				
10							
11	CL						
12							
13		4/4					
14							
15	11						
16							
17		CL	(16.6 - 17.8) Clayey GRAVEL, ~60% medium gravel, light reddish brown, wet, soft.				
18	(17.8 - 18.4) Silty CLAY, light reddish brown, wet, firm, low plasticity.						
19	(18.4 - 18.9) Calcareous CLAY, light reddish brown with orange staining, wet, firm, low plasticity.						
20	4/4	CL	(18.9 - 19.8) Clayey GRAVEL, ~ 70% medium to coarse gravel, light reddish brown, wet, soft.				
19			(19.8 - 20.0) Calcareous CLAY, light reddish brown with orange staining, wet, firm, low plasticity.				
18							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-BSB-10	
Frisco Recycling Center Frisco, TX				Completion Date:	4/11/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	4' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	12
				Northing:	7102049.9659
				Easting:	2479884.153
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2		(0.9 - 4.9) FILL, clayey sand, reddish yellow, moist, soft to firm, low plasticity, greater clay content with depth; with black, well-rounded, coarse pebble at 4.0'.	
2	3.5/4				
3		2 - 4			
4		4 - 5			
5			FILL	(4.9 - 10.4) FILL, silty clay, dark reddish brown, moist, soft to firm, low plasticity, ~10% slag (fine to medium gravel-sized) from 5.5-7.9', gravelly clay lens (~20% medium to coarse gravel in silty clay matrix) from 6.6-6.7'.	
6	3.6/4				
7					
8					
9		8 - 10			
10	4/4				
11		11.4	CL	(10.4 - 12.0) Silty CLAY, dark reddish brown, moist to wet, soft to firm, low plasticity, saturated at 11.4'.	
12					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies					Log of Boring: 2012-BY-1			
Frisco Recycling Center Frisco, TX					Completion Date:	1/4/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	2
					Driller's License:	52694	Northing:	7102377.15
					Logged By:	Christopher Moore, P.G.	Easting:	2479500.79
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CL	(0 - 0.9) SILTY CLAY, CL, light yellowish brown, moist, firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed, no odor.			
1	2.0/2.0	0	0-2		(0.9 - 2.0) SILTY CLAY, CL, grayish brown, moist, firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed, no odor.			
2								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 3.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-BY-2			
Frisco Recycling Center Frisco, TX					Completion Date:	1/4/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
					Driller:	Mario Robles	Total Depth (ft):	2
PBW Project No. 1755					Driller's License:	52694	Northing:	7102343.16
					Logged By:	Christopher Moore, P.G.	Easting:	2479613.26
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) SILTY CLAY, CL, mottled very dark gray and light yellowish brown, moist, firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed to 1.9, no odor. 1.9: black plastic fragment (approximately 0.5 in x 1 in x 1/8 in thick)			
1	2.0/2.0	0	0-2	CL				
2								
<div> <div>PBW</div> <div> Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> </div>					Notes: Boring location hand probed to 2.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-BY-3			
Frisco Recycling Center Frisco, TX					Completion Date:	1/4/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	2
					Driller's License:	52694	Northing:	7102238.79
					Logged By:	Christopher Moore, P.G.	Easting:	2479660.34
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) SILTY CLAY, CL, mottled very dark gray and light yellowish brown, moist, firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed to 1.9, no odor. 1.9: gravel size slag fragment (black and oxidized orange, hard, dense, porous)			
1	2.0/2.0	0	0-2	CL				
2								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 2.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-BY-4			
Frisco Recycling Center Frisco, TX					Completion Date:	1/4/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	2
					Driller's License:	52694	Northing:	7102230.77
					Logged By:	Christopher Moore, P.G.	Easting:	2479578.92
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	—
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) SILTY CLAY, CL, mottled very dark gray and light yellowish brown, moist, firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed to 1.9, no odor. 1.2: gravel. 1.7-1.9: gravel, 1.9: gravel size slag fragment (black and oxidized orange, hard, dense, porous)			
1	2.0/2.0	0	0-2	CL				
2								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 1.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

[illegible]

Exide Technologies				Log of Boring: 2012-BY-4	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	2
				Northing:	7102230.7699
				Easting:	2479578.9168
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0				(0 - 1.5) FILL, clayey silt, light yellowish brown, moist, hard, low plasticity.	
1	2/2		FILL		
2				(1.5 - 2.0) FILL, abundant slag, gravel with silt and clay, dry, firm.	
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF 2013-C2L-01

DRILLING METHOD: Direct Push

NORTHING: 7,103,855 FT

DATE/TIME: 01/14/2014, 1430




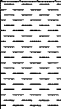
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,668 FT

TOTAL DEPTH: 15 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>5.0</u> 5.0	0.0-0.5 (1435)	CH		0-3.0 FT, (CH) CLAY; dark brown; dry, stiff.
				1-2 (1436)			
	2		<u>5.0</u> 5.0	4-5 (1437)	ML		3.0-4.5 FT, (ML) CLAYEY SILT; reddish brown, friable, platy; dry, hard.
				10-12 (1440)	CH		4.5-13.5 FT, (CH) CLAY; gray, reddish brown and yellow mottling, some friable clay; dry, hard.
							12-13 (1441)
15	3		<u>5.0</u> 5.0	13-15 (1442)			13.5-15 FT, SHALE; dark gray, reddish brown and yellow mottling; dry, hard.
							End of borehole at 15 FT BGS (REFUSAL)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-02

DRILLING METHOD: Direct Push

NORTHING: 7,103,459 FT

DATE/TIME: 01/14/2014, 1130

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,901 FT

TOTAL DEPTH: 18 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	5.0 5.0	0.0-0.5 (1138)	CL		0-1.0 FT, (CL) SILTY CLAY, trace fine gravel; brown; dry, firm-stiff.
				1-2 (1139)	CL		1.0-2.5 FT, (CL) SILTY CLAY; brown/black, layered; dry, firm.
				4-5 (1140)	CH		2.5-7.0 FT, (CH) CLAY; black; dry, stiff.
	2		5.0 5.0		CH		7.0-13.5 FT, (CH) CLAY; gray/reddish brown, yellowish mottling; dry, hard.
	3		5.0 5.0		CH		
10							
15					ML		13.5-14.0 FT, (ML) CLAYEY SILT, some sand; red, gray mottling; wet, soft-firm.
							14.0-18.0 FT, SHALE; dark gray, reddish brown and yellow mottling; hard.
	4		3.0 3.0				
							End of borehole at 18 FT BGS (REFUSAL)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW

LOG OF 2013-C2L-03

DRILLING METHOD: Direct Push

NORTHING: 7,103,191 FT

DATE/TIME: 01/09/14, 1130

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,793 FT

TOTAL DEPTH: 23.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

[illegible]

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-03

DRILLING METHOD: Direct Push

NORTHING: 7,103,191 FT

DATE/TIME: 01/09/14, 1130


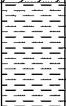
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,793 FT

TOTAL DEPTH: 23.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
25	5	NA	3.5 3.5		CH		18.0-22.0 FT, (CH) CLAY; gray, red and yellow mottling, friable; dry, stiff. (Continued) 20.0 FT, reddish mottling; hard.
							22.0-23.5 FT, SHALE; dark gray, reddish yellow mottling; hard, dry.
							End of borehole at 23.5 FT BGS (REFUSAL) Boring was completed to 20.0 FT BGS on 01/09/14 with track mounted Geoprobe rig. To reach total depth, a truck mounted Geoprobe was used to complete the boring to 23.5 FT BGS on 01/14/14.
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-04

DRILLING METHOD: Direct Push

NORTHING: 7,103,041 FT

DATE/TIME: 01/14/2014, 1015

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,728 FT

TOTAL DEPTH: 22.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS		
5	1	NA	5.0 5.0	0.0-0.5 (1024)	CH		0-0.5 FT, (CH) CLAY, trace fine gravel; black; dry, firm.		
					CL/GC		0.5-2.0 FT, (CL/GC) GRAVELLY CLAY; brown, black, reddish and white mottling; dry, firm.		
					CH		2.0-6.0 FT, (CH) CLAY; dark brown; dry, very stiff.		
							4.0 FT, some fine gravel		
	2		5.0 5.0	4-5 (1026)	CL/GC		6.0-8.0 FT, (CL/GC) GRAVELLY CLAY, some silt; light brown; dry, stiff. 6.25-6.5 FT, silty gravel; compact.		
					CH		8.0-10.0 FT, (CH) CLAY, trace fine gravel; brown; dry, very stiff.		
					3	5.0 5.0	CL/GC		10.0-19.0 FT, (CL/GC) GRAVELLY CLAY, some silt; brown, gray and reddish mottling, calcareous nodules; dry, stiff.
4	5.0 5.0		CH		19.0-22.0 FT, (CH) CLAY; gray, reddish brown mottling; dry, hard.				

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-04

DRILLING METHOD: Direct Push

NORTHING: 7,103,041 FT

DATE/TIME: 01/14/2014, 1015



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,728 FT

TOTAL DEPTH: 22.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	5	NA	2.5 2.5		CH		19.0-22.0 FT, (CH) CLAY; gray, reddish brown mottling; dry, hard. (Continued)
							22.0-22.5 FT, SHALE; dark gray, reddish brown mottling; dry, hard.
							End of borehole at 22.5 FT BGS (REFUSAL)
25							
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-05

DRILLING METHOD: Direct Push

NORTHING: 7,103,082 FT

DATE/TIME: 01/14/2014, 0815






DRILLER: SCI, Margarito Estrada

EASTING: 2,480,098 FT

TOTAL DEPTH: 23 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	NA	<u>5.0</u> 5.0	0.0-0.5 (0818)	CL		0-0.75 FT, (CL) SILTY CLAY; gray, yellowish mottling; dry, stiff.	
				1-2 (0819)			0.75-9.0 FT, (CH) CLAY; black, trace calcareous nodules; dry, stiff-very stiff.	
	2		<u>5.0</u> 5.0	4-5 (0820)	CH		5.0 FT, trace fine gravel. 6.0 FT, brown; dry, very stiff.	
10	3		<u>5.0</u> 5.0		CL/GC		9.0-10.0 FT, (CL/GC) GRAVELLY CLAY; gray and brown, black and white mottling; dry, hard.	
					CH		10.0-12.5 FT, (CH) CLAY, trace fine gravel; gray and brown, black and white mottling; dry, very stiff.	
					ML/GM		12.5-14.0 FT, (ML/GM) GRAVELLY SILT, some clay; light brown and tan; dry, soft-firm.	
15	4		<u>5.0</u> 5.0		CL/GC		14.0-15.0 FT, (CL/GC) GRAVELLY CLAY, and gravel at 14.75-15 FT; light brown and tan; dry, firm.	
					CL/GC		15.0-20.0 FT, (CL/GC) CLAY and GRAVEL; light brown and tan; dry, firm.	

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-05

DRILLING METHOD: Direct Push

NORTHING: 7,103,082 FT

DATE/TIME: 01/14/2014, 0815


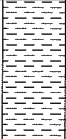
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,098 FT

TOTAL DEPTH: 23 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
					CL		20.0-21.0 FT, (CL) SILTY CLAY; brown and black; wet, soft.
	5	NA	<u>3.0</u> 3.0				21.0-23.0 FT, SHALE; dark gray, reddish yellow mottling; dry, hard.
							End of borehole at 23 FT BGS (REFUSAL)
25							
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-06

DRILLING METHOD: Direct Push

NORTHING: 7,103,315 FT

DATE/TIME: 01/14/2014, 1245







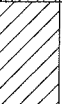
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,135 FT

TOTAL DEPTH: 24 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	NA	4.5 5.0	0.0-0.5 (1255)	CL		0-3.0 FT, (CL) CLAY, some silt, some gravel; brown; dry, firm-stiff.	
				1-2 (1256)				
	2		5.0 5.0	4-5 (1257)	CH		3.0-9.75 FT, (CH) CLAY; black; dry, very stiff.	
10	3		5.0 5.0		CL/GC		9.75-11.0 FT, (CL/GC) GRAVELLY CLAY; brown and gray, calcareous nodules; dry, hard.	
					CH		11.0-13.5 FT, (CH) CLAY, trace fine gravel; brown; dry, stiff.	
	4		5.0 5.0		ML		13.5-16.5 FT, (ML) CLAYEY SILT; brown; moist, soft.	
					ML/GM		16.5-16.8 FT, CALCITE; coarsely crystalline; white. 16.8-18.5 FT, (ML/GM) CLAYEY SILT and GRAVEL; brown; dry, stiff.	
15						CH		18.5-20.0 FT, (CH) CLAY; gray, reddish brown mottling; dry, hard.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-06

DRILLING METHOD: Direct Push

NORTHING: 7,103,315 FT

DATE/TIME: 01/14/2014, 1245

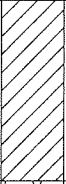



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,135 FT

TOTAL DEPTH: 24 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	5	NA	4.0 4.0		CH		20.0-22.5 FT, (CH) CLAY, some gravel; brown; very stiff.
					CH		22.5-22.75 FT, CALCITE; coarsely crystalline; white.
							22.75-23.0 FT, (CH) CLAY, some gravel; brown; very stiff.
							23.0-24.0 FT, SHALE; dark gray, reddish brown and yellow mottling; dry, hard.
25							End of borehole at 24 FT BGS (REFUSAL)
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2014-C2L-06A

DRILLING METHOD: Direct Push

NORTHING: 7,103,401 FT

DATE/TIME: 03/31/2014, 0845

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,137 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 650 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.8 5.0	0.0-0.5 (0847)	CL		0.0-1.5 FT, (CL) CLAY, some silt, trace gravel; brown, trace white calcareous nodules; dry, firm-stiff.
				0.5-2.0 (0848)			1.5-5.0 FT, (CH) CLAY; dark brown; dry, firm.
				2.0-4.0 (0849)	CH		
10							
15							
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2014-C2L-06B

DATE/TIME: 03/31/2014, 0900

DRILLING METHOD: Direct Push

NORTHING: 7,103,303 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,058 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 659 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.0 5.0	0.0-0.5 (0909)	GP/SP		0.0-2.0 FT, (GP/SP) GRAVELLY SAND; light brown and gray; dry, loose.
				0.5-2.0 (0910)			
				2.0-4.0 (0911)	CH		2.0-4.0 FT, (CH) CLAY; dark brown and black; dry, firm.
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2014-C2L-06C

DRILLING METHOD: Direct Push

NORTHING: 7,103,214 FT

DATE/TIME: 03/31/2014, 0930

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,124 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 650 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.5 5.0	0.0-0.5 (0930)	CL		0.0-3.0 FT, (CL) SILTY CLAY, some gravel; brown, reddish yellow mottling, trace white calcareous nodules, trace carbon nodules; dry, firm.
				0.5-2.0 (0931)			
				2.0-4.0 (0932)	CL		3.0-4.0 FT, (CL) CLAY, some silt and gravel; brown, reddish yellow mottling, trace white calcareous nodules, trace carbon nodules; dry, firm.
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-07

DRILLING METHOD: Direct Push

NORTHING: 7,103,532 FT

DATE/TIME: 01/14/2014, 1330

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,172 FT

TOTAL DEPTH: 18 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (1328)	CL		0-1.5 FT, (CL) CLAY, some silt, trace fine gravel; brown; dry, firm.
	1		5.0 5.0	1-2 (1329)			1.5-7.5 FT, (CH) CLAY; black; dry, stiff-very stiff.
5				4-5 (1330)	CH		
	2		5.0 5.0				7.5-17.5 FT, (CH) CLAY; gray, reddish brown and yellow mottling, interbedded friable layers; dry, hard.
10		NA					
	3		5.0 5.0		CH		
15							
	4		3.0 3.0				
							17.5-18.0 FT, SHALE; dark gray, reddish brown and yellow mottling; dry, hard.
							End of borehole at 18 FT BGS (REFUSAL)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-08

DRILLING METHOD: Direct Push

NORTHING: 7,103,900 FT

DATE/TIME: 01/14/2014, 1400


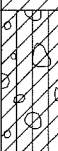



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,452 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	NA	<u>4.0</u> 5.0	0.0-0.5 (1405)	CH		0-1.0 FT, (CH) CLAY; brown; dry, firm-stiff.	
				1-2 (1406)	ML/GM		1.0-3.0 FT, (ML/GM) CLAYEY SILT and GRAVEL; light gray and brown; firm.	
				4-5 (1407)	CH		3.0-5.5 FT, (CH) CLAY; dark brown; dry, very stiff.	
	2		<u>4.0</u> 4.0	CH		5.5-19.0 FT, (CH) CLAY; gray, reddish brown and yellow mottling; dry, hard.		
						3	<u>3.0</u> 3.0	
4	<u>4.0</u> 4.0		15-17 (1416)			CH		19.0-20.0 FT, SHALE; dark gray, reddish brown and yellow mottling; dry, hard.
			17-18 (1417)					
5	<u>4.0</u> 4.0		18-20 (1418)					

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



**Golder
Associates**

LOG OF 2013-C2L-08

DRILLING METHOD: Direct Push

NORTHING: 7,103,900 FT

DATE/TIME: 01/14/2014, 1400

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,452 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							End of borehole at 20 FT BGS
25							
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-09

DRILLING METHOD: Direct Push

NORTHING: 7,103,008 FT

DATE/TIME: 01/14/2014, 0945



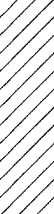


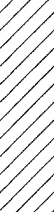
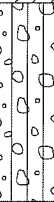


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,517 FT

TOTAL DEPTH: 22.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	NA	5.0 5.0	0.0-0.5 (0945)	CL		0-1.0 FT, (CL) CLAY, some gravel; brown; dry, firm-stiff.	
				1-2 (0946)	CH		1.0-7.5 FT, (CH) CLAY; dark brown; dry, very stiff-hard.	
	2		5.0 5.0	4-5 (0947)				
				CL/GC		7.5-8.0 FT, (CL/GC) CLAY and GRAVEL; light gray and brown, friable; dry, compact.		
	3		5.0 5.0	CL		8.0-11.5 FT, (CL) SILTY CLAY, some gravel; brown, white mottling; dry, very stiff.		
						11.25 FT, and gravel for 0.25 FT		
				CL		11.5-14.5 FT, (CL) CLAY, some silt; brown; dry, firm.		
						13.5 FT, and silty gravel for 0.25 FT		
	15		4	5.0 5.0	ML/GM		14.5-17.25 FT, (ML/GM) GRAVELLY SILT, some clay; light brown and tan; dry, soft-firm.	
					CL		17.25-19.5 FT, (CL) CLAY, trace gravel; brown and tan; dry, stiff.	
CH						19.5-22.0 FT, (CH) CLAY; gray, reddish brown mottling; dry, hard.		

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-09

DRILLING METHOD: Direct Push

NORTHING: 7,103,008 FT

DATE/TIME: 01/14/2014, 0945



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,517 FT

TOTAL DEPTH: 22.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	5	NA	2.5 2.5		CH		19.5-22.0 FT, (CH) CLAY; gray, reddish brown mottling; dry, hard. (Continued)
							22.0-22.5 FT, SHALE; dark gray, reddish brown mottling; dry, hard.
							End of borehole at 22.5 FT BGS (REFUSAL)
25							
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW

LOG OF 2013-C2L-10

DRILLING METHOD: Direct Push

NORTHING: 7,103,062 FT

DATE/TIME: 01/14/2014, 0900

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,295 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

[illegible]

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2013-C2L-10

DRILLING METHOD: Direct Push

NORTHING: 7,103,062 FT

DATE/TIME: 01/14/2014, 0900

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,295 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							End of borehole at 20 FT BGS (REFUSAL)
25							
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2014-C2L-CO1A

DATE/TIME: 04/04/2014, 1330

DRILLING METHOD: Hand Auger

NORTHING: 7,103,242 FT


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,193 FT

TOTAL DEPTH: 1 FT BGS

RIG: Hand Auger

SURFACE ELEVATION: 656 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	N/A	<u>1.0</u> 1.0	0-1 (1325)	CL		0-1.0 FT, (CL) SILTY CLAY, trace fine gravel; light brown/orange; dry, soft to firm.
							End of borehole at 1 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2014-C2L-CO1B

DRILLING METHOD: Hand Auger

NORTHING: 7,103,200 FT

DATE/TIME: 04/04/2014, 1345


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,225 FT

TOTAL DEPTH: 1 FT BGS

RIG: Hand Auger

SURFACE ELEVATION: 656 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	N/A	<u>1.0</u> 1.0	0-1 (1338)	CL		0-1.0 FT, (CL) SILTY CLAY, trace fine gravel; light brown/orange; dry, soft to firm.
							End of borehole at 1 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF 2014-C2L-CO1C

DATE/TIME: 04/04/2014, 1330

DRILLING METHOD: Hand Auger

NORTHING: 7,103,137 FT


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,206 FT

TOTAL DEPTH: 1 FT BGS

RIG: Hand Auger

SURFACE ELEVATION: 655 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	N/A	<u>1.0</u> 1.0	0-1 (1333)	CL		0-1.0 FT, (CL) SILTY CLAY, trace fine gravel; light brown/orange; dry, soft to firm.
							End of borehole at 1 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2012-CUFT-1			
Frisco Recycling Center Frisco, TX					Completion Date:	1/6/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	4
					Driller's License:	52894	Northing:	7101785.23
					Logged By:	Christopher Moore, P.G.	Easting:	2479393.50
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Soil pH	Sample Interval	USCS	Lithologic Description			
0				CL	(0 - 1.6) SILTY CLAY, CL, grayish brown, moist, soft, medium plasticity, no staining observed, no odor. 0-0.3: fine sand lenses, fill. 1.3: angular gravel fragment.			
1		6.5	0-2					
2	3.5/4.0				(1.6 - 4.0) SILTY CLAY, CL, very dark gray, moist, firm medium plasticity, some oxidized lenses, trace sand size carbonate nodules, no foreign material observed, no odor.			
3		6.82						
4								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-CUFT-2			
Frisco Recycling Center Frisco, TX					Completion Date:	1/6/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	4
					Driller's License:	52694	Northing:	7101782.80
					Logged By:	Christopher Moore, P.G.	Easting:	2479434.31
					Sampling Method:	2"x 4" Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Soil pH	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.1) SILTY CLAY, CL, yellowish brown and very dark gray, moist, soft to firm, medium plasticity, trace angular carbonate gravel (possible fill or reworked material), no staining observed, no odor			
1		6.38	0-2					
2	4.0/4.0			CL	(2.1 - 4.0) SILTY CLAY, CL, very dark gray, moist, firm medium plasticity, some oxidized lenses, trace sand size carbonate nodules, no foreign material observed, no odor.			
3		6.32						
4								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-CUFT-3	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101737.6536
				Easting:	2479344.9752
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description	
0	4.5/5	0 - 0.5	CL	(0 - 5.0) CLAY, dark brownish gray, abundant limestone pebbles in clay matrix at 0-0.6', trace limestone granules below 0.6', white precipitate like substance at surface, moist 0-0.6', soft to slightly firm, low to medium plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-CUFT-4			
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013	Drilling Method:	DPT
				Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755				Driller's License:	58164	Total Depth (ft):	5
				Field Supervisor:	Will Vienne, P.G.	Northing:	7101888.98
				Logged By:	Will Vienne, P.G.	Easting:	2479303.0138
				Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.6/5	0 - 0.5	CL	(0 - 5.0) CLAY, dark gray, trace limestone granules, moderately abundant decayed plant fragments, wet at 0-0.5', moist below 0.5', soft, low plasticity.			
1		0.5 - 2					
2							
3		2 - 4					
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-CUFT-5	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101906.1421
				Easting:	2479178.0231
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description	
0	4.7/5	0 - 0.5	CL	(0 - 5.0) Silty CLAY, v. dark gray, abundant limestone granules, moderately abundant decayed plant material, moist, soft to slightly firm, low plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF 2013-CUFT-5A

DRILLING METHOD: Direct Push

NORTHING: 7,101,932 FT

DATE/TIME: 01/10/2014, 0945



DRILLER: SCI, Margarito Estrada

EASTING: 2,479,179 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (0943)	ML/SM		0-0.3 FT, (ML/SM) GRAVELLY SILT and SAND; dry, compact.
	1	NA	4.0 4.0		CH		0.3-4.0 FT, (CH) CLAY; dark brown; dry, firm-stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-5B

DRILLING METHOD: Direct Push

NORTHING: 7,101,932 FT

DATE/TIME: 01/10/2014, 0945



DRILLER: SCI, Margarito Estrada

EASTING: 2,479,173 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0.0-0.5 (0940)	CL		0-1.0 FT, (CL) SILTY CLAY, some gravel; moist, firm.
					CH		1.0-4.0 FT, (CH) CLAY; dark brown and black; dry, firm.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW

LOG OF 2014-CUFT-5B-A

DRILLING METHOD: Direct Push

NORTHING: 7,101,909 FT

DATE/TIME: 04/04/2014, 1045



DRILLER: SCI, Margarito Estrada

EASTING: 2,479,204 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 628 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	<u>3.3</u> 4.0	0-0.5 (1054)	CL		0-1.0 FT, (CL) SILTY CLAY; dark brown/black; dry, soft to firm.
				0.5-2 (1055)	CH		1.0-4.0 FT, (CH) CLAY; dark brown/black; dry, soft to firm.
				2-4 (1056)			
10							End of borehole at 4 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-5C

DRILLING METHOD: Direct Push

NORTHING: 7,101,891 FT

DATE/TIME: 01/10/2014, 1045

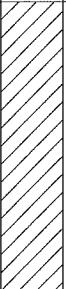
DRILLER: SCI, Margarito Estrada

EASTING: 2,479,181 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>4.0</u> 4.0	0.0-0.5 (1051)	CH		0-4.0 FT, (CH) CLAY; black; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-5D

DRILLING METHOD: Direct Push

NORTHING: 7,101,927 FT

DATE/TIME: 01/10/2014, 1000


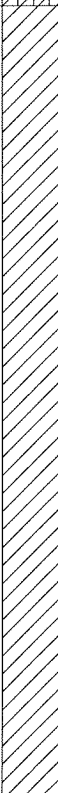
DRILLER: SCI, Margarito Estrada

EASTING: 2,479,186 FT

TOTAL DEPTH: 12 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	NA	<u>3.8</u> 4.0	0.0-0.5 (0952)	CL		0-1.0 FT, (CL) SILTY CLAY, trace gravel; brown; moist, soft.	
				2-4 (0953)	CH		1.0-12.0 FT, (CH) CLAY; dark brown; dry, firm.	
	2		<u>4.0</u> 4.0	4-6 (0954)			4.0 FT, stiff.	
				6-8 (0955)				
10	3		<u>4.0</u> 4.0	8-10 (0956)				
15								End of borehole at 12 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-CUFT-6	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Drilling Method:	DPT
PBW Project No. 1755				Driller:	Margarito Estrada
				Borehole Diameter (in.):	2
				Driller's License:	58164
				Total Depth (ft):	5
				Field Supervisor:	Will Vienne, P.G.
				Northing:	7101910.6793
				Logged By:	Will Vienne, P.G.
				Easting:	2479083.0433
				Sampling Method:	5' Lined Tube
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4.3/5	0 - 0.5	CL	(0 - 5.0) Silty CLAY, dark gray, trace limestone granules, moderately abundant decayed plant material, moist, soft, low to medium plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



SURFACE ELEVATION: N/A

REVIEWED BY: JW



LOG OF 2013-CUFT-6B

DRILLING METHOD: Direct Push

NORTHING: 7,101,895 FT

DATE/TIME: 01/10/2014, 1045

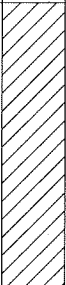
DRILLER: SCI, Margarito Estrada

EASTING: 2,479,080 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-0.5 (1041)	CH		0-4.0 FT, (CH) CLAY; black; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-6C

DRILLING METHOD: Direct Push

NORTHING: 7,101,934 FT

DATE/TIME: 01/10/2014, 1030

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,082 FT

TOTAL DEPTH: 12 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1		<u>2.3</u> 4.0	0.0-0.5 (1022)			0-12.0 FT, (CH) CLAY; dark brown and black; dry, soft.
				2-4 (1023)			
5	2	NA	<u>4.0</u> 4.0	4-6 (1024)	CH		6.0 FT, stiff.
				6-8 (1025)			8.0 FT, black.
10	3		<u>4.0</u> 4.0	8-10 (1026)			
							End of borehole at 12 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF


PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-CUFT-7			
Frisco Recycling Center Frisco, TX				Completion Date: 3/4/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Will Vienne, P.G.		Northing: 7101923.4133	
				Logged By: Will Vienne, P.G.		Easting: 2478975.0661	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	5/5	0 - 0.5	CL	(0 - 5.0) Silty CLAY, slightly sandy at 0-0.4', dark gray, slightly moist, soft at 0-1.8', firm below 1.8', low plasticity.			
1		0.5 - 2					
2							
3		2 - 4					
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies			Log of Boring: 2013-CUFT-7A			
Frisco Recycling Center Frisco, TX			Completion Date:	3/7/2013	Drilling Method:	DPT
			Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755			Driller's License:	58164	Total Depth (ft):	5
			Field Supervisor:	Tim Jennings, P.G.	Northing:	7101907.9099
			Logged By:	Roberta Russell	Easting:	2478965.4179
			Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description		
0	4.8/5	0 - 0.5		(0 - 5.0) Silty CLAY/CLAY, dark reddish brown, moist, firm, low to medium plasticity.		
1		0.5 - 2				
2						
3		2 - 4				
4		4 - 5				
5						
			Notes:			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Borehole plugged with bentonite chips upon completion.			
			This boring log should not be used seperately from the report to which it is attached.			



LOG OF 2013-CUFT-7B

DRILLING METHOD: Direct Push

NORTHING: 7,101,932 FT

DATE/TIME: 01/10/2014, 1100


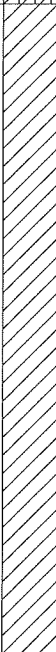
DRILLER: SCI, Margarito Estrada

EASTING: 2,478,970 FT

TOTAL DEPTH: 10 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>3.3</u> 4.0	0.0-0.5 (1108)	ML		0-1.0 FT, (ML) CLAYEY SILT, some gravel; dark brown; moist, soft.
				2-4 (1109)	CH		1.0-10.0 FT, (CH) CLAY, trace fine gravel; black, red mottling; dry, stiff.
	2		<u>4.0</u> 4.0	4-6 (1110)			
	3		<u>2.0</u> 2.0	6-8 (1111)			
				8-10 (1112)		9.0 FT, grayish mottling, friable.	
10							End of borehole at 10 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-CUFT-8	
Frisco Recycling Center Frisco, TX		Completion Date: 3/4/2013		Drilling Method:	DPT
		Driller: Margarito Estrada		Borehole Diameter (in.):	2
PBW Project No. 1755		Driller's License: 58164		Total Depth (ft):	5
		Field Supervisor: Will Vienne, P.G.		Northing:	7101684.4603
		Logged By: Will Vienne, P.G.		Easting:	2479346.4925
		Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	CL	(0 - 5.0) Silty CLAY, grayish brown, moderate to abundant limestone granules throughout, firm, shale fragments at 2.8-3.2', soft and moist at 0-0.9', dry and firm below 0.9', low plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-CUFT-10	
Frisco Recycling Center Frisco, TX				Completion Date:	3/7/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101931.4899
				Easting:	2478954.0769
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4.4/5	0 - 0.5	FILL	(0 - 0.5) FILL, clayey silt w/gravel, dark brown, ~10% medium gravel, battery chip at 0.5', moist, soft, low plasticity silt.	
1		0.5 - 2		(0.5 - 5.0) SILTY CLAY, moist, firm, low to medium plasticity.	
2					
3		2 - 4	CL		
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF 2013-CUFT-10A

DRILLING METHOD: Direct Push

NORTHING: 7,101,955 FT

DATE/TIME: 01/10/2014, 1145



DRILLER: SCI, Margarito Estrada

EASTING: 2,478,944 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (1141)	ML		0-0.5 FT, TOPSOIL (ML) CLAYEY SILT; brown; moist, soft.
	1	NA	2.5 4.0		CH/CL		0.5-4.0 FT, (CH/CL) CLAY and SILTY CLAY, trace fine gravel; black; moist, firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-10C

DRILLING METHOD: Direct Push

NORTHING: 7,101,917 FT

DATE/TIME: 01/10/2014, 1200

DRILLER: SCI, Margarito Estrada

EASTING: 2,478,953 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (1155)	ML		0-0.5 FT, TOPSOIL (ML) CLAYEY SILT; dark brown; damp, soft.
	1	NA	$\frac{3.3}{4.0}$		CH		0.5-4.0 FT, (CH) CLAY; dark brown, trace reddish mottling; damp, soft-firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-10D

DRILLING METHOD: Direct Push

NORTHING: 7,101,949 FT

DATE/TIME: 01/10/2014, 1130








DRILLER: SCI, Margarito Estrada

EASTING: 2,478,963 FT

TOTAL DEPTH: 10 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	NA	<u>4.0</u> 4.0	0.0-0.5 (1125)	ML		0-0.25 FT, TOPSOIL (ML) SILT; brown; damp, soft.	
				ML		0.25-0.8 FT, (ML) CLAYEY SILT, trace fine gravel; brown and gray, friable; dry, firm.		
				CH		0.8-5.0 FT, (CH) CLAY; dark brown, trace red mottling; dry, firm.		
	2		<u>4.0</u> 4.0	2-4 (1126)	CH			
				4-6 (1127)	CH		5.0-8.0 FT, (CH) CLAY; black; dry, very stiff.	
				6-8 (1128)	CH			
	3		<u>2.0</u> 2.0	8-10 (1129)	CH		8.0-10.0 FT, (CH) CLAY; dark gray and black, some red mottling, trace calcareous nodules; dry, stiff-very stiff.	
		End of borehole at 10 FT BGS						
	10							
15								

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-11

DRILLING METHOD: Direct Push

NORTHING: 7,101,777 FT

DATE/TIME: 01/10/2014, 0915

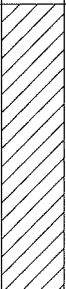
DRILLER: SCI, Margarito Estrada

EASTING: 2,479,386 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>2.0</u> 2.0	0.0-0.5 (0918)	CH		0-4.0 FT, (CH) CLAY; brown; moist, soft.
	2		<u>2.0</u> 2.0	0.5-2.0 (0919)			2.0 FT, reddish mottling; firm-stiff.
				2.0-4.0 (0920)			End of borehole at 4 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2013-CUFT-14

DRILLING METHOD: Direct Push

NORTHING: 7,101,786 FT

DATE/TIME: 01/10/2014, 0915

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,526 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0-2 (0913)	CH		0-2.75 FT, (CH) CLAY; dark brown and brown; dry, soft.
				2-4 (0914)	SP		2.75-3.0 FT, (SP) SAND, some gravel; damp, compact.
					CH		3.0-4.0 FT, (CH) CLAY; dark brown, gray and black; dry, firm.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ


LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2014-CUFT-15

DRILLING METHOD: Direct PushNORTHING: 7,101,943 FTDATE/TIME: 04/04/2014, 1130DRILLER: SCI, Margarito EstradaEASTING: 2,478,859 FTTOTAL DEPTH: 4 FT BGSRIG: GeoprobeSURFACE ELEVATION: 627 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	<u>3.3</u> 4.0	0-0.5 (1130)	CL		0-1.0 FT, (CL) SILTY CLAY, trace gravel; dark brown/black, battery chips present; dry, soft to firm.
				0.5-2 (1131)	CL		1.0-4.0 FT, (CL) CLAY, some silt; dark brown/black, red mottling; dry, firm.
				2-4 (1132)			
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Crystallizer AreaREVIEWED BY: JW



LOG OF 2014-CUFT-16

DRILLING METHOD: Direct Push

NORTHING: 7,101,951 FT

DATE/TIME: 04/04/2014, 1145


DRILLER: SCI, Margarito Estrada

EASTING: 2,478,764 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 625 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.0 4.0	0-0.5 (1145)	CL		0-1.0 FT, (CL) SILTY CLAY, trace gravel; dark brown/black, battery chips present; dry, soft to firm.
				0.5-2 (1146)	CL		1.0-4.0 FT, (CL) SILTY CLAY; dark brown/black; dry, firm.
				2-4 (1147)			
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF 2014-CUFT-17

DATE/TIME: 04/04/2014, 1200

DRILLING METHOD: Direct Push

NORTHING: 7,101,984 FT


DRILLER: SCI, Margarito Estrada

EASTING: 2,478,621 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 626 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	<u>3.8</u> 4.0	0-0.5 (1200)	ML		0-1.0 FT, (ML) CLAYEY SILT, trace gravel; dark brown/black; dry, soft.
				0.5-2 (1201)	CL		1.0-4.0 FT, (CL) SILTY CLAY; dark brown/black; dry, soft to firm.
				2-3 (1202)			
10							End of borehole at 4 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW

LOG OF 2014-CUFT-18

DRILLING METHOD: Direct Push

NORTHING: 7,101,940 FT

DATE/TIME: 04/04/2014, 1100

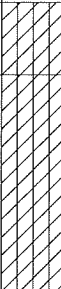
DRILLER: SCI, Margarito Estrada

EASTING: 2,479,079 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 630 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.0 4.0	0-0.5 (1113)	CL		0-1.0 FT, (CL) CLAY, some silt, trace gravel; dark brown/black; dry, firm.
				0.5-2 (1114)	CL		1.0-4.0 FT, (CL) SILTY CLAY; dark brown/black, red mottling; dry, soft to firm.
				2-4 (1115)			
10							End of borehole at 4 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Crystallizer Area

REVIEWED BY: JW



LOG OF D-11A

DRILLING METHOD: Direct Push

NORTHING: 7,102,905 FT

DATE/TIME: 01/09/2014, 1030



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,145 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (1035)	CL		0-0.5 FT, TOPSOIL (CL) SILTY CLAY; dark brown; soft.
	1	NA	<u>2.5</u> 4.0		CH		0.5-4.0 FT, (CH) CLAY; black; dry, firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary Corridor/North Wooded Area

REVIEWED BY: JW



LOG OF D-11B

DRILLING METHOD: Direct PushNORTHING: 7,102,980 FTDATE/TIME: 03/31/2014, 0945DRILLER: SCI, Margarito EstradaEASTING: 2,480,129 FTTOTAL DEPTH: 5 FT BGSRIG: GeoprobeSURFACE ELEVATION: 644 FT AMSL

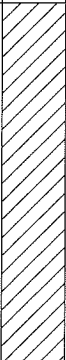
DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.0 5.0	0.0-0.5 (0950)	CL		0.0-3.0 FT, (CL) CLAY, some silt, trace fine gravel; dark brown; dry, firm.
				0.5-2.0 (0951)			
				2.0-4.0 (0952)	CH		3.0-4.0 FT, (CH) CLAY, trace fine gravel; brown and dark brown; dry, stiff-hard.
							4.0-5.0 FT, Not Logged.
10							End of borehole at 5 FT BGS
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: North Tributary Corridor and North Wooded AreaREVIEWED BY: JW



LOG OF D-12A

DRILLING METHOD: Direct PushNORTHING: 7,102,914 FTDATE/TIME: 01/09/2014, 1045DRILLER: SCI, Margarito EstradaEASTING: 2,480,333 FTTOTAL DEPTH: 5 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>3.5</u> 5.0	0.0-0.5 (1050)	CH		0-5.0 FT, (CH) CLAY, trace fine gravel; dark brown and black; dry, hard.
5							End of borehole at 5 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: North Tributary Corridor/North Wooded AreaREVIEWED BY: JW



LOG OF D-13A

DRILLING METHOD: Direct Push

NORTHING: 7,102,922 FT

DATE/TIME: 01/09/2014, 1100

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,530 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	5.0 5.0	0.0-0.5 (1104)	CH		0-1.0 FT, (CH) CLAY; dark brown; dry, stiff.
					CH		1.0-5.0 FT, (CH) CLAY, trace fine gravel; dark gray; dry, stiff.
5							End of borehole at 5 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary Corridor/North Wooded Area

REVIEWED BY: JW

Exide Technologies			Log of Boring: E-11		
Frisco Recycling Center Frisco, TX		Completion Date:	4/29/2013	Drilling Method:	DPT
		Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755		Driller's License:	58164	Total Depth (ft):	16
		Field Supervisor:	Will Vienne, P.G.	Northing:	7102765.709
		Logged By:	Roberta Russell	Easting:	2480143.5364
		Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4/4	0 - 0.5	CL	(0 - 5.9) Silty CLAY, trace fine-medium gravel, trace carbonate precipitates below 4.5', dark reddish brown, trace Fe staining below 5.0', moist, firm, low plasticity.	
1		0.5 - 2			
2		2 - 4			
3		4 - 5			
4	4/4	5 - 7	CL/ML	(5.9 - 12.0) Silty CLAY/clayey SILT, light grayish brown, abundant orange Fe staining, abundant calcareous precipitates, gravelly clay lenses (~30% medium gravel in clay matrix) at 5.9-6.0 and 6.6-6.7', gravelly clay lens (~10% gravel in clay matrix) from 11.3-12.0', moist, wet at 10.9', firm to hard, softer with depth, low plasticity.	
5		7 - 9			
6		9 - 10.9			
7					
8	4/4		CL	(12.0 - 16.0) Gravelly CLAY, ~15-20% fine-medium gravel in clay matrix, light grayish brown with abundant orange Fe staining, wet, soft, low plasticity.	
9					
10					
11					
12					
13					
14					
15					
16					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.		

Exide Technologies				Log of Boring: E-11A			
Frisco Recycling Center Frisco, TX				Completion Date: 3/6/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102808.2937	
				Logged By: Roberta Russell		Easting: 2480069.2399	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	5/5	0 - 0.5	CL	(0 - 5.0) Silty CLAY/CLAY, dark reddish brown, trace orange Fe-ox staining from 3-5', trace calcareous nodules from 3.3-5', moist, firm to hard, low to medium plasticity.			
1		0.5 - 2					
2							
3		2 - 4					
4		4 - 5					
5							
				Notes:			
				Borehole plugged with bentonite chips upon completion.			
				This boring log should not be used separately from the report to which it is attached.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446							

Exide Technologies				Log of Boring: E-11B	
Frisco Recycling Center Frisco, TX		Completion Date: 3/15/2013		Drilling Method:	DPT
		Driller: Dan Spaust		Borehole Diameter (in.): 2	
		Driller's License: 3038		Total Depth (ft): 5	
PBW Project No. 1755		Field Supervisor: Will Vienne, P.G.		Northing: 7102809.7866	
		Logged By: Will Vienne, P.G.		Easting: 2480025.1527	
		Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0		0 - 0.5	CL	(0 - 5.0) Slightly silty CLAY, very dark gray to dark brownish gray, soft and moist at 0-0.8', hard and dry at 0.8-5' with abundant limestone granules, low to medium plasticity clay.	
1		0.5 - 2			
2	3.5/4				
3		2 - 3.5			
4					
5	1/1	4 - 5			
<p>PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>					
<p>Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.</p>					



LOG OF E-11C

DRILLING METHOD: Direct Push

NORTHING: 7,102,811 FT

DATE/TIME: 01/09/2014, 1015

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,050 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	5.0 5.0	0.0-0.5 (1025)	CH		0-0.5 FT, (CH) CLAY; brown; dry, firm.
					CH		0.5-5.0 FT, (CH) CLAY, dark brown; dry, stiff.
5							End of borehole at 5 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Wooded Area/North Tributary Corridor

REVIEWED BY: JW



LOG OF E-11C-A

DRILLING METHOD: Direct Push

NORTHING: 7,102,807 FT

DATE/TIME: 03/31/2014, 1000

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,052 FT

TOTAL DEPTH: 6 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 641 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.8 5.0	0.5-2.0 (1009)	CH		0.0-4.0 FT, (CH) CLAY, trace silt; dark brown; dry, firm-stiff.
				2.0-4.0 (1010)			
	2	N/A	1.0 1.0	4.0-6.0 (1011)	CH		4.0-6.0 FT, (CH) CLAY, trace fine gravel; dry, hard.
10							End of borehole at 6 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary Corridor and North Wooded Area

REVIEWED BY: JW



LOG OF E-11D

DRILLING METHOD: Direct Push

NORTHING: 7,102,709 FT

DATE/TIME: 01/10/2014, 1545



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,121 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (1545)	ML		0-0.25 FT, TOPSOIL (ML) SILT; dark brown; dry, soft.
	1	NA	3.3 4.0		CH		0.25-4.0 FT, (CH) CLAY, trace fine gravel; dark gray; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Wooded Area/North Tributary Corridor

REVIEWED BY: JW

LOG OF E-11E

DRILLING METHOD: Direct Push

NORTHING: 7,102,720 FT

DATE/TIME: 03/31/2014, 1030


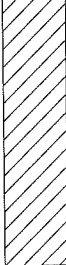
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,119 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 640 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.5 5.0	0.0-0.5 (1031)	ML		0.0-0.25 FT, TOPSOIL (ML) SILT; dark brown; moist, soft.
				0.5-2.0 (1032)	CH		0.25-4.0 FT, (CH) CLAY, trace fine gravel; dark gray and brown; dry, stiff-hard.
				2.0-4.0 (1033)			
						4.0-5.0 FT, Not Logged.	
		End of borehole at 5 FT BGS					
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary Corridor and North Wooded Area

REVIEWED BY: JW



LOG OF E-12A

DATE/TIME: 01/10/2014, 1600

DRILLING METHOD: Direct Push

NORTHING: 7,102,758 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,294 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>3.0</u> 4.0	0.0-0.5 (1601)	CH		0-4.0 FT, (CH) CLAY; dark brown; moist, soft-firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Wooded Area/North Tributary Corridor

REVIEWED BY: JW



LOG OF E-13A

DATE/TIME: 01/10/2014, 1615

DRILLING METHOD: Direct Push

NORTHING: 7,102,771 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,548 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-0.5 (1622)	CH		0-2.0 FT, (CH) CLAY; black; dry, stiff.
					CH/GC		2.0-4.0 FT, (CH/GC) GRAVELLY CLAY; dark brown, trace light brown mottling, trace calcareous nodules, trace white crystals; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Wooded Area/North Tributary Corridor

REVIEWED BY: JW



LOG OF E-14A

DRILLING METHOD: Direct Push

NORTHING: 7,102,778 FT

DATE/TIME: 01/10/2014, 1630

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,731 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-0.5 (1630)	ML		0-0.5 FT, (ML) CLAYEY SILT; dark brown and black; moist, soft.
					CH		0.5-3.5 FT, (CH) CLAY; dark brown; dry, very stiff.
					CH/GC		3.5-4.0 FT, (CH/GC) GRAVELLY CLAY; dark brown and white; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Wooded Area/North Tributary Corridor

REVIEWED BY: JW

Exide Technologies			Log of Boring: E-15A	
Frisco Recycling Center Frisco, TX			Completion Date:	3/6/2013
			Driller:	Margarito Estrada
PBW Project No. 1755			Driller's License:	58164
			Field Supervisor:	Tim Jennings, P.G.
			Logged By:	Roberta Russell
			Sampling Method:	5' Lined Tube
Drilling Method:		DPT		
Borehole Diameter (in.):		2		
Total Depth (ft):		5		
Northing:		7102787.1342		
Easting:		2480940.0881		
Ground Elev. (ft AMSL):		--		
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description
0	5/5	0 - 0.5	CL	(0 - 0.5) SILTY CLAY, dark reddish brown, moist, soft, low plasticity.
1		0.5 - 2		(0.5 - 3.0) Gravelly CLAY, ~10% medium gravel, thin interbedded clayey medium to coarse gravel (~40% gravel), light brown, moist, soft.
2		2 - 4	ML	(3.0 - 4.4) Sandy SILT w/clay and gravel, ~20% medium to coarse gravel, light yellowish brown, moist, soft.
3				
4		4 - 5	CL/ML	(4.4 - 5.0) Silty CLAY/clayey SILT, light grayish brown, abundant orange Fe-ox staining, moist, firm, low plasticity.
5				
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

LOG OF ECO-1A

DRILLING METHOD: Direct Push

NORTHING: 7,101,375 FT

DATE/TIME: 01/09/2014, 1545



DRILLER: SCI, Margarito Estrada

EASTING: 2,481,023 FT

TOTAL DEPTH: 2 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>2.0</u> 2.0	0.0-0.5 (1546)	CH		0-1.0 FT, (CH) CLAY; dark gray to black; moist, firm.
				0.5-2.0 (1547)	CH		1.0-2.0 FT, (CH) CLAY, trace fine gravel; light brown, reddish yellow mottling; moist, firm.
-5-							
-10-							
-15-							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: SE of South Disposal Area

REVIEWED BY: JW

LOG OF ECO-2A

DATE/TIME: 01/09/2014, 1545

DRILLING METHOD: Hand Auger

NORTHING: 7,101,290 FT



DRILLER: SCI, Margarito Estrada

EASTING: 2,481,023 FT

TOTAL DEPTH: 2 FT BGS

RIG: Hand Auger

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	2.0 2.0	0.0-0.5 (1554)	ML		0-1.0 FT, (ML) CLAYEY SILT, trace gravel; brown; dry, soft.
				0.5-2.0 (1555)	ML		1.0-2.0 FT, (ML) CLAYEY SILT; light brown; dry, soft.
							End of borehole at 2 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: SE of South Disposal Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: ECO-3	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	3"X6" Hand Auger
				Drilling Method:	Hand Auger
				Borehole Diameter (in.):	3
				Total Depth (ft):	3
				Northing:	7101296.3389
				Easting:	2480817.4415
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (in/ft)	Sample Interval	USCS	Lithologic Description	
0	0.5/0.5	0 - 0.5	CL	(0 - 3.0) Silty CLAY, dark reddish brown, abundant root material at 0-2', moist, soft to firm, low plasticity.	
1	0.5/0.5	0.5 - 2			
	0.5/0.5				
2	0.5/0.5	2 - 3			
	0.5/0.5				
3	0.5/0.5				
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF ECO-4A

DRILLING METHOD: Direct Push

NORTHING: 7,101,109 FT

DATE/TIME: 01/10/2014, 1515




DRILLER: SCI, Margarito Estrada

EASTING: 2,480,847 FT

TOTAL DEPTH: 2 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	2.0 2.0	0.0-0.5 (1510)	ML		0-0.25 FT, TOPSOIL - (ML) SILT, trace gravel; brown; dry, soft.
					CH		0.25-1.0 FT, (CH) CLAY, trace fine gravel; dry, very stiff.
				0.5-2.0 (1511)			1.0-2.0 FT, LIMESTONE; yellowish tan, platy; dry, hard.
							End of borehole at 2 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ



LOCATION: South Wooded Area

REVIEWED BY: JW



LOG OF ECO-4B

DRILLING METHOD: Hand AugerNORTHING: 7,101,151 FTDATE/TIME: 01/13/2014, 1345DRILLER: SCI, Margarito EstradaEASTING: 2,480,940 FTTOTAL DEPTH: 2 FT BGSRIG: Hand AugerSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>2.0</u> 2.0	0.0-0.5 (1348) 0.5-2.0 (1349)	ML		0-1.75 FT, (ML) CLAYEY SILT, trace fine gravel; dark brown; dry, soft.
							1.75-2.0 FT, LIMESTONE; yellowish tan; dry, hard.
							End of borehole at 2 FT BGS (Refusal)
5							
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: South Wooded AreaREVIEWED BY: JW

Exide Technologies				Log of Boring: ECO-6	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	3"x 5' Barrel
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101325.3004
				Easting:	2480600.8295
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4.6/5	0.5 - 2	CL	(0 - 5.0) Silty CLAY, dark brownish gray, trace limestone granules, slightly moist to dry, soft to firm, soft at 0-2', firm at 2-5', low plasticity.	
1					
2					
3					
4					
5		4 - 5			
<div> <div> <div>PBW</div> <div> Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached. </div> </div>					

Exide Technologies				Log of Boring: ECO-7	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	3"X6" Hand Auger
Drilling Method:		Hand Auger			
Borehole Diameter (in.):		3			
Total Depth (ft):		3			
Northing:		7101179.0319			
Easting:		2480616.4118			
Ground Elev. (ft AMSL):		--			
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	0.5/0.5		CL/ML	(0 - 3.0) Silty CLAY/clayey SILT, dark reddish brown, abundant root material from 0-0.5', moist, soft to firm, low plasticity.	
1	0.5/0.5				
	0.5/0.5	0.5 - 2			
2	0.5/0.5				
	0.5/0.5	2 - 3			
3	0.5/0.5				
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: ECO-7A	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	3"X6" Hand Auger
				Drilling Method:	Hand Auger
				Borehole Diameter (in.):	3
				Total Depth (ft):	3
				Northing:	7101171.2643
				Easting:	2480616.2589
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	0.5/0.5	0 - 0.5	CL/ML	(0 - 2.5) Silty CLAY/clayey SILT, dark reddish brown, ~10% calcareous nodules, moist, soft to firm, low plasticity.	
1	0.5/0.5	0.5 - 2			
	0.5/0.5				
	0.5/0.5				
2	0.5/0.5	2 - 3	CL	(2.5 - 3.0) Silty CLAY, yellowish brown, dry, very hard, low plasticity.	
3	0.5/0.5				
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached. </div> </div>					

Exide Technologies				Log of Boring: ECO-7B	
Frisco Recycling Center Frisco, TX				Completion Date:	3/15/2013
				Driller:	--
PBW Project No. 1755				Driller's License:	--
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	6" Lined Tube
				Drilling Method:	Drive Sampler
				Borehole Diameter (in.):	2
				Total Depth (ft):	2
				Northing:	7101168.7735
				Easting:	2480616.5561
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	0.5/0.5	0 - 0.5	CL	(0 - 2.0) Slightly Sandy SILTY CLAY, dark brownish gray, becoming more brown with Fe staining with depth, increased clay content below 1', dry, soft to slightly firm, low plasticity.	
1	0.5/0.5	0.5 - 1			
	0.5/0.5	1 - 1.5			
	0.5/0.5	1.5 - 2			
2					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF ECO-7C

DRILLING METHOD: Direct Push

NORTHING: 7,101,203 FT

DATE/TIME: 01/14/2014, 1515



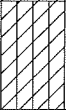
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,611 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-0.5 (1514)	ML		0-1.0 FT, (ML) CLAYEY SILT; dark brown; moist, firm-stiff.
					CH		1.0 FT, sand, silt, and fine gravel lense (~2 inches). 1.0-2.5 FT, (CH) CLAY, trace fine gravel; brown; dry, firm-stiff.
				2.0-3.0 (1515)	CL		2.5-4.0 FT, (CL) SILTY CLAY; brown and gray; dry, hard.
-5							End of borehole at 4 FT BGS
-10							
-15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Wooded Area

REVIEWED BY: JW



LOG OF ECO-7D

DATE/TIME: 01/14/2014, 1500

DRILLING METHOD: Direct Push

NORTHING: 7,101,170 FT


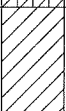
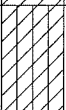
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,614 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.0 4.0	0.0-0.5 (1505)	ML		0-1.0 FT, (ML) CLAYEY SILT, dark brown; moist, firm-stiff.
					CH		1.0-2.5 FT, (CH) CLAY; brown; moist, soft-firm.
					CL		2.5-4.0 FT, (CL) SILTY CLAY; brown and gray; dry, hard.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Wooded Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: ECO-8	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101519.2687
				Easting:	2480460.2113
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4.6/5		CL	(0 - 5.0) Silty CLAY, dark brownish gray, trace limestone pebbles, increasing firmness with depth, slightly moist, soft to slightly firm, low plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

LOG OF ECO-8A

DRILLING METHOD: Direct Push

NORTHING: 7,101,537 FT

DATE/TIME: 01/09/2014, 1600



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,457 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0.0-0.5 (1559)	CH		0-1.0 FT, (CH) CLAY; dark brown, organic matter; dry, stiff. 0.66 FT, gravel lense (~2 inches)
					CH		1.0-4.0 FT, (CH) CLAY; black; dry, firm.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Wooded Area


REVIEWED BY: JW

Exide Technologies				Log of Boring: ECO-9	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101336.2375
				Easting:	2480435.6624
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	3.9/5	0.5 - 2	CL	(0 - 1.4) Silty CLAY, potential fill, weathered, very dark brownish gray, abundant limestone pebbles, fragmented and unconsolidated shale from 1-1.4', slightly moist, soft, low plasticity.	
1					
2		2 - 3.9	SW	(1.4 - 5.0) Silty SAND, potential fill, light brown, very fine grained, dry, becoming clayey at 3.6-3.9', dry, unconsolidated.	
3					
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF ECO-10A

DRILLING METHOD: Direct PushNORTHING: 7,101,182 FTDATE/TIME: 01/10/2014, 1445DRILLER: SCI, Margarito EstradaEASTING: 2,480,399 FTTOTAL DEPTH: 1.5 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>1.5</u> 1.5	0.0-0.5 (1443)			0-1.5 FT, LIMESTONE; yellowish tan, platy; dry, hard.
							End of borehole at 1.5 FT BGS (Refusal)
5							
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: South Wooded AreaREVIEWED BY: JW

Exide Technologies				Log of Boring: ECO-11	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102588.4364
				Easting:	2480247.5265
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4.5/5	0 - 0.5	CL	(0 - 4.1) Silty CLAY, dark brown, moist, soft to firm, low plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5		(4.1 - 5.0) Gravelly CLAY, ~20% fine gravel, dark brown, wet, soft, low plasticity clay.	
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached	

Exide Technologies				Log of Boring: ECO-12	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102508.9348
				Easting:	2480906.7256
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	CL	(0 - 1.3) Silty CLAY, dark brown, trace gravel, moist, hard, low plasticity.	
1		0.5 - 2		GC	(1.3 - 1.5) GRAVEL, w/CLAY, medium gravel, dark, soft.
2		2 - 4	CL		(1.5 - 4.7) Silty CLAY, light reddish brown, moist, firm, low to medium plasticity.
3				4 - 5	(4.7 - 5.0) Gravelly CLAY, ~10% medium gravel, moist, firm, low plasticity clay.
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF F-5A

DRILLING METHOD: Direct Push

NORTHING: 7,102,507 FT

DATE/TIME: 01/10/2014, 1345


DRILLER: SCI, Margarito Estrada

EASTING: 2,478,846 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	$\frac{3.3}{4.0}$	0.0-0.25 (1349) 1.0 (1350)	CH		0-4.0 FT, (CH) CLAY; dark brown, reddish mottling; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Lake Parcel

REVIEWED BY: JW



LOG OF F-5B

DRILLING METHOD: Direct Push

NORTHING: 7,102,527 FT

DATE/TIME: 01/10/2014, 1345

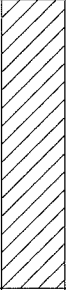
DRILLER: SCI, Margarito Estrada

EASTING: 2,478,845 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.5 4.0	0.0-0.25 (1347) 1.0 (1348)	CH		0-4.0 FT, (CH) CLAY; dark brown, reddish mottling; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ


LOCATION: Lake Parcel

REVIEWED BY: JW



LOG OF F-5C

DRILLING METHOD: Direct PushNORTHING: 7,102,506 FTDATE/TIME: 01/10/2014, 1345DRILLER: SCI, Margarito EstradaEASTING: 2,478,867 FTTOTAL DEPTH: 4 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A


DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.5 4.0	0.0-0.25 (1351) 1.0 (1352)	CH		0-4.0 FT, (CH) CLAY; dark brown, reddish mottling; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Lake ParcelREVIEWED BY: JW



LOG OF F-5D

DRILLING METHOD: Direct PushNORTHING: 7,102,487 FTDATE/TIME: 01/10/2014, 1330DRILLER: SCI, Margarito EstradaEASTING: 2,478,845 FTTOTAL DEPTH: 4 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>3.0</u> <u>4.0</u>	0.0-0.25 (1338) 1.0 (1339)	CH		0-4.0 FT, (CH) CLAY; dark brown, reddish mottling; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Lake ParcelREVIEWED BY: JW



LOG OF F-5E

DATE/TIME: 01/10/2014, 1345

DRILLING METHOD: Direct Push

NORTHING: 7,102,507 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,478,825 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.0 4.0	0.0-0.25 (1342) 1.0 (1343)	CH		0-4.0 FT, (CH) CLAY; dark brown, reddish mottling; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Lake Parcel

REVIEWED BY: JW



LOG OF 2013-FFTA-01

DRILLING METHOD: Direct Push

NORTHING: 7,102,397 FT

DATE/TIME: 01/08/2014, 0930





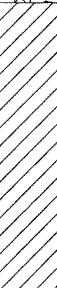

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,828 FT

TOTAL DEPTH: 19 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	0.4	<u>5.0</u> 5.0	0.25-2.0 (1020)			0-0.25 FT, Concrete
		CL				0.25-0.75 FT, (CL) SILTY CLAY, trace gravel; brown; dry, very stiff.	
		0.4	2.0-4.0 (1030)	CL		0.75-6.0 FT, (CL) CLAY, some silt; brown, trace calcareous nodules; dry, very stiff.	
	0.8	5.0 FT, trace gravel.					
	2	1.0	<u>5.0</u> 5.0	CL		6.0-13.0 FT, (CL) CLAY, some silt; gray with reddish-orange mottling, calcareous nodules; dry, stiff.	
		1.8				9.0-10.0 FT, organics.	
		3	1.3			<u>5.0</u> 5.0	ML/GM
	1.2		14.0-18.0 FT, (CH) CLAY; gray, reddish-orange mottling; dry, very stiff.				
	4		1.9	<u>4.0</u> 4.0	CH		
		88	18.0-19.0 FT, SHALE; dark gray, reddish-yellow mottling; dry, hard.				
516		18.0-19.0 (1045)					
							End of borehole at 19 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training Area

REVIEWED BY: JW



LOG OF 2013-FFTA-02

DATE/TIME: 01/07/2014, 1515

DRILLING METHOD: Direct Push

NORTHING: 7,102,378 FT

TOTAL DEPTH: 19 FT BGS

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,781 FT

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	33.4	5.0 5.0	0.25-2 (1530) 2-4 (1545)	CH		0-0.25 FT, Concrete
		71.7					0.25-5.0 FT, (CH) CLAY; black, reddish mottling; moist, soft.
		4.8					
	2	7.5	5.0 5.0		CH		5.0-10.0 FT, (CH) CLAY; brown; moist, stiff.
		7.5					
	3	6.0	5.0 5.0		CH		10.0-12.0 FT, (CH) CLAY; black; moist, soft.
		4.7					11.0 FT, brown.
							12.0-14.0 FT, (ML) GRAVELLY SILT; brown w/ reddish mottling; soft.
15	4	1.9	4.0 4.0		CH		14.0-16.0 FT, (CH) CLAY; brown; moist, stiff.
		2.4					16.0-17.0 FT, (CL/GC) gravelly SILTY CLAY; brown, calcareous nodules; moist, soft.
		3.9					17.0-18.0 FT, (CH) CLAY; brown and gray, yellow and red mottling; dry, hard.
							18.0-19.0 FT, SHALE; dark gray; hard.
							End of borehole at 19 FT BGS (Refusal)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training Area

REVIEWED BY: JW



LOG OF 2013-FFTA-03

DRILLING METHOD: Direct Push

NORTHING: 7,102,425 FT

DATE/TIME: 01/07/2014, 1100




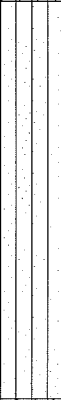



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,753 FT

TOTAL DEPTH: 18 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS	
5	1	2.1	<u>5.0</u> 5.0	0-2 (1316)	ML		0-0.5 FT, FILL (ML) CLAYEY SILT, trace gravel; black; dry, soft.	
		CL				0.5-2.0 FT, (CL) SILTY CLAY, trace gravel; brown and dark gray, calcareous nodules; dry, firm.		
		5.2	2-4 (1317)	CL		2.0-4.5 FT, (CL) SILTY CLAY, trace fine gravel; dark brown; dry, firm.		
		4.0		ML		4.5-10.0 FT, (ML) SANDY SILT; light gray and brownish orange, platy, calcareous nodules; firm. 5.0-6.0 FT, organics.		
	2	5.5	<u>5.0</u> 5.0					
		4.5						
	10	3	5.2	<u>5.0</u> 5.0	14-16 (1320)	ML		10.0-10.5 FT, (ML) CLAYEY SILT; black; moist.
			GM				10.5-12.0 FT, (GM) SILTY GRAVEL; gray and brown; loose.	
			6.7			CL		12.0-18.0 FT, (CL) SILTY CLAY; gray and brown; dry, stiff.
		77.8						
15	4	9.9	<u>3.0</u> 3.0	16-18 (1323)				
							End of borehole at 18 FT BGS (Refusal)	

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training Area

REVIEWED BY: JW



LOG OF 2014-FFTA-04

DRILLING METHOD: Direct Push

NORTHING: 7,102,336 FT

DATE/TIME: 03/31/2014, 1400

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,847 FT

TOTAL DEPTH: 5.5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 648 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-0.5 FT, Concrete
				0.5-1.0 (1410)			0.5-5.5 FT, (CH) CLAY; black; dry, stiff-hard.
				1.0-2.0 (1411)			
				2.0-4.0 (1412)			
	1	N/A	5.0 5.0	CH			3.0 FT, dark gray
5							
							End of borehole at 5.5 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training Area

REVIEWED BY: JW



LOG OF 2014-FFTA-05

DRILLING METHOD: Direct Push

NORTHING: 7,102,439 FT

DATE/TIME: 03/31/2014, 1345

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,779 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 647 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	5.0 5.0	0.0-0.5 (1345)	CL		0.0-3.5 FT, (CL) CLAY, some silt, trace fine gravel; dark gray and black; dry, hard.
				0.5-2.0 (1346)			
				2.0-4.0 (1347)	CL		3.5-4.0 FT, (CL) CLAY, some silt, some sand, some fine gravel; dry, very stiff.
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training Area

REVIEWED BY: JW

LOG OF 2014-FFTA-06

DRILLING METHOD: Direct Push

NORTHING: 7,102,418 FT

DATE/TIME: 04/01/2014, 1145




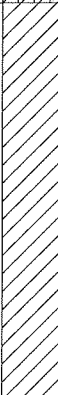
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,618 FT

TOTAL DEPTH: 14 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 643 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	4.2	$\frac{3.0}{4.0}$	0.0-0.5 (1210) 0.5-2.0 (1211) 2.0-4.0 (1212)	CL		0.0-1.0 FT, (CL) SILTY CLAY, trace gravel; black; dry, hard.
		CH				1.0-3.25 FT, (CH) CLAY, trace gravel; brown and gray; dry, firm.	
						3.25-4.5 FT, (CH) CLAY, black and gray; dry, soft. 3.25 FT, some sandy silt and gravel for 0.25 FT.	
	2	4.6	$\frac{4.0}{4.0}$		CL		4.5-8.0 FT, (CL) sandy SILTY CLAY; gray and brown; damp, soft-firm.
		4.8					
	3	9.0	$\frac{1.5}{4.0}$		CH		8.0-13.5 FT, (CH) CLAY; light brown and gray; damp, soft.
		4	4.1	$\frac{2.0}{2.0}$			
	15						End of borehole at 14 FT BGS (Refusal)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North of North Disposal Area

REVIEWED BY: JW



LOG OF 2014-FFTA-07

DRILLING METHOD: Direct Push

NORTHING: 7,102,435 FT

DATE/TIME: 04/01/2014, 1030

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,573 FT

TOTAL DEPTH: 12 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 643 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	7.1	2.5 4.0	0.0-0.5 (1055)	CL		0.0-1.0 FT, (CL) SILTY CLAY, some organic material; dark brown and black; dry, stiff-hard.
		7.1		0.5-2.0 (1056)	ML/SP		1.0-2.0 FT, (ML/SP) SAND and SILT, some gravel; brown; dry, loose.
		5.5		2.0-4.0 (1057)	CH		2.0-6.0 FT, (CH) CLAY, trace silt and gravel; gray and brown, reddish mottling, white calcareous nodules; dry, stiff.
	2	5.6	N/A 4.0		CH		6.0-8.0 FT, (CH) CLAY; gray and reddish brown; moist, stiff-hard.
		5.7					8.0 FT, platy.
	3	10.6	N/A 4.0		ML/GP		8.0-12.0 FT (ML/GP) CLAYEY SILT and GRAVEL, some sand; gray, reddish mottling, platy, friable; dry, stiff.
10		4.8					12.0 FT, LIMESTONE.
15							End of borehole at 12 FT BGS (Refusal)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North of North Disposal Area

REVIEWED BY: JW



LOG OF 2014-FFTA-08

DRILLING METHOD: Direct Push

NORTHING: 7,102,462 FT

DATE/TIME: 04/01/2014, 1100

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,620 FT

TOTAL DEPTH: 15 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 643 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	4.7	<u>3.5</u> 4.0	0.0-0.5 (1132)	ML		0.0-0.5 FT, (ML) CLAYEY SILT, some gravel and organic material; brown; dry, hard.
		6.3		0.5-2.0 (1133)	CL		0.5-2.25 FT, (CL) SILTY CLAY, trace gravel; brown and gray; dry, stiff-hard.
		6.1		2.0-4.0 (1134)	SM		2.25-3.0 FT, (SM) SILTY SAND; brown; moist, compact. 2.25 FT, organic material for 0.25 FT. 2.75 FT, coarse gravel for 0.25 FT.
	2	4.1	<u>4.0</u> 4.0		CL/SP		3.0-5.5 FT, (CL/SP) SILTY CLAY and SAND; gray, platy, friable; damp, firm.
		4.9			CL		4.0 FT, trace sand.
		5.8			CH		5.5-9.0 FT, (CL) SILTY CLAY, trace gravel; gray, reddish mottling; damp, firm.
	3	4.5	<u>4.0</u> 4.0				8.5 FT, SANDY GRAVEL for 0.25 FT.
							9.0-14.5 FT, (CH) CLAY and SHALE; gray, reddish yellow mottling; damp, hard.
	4	4.1	<u>3.0</u> 3.0				13.25 FT, SAND for 0.25 FT, brown and gray; dry.
							14.5-15.0 FT, SHALE; dark gray, yellowish mottling; dry, hard.
15							End of borehole at 15 FT BGS (Refusal)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North of North Disposal Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-FOP-1			
Frisco Recycling Center Frisco, TX				Completion Date:	3/14/2013	Drilling Method:	DPT
				Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755				Driller's License:	3038	Total Depth (ft):	5
				Field Supervisor:	Will Vienne, P.G.	Northing:	7101872.2058
				Logged By:	Will Vienne, P.G.	Easting:	2480549.0768
				Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0		0 - 0.5	CL	(0 - 5.0') Silty CLAY, very dark brownish gray, dry, slightly firm to firm, low plasticity clay, moderately organic with abundant decayed plant fragments to 2.7', firmer with abundant limestone granules below 2.7', limestone pebbles at 2.7-2.8'.			
1		0.5 - 2					
2	3.6/4						
3		2 - 4					
4	1/1	4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached			

LOG OF 2013-FOP-1A

DATE/TIME: 01/09/2014, 1400

DRILLING METHOD: Direct Push

NORTHING: 7,101,866 FT

TOTAL DEPTH: 4 FT BGS

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,555 FT

RIG: Geoprobe

SURFACE ELEVATION: N/A

[illegible]

PROJECT No: 130-2086

COMPILED BY: BEF




PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Truck Staging/Admin Bldg

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2012-FWCS-1			
Frisco Recycling Center Frisco, TX					Completion Date:	1/18/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	2
					Driller's License:	NA	Northing:	7102016.84
					Logged By:	Christopher Moore, P.G.	Easting:	2479679.40
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) CLAY, CH, very dark brown, moist, firm, medium plasticity, trace roots, no staining or foreign material observed, no odor.			
1	0.6/2.0	0	0-2	CH				
2								
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>					Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies			Log of Boring: 2012-FWCS-1			
Frisco Recycling Center Frisco, TX			Completion Date:	3/5/2013	Drilling Method:	DPT
			Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755			Driller's License:	58164	Total Depth (ft):	5
			Field Supervisor:	Tim Jennings, P.G.	Northing:	7102032.2705
			Logged By:	Roberta Russell	Easting:	2479675.8982
			Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description		
0	4.5/5			(0 - 2.4) FILL, clayey silt/silly clay, reddish brown, slag fragment at 1.8', plastic chip at 2.1', trace orange staining, moist, soft to firm.		
1						
2		2 - 4		(2.4 - 5.0) Clayey SILT, dark reddish brown, moist, soft to firm, low plasticity.		
3						
4		4 - 5				
5						
				Notes:		
				Borehole plugged with bentonite chips upon completion.		
				This boring log should not be used seperately from the report to which it is attached.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446						

Exide Technologies				Log of Boring: 2012-FWCS-1A			
Frisco Recycling Center Frisco, TX				Completion Date: 3/5/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102026.4054	
				Logged By: Roberta Russell		Easting: 2479670.9974	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4/5			(0 - 1.0) GABION BASKET			
1		1 - 2	FILL	(1.0 - 2.0) FILL, clayey silt, light reddish brown, slag/battery chip fragments at ~2', dry, hard.			
2		2 - 4	ML/CL	(2.0 - 5.0) Clayey SILT/silty CLAY, dark reddish brown, trace red Fe-ox staining, moist.			
3							
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.			


Exide Technologies				Log of Boring: 2013-FWCS-1B	
Frisco Recycling Center Frisco, TX				Completion Date:	3/15/2013
				Driller:	Dan Spaust
PBW Project No. 1755				Driller's License:	3038
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	6" Lined Tube
				Drilling Method:	Drive Sampler
				Borehole Diameter (in.):	2
				Total Depth (ft):	3.1
				Northing:	7102016.0586
				Easting:	2479668.7979
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	NR		NR	(0 - 1.1) GABION BASKET, no recovery.	
1	0.5/0.5	1.1 - 1.6	CL	(1.1 - 3.1) Silty CLAY, dark brown to gray, common decayed plant material, abundant limestone granules, moist at 1.1-2.6', wet at 2.6-3.1', soft, low to medium plasticity.	
2	0.5/0.5	1.6 - 2.1			
	0.5/0.5	2.1 - 2.6			
3	0.5/0.5	2.6 - 3.1			
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached. </div> </div>					

Exide Technologies					Log of Boring: 2012-FWCS-2			
Frisco Recycling Center Frisco, TX					Completion Date:	1/19/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	2
					Driller's License:	NA	Northing:	7101912.01
					Logged By:	Christopher Moore, P.G.	Easting:	2479827.17
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) CLAY, CH, very dark brown, moist, firm, medium plasticity, some sand, white crystalline material deposited in cracks to approximately 1 foot, no odor.			
1	1.3/2.0	0	0-2	CH				
2								
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>					Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-FWCS-3			
Frisco Recycling Center Frisco, TX					Completion Date:	1/19/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	2
					Driller's License:	NA	Northing:	7101904.02
					Logged By:	Christopher Moore, P.G.	Easting:	2479836.71
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) CLAY, CH, very dark brown, moist, soft to firm, medium plasticity, some sand, no staining or foreign material observed, no odor.			
1	1.0/2.0	0.1	0-2	CH				
2								
<div> <div>PBW</div> <div> Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> </div>					Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-FWCS-4			
Frisco Recycling Center Frisco, TX					Completion Date:	1/19/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	2
					Driller's License:	NA	Northing:	7101885.93
					Logged By:	Christopher Moore, P.G.	Easting:	2479858.70
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	—
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) CLAY, CH, very dark brown, moist to wet, soft to firm, medium plasticity, some sand, no staining or foreign material observed, no odor.			
1	1.0/2.0	0.1	0-2	CH				
2								
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>					Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

[illegible]

Exide Technologies					Log of Boring: 2012-FWCS-6					
Frisco Recycling Center Frisco, TX					Completion Date:		1/19/2012	Drilling Method:		Hand Sampler
					Drilling Company:		NA	Borehole Diameter (in.):		2.25
PBW Project No. 1755					Driller:		NA	Total Depth (ft):		2
					Driller's License:		NA	Northing:		7101823.97
					Logged By:		Christopher Moore, P.G.	Easting:		2479944.65
					Sampling Method:		2"x 2' Barrel	Ground Elev. (ft AMSL):		--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description					
0				 CH	(0 - 2.0) CLAY, CH, very dark brown, moist to wet, soft to firm, medium plasticity, some sand, white crystalline material present on surface, no staining or foreign material observed below surface, no odor.					
1	0.9/2.0	0.1	0-2							
2										

Exide Technologies					Log of Boring: 2012-FWCS-7			
Frisco Recycling Center Frisco, TX					Completion Date: 1/18/2012		Drilling Method: Hand Sampler	
					Drilling Company: NA		Borehole Diameter (in.): 2.25	
PBW Project No. 1755					Driller: NA		Total Depth (ft): 2	
					Driller's License: NA		Northing: 7101804.83	
					Logged By: Christopher Moore, P.G.		Easting: 2478965.58	
					Sampling Method: 2"x 2' Barrel		Ground Elev. (ft AMSL): -	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) CLAY, CH, very dark brown, moist to wet, soft to firm, medium plasticity, some sand, white crystalline material present on surface, no staining or foreign material observed below surface, no odor.			
1	1.3/2.0	0	0-2	CH				
2								

PBW

Fastor, Behling & Wheeler, LLC
 2201 Double Creek Dr., Suite 4004
 Round Rock, TX 78664
 Tel (512) 671-3434 Fax (512) 671-3446

Notes:
 Borehole plugged with bentonite chips upon completion.
 This Log of Boring should not be used separately from the report to which it is attached.

Exide Technologies					Log of Boring: 2012-FWCS-8							
Frisco Recycling Center Frisco, TX					Completion Date:		1/18/2012		Drilling Method:		Hand Sampler	
					Drilling Company:		NA		Borehole Diameter (in.):		2.25	
PBW Project No. 1755					Driller:		NA		Total Depth (ft):		2	
					Driller's License:		NA		Northing:		7101745.75	
					Logged By:		Christopher Moore, P.G.		Easting:		2480046.41	
					Sampling Method:		2"x 2' Barrel		Ground Elev. (ft AMSL):		-	
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description							
0					(0 - 2.0) CLAY, CH, very dark brown, moist to wet, very soft, medium plasticity, no staining or foreign material observed, no odor.							
1	1.5/2.0	0	0-2	CH								
2												

Exide Technologies						Log of Boring: 2012-FWCS-9			
Frisco Recycling Center Frisco, TX						Completion Date:	1/18/2012	Drilling Method:	Hand Sampler
						Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755						Driller:	NA	Total Depth (ft):	2
						Driller's License:	NA	Northing:	7101706.18
						Logged By:	Christopher Moore, P.G.	Easting:	2480100.38
						Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	-
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description				
0					(0 - 2.0) CLAY, CH, very dark gray, wet, very soft, medium plasticity, no staining or foreign material observed, no odor.				
1	0.5/2.0	0	0-2	CH					
2									

PBW
 Pastor, Behling & Wheeler, LLC
 2201 Double Creek Dr., Suite 4004
 Round Rock, TX 78664
 Tel (512) 671-3434 Fax (512) 671-3446

Notes:
 Borehole plugged with bentonite chips upon completion.
 This Log of Boring should not be used separately from the report to which it is attached.

Exide Technologies				Log of Boring: 2012-FWCS-12			
Frisco Recycling Center Frisco, TX				Completion Date:		3/15/2013	
				Driller:		Dan Spaust	
PBW Project No. 1755				Driller's License:		3038	
				Field Supervisor:		Will Vienne, P.G.	
				Logged By:		Will Vienne, P.G.	
				Sampling Method:		4' Lined Tube	
				Drilling Method:		DPT	
				Borehole Diameter (in.):		2	
				Total Depth (ft):		5	
				Northing:		7102059.9189	
				Easting:		2479678.4051	
				Ground Elev. (ft AMSL):		--	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0				(0 - 5.0) Silty CLAY, very dark gray, moderately abundant decayed plant material, common limestone granules, moist, soft, low plasticity.			
1							
2	2.7/4	2 - 2.7	CL				
3							
4							
5	1/1	4 - 5					
Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446							

LOG OF 2013-FWCS-12A

DRILLING METHOD: Direct Push

NORTHING: 7,102,086 FT

DATE/TIME: 01/13/2014, 1100


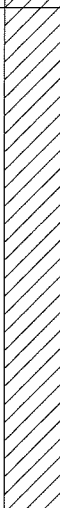
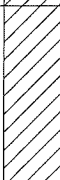

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,682 FT

TOTAL DEPTH: 12 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	$\frac{3.5}{4.0}$	2.0-2.7 (1105)	CL		0-1.0 FT, (CL) CLAY, some interbeds of silty clay; brown, tan mottling; dry, soft-firm.
					CH		1.0-8.0 FT, (CH) CLAY; dark brown and black; dry, firm.
	CH						6.5-7.0 FT, trace clayey silt, light brown. 6.75-7.25 FT, trace slag fragments, moist.
							CH
	10		3		$\frac{4.0}{4.0}$	CL	
11.75 FT, some gravel.							
15							End of borehole at 12 FT BGS.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Stewart Creek Corridor

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2012-FWFS-1	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101762.3225
				Easting:	2479323.7294
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	CL	(0 - 5.0) CLAY, dark brownish gray, abundant limestone pebbles in clay matrix 0-0.5', trace limestone granules below 0.5', white precipitate-like material in fracture fills from 0-2', very dark gray organic clay at 3-5' with abundant decayed plant fragments, slightly moist to dry, low plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2012-FWFS-1	
Frisco Recycling Center Frisco, TX		Completion Date: 3/6/2013		Drilling Method: DPT	
		Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755		Driller's License: 58164		Total Depth (ft): 6	
		Field Supervisor: Tim Jennings, P.G.		Northing: 7101959.7756	
		Logged By: Roberta Russell		Easting: 2479787.6109	
		Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.5) CONCRETE SLAB	
1			CL	(0.5 - 6.0) Silty CLAY, trace gravel from 0.5-1.7', dark reddish brown, trace calcareous nodules, moist, soft to hard, low plasticity.	
2					
3	5/5				
4		4 - 5			
5					
6	1/1	5 - 6			
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached. </div> </div>					

Exide Technologies		Log of Boring: 2013-FWFS-1A		
Frisco Recycling Center Frisco, TX		Completion Date:	3/5/2013	
		Driller:	Margarito Estrada	
PBW Project No. 1755		Driller's License:	58164	
		Field Supervisor:	Tim Jennings, P.G.	
		Logged By:	Roberta Russell	
		Sampling Method:	5' Lined Tube	
		Drilling Method:	DPT	
		Borehole Diameter (in.):	2	
		Total Depth (ft):	5	
		Northing:	7101951.4239	
		Easting:	2479776.2769	
		Ground Elev. (ft AMSL):	--	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description
0	3/5		FILL	(0 - 3.5) FILL, gravel, gabion fill.
1				
2		2 - 4		(3.5 - 5.0) Silty CLAY, dark reddish brown, ~30% calcareous nodules and fine gravel from 4-5', wet, soft.
3				
4	4 - 5		CL	
5				
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached. </div> </div>				

Exide Technologies					Log of Boring: 2012-FWFS-4			
Frisco Recycling Center Frisco, TX					Completion Date:	4/29/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	5
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101873.4335
					Logged By:	Will Vienne, P.G.	Easting:	2479897.671
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.75) CONCRETE SLAB			
1				FILL	(0.75 - 2.4) FILL, gravelly, sandy clay, dark gray and brownish gray, wet (possibly from concrete corer), limestone and granite gravel, unconsolidated.			
2	3/4							
3		123	3 - 4	CL	(2.4 - 5.0) CLAY, very dark gray, trace limestone granules, moist, soft, low to medium plasticity.			
4	1/1	258	4 - 5					
5								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-FWFS-6			
Frisco Recycling Center Frisco, TX				Completion Date: 4/29/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Will Vienne, P.G.		Northing: 7101811.8251	
				Logged By: Will Vienne, P.G.		Easting: 2479976.3353	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description		
0				CON	(0 - 0.75) CONCRETE SLAB		
1				FILL	(0.75 - 2.5) FILL, clayey sand with moderately abundant pebble-sized limestone and granite gravel, mottled dark gray and brownish gray, wet (possibly from concrete corer).		
2	2.3/4						
3		115	2 - 4	CH	(2.5 - 5.0) CLAY, very dark gray, very moist, soft, medium to high plasticity.		
4	1/1	108	4 - 5				
5							

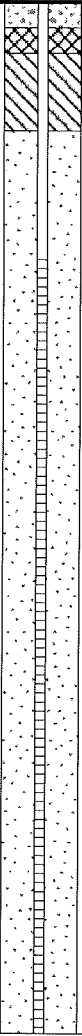
Exide Technologies				Log of Boring: 2012-FWFS-7A	
Frisco Recycling Center Frisco, TX				Completion Date:	5/21/2013
				Drilling Method:	DPT
PBW Project No. 1755				Driller:	Dan Spaust
				Borehole Diameter (in.):	2
				Driller's License:	3038
				Total Depth (ft):	5
				Field Supervisor:	Tim Jennings, P.G.
				Northing:	7101766.6481
				Logged By:	Tim Jennings, P.G.
				Easting:	2480011.6948
				Sampling Method:	4' Lined Tube
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	3/4	0 - 0.5	CL	(0 - 1.5) Silty CLAY, dark brown to light brown, moist, firm, medium plasticity, ~5% fine carbonate nodules.	
1		0.5 - 2	ML	(1.5 - 2.6) Clayey SILT, brown, wet, soft to firm, high plasticity.	
2		2 - 3	CL	(2.6 - 3.0) Gravelly CLAY, dark brown, wet, soft, medium plasticity, ~30-40% fine to medium gravel in clay matrix.	
3			NR	(3.0 - 4.0) No recovery.	
4	1/1	4 - 5	ML	(4.0 - 5.0) Clayey SILT, dark brown, wet, soft, high plasticity.	
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2012-FWFS-7B	
Frisco Recycling Center Frisco, TX				Completion Date:	5/21/2013
				Driller:	Dan Spaust
PBW Project No. 1755				Driller's License:	3038
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Tim Jennings, P.G.
				Sampling Method:	4' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101756.6481
				Easting:	2480011.6948
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	3/4	0 - 0.5	CL	(0 - 0.3) Silty CLAY, dark brown, dry, hard, medium plasticity.	
1		0.5 - 2	CH/MH	(0.3 - 5.0) Silty CLAY/Clayey SILT, dark reddish brown, moist, wet below 2.5', firm to soft, high plasticity.	
2		2 - 3			
3					
4	1/1	4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies					Log of Boring: 2012-FWFS-8			
Frisco Recycling Center Frisco, TX					Completion Date:	4/29/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	5
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101748.9161
					Logged By:	Will Vienne, P.G.	Easting:	2480053.981
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.75) CONCRETE SLAB			
1				FILL	(0.75 - 1.0) FILL, gravelly, clayey sand, reddish brown, very moist, unconsolidated, pebble-sized limestone and granite gravel.			
2	3.2/4				(1.0 - 2.0) FILL, clay, very dark gray, moist, soft to firm, low to medium plasticity, abundant slag at 1.8-2.0' (up to 1" diameter).			
3		203	2 - 4	CH	(2.0 - 5.0) CLAY, very dark gray, moist, soft, low to high plasticity, high plasticity below 4.0', silty from 2.0-4.0'.			
4	1/1	492	4 - 5					
5								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-FWFS-9	
Frisco Recycling Center Frisco, TX			Completion Date: 4/29/2013		Drilling Method: DPT	
			Driller: Margarito Estrada	Borehole Diameter (in.): 2		
PBW Project No. 1755			Driller's License: 58164		Total Depth (ft): 5	
			Field Supervisor: Will Vienne, P.G.		Northing: 7101720.026	
			Logged By: Will Vienne, P.G.		Easting: 2480094.8122	
			Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description	
0				CON	(0 - 0.75) CONCRETE SLAB	
1				FILL	(0.75 - 1.3) FILL, gravelly (pebble-sized), clayey sand, light brown, wet (possibly from concrete corer).	
2	3.4/4				(1.3 - 5.0) CLAY, very dark gray, very moist, soft, medium to high plasticity, strong hydrocarbon odor at 4-5'.	
3		1361	2.5 - 4	CH		
4	1/1	1800	4 - 5			
5						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: LMW-21			
Frisco Recycling Center Frisco, TX				Completion Date:	2/27/2013	Drilling Method:	HSA
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755				Driller:	Chris Combs	Total Depth (ft):	25
				Driller's License:	56033	Northing:	7103205.9759
				Logged By:	Tim Jennings, P.G.	Easting:	2480099.7956
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	645.11
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	648.28
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		5.0/5.0		0-0.5	(0 - 1.1) Sandy, gravelly CLAY; wet, very soft, slow dilatancy, high plasticity clay, ~20-30% fine sand and fine gravel.		
0.5-2				(1.1 - 7.9) Silty CLAY, dark gray, moist, firm to hard, no dilatancy, medium to high plasticity, trace carbonate gravel below 5'.			
2-4							
4-5							
5		5.0/5.0					
10		5.0/5.0			(7.9 - 10.6) Clayey, gravelly SAND; light brown, fine to coarse sand, moist, soft to firm, medium plasticity clay, ~10-20% clay and ~10-20% fine to medium gravel.		
15		5.0/5.0			(10.6 - 13.5) Clayey SILT, light brown, moist, soft to firm, slow dilatancy, medium plasticity.		
20		2.5/5.0			(13.5 - 16.0) Gravelly, clayey SAND; light brown, fine to coarse sand, moist to wet, wet at 15.8-16', firm to soft, ~40-50% fine to medium gravel, ~5-10% clay above 15'.		
25		2.2/5.0			(16.0 - 17.2) Sandy SILT, light brown, wet, soft, medium plasticity.		
					(17.2 - 21.8) Sandy, gravelly CLAY; wet to dry, firm to hard, medium plasticity clay, fine to medium gravel (~5-10%) and fine to coarse sand (~10-20%) in clay matrix.		
					(21.8 - 25.0) SHALE, brownish gray, dry, very hard.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
				<u>Annular Materials</u> (0.0 - 2.0) Concrete (2.0 - 8.0) Bentonite Hole Plug (8.0 - 25.0) 20/40 Silica Sand		<u>Well Materials</u> (+3.16 - 10.0) Casing, 2" Sch 40 FJT PVC (10.0 - 25.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: LMW-22			
Frisco Recycling Center Frisco, TX				Completion Date: 2/27/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Dan Spaust		Total Depth (ft): 20	
				Driller's License: 3038M		Northing: 7102891.2829	
				Logged By: Roberta Russell		Easting: 2480355.4657	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 643.32	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 646.99	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		4.5/5.0	CL	0-0.5	(0 - 12.5) CLAY/Silty CLAY, dark reddish brown, yellowish brown from 9-12.5', moist, soft to firm, low to medium plasticity, ~10% calcareous nodules from 9-12.5'.		
0.5-2							
2-4							
4-5							
5							
10		4.4/5.0			(12.5 - 13.0) CLAY with gravel; yellowish brown, moist, soft, low plasticity, ~30-40% gravel in clay matrix. (13.0 - 16.0) Sandy CLAY, yellowish brown, moist, soft, low plasticity.		
15		4.0/5.0					
20		4.3/5.0					
			SH		(19.5 - 20.0) SHALE, gray, dry, hard, low to medium plasticity.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
				Annular Materials (0.0 - 0.5) Concrete (0.5 - 1.0) Bentonite Grout (1.0 - 2.5) Bentonite Hole Plug (2.5 - 20.0) 20/40 Silica Sand		Well Materials (+3.67 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies					Log of Boring: 2013-MB-1			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	5.5
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101768.9942
					Logged By:	Will Vienne, P.G.	Easting:	2480378.5615
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1			0 - 2	CL	(0.5 - 5.5) Silty CLAY, very dark brownish gray, slightly sandy at 0.5-2.5, moist, some perched water below concrete (may be from concrete corer).			
2	4/4	3.3						
3		1.6	2 - 4					
4		14	4 - 5					
5	1.5/1.5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-MB-2			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	4.5
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101789.6858
					Logged By:	Will Vienne, P.G.	Easting:	2480309.4631
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1		27.5	0 - 2	FILL	(0.5 - 0.8) Road base material.			
2					(0.8 - 4.5) Silty CLAY, abundant silt, very dark gray, trace black staining, dry to moist, soft, low to no plasticity, refusal at 4.5'.			
3	3.6/4	21.5	2 - 4	CL				
4								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			



LOG OF 2013-MB-3

DRILLING METHOD: Direct Push

NORTHING: 7,101,808 FT

DATE/TIME: 01/08/2014, 1215

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,461 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
				0.0-0.5 (1218)			0-0.75 FT, Concrete.
				0.5-2.0 (1222)	ML		0.75-1.75 FT, (ML) SILT; dark brown; dry, soft.
				2.0-4.0 (1225)	CH/CL		1.75-4.0 FT, (CH/CL) CLAY and SILTY CLAY; dark brown, layered; dry, firm.
							End of borehole at 4 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Maintenance Bldg

REVIEWED BY: JW



LOG OF 2013-MB-4

DRILLING METHOD: Direct Push

NORTHING: 7,101,869 FT

DATE/TIME: 01/08/2014, 1515



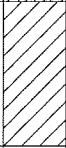
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,347 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1						0-0.8 FT, Concrete.
		0.6		0.08-1.3 (1515)	CL		0.8-2.0 FT, (CL) SILTY CLAY; black; moist, stiff.
		0.6	4.0 4.0	1.3-2.0 (1518)			
		0.5		2.0-4.0 (1520)	CH		2.0-4.0 FT, (CH) CLAY; black; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Maintenance Bldg

REVIEWED BY: JW



LOG OF 2013-MB-5

DRILLING METHOD: Direct Push

NORTHING: 7,101,720 FT

DATE/TIME: 01/08/2014, 1300

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,355 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	11.6	$\frac{0.8}{5.0}$	0-5 (1320)	CL		0-0.5 FT, Concrete.
							0.5-4.5 FT, (CL) SILTY CLAY; brown; dry, soft.
	2	76.5	$\frac{2.8}{5.0}$	10-12 (1335)	CL		4.5-5.0 FT, (SP) SAND, coarse; light brown; loose.
							5.0-10.0 FT, (CL) SILTY CLAY; dark brown; damp, soft. 5.0 FT, gravel seam.
15	3	42.3	$\frac{5.0}{5.0}$	14-16 (1345)	CL		10.0-15.0 FT, (CL) CLAY, some silt, trace gravel; dark gray; wet, soft.
							11.0 FT, moist.
	4	63.2	$\frac{5.0}{5.0}$	18-20 (1420)	ML/CL		15.0-17.0 FT, (ML/CL) SILT and CLAY, some sand and gravel; layered; wet, firm.
							17.0-18.5 FT, (ML) CLAYEY SILT, some gravel; alluvial; dry, firm.
		81.4					18.5-20.0 FT, SHALE; dark gray, reddish brown mottling; dry, hard.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Maintenance Bldg

REVIEWED BY: JW



LOG OF 2013-MB-5

DRILLING METHOD: Direct PushNORTHING: 7,101,720 FTDATE/TIME: 01/08/2014, 1300DRILLER: SCI, Margarito EstradaEASTING: 2,480,355 FTTOTAL DEPTH: 20 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							End of borehole at 20 FT BGS
25							
30							
35							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Maintenance BldgREVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-MW10-1	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Northing:	7101995.4879
				Easting:	2480989.1399
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	CH	(0 - 3.0) CLAY, dark reddish brown, moist, soft, medium to high plasticity.	
1		0.5 - 2			
2		2 - 4	ML		
3				(3.0 - 5.0) Clayey SILT, dark reddish brown, calcareous nodules (10%), slightly moist, hard, low plasticity.	
4					
5		4 - 5			
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached. </div> </div>					

Exide Technologies				Log of Boring: 2013-MW10-2			
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013	Drilling Method:	DPT
				Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755				Driller's License:	58164	Total Depth (ft):	5
				Field Supervisor:	Tim Jennings, P.G.	Northing:	7101953.2098
				Logged By:	Roberta Russell	Easting:	2480965.5869
				Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	5/5	0 - 0.5	FILL	(0 - 0.2) FILL, sand, dark reddish brown, moist, soft.			
1		0.5 - 2	CL	(0.2 - 4.5) Silty CLAY, dark reddish brown, calcareous nodules from 2.5-4.5', moist, soft to firm, low plasticity.			
2							
3		2 - 4					
4		4 - 5	ML	(4.5 - 5.0) Sandy SILT, trace medium gravel, light yellowish brown, calcareous, slightly moist, soft.			
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-MW10-3	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101988.5518
				Easting:	2480897.199
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	FILL	(0 - 0.4) FILL, silty clay with sand and gravel, red Fe-ox staining, plastic chip present, moist, soft, low plasticity.	
1		0.5 - 2		(0.4 - 5.0) Clayey SILT/SILTY clay, dark reddish brown, calcareous nodules from 2.6 - 5', moist, soft to firm, low plasticity.	
2					
3		2 - 4	MLCL		
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-MW-17A	
Frisco Recycling Center Frisco, TX				Completion Date:	3/15/2013
				Driller:	Dan Spaust
PBW Project No. 1755				Driller's License:	3038
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	4" Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102073.3953
				Easting:	2479606.9524
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0		0 - 0.5	CL	(0 - 5.0) Silty CLAY, very dark gray, dark brownish gray with increased silt below 4', soft to slightly firm, low plasticity, moderate to abundant decayed plant material, trace limestone granules and pebbles.	
1		0.5 - 2			
2	4/4				
3		2 - 4			
4					
5	1/1	4 - 5			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF 2013-MW-17B

DRILLING METHOD: Direct Push

NORTHING: 7,102,077 FT

DATE/TIME: 01/10/2014, 1145


DRILLER: SCI, Margarito Estrada

EASTING: 2,479,603 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.3 4.0	0.0-0.5 (1151)	ML		0-1.0 FT, (ML) CLAYEY SILT; dark brown; dry, stiff.
					CL		1.0-4.0 FT, (CL) SILTY CLAY; dark gray, reddish mottling, friable; dry, hard.
5							End of borehole at 4 FT BGS.
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF


PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: NW of Battery Storage Bldg

REVIEWED BY: JW

Exide Technologies				Log of Boring: MW-19	
Frisco Recycling Center Frisco, TX		Completion Date: 1/12/2012		Drilling Method: HSA	
		Drilling Company: StrataCore		Borehole Diameter (in.): 8.25	
PBW Project No. 1755		Driller: Mario Robles		Total Depth (ft): 22	
		Driller's License: 52694		Northing: 7102589.0425	
		Logged By: Christopher Moore, P.G.		Easting: 2481314.6445	
		Sampling Method: 3"x 5' Barrel		Ground Elev. (ft AMSL): 650.33	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Lithologic Description	
0				(0 - 6.0) CLAY, CH, dark grayish brown, moist, firm, medium to high plasticity, trace gravel.	
		3.0/5.0		2.0-3.5: with limestone gravel.	
5				(6.0 - 19.2) CLAY, CH, gray and yellowish brown, moist, firm, high plasticity.	
		3.7/5.0		9.5: wire fragment, possible fill/reworked material above.	
10			CH	Below 10.0: fractured, orange staining along fracture planes.	
		3.9/5.0		11.5-12.0: gravelly, moist to wet.	
				13.0-13.2: silty/gravelly, moist to wet.	
15				13.9-14.2: gravelly, moist to wet.	
		4.5/5.0			
20				(19.2 - 22.0) SHALE, dark gray, moist, hard, laminated, fissile.	
		2.0/2.0	SH		
<div> <div>PBW</div> <div>Pastor, Behling & Wheeler, LLC</div> <div>2201 Double Creek Dr., Suite 4004</div> <div>Round Rock, TX 78664</div> <div>Tel (512) 671-3434 Fax (512) 671-3446</div> </div>				<div> <div>Notes:</div> <div>Boring location hand probed to 5 feet to check for utilities.</div> <div>This Log of Boring should not be used separately from the report to which it is attached.</div> </div>	
<div> <div>Annular Materials</div> <div>(0.0 - 1.0) Concrete</div> <div>(1.0 - 5.0) Bentonite Hole Plug</div> <div>(5.0 - 22.0) 20/40 Silica Sand</div> </div>				<div> <div>Well Materials</div> <div>(+2.6 - 7.0) Casing, 2" Sch 40 FJT PVC</div> <div>(7.0 - 22.0) Screen, 2" Sch 40 FJT PVC,</div> <div>0.01 slot</div> </div>	
				<div> <div>Initial Fluid Level (1/16/12)</div> <div>Depth to water: 15.58 ft BGS</div> </div>	
				<div> <div>TOC Elevation (ft AMSL)</div> <div>653.34</div> </div>	

Exide Technologies				Log of Boring: MW-20			
Frisco Recycling Center Frisco, TX				Completion Date: 1/12/2012		Drilling Method: HSA	
				Drilling Company: StrataCore		Borehole Diameter (in.): 8.25	
PBW Project No. 1755				Driller: Mario Robles		Total Depth (ft): 22	
				Driller's License: 52694		Northing: 7101791.617	
				Logged By: Christopher Moore, P.G.		Easting: 2481082.2078	
				Sampling Method: 3"x 5' Barrel		Ground Elev. (ft AMSL): 641.73	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Lithologic Description			
0		5.0/5.0	CH	(0 - 15.5) CLAY, CH, dark grayish brown, moist, firm, medium to high plasticity, trace sand size carbonate nodules, no odor, no staining or foreign material observed. 3.0-.3.9: some gravel size carbonate nodules.			
5							
10							
15							
20		2.0/2.0	SH	(15.5 - 19.7) CLAY, CH, gray and yellowish brown, moist, firm, high plasticity, fractured, orange staining along fracture planes. (19.7 - 22) SHALE, dark gray, moist, hard, laminated, fissile.			
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">PBW</div> Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Boring location hand probed to 5 feet to check for utilities. This Log of Boring should not be used separately from the report to which it is attached.			
				<div style="display: flex; justify-content: space-between;"> <div> Annular Materials (0.0 - 1.0) Concrete (1.0 - 5.0) Bentonite Hole Plug (5.0 - 22.0) 20/40 Silica Sand </div> <div> Well Materials (+2.6 - 7.0) Casing, 2" Sch 40 FJT PVC (7.0 - 22.0) Screen, 2" Sch 40 FJT PVC, 0.01 slot </div> <div style="text-align: right;"> TOC Elevation (ft AMSL) 644.7 </div> </div>			
				Initial Fluid Level (1/16/12) Depth to water: 21.05 ft BGS			
				(Empty section for additional notes or data)			


Exide Technologies				Log of Boring: MW-21	
Frisco Recycling Center Frisco, TX		Completion Date: 3/5/2013		Drilling Method: HSA/DPT	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Dan Spaust		Total Depth (ft): 15	
		Driller's License: 3038M		Northing: 7102518.8983	
		Logged By: Tim Jennings, P.G.		Easting: 2480490.8249	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 633.66	
		Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 635.99	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0		3.8/5.0	CL	0-0.5	(0 - 1.0) Silty CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low to medium plasticity.
0.5-2				(1.0 - 4.0) Gravelly CLAY, light brownish orange, very moist, soft to firm, low plasticity, ~20% medium gravel in clay matrix.	
2-4					
5		2.5/2.5	CH	4-5	(4.0 - 5.0) CLAY, light grayish brown, abundant orange staining (iron oxide), moist, hard, medium to high plasticity. (5.0 - 5.5) Gravelly CLAY, light brown and orange, moist, firm, medium plasticity, 10-30% fine to medium gravel in clay matrix. (5.5 - 10.5) Silty CLAY, light brown, orange and gray laminations, moist, hard, medium plasticity, heavily weathered shale.
		2.5/2.5	CL		
10		2.5/2.5			(10.5 - 15.0) SHALE, gray, moist, hard, weathered shale.
15		2.5/2.5	SH		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.	
Annular Materials (0.0 - 1.0) Concrete (1.0 - 2.5) Bentonite Hole Plug (2.5 - 15.0) 20/40 Silica Sand				Well Materials (+2.33 - 3.0) Casing, 2" Sch 40 FJT PVC (3.0 - 13.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	


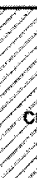





Exide Technologies				Log of Boring: MW-22	
Frisco Recycling Center Frisco, TX		Completion Date: 3/5/2013		Drilling Method: HSA/DPT	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Dan Spaust		Total Depth (ft): 15	
		Driller's License: 3038M		Northing: 7102440.5654	
		Logged By: Tim Jennings, P.G.		Easting: 2480046.6732	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 633.29	
		Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 636.89	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0		3.5/5.0	CL	0-0.5	(0 - 1.5) Gravelly CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low plasticity.
0.5-2				(1.5 - 3.0) Silty CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low plasticity.	
2-4				(3.0 - 5.0) Gravelly CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low plasticity.	
4-5				(5.0 - 7.7) Silty CLAY, light brown, orange and gray, moist, firm, medium plasticity.	
5		1.0/2.5			(7.7 - 12.3) SHALE, gray, brown and orange; moist, firm, weathered.
		2.5/2.5			
10		2.5/2.5	SH		
		2.5/2.5			(12.3 - 15.0) SHALE, gray, dry, hard.
15					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not be used separately from the report to which it is attached.	
Annular Materials (0.0 - 1.0) Concrete (1.0 - 2.5) Bentonite Hole Plug (2.5 - 15.0) 20/40 Silica Sand				Well Materials (+3.6 - 3.0) Casing, 2" Sch 40 FJT PVC (3.0 - 13.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies			Log of Boring: MW-23		
Frisco Recycling Center Frisco, TX			Completion Date: 3/5/2013		Drilling Method: HSA/DPT
			Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75
PBW Project No. 1755			Driller: Dan Spaust		Total Depth (ft): 20
			Driller's License: 3038M		Northing: 7102124.8425
			Logged By: Tim Jennings, P.G.		Easting: 2480769.4386
			Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 644.32
			Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 644.15
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0				0-0.5	(0 - 0.3) FILL, surficial fill not associated with NDA, no foreign objects (e.g. slag, battery chips or trash) observed, sand with clay, reddish brown, moist, soft.
		5.0/5.0	FILL	0.5-2	(0.3 - 2.6) FILL, surficial fill not associated with NDA, no foreign objects (e.g. slag, battery chips or trash) observed, silty clay/clayey silt, trace gravel, dark reddish brown, moist, firm, low plasticity.
				2-4	(2.6 - 5.5) Clayey SILT, dark reddish brown, dry, hard, low plasticity, ~15% calcareous nodules.
5			ML	4-5	
		0.5/5.0	CH		(5.5 - 10) Silty CLAY, light brown, moist, soft to firm, high plasticity, ~10-15% carbonate nodules in clay matrix (based on cuttings).
10		2.5/2.5			(10 - 12.2) Gravelly, sandy CLAY; light brown, moist to wet, ~20-30% fine to medium gravel and ~10-20% fine to medium sand in clay matrix.
		2.5/2.5	CLCH		(12.2 - 16.2) Silty CLAY, light brown, orange and gray, moist, firm to hard, laminated, possibly heavily weathered shale.
15		4.5/5.0	SH		(16.2 - 17.7) SHALE, light brown, orange and gray, moist, firm, friable and weathered.
20					(17.7 - 20.0) SHALE, gray, moist, hard.
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not to be used separately from the report to which it is attached.		
Annular Materials (0.0 - 2.0) Concrete (2.0 - 3.5) Bentonite Hole Plug (3.5 - 19.5) 20/40 Silica Sand (19.5 - 20.0) Sloughed Material			Well Materials (- 17 - 4.5) Casing, 2" Sch 40 FJT PVC (4.5 - 19.5) Screen, 2" Sch 40 FJT PVC, 0.010 slot		

Exide Technologies				Log of Boring: MW-24	
Frisco Recycling Center Frisco, TX		Completion Date: 3/5/2013		Drilling Method: HSA/DPT	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Dan Spaust		Total Depth (ft): 29	
		Driller's License: 3038M		Northing: 7102133.0317	
		Logged By: Tim Jennings, P.G.		Easting: 2479613.4306	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 639.62	
		Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 642.96	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0				0-0.5	(0 - 5.0) Silty clay/clayey silt FILL, moist, firm, low plasticity, dry and very hard 3-5'.
				0.5-2	
		5.0/5.0		2-4	
				4-5	
5		1.5/2.5			(5.0 - 12.8) Gravelly clay FILL, dark brown and dark grayish brown, light brown 7.5-9.5, moist, firm to hard, medium to high plasticity, ~5-10% fine to coarse gravel fill, large carbonate cobbles at 11'.
		2.5/2.5	FILL		
10		1.5/2.5			(12.8 - 15.9) Sandy clay FILL; dark reddish brown, moist, hard, low plasticity clay, iron oxide staining, very stiff.
		2.5/2.5			
15		1.5/2.5	CL		(15.9 - 18.5) Silty, sandy CLAY; dark reddish brown, trace iron oxide staining, moist, firm, medium plasticity, increasing moisture downward.
		2.5/2.5	MH		(18.5 - 20.2) Clayey SILT, dark brown, wet, soft, high plasticity.
20		3.0/3.0	CH		(20.2 - 23.1) Silty CLAY, grayish brown, moist to wet, firm, <5% fine calcareous nodules, wet sand interbedded at 22.5-22.6'.
		1.0/2.0	SW		(23.1 - 23.7) Clayey SAND, brown, wet, soft, sub-rounded sand, ~10-20% clay in fine to coarse sand.
25		1.0/2.5	CL		(23.7 - 27.5) Gravelly CLAY, light brown to brown, wet, firm, sub-rounded gravel, medium plasticity clay, ~30-40% fine gravel in clay matrix, sandy gravel 27.3-27.5'.
		1.5/1.5	SH		(27.5 - 28.4) SHALE, light brown, orange and gray, abundant iron oxide staining, weathered.
					(28.4 - 29.0) SHALE, gray, dry, very hard.
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.	
Annular Materials (0.0 - 2.0) Concrete (2.0 - 12.0) Bentonite Hole Plug (12.0 - 29.0) 20/40 Silica Sand				Well Materials (+3.34 - 14.0) Casing, 2" Sch 40 FJT PVC (14.0 - 29.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: MW-25			
Frisco Recycling Center Frisco, TX				Completion Date: 2/27/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Chris Combs		Total Depth (ft): 22	
				Driller's License: 56033		Northing: 7101782.1994	
				Logged By: Roberta Russell		Easting: 2479376.8891	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 633.36	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 635.85	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0					(0 - 20.0) Silty CLAY/Clayey SILT, dark reddish brown, moist, soft to firm, low plasticity, very moist at 13.5 to 15.0', gravelly clay lenses in very moist calcareous clay at 15.5-15.6', 16.5-16.7', 17.5-17.9'.		
5		5.0/5.0					
10		5.0/5.0					
15		5.0/5.0	CL/ML				
20		5.0/5.0					
		1.0/1.0	GC		(20.0 - 20.5) GRAVEL with clay; wet, soft, low plasticity clay (~20% clay).		
			SH		(20.5 - 21.0) SHALE, dry, hard.		
		0.0/1.0	NR		(21.0 - 22.0) No recovery		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
Annular Materials (0.0 - 0.5) Concrete (0.5 - 2.0) Bentonite Grout (2.0 - 4.0) Bentonite Hole Plug (4.0 - 22.0) 20/40 Silica Sand				Well Materials (+2.49 - 7.0) Casing, 2" Sch 40 FJT PVC (7.0 - 22.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies				Log of Boring: MW-26			
Frisco Recycling Center Frisco, TX				Completion Date: 3/6/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Dan Spaust		Total Depth (ft): 15	
				Driller's License: 3038M		Northing: 7101865.0034	
				Logged By: Tim Jennings, P.G.		Easting: 2479876.33	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 628.34	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 631.93	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		4.0/5.0	CL		(0 - 1.0) Sandy CLAY, light reddish brown, moist, firm, low plasticity.		
				(1.0 - 5.0) Silty CLAY, dark reddish brown, trace iron oxide orange staining, moist, wet at 3', soft to firm, low plasticity.			
5		1.5/2.5	CH		(5.0 - 9.4) Silty CLAY, brown, moist to wet, firm, high plasticity.		
		2.5/2.5					
10		1.5/2.5	CL		(9.4 - 10.8) Gravelly CLAY, brown, moist to wet, firm, medium plasticity clay, ~20-40% fine to medium gravel.		
	1.5/2.5			(10.8 - 13.0) Silty CLAY, light brown and orange, laminated with trace iron oxide staining, moist to wet, firm, medium plasticity.			
15		1.5/2.5	SH		(13.0 - 15.0) SHALE, gray, orange and light brown, trace iron oxide above 14', dry, hard, very hard at 14.5 to 15', low plasticity, weathered.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
Annular Materials (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 15.0) 20/40 Silica Sand				Well Materials (+3.59 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 15.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies				Log of Boring: MW-27			
Frisco Recycling Center Frisco, TX				Completion Date: 3/6/2013		Drilling Method: HSA/DPT	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Dan Spaust		Total Depth (ft): 15	
				Driller's License: 3038M		Northing: 7101675.2344	
				Logged By: Tim Jennings, P.G.		Easting: 2480260.288	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 629.89	
				Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 633.42	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	PID (ppm)	Lithologic Description	
0		4.5/5.0		0-0.5	0.1	(0 - 2.5) Silty CLAY, dark reddish brown, moist, soft, low to medium plasticity, moderate hydrocarbon odor below 1'.	
0.5-2							
2-4							
4-5							
5		2.5/2.5			125.4	(5.0 - 7.0) Sandy, clayey SILT; gray, moist to wet, soft, high plasticity clay, <5% fine gravel, moderate hydrocarbon odor.	
10		2.5/2.5			13	(7.0 - 8.0) Silty CLAY, gray, moist to wet, soft, high plasticity, trace calcareous nodules, moderate hydrocarbon odor. (8.0 - 11.5) Sandy, gravelly CLAY; gray, moist to wet, locally wet, firm, high plasticity clay, ~10-20% fine to medium sand, ~5-10% fine gravel.	
15		2.5/2.5			0.5	(11.5 - 13.4) Gravelly CLAY, gray, moist, firm, medium plasticity clay, ~20-40% fine to medium gravel in clay matrix.	
	2.5/2.5			1.8	(13.4 - 14.6) SHALE, gray and orange, moist, hard, low plasticity, weathered. (14.6 - 15.0) SHALE, gray, dry, hard.		

PBW

Pastor, Behling & Wheeler, LLC
2201 Double Creek Dr., Suite 4004
Round Rock, TX 78664
Tel (512) 671-3434 Fax (512) 671-3446

Notes:

This boring log should not be used separately from the report to which it is attached.

Annular Materials (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 15.0) 20/40 Silica Sand	Well Materials (+3.53 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 15.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot
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LOG OF MW-27A

DRILLING METHOD: Hand Auger

NORTHING: 7,101,708 FT

DATE/TIME: 01/09/2014, 0915

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,181 FT

TOTAL DEPTH: 4 FT BGS

RIG: Hand Auger

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	1.0	<u>4.0</u> <u>4.0</u>	0-2 (0925)	ML		0-0.5 FT, (ML) CLAYEY SILT; dark brown; dry, firm.
					CL		0.5-2.0 FT, (CL) SILTY CLAY; dark brown; dry, firm.
		0.2		2-4 (0930)	CH		2.0-4.0 FT, (CH) CLAY; dark brown; dry, firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ




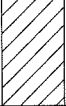
LOCATION: MW-27

REVIEWED BY: JW



LOG OF MW-27B

DRILLING METHOD: Hand AugerNORTHING: 7,101,702 FTDATE/TIME: 01/09/2014, 0845DRILLER: SCI, Margarito EstradaEASTING: 2,480,230 FTTOTAL DEPTH: 4 FT BGSRIG: Hand AugerSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
		0.0		0-2 (0855)	ML		0-1.5 FT, (ML) CLAYEY SILT; dark brown; dry, soft.
	1		4.0 4.0		CL		1.5-2.0 FT, (CL) SILTY CLAY, trace fine gravel; dark brown; dry, firm.
					GP		2.0-2.5 FT, (GP) SANDY GRAVEL; gray; damp, compact.
		0.8		2-4 (0900)	CH		2.5-4.0 FT, (CH) CLAY, trace fine gravel; dark brown; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: MW-27REVIEWED BY: JW



LOG OF MW-27C

DATE/TIME: 01/08/2014, 1615

DRILLING METHOD: Hand Auger

NORTHING: 7,101,695 FT

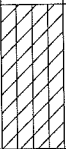
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,287 FT

TOTAL DEPTH: 2 FT BGS

RIG: Hand Auger

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	0.5	<u>2.0</u> 2.0	0-2 (1620)	ML		0-2.0 FT, (ML) CLAYEY SILT; brown; dry, firm.
5							End of borehole at 2 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: MW-27

REVIEWED BY: JW



LOG OF MW-27D

DRILLING METHOD: Hand AugerNORTHING: 7,101,691 FTDATE/TIME: 01/08/2014, 1545DRILLER: SCI, Margarito EstradaEASTING: 2,480,338 FTTOTAL DEPTH: 4 FT BGSRIG: Hand AugerSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	0.8	<u>4.0</u> 4.0	0-2 (1545)	CL/GC		0-0.5 FT, Concrete.
							0.5-1.0 FT, (CL/GC) GRAVELLY CLAY, some sand; light brown; wet, soft.
		0.4		2-4 (1550)	CL		1.0-4.0 FT, (CL) CLAY, trace gravel; black; moist, soft.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: MW-27REVIEWED BY: JW

LOG OF MW-27E

DRILLING METHOD: Direct Push

NORTHING: 7,101,667 FT

DATE/TIME: 01/13/2014, 0845



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,260 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0-1 (0842)	CL		0-1.5 FT, (CL) CLAY, some layered silty clay; brown; slightly moist, soft-firm.
				1-2 (0843)	CH		1.5-4.0 FT, (CH) CLAY, trace fine gravel; brown; dry, firm.
				2-3 (0844)			End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF





PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: MW-27

REVIEWED BY: JW

Exide Technologies				Log of Boring: MW-28	
Frisco Recycling Center Frisco, TX		Completion Date: 2/27/2013		Drilling Method: HSA	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Chris Combs		Total Depth (ft): 20	
		Driller's License: 56033		Northing: 7102977.6985	
		Logged By: Roberta Russell		Easting: 2479831.956	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 639.47	
		Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 642.91	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0					(0 - 10.8) Silty CLAY/Clayey SILT, dark reddish brown, soft to firm, low to medium plasticity, calcareous nodules starting at 7.5'.
		5.0/5.0			
5			CL/ML		
		5.0/5.0			
10					(10.8 - 13.5) Gravelly CLAY, yellowish brown, moist, wet at 12.8', soft to firm, low to medium plasticity clay, calcareous nodules, ~10% gravel in clay matrix.
		4.2/5.0	CL		
15					(13.5 - 16.5) Sandy CLAY, yellowish brown, wet, soft to firm, low plasticity clay, calcareous nodules.
		5.0/5.0	CL/ML		
20			SH		(16.5 - 19.5) Silty CLAY/Clayey SILT, yellowish brown, moist, soft to firm, low to medium plasticity.
					(19.5 - 20.0) SHALE, dry, hard.
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not to be used separately from the report to which it is attached.		
Annular Materials (0.0 - 0.5) Concrete (0.5 - 1.0) Bentonite Grout (1.0 - 2.5) Bentonite Hole Plug (2.5 - 20.0) 20/40 Silica Sand			Well Materials (+3.44 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot		

Exide Technologies				Log of Boring: MW-29	
Frisco Recycling Center Frisco, TX		Completion Date: 3/6/2013		Drilling Method: HSA/DPT	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Dan Spaust		Total Depth (ft): 15	
		Driller's License: 3038M		Northing: 7101741.6829	
		Logged By: Tim Jennings, P.G.		Easting: 2480041.8696	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 629.39	
		Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 633.51	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0		5.0/5.0	CL/ML	0-0.5	(0 - 5.0) Silty CLAY/Clayey SILT, dark reddish brown, orange iron oxide staining from 0-0.5', moist, wet at 4', firm to hard, low plasticity, clayey gravel lens from 2.6-2.7'.
0.5-2					
2-4					
4-5					
5		2.5/2.5	CH		(5.0 - 8.0) Silty CLAY, dark grayish brown, moist to wet, firm, high plasticity, fine to medium gravel in silty clay matrix at 5-5.8'.
				(8.0 - 11.4) Silty CLAY, light brown, moist, firm, high plasticity, <5% fine gravel.	
				(11.4 - 14.0) SHALE, gray and orange, trace iron oxide, moist, firm to hard, medium plasticity, weathered.	
				(14.0 - 15.0) SHALE, gray, dry, hard.	
10		1.5/2.5	SH		
15		2.5/2.5	SH		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.	
Annular Materials (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 14.5) 20/40 Silica Sand (14.5 - 15.0) Sloughed Material				Well Materials (+4.12 - 4.5) Casing, 2" Sch 40 FJT PVC (4.5 - 14.5) Screen, 2" Sch 40 FJT PVC, 0 010 slot	



LOG OF MW-29A

DRILLING METHOD: Direct Push

NORTHING: 7,101,747 FT

DATE/TIME: 01/13/2014, 0845

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,032 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0.0-0.5 (0852)	CL		0-2.0 FT, (CL) CLAY, some layered silty clay; brown; dry, soft-firm.
					CL/GC		2.0-3.0 FT, (CL/GC) gravelly SILTY CLAY; brown; moist, firm.
					CH		3.0-5.0 FT, (CL) CLAY; dark brown; dry, firm.
	2		1.0 1.0				4.0 FT, soft.
							End of borehole at 5 FT BGS
10							
15							

PROJECT No: 130-2086


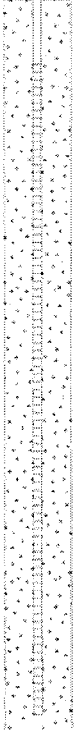
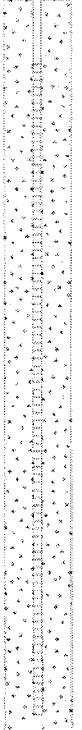
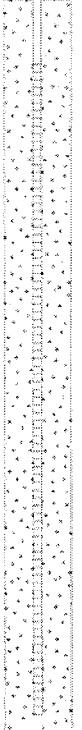
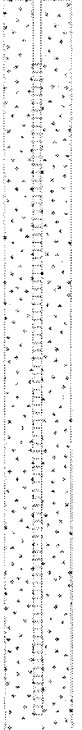
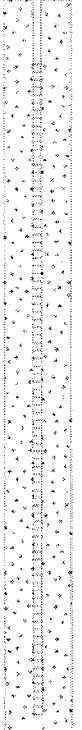
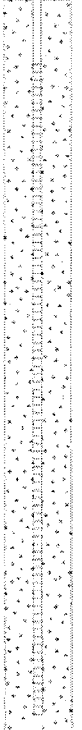
COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Treatment Bldg

REVIEWED BY: JW

Exide Technologies				Log of Boring: MW-30			
Frisco Recycling Center Frisco, TX				Completion Date: 3/28/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Dan Spaust		Total Depth (ft): 32.5	
				Driller's License: 3038M		Northing: 7102086.1889	
				Logged By: Tim Jennings, P.G.		Easting: 2480011.0566	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 645.483805	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 645.148475	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		0.5/5	NR	0-0.5	(0 - 0.5) Sandy Gravelly CLAY, dark grayish brown, moist, firm, medium plasticity, ~10-20% fine to coarse sand, ~20-30% fine to coarse gravel and cobbles (railroad balast). (0.5 - 5.0) No Recovery		
0.5-2							
2-4							
4-5							
5		1.3/5	FILL		(5.0 - 20.9) FILL, silty clay, dark grayish brown, moist to wet, soft, medium to high plasticity, trace of fine gravel,		
10		1/2.5	FILL		(20.9 - 26.5) FILL, gravelly clay, light brown, wet, soft, high plasticity, ~30-40% fine gravel in clay matrix, wood fragments locally to 25'.		
15		2.5/2.5	FILL		(26.5 - 28.5) FILL, gravelly clay, wet, firm to hard, medium plasticity, ~40-50% fine to medium gravel in clay matrix, pieces of slag/lead at 28', shell fragments at 28-28.5'.		
20		2.5/2.5	FILL		(28.5 - 30.5) SHALE, gray and orange, abundant fe ox staining, wet, hard, medium plasticity.		
25		2.5/2.5	FILL		(30.5 - 32.5) SHALE, gray, moist, no cementation, very hard.		
30		2.5/2.5	SH				

PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446	Notes: This log should not to be used separately from the report to which it is attached.	
	Annular Materials (0.0 - 2.0) Concrete (2.0 - 10.0) Bentonite Hole Plug (10.0 - 32.5) 20/40 Silica Sand	Well Materials (0 - 12.0) Casing, 2" Sch 40 FJT PVC (12.0 - 32.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot



LOG OF MW-30A

DRILLING METHOD: Direct Push

NORTHING: 7,102,080 FT

DATE/TIME: 01/09/2014, 1500

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,016 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>3.3</u> 4.0	2-4 (1508)	GP/SP		0-1.0 FT, (GP/SP) SANDY GRAVEL, sub-angular; brown; moist, loose.
					CH		1.0-2.0 FT, (CH) CLAY; dark brown; moist, soft.
					CH		2.0-4.0 FT, (CH) CLAY; black; dry, stiff.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Battery Breaker Bldg

REVIEWED BY: JW

Exide Technologies				Log of Boring: MW-31			
Frisco Recycling Center Frisco, TX				Completion Date:	5/9/2013	Drilling Method:	HSA
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755				Driller:	Margarito Estrada	Total Depth (ft):	24
				Driller's License:	58164	Northing:	7102001.9818
				Logged By:	Tim Jennings, P.G.	Easting:	2479800.4009
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	637.17
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	636.71
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0			CON		(0 - 0.9) CONCRETE SLAB		
		4/5	FILL	0.9-2	(0.9 - 5.8) FILL, clayey sand and sandy clay, orange, trace iron oxide nodules.		
5		5/5		5.8-8	(5.8 - 8) FILL, silty clay, trace fine gravel, moist to wet, dark brown, trace battery chips at 5.8-8', wet at 9.5', slag observed.		
		5/5		9.5	(8 - 16) Silty clay, dark brown.		
10			CL		(16 - 21) Silty CLAY and clayey SILT, trace gravel and sand, greater sand content with depth, yellowish brown.		
15					(21 - 22) Gravelly CLAY, ~20% fine to medium gravel in clay matrix.		
20		cuttings			(22 - 24) SHALE potentially, drilling more difficult.		
			SH				
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 2.0) Concrete (2.0 - 6.0) Bentonite Hole Plug (6.0 - 23.0) 20/40 Silica Sand				Well Materials (0 - 8.0) Casing, 2" Sch 40 FJT PVC (8.0 - 23.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies				Log of Boring: MW-31(R)			
Frisco Recycling Center Frisco, TX				Completion Date: 5/21/2013		Drilling Method: DPT	
				Driller: Dan Spaust		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 3038		Total Depth (ft): 12	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7103086.71	
				Logged By: Tim Jennings, P.G.		Easting: 2480178.9987	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0			CON	(0 - 0.9) CONCRETE SLAB			
1		0.9 - 2	FILL	(0.9 - 5.4) FILL, sandy clay, red and reddish gray, moist, firm, medium plasticity.			
2	3.7/4						
3							
4							
5				(5.4 - 7.0) FILL, silty clay, dark grayish black, moist, firm, high plasticity, fragments of limestone and slag below 6.7'.			
6	3.3/4	5.8 - 7.3		(7.0 - 7.3) FILL, sand, gravel and slag, dry.			
7				(7.3 - 8.0) No recovery.			
8			NR	(8.0 - 12.0) Silty CLAY/Clayey SILT, dark gray, moist, wet below 9.5', firm to soft, high plasticity.			
9		9.5	CH/MH				
10	3.8/4						
11							
12							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			



LOG OF MW-32

DRILLING METHOD: HSA

NORTHING: 7,101,921 FT

DATE/TIME: 01/09/2014, 1545

DRILLER: SCI, Dan Spaust

EASTING: 2,479,831 FT

TOTAL DEPTH: 5 FT BGS

RIG: CME-75

SURFACE ELEVATION: 631.37 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-0.58 FT, Concrete.
					CH		0.58-1.0 FT, FILL (CH) CLAY; dark gray, reddish yellow mottling; moist, stiff.
					CL		1.0-1.5 FT, FILL (CL) SILTY CLAY, trace fine to coarse, angular gravel; dark gray, reddish yellow mottling; wet, soft.
							1.5-5.0 FT, (CH) CLAY; dark gray; dry, very stiff.
	1	NA	4.4 4.4		CH		4.0 FT, damp, stiff.
5							End of borehole at 5 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Wastewater Treatment Plant

REVIEWED BY: JW



LOG OF MW-33/2013-FWFS-5B

DRILLING METHOD: HSA

NORTHING: 7,101,872 FT

DATE/TIME: 01/10/2014, 1530

DRILLER: SCI, Dan Spaust

EASTING: 2,480,021 FT

TOTAL DEPTH: 5 FT BGS

RIG: CME-75

SURFACE ELEVATION: 632.93 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-1.17 FT, Concrete, one inch steel at 0.5 FT.
				1-2 (1600)	SP		1.17-1.25 FT, FILL (CL) SILTY CLAY; reddish yellow; wet, soft.
				2-4 (1602)	CH		1.25-1.5 FT, FILL (SP) SAND; brown; wet, loose.
				4-5 (1604)	CH		1.5-5.0 FT, (CH) CLAY; dark gray; damp, firm. 2.0 FT, trace coarse gravel, stiff.
5	1	NA	<u>3.8</u> 3.8				End of borehole at 5 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Treatment Bldg

REVIEWED BY: JW



LOG OF MW-34

DRILLING METHOD: HSANORTHING: 7,101,877 FTDATE/TIME: 01/10/2014, 1030DRILLER: SCI, Dan SpaustEASTING: 2,480,097 FTTOTAL DEPTH: 5 FT BGSRIG: CME-75SURFACE ELEVATION: 633.15 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-0.7 FT, Concrete.
					CL		0.7-1.0 FT, FILL (CL) SILTY CLAY; reddish yellow; wet, soft.
							1.0-5.0 FT, (CH) CLAY; dark gray; damp, stiff.
							1.75 FT, moist, firm. 2.0 FT, damp, stiff.
5	1	NA	<u>4.3</u> 4.3		CH		4.75 FT, some silt; very moist, firm.
							End of borehole at 5 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Raw Material Storage AreaREVIEWED BY: JW



LOG OF MW-35

DRILLING METHOD: HSA

NORTHING: 7,101,736 FT

DATE/TIME: 01/10/2014, 0945

DRILLER: SCI, Dan Spaust

EASTING: 2,480,191 FT

TOTAL DEPTH: 5 FT BGS

RIG: CME-75

SURFACE ELEVATION: 632.82 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-1.0 FT, Concrete.
					CL		1.0-1.5 FT, FILL (CL) SILTY CLAY, some gravel; dark gray; very moist, firm.
					CH		1.5-4.25, (CH) CLAY, trace fine to coarse gravel; dark gray, trace reddish yellow mottling; damp, stiff.
					CH		4.25-5.0 FT, (CH) CLAY, trace silt; dark gray, trace reddish yellow mottling; very moist, firm.
5	1	NA	$\frac{4.0}{4.0}$	1-3 (1000)			End of borehole at 5 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Raw Material Storage Area

REVIEWED BY: JW



LOG OF MW-36

DRILLING METHOD: HSA

NORTHING: 7,101,815 FT

DATE/TIME: 01/10/2014, 0845

DRILLER: SCI, Dan Spaust

EASTING: 2,480,274 FT

TOTAL DEPTH: 5 FT BGS

RIG: CME-75

SURFACE ELEVATION: 633.86 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-0.8 FT, Concrete.
				0-2 (0900)	CL		0.8-1.0 FT, FILL (CL) SILTY CLAY, some gravel; dark gray; very moist, firm.
					CL		1.0-3.25 FT, (CL) SILTY CLAY; dark gray, reddish yellow mottling; damp, soft.
					CL		2.0 FT, moist, firm.
					CL/SC		3.25-4.0 FT, (CL/SC) SANDY CLAY, trace coarse gravel; dark gray; wet, soft.
					CH		4.0-5.0 FT, (CH) CLAY, trace fine gravel; brown; damp, stiff.
5	1	NA	2.8 4.2				End of borehole at 5 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Raw Material Storage Area

REVIEWED BY: JW



LOG OF MW-37

DRILLING METHOD: HSA

NORTHING: 7,102,342 FT

DATE/TIME: 01/09/2014, 1015

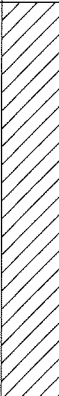


DRILLER: SCI, Dan Spaust

EASTING: 2,479,077 FT

TOTAL DEPTH: 10 FT BGS

RIG: CME-75

SURFACE ELEVATION: 621.20 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>5.0</u> 5.0		CH		0.0-5.5 FT, (CH) CLAY, trace silt; dark brown, yellowish red mottling; damp, stiff.
	2		<u>5.0</u> 5.0		CH/CL		5.5-8.5 FT, (CL) CLAY, some silt, trace fine gravel; dark brown, reddish yellow mottling; moist, firm.
							8.0 FT, some fine to coarse gravel; brown, reddish yellow and gray mottling.
							8.5-9.5 FT, SHALE; dark gray, yellowish red mottling, weathered, friable; damp, stiff.
10						9.5-10.0 FT, SHALE; dark gray; dry, very stiff.	
15							End of borehole at 10 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Storm Water Retention Pond

REVIEWED BY: JW

LOG OF MW-39

DRILLING METHOD: HSA

NORTHING: 7,102,473 FT

DATE/TIME: 01/08/2014, 0945

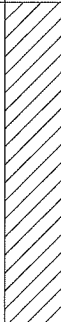
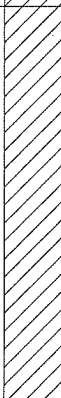
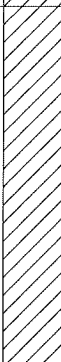


DRILLER: SCI, Dan Spaust

EASTING: 2,479,631 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 637.26 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	5.0 5.0		CH		0.0-4.5 FT, (CH) CLAY, trace silt, trace coarse rounded gravel, organics; brown, reddish yellow mottling; damp, stiff.
						2.0 FT, some coarse rounded gravel, some gray mottling.	
	2		2.5 5.0		CH		4.5-10.0 FT, (CH) CLAY, trace silt, trace fine to coarse gravel; dark brown, reddish yellow mottling, friable; dry, very stiff.
10	3		5.0 5.0		CH		10.0-15.0 FT, (CH) CLAY, trace fine to coarse gravel; reddish yellow, gray mottling; damp, stiff.
15	4		3.0 5.0		CL		15.0-19.5 FT, (CL) SANDY CLAY; reddish yellow, light gray mottling, very moist, very soft.
							19.5-20.0 FT, SHALE; gray, yellow and reddish yellow mottling; dry, very stiff.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Landfill

REVIEWED BY: JW



LOG OF MW-39

DRILLING METHOD: HSANORTHING: 7,102,473 FTDATE/TIME: 01/08/2014, 0945DRILLER: SCI, Dan SpaustEASTING: 2,479,631 FTTOTAL DEPTH: 20 FT BGSRIG: CME-75SURFACE ELEVATION: 637.26 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							End of borehole at 20 FT BGS Borehole completed with above ground monitoring well and protective steel casing. See well construction log for well installation and completion information.
25							
30							
35							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Slag LandfillREVIEWED BY: JW



LOG OF MW-40

DRILLING METHOD: HSA

NORTHING: 7,102,568 FT

DATE/TIME: 01/08/2014, 1115

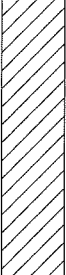

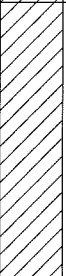

DRILLER: SCI, Dan Spaust

EASTING: 2,479,900 FT

TOTAL DEPTH: 15 FT BGS

RIG: CME-75

SURFACE ELEVATION: 633.00 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	0.0* 5.0		CH		0.0-7.0 FT, (CH) CLAY, trace silt, trace fine gravel, organics; brown, reddish yellow mottling; damp, stiff.
							5.0 FT, some fine to coarse gravel.
10	2		5.0 5.0		CH		7.0-10.0 FT, (CH) CLAY, trace fine to coarse gravel; reddish yellow, gray mottling; moist, stiff.
15	3		5.0 5.0		CH		10.0-14.0 FT, (CH) CLAY; gray, yellow, reddish yellow, friable, transitioning to weathered SHALE; damp, stiff to very stiff.
							14.0-15.0 FT, SHALE; gray; dry, very stiff.
							End of boring at 15 FT BGS Borehole completed with above ground monitoring well and protective steel casing. See well construction log for well installation and completion information. *Hand auger used to collect soil samples for lithology for 0-5.0 FT interval because no material was recovered in the CME-75 bearing head continuous sampler.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Landfill

REVIEWED BY: JW



LOG OF MW-41

DRILLING METHOD: HSA

NORTHING: 7,102,693 FT

DATE/TIME: 01/08/2014, 1330

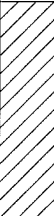
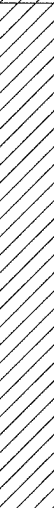



DRILLER: SCI, Dan Spaust

EASTING: 2,480,074 FT

TOTAL DEPTH: 17 FT BGS

RIG: CME-75

SURFACE ELEVATION: 639.14 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>5.0</u> 5.0	0.0-0.5 (1340) 0.5-2.0 (1345)	CH		0.0-3.0 FT, (CH) CLAY, trace fine angular gravel; dark brown; dry, stiff.
					CH		3.0-10.0 FT, (CH) CLAY, trace silt, trace fine angular gravel; dark brown, friable; dry, very stiff.
	5.0 FT, some gravel; damp, stiff.						
	8.0 FT, trace sand; moist.						
	10.0-11.5 FT, (SC/GC) gravelly CLAYEY SAND; reddish yellow; wet, loose.						
	3		CL/GC			11.5-13.5 FT, (CL/GC) gravelly SANDY CLAY; reddish yellow; wet, firm.	
			CH			13.5-16.25 FT, (CH) CLAY; reddish yellow, gray mottling; dry, stiff.	
						16.25-17.0 FT, SHALE; dark gray; dry, stiff.	
			4				

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ





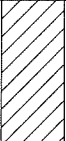

LOCATION: North Tributary

REVIEWED BY: JW



LOG OF MW-42

DRILLING METHOD: HSANORTHING: 7,102,696 FTDATE/TIME: 01/08/2014, 1530DRILLER: SCI, Dan SpaustEASTING: 2,480,712 FTTOTAL DEPTH: 15 FT BGSRIG: CME-75SURFACE ELEVATION: 638.71 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>4.0</u> 5.0	0.0-0.5 (1540)	CH		0.0-7.5 FT, (CH) CLAY, trace fine angular gravel, organics; dark brown; dry, stiff.
				0.5-2.0 (1545)			4.0 FT, friable, damp.
	2		<u>5.0</u> 5.0	CH		7.5-10.0 FT, (CH) CLAY, trace fine to coarse angular gravel; brown, reddish yellow and gray mottling; moist, stiff.	
	3		<u>5.0</u> 5.0	SC/GC		10.0-11.5 FT, (SC/GC) gravelly CLAYEY SAND; reddish yellow; wet, compact.	
				CL/GC		11.5-12.0 FT, (CL/GC) gravelly SANDY CLAY; reddish yellow; wet, soft.	
CH					12.0-14.0 FT, (CH) CLAY; reddish yellow, gray mottling; dry, very stiff.		
15							14.0-15.0 FT, SHALE; dark gray, reddish yellow mottling; dry, very stiff.
							End of borehole at 15 FT BGS Borehole completed with above ground monitoring well and protective steel casing. See well construction log for well installation and completion information.

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: North TributaryREVIEWED BY: JW



LOG OF MW-43

DRILLING METHOD: HSA

NORTHING: 7,102,422 FT

DATE/TIME: 01/07/2014, 1015

DRILLER: SCI, Dan Spaust

EASTING: 2,480,782 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 645.87 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	2.1	$\frac{5.0}{5.0}$	0-2 (1200)	CH		0.0-6.0 FT, (CH) CLAY, trace gravel, trace organic; black; moist, soft.
		37.1		2-4 (1210)			2.0 FT, dry, firm.
		124					
	2	124	$\frac{1.3}{5.0}$	8-10 (1220)	CL		5.0 FT, brown.
		185					6.0-10.0 FT, (CL) SILTY CLAY, with fine gravel; gray; dry, stiff.
		492					
10	3	2.8	$\frac{1.3}{5.0}$		ML		10.0-15.0 FT, (ML) CLAYEY SILT, with fine gravel; brown; dry, firm.
15	4	83.1	$\frac{2.5}{5.0}$	17-20 (1230)	CH		15.0-17.0 FT, (CH) CLAY; brown and gray, reddish brown mottling; moist, stiff.
		238					17.0-20.0 FT, SHALE; black; dry, stiff.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training

REVIEWED BY: JW



LOG OF MW-43

DATE/TIME: 01/07/2014, 1015

DRILLING METHOD: HSA

NORTHING: 7,102,422 FT

DRILLER: SCI, Dan Spaust

EASTING: 2,480,782 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 645.87 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
25							End of borehole at 20 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Former Fire Fighter Training

REVIEWED BY: JW



LOG OF MW-44

DRILLING METHOD: HSA

NORTHING: 7,101,660 FT

DATE/TIME: 01/09/2014, 1230





DRILLER: SCI, Dan Spaust

EASTING: 2,480,550 FT

TOTAL DEPTH: 15 FT BGS

RIG: CME-75

SURFACE ELEVATION: 634.33 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS				
5	1	NA	<u>4.8</u> 5.0	0.0-0.5 (1245) 0.5-2.0 (1248) 2.0-4.0 (1250)	CH		0.0-5.0 FT, (CH) CLAY, trace fine gravel; dark brown; damp, stiff.				
							2	<u>1.8</u> 5.0	CL		5.0-9.5 FT, (CL) SANDY CLAY, trace fine gravel; brown; very moist, soft.
											3
	CL/GC			11.0-13.5 FT, (CL/GC) gravelly CLAY, trace silt; brown, gray and reddish yellow mottling; damp, stiff.							
							13.5-14.5 FT, SHALE; dark gray, yellowish red mottling, weathered, friable; dry, stiff.				
15								14.5-15.0 FT, SHALE; dark gray; dry, very stiff.			
								End of borehole at 15 FT BGS Borehole completed with above ground monitoring well and protective steel casing. See well construction log for well installation and completion information.			

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Truck Wash Station

REVIEWED BY: JW



LOG OF MW-45

DRILLING METHOD: HSA

NORTHING: 7,103,915 FT

DATE/TIME: 01/07/2014, 1415






DRILLER: SCI, Dan Spaust

EASTING: 2,480,303 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 657.90 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	$\frac{4.0}{5.0}$	0.0-0.5 (1430)	CH		0.0-12.5 FT, (CH) CLAY, some coarse angular gravel, organics; brown; dry, stiff. 0.5 FT, some fine gravel.
				1-2 (1440)			2.0 FT, damp.
				4-5 (1450)			
10	2	NA	$\frac{4.0}{5.0}$		CH		
							8.0 FT, reddish yellow mottling.
							10.0 FT, trace coarse gravel.
15	3	NA	$\frac{5.0}{5.0}$		CL/GC		12.5-15.0 FT, (CL/GC) gravelly SILTY CLAY, coarse; reddish yellow; very moist, soft.
							14.0 FT, firm.
	4	NA	$\frac{3.0}{5.0}$	15-17 (1510)	CL		15.0-19.9 FT, (SC) SILTY CLAY; reddish yellow, friable; dry, firm.
				17-18 (1520)			
				18-20 (1530)			
							19.9-20.0 FT, SHALE; gray.

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Class 2 Landfill

REVIEWED BY: JW



LOG OF MW-45

DRILLING METHOD: HSANORTHING: 7,103,915 FTDATE/TIME: 01/07/2014, 1415DRILLER: SCI, Dan SpaustEASTING: 2,480,303 FTTOTAL DEPTH: 20 FT BGSRIG: CME-75SURFACE ELEVATION: 657.90 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
25							End of borehole at 20 FT BGS Borehole completed with above ground monitoring well and protective steel casing. See well construction log for well installation and completion information.
30							
35							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Class 2 LandfillREVIEWED BY: JW



LOG OF MW-46

DRILLING METHOD: HSANORTHING: 7,101,919 FTDATE/TIME: 01/09/2014, 1415DRILLER: SCI, Dan SpaustEASTING: 2,479,834 FTTOTAL DEPTH: 20 FT BGSRIG: CME-75SURFACE ELEVATION: 631.38 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0.0-0.5 FT, Concrete.
					CH		0.5-1.0 FT, FILL (CH) CLAY, some coarse gravel; dark gray, reddish yellow mottling; moist, stiff.
					CL		1.0-1.5 FT, FILL (CL) SILTY CLAY, trace fine to coarse, angular gravel; dark gray, reddish yellow mottling; wet, firm.
							1.5-7.5 FT, (CH) CLAY; dark gray; dry, very stiff.
	1		<u>4.5</u> 4.5		CH		3.5 FT, damp, stiff.
5							
	2		<u>5.0</u> 5.0		CL/GC		7.5-8.5 FT, (CL/GC) gravelly CLAY, fine to coarse, some silt; reddish yellow; moist, soft.
					CH		8.5-10.0 FT, (CH) CLAY, trace gravel; reddish yellow; dry, stiff.
10		NA					
	3		<u>5.0</u> 5.0		CL/GC		10.0-15.0 FT, (CL/GC) gravelly CLAY, fine to coarse, trace silt; reddish yellow, gray mottling; dry, stiff.
15							
	4		<u>1.8</u> 5.0				15.0-17.5 FT, SHALE and SAND, fine; reddish yellow and gray, weathered; dry, stiff.
							17.5-20.0 FT, SHALE; dark gray; dry, very stiff.

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Wastewater Treatment PlantREVIEWED BY: JW



LOG OF MW-46

DATE/TIME: 01/09/2014, 1415

DRILLING METHOD: HSA

NORTHING: 7,101,919 FT

DRILLER: SCI, Dan Spaust

EASTING: 2,479,834 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 631.38 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
25							End of borehole at 20 FT BGS Borehole completed with flush-mount monitoring well. See well construction log for well installation and completion information.
30							
35							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Wastewater Treatment Plant

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2012-NDA-1			
Frisco Recycling Center Frisco, TX					Completion Date:	1/10/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	8
					Driller's License:	52694	Northing:	7102385.51
					Logged By:	Christopher Moore, P.G.	Easting:	2480118.633
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CH	(0 - 8.0) CLAY, CH, dark gray, moist, soft to firm, medium plasticity, trace sand size carbonate nodules, no odor. 2.0-2.5: black, gravel size slag fragments. 4.0-5.0 some sand. 4.5: wet, sample saturated, borehole filling with water.			
1		0	0-2					
2	2.7/4.0							
3		0.1	2-4					
4								
5		0						
6	3.5/4.0							
7		0.1						
8								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. Saturated soils encountered at 4.5 feet. Boring terminated and water sample collected from base of boring. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-NDA-1			
Frisco Recycling Center Frisco, TX				Completion Date: 3/5/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 6	
				Field Supervisor: Will Vienne, P.G.		Northing: 7102386.1757	
				Logged By: Roberta Russell		Easting: 2480118.7926	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.6/5		FILL	(0 - 1.7) FILL, silty clay, dark brown, abundant orange Fe-ox staining, 1" slag fragment at 1.6', moist, soft to firm, low plasticity.			
1							
2			(1.7 - 6.0) Silty CLAY, dark reddish brown, moist, wet at 4.1', soft to firm, low plasticity.				
3							
4		4 - 5	CL				
5	1/1	5 - 6					
6							



LOG OF 2013-NDA-1A

DRILLING METHOD: Direct Push

NORTHING: 7,102,386 FT

DATE/TIME: 01/09/2014, 1000



DRILLER: SCI, Margarito Estrada

EASTING: 2,480,106 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	5.0 5.0	2-4 (1015)	CL		0-3.0 FT, (CL) SILTY CLAY, trace fine gravel; brown and dark brown; dry, stiff.
					CL		3.0-5.0 FT, (CL) CLAY, trace gravel; dark brown, dry, stiff.
							End of borehole at 5 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Disposal Area

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2012-NDA-2			
Frisco Recycling Center Frisco, TX					Completion Date:	1/10/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	18
					Driller's License:	52694	Northing:	7102389.57
					Logged By:	Christopher Moore, P.G.	Easting:	2480411.84
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	-
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CH	(0 - 4.0) CLAY, CH, dark gray, moist, soft, medium plasticity, some sand size carbonate nodules, no odor. 3.0-4.0: glass fragments, duct tape, black gravel size slag fragments with metallic odor.			
1		0	0-2					
2	2.6/4.0							
3		0.1	2-4		(4.0 - 11.0) CLAY, CH, dark gray, moist, firm, medium to high plasticity, some sand size carbonate nodules, no staining or foreign material observed.			
4								
5		0.1						
6	4.0/4.0				(11.0 - 13.3) CLAY, CH, gray, moist, firm to hard, high plasticity, laminated, yellowish brown/orange staining in laminae, no foreign material observed, no odor.			
7		0.1						
8								
9		0.1			(13.3 - 18.0) CLAY/SHALE, dark gray, moist firm to hard, high plasticity, laminated, fractured, yellowish brown/orange staining in fractures, no odor.			
10	4.0/4.0							
11		0.1						
12								
13		0.1						
14	4.0/4.0							
15		0.1						
16								
17	2.0/2.0		16-18					
18								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4 feet to check for utilities. Borehole plugged with bentonite chips upon completion. Refusal at 18.0 feet, No water observed in borehole after 1 hour following completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-NDA-3			
Frisco Recycling Center Frisco, TX					Completion Date:	1/10/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	19
					Driller's License:	52694	Northing:	7102442.92
					Logged By:	Christopher Moore, P.G.	Easting:	2480662.06
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 4.5) CLAY, CH, dark gray and very dark gray, moist, firm, medium plasticity, possible fill material, some angular gravel, 0.5-0.7 angular black plastic fragments, no odor.			
1		0	0-2					
2	3.0/4.0							
3		0						
4					(4.5 - 14.8) CLAY, CH, brownish yellow, moist, firm, moist to hard, medium to high plasticity, trace sand size carbonate nodules, no staining or foreign material observed, no odor. 10.0-14.8: mottled light gray, increased carbonate nodules. 12.2-12.4: sand lens, dry.			
5		0						
6	4.0/4.0							
7		0.1						
8					(14.8 - 19.0) CLAY, CH, dark gray, moist, firm to hard, high plasticity, laminated, fractured, yellowish brown/orange staining in fractures, no staining or foreign material observed, no odor.			
9		0.1						
10	4.0/4.0							
11		0.1						
12					(14.8 - 19.0) CLAY, CH, dark gray, moist, firm to hard, high plasticity, laminated, fractured, yellowish brown/orange staining in fractures, no staining or foreign material observed, no odor.			
13		0.1						
14	3.6/4.0							
15		0.1						
16					(14.8 - 19.0) CLAY, CH, dark gray, moist, firm to hard, high plasticity, laminated, fractured, yellowish brown/orange staining in fractures, no staining or foreign material observed, no odor.			
17								
18	3.0/3.0		17-19					
19		0.1						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. Refusal at 19.0 feet, No water observed in borehole after 1 hour following completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-NDA-4			
Frisco Recycling Center Frisco, TX					Completion Date:	2/22/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	4
					Driller's License:	NA	Northing:	7102395.75
					Logged By:	Christopher Moore, P.G.	Easting:	2480119.01
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	—
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CH	(0 - 4.0) CLAY, CH, dark gray, moist, soft to firm, medium plasticity, no staining or foreign material observed, no odor. Borehole filling with water at approximately 3 feet.			
1		0						
2								
3	1.2/2.0	0	2-4					
4								
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>					Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-NDA-5			
Frisco Recycling Center Frisco, TX					Completion Date:	2/22/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	1
					Driller's License:	NA	Northing:	7102459.95
					Logged By:	Christopher Moore, P.G.	Easting:	2480666.14
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0 1	0.5/1.0	0	NA	CH	(0 - 1.0) CLAY, CH, dark grayish brown, moist, soft to firm, medium plasticity. Slag fragment at approximately 0.5 feet blocked sample barrel.			
<p>PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>								
Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.								

Exide Technologies					Log of Boring: 2012-NDA-6			
Frisco Recycling Center Frisco, TX					Completion Date:	2/22/2012	Drilling Method:	Hand Sampler
					Drilling Company:	NA	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	NA	Total Depth (ft):	2
					Driller's License:	NA	Northing:	7102503.41
					Logged By:	Christopher Moore, P.G.	Easting:	2480665.79
					Sampling Method:	2"x 2' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.0) CLAY, CH, dark grayish brown, moist, soft to firm, medium plasticity, no staining or foreign material observed, no odor.			
1	1.2/2.0	0	0-2	GH				
2								
<div style="text-align: center;"> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div>					Notes: Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

LOG OF 2014-NDA-7

DRILLING METHOD: Direct Push

NORTHING: 7,102,403 FT

DATE/TIME: 04/01/2014, 0930







DRILLER: SCI, Margarito Estrada

EASTING: 2,480,551 FT

TOTAL DEPTH: 15 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 646 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	9.0	4.0 4.0	0.0-0.5 (1001) 0.5-2.0 (1002) 2.0-4.0 (1003)	CH		0.0-4.0 FT, (CH) CLAY; dark brown and black; dry, very stiff.
		10.3					2.0 FT, trace gravel; brown, trace white calcareous nodules.
		18.8					
	2	10.3	4.0 4.0	CL		4.0-7.0 FT, (CL) SILTY CLAY, trace sand; gray, reddish yellow mottling; dry, hard.	
		7.1					
	3	16.7	4.0 4.0	ML		7.0-9.0 FT, (ML) CLAYEY SILT, some sand and gravel; gray and brown, friable, platy; damp, hard.	
				9.0 FT, coarse gravel for 0.25 FT.			
		11.2		CH			9.0-10.5 FT, (CL) SILTY CLAY, some sand and gravel; gray and brown, friable, platy; damp, hard.
							10.5-11.5 FT, (CH) CLAY; red and gray, yellowish mottling; damp, stiff-hard.
4	17.3	3.0 3.0	CH		11.5-14.5 FT, (CH) CLAY and SHALE; gray, reddish yellow mottling; damp, stiff-hard.		
15							14.5-15.0 FT, SHALE; dark gray; dry, very hard.
							End of borehole at 15 FT BGS (Refusal)

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Disposal Area

REVIEWED BY: JW



LOG OF 2014-NDA-8

DRILLING METHOD: Direct Push

NORTHING: 7,102,410 FT

DATE/TIME: 04/01/2014, 1430

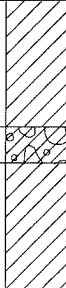
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,359 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.0 4.0	0.0-0.5 (1446)	CH		0.0-1.75 FT, (CH) CLAY; dark brown; dry, soft-firm.
				0.5-2.0 (1447)	GC		1.75-2.25 FT, (GC) CLAYEY GRAVEL, coarse; gray and brown; dry, compact.
				2.0-4.0 (1448)	CH		2.25-4.0 FT, (CH) CLAY; brown and gray, reddish mottling; moist, stiff.
							3.75 FT, some gravel.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Disposal Area

REVIEWED BY: JW



LOG OF 2014-NDA-9

DRILLING METHOD: Direct Push

NORTHING: 7,102,398 FT

DATE/TIME: 04/01/2014, 1400


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,108 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 639 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	N/A	3.0 4.0	0.0-0.5 (1415)	CH		0.0-4.0 FT, (CH) CLAY; dark brown and black; dry, soft-firm.
				0.5-2.0 (1416)			2.5 FT, trace gravel.
				2.0-4.0 (1417)			
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Disposal Area

REVIEWED BY: JW



LOG OF 2013-NT-01

DRILLING METHOD: Direct Push

NORTHING: 7,102,698 FT

DATE/TIME: 01/10/2014, 1600

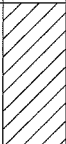
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,314 FT

TOTAL DEPTH: 2 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	2.0 2.0	0.0-0.5 (1558) 0.5-2.0 (1559)	CH		0-2.0 FT, (CH) CLAY; dark brown; moist, soft.
							End of borehole at 2 FT BGS
5							
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary

REVIEWED BY: JW



LOG OF 2013-NT-02

DATE/TIME: 01/10/2014, 1615

DRILLING METHOD: Direct Push

NORTHING: 7,102,697 FT


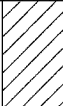
DRILLER: SCI, Margarito Estrada

EASTING: 2,480,580 FT

TOTAL DEPTH: 2 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	2.0 2.0	0.0-0.5 (1615)	ML		0-0.5 FT, (ML) CLAYEY SILT; dark brown; damp, soft.
				0.5-2.0 (1616)	CH		0.5-2.0 FT, (CH) CLAY; dark brown and black; dry, stiff-firm.
							End of borehole at 2 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary

REVIEWED BY: JW



LOG OF 2014-NT-3

DRILLING METHOD: Direct Push

NORTHING: 7,102,635 FT

DATE/TIME: 03/31/2014, 1045


DRILLER: SCI, Margarito Estrada

EASTING: 2,479,788 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 636 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.0 5.0	0.0-0.5 (1048)	CL		0.0-4.0 FT, (CL) CLAY, some silt, trace fine gravel; dark brown; dry, firm-stiff.
				0.5-2.0 (1049)			
				2.0-4.0 (1050)			
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary

REVIEWED BY: JW

LOG OF 2014-NT-4

DRILLING METHOD: Direct Push

NORTHING: 7,102,580 FT

DATE/TIME: 03/31/2014, 1100



DRILLER: SCI, Margarito Estrada

EASTING: 2,479,519 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 639 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.0 5.0	0.0-0.5 (1104)	CL		0.0-1.0 FT, (CL) CLAY, some silt; dark brown; dry, stiff-hard.
				0.5-2.0 (1105)	CL		1.0-4.0 FT, (CL) SILTY CLAY, some fine gravel; brown, reddish yellow mottling; dry, stiff-hard.
				2.0-4.0 (1106)			3.5 FT, trace calcareous nodules.
							4.0-5.0 FT, Not Logged.
10							End of borehole at 5 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: North Tributary

REVIEWED BY: JW

Exide Technologies			Log of Boring: PMW-19R			
Frisco Recycling Center Frisco, TX			Completion Date:	2/26/2013	Drilling Method:	HSA
			Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755			Driller:	Dan Spaust	Total Depth (ft):	20
			Driller's License:	3038M	Northing:	7103664.081
			Logged By:	Roberta Russell	Easting:	2480920.3742
			Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	678.45
			Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	681.79
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description	
0		3.6/5.0	CL	0-0.5	(0 - 3.0) CLAY with trace gravel, dark reddish brown, moist, soft to firm, low to medium plasticity, abundant calcareous nodules.	
0.5-2						
2-4						
4-5						
5		3.1/5.0	CL/ML		(3.0 - 13.0) Clayey SILT/Silty CLAY, dark reddish brown, yellowish brown from 7-10', slightly moist, very hard, low plasticity, friable from 5-6.5'.	
10		3.4/5.0	SC/CL		(13.0 - 14.0) Clayey SAND/Sandy CLAY, light yellowish brown with orange staining (iron oxide), moist, soft, low plasticity. (14.0 - 19.0) SHALE, dark gray with orange staining (iron oxide along fractures and bedding planes), dry to slightly moist, soft to firm, high plasticity, weathered.	
15		4.5/5.0	SH		(19.0 - 20.0) SHALE, dark gray, dry, very hard.	
20						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not to be used separately from the report to which it is attached.			
Annular Materials (0.0 - 0.5) Concrete (0.5 - 1.0) Bentonite Grout (1.0 - 2.5) Bentonite Hole Plug (2.5 - 19.0) 20/40 Silica Sand (19.0 - 20.0) Sloughed Material			Well Materials (+3.34 - 4.0) Casing, 2" Sch 40 FJT PVC (4.0 - 19.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies				Log of Boring: PMW-20R	
Frisco Recycling Center Frisco, TX		Completion Date: 2/26/2013		Drilling Method: HSA	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Chris Combs		Total Depth (ft): 25	
		Driller's License: 56033		Northing: 7103357.9244	
		Logged By: Roberta Russell		Easting: 2480030.2079	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 645.2	
		Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 648.09	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0		5.0/5.0	CH	0-0.5	(0 - 2.6) CLAY, dark reddish brown, moist, soft, high plasticity.
			0.5-2		
			2-4		
			4-5		
5		2.7/5.0	ML		(2.6 - 7.5) Clayey SILT, dark reddish brown, dry to moist, very hard, low plasticity, trace to moderate calcareous nodules.
10		5.0/5.0	SC/CL		(7.5 - 11.0) Sandy CLAY/Clayey SAND, moist, soft to firm, low plasticity, more clay with depth, abundant calcareous nodules.
15	5.0/5.0	CL		(11.0 - 19.5) CLAY, reddish yellow, with trace to moderate gravel, moist, firm, low to medium plasticity, very fine to medium gravel (5-20%) in clay matrix.	
20	5.0/5.0	GC		(19.5 - 20.0) GRAVEL with clay; reddish yellow, wet, very soft, ~20-30% clay matrix.	
		CL			(20.0 - 21.8) CLAY with gravel; reddish yellow, wet, soft to firm, low to medium plasticity clay, <5% carbonate gravel in clay.
		GC		(21.8 - 23.0) GRAVEL with clay; reddish yellow, wet, soft, 30-40% low to medium plasticity clay matrix in fine to medium gravel.	
		CL			(23.0 - 23.5) CLAY with gravel; reddish yellow, very moist, hard, low to medium plasticity clay, 30-40% fine to medium gravel.
				(23.5 - 25.0) SHALE, dark gray, dry, very hard, low to medium plasticity, fissile, slightly weathered.	
25					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not to be used separately from the report to which it is attached.		
Annular Materials (0.0 - 2.0) Concrete (2.0 - 7.0) Bentonite Grout (7.0 - 9.0) Bentonite Hole Plug (9.0 - 25.0) 20/40 Silica Sand			Well Materials (+2.89 - 10.0) Casing, 2" Sch 40 FJT PVC (10.0 - 25.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot		

Exide Technologies						Log of Boring: 2012-RMSA-1			
Frisco Recycling Center Frisco, TX						Completion Date:	1/6/2012	Drilling Method:	Geoprobe
						Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755						Driller:	Mario Robles	Total Depth (ft):	2.5
						Driller's License:	52694	Northing:	7101962.48
						Logged By:	Christopher Moore, P.G.	Easting:	2480181.93
						Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Soil pH	Sample Interval	USCS	Lithologic Description			
0					CON	(0 - 1.0) CONCRETE, cored.			
1						(1.0 - 2.5) GRAVEL, base material, angular limestone gravel, no staining or foreign material observed, no odor.			
2	1.0/1.0	0	7.10	1.5-2.5	GP				
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Boring location hand probed to 2.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion and concrete patched. Refusal at 2.5 This Log of Boring should not be used separately from the report to which it is attached. </div> </div>									

Exide Technologies						Log of Boring: 2012-RMSA-2			
Frisco Recycling Center Frisco, TX						Completion Date:	1/6/2012	Drilling Method:	Geoprobe
						Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755						Driller:	Mario Robles	Total Depth (ft):	2.5
						Driller's License:	52694	Northing:	7101817.28
						Logged By:	Christopher Moore, P.G.	Easting:	2480247.42
						Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Soil pH	Sample Interval	USCS	Lithologic Description			
0					CON	(0 - 0.5) CONCRETE, drilled out.			
1					CL/CH	(0.5 - 1.4) CLAY, CL/CH, dark gray, moist, soft to very soft, medium plasticity, no staining or foreign material observed, no odor.			
2	2.0/2.0	0.4	10.76	0.5-2.5	CL	(1.4 - 2.5) CLAY, CL, black, moist to wet, very soft, medium plasticity, no staining or foreign material observed, no odor.			
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Boring location hand probed to 4.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion and concrete patched. Water entering the borehole from base of concrete upon removal of sampler. Water sample collected from base of boring. This Log of Boring should not be used separately from the report to which it is attached. </div> </div>									

Exide Technologies				Log of Boring: 2013-RMSA-2	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
Drilling Method:		DPT			
Borehole Diameter (in.):		2			
Total Depth (ft):		5			
Northing:		7101817.2841			
Easting:		2480247.4183			
Ground Elev. (ft AMSL):		--			
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.6) CONCRETE SLAB	
1				(0.6 - 5.0) Silty CLAY/clayey SILT, dark brown, very moist, soft to firm, low plasticity.	
2	4.1/5				
3		2.5 - 4	CL/ML		
4					
5		4 - 5			
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached. </div> </div>					

Exide Technologies					Log of Boring: 2012-RMSA-3			
Frisco Recycling Center Frisco, TX					Completion Date:	1/6/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	3
					Driller's License:	52694	Northing:	7101783.35
					Logged By:	Christopher Moore, P.G.	Easting:	2480191.27
					Sampling Method:	2"x 4" Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Soil pH	Sample Interval	USCS	Lithologic Description		
0					CON	(0 - 1.0) CONCRETE, drilled out.		
1					CL/CH	(1.0 - 3.0) CLAY, CL/CH, mottled very dark gray and black, moist, firm, medium plasticity, no staining or foreign material observed, no odor. 2.4-2.6: some sand.		
2	2.0/2.0	0.2	6.83	1-3	CL/CH			
3								
					Notes:			
					Boring location hand probed to 4.0 feet to check for utilities.			
					Borehole plugged with bentonite chips upon completion and concrete patched.			
					This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-RMSA-4			
Frisco Recycling Center Frisco, TX					Completion Date:	1/6/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	3.5
					Driller's License:	52894	Northing:	7101861.10
					Logged By:	Christopher Moore, P.G.	Easting:	2480122.65
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Soil pH	Sample Interval	USCS	Lithologic Description		
0						(0 - 1.5) CONCRETE and asphalt, drilled out.		
1					CON			
2					CL	(1.5 - 1.8) SILTY CLAY, CL, with sand and gravel, fill, grayish brown, moist to wet, soft to firm, low plasticity, no staining observed, no odor.		
3	2.0/2.0	0.5	6.95	1.5-3.5	CL/CH	(1.8 - 3.5) CLAY, CL/CH, very dark gray, moist, soft, medium plasticity, trace woody organic fragments (native), no staining or foreign material observed, no odor.		
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Boring location hand probed to 4.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion and concrete patched. Water entering the borehole from base of concrete upon removal of sampler. Water sample collected from base of boring. This Log of Boring should not be used separately from the report to which it is attached. </div> </div>								

Exide Technologies				Log of Boring: 2013-RMSA-5	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101856.8311
				Easting:	2480261.4445
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.5) CONCRETE SLAB	
1		0 - 2	CL	(0.5 - 5.0) Silty CLAY, wet from 0.5-2.5 (possibly from concrete corer), moist, soft to firm, low plasticity.	
2					
3	3/5	2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies					Log of Boring: 2013-RMSA-6			
Frisco Recycling Center Frisco, TX					Completion Date:	3/6/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	5
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101795.7748
					Logged By:	Roberta Russell	Easting:	2480248.438
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	4.5/5	35	0 - 2.5	CON	(0 - 0.5) CONCRETE SLAB			
1				ML	(0.5 - 2.0) Clayey SILT, dark brown, moist, soft to firm, low plasticity.			
2				CL	(2.0 - 3.3) Gravelly CLAY, dark brown-black, wet, very soft, low plasticity.			
3					(3.3 - 5.0) Silty CLAY, dark brown-black, moist, firm, low plasticity.			
4								
5								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-RMSA-7	
Frisco Recycling Center Frisco, TX				Completion Date:	3/6/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101813.4245
				Easting:	2480271.7807
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description	
0	4.3/5	0 - 2	CON	(0 - 0.7) CONCRETE SLAB	
1			FILL	(0.7 - 2.5) FILL, clayey gravel/gravelly clay, ~20% gravel, dark brown to light brown, wet (possibly from concrete corer).	
2		2 - 4	CL/ML	(2.5 - 5.0) Silty CLAY/clayey SILT, dark brown with black staining, moist, firm, low plasticity.	
3				4 - 5	
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies					Log of Boring: 2013-RMSB-1			
Frisco Recycling Center Frisco, TX					Completion Date:	5/8/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101909.9542
					Logged By:	Roberta Russell	Easting:	2480142.5204
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 1.5) CONCRETE SLAB			
1				CON				
2	4/5	1.2	1.5 - 2		(1.5 - 9.8) Silty CLAY/CLAY, dark brown, moist, wet at 6.5', soft to firm, low to medium plasticity.			
3								
4		10.1	2 - 5					
5		1.2	5 - 5.5					
6			6					
7	3/5							
8				CL				
9								
10					(9.8 - 11.5) Sandy CLAY, grayish brown, wet, soft, low plasticity.			
11								
12	3.5/5				(11.5 - 15.0) Silty CLAY, dark grayish brown, wet, soft, low to medium plasticity.			
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-2			
Frisco Recycling Center Frisco, TX					Completion Date:	5/8/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101911.479
					Logged By:	Roberta Russell	Easting:	2480173.4829
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 2.5) CONCRETE SLAB			
1				CON				
2	4/5							
3				FILL	(2.5 - 2.9) FILL, gravel (fine-medium) with sand, tan, moist, unconsolidated.			
4		3.6	2.5 - 5		(2.9 - 6.0) Silty CLAY with trace sand, dark brown, moist, wet at 6'.			
5								
6		29.7	5 - 6					
7	3/5				(6.0 - 12.0) Sandy CLAY, grayish brown, wet, very soft, low plasticity.			
8								
9				CL				
10								
11								
12	4.5/5				(12.0 - 15.0) Silty CLAY, trace fine gravel, dark brown, wet, very hard, low to medium plasticity.			
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-3			
Frisco Recycling Center Frisco, TX					Completion Date:	5/8/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101920.9601
					Logged By:	Roberta Russell	Easting:	2480184.5299
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 1.5) CONCRETE SLAB			
1				CON				
2	2.7/5	0.8	1.5 - 2		(1.5 - 6.2) FILL, clayey sand/sandy clay, grayish brown with orange Fe staining, moist, wet at 6.2', soft, low plasticity.			
3		1.9	2 - 2.5					
4				FILL				
5		0.8	5 - 5.5					
6			6		(6.2 - 10.0) Silty CLAY, dark brown, moderate hydrocarbon odor.			
7	2.7/5							
8								
9								
10				CL	(10.0 - 12.0) Sandy CLAY, dark grayish brown, wet, soft, low to medium plasticity.			
11								
12	3.2/5				(12.0 - 15.0) Silty CLAY, dark brown, wet, very hard, low to medium plasticity.			
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-4			
Frisco Recycling Center Frisco, TX					Completion Date:	5/7/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101919.0213
					Logged By:	Roberta Russell	Easting:	2480206.1515
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 0.3) FILL, gravel (medium), gray, dry, unconsolidated.			
1		28	0 - 2		(0.3 - 3.8) FILL, clayey sand, orange to grayish brown with orange Fe staining, plastic chip noted in this interval while sampling.			
2	5/5			FILL				
3								
4		22	2 - 5		(3.8 - 15.0) CLAY/silty CLAY, dark reddish brown, gravelly clay (~10% medium gravel in clay matrix) from 11.5-11.7', moist, wet at 6.0', firm to hard, low to medium plasticity.			
5		1.4	5 - 6					
6		1.4						
7	2.5/5							
8								
9								
10				CL				
11								
12	5/5							
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-5			
Frisco Recycling Center Frisco, TX					Completion Date: 5/7/2013		Drilling Method: DPT	
					Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755					Driller's License: 58164		Total Depth (ft): 15	
					Field Supervisor: Tim Jennings, P.G.		Northing: 7101877.9929	
					Logged By: Roberta Russell		Easting: 2480144.0945	
					Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 1.3) CONCRETE SLAB			
1				CON				
2		95.7	1.3 - 2		(1.3 - 3.5) FILL, road base, tan, dry.			
3	3/5							
4		1957	2 - 5	FILL	(3.5 - 6.5) FILL, silty clay/clayey silt, ~30% medium gravel with clayey silt/silty clay matrix, tan, very moist, soft, tan, very moist, soft.			
5								
6		600	5 - 7					
7	5/5				(6.5 - 15.0) Silty CLAY, dark reddish brown, grayish brown with depth, moist, wet at 9.0', soft to firm, low plasticity, gravelly clay (~20-30% fine to medium gravel in clay matrix) at 11.0-11.1 and 11.3-11.4', hydrocarbon odor from 9.0-10.0'.			
8								
9			9					
10		1240						
11				CL				
12	5/5							
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			



LOG OF 2013-RMSB-5A

DRILLING METHOD: Direct Push

NORTHING: 7,101,885 FT

DATE/TIME: 01/13/2014, 1615

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,146 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							0-1.5 FT, Concrete.
	1	NA	<u>2.3</u> 2.5		GM/SM		1.5-2.5 FT, FILL (GM/SM) SILTY GRAVEL, fine to coarse, SAND, coarse; brown; wet, loose.
					CH		2.5-5.75 FT, (CH) CLAY; black; moist, firm.
5							5.0 FT, wet, soft.
	2		<u>4.0</u> 4.0	5-7 (1628)	GC		5.75-6.25 FT, (GC) CLAYEY GRAVEL; black; wet, loose.
					CH		6.25-8.0 FT, (CH) CLAY; black; moist, firm.
							End of borehole at 8.0 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Raw Material Storage Bldg

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2013-RMSB-6			
Frisco Recycling Center Frisco, TX					Completion Date: 5/7/2013		Drilling Method: DPT	
					Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755					Driller's License: 58164		Total Depth (ft): 15	
					Field Supervisor: Tim Jennings, P.G.		Northing: 7101879.5177	
					Logged By: Roberta Russell		Easting: 2480175.057	
					Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 1.3) CONCRETE SLAB			
1				CON				
2	2.5/5	1	1.3 - 2		(1.3 - 6.6) FILL, silty clay/clayey silt, trace black staining, moist, soft to firm, low plasticity.			
3		1.5	2 - 2.5					
4				FILL				
5								
6		3.7	5 - 7					
7	5/5		7.5		(6.6 - 15.0) Silty CLAY, dark reddish brown, moist, wet at 7.5', soft, low to medium plasticity, moderate hydrocarbon odor.			
8								
9								
10								
11				CL				
12	5/5							
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-7			
Frisco Recycling Center Frisco, TX					Completion Date:	5/8/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101881.0426
					Logged By:	Roberta Russell	Easting:	2480206.0194
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 1.5) CONCRETE SLAB			
1				CON				
2	3/5	1.5	1.5 - 2	FILL	(1.5 - 1.7) FILL, clayey sand/sandy clay, orange, moist, soft, low plasticity.			
3		2.1	2 - 4		(1.7 - 7.0) Silty CLAY, dark brown, moist, wet at 6.5', soft, low plasticity.			
4								
5		1.5	5 - 6					
6			6.5					
7	5/5				(7.0 - 12.0) Sandy CLAY, grayish brown, wet, soft, low plasticity.			
8				CL				
9								
10								
11								
12	4.5/5				(12.0 - 15.0) Silty CLAY, dark brown, trace calcareous precipitates, wet, very hard, low to medium plasticity.			
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-8				
Frisco Recycling Center Frisco, TX					Completion Date:	5/8/2013	Drilling Method:	DPT	
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2	
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15	
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101841.0881	
					Logged By:	Roberta Russell	Easting:	2480146.938	
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description				
0	2/5	0.4	2.1 - 3.1	CON	(0 - 2.1) CONCRETE SLAB				
1					FILL	(2.1 - 3.1) FILL, sandy, gravelly clay, ~10% sand and gravel in clay matrix, tan, moderate hydrocarbon odor.			
2						(3.1 - 5.0) No recovery.			
3	3/5			NR					
4									
5					(5.0 - 10.0) Silty CLAY/clayey SILT, dark reddish brown, wet at 7.5', soft, low to medium plasticity.				
6	5/5	1.2	5 - 7	CL/ML					
7									
8									
9	5/5			CL					
10					(10.0 - 10.4) Sandy, gravelly CLAY, ~20% sand and gravel in clay matrix, grayish brown, wet, soft, low to medium plasticity, moderate hydrocarbon odor.				
11					(10.4 - 14.2) Sandy CLAY, grayish brown, wet, soft, low to medium plasticity, moderate hydrocarbon odor.				
12	5/5			CL					
13									
14									
15	5/5			GC	(14.2 - 14.7) Clayey GRAVEL, ~60% fine to medium gravel, grayish brown, wet, soft, moderate hydrocarbon odor.				
					CL	(14.7 - 15.0) Sandy CLAY, grayish brown, wet, soft, low to medium plasticity, moderate hydrocarbon odor.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.				

Exide Technologies					Log of Boring: 2013-RMSB-9			
Frisco Recycling Center Frisco, TX					Completion Date: 5/7/2013		Drilling Method: DPT	
					Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755					Driller's License: 58164		Total Depth (ft): 15	
					Field Supervisor: Tim Jennings, P.G.		Northing: 7101850.5528	
					Logged By: Roberta Russell		Easting: 2480176.4834	
					Sampling Method: 6" Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0					(0 - 1.3) CONCRETE SLAB			
1				CON				
2	3/5	2.2	1.3 - 2		(1.3 - 6.5) FILL, silty clay, orange and brown, moist, soft to firm, low to medium plasticity.			
3		4.7	2 - 2.5					
4				FILL				
5								
6		4.7	5 - 7					
7	5/5	148			(6.5 - 15.0) Silty CLAY, dark reddish brown, moist, wet at 9.0', soft to firm, low plasticity, greater plasticity with depth, trace gravel from 13.0-15.0', moderate hydrocarbon odor.			
8			8					
9								
10								
11				CL				
12	5/5							
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-RMSB-10			
Frisco Recycling Center Frisco, TX					Completion Date:	5/8/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	15
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101844.1378
					Logged By:	Roberta Russell	Easting:	2480208.8629
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	2.2/5			CON	(0 - 1.3) CONCRETE SLAB			
1								
2		1.1	1.3 - 2					
3		2.5	2 - 3	FILL	(1.3 - 3.4) FILL, sandy clay/clayey sand, orange, moist, firm, low plasticity.			
4					(3.4 - 8.2) Silty CLAY, dark brown, moist, wet at 7.0'.			
5		3.7	5 - 6					
6								
7	5/5		7					
8					(8.2 - 10.0) Sandy CLAY, dark grayish brown, wet, moderate hydrocarbon odor.			
9				CL				
10					(10.0 - 15.0) Silty CLAY/CLAY, dark brown, wet, firm, medium plasticity, moderate hydrocarbon odor.			
11								
12	3.5/5							
13								
14								
15								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. Open borehole evaluated with oil/water interface probe. No product indicated in borehole. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-RO-1	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102103.5329
				Easting:	2479578.3769
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4.5/5	0 - 0.5	CL	(0 - 1.0) Silty CLAY/CLAY, dark reddish brown, moist, soft to firm, low plasticity.	
1		0.5 - 1			
		1 - 1.5		(1.0 - 1.1) Sandy CLAY, dark reddish brown with trace orange Fe-ox staining, moist, soft, low plasticity clay.	
2		1.5 - 2		(1.1 - 5.0) Silty CLAY/CLAY, dark reddish brown, light brown from 2.5 to 5', wet at 3.7', moist, soft, low to medium plasticity.	
3					
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-RO-2	
Frisco Recycling Center Frisco, TX		Completion Date: 3/5/2013		Drilling Method:	DPT
		Driller: Margarito Estrada	Borehole Diameter (in.): 2		
PBW Project No. 1755		Driller's License: 58164	Total Depth (ft): 5		
		Field Supervisor: Tim Jennings, P.G.	Northing: 7102126.4439		
		Logged By: Roberta Russell	Easting: 2479562.0249		
		Sampling Method: 5' Lined Tube	Ground Elev. (ft AMSL): --		
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description	
0	4.7/5	0 - 0.5	CL	(0 - 4.5) CLAY/silty CLAY, dark reddish brown, moist, firm, low to medium plasticity.	
		0.5 - 1			
1		1 - 1.5			
		1.5 - 2			
2					
3					
4					
5			NR	(4.5 - 4.7) Gravelly CLAY, dark reddish brown, wet, soft, low plasticity clay. (4.7 - 5.0) No recovery.	
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached. </div> </div>					

Exide Technologies				Log of Boring: 2013-RO-3	
Frisco Recycling Center Frisco, TX		Completion Date: 3/15/2013		Drilling Method: DPT	
		Driller: Dan Spaust		Borehole Diameter (in.): 2	
PBW Project No. 1755		Driller's License: 3038		Total Depth (ft): 5	
		Field Supervisor: Will Vienne, P.G.		Northing: 7102104.7761	
		Logged By: Will Vienne, P.G.		Easting: 2479557.0085	
		Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0		0 - 0.5	CL	(0 - 5.0) Silty CLAY, dark brownish gray, very moist, soft, low to medium plasticity, abundant limestone granules, trace limestone pebbles.	
1		0.5 - 2			
2	3.2/4				
3		2 - 4			
4	0.6/1	4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-RRS-3A			
Frisco Recycling Center Frisco, TX				Completion Date:	3/27/2013	Drilling Method:	DPT
				Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755				Driller's License:	58164	Total Depth (ft):	5
				Field Supervisor:	Tim Jennings, P.G.	Northing:	7102073.967
				Logged By:	Roberta Russell	Easting:	2480071.193
				Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	5/5		CON	(0 - 0.8) CONCRETE SLAB			
1		0.8 - 2	FILL	(0.8 - 1.9) FILL, sandy, gravelly clay, ~20-30% fine-coarse sand and fine gravel in high-plasticity clay matrix, wet to moist, soft.			
2		2 - 4	CH	(1.9 - 5.8) FILL, silty clay, trace fine gravel, dark grayish brown, moist, soft, high plasticity.			
3							
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-RRS-4A			
Frisco Recycling Center Frisco, TX				Completion Date: 5/21/2013		Drilling Method: DPT	
				Driller: Dan Spaust		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 3038		Total Depth (ft): 3	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102060.752	
				Logged By: Tim Jennings, P.G.		Easting: 2480183.5008	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0			CON	(0 - 0.9) CONCRETE SLAB			
1	3/3	0.9 - 2	FILL	(0.9 - 3.0) FILL, gravel, clay and sand fill, dry, possible slag fragment at 2.0', refusal at 3.0' at apparent concrete.			
2		2 - 3					
3							
Notes:							
Borehole plugged with bentonite chips and concrete repaired upon completion.							
This boring log should not be used seperately from the report to which it is attached.							



LOG OF 2013-RRS-4A-A

DRILLING METHOD: Direct Push

NORTHING: 7,102,058 FT

DATE/TIME: 01/13/2014, 1645




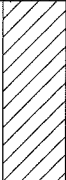


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,186 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>2.5</u> 2.5	3-4 (1652)			0-1.25 FT, CONCRETE and FILL.
					GP/SP		1.25-1.5 FT, FILL (GP/SP) GRAVEL, fine, and SAND, coarse; wet.
					CH/GC		1.5-2.5 FT, (CH/GC) GRAVELLY CLAY; dark brown; moist, soft-firm.
	2	NA	<u>4.0</u> 4.0	4-5 (1653)	CH		2.5-5.0 FT, (CH) CLAY; dark brown; dry, firm-stiff.
					GC		5.0-6.0 FT, (GC) CLAYEY GRAVEL; light brown; wet, compact.
					CL		6.0-8.0 FT, (CL) SILTY CLAY, some gravel; moist, very soft.
10							End of borehole at 8.0 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Battery Breaker Bldg

REVIEWED BY: JW

Exide Technologies			Log of Boring: SCC-3		
Frisco Recycling Center Frisco, TX			Completion Date: 3/5/2013		Drilling Method: DPT
			Driller: Margarito Estrada		Borehole Diameter (in.): 2
PBW Project No. 1755			Driller's License: 58164		Total Depth (ft): 5
			Field Supervisor: Tim Jennings, P.G.		Northing: 7101666.6928
			Logged By: Roberta Russell		Easting: 2480460.5413
			Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	FILL	(0 - 3.6) FILL, dark reddish brown, silty clay with sand and gravel, plastic chip at 1', moist, soft to firm, low plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4			ML	(3.6 - 4.1) SILT w/GRAVEL, ~30-40% gravel, light reddish brown, fine to medium grained gravel.	
5		4 - 5	CL	(4.1 - 5.0) Silty CLAY, dark reddish brown, moist, firm, medium plasticity.	
<div>PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div>			<div>Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.</div>		

Exide Technologies				Log of Boring: SCC-3A			
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013	Drilling Method:	DPT
				Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755				Driller's License:	58164	Total Depth (ft):	5
				Field Supervisor:	Tim Jennings, P.G.	Northing:	7101641.6386
				Logged By:	Roberta Russell	Easting:	2480461.4981
				Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.4/5	0 - 0.5	CL	(0 - 0.5) Sandy CLAY, dark reddish brown, moist, soft, low plasticity clay.			
1		0.5 - 2		(0.5 - 4.0) CLAY, dark reddish brown, abundant black staining from 3'-4', moist, wet at 3', soft, high plasticity.			
2			CH				
3		2 - 4					
4		4 - 5	CL	(4.0 - 5.0) Sandy CLAY, light grayish brown, trace black staining, wet, soft, low plasticity clay.			
5							
				Notes:			
				Borehole plugged with bentonite chips upon completion.			
				This boring log should not be used seperately from the report to which it is attached.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446							



LOG OF SCC-5A

DRILLING METHOD: Direct PushNORTHING: 7,101,692 FTDATE/TIME: 01/10/2014, 0900DRILLER: SCI, Margarito EstradaEASTING: 2,480,025 FTTOTAL DEPTH: 4 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	4.0 4.0	0.0-0.5 (0859)	CH		0.0-2.5 FT, (CH) CLAY, trace fine gravel; brown; moist, firm.
					CL		2.5-3.25 FT, (CL) SILTY CLAY, trace gravel; brown, layered, friable; stiff.
					CH		3.25-4.0 FT, (CH) CLAY, trace fine gravel; brown; moist, firm.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Stewart Creek CorridorREVIEWED BY: JW



LOG OF SCC-5B

DRILLING METHOD: Direct Push

NORTHING: 7,101,661 FT

DATE/TIME: 01/10/2014, 0845




DRILLER: SCI, Margarito Estrada

EASTING: 2,480,068 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.0 4.0	0.0-0.5 (0851)	CH		0.0-0.3 FT, TOPSOIL - (CH) CLAY; brown; damp, soft.
					GP/SP		0.3-0.75 FT, (GP/SP) SANDY GRAVEL; brown; damp, loose.
					CH		0.75-4.0 FT, (CH) CLAY; dark brown; moist, firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Stewart Creek Corridor

REVIEWED BY: JW

Exide Technologies				Log of Boring: SCC-10	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102156.5364
				Easting:	2479518.8436
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description	
0	4.5/5	0.5 - 2	FILL	(0 - 0.7) FILL, dark reddish brown, silty clay with gravel, dry, soft.	
1			CL	(0.7 - 3.0) Silty CLAY, dark reddish brown, moist, soft, low to medium plasticity.	
2		2 - 4			
3				(3.0 - 5.0) Silty SAND, ~30% calcareous sand, dark reddish brown, dry, soft.	
4		4 - 5	SW		
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	

Exide Technologies				Log of Boring: SCC-10A	
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102143.1089
				Easting:	2479512.8889
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	CL	(0 - 1.8) Silty CLAY, dark red to reddish brown, abundant orange Fe-ox staining, moist, soft, low plasticity.	
1		0.5 - 2			
2			CL/SC	(1.8 - 2.3) Sandy CLAY/clayey SAND, dark reddish brown, some orange Fe-ox staining, moist, soft, low plasticity clay.	
3		2 - 4	CL	(2.3 - 4.0) Silty CLAY/CLAY, dark reddish brown, moist, soft, low to medium plasticity.	
4					
5		4 - 5		(4.0 - 4.9) Gravelly CLAY, ~20% medium gravel, light reddish brown, moist, soft, low plasticity clay.	
				(4.9 - 5.0) CLAY, light reddish brown, wet, soft, medium plasticity.	
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF SCC-10B

DRILLING METHOD: Direct Push

NORTHING: 7,102,140 FT

DATE/TIME: 01/13/2014, 1200

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,514 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	3.3 4.0	0.0-0.5 (1204)	CL		0.0-1.0 FT, (CL) CLAY, some silt; black; dry, stiff.
					SM		1.0-2.5 FT, (SM) SILTY SAND; brown; moist, compact.
					CH		2.5-4.0 FT, (CH) CLAY, trace fine gravel; dark gray and black, reddish brown mottling; moist, soft-firm.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

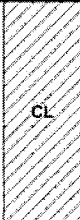
PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Southwest Side of Slag Landfill

REVIEWED BY: JW

Exide Technologies				Log of Boring: SCC-11			
Frisco Recycling Center Frisco, TX				Completion Date: 3/6/2013		Drilling Method: Hand Auger	
				Driller: Margarito Estrada		Borehole Diameter (in.): 3	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 4	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7102319.6421	
				Logged By: Roberta Russell		Easting: 2479301.9603	
				Sampling Method: 3"X6" Hand Auger		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (Wt)	Sample Interval	USCS	Lithologic Description			
0	0.5/0.5	0.5 - 2	CL	(0 - 4.0) Silty CLAY/CLAY, dark reddish brown, greater plasticity with depth, moderate orange Fe-ox staining, moist, firm to hard, low to medium plasticity.			
1	0.5/0.5						
	0.5/0.5						
2	0.5/0.5	2 - 4					
	0.5/0.5						
3	0.5/0.5						
	0.5/0.5						
4	0.5/0.5						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies			Log of Boring: SCC-11A					
Frisco Recycling Center Frisco, TX			Completion Date:		3/6/2013	Drilling Method:		Hand Auger
			Driller:		Margarito Estrada	Borehole Diameter (in.):		3
PBW Project No. 1755			Driller's License:		58164	Total Depth (ft):		3
			Field Supervisor:		Tim Jennings, P.G.	Northing:		7102283.5451
			Logged By:		Roberta Russell	Easting:		2479298.0939
			Sampling Method:		3"X6" Hand Auger	Ground Elev. (ft AMSL):		--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description				
0	0.5/0.5	0 - 0.5	 CL	(0 - 3.0) Silty CLAY, dark reddish brown, trace red Fe staining, moist, soft to firm, low plasticity.				
1	0.5/0.5	0.5 - 2						
	0.5/0.5							
2	0.5/0.5	2 - 3						
	0.5/0.5							
3	0.5/0.5							

Exide Technologies				Log of Boring: 2012-SDA-1			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	4
				Driller's License:	52694	Northing:	7101558.98
				Logged By:	Christopher Moore, P.G.	Easting:	2480088.96
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.0/4.0	0-2	CL	(0 - 3.0) SILTY CLAY, CL, light olive brown, moist, soft, medium plasticity, trace sand size carbonate nodules, no staining or foreign material observed, no odor.			
1							
2		2-4		(3.0 - 4.0) SILTY CLAY, CL, grayish brown, moist, soft to firm, medium plasticity, fractured, orange staining in fractures, no foreign material observed, no odor.			
3							
4							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Boring location hand probed to 4.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-SDA-2			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	4
				Driller's License:	52894	Northing:	7101557.95
				Logged By:	Christopher Moore, P.G.	Easting:	2480184.84
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (t/ft)	Sample Interval	USCS	Lithologic Description			
0	4.0/4.0	0-2	CL	(0 - 4.0) SILTY CLAY, CL, dark grayish brown, moist, soft to firm, medium plasticity, trace sand size carbonate nodules, no staining or foreign material observed, no odor.			
1							
2		2-4					
3							
4							

Exide Technologies				Log of Boring: 2012-SDA-3			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	4
				Driller's License:	52694	Northing:	7101552.75
				Logged By:	Christopher Moore, P.G.	Easting:	2480291.52
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.0/4.0	0-2	CL	(0 - 4.0) SILTY CLAY, CL, very dark gray, moist, soft, medium plasticity, trace sand size carbonate nodules, no staining or foreign material observed, no odor.			
1							
2		2-4					
3							
4							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Boring location hand probed to 4.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-SDA-3A			
Frisco Recycling Center Frisco, TX				Completion Date: 3/4/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Will Vienne, P.G.		Northing: 7101576.8349	
				Logged By: Will Vienne, P.G.		Easting: 2480331.1409	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft)	Sample Interval	USCS	Lithologic Description			
0	5/5	0 - 0.5	CL	(0 - 5.0) Silty CLAY, dark brownish gray, trace limestone pebbles and granules, slightly moist, slightly soft to slightly firm, low to medium plasticity.			
1		0.5 - 2					
2							
3		2 - 4					
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.			

LOG OF 2013-SDA-3B

DRILLING METHOD: Direct Push

NORTHING: 7,101,606 FT

DATE/TIME: 01/09/2014, 1600




DRILLER: SCI, Margarito Estrada

EASTING: 2,480,328 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	<u>3.0</u> 4.0	0.0-0.5 (1605)	CL		0-1.0 FT, (CL) SILTY CLAY, some fine gravel; dark brown; dry, firm.
					CH		1.0-3.0 FT, (CH) CLAY; brown; moist, soft.
					CH		3.0-4.0 FT, (CH) CLAY, some gravel; black; dry, stiff.
							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Disposal Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2012-SDA-4			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	4
				Driller's License:	52694	Northing:	7101174.44
				Logged By:	Christopher Moore, P.G.	Easting:	2479970.62
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.0/4.0	0-2		(0 - 0.3) SILT, ML, dark grayish brown, with clay, moist, soft, low to medium plasticity, some roots, no staining or foreign material observed, no odor.			
1				(0.3 - 4.0) SILT, ML, very pale brown, weathered limestone, dry to moist, very soft, non-plastic, some limestone fragments, no staining or foreign material observed, no odor.			
2		2-4	ML				
3							
4							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Boring location hand probed to 1.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-SDA-4A	
Frisco Recycling Center Frisco, TX				Completion Date:	3/4/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Will Vienne, P.G.
				Logged By:	Will Vienne, P.G.
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101587.5249
				Easting:	2480227.9279
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5	0 - 0.5	CL	(0 - 5.0) CLAY and silty CLAY, dark brownish gray, abundant limestone pebbles and fragmented shale in clay matrix at 0-0.7' with abundant roots, trace carbonate granules and pebbles below 0.7', slightly moist, soft to slightly firm, low to medium plasticity.	
1		0.5 - 2			
2					
3		2 - 4			
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used seperately from the report to which it is attached.	



LOG OF 2013-SDA-4B

DRILLING METHOD: Direct Push

NORTHING: 7,101,638 FT

DATE/TIME: 01/10/2014, 0830


DRILLER: SCI, Margarito Estrada

EASTING: 2,480,213 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>3.5</u> 4.0	0.0-0.5 (0841)	CH		0-4.0 FT, (CH) CLAY; brown; moist, soft. 1.0 FT, fine gravel lens (~3 inches).
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Disposal Area

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2012-SDA-5			
Frisco Recycling Center Frisco, TX				Completion Date:	1/4/2012	Drilling Method:	Geoprobe
				Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	2.9
				Driller's License:	52694	Northing:	7101170.31
				Logged By:	Christopher Moore, P.G.	Easting:	2480098.36
				Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	—
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	2.9/2.9	0-2		(0 - 1.1) SILT, ML, brown, moist, soft, low plasticity, no staining or foreign material observed, no odor. 0.9-1.1: limestone fragments.			
1			ML	(1.1 - 2.9) SILT, ML, very pale brown, weathered limestone, dry to moist, very soft, non-plastic, some limestone fragments, no staining or foreign material observed, no odor.			
2		2-2.9					
<p>PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p>				Notes: Boring location hand probed to 1.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. Refusal at 2.9 This Log of Boring should not be used separately from the report to which it is attached.			



LOG OF 2014-SDA-6

DATE/TIME: 03/31/2014, 1445

DRILLING METHOD: Direct Push

NORTHING: 7,101,659 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,999 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 636 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.8 5.0	0.0-0.5 (1451)	ML		0.0-1.0 FT, (ML) CLAYEY SILT, some gravel, trace organic material; dark brown; dry, hard.
				0.5-2.0 (1452)	CH		1.0-2.75 FT, (CH) CLAY; black; dry, soft-firm.
				2.0-4.0 (1453)	CH		2.75-4.0 FT, (CH) CLAY; gray and brown, reddish yellow mottling; damp, hard.
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Disposal Area

REVIEWED BY: JW



LOG OF 2014-SDA-7

DRILLING METHOD: Direct Push

NORTHING: 7,101,210 FT

DATE/TIME: 03/31/2014, 1530

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,015 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 676 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	5.0 5.0	0.0-0.5 (1535)	CH		0.0-0.25 FT, (CH) CLAY; black; dry, hard.
					GP/ML		0.25-1.0 FT, (GP/ML) SANDY GRAVEL and SILT; gray and brown; dry, loose.
				0.5-2.0 (1536)	CL		1.0-4.0 FT, (CL) SILTY CLAY; brown, platy, friable; dry, hard.
				2.0-4.0 (1537)			
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: South Disposal Area

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2012-SL-1			
Frisco Recycling Center Frisco, TX					Completion Date:	1/10/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	5.5
					Driller's License:	52694	Northing:	7102343.75
					Logged By:	Christopher Moore, P.G.	Easting:	2479384.49
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	-
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CH	(0 - 5.5) CLAY, CH, dark gray, moist, firm, medium plasticity, fill, with angular gravel, no odor. 2.0-2.5: with black, gravel size slag fragments.			
1		0	0-2					
2	4.0/4.0							
3		0.1	2-4					
4								
5	0/1.5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 2.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion. No recovery below 4.0 feet. Refusal at 5.5 feet. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2012-SL-1	
Frisco Recycling Center Frisco, TX		Completion Date: 3/6/2013		Drilling Method:	DPT
		Driller: Margarito Estrada	Borehole Diameter (in.): 2		
PBW Project No. 1755		Driller's License: 58164	Total Depth (ft): 6		
		Field Supervisor: Will Vienne, P.G.	Northing: 7102343.7519		
		Logged By: Roberta Russell	Easting: 2479384.4867		
		Sampling Method: 5' Lined Tube	Ground Elev. (ft AMSL): --		
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	3.6/5		FILL	(0 - 0.6) FILL, clayey silt, dark reddish brown, moist, soft, low plasticity.	
1				(0.6 - 1.6) FILL, silty clay, light grayish brown, orange Fe staining, moist, firm, low plasticity.	
2				(1.6 - 2.5) CLAY, dark gray, dry.	
3				(2.5 - 3.0) FILL, silty clay, trace gravel, gray, abundant orange staining, moist, firm, low plasticity.	
4	0.5/1	4 - 5	FILL	(3.0 - 6.0) FILL, abundant slag, dark gray, dry.	
5					
6					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies					Log of Boring: 2012-SL-2			
Frisco Recycling Center Frisco, TX					Completion Date:	1/10/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	8
					Driller's License:	52694	Northing:	7102486.2
					Logged By:	Christopher Moore, P.G.	Easting:	2479520.54
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	4.0/4.0	0	0-2	GH	(0 - 1.2) CLAY, CH, dark gray, moist, soft, medium plasticity, no staining or foreign material observed, no odor.			
1					(1.2 - 8.0) CLAY, CH, light grayish brown and light gray, moist, soft to firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed, no odor. 7.5: Wet, silty.			
2								
3								
4	0							
5								
6								
7								
8	4.0/4.0	0	5-7					
		0						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4.5 feet to check for utilities. Borehole plugged with bentonite chips upon completion. Saturated soils encountered at 7.5 feet, Boring terminated at 8.0 feet and water sample collected from base of boring. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2012-SL-3			
Frisco Recycling Center Frisco, TX					Completion Date:	1/10/2012	Drilling Method:	Geoprobe
					Drilling Company:	StrataCore	Borehole Diameter (in.):	2.25
PBW Project No. 1755					Driller:	Mario Robles	Total Depth (ft):	12
					Driller's License:	52694	Northing:	7102514.89
					Logged By:	Christopher Moore, P.G.	Easting:	2479697.92
					Sampling Method:	2"x 4' Barrel	Ground Elev. (ft AMSL):	-
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CH	(0 - 3.5) CLAY, CH, dark gray, moist, soft to firm, medium plasticity, no staining or foreign material observed, no odor.			
1		0	0-2					
2	4.0/4.0							
3		0.1						
4					(3.5 - 9.0) CLAY, CH, light grayish brown and light gray, moist, firm, medium plasticity, some sand size carbonate nodules, no staining or foreign material observed, no odor.			
5		0						
6	4.0/4.0							
7		0.1						
8								
9		0.1	8-10					
10	3.5/4.0				(9.0 - 12.0) CLAY, CH, light gray, moist, firm to hard, high plasticity, laminated, orange staining along laminations, fractured, no foreign material observed, no odor. 10.3-10.8: sand laminae, wet.			
11		0.1						
12								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Boring location hand probed to 4.0 feet to check for utilities. Borehole plugged with bentonite chips upon completion. Saturated soils encountered at 10.3 feet. Boring terminated at 12.0 feet and water sample collected from base of boring. This Log of Boring should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-SL-4	
Frisco Recycling Center Frisco, TX				Completion Date:	3/7/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	3"X6" Hand Auger
				Drilling Method:	Hand Auger
				Borehole Diameter (in.):	3
				Total Depth (ft):	4
				Northing:	7102263.8969
				Easting:	2479414.9719
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	0.5/0.5	0 - 0.5	CL/ML	(0 - 4.0) Silty CLAY/clayey SILT, dark brown, orange and red Fe staining, ~10% calcareous nodules, moist, soft to firm, low plasticity.	
1	0.5/0.5	0.5 - 2			
	0.5/0.5				
2	0.5/0.5	2 - 4			
	0.5/0.5				
3	0.5/0.5				
	0.5/0.5				
4	0.4/0.5				
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF 2014-SL-5

DATE/TIME: 03/31/2014, 1115

DRILLING METHOD: Direct Push

NORTHING: 7,102,602 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,957 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 634 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.5 5.0	0.0-0.5 (1122)	ML		0.0-1.0 FT, (ML) CLAYEY SILT; dark brown; dry, soft-firm.
				0.5-2.0 (1123)	ML		1.0-2.25 FT, (ML) SANDY SILT, some clay, some fine gravel; brown, reddish yellow mottling; dry, firm.
				2.0-4.0 (1124)	CH		2.25-4.0 FT, (CH) CLAY, some fine gravel; gray, reddish yellow mottling, trace carbon nodules; damp, soft-firm.
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Landfill

REVIEWED BY: JW



LOG OF 2014-SL-6

DRILLING METHOD: Direct Push

NORTHING: 7,102,477 FT

DATE/TIME: 03/31/2014, 1145

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,401 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 632 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	3.8 5.0	0.0-0.5 (1149)	CL		0.0-1.0 FT, (CL) SILTY CLAY, trace fine gravel; dark brown, reddish yellow mottling; dry, stiff.
				0.5-2.0 (1150)	CH		1.0-2.75 FT, (CH) CLAY, trace gravel; brown; dry, soft-firm.
				2.0-4.0 (1151)	ML/CH		2.75-4.0 FT, (ML/CH) GRAVELLY SILT and CLAY, some sand; brown, reddish yellow mottling, trace calcareous nodules; moist, firm. 3.5 FT, GRAVELLY SAND for 0.25 FT.
							4.0-5.0 FT, Not Logged.
10							End of borehole at 5 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Landfill

REVIEWED BY: JW

LOG OF 2014-SL-7

DRILLING METHOD: Direct Push

NORTHING: 7,102,412 FT

DATE/TIME: 03/31/2014, 1200



DRILLER: SCI, Margarito Estrada

EASTING: 2,479,287 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 637 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.0 5.0	0.0-0.5 (1210)	ML		0.0-0.5 FT, TOPSOIL (ML) SILT; dark brown; dry, stiff.
				0.5-2.0 (1211)	CH		0.5-4.0 FT, (CH) CLAY; dark brown and black; dry, very stiff-hard.
				2.0-4.0 (1212)			
							4.0-5.0 FT, Not Logged.
10							End of borehole at 5 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Landfill




REVIEWED BY: JW

Exide Technologies				Log of Boring: SRB-VS-9	
Frisco Recycling Center Frisco, TX				Completion Date:	5/21/2013
				Driller:	Dan Spaust
PBW Project No. 1755				Driller's License:	3038
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Tim Jennings, P.G.
				Sampling Method:	4' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101361.944
				Easting:	2479938.26
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4/4	0.9 - 2	CL	(0 - 3.1) Silty CLAY, brown, dry to moist, firm, medium plasticity.	
1					
2					
3	1/1	4 - 5	SH	(3.1 - 5.0) Weathered shale, brown, moist to dry, hard.	
4					
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips upon completion. This boring log should not be used separately from the report to which it is attached.	



LOG OF SRB-VS-9E

DRILLING METHOD: Direct PushNORTHING: 7,101,364 FTDATE/TIME: 01/10/2014, 1400DRILLER: SCI, Margarito EstradaEASTING: 2,479,894 FTTOTAL DEPTH: 4 FT BGSRIG: GeoprobeSURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	4.0 4.0	0.0-0.5 (1408)	CH		0.0-2.0 FT, (CH) CLAY; gray and brown; moist, soft-firm.
					CH		2.0-3.0 FT, (CH) CLAY; brown; dry, very stiff.
							3.0-4.0 FT, SHALE and CLAY; gray and reddish brown, yellow mottling, friable; dry, hard.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086COMPILED BY: BEFPROJECT: Exide FriscoCHECKED BY: JDJLOCATION: Shooting Range Berm & S. BermREVIEWED BY: JW



LOG OF SRB-VS-11A

DRILLING METHOD: Direct Push

NORTHING: 7,101,205 FT

DATE/TIME: 01/10/2014, 1415




DRILLER: SCI, Margarito Estrada

EASTING: 2,479,919 FT

TOTAL DEPTH: 4 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
	1	NA	<u>3.8</u> 4.0	0.0-0.5 (1416)	CL		0.0-1.0 FT, (CL) SILTY CLAY; dark brown; moist, firm-stiff.
					CH		1.0-3.5 FT, (CH) CLAY, trace fine gravel; reddish brown, platy, friable; dry, very stiff.
					GP/SP		3.5-4.0 FT, (GP/SP) SANDY GRAVEL; light brown; dry, loose.
5							End of borehole at 4 FT BGS
10							
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Shooting Range Berm & S. Berm

REVIEWED BY: JW



LOG OF SRB-VS-11B

DRILLING METHOD: Direct Push

NORTHING: 7,101,204 FT

DATE/TIME: 03/31/2014, 1545


DRILLER: SCI, Margarito Estrada

EASTING: 2,479,918 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 683 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.5 5.0	0.5-2.0 (1546)	ML		0.0-4.0 FT, (ML) CLAYEY SILT; dark gray, platy, friable; dry, hard.
				2.0-4.0 (1547)			1.5 FT, brown, white calcareous nodules.
							4.0-5.0 FT, Not Logged.
							End of borehole at 5 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Shooting Range Berm & South Berm

REVIEWED BY: JW

Exide Technologies				Log of Boring: 2013-STB-1			
Frisco Recycling Center Frisco, TX				Completion Date: 3/6/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Will Vienne, P.G.		Northing: 7101857.2181	
				Logged By: Roberta Russell		Easting: 2480006.9654	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	3.6/5	0 - 2	CON	(0 - 0.7) CONCRETE SLAB			
1			FILL	(0.7 - 3.0) FILL, gravel with sand and clay, light brown, wet (possibly from concrete corer), unconsolidated or soft clay.			
2		2 - 4					
3				(3.0 - 5.0) SILTY CLAY/CLAY, dark brown to black, very moist, soft, low to medium plasticity.			
4		4 - 5	CL				
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-2			
Frisco Recycling Center Frisco, TX					Completion Date:	3/7/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	5
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101809.889
					Logged By:	Roberta Russell	Easting:	2480060.3992
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 1.0) CONCRETE SLAB			
1					(1.0 - 3.0) FILL, light to dark brown, gravel.			
2	2.5/5			FILL				
3		0.7	2.5 - 4		(3.0 - 3.4) FILL, light yellowish brown, clayey gravel, moist, firm.			
4				CL	(3.4 - 5.0) SILTY CLAY, dark brown, ~10% calcareous nodules, moist, firm to hard, low plasticity.			
5		1.7	4 - 5					

Exide Technologies			Log of Boring: 2013-STB-3	
Frisco Recycling Center Frisco, TX			Completion Date:	3/6/2013
			Driller:	Margarito Estrada
PBW Project No. 1755			Driller's License:	58164
			Field Supervisor:	Tim Jennings, P.G.
			Logged By:	Roberta Russell
			Sampling Method:	5' Lined Tube
			Drilling Method:	DPT
			Borehole Diameter (in.):	2
			Total Depth (ft):	5
			Northing:	7101843.085
			Easting:	2480095.1282
			Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description
0	3.7/5	0 - 2	CON	(0 - 0.7) CONCRETE SLAB
1			FILL	(0.7 - 2.0) FILL, gravelly clay, ~10-20% medium gravel, yellowish brown, wet (possibly from concrete corer), firm, low plasticity.
2		2 - 4	CH	(2.0 - 5.0) CLAY, dark gray, moist, firm to hard, medium to high plasticity.
3				
4				
5	4 - 5			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies					Log of Boring: 2013-STB-4			
Frisco Recycling Center Frisco, TX					Completion Date:	3/6/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	5
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101763.9043
					Logged By:	Roberta Russell	Easting:	2480125.1415
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	2.7/5	22		CON	(0 - 1.0) CONCRETE SLAB			
1			0 - 2	FILL	(1.0 - 2.0) FILL, gravel, wet (possibly from concrete corer).			
2				CL	(2.0 - 5.0) Silty CLAY, black to dark gray, moderate hydrocarbon odor, wet, soft, low plasticity.			
3			2 - 4					
4			4 - 5					
5								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			



LOG OF 2013-STB-4A

DRILLING METHOD: Direct Push

NORTHING: 7,101,776 FT

DATE/TIME: 01/13/2014, 1600

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,135 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	3.0 3.0	2-4 (1607)	CH		0-0.75 FT, Concrete.
							0.75-1.0 FT, FILL - (GP/SP) SAND, coarse, and GRAVEL, fine; light brown; wet, loose.
							1.0-4.5 FT, (CH) CLAY; black; moist, soft-firm.
	2		1.0 1.0		GP CH		4.0 FT, damp, soft.
							4.5-4.75 FT, (GP) SANDY GRAVEL; black; wet, loose.
							4.75-5.0 FT, (CH) CLAY; black; dry, stiff.
							End of borehole at 5.0 FT BGS

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: Slag Treatment Bldg

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2013-STB-5			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.5
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101810.1084
					Logged By:	Will Vienne, P.G.	Easting:	2480039.3263
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1	1.5/2	35.3	0 - 1.5	FILL	(0.5 - 1.2) FILL, crushed black asphalt-like material and reddish granite, abundant feldspar and quartz, wet (may be from concrete corer), unconsolidated, granule to pebble sized. (1.2 - 1.5) FILL, sand, brown, abundant Fe staining, moist, unconsolidated, moderate sorting, very fine to fine grained, refusal at 1.5'.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached			

Exide Technologies					Log of Boring: 2013-STB-6			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.1
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101799.4733
					Logged By:	Will Vienne, P.G.	Easting:	2480030.8108
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1	0.6/1.1	50.1	0.5 - 1.1	FILL	(0.5 - 0.8) FILL, crushed black asphalt-like material, reddish granite, granule to pebble sized, moist, unconsolidated. (0.8 - 1.1) FILL, sand, heavy black stain at 0.8-1', moist, unconsolidated, very fine to fine grained, moderate sorting, refusal at 1.1'.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-7			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.2
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101819.0361
					Logged By:	Will Vienne, P.G.	Easting:	2480034.4435
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1	0.7/1.2	32.6	0.5 - 1.2	FILL	(0.5 - 1.2) FILL, crushed black asphalt-like material and reddish granite, granule to pebble sized, wet (may be from concrete corer), refusal at 1.2'.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-8			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.3
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101852.704
					Logged By:	Will Vienne, P.G.	Easting:	2479989.8386
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.8) CONCRETE SLAB			
1	0.5/1.3	60.7	0.5 - 1.3	FILL	(0.8 - 1.2) FILL, black asphalt-like material and reddish granite, granule to pebble sized, wet (may be from concrete corer), unconsolidated. (1.2 - 1.3) FILL, sand, brown with Fe staining, very fine to fine grained, medium sorting, wet (may be from concrete corer), refusal at 1.3'.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-9			
Frisco Recycling Center Frisco, TX					Completion Date:	5/7/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	8
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101812.453
					Logged By:	Roberta Russell	Easting:	2479995.8612
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	2/5	0.2	0.5 - 1	CON	(0 - 0.5) CONCRETE SLAB			
1				FILL	(0.5 - 1.6) FILL, clayey sand, orange, trace black staining, moist, soft.			
2					(1.6 - 5.5) Silty CLAY, dark brown, moist, hard, medium plasticity.			
3								
4	3/3		5 - 5.5	CL				
5					(5.5 - 5.7) Gravelly, sandy CLAY, ~30% fine gravel and sand in clay matrix, wet, dark brown with orange Fe staining, wet, soft.			
6					(5.7 - 8.0) Silty CLAY, dark brown, wet, firm to hard, medium plasticity.			
7								
8								
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-10			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.1
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101831.6381
					Logged By:	Will Vienne, P.G.	Easting:	2479971.7708
					Sampling Method:	4" Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	0.4/1.1	0.4	0.5 - 1.1	CON	(0 - 0.5) CONCRETE SLAB			
1				FILL	(0.5 - 0.6) FILL, crushed black asphalt-like material and red granite, granule to pebble sized, wet (may be from concrete corer), unconsolidated. (0.6 - 1.1) FILL, sand, brown, heavy Fe staining, very fine to fine grained, moderate sorting, wet (may be from concrete corer), unconsolidated.			
<div> <div>PBW</div> <div> Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> </div>					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-11			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.4
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101768.0406
					Logged By:	Will Vienne, P.G.	Easting:	2480094.6771
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1	0.9/1.4	67.8	0.5 - 1.4	FILL	(0.5 - 1.1) FILL, black asphalt-like material and reddish granite, granule to pebble sized, wet (may be from concrete corer).			
					(1.1 - 1.4) FILL, sand, brown with Fe staining, very fine to fine grained, moderate sorting, wet (may be from concrete corer), refusal at 1.4'.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies					Log of Boring: 2013-STB-12			
Frisco Recycling Center Frisco, TX					Completion Date:	3/14/2013	Drilling Method:	DPT
					Driller:	Dan Spaust	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	3038	Total Depth (ft):	1.2
					Field Supervisor:	Will Vienne, P.G.	Northing:	7101780.8028
					Logged By:	Will Vienne, P.G.	Easting:	2480016.3817
					Sampling Method:	4' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0				CON	(0 - 0.5) CONCRETE SLAB			
1	0.7/1.2	46.6	0.5 - 1.2	FILL	(0.5 - 0.9) FILL, crushed black asphalt-like material and red granite, moist (may be from concrete corer), unconsolidated. (0.9 - 1.2) FILL, sand, brown with heavy Fe staining, very fine to fine grained, moderate sorting, wet (may be from concrete corer), unconsolidated.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-TS-1			
Frisco Recycling Center Frisco, TX				Completion Date: 3/14/2013		Drilling Method: DPT	
				Driller: Dan Spaust		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 3038		Total Depth (ft): 4	
				Field Supervisor: Will Vienne, P.G.		Northing: 7102097.0348	
				Logged By: Will Vienne, P.G.		Easting: 2480985.384	
				Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4/4	0 - 0.5	CL	(0 - 4.0) Silty CLAY, very dark brown gray, weathered, dry, slightly firm to firm, low plasticity clay, root fragments at 0-0.3', trace limestone granules in moderately organic clay at 0-2.2', abundant limestone granules below 2.2'.			
1		0.5 - 2					
2							
3		2 - 4					
4							
				Notes:			
				Borehole plugged with bentonite chips upon completion.			
				This boring log should not be used separately from the report to which it is attached.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446							

Exide Technologies				Log of Boring: 2013-TS-2	
Frisco Recycling Center Frisco, TX		Completion Date: 3/14/2013		Drilling Method:	DPT
		Driller: Dan Spaust		Borehole Diameter (in.):	2
PBW Project No. 1755		Driller's License: 3038		Total Depth (ft):	4
		Field Supervisor: Will Vienne, P.G.		Northing:	7102252.6153
		Logged By: Will Vienne, P.G.		Easting:	2480976.5784
		Sampling Method: 4' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	4/4	0 - 0.5	CL	(0 - 4.0) Silty CLAY, dark brownish gray, dry, slightly firm to firm, low plasticity clay, trace root fragments from 0-0.4', trace limestone granules in moderately organic clay at 0-2.3', gray brown below 2.3' with abundant limestone granules.	
1		0.5 - 2			
2					
3		2 - 4			
4					
				Notes:	
				Borehole plugged with bentonite chips upon completion.	
				This boring log should not be used seperately from the report to which it is attached.	
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					



LOG OF 2014-TS-3

DATE/TIME: 03/31/2014, 1415

DRILLING METHOD: Direct Push

NORTHING: 7,102,166 FT

DRILLER: SCI, Margarito Estrada

EASTING: 2,480,979 FT

TOTAL DEPTH: 5 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: 650 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	N/A	4.8 5.0	0.0-0.5 (1424)	CH		0.0-2.25 FT, (CH) CLAY, trace fine gravel; black; dry, stiff.
				0.5-2.0 (1425)			
				2.0-4.0 (1426)	CH		2.25-4.0 FT, (CH) CLAY, trace silt, trace fine gravel; dark gray; dry, hard.
							4.0-5.0 FT, Not Logged.
10							End of borehole at 5 FT BGS
15							

PROJECT No: 130-2086


COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: East of Oxide Bldg

REVIEWED BY: JW

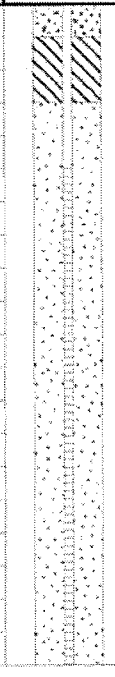
Exide Technologies				Log of Boring: VCP-MW-1			
Frisco Recycling Center Frisco, TX				Completion Date: 2/28/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Chris Combs		Total Depth (ft): 10	
				Driller's License: 56033		Northing: 7101501.9575	
				Logged By: Tim Jennings, P.G.		Easting: 2479866.9837	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 652.99	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 655.88	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description		
0		5.0/5.0	MH	0.9	(0 - 3.6) Clayey SILT, grayish brown, moist to wet, soft to firm, high plasticity.		
1.2							
1.2							
0.7							
5					5.0/5.0	SH	0.5
1.3							
1.1							
1.3							
0.9							
10				0.8	(7.5 - 10.0) SHALE, dark gray, dry, hard.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This boring log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 1.0) Concrete (1.0 - 2.0) Bentonite Hole Plug (2.0 - 10.0) 20/40 Silice Sand				Well Materials (+2.89 - 2.5) Casing, 2" Sch 40 FJT PVC (2.5 - 10.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

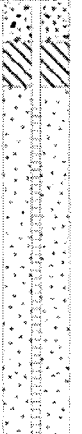
Exide Technologies				Log of Boring: VCP-MW-2			
Frisco Recycling Center Frisco, TX				Completion Date: 3/1/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Chris Combs		Total Depth (ft): 20	
				Driller's License: 56033		Northing: 7101872.3093	
				Logged By: Tim Jennings, P.G.		Easting: 2479265.8773	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 627.74	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 631.16	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description		
0		5.0/5.0	MH	6.2	(0 - 4.0) Clayey SILT, dark grayish brown, moist, soft to firm, high plasticity, abundant roots to 4'.		
7.0							
9.3							
8.7							
5		5.0/5.0	CL	7.2	(4.0 - 9.0) Silty CLAY, dark grayish brown, moist soft, medium plasticity, rust colored mottling locally, friable, abundant roots, iron oxide mottling below 6'.		
8.8							
7.2							
8.1							
10		5.0/5.0	CL/CH	8.1	(9.0 - 11.1) Silty CLAY, dark grayish brown, moist firm, medium to high plasticity, light gray laminae.		
9.3							
8.5							
7.0							
15		5.0/5.0	CH	6.6	(11.1 - 13.6) Gravelly CLAY, light brown and orange, moist to wet, firm, high plasticity clay, ~20-30% fine to medium gravel in clay matrix, increasing moisture with depth.		
3.2							
7.2							
8.1							
20		3.5/5.0	SH	5.4	(13.6 - 15.6) Silty CLAY, light brown to orange, wet, soft, high plasticity. <5% fine to coarse sand.		
5.2							
12.0							
25.1							
				(18.2 - 20.0) SHALE, dark gray, dry, hard.			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This boring log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 20.0) 20/40 Silica Sand				Well Materials (+3.42 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies			Log of Boring: VCP-MW-3			
Frisco Recycling Center Frisco, TX			Completion Date: 2/28/2013		Drilling Method: HSA	
			Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755			Driller: Chris Combs		Total Depth (ft): 15	
			Driller's License: 56033		Northing: 7102743.5737	
			Logged By: Tim Jennings, P.G.		Easting: 2478984.5144	
			Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 631.34	
			Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 634.06	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description	
0		4.3/5.0	CH/MH	0.8	(0 - 3.4) Silty CLAY/Clayey SILT, dark grayish brown, moist, soft to firm, high plasticity, abundant roots at 0-0.5'.	
0.1						
0.5						
0.3						
5		2.4/5.0	CL	1.1	(3.4 - 7.3) Silty gravelly CLAY; light brown, moist, firm to hard, medium plasticity clay, ~10-30% fine calcareous gravel.	
0.6						
0.6						
0.1						
10		5.0/5.0	NR	-	(7.3 - 7.6) Silty CLAY, light brown, moist firm to hard, medium plasticity, orange and green laminated.	
-				(7.6 - 10.0) No Recovery		
-						
-						
15			SH	0.4	(10.0 - 13.0) Silty CLAY, light brown, wet, soft, high plasticity.	
0.5						
0.4						
1.1				(13.0 - 15.0) SHALE, gray, moist, firm to hard, medium plasticity, abundant iron oxide partings, weathered.		
				0.4		
PBW Pastor, Bebling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This boring log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 15.0) 20/40 Silica Sand			Well Materials (+2.72 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 15.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies				Log of Boring: VCP-MW-4		
Frisco Recycling Center Frisco, TX		Completion Date: 2/28/2013		Drilling Method: HSA		
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75		
PBW Project No. 1755		Driller: Chris Combs		Total Depth (ft): 15		
		Driller's License: 56033		Northing: 7102521.1042		
		Logged By: Tim Jennings, P.G.		Easting: 2479285.0237		
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 632.18		
		Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 635.43		
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description	
0		2.5/5.0	MH	0	(0 - 1.8) Clayey SILT, dark grayish brown, moist soft, high plasticity, trace calcareous nodules.	
				0		
			CL/CH	0.4	(1.8 - 5.3) Silty CLAY, brown to light brown, moist, soft to firm, medium to high plasticity, trace to 5% calcareous nodules.	
				-		
5		3.0/5.0	CL/GC	0.1	(5.3 - 6.6) Gravelly CLAY/Clayey GRAVEL, sub-rounded gravel, moist, soft to firm, medium plasticity clay, ~40-60% fine to medium gravel in clay matrix.	
				0		
				0.1	(6.6 - 10.7) Silty CLAY, orange, brown and gray mottled, moist, firm, medium to high plasticity.	
			CL/CH	-		
				-		
10		5.0/5.0		1	(10.7 - 15.0) SHALE, orangish brown to gray, moist to dry, firm to hard, medium plasticity, abundant iron oxide along bedding planes.	
				0		
			SH	0.1		
				0.3		
				0.1		
15						
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This boring log should not be used separately from the report to which it is attached.		
Annular Materials (0.0 - 1.0) Concrete (1.0 - 3.0) Bentonite Hole Plug (3.0 - 15.0) 20/40 Silica Sand				Well Materials (+3.25 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 15.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot		


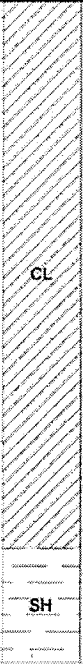
Exide Technologies			Log of Boring: VCP-MW-5		
Frisco Recycling Center Frisco, TX		Completion Date:	2/27/2013	Drilling Method:	HSA
		Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755		Driller:	Chris Combs	Total Depth (ft):	20
		Driller's License:	56033	Northing:	7102925.8587
		Logged By:	Tim Jennings, P.G.	Easting:	2480000.584
		Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	640.8
		Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	643.97
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Lithologic Description	
0		5.0/5.0	CH	(0 - 6.6) Silty CLAY, dark grayish brown, moist to dry, firm to hard, high plasticity, few (<5%) small calcareous nodules below 3.3', dry below 3.5'.	
5		2.5/5.0	CL/CH	(6.6 - 11.5) Sandy, silty CLAY; light brown, light gray and orange laminated, moist, very hard, medium to high plasticity, ~10-20% fine to coarse sand in clay matrix.	
10		3.2/5.0	CH SW	(11.5 - 12.0) Sandy, gravelly CLAY; brown orange, moist, firm, high plasticity clay. (12.0 - 12.8) Clayey, gravelly SAND; wet, soft, ~20-30% clay, ~10-20% fine to medium gravel.	
15			CH	(12.8 - 15.9) Sandy, gravelly CLAY; brown orange, moist, firm, high plasticity clay, ~10-20% fine sand and fine gravel, possibly calcareous nodules.	
		2.5/5.0	CL	(15.9 - 17.5) CLAY, orange and gray mottled, moist, firm, medium plasticity, <5% fine to medium gravel and calcareous nodules, possible reworked shale.	
			SH	(17.5 - 17.7) SHALE, gray, moist, firm, high plasticity.	
20				(17.7 - 20.0) SHALE, gray, very hard, poor recovery.	
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not to be used separately from the report to which it is attached.		
Annular Materials (0.0 - 1.0) Concrete (1.0 - 3.0) Bentonite Hole Plug (3.0 - 20.0) 20/40 Silica Sand			Well Materials (+3.17 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot		

Exide Technologies				Log of Boring: VCP-MW-6	
Frisco Recycling Center Frisco, TX		Completion Date: 2/27/2013		Drilling Method: HSA	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Chris Combs		Total Depth (ft): 20	
		Driller's License: 56033		Northing: 7103251.5523	
		Logged By: Tim Jennings, P.G.		Easting: 2479837.0804	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 641.1	
		Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 644.71	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Lithologic Description	
0		5.0/5.0	CH	(0 - 6.6') Silty CLAY, dark grayish brown, moist to dry, soft to hard, high plasticity, <5% calcareous nodules, hard and dry below 3.7', brown, ~5-10% calcareous nodules at 5-6.6', very stiff 6-6.6'.	
5		3.7/5.0	CL/CH	(6.6 - 10.0) Silty, gravelly CLAY; brown orange, moist, hard to very hard, medium to high plasticity clay, well laminated, ~10-20% fine to medium gravel and calcareous nodules.	
10		3.7/5.0	MH	(10.0 - 15.0) Clayey SILT, moist to wet, soft, high plasticity, ~20-30% fine to medium gravel and fine to coarse sand from 12.3-12.8', wet below 12.3'.	
15		5.0/5.0	SM/SW CH SH	(15.0 - 16.5) Silty, gravelly SAND; brown, wet, soft, ~10% fines, ~20-30% fine to medium sub-rounded gravel in fine to coarse sand. (16.5 - 17.1) Silty CLAY, brown, wet, soft, high plasticity, trace fine gravel in clay matrix. (17.1 - 20.0) SHALE, gray and brown, moist, firm to hard, iron oxide staining along bedding planes, weathered.	
20					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not to be used separately from the report to which it is attached.		
Annular Materials (0.0 - 1.0) Concrete (1.0 - 3.0) Bentonite Hole Plug (3.0 - 20.0) 20/40 Silica Sand			Well Materials (+3.61 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot		

Exide Technologies				Log of Boring: VCP-MW-7			
Frisco Recycling Center Frisco, TX				Completion Date: 4/18/2013		Drilling Method: HSA	
				Drilling Company: Sunbelt Environmental		Borehole Diameter (in.): 8.25	
PBW Project No. 1755				Driller: Joe Garcia		Total Depth (ft): 10	
				Driller's License: 58780		Northing: 7100967.0459	
				Logged By: Carolyn Sexton		Easting: 2481078.6125	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 683.116976	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 685.176513	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description		
0		4.0/4.0	CL	0	(0 - 0.8) Silty CLAY, dark gray brown, moist, soft, low plasticity, trace med. size gravel in top 0.5', gradational contact.		
			0	(0.8 - 1.1) Chalky, silty LIMESTONE, weathered, orange iron oxide staining.			
			0	(1.1 - 6.2) Chalky, silty LIMESTONE, light tan, brittle, dry, hard, <5% dark brown and orange ironstone nodules from 4.0-4.2'.			
			0				
5		5.0/5.0	LS	0			
			0				
			0				
			0	(6.2 - 10) Chalky, silty SHALE, dark gray, fissile, blocky at base, dry, hard.			
		1.0/1.0	SH	0			
10			0				
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: This boring log should not be used separately from the report to which it is attached. </div> </div>							
Annular Materials (0.0 - 1.0) Concrete (1.0 - 2.0) Bentonite Hole Plug (2.0 - 10.0) Industrial Quartz Sand				Well Materials (+2.06 - 2.5) Casing, 2" Sch 40 PVC (2.5 - 10.0) Screen, 2" Sch 40 PVC, 0.010 slot			

Exide Technologies				Log of Boring: VCP-MW-8			
Frisco Recycling Center Frisco, TX				Completion Date: 4/17/2013		Drilling Method: HSA	
				Drilling Company: Sunbelt Environmental		Borehole Diameter (in.): 8.25	
PBW Project No. 1755				Driller: Joe Garcia		Total Depth (ft): 16	
				Driller's License: 58781		Northing: 7102884.3737	
				Logged By: Carolyn Sexton		Easting: 2481077.5726	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 648.101225	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 651.023133	
Depth (ft)	Well Materials	Recovery (ft)	USCS	PID (ppm)	Lithologic Description		
0		3.0/5.0	FILL	0	(0 - 3.6) FILL, gray brown, dry, with silty clay, coarse sand to large gravel, asphalt-like nodules, calcareous nodules.		
0							
0							
0							
5		2.5/5.0	CL	0	(3.6 - 7.4) Silty CLAY, dark brown, moist, low plasticity, ~10% graded angular fine to med. sand and calcareous nodules.		
0							
0							
0							
10		3.2/5.0	CL	0	(7.4 - 11.1) Silty CLAY, medium-brown to gray, moist to wet, low to med. plasticity, ~10-20% coarse sand to medium gravel.		
0							
0							
0							
15		1.0/1.0	LS	0	(11.1 - 15.9) Slightly silty CLAY, gray brown, moist to wet, low to med. plasticity, ~30-40% gravel from 11.1-11.3'.		
0							
0							
0							
					(15.9 - 16) LIMESTONE, grayish tan, competent, microcrystalline to very fine grained, contains veins of secondary crystals.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes:			
				This boring log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 16.0) Industrial Quartz Sand				Well Materials (+2.92 - 6.0) Casing, 2" Sch 40 PVC (6.0 - 16.0) Screen, 2" Sch 40 PVC, 0.010 slot			

Exide Technologies				Log of Boring: VCP-MW-9				
Frisco Recycling Center Frisco, TX				Completion Date: 4/17/2013		Drilling Method: HSA		
				Drilling Company: Sunbelt Environmental		Borehole Diameter (in.): 8.25		
PBW Project No. 1755				Driller: Joe Garcia		Total Depth (ft): 20		
				Driller's License: 58782		Northing: 7103297.5194		
				Logged By: Carolyn Sexton		Easting: 2481042.4147		
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 664.314339		
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 666.957891		
Depth (ft)	Well Materials	Recovery (ft)	USCS	PID (ppm)	Lithologic Description			
0		4.0/5.0	CL	0	(0 - 0.7) Silty CLAY, dark brown, slightly moist, firm, low plasticity, with root fragments and angular coarse sand to med. gravel.			
0				(0.7 - 2.7) Silty CLAY, dark brown to black, slightly moist, firm to hard, low plasticity, with calcareous nodules and 10-20% angular coarse sand to fine gravel.				
5			GC	0	(2.7 - 5) Clayey GRAVEL, yellow-brown, moist to wet, firm, low plasticity, ~40-50% fine to med. carbonate gravel in clay matrix.			
				0				
10		5.0/5.0	CL	0	(5 - 6.1) Silty CLAY, gray with orange iron oxide staining, moist, soft to firm, low to medium plasticity, calcareous nodule lense from 5.5-5.6', laminated fine sand from 5.9-6.05'.			
				0	(6.1 - 18.8) Silty CLAY, gray with orange iron oxide staining, moist, firm, low plasticity, moderately weathered throughout, contains horizontal carbonate and iron oxide staining and vertical iron oxide filled fractures.			
				0				
				0				
		15	5.0/5.0	CL	0			
					0			
					0			
					0			
20	SH		0	(18.8 - 20) SHALE, dark gray, moist, firm, low plasticity, unweathered.				
			0					
			0					
			0					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This boring log should not be used separately from the report to which it is attached.				
Annular Materials (0 0 - 0 5) Concrete (0 5 - 2 0) Bentonite Hole Plug (2 0 - 20 0) Industrial Quartz Sand				Well Materials (+2.54 - 2.5) Casing, 2" Sch 40 PVC (2.5 - 20.0) Screen, 2" Sch 40 PVC, 0.010 slot				

Exide Technologies				Log of Boring: VCP-MW-10			
Frisco Recycling Center Frisco, TX				Completion Date: 4/17/2013		Drilling Method: HSA	
				Drilling Company: Sunbelt Environmental		Borehole Diameter (in.): 8.25	
PBW Project No. 1755				Driller: Joe Garcia		Total Depth (ft): 15	
				Driller's License: 58783		Northing: 7103274.8564	
				Logged By: Carolyn Sexton		Easting: 2481265.9907	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 667.108585	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 669.744622	
Depth (ft)	Well Materials	Recovery (ft)	USCS	PID (ppm)	Lithologic Description		
0		5.0/5.0		0	(0 - 0.4) Silty CLAY, dark brown, with roots and 5-10% fine gravel and calcareous nodules.		
0				(0.4 - 1.2) Sandy CLAY, light gray, interlayered soft clay and iron oxide stained sand, slightly moist, low to medium plasticity.			
0				(1.2 - 5.6) Silty CLAY, dark brown-gray, moist, low to medium plasticity, carbonate coarse sand to fine gravel within clay matrix throughout, coarse gravel from 1.6-2.8'.			
0							
0							
0							
5		5.0/5.0	CL	0	(5.6 - 12.4) Silty CLAY, light to medium gray, moist, soft, friable and fissile, massive below 7.7', limonite and orange iron oxide staining throughout.		
0							
0							
0							
0							
0							
10	5.0/5.0		0				
0							
0							
0							
15			SH	0	(12.4 - 15) SHALE, dark gray, slightly moist, low plasticity, slightly weathered.		
				0			
				0			
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This boring log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 0.5) Concrete (0.5 - 2.0) Bentonite Hole Plug (2.0 - 15.0) Industrial Quartz Sand				Well Materials (+2.64 - 2.5) Casing, 2" Sch 40 PVC (2.5 - 15.0) Screen, 2" Sch 40 PVC, 0.010 slot			

Exide Technologies				Log of Boring: VCP-MW-11			
Frisco Recycling Center Frisco, TX				Completion Date: 4/17/2013		Drilling Method: HSA	
				Drilling Company: Sunbelt Environmental		Borehole Diameter (in.): 8.25	
PBW Project No. 1755				Driller: Joe Garcia		Total Depth (ft): 15	
				Driller's License: 58784		Northing: 7103365.2704	
				Logged By: Carolyn Sexton		Easting: 2481418.2146	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 670.152153	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 672.734085	
Depth (ft)	Well Materials	Recovery (ft)	USCS	PID (ppm)	Lithologic Description		
0		3.6/5.0		0	(0 - 0.8) Silty CLAY, deep brown, slightly moist, low plasticity, soft to firm, contains roots.		
0				(0.8 - 5) Slightly silty CLAY, yellow-gray, slightly dry, firm to hard, low plasticity, 10-30% coarse sand to fine gravel dispersed within clay matrix, roots to 3.2', calcareous laminae and iron oxide staining throughout.			
0							
0							
0							
5		3.4/5.0		0	(5 - 10) Weathered SHALE, gray, slightly dry, firm to hard, low plasticity, iron oxide staining and carbonate filled laminae throughout.		
0							
0							
0							
0							
10	5.0/5.0		0	(10 - 12.8) SHALE, dark gray, friable, iron oxide staining, weathered.			
0							
0							
0			(12.8 - 15) SHALE, dark gray, dry, very hard, fissile, unweathered.				
0							
15							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This boring log should not be used separately from the report to which it is attached.			
Annular Materials (0.0 - 0.5) Concrete (0.5 - 2.0) Bentonite Hole Plug (2.0 - 15.0) Industrial Quariz Sand				Well Materials (+2.58 - 2.5) Casing, 2" Sch 40 PVC (2.5 - 15.0) Screen, 2" Sch 40 PVC, 0.010 slot			

Exide Technologies

Log of Boring: VCP-MW-12

Undeveloped Buffer Property
Frisco, TX

Completion Date: 12/12/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8

Driller: Robert Flair

Total Depth (ft): 30

Driller's License: 2948

Northing: 7103109

PBW Project No. 1824

Logged By: Tim Jennings P.G.

Easting: 2481224.6

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 652.88

Sampling Method: 5' Continuous Samples

TOC Elev. (ft AMSL): 656.04

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0				0	(0 - 1.5) Sandy gravelly CLAY, dark brown, moist, soft, ~20% fine to coarse limestone gravel
2		3.0/5.0		0.5	(1.5 - 9.5) Gravelly CLAY, dark brown, moist, very firm-stiff, ~10-15% very fine to fine gravel and carbonate nodules
4				0.5	
6			CL	0.5	
8		2.2/5.0		0.5	
10					(9.5 - 13) CLAY, olive gray, moist, firm, medium to high plasticity, few fine carbonate nodules
12		5.5/5.5	CL/CH	0.5	
14				1.1	
16				1.5	(13 - 25.5) SHALE, gray and orange banded, moist, friable, locally very clayey, weathered
18		5.0/5.0		1.6	
20				2.2	
22				2.2	
24		4.0/5.0	SH	2.2	
26		2.0/2.5		1.6	(25.5 - 27) SHALE, gray, moist to dry, locally friable, locally sandy, weathered
28		2.5/2.5		1.1	(27 - 30) SHALE, gray, dry, firm, friable, fissile
30				1.6	

PBW

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2201 Double Creek Dr., Suite 4004
Round Rock, TX 78664
Tel (512) 671-3434 Fax (512) 671-3446

Notes:

This log should not be used separately from the report to which it is attached.

Annular Materials
(0.0 - 2.0) Concrete
(2.0 - 8.0) Bentonite Hole Plug
(8.0 - 30.0) Industrial Quartz Sand

Well Materials
(+3.2 - 9.5) Casing, 2" Sch 40 PVC
(9.5 - 29.5) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-13

Undeveloped Buffer Property
Frisco, TX

Completion Date:	1/3/2014	Drilling Method:	HSA
Drilling Company:	Sunbelt Environmental	Borehole Diameter (in.):	8
Driller:	Robert Flair	Total Depth (ft):	24
Driller's License:	2948	Northing:	7103094
Logged By:	Tim Jennings, P.G.	Easting:	2481043.9
Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	645.9
Sampling Method:	3"x5' Continuous Split Barrel	TOC Elev. (ft AMSL):	657.38

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0					CLAY, gravel and sand, brown, moist, soft (fill).
2					Sandy gravelly CLAY, dark brown, moist, ~10-15% very fine sand and fine carbonate nodules, very stiff.
4					
6					CLAY and sandy clay, light brown-orange-gray, moist to wet, very firm to firm, laminated, abundant carbonate nodules from 5-10', gypsum precipitate on bedding plane at 11', increasing moisture below 10' and locally wet below 15', very heavily weathered shale.
8					
10			CL		
12					
14					
16					
18					
20			SH		SHALE, weathered, dark gray with orange weathering locally, thin gravel interbeds locally, moist to wet, soft to firm, friable.
22					
24					

PBW

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Round Rock, TX 78664
Tel (512) 671-3434 Fax (512) 671-3446

Notes:

This log should not be used separately from the report to which it is attached.

Annular Materials

(0.0 - 2.0) Concrete
(2.0 - 3.0) Bentonite Hole Plug
(3.0 - 24.0) 16/30 Silica Sand

Well Materials

(+3.2 - 4.0) Casing, 2" Sch 40 FJT PVC
(4.0 - 24.0) Screen, 2" Sch 40 FJT PVC,
0.01 slot

Exide Technologies				Log of Boring: 2013-WMU6-1	
Frisco Recycling Center Frisco, TX				Completion Date:	5/7/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7101955.0582
				Easting:	2479994.3068
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0	5/5		CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2	FILL	(0.9 - 2.7) FILL, clayey silt/silty clay, dark brown with orange and black staining, moist, soft to firm, low plasticity.	
2					
3		2 - 4	CL	(2.7 - 5.0) Silty CLAY, dark brown, trace calcareous precipitates, moist, firm, low to medium plasticity.	
4		4 - 5			
5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.	

Exide Technologies				Log of Boring: 2013-WMU14-1			
Frisco Recycling Center Frisco, TX				Completion Date: 5/7/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7101992.1222	
				Logged By: Roberta Russell		Easting: 2479881.2748	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.1/5		CON	(0 - 0.9) CONCRETE SLAB			
1		0.9 - 2	FILL	(0.9 - 5.0) FILL, silty clay/clayey silt, dark reddish brown with trace orange and black staining, trace battery chips and slag fragments (<0.5" diameter) from 0.9-3.0', moist, soft to firm, low plasticity.			
2							
3		2 - 4					
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached.			



LOG OF 2013-WMU14-1A

DRILLING METHOD: Direct Push

NORTHING: 7,101,992 FT

DATE/TIME: 01/09/2014, 1445

DRILLER: SCI, Margarito Estrada

EASTING: 2,479,883 FT

TOTAL DEPTH: 10 FT BGS

RIG: Geoprobe

SURFACE ELEVATION: N/A

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	NA	5.0 5.0	0.9-2.0 (1440)			0-0.5 FT, Concrete.
					ML		0.5-1.0 FT, (ML) CLAYEY SILT, some sand and gravel; gray; wet, firm.
					CH		1.0-2.0 FT, (CH) CLAY; dark gray; moist, soft. 1.3-1.75 FT, black staining.
					CL		2.0-3.5 FT, (CL) CLAY, trace gravel; light gray; moist, stiff.
	2	NA	5.0 5.0	5.0-7.0 (1444)	CH		3.5-10.0 FT, (CH) CLAY; black; dry, soft-firm.
10							End of borehole at 10 FT BGS
15							

PROJECT No: 130-2086

COMPILED BY: BEF

PROJECT: Exide Frisco

CHECKED BY: JDJ

LOCATION: NOR WMU 6, 14, 16

REVIEWED BY: JW

Exide Technologies					Log of Boring: 2013-WMU14-2			
Frisco Recycling Center Frisco, TX					Completion Date:	5/7/2013	Drilling Method:	DPT
					Driller:	Margarito Estrada	Borehole Diameter (in.):	2
PBW Project No. 1755					Driller's License:	58164	Total Depth (ft):	5
					Field Supervisor:	Tim Jennings, P.G.	Northing:	7101826.2342
					Logged By:	Roberta Russell	Easting:	2480109.0334
					Sampling Method:	5' Lined Tube	Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	PID (ppm)	Sample Interval	USCS	Lithologic Description			
0	4.1/5			CON	(0 - 0.9) CONCRETE SLAB			
1		1.1	0.9 - 2	FILL	(0.9 - 1.5) FILL, sandy clay, moist, firm, low plasticity.			
2					(1.5 - 5.0) FILL, silty clay/clayey silt, dark brown, moist, soft to firm, low plasticity, trace hydrocarbon odor.			
3		0.8	2 - 4					
4								
5		11.8	4 - 5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446					Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Exide Technologies				Log of Boring: 2013-WMU14-3	
Frisco Recycling Center Frisco, TX				Completion Date:	5/7/2013
				Driller:	Margarito Estrada
PBW Project No. 1755				Driller's License:	58164
				Field Supervisor:	Tim Jennings, P.G.
				Logged By:	Roberta Russell
				Sampling Method:	5' Lined Tube
				Drilling Method:	DPT
				Borehole Diameter (in.):	2
				Total Depth (ft):	5
				Northing:	7102020.6551
				Easting:	2480630.7817
				Ground Elev. (ft AMSL):	--
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description	
0			CON	(0 - 0.9) CONCRETE SLAB	
1		0.9 - 2		(0.9 - 4.6) FILL, silty clay/clayey silt, grayish brown with orange Fe staining, moist, firm, low plasticity.	
2					
3	4.1/5	2 - 4	FILL		
4					
5		4 - 5	GC	(4.6 - 5.0) Clayey GRAVEL, ~50-60% coarse sand and fine -medium gravel in silty clay matrix, grayish brown with orange Fe staining, moist.	
<div> <div> PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446 </div> <div> Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used separately from the report to which it is attached. </div> </div>					

Exide Technologies				Log of Boring: 2013-WMU16-1			
Frisco Recycling Center Frisco, TX				Completion Date: 5/7/2013		Drilling Method: DPT	
				Driller: Margarito Estrada		Borehole Diameter (in.): 2	
PBW Project No. 1755				Driller's License: 58164		Total Depth (ft): 5	
				Field Supervisor: Tim Jennings, P.G.		Northing: 7101886.1348	
				Logged By: Roberta Russell		Easting: 2480414.841	
				Sampling Method: 5' Lined Tube		Ground Elev. (ft AMSL): --	
Depth (ft)	Recovery (ft/ft)	Sample Interval	USCS	Lithologic Description			
0	4.1/5		CON	(0 - 0.9) CONCRETE SLAB			
1		0.9 - 2	FILL	(0.9 - 1.5) FILL, gravel (coarse pebbles), dry, unconsolidated.			
2				(1.5 - 5.0) Silty CLAY, dark brown, moist, firm, low plasticity.			
3		2 - 4	CL				
4		4 - 5					
5							
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: Borehole plugged with bentonite chips and concrete repaired upon completion. This boring log should not be used seperately from the report to which it is attached.			

Geotechnical Engineering Report (Rone, 2011)

Project No. 11-16996		Boring No. B 1-10		Exide Technologies Frisco, Texas		Rone Engineering								
Location				Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.										
Completion Depth 10.0'		Completion Date 8-23-11												
Depth, Ft.	Symbol	Samples	Surface Elevation	Type	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			CFA											
Stratum Description														
			FAT CLAY (CH) - very hard to hard, dark brown, with limestone fragments and calcareous nodules and sand		4.5+			86	64	22	42	17		
					4.5+							19		
5			- brown and gray, with calcareous nodules		4.5+							15		
					4.5+			88	53	19	34	16		
					4.5+/2.5							18		
10			Boring Terminated at 10 Feet											

RONE ENGINEERING LOGS 11-16996 GPJ RONE.GDT 9/26/11

LOG OF BORING NO. **B 1-10**

Plate A.2

Project No. 11-16996		Boring No. B 1-25		Exide Technologies Frisco, Texas		Rone Engineering								
Location				Water Observations										
Completion Depth 25.0'		Completion Date 8-23-11		Groundwater seepage was observed at a depth of about 18' while drilling.										
Depth, Ft.	Symbol	Samples	Surface Elevation	Type	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			CFA											
Stratum Description														
			FILL: FAT CLAY (CH) - very hard, dark brown and gray, with limestone fragments, calcareous nodules, roots and trash (pieces of glass, nails, plastic)		4.5+							14		
					4.5+			87	65	22	43	20	106	24230
5			SANDY CLAY (CL) - very hard to hard, light yellowish brown, with calcareous nodules		4.5+							16		
					2.5			64	49	17	32	17		
			- layer of calcareous material		3.75							21		
10														
			- dark brown, with sand seams		4.5+							17		
15			FAT CLAY (CH) - dark gray											
					NR									
20			SHALEY CLAY - gray											
25			Boring Terminated at 25 Feet											

LOG OF BORING NO. B 1-25

Plate A.3

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

LOG OF BORING NO. **B 1-25**

Plate A.3

Project No. 11-16996		Boring No. B 1-35		Exide Technologies Frisco, Texas		Rone Engineering							
Location				Water Observations									
Completion Depth 39.0'				Completion Date 8-23-11									
Groundwater seepage was observed at a depth of about 18' while drilling.													
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
		FAT CLAY (CH) - dark brown and gray, with limestone fragments, possible fill									9		
5													
		FAT CLAY (CH) - very hard to hard, light yellowish brown and gray, with calcareous nodules		4.5+							8		
10				3.25			99	70	25	45	28		
		SHALEY CLAY (CH) - very hard, gray		4.5+							23		
15													
		▽		4.5+							20		
20													
				4.5+			99	67	23	44	19	109	16280
25													
		CLAYEY SAND (SC) - gray		3.5							17		
30													

RONE ENGINEERING LOGS 11-16996 GPJ RONE GDT 9/26/11

LOG OF BORING NO.

B 1-35

Continued Next Page

Plate A.4a

Project No. 11-16996		Boring No. B 1-35		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was observed at a depth of about 18' while drilling.											
Completion Depth 39.0'		Completion Date 8-23-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Samples	Stratum Description	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			SHALEY CLAY (CH) - very hard, gray		4.5+		99	56	20	36	16		
			SHALE - gray										
						100/3.5"							
			Boring Terminated at 39 Feet										

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11
 LOG OF BORING NO.

B 1-35

Plate A.4b

Project No. 11-16996		Boring No. B 2-10		Exide Technologies Frisco, Texas		Rone Engineering									
Location				Water Observations											
Completion Depth 10.0'				Completion Date 8-23-11											
Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.															
Surface Elevation		Type CFA													
Depth, Ft.	Symbol	Samples		Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
				FILL: SANDY FAT CLAY - very hard, dark brown, with limestone fragments and calcareous nodules	4.5+		69	55	19	36	21				
				- pieces of trash at 2'	4.5+							21	103	10520	
					4.5+							14			
				SANDY CLAY (CL) - hard, light yellowish brown, with gravel, calcareous	3.5							20			
				- light gray and yellowish brown, with sand seams	4.5+							22			
				Boring Terminated at 10 Feet											

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 92611

LOG OF BORING NO. **B 2-10**

Plate A.5

Project No. 11-16996		Boring No. B 2-25		Exide Technologies Frisco, Texas		Rone Engineering								
Location				Water Observations Groundwater seepage was observed at a depth of about 11' while drilling.										
Completion Depth 25.0'		Completion Date 8-23-11												
Depth, Ft.	Symbol	Samples	Surface Elevation	Type	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			CFA											
Stratum Description														
			FAT CLAY (CH) - dark brown to brown and gray, with calcareous nodules			4.5+						19		
						4.5+						18		
5			SANDY LEAN CLAY (CL) - light yellowish brown and gray, calcareous			4.5+		65	38	14	24	16		
						4.5						15		
						3.5						29		
10			- with limestone layers 10'-12'		▽									
			SHALEY CLAY (CH) - very hard, dark gray			4.5+						22		
15														
			- slickensided			4.5+		99	63	23	40	19	109	17170
20														
			- slickensided			4.5+						20	107	9250
25			Boring Terminated at 25 Feet											

LOG OF BORING NO. B 2-25

Plate A.6

RONE ENGINEERING LOGS 11-16996 GPJ RONE GDT 92811

LOG OF BORING NO. **B 2-25**

Plate A.6

Project No. 11-16996		Boring No. B 2-35		Exide Technologies Frisco, Texas		Rone Engineering							
Location				Water Observations Groundwater seepage was observed at a depth of about 25' while drilling.									
Completion Depth 35.0'		Completion Date 8-25-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
		FAT CLAY (CH) - hard, dark brown, with calcareous nodules and limestone fragments, possible fill									16		
		- dark brown and gray			2.5		89	60	22	38	26	97	4820
5		- dark gray and olive, with calcareous nodules			2.5/4.5						29		
					2.25						28		
					2.25		89	69	24	45	27		
10		FAT CLAY (CH) - dark gray											
		- with gravel size calcareous nodules 14'-15'			1.75		57	54	18	36	19		
15		SHALEY CLAY (CH) - hard to very hard, light gray and yellowish brown											
		- slickensided			3.0						30	91	4720
20													
		- dark gray, slickensided			4.5+		99	62	22	40	21	107	15310
25													
					4.5+						15		
30													

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

LOG OF BORING NO.

B 2-35

Continued Next Page

Plate A.7a

Project No. 11-16996		Boring No. B 2-35		Exide Technologies Frisco, Texas		Rone Engineering									
Location		Water Observations Groundwater seepage was observed at a depth of about 25' while drilling.													
Completion Depth 35.0'		Completion Date 8-25-11													
Surface Elevation		Type CFA													
Depth, Ft.	Symbol	Samples		Stratum Description		REO %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
				- slickensided		4.5+							16	118	23710
35				SHALE -gray											
				Boring Terminated at 38 Feet		100/3.0"									

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

LOG OF BORING NO. **B 2-35**

Plate A.7b

[illegible]

Project No. 11-16996		Boring No. B 3-25		Exide Technologies Frisco, Texas		Rone Engineering									
Location		Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.													
Completion Depth 21.0'		Completion Date 8-26-11													
Surface Elevation		Type HSA/CFA													
Depth, Ft.	Symbol	Samples		Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
0				FILL: CLAY - dark grayish brown, limestone fragments and roots, with plastic, slag, gravel and paper									12		
5									54	58	20	38	9		
													26		
													43		
10				FILL: FAT CLAY - firm, dark gray and yellowish brown	1.25		73	60	20	40	32				
				FILL: FAT CLAY - very soft, gray, with calcareous nodules and wood, wet											
15				- calcareous nodules 14' to 14.5'	0.25								24		
				SHALEY CLAY (CH) - gray, with iron oxides stains											
20					3.0		99	80	28	52	27				
							46/12"								
				Boring Terminated at 21 Feet											

RONE ENGINEERING LOGS 11-16996 OF J RONE GDT 9/26/11

LOG OF BORING NO. **B 3-25**

Plate A.9

Project No. 11-16996		Boring No. B 3-35		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was observed at a depth of about 18' while drilling.											
Completion Depth 35.0'		Completion Date 8-29-11											
Surface Elevation		Type HSA/CFA											
Depth, Ft.	Symbol	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
		FILL: CLAY - brown, with gravel, wood, and slag					69	50	19	31	8		
		FILL: SLAG - gray, slag, rock fragments, gravel size											
5													
		CLAY (CH) - dark brown, with slag, gravel and rock fragments, possible fill				N=50/5.0'					23		
10													
		FAT CLAY (CH) - soft to firm, dark grayish brown and yellowish brown, with weathered limestone		1.0			96	65	24	41	36		
15													
					0.5			68	23	45	35		
20													
		- dark grayish brown and yellowish brown, with weathered limestone		1.25							36		
25													
		SHALEY CLAY (CH) - gray				N=64		55	18	37	19		
30													

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

Project No. 11-16996		Boring No. B 4-10		Exide Technologies Frisco, Texas		Rone Engineering								
Location		Water Observations Groundwater seepage was observed at a depth of about 8' while drilling.												
Completion Depth 10.0'		Completion Date 8-26-11												
Depth, Ft.	Symbol	Samples	Surface Elevation	Type	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			CFA											
Stratum Description														
			FILL: FAT CLAY - very hard, dark brown, brown and gray, with limestone fragments and calcareous nodules			4.5+		86	56	20	36	12		
						4.5+						11		
5												23		
												18		
			- becomes sandy at 8'			4.5+		64	56	20	36	17		
10			Boring Terminated at 10 Feet											

RONE ENGINEERING LOGS 11-16996 GP/J RONE.GDT 9/28/11

LOG OF BORING NO. **B 4-10**

Plate A.11

Project No. 11-16996		Boring No. B 4-35		Exide Technologies Frisco, Texas		Rone Engineering							
Location				Water Observations Groundwater seepage was observed at a depth of about 13' while drilling.									
Completion Depth 38.0'		Completion Date 8-25-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
		FILL: CLAYEY SAND - loose, brown, with limestone fragments and calcareous nodules									10		
		- light gray and yellowish brown			0.5		34	58	20	38	19		
5		FILL: SANDY FAT CLAY - firm, dark brown			2.25						35		
					1.25						47		
10					1.25		69	62	23	39	36		
		FAT CLAY (CH) - hard, brown, with sand			3.75						20		
15													
		- light yellowish brown and light gray			2.25						26		
20													
		SHALEY CLAY (CH) - dark gray, slickensided			4.5+		98	56	21	35	17	115	9500
25													
					4.5+						18	113	13770
30													



RONE ENGINEERING LOGS 11-16996.GPJ RONE GDT 9/26/11

LOG OF BORING NO.

B 4-35

Continued Next Page

Plate A.12a

Project No. 11-16996		Boring No. B 4-35		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was observed at a depth of about 13' while drilling.											
Completion Depth 38.0'		Completion Date 8-25-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
35		SHALE - dark gray			4.5+						21		
		Boring Terminated at 38 Feet			100/4.0"								

RONE ENGINEERING L363 11-16996.GPJ RONE.GDT 9/26/11

LOG OF BORING NO. **B 4-35**

Plate A.12b

Project No. 11-16996		Boring No. B 5-10		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.											
Completion Depth 10.0'		Completion Date 8-22-11											
Surface Elevation		Type HSA/CFA											
Depth, Ft.	Symbol Samples	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
		FILL: FAT CLAY - very hard, dark brown, with limestone gravel			4.5+		60	59	19	40	14		
		- with plastic											
5											7		
					4.5+						14		
		FAT CLAY (CH) - hard, dark brown, with limestone fragments		3.25			96	68	24	44	32		
10		Boring Terminated at 10 Feet											
LOG OF BORING NO. B 5-10 Plate A.13													

RONE ENGINEERING LOGS 11-16996 GPJ RONE.GDT 9/25/11

Project No. 11-16996		Boring No. B 5-25		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was observed at a depth of about 18' while drilling.											
Completion Depth 28.0'		Completion Date 8-26-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Samples	Stratum Description	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			FILL: LIMESTONE BASE - light brown								2		
											7		
5			FILL: FAT CLAY - very hard, dark brown, with limestone fragments	4.5+				67	23	44	29		
											6		
				2.25				71	24	47	33		
10			FAT CLAY (CH) - light gray and yellowish brown, with sand seams										
				4.5+							20		
15													
			SHALEY CLAY (CH) - very hard, gray, with ferrous stains	4.5+			97	65	23	42	25		
20													
			- slickensided								20	111	
25			SHALE - dark gray										
						100/4.0"							
			Boring Terminated at 28 Feet										

RONE ENGINEERING LOGS 11-16996.GPJ RONE.CDT 9/26/11

LOG OF BORING NO. **B 5-25**

Plate A.14

Project No. 11-16996		Boring No. B 6-10		Exide Technologies Frisco, Texas		Rone Engineering										
Location		Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.														
Completion Depth 10.0'		Completion Date 8-22-11														
Surface Elevation		Type CFA														
Depth, Ft.	Symbol	Samples		Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/Feet	TCP - Blows/Inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
				FILL: CLAY - dark brown, with gravel, limestone fragments, slag fragments and plastic fragments			4.5+							13		
				- with concrete fragments and plastic										12		
5																
				FILL: SANDY FAT CLAY - soft, brown			0.75			64	59	22	37	30		
10				Boring Terminated at 10 Feet												

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

LOG OF BORING NO. **B 6-10**

Plate A.15



Project No. 11-16996		Boring No. B 6-25		Exide Technologies Frisco, Texas		Rone Engineering									
Location		Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.													
Completion Depth 28.0'		Completion Date 8-26-11													
Surface Elevation		Type CFA													
Depth, Ft.	Symbol	Samples		Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
				FILL: SANDY FAT CLAY - brown to dark brown, with limestone fragments			100/3.25"						12		
				FILL: CLAY - light gray, with ground concrete, concrete fragments, fine to medium				70	58	21	37	11			
								40	23	17	7				
5				FILL: FAT CLAY - dark brown, with plastic, glass, slag, wood fragments, concrete fragments			24/12"						11		
						2.0			61	30	31	25			
													35		
													34		
10				FAT CLAY (CH) - hard, dark brown			12/12"								
						2.25		85	64	22	42	29			
15															
				SHALEY CLAY (CH) - hard to very hard, light brown and gray, with iron stains		4.5							28		
20															
				- slickensided		3.0		66	46	15	31	16	119	20310	
25				SHALE - gray											
							100/2.75"								
				Boring Terminated at 28 Feet											

RONE ENGINEERING LOGS 11-16996 GPJ RONE.GDT 5/26/11

LOG OF BORING NO.

B 6-25

Plate A.16

Project No. 11-16996		Boring No. B 7-10		Exide Technologies Frisco, Texas		Rone Engineering 								
Location				Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.										
Completion Depth 10.0'		Completion Date 8-22-11												
Surface Elevation		Type HSA/CFA												
Depth, Ft.	Symbol	Samples	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TOP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			FILL: FAT CLAY - very hard, brown, with limestone fragments		4.5+		80	59	20	39	19			
			FILL: SLAG GRAVEL - brown, with slag broken fragments											
5														
												6		
10			Boring Terminated at 10 Feet											

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/28/11

Project No. 11-16996		Boring No. B 7-25		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was observed at a depth of about 13' while drilling.											
Completion Depth 29.0'		Completion Date 8-29-11											
Surface Elevation		Type HSA/CFA											
Depth, Ft.	Symbol Samples	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
		FILL: FAT CLAY - dark brown and dark gray, with gravel sized slag fragments				3 1/2"					11		
		FILL: SLAG - gray, slag fragments, gravel size									7		
5		- slag and plastic				7 1/2"							
							34	50	19	31	14		
		- slag fragments, plastic, piece of shoe, cloth and wood				5 1/2"					27		
10													
		FAT CLAY (CH) - firm, dark gray and brown			1.0						37		
15													
		- with sand seams			2.0		82	66	24	42	18	107	3850
20													
		SHALEY CLAY (CH) - very hard, dark gray, with iron staining			4.5+						27		
25													
		SHALE - dark gray											
						100/4.75"							
		Boring Terminated at 29 Feet											

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/28/11

LOG OF BORING NO. **B 7-25**

Plate A.18

Project No. 11-16996		Boring No. B 8-25		Exide Technologies Frisco, Texas		Rone Engineering									
Location				Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.											
Completion Depth 25.0'		Completion Date 8-24-11													
Depth, Ft.	Symbol Samples	Surface Elevation		Type CFA		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
		Stratum Description													
		FILL: GRAVEL - railroad ballast, broken rock											6		
		SANDY FAT CLAY (CH) - very hard, dark brown and olive, with limestone fragments				4.5+			52	55	18	37	9		
5						4.5+							10		
						4.5+							12		
		FAT CLAY (CH) - firm, dark gray and brown, with calcareous nodules				1.5			87	66	22	44	29		
10															
		- with sand				1.75							33		
15															
		- with gravel at 18'-20'											15		
20															
		SHALEY CLAY (CH) - very hard, gray				4.5+			90	79	27	52	26		
25		Boring Terminated at 25 Feet													

LOG OF BORING NO. B 8-25

Plate A.20

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/26/11

LOG OF BORING NO.

B 8-25

Plate A.20

Project No. 11-16996		Boring No. B 9-10		Exide Technologies Frisco, Texas		Rone Engineering									
Location				Water Observations											
Completion Depth 10.0'				Completion Date 8-24-11											
Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.															
Surface Elevation		Type CFA													
Depth, Ft.	Symbol	Samples		Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
				FILL: GRAVEL - railroad ballast, broken rock, with layer of clay									16		
				FAT CLAY (CH) - firm to very hard, dark gray and olive, with limestone fragments and gravel, possible fill			1.75		54	59	21	38	17		
5							4.5+						18		
				FAT CLAY (CH) - hard to firm, dark brown and gray, possible fill, with gravel layer 8'-10'			3.0						33		
10							1.25						31		
				Boring Terminated at 10 Feet											

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/27/11

Project No. 11-16996		Boring No. B 9-25		Exide Technologies Frisco, Texas		Rone Engineering							
Location				Water Observations Groundwater seepage was not observed while drilling, and the borehole appeared dry at completion.									
Completion Depth 25.0'		Completion Date 8-24-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Samples	Stratum Description	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TOP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
			FILL: GRAVEL - railroad ballast, broken rock								3		
			SANDY FAT CLAY (CH) - firm, dark brown to brown, with gravel		2.0						25		
5					2.0		61	59	20	39	19		
					3.0						29		
			- brown and gray		1.5						34		
10													
			FAT CLAY (CH) - hard, dark gray and brown, with sand		2.5		82	63	23	40	25		
15													
			FAT CLAY (CH) - firm, brown, with sand, wet		1.25						30	96	3070
20													
					1.25						24	101	2760
25			Boring Terminated at 25 Feet										

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 8/28/11

LOG OF BORING NO.

B 9-25

Plate A.22

Project No. 11-16996		Boring No. B10-25		Exide Technologies Frisco, Texas		Rone Engineering									
Location				Water Observations Groundwater seepage was observed at a depth of about 13' while drilling.											
Completion Depth 25.0'		Completion Date 8-24-11													
Surface Elevation		Type CFA													
Depth, Ft.	Symbol	Samples		Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression pcf
				FILL: GRAVEL - gray, railroad ballast									8		
				SANDY FAT CLAY (CH) - very hard to firm, dark brown and gray, with limestone fragments			4.5+		64	54	18	36	18		
5							2.0						24		
							1.5						27		
							2.75						33		
10															
				FAT CLAY (CH) - firm to very soft, dark gray and brown, wet			2.0						35		
15															
							<0.25						42		
20															
				CLAYEY SAND (SC) - light brown, with gravel					23	42	17	25	18		
25				Boring Terminated at 25 Feet											

RONE ENGINEERING LOGS 11-16996.GPJ RONE GDT 9/26/11

LOG OF BORING NO.

B10-25

Plate A.23

Project No. 11-16996		Boring No. B11-25		Exide Technologies Frisco, Texas		Rone Engineering							
Location		Water Observations Groundwater seepage was observed at a depth of about 18' while drilling.											
Completion Depth 25.0'		Completion Date 8-29-11											
Surface Elevation		Type CFA											
Depth, Ft.	Symbol	Stratum Description		REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
		FILL: - gravel fragments, concrete, dark brown clay and slag									13		
		FILL: - gravel slag, plastic, concrete and brown clay					36	36	17	19	12		
5		FILL: - slag and concrete fragments											
10													
15		FAT CLAY (CH) - soft to firm, dark brown and gray, with trace gravel, wet											
				▽	0.5						32		
20													
		- dark gray and yellowish brown, with calcareous nodules			1.5						25	101	3640
25		Boring Terminated at 25 Feet											

RONE ENGINEERING LOGS 11-16996.GPJ RONE.GDT 9/28/11

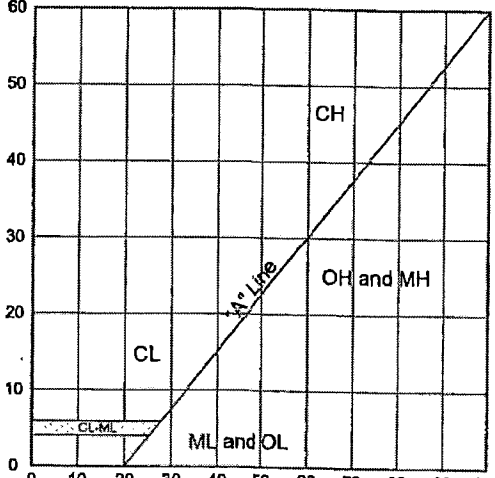
LOG OF BORING NO.

B11-25

Plate A.24

Project No. 11-16996		Boring No. B12-25		Exide Technologies Frisco, Texas		Rone Engineering								
Location		Water Observations Groundwater seepage was not observed at a depth of about 12' while drilling.												
Completion Depth 25.0'		Completion Date 8-24-11												
Depth, Ft.	Symbol	Samples	Surface Elevation	Type	REC %	Penetrometer Reading, TSF	SPT - Blows/foot TCP - Blows/inch	Passing No. 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Dry Unit Weight pcf	Unconfined Compression psf
			CFA											
Stratum Description														
			FILL: GRAVEL - railroad ballast and limestone gravel											
			FILL: FAT CLAY - very hard to hard, dark gray and brown			4.5+						18	108	15620
5						4.5+						30		
			- firm, gray, dark brown and olive			2.75		88	62	23	39	24		
10						1.25						30		
			- organics and wood fragments at 13'-15'									247		
15			FAT CLAY (CH) - firm to hard, dark gray and brown, with sand											
						1.0		77	58	21	37	30	94	3060
20														
						3.0						26		
25			Boring Terminated at 25 Feet											

RONE ENGINEERING LOGS 11-16996 OF J. RONE GDT 9/26/11

Major Divisions		Grp. Sym.	Typical Names	Laboratory Classification Criteria	Rone Engineering				
Coarse - Grained Soils (more than half of the material is larger than No. 200 Sieve size)				Determine percentages of sand and gravel from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows Less than 5 percent.....GW,GP,SW,SP More than 12 percent.....GM,GC,SM,SC 5 to 12 percent.....Borderline cases requiring dual symbols	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3				
Gravels (more than half of coarse fraction is larger than No. 4 Sieve size)		GW	Well graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW				
Sands (more than half of coarse fraction is smaller than No. 4 Sieve size)		GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		Liquid and Plastic limits below "A" line or P.I. greater than 4 Liquid and plastic limits plotting in hatched zone between 4 and 7 are borderline cases requiring use of dual symbols				
		GM	Silty gravels, gravel - sand - silt mixtures						
		GC	Clayey gravels, gravel - sand - clay mixtures						
Clean sands (Little or no fines)		SW	Well graded sands, gravelly sands, little or no fines		$C_u = \frac{D_{60}}{D_{10}}$ greater than 6: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3				
Gravels with fines (Appreciable amount of fines)		SP	Poorly graded sands, gravelly sands, little or no fines		Not meeting all gradation requirements for SW				
Sands with fines (Appreciable amount of fines)		SM	Silty sands, sand silt mixtures		Liquid and Plastic limits below "A" line or P.I. less than 4				
		SC	Clayey sands, sand clay mixtures		Liquid and Plastic limits above "A" line with P.I. greater than 7				
		Liquid and plastic limits plotting between 4 and 7 are borderline cases requiring use of dual symbols							
Fine - Grained Soils (more than half of the material is smaller than No. 200 Sieve)					PLASTICITY INDEX				
Sils and Clays (Liquid limit less than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity						
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, and lean clays						
		OL	Organic silts and organic silty clays of low plasticity						
Sils and Clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts			UNIFIED SOIL CLASSIFICATION SYSTEM			
		CH	Inorganic clays of high plasticity, fat clays						
		OH	Organic clays of medium to high plasticity, organic silts						
Highly Organic soils		Pt	Peat and other highly organic soils					PLATE A.26	




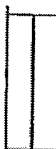


















SOIL OR ROCK TYPES		<div>Rone Engineering</div> <div> Shelby Tube  Auger  Split Spoon</div> <div> Rock Core  Cone Pen  No Recovery</div>
 CLAY	 SAND-WELL GRADED	
 FAT CLAY	 LIMESTONE-WEATHERED	
 LEAN CLAY	 CONCRETE	
 SANDY CLAY	 FILL	
 LIMESTONE	 GRAVEL	
 CLAYEY SAND	 CLAYEY GRAVEL	
 SHALE	 MARL	
 SAND-POORLY GRADED	 SILT	
TERMS DESCRIBING CONSISTENCY, CONDITION, AND STRUCTURE OF SOIL		
Fine Grained Soils (More than 50% Passing No. 200 Sieve)		
Consistency	Penetrometer Reading, (tsf) Unconfined Compression, (psf)	
Very Soft	≤ 0.5 < 1000	
Soft	0.5 to 1.0 1000 to 2000	
Firm	1.0 to 2.0 2000 to 4000	
Hard	2.0 to 4.0 4000 to 8000	
Very Hard	> 4.0 > 8000	
Coarse Grained Soils (More than 50% Retained on No. 200 Sieve)		
Penetration Resistance (Blows / Foot)	Descriptive Item Relative Density	
0 to 4	Very Loose 0 to 20%	
4 to 10	Loose 20 to 40%	
10 to 30	Medium Dense 40 to 70%	
30 to 50	Dense 70 to 80%	
Over 50	Very Dense 80 to 100%	
Soil Structure		
Calcareous	Contains appreciable deposits of calcium carbonate; generally nodular	
Slickensided	Having inclined planes of weakness that are slick and glossy in appearance	
Laminated	Composed of thin layers of varying color or texture	
Fissured	Containing cracks, sometimes filled with fine sand or silt	
Interbedded	Composed of alternated layers of different soil types, usually in approximately equal proportions	
TERMS DESCRIBING PHYSICAL PROPERTIES OF ROCK		
Hardness and Degree of Cementation		
Very Soft or Plastic	Can be remolded in hand; corresponds in consistency up to hard in soils	
Soft	Can be scratched with fingernail	
Moderately Hard	Can be scratched easily with knife; cannot be scratched with fingernail	
Hard	Difficult to scratch with knife	
Very Hard	Cannot be scratched with knife	
Poorly Cemented or Friable	Easily crumbled	
Cemented	Bound together by chemically precipitated material; Quartz, calcite, dolomite, siderite, and iron oxide are common cementing materials.	
Degree of Weathering		
Unweathered	Rock in its natural state before being exposed to atmospheric agents	
Slightly Weathered	Noted predominantly by color change with no disintegrated zones	
Weathered	Complete color change with zones of slightly decomposed rock	
Extremely Weathered	Complete color change with consistency, texture, and general appearance approaching soil	
KEY TO CLASSIFICATION AND SYMBOLS		

PLATE A.27

Phase II RCRA Facility Investigation (JDC, 1998a)



JD Consulting, LLC

3006 Bee Cave Road - Suite B200
Austin, Texas 78746

LOG OF BORING

Client: CNB Technologies Job No.: 027-01 Boring No.: RRS#1
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per Intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVN (ppm)							
0				NR - no recovery					
1	NR								
	B								
	C			CLAY - some gravel (10%), damp, firm-grades into a silty gravel	1				
	C (dup)								
	D			GRAVELY SILT - gravel & silt (75%), well graded 25% clay matrix, loose, damp					
2				GRAVEL - angular, well graded, loose, damp less than 10% matrix, clean gravel	2				
				CLAY - with some well rounded calcareous gravel, less than 20% pebbles & granule, soft, moist					
3					3				
	E								
	E (dup)								
4				TOTAL DEPTH = 4' BGL	4				
5					5				
6					6				
7					7				



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Austin, Texas 78746

LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: RRS#2
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/ocotite liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A			RAILROAD BALLAST GRAVEL - grading into clay	0				
1	B			CLAY - soft, moist with alternating bands of brownish yellow to gray color (6" bands) with calcareous gravel (20%)	1				
	C								
	D								
	E								
2					2				
3					3				
4				CLAY - soft, moist, black	4				
				TOTAL DEPTH = 4' BGL					
5					5				
6					6				
7					7				



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Austin, Texas 78746

LOG OF BORING

Client: CNB Technologies Job No.: 027-01 Boring No.: RRS#3
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/cotate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVN (ppm)							
0	NR B C D E			NR - no recovery					
				GRAVELY CLAY - firm, dry, gray					
1				SANDY GRAVEL - well graded, angular pebble and granules with less than 10% silty sand matrix, loose, damp	1				
2				GRAVELY CLAY - with 10% to 30% well rounded pebbles (limy calcareous pebbles), soft, moist, brownish yellow	2				
3				CLAY - with decreasing gravel (less than 10%) soft, moist, grayish black @ TD	3				
4				TOTAL DEPTH = 4' BGL	4				
5					5				
6					6				
7					7				



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Austin, Texas 78746

LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: RRS#4
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0				NR - no recovery (railroad ballast @ surface)					
1					1				
	C			GRAVELY CLAY - firm, damp, gray					
	D			GRAVEL - clean, less than 10% silty sand matrix, greater than 90% gravel, angular to sub angular, well graded granules & pebbles, loose, moist					
2					2				
	E			CLAY - soft, with moderate plasticity, with 20% gravel, well rounded pebbles, moist, brownish yellow					
3					3				
	F			CLAY - soft, with moderate plasticity, moist, black					
4				TOTAL DEPTH = 4' BGL	4				
5					5				
6					6				
7					7				



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Austin, Texas 78746

LOG OF BORING

Client: CNB Technologies Job No.: 027-01 Boring No.: NTSB#1
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acolate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	NR			NR - no recovery					
				GRAVELY FILL - white, silt (not sampled)					
1				FILL - dark, clay (not sampled)	1				
2	E				2				
				GRAVELY CLAY - with 20% - 30% calcareous gravel, well rounded pebbles & granules, stiff, light brown					
3					3				
4	F				4				
				TOTAL DEPTH = 4' BGL					
5					5				
6	G				6				
7					7				

**JD Consulting, LLC**3006 Bee Cave Road - Suite B200
Austin, Texas 78746**LOG OF BORING**

Client: CNB Technologies Job No.: 027-01 Boring No.: SDA#1
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A			CLAY - stiff, dry, black					
1				CLAYEY SILT - stiff, dry, orange & gray mottled	1				
2	C				2				
3	D			CLAY - moist, soft, greenish, gray with orange mottling	3				
4	E			TOTAL DEPTH = 4' BCL	4				
5					5				
6					6				
7					7				



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LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: SDA#2
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/ocotite liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per Intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion		Remarks
	Method	OVM (ppm)						
0	A			CLAY - some gravel (less than 20%), stiff, dry, grayish black (upper soil layer)				
	B			SILTY CLAY - loose, dry, white to brown				
1	C			CLAY - with well rounded calcareous gravel, dry, stiff, gray	1			
	D			CLAY - with fine grained gravel, (less than 20% granules), stiff, dry, grayish green				
2					2			
3					3			
	E							
4				TOTAL DEPTH = 4' BGL	4			
5					5			
6					6			
7					7			



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LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: SDA#3
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion		Remarks
	Method	OVM (ppm)						
0				ROOTS & GRASS - soil root zone				
	A			GRAVELY CLAY - stiff, dry, light brown, grades into grayish brown clay with 20% gravel, well rounded pebbles & granules. Gravel decrease & less pebbles with depth, stiff, dry				
	B							
1	C				1			
	D				2			
2					3			
3					4			
	E							
	E							
4	(dup)			TOTAL DEPTH = 4' BGL	4			
5					5			
6					6			
7					7			



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LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: SDA#4
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion		Remarks
	Method	OVM (ppm)						
0	A			CLAY - very loose, dry with 15% gravel (pebbles & cobbles)	0			
1	B			CLAY - loose to compact at depth, less than 20% gravel, decrease with depth (poorly graded mostly rounded granules, 5% gravel, very moist, black @ TD	1			
2	C				2			
3	D				3			
4	E E (dep)			TOTAL DEPTH = 4' BCL	4			
5					5			
6					6			
7					7			



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Austin, Texas 78746

LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: SDA#5
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acrotate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A			CLAY - roots, loose, damp, black	0				
1	B			CLAY - with less than 20% well rounded well graded gravel, compact, highly plastic, very moist greenish gray to olive	1				
	C								
	C (dup)								
2	D				2				
3					3				
4	E			TOTAL DEPTH = 4' BGL	4				
5					5				
6					6				
7					7				



Boring No.: SDA#6

Job No.: 027-01

Sheet 1 of 1

Start Date: 6/18/98

Finish Date: 6/18/98

Driller: ESDI / M. McNittDrill Bit:

Ground Water:

Total Depth: 4.0 ft.

Elev., GL (ft. msl):

Elev., TOC (ft. msl): —

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
A				CLAY - root zone, loose, dry, black					
B				CLAY - with 10%-30% calcareous well rounded & graded gravel (pebbles & granules) compact to dense, damp, greenish gray to olive with orange mottling	1				
C									
D									
E									
4				TOTAL DEPTH = 4' BGL	4				
5					5				
6					6				
7					7				



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LOG OF BORING

Client: CNB Technologies Job No.: 027-01 Boring No.: SDA#7
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per Intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A			CLAY - (upper soil root zone) loose, dry, black					
	B								
1	C			CLAY - compact, dry, gray to grayish green	1				
	D								
2					2				
3					3				
	E								
	E (dup)								
4				TOTAL DEPTH = 4' BCL	4				
5					5				
6					6				
7					7				



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LOG OF BORING

Client: CNB Technologies Job No.: 027-01 Boring No.: SDA#8
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/castate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion		Remarks
	Method	OVM (ppm)						
0	NR			NR / FILL - interval from 0 - 24" contains 12" of recovered fill, not sampled	0			
1	NR				1			
2	NS				2			
3	F			SILT - calcareous material, laminated rock fragments to loose material recovered, individual layers are cohesive & very stiff, dry, tan, loose material is calcareous silt	3			
4	G				4			
	H							
	I							
4				TOTAL DEPTH = 4' BGL	4			
5					5			
6					6			
7					7			



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LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: SDA#9-1
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acrotite liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A B C			CLAY - soil layer, dry, stiff, black					
				GRAVELLY CLAY - mixed with angular limestone pebbles, loose, dry, whitish brown					
1				LIMESTONE - layered, loose, layers are hard but brittle, dry, white	1				
				TOTAL DEPTH = 18" BGL					
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				



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LOG OF BORING

Client: CNB Technologies Job No.: 027-01 Boring No.: SDA#9-2
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A			CLAY - roots, dry, loose, black					
				SILTY CLAY - stiff, dry, gray					
1				SILTY CLAY - very stiff, loose, dry, orange to tan (calcareous material)	1				
2	B								
	C								
	D								
3	E								
4				TOTAL DEPTH = 4' BCL	4				
5					5				
6					6				
7					7				



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LOG OF BORING

Client: GNB Technologies Job No.: 027-01 Boring No.: SDA#10
Site: Frisco, Texas - Phase I RFI Start Date: 6/18/98 Sheet 1 of 1
Geologist: J. Greg Dennis Driller: ESDI / M. McNitt Finish Date: 6/18/98
Drilling Method: Geoprobe Drill Bit: - Ground Water: -
Sampling Method: Continuous Shelby Tube w/acetate liner Total Depth: 4.0 ft.
Coordinates: - & Discrete Soil Sample per Intervals Elev., GL (ft. msl): - Elev., TOC (ft. msl): -

Depth (ft.)	Sampling		USCS Class	Sample Description	Depth (ft.)	Boring Completion			Remarks
	Method	OVM (ppm)							
0	A			CLAY - upper soil layer, soft, dry, block					
1	B			CLAY - compact to loose, dry, brownish gray with orange mottling	1				
2	C				2				
3	D				3				
4	E E (dup)			SHALEY CLAY - laminated, thin bedded, stiff, damp soft, moist, grayish black @ TD	4				
				TOTAL DEPTH = 4' BGL					
5					5				
6					6				
7					7				

Notification of an On-Site Class II Industrial Waste Landfill Boring Logs (RMT/JN, 1995)

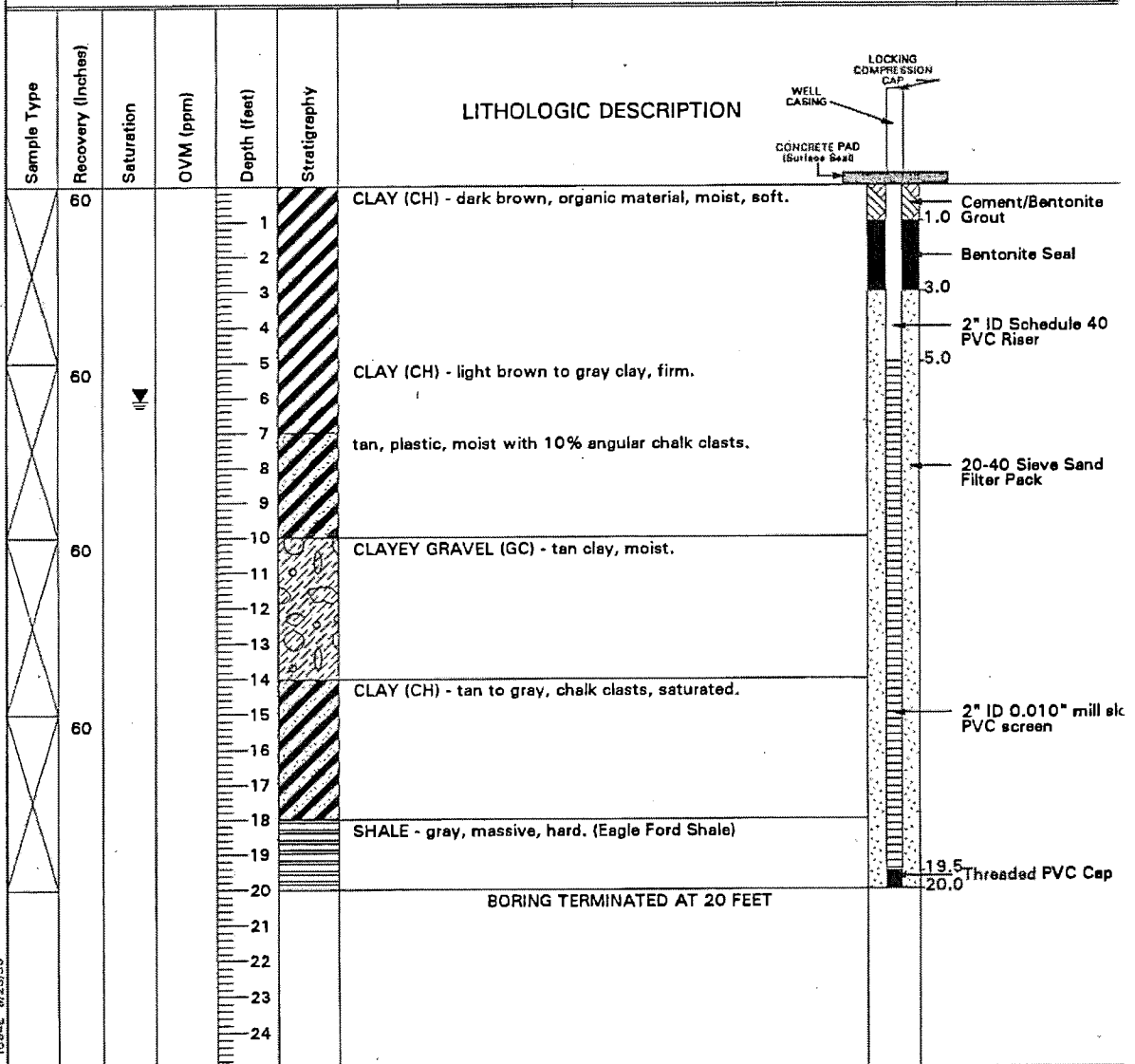


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B1/LMW-1

Client:	GNB TECHNOLOGIES	Start Date:	2-3-95	End Date:	2-3-95	Page 1 of 1
Site:	FRISCO, TEXAS	Drilling Method:	HOLLOW STEM AUGER	Project Number:	50-01584.13	
Geologist:	BLAKE GILLESPIE	Driller:	E.D.S.I./R. BROTHERS	Drill Rig Type:	CME-750	Borehole Diameter:
						6 inches
Site Coordinates:	N: 1130.5500 E: 3406.1100	Total Depth:	20.00	Surface Elevation (ft.):	635.90	TOC Elevation (ft.):
					635.90	PAD Elevation (ft.):
						635.90
Datum Description:	Site Datum - Elevations ref. from MSL	Datum Elevation:	NA	Water Level Depth (ft.):	6.10	Date:
						7/26/95
						Time:
						0832



WELL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

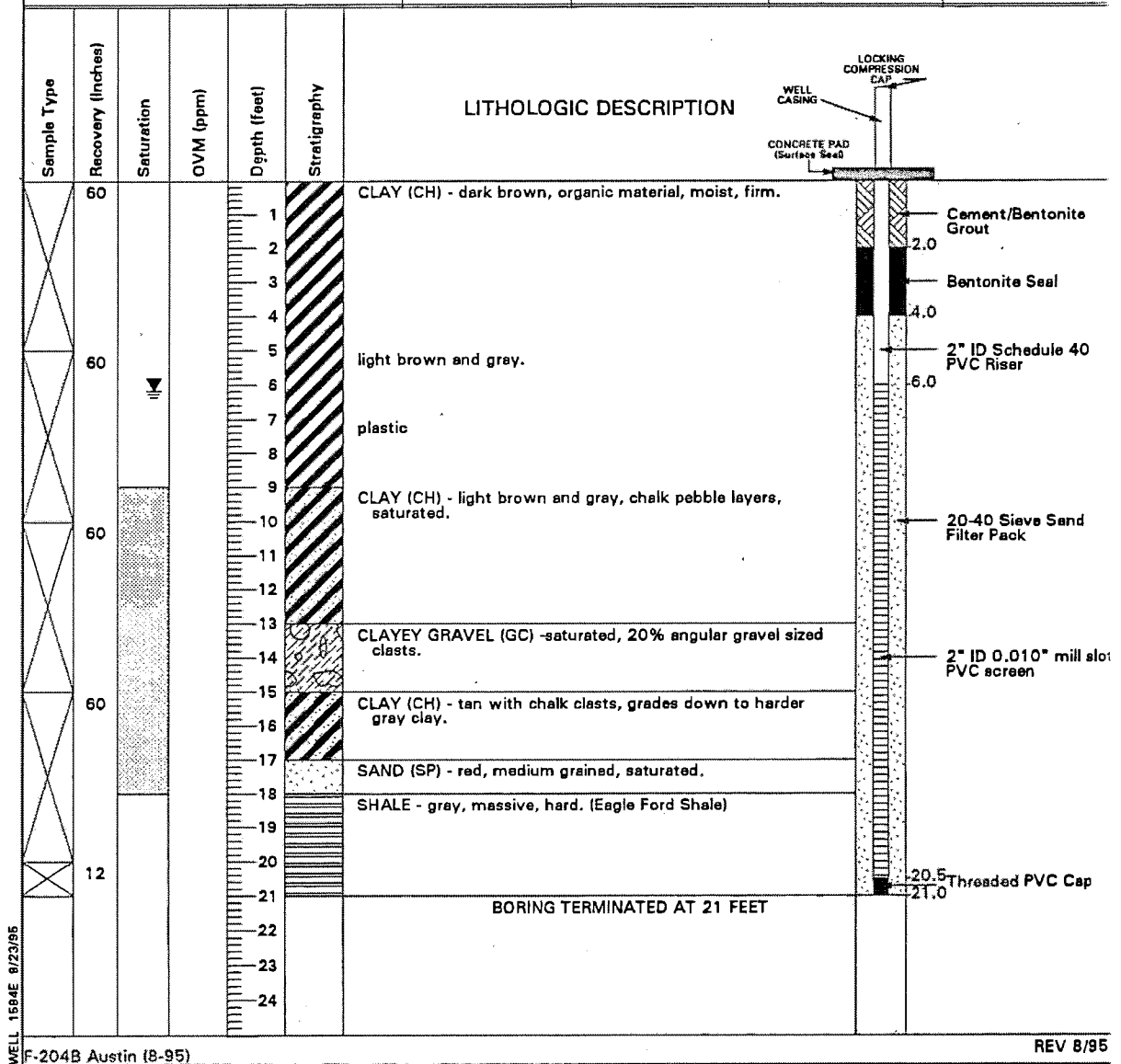


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B2/LMW-2

Client: GNB TECHNOLOGIES		Start Date: 2-3-95	End Date: 2-3-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GELLISPIE	Driller: RMT-JN/R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 6183.6400 E: 3546.9700		Total Depth: 30.00	Surface Elevation (ft.): 638.72	TOC Elevation (ft.): 641.01	PAD Elevation (ft.): 638.72
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 6.18	Date: 7/26/95	Time: 1045



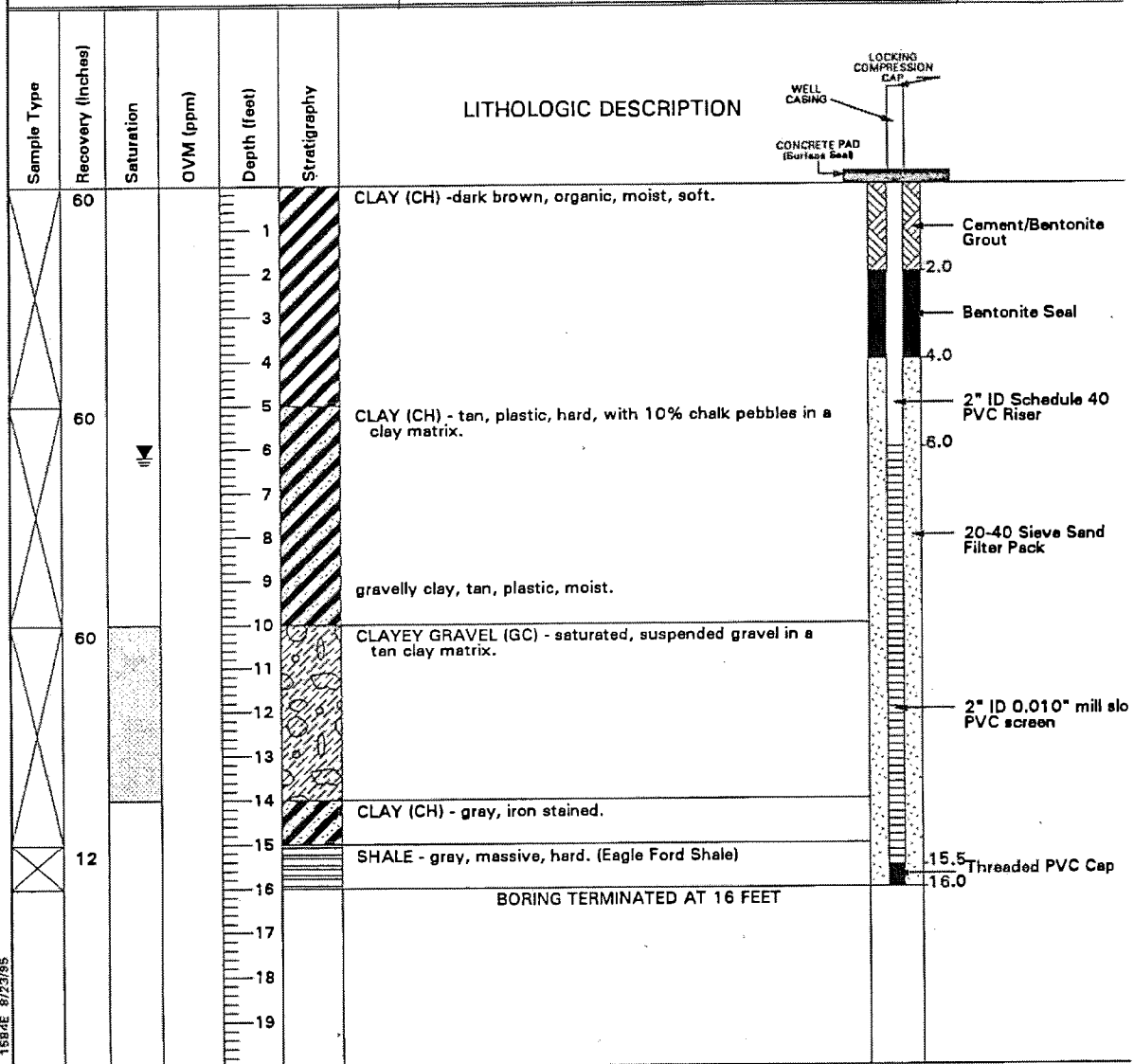


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B3/LMW-3

Client: GNB TECHNOLOGIES		Start Date: 2-3-95	End Date: 2-3-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGERS		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 5364.7800 E: 3928.4200		Total Depth: 15.00	Surface Elevation (ft.): 637.76	TOC Elevation (ft.): 639.78	PAD Elevation (ft.): 637.76
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 6.18	Date: 7/26/95	Time: 0828



WELL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

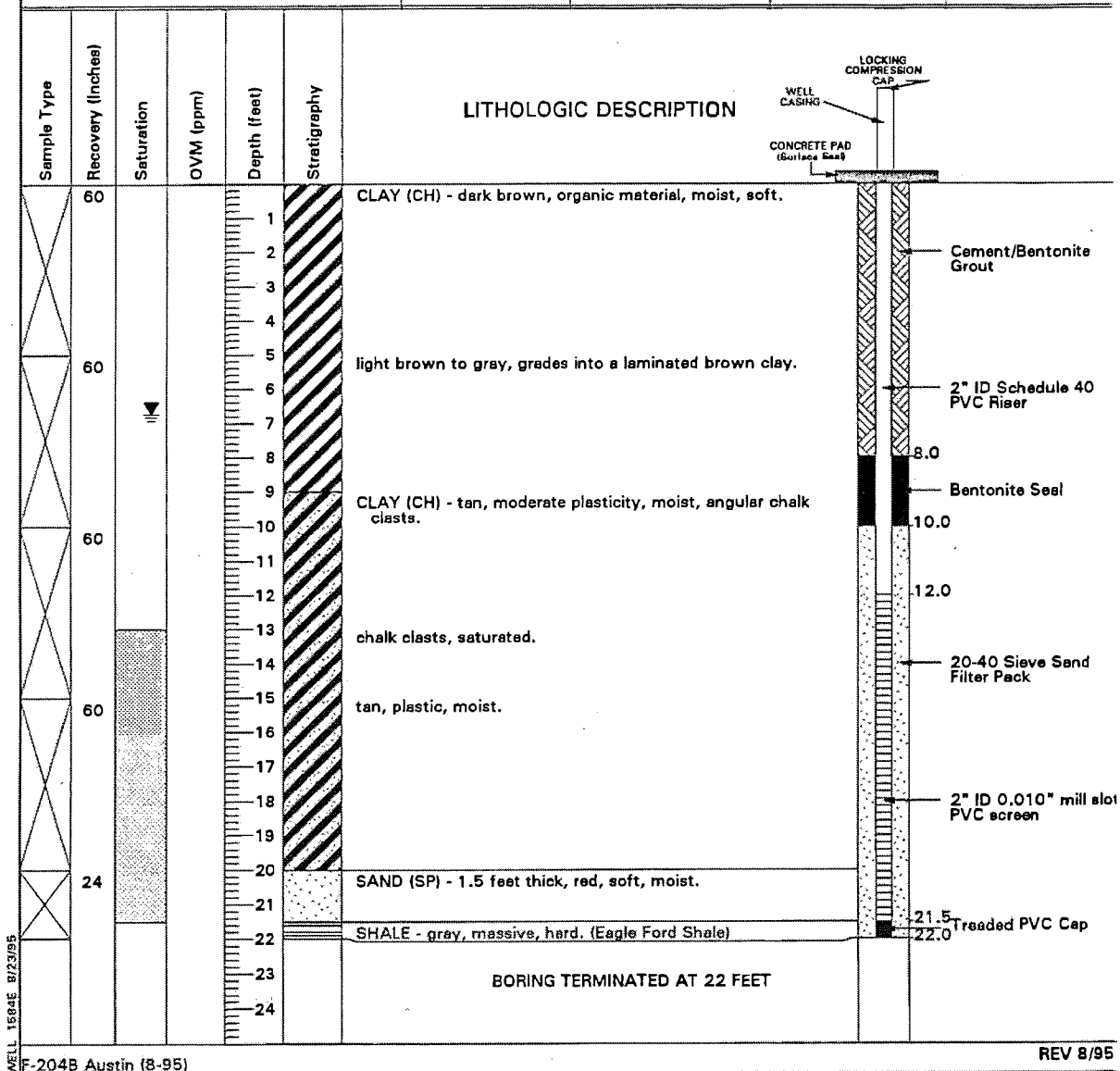


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B4/LMW-4

Client: GNB TECHNOLOGIES		Start Date: 2-3-95	End Date: 2-3-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 5735.6900 E: 3757.2000		Total Depth: 22.00	Surface Elevation (ft.): 639.15	TOC Elevation (ft.): 641.42	PAD Elevation (ft.): 638.15
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 6.76	Date: 7/26/95	Time: 1030hrs.



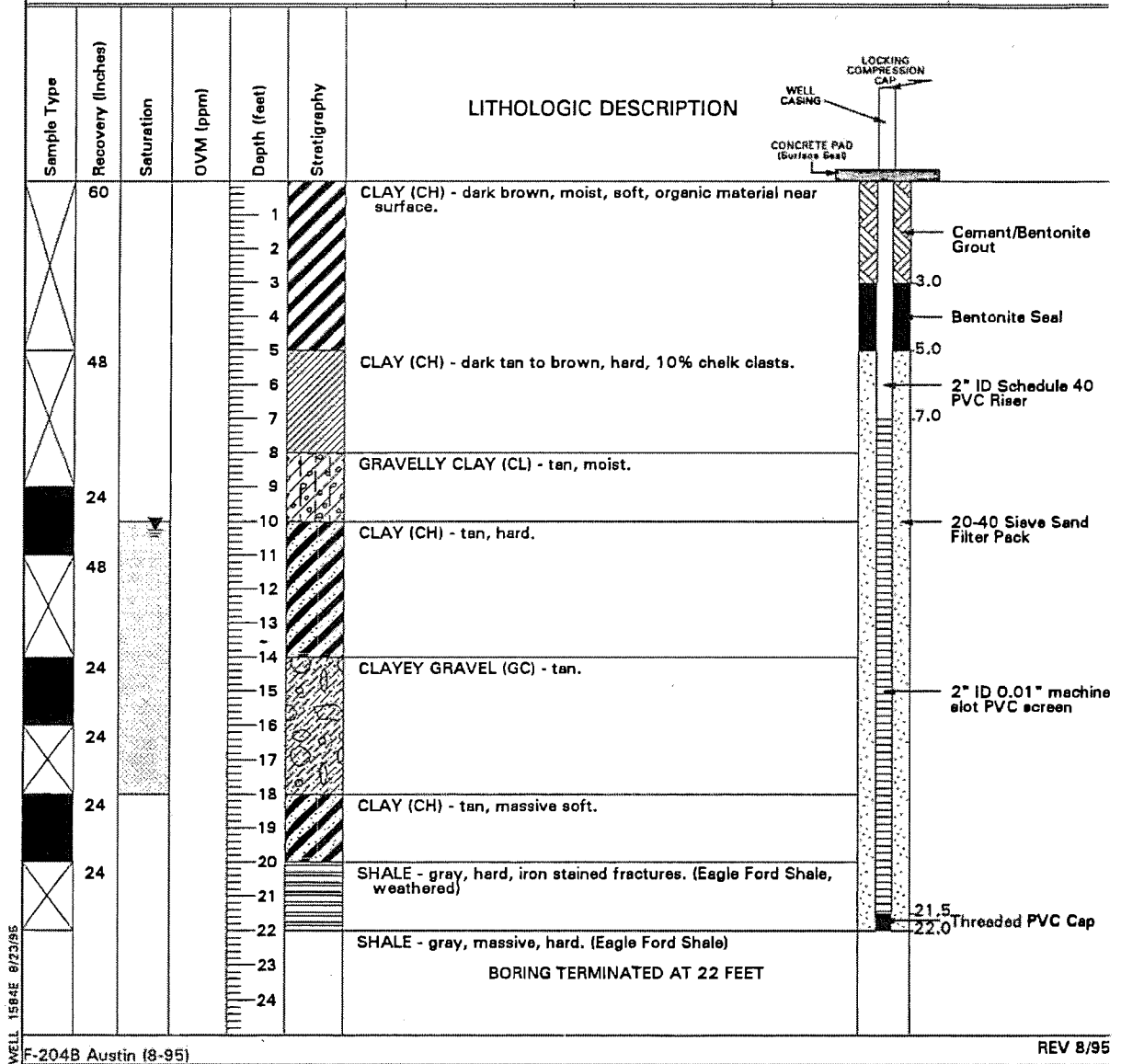


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B5/LMW-5

Client: GNB TECHNOLOGIES		Start Date: 2-3-95		End Date: 2-3-95		Page 1 of 1			
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER				Project Number: 50-01584.13			
Geologist: BLAKE GILLESPIE		Driller: RMT-JN/R. BROTHERS		Drill Rig Type: CME-750		Borehole Diameter: 6 inches			
Site Coordinates: N: 5706.3200 E: 4174.7100		Total Depth: 22.00		Surface Elevation (ft.): 643.27		TOC Elevation (ft.): 646.61		PAD Elevation (ft.): 643.27	
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA		Water Level Depth (ft.): 10.25		Date: 7/25/95		Time: 0647hrs.	





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LOG OF TEST BORING

BORING NO. SB-6

Client:	GNB TECHNOLOGIES	Start Date:	2-4-95	End Date:	2-4-95	Page 1 of 1
Site:	FRISCO, TEXAS	Drilling Method:	HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist:	BLAKE GILLESPIE	Driller:	RMT-JN/R. BROTHERS	Drill Rig Type:	CME-750	Borehole Diameter: 6 Inches
Site Coordinates:	N: 6171.1200 E: 4239.9600	Total Depth:	21.00	Surface Elevation (ft.):	652.79	TOC Elevation (ft.): NA
Datum Description:	Site Datum - Elevations ref. from MSL	Datum Elevation:	NA	Water Level Depth (ft.):	NA	Date: NA
						Time: NA

Sample Type	Recovery (Inches)	Saturation	OVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	24			1		CLAY (CH) - brown , moderately organic, moist, firm.
	24			2		
	24			3		
	24			4		
	24			5		light brown and gray.
	24			6		
	24			7		tan to brown, very firm, massive.
	24			8		
	24			9		CLAY (CH) - tan, firm with horizontal jointing, 1-3" width, jointing coated with red and yellow staining.
	48			10		
	48			11		
	24			12		
	24			13		
	24			14		
	24			15		
	48			16		
	48			17		SILTY SAND (SM) - red, medium grained, friable, clay coating on grains.
	12			18		
				19		
				20		SHALE - gray, massive, hard. (Eagle Ford Shale)
				21		BORING TERMINATED AT 21 FEET
				22		
				23		
				24		

SOIL 1684E B/23/95

F-204B Austin (8-95)

REV 8/95

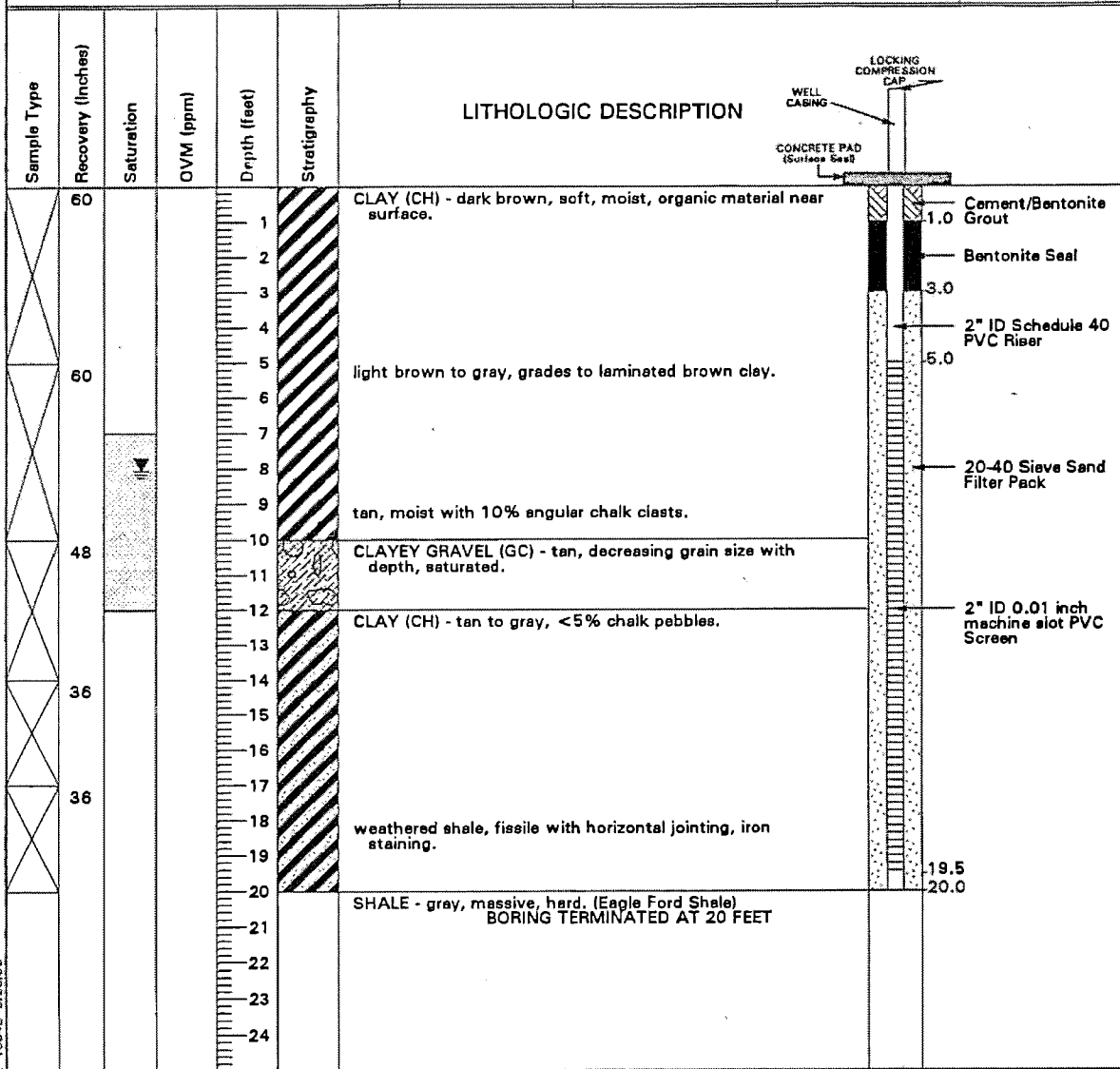


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B7/LMW-7

Client: GNB TECHNOLOGIES		Start Date: 2-2-95	End Date: 2-3-95	Page 1 of 1
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R. BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches
Site Coordinates: N: 6574.6800 E: 4322.6900		Total Depth: 20.00	Surface Elevation (ft.): 657.45	TOC Elevation (ft.): 659.07
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 8.06	Date: 7/26/95
				Time: 1050hrs.



WELL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

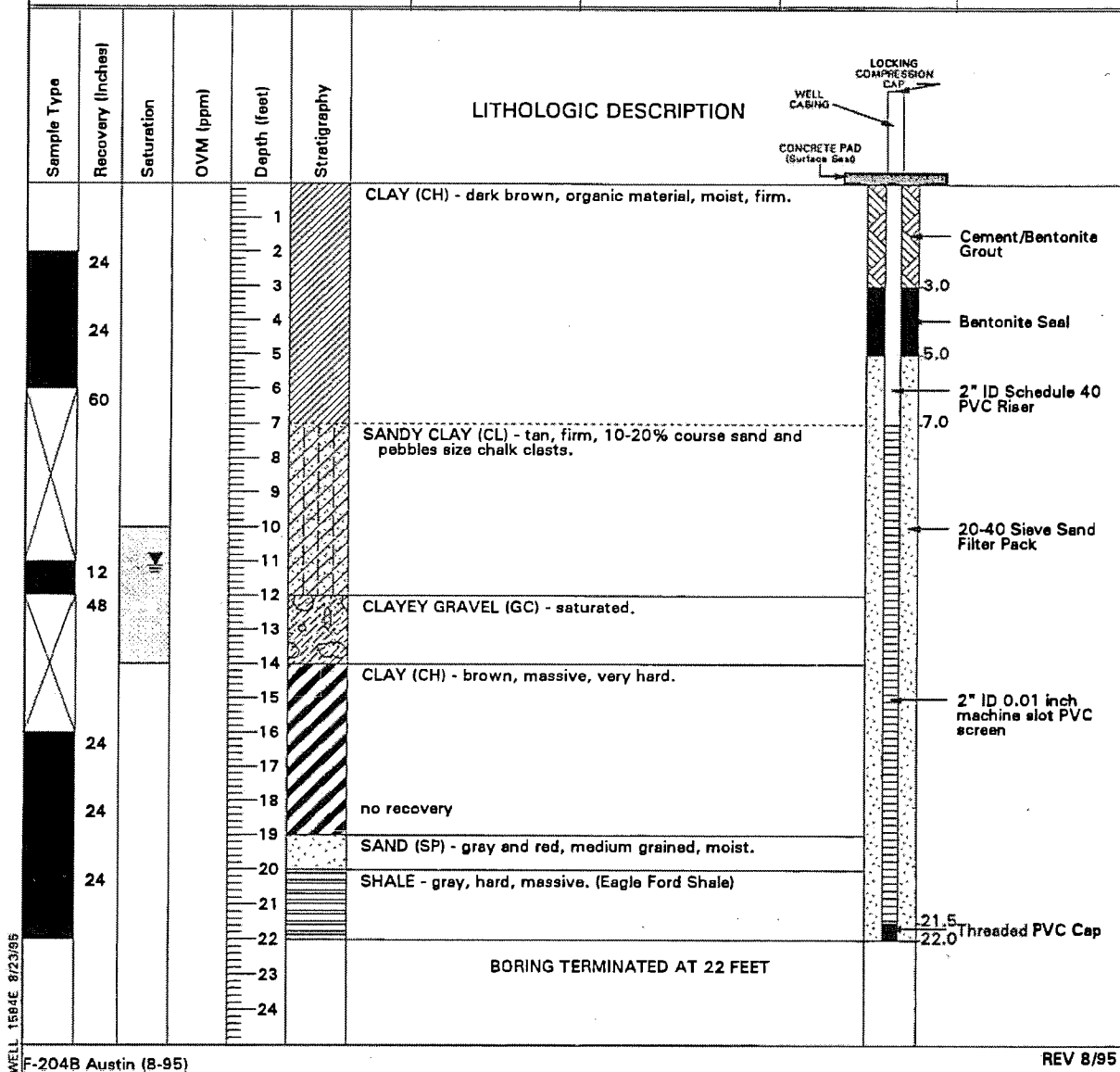


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B8/LMW-8

Client: GNB TECHNOLOGIES		Start Date: 2-4-95	End Date: 2-4-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R. BROTHERS		Drill Rig Type: CME-750		Borehole Diameter: 6 Inches
Site Coordinates: N: 5539.0400 E: 4812.0100		Total Depth: 22.00	Surface Elevation (ft.): 645.57	TOC Elevation (ft.): 648.68	PAD Elevation (ft.): 645.57
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 11.13	Date: 7/26/95	Time: 0630hrs.



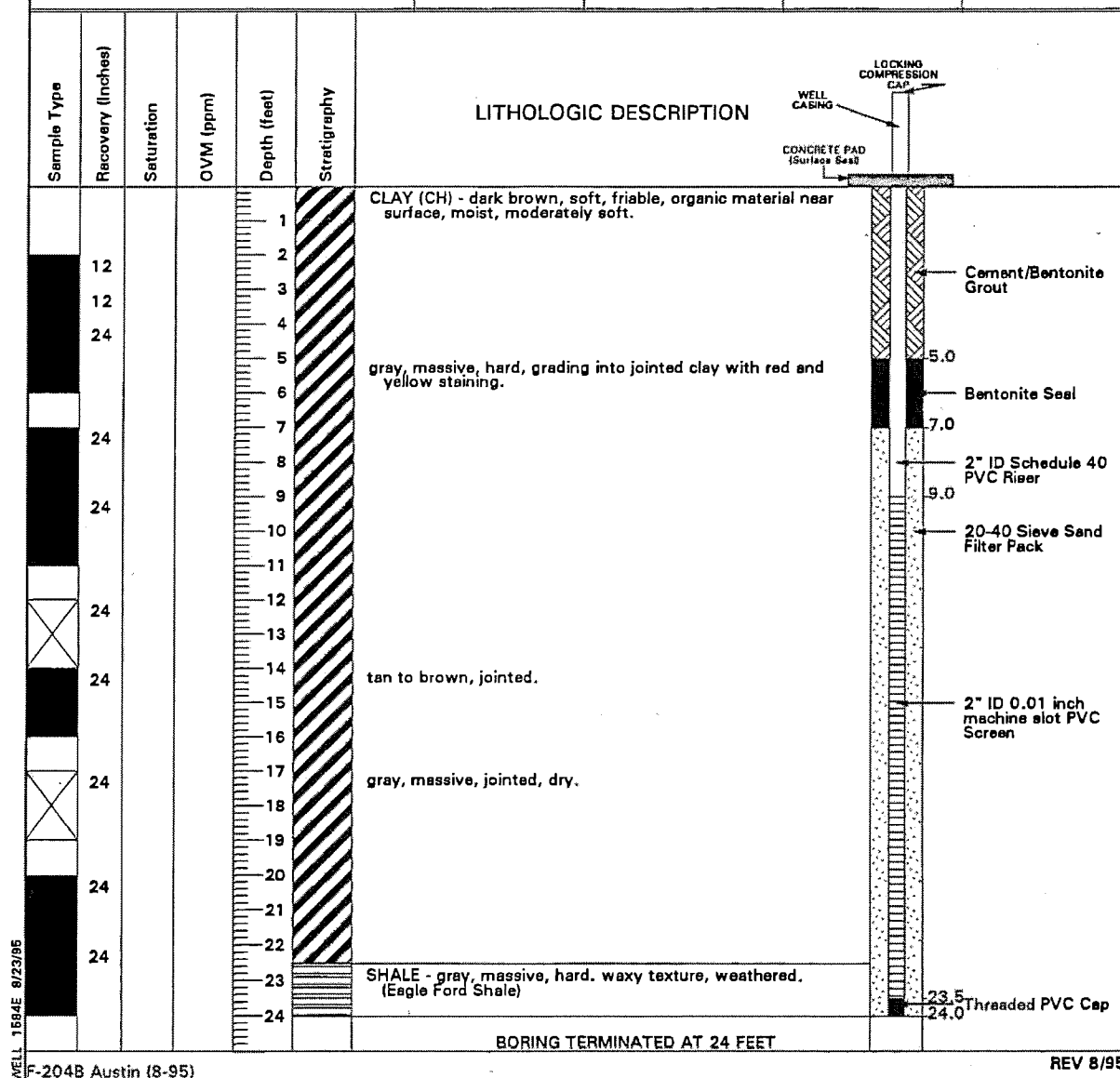


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B9/LMW-9

Client: GNB TECHNOLOGIES		Start Date: 2-4-95	End Date: 2-4-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R. BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 Inches	
Site Coordinates: N: 5888.8400 E: 4833.3600		Total Depth: 24.00	Surface Elevation (ft.): 660.48	TOC Elevation (ft.): 663.72	PAD Elevation (ft.): 660.48
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 18.74ft.	Date: 4/24/95	Time:



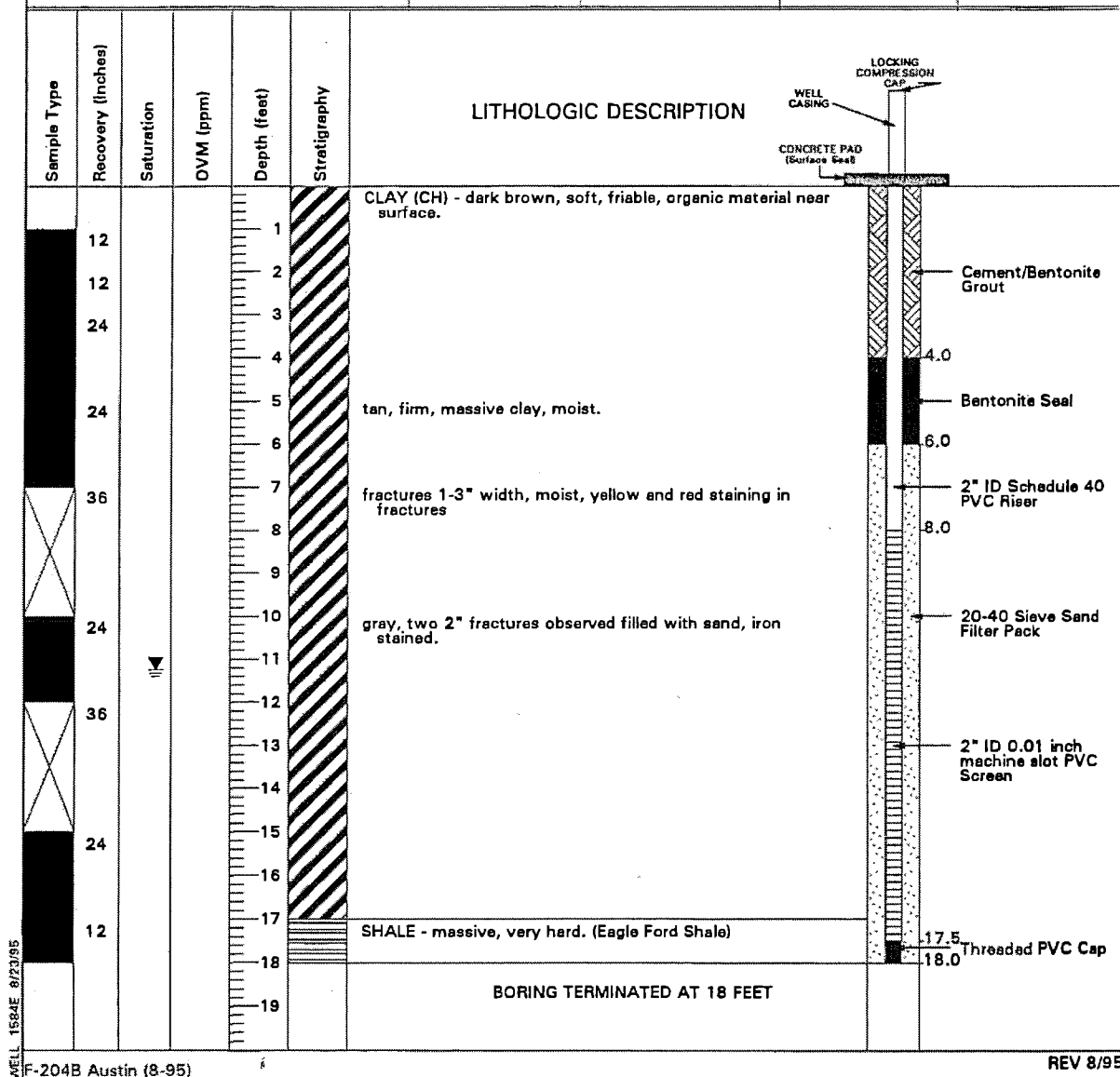


JONES & NEUSE

LOG OF TEST BORING

BORING NO. LMW-10

Client: GNB TECHNOLOGIES		Start Date: 2-4-95	End Date: 2-4-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/ R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 6390.7500 E: 4954.0700		Total Depth: 18.00	Surface Elevation (ft.): 681.03	TOC Elevation (ft.): 683.05	PAD Elevation (ft.): 681.03
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 11.26	Date: 7/26/95	Time: 1053hrs.





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LOG OF TEST BORING

BORING NO. SB-11

Client: GNB TECHNOLOGIES		Start Date: 7-19-95	End Date: 7-19-95	Page 1 of 1
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13
Geologist: DAVID McQUADE	Driller: E.D.S.J./MIKE McNITT	Drill Rig Type: CME 750		Borehole Diameter: 6 inches
Site Coordinates: N: 6380.1701 E: 4279.5396		Total Depth: 23.00	Surface Elevation (ft.): 655.15	TOC Elevation (ft.): NA
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): NA	Date: NA
				Time: NA

Sample Type	Recovery (Inches)	Saturation	OVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	60			1		CLAY (CH) - silty; stiff; plastic; olive with gray mottling; moist; color change from 1 ft to 3 ft to dark brown; some sand, fine grained, poorly graded, chalk matrix.
				2		
				3		
				4		
	60			5		CLAY (CH) - silty; very stiff; slightly plastic; olive with gray, rust, and yellow mottling; changing to gray with rust and yellow mottling; slightly moist, laminated.
				6		
				7		
				8		
				9		
	60			10		
				11		
				12		
				13		
				14		
	60			15		trace weathered shale
				16		
				17		
				18		silty sand seam, very fine grained; some laminated layers of soft, very plastic clay; tan.
				19		
	36			20		
				21		
				22		CLAY (CH) - sandy, very fine grained; plastic; stiff; yellowish brown with rust mottling; moist; some seams of weathered shale, gray, dense, hard.
				23		SHALE - gray; dense; hard. (Eagle Ford Shale)
				24		

BORING TERMINATED AT 23 FEET

SOIL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95



JONES & NEUSE

LOG OF TEST BORING

BORING NO. SB-12

Client: GNB TECHNOLOGIES		Start Date: 7-19-95	End Date: 7-19-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: DAVID McQUADE	Driller: E.D.S.I./MIKE McNITT	Drill Rig Type: CME 750		Borehole Diameter: 6 inches	
Site Coordinates: N: 6472.1875 E: 4300.0402		Total Depth: 25.00	Surface Elevation (ft.): 656.40	TOC Elevation (ft.): NA	PAD Elevation (ft.): NA
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): NA	Date: NA	Time: NA

Sample Type	Recovery (inches)	Saturation	QVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	60			1		CLAY (CH) - some sand, fine to medium grained, subrounded, poorly graded, sand is chalk matrix; slightly plastic; hard; dark brown change to brown at 3 ft.; moist.
				2		
				3		
				4		
	60			5		
				6		
				7		
				8		
				9		
	60			10		CLAY (CH) - silty; stiff; plastic; gray with rust and yellow mottling; laminated; moist.
				11		
				12		
				13		
				14		
	60			15		some weathered shale lenses.
				16		
				17		
				18		
				19		
	60			20		
				21		
				22		
				23		SHALE - gray; dense; hard. (Eagle Ford Shale)
				24		
				25		BORING TERMINATED AT 25 FEET
				26		
				27		
				28		
				29		

SOIL 1584E 8/23/95

F-2048 Austin (8-95)

REV 8/95



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LOG OF TEST BORING

BORING NO. SB-13

Client: GNB TECHNOLOGIES			Start Date: 7-19-95		End Date: 7-19-95		Page 1 of 1		
Site: FRISCO, TEXAS			Drilling Method: HOLLOW STEM AUGER				Project Number: 50-01584.13		
Geologist: DAVID McQUADE		Driller: E.D.S.I./MIKE McNITT		Drill Rig Type: CME-750			Borehole Diameter: 6 Inches		
Site Coordinates: N: 8459.5969 E: 4644.7713		Total Depth: 20.00		Surface Elevation (ft.): 669.41		TOC Elevation (ft.): NA		PAD Elevation (ft.): NA	
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA		Water Level Depth (ft.): NA		Date: NA		Time: NA	

Sample Type	Recovery (Inches)	Saturation	OVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	60			1		CLAY (CH) - sandy, fine grained, poorly graded, subangular, sand is chalk matrix; silty; plastic; stiff; dark brown; moist.
				2		
				3		
				4		CLAY (CH) - silty; plastic; stiff; gray with rust and yellow mottling; laminated; slightly moist.
	60			5		
				6		
				7		
				8		very fine grained sand seam.
				9		
	60			10		some weathered shale, becoming more dense.
				11		
				12		
				13		
				14		
	60			15		SHALE - gray; dense; hard. (Eagle Ford Shale)
				16		
				17		
				18		
				19		
				20		BORING TERMINATED AT 20 FEET
				21		
				22		
				23		
				24		

SOIL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95



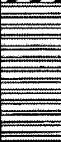


JONES & NEUSE

LOG OF TEST BORING

BORING NO. SB-14

Client: GNB TECHNOLOGIES		Start Date: 7-19-95	End Date: 7-19-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: DAVID McQUADE	Driller: E.D.S.I./MIKE McNITT		Drill Rig Type: CME-750	Borehole Diameter: 6 inches	
Site Coordinates: N: 6414.7340 E: 4474.3169		Total Depth: 14.00	Surface Elevation (ft.): 656.75	TOC Elevation (ft.): NA	PAD Elevation (ft.): NA
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): NA	Date: NA	Time: NA

Sample Type	Recovery (Inches)	Saturation	OVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	60			1		CLAY (CH) - silty; slightly plastic; stiff; gray with rust and yellow mottling; laminated; slightly moist.
				2		
				3		
				4		
				5		
	60			6		
				7		
				8		
				9		
				10		
	48			11		SHALE - gray; dense; hard. (Eagle Ford Shale)
				12		
				13		
				14		
				15	BORING TERMINATED AT 14 FEET	
				16		
				17		
				18		
				19		

SOIL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95



JONES & NEUSE

LOG OF TEST BORING

BORING NO. SB-15

Client:	GNB TECHNOLOGIES	Start Date:	7-21-95	End Date:	7-21-95	Page 1 of 1
Site:	FRISCO, TEXAS	Drilling Method:	HOLLOW STEM AUGER	Project Number:	50-01584.13	
Geologist:	DAVID McQUADE	Driller:	E.D.S.I./MIKE McNITT	Drill Rig Type:	CME-750	Borehole Diameter:
						6 inches
Site Coordinates:	N: 5712.6367 E: 4852.8441	Total Depth:	26.00	Surface Elevation (ft.):	650.92	TOC Elevation (ft.):
						NA
Site Coordinates:						PAD Elevation (ft.):
						NA
Datum Description:	Site Datum - Elevations ref. from MSL	Datum Elevation:	NA	Water Level Depth (ft.):	NA	Date:
						NA
						Time:
						NA

Sample Type	Recovery (inches)	Saturation	OVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	24			1		CLAY (CH) - sandy, fine to medium grained, poorly graded, sand is chalk matrix; slightly plastic; stiff; brown; moist.
	24			2		
	24			3		
	24			4		
	24			5		
	36			6		CLAY (CH) - trace silt; some chalk fragments, subangular; plastic; hard; brown with yellowish brown mottling; moist at 7.5 feet; change color to gray with rust and yellow mottling; laminated.
	24			7		
	24			8		
	24			9		
	24			10		
	36			11		
	24			12		
	36			13		
	24			14		
	36			15		
	24			16		
	36			17		CLAY (CH) - silty; some sand seams, very fine grained; plastic; stiff; brown with gray mottling; increase sand content with depth.
	24			18		
	36			19		
	24			20		
	36			21		CLAY (CH) - silty; plastic; stiff; some weathered shale; brown with dark gray mottling; moist; laminated.
	24			22		
	36			23		
	24			24		SHALE - dark gray; dense; hard. (Eagle Ford Shale)
				25		
				26		BORING TERMINATED AT 26 FEET
				27		
				28		
				29		

SOIL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95



JONES & NEUSE

LOG OF TEST BORING

BORING NO. SB-16

Client: GNB TECHNOLOGIES		Start Date: 7-21-95		End Date: 7-21-95		Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER			Project Number: 50-01584.13		
Geologist: DAVID McQUADE		Driller: E.D.S.I./MIKE McNITT		Drill Rig Type: CME-750		Borehole Diameter: 6 Inches	
Site Coordinates: N: 5625.1147 E: 4828.9834		Total Depth: 24.00	Surface Elevation (ft.): 647.94		TOC Elevation (ft.): NA		PAD Elevation (ft.): NA
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): NA		Date: NA		Time: NA

Sample Type	Recovery (Inches)	Saturation	OVN (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	48			1		CLAY (CH) - silty; some sand, medium grained, subangular, poorly graded, sand is chalk matrix; plastic; hard; dark brown; moist; roots.
				2		
				3		CLAY (CH) - sandy, medium grained, subangular; slightly plastic; stiff; light brown; moist.
	60			4		
				5		CLAY (CH) - sandy, medium to coarse grained, poorly graded, sand is chalk matrix; trace gravel size grains; plastic; stiff; light brown; moist.
				6		
				7		
	60			8		
				9		CLAY (CH) - silty; trace sand, fine grained; very plastic; stiff; light brown with rust and gray mottling; moist; increase fine grained sand content with depth.
				10		
				11		
				12		
				13		
	60			14		SANDY CLAY with gravel (CH) - fine to medium grained, subrounded, poorly graded; plastic; stiff; tan with rust mottling; wet.
				15		CLAY (CH) - silty; some very fine grained sand; plastic; stiff; brown with rust and gray mottling; laminated; moist.
				16		
				17		
	60			18		CLAY (CH) - trace silt, laminated; slightly plastic; hard; gray with rust and yellow mottling; very fine grained sand seam at 19 feet, gray, wet.
				19		
				20		
				21		fine grained sand seam from 20.5 to 20.7 ft., wet.
				22		SHALE - dark; dense; hard.
				23		
				24		
						BORING TERMINATED AT 24 FEET

SOIL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

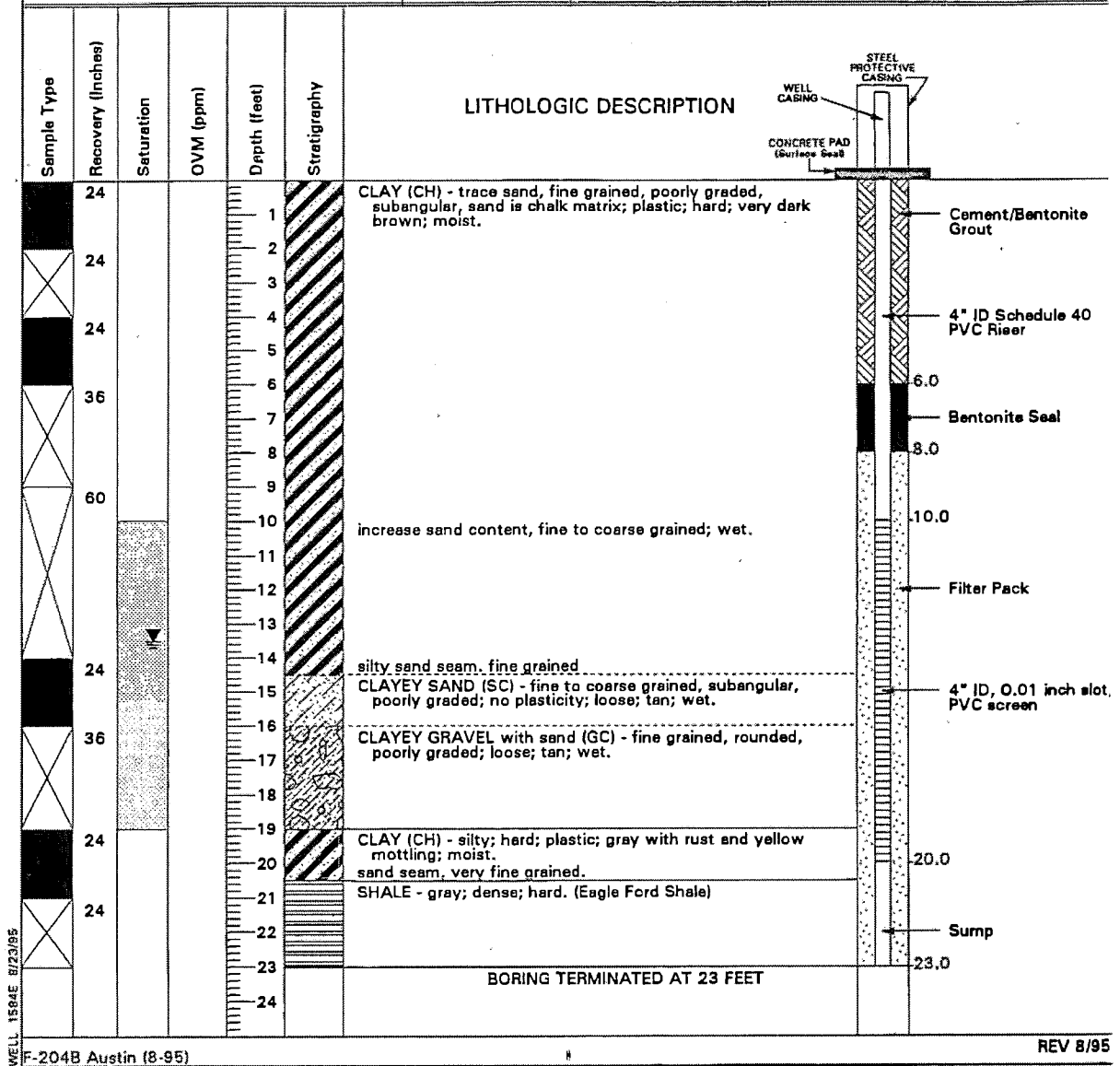


JONES & NEUSE

LOG OF TEST BORING

BORING NO. LMW-17

Client: GNB TECHNOLOGIES			Start Date: 7-21-95		End Date: 7-24-95		Page 1 of 1	
Site: FRISCO, TEXAS			Drilling Method: HOLLOW STEM AUGER			Project Number: 50-01584.13		
Geologist: DAVID McQUADE		Driller: E.D.S.J./MIKE McNITT		Drill Rig Type: CME-750			Borehole Diameter: 8 inches	
Site Coordinates: N: 5626.1663 E: 4507.0130		Total Depth: 23.00	Surface Elevation (ft.): 646.34		TOC Elevation (ft.): 648.84		PAD Elevation (ft.): 646.34	
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 13.52		Date: 7/26/95		Time: 0643hrs.	





JONES & NEUSE

LOG OF TEST BORING

BORING NO. SB-18

Client:	GNB TECHNOLOGIES	Start Date:	7-25-95	End Date:	7-25-95	Page 1 of 1
Site:	FRISCO, TEXAS	Drilling Method:	HOLLOW STEM AUGER	Project Number:	50-01584.13	
Geologist:	DAVID McQUADE	Driller:	E.D.S.I./MIKE McNITT	Drill Rig Type:	CME-750	Borehole Diameter:
						6 inches
Site Coordinates:	N: 5721.6077 E: 4494.9856	Total Depth:	24.00	Surface Elevation (ft.):	647.30	TOC Elevation (ft.):
						NA
Datum Description:	Site Datum - Elevations ref. from MSL	Datum Elevation:	NA	Water Level Depth (ft.):	NA	Date:
						NA
						Time:
						NA

Sample Type	Recovery (Inches)	Saturation	OVM (ppm)	Depth (feet)	Stratigraphy	LITHOLOGIC DESCRIPTION
	48			1		CLAY (CH) - silty; plastic; stiff; dark brown; some sand at depth, fine grained, poorly graded, sand is chalk matrix; trace roots from 0-2 feet.
				2		
				3		
	60			4		
				5		
				6		CLAY (CH) - trace silt; trace sand, fine grained, subangular, poorly graded, sand is chalk matrix; plastic; stiff; brown; moist; increase sand content with depth, grain size fine to medium; tan.
				7		
				8		
	60			9		
				10		
				11		CLAY (CH) - silty; sandy, very fine grained; plastic; soft; tan; wet.
				12		
				13		
	60			14		CLAYEY GRAVEL with sand (GC) - fine grained; poorly graded; rounded; loose; tan; wet.
				15		CLAY (CH) - silty; plastic; stiff; brown with gray and yellow mottling; laminated; increase silt with depth changing to gray with rust and yellow mottling.
				16		
				17		
	60			18		
				19		
				20		
				21		SHALE - gray; dense; hard. (Eagle Ford Shale)
				22		
				23		
				24		BORING TERMINATED AT 24 FEET

SOIL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

Phase I RCRA Facility Investigation (Lake, 1991; Lake, 1993)

LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **P-1**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet **1** of **1**Sampling methods: **4.5" Split Spoon**Completion date: **5/8/90**Boring depth: **25.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **20.0**

Groundwater elevation:




636.14 (msl)Date: **7/16/90**

Surface elevation:

645.95 (msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
0	CH				CLAY, dark brown, stiff, with calcerous pebbles, root zone to 5'		
5							
6	GC				GRAVEL, clayey, calcerous, wet		
7	CH				CLAY, silty, tan		
8	CH				CLAY, silty, tan, with calcerous pebbles, moist		
9							
10	CH				CLAY, silty, calcareous, with gravel		
11	CH				CLAY, tan, very stiff, with pebbles		
12	CH				SHALEY CLAY, gray, orange staining on parting surfaces		
13							
14	SH				SHALE, dark gray, fissile, brittle, yellow staining on parting surfaces, moist, pyrite nodule at 18.5'		
15							
16	SH				SHALE, dark gray, fissile, brittle		
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							

Log of Boring No. **P-1**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. P-2	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 5/9/90		Boring depth: 22.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 20.0	
Groundwater elevation: 633.35 (msl)		Date: 7/16/90		Surface elevation: 642.82 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, highly plastic, with small calcareous pebbles		
5	CH				CLAY, brown mottled orange, with calcareous pebbles		
10	CH				CLAY, silty, brownish gray, with calcareous pebbles		
15	CH				SHALEY CLAY, plastic, moderately fissile, less weathered at depth, selenite crystals found on parting surfaces		
20	SH				SHALE, dark gray, fissile, very brittle		
22	SH				LIMESTONE, layer, refusal at 22'		
25							
30							
35							

Log of Boring No. P-2	<div style="display: flex; justify-content: space-between;"> ☐ = CHEMICAL ANALYSIS ☐ = SIEVE ANALYSIS </div> <div>☐ = PERMEABILITY SAMPLE</div>	PLATE
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LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **B-1N**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet 1 of 2

Sampling methods: **4.5" Split Spoon**Completion date: **6/22/90**Boring depth: **62.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **59.5**

Groundwater elevation:




622.01 (msl)Date: **7/16/90**

Surface elevation:

679.40 (msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION			Recovery	% Passing No. 200 Sieve
	LS				LIMESTONE, (Austin Chalk Group), light brown				
	CH				CLAY, light brown, moderately dry				
5	CH				SHALEY CLAY, light brown, calcareous, fissile				
	CH				SHALEY CLAY, dark gray, calcareous, fissile				
10	SH				SHALE, dark gray, sand lense at 10.0'				
	SH				SHALE, dark gray, hard, fissile, (refusal at 16', needed drilling method change from auger to mud rotary)				
15	SH				SHALE, dark gray				
20					<<< RIG CHANGE TO MOBILE B-53 >>>				
25	SH				SHALE, dark gray				
30									
35	SH				SHALE, dark gray				

Log of Boring No. **B-1N**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE

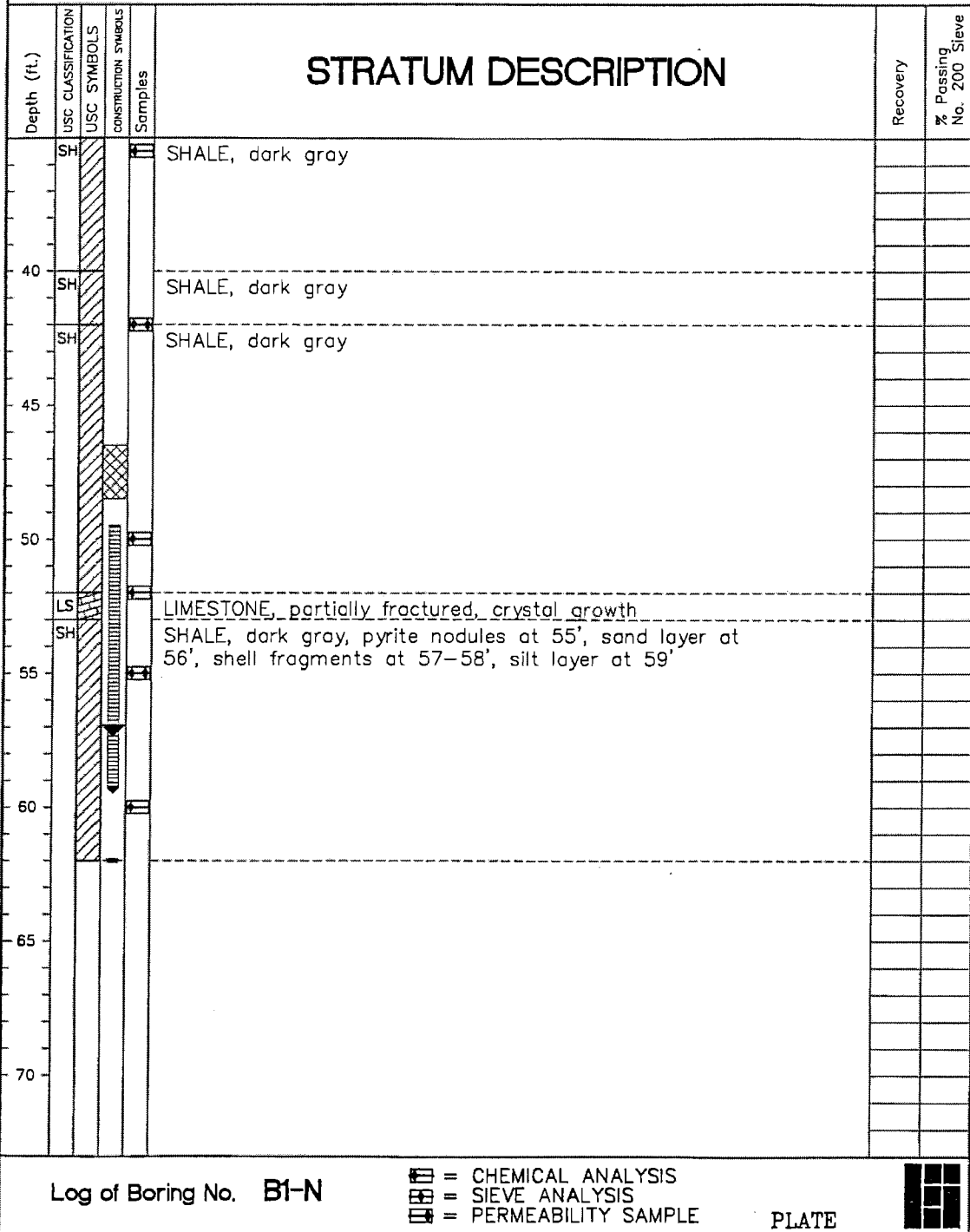


495.4.5-B-1N, P. 1 of 1

LAKE ENGINEERING, INC.

Project Remedial Investigation
GNB, Incorporated - Frisco, TexasBoring no. **B1-N**Project no. **495.4.5**Sheet **2 of 2**Sampling methods: **4.5" Split Spoon**Completion date: **6/22/90**Boring depth: **62.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **MOBILE-53**Well depth: **59.5**

Groundwater elevation:

622.01 (msl) Date: **7/16/90**Surface elevation: **679.40** (msl)

LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **B-1R**

Project no. 495.4.5

GNB, Incorporated - Frisco, Texas

Sheet 1 of 3

Sampling method: 4.5" Split Spoon

Completion date: 4/24/91

Boring depth: 94.0

Drilling method: 8.5" Hollow Stem Auger Drill rig: CME-55

Well depth: 63.8



Groundwater elevation:

619.8 (msl) Date: 4/24/91

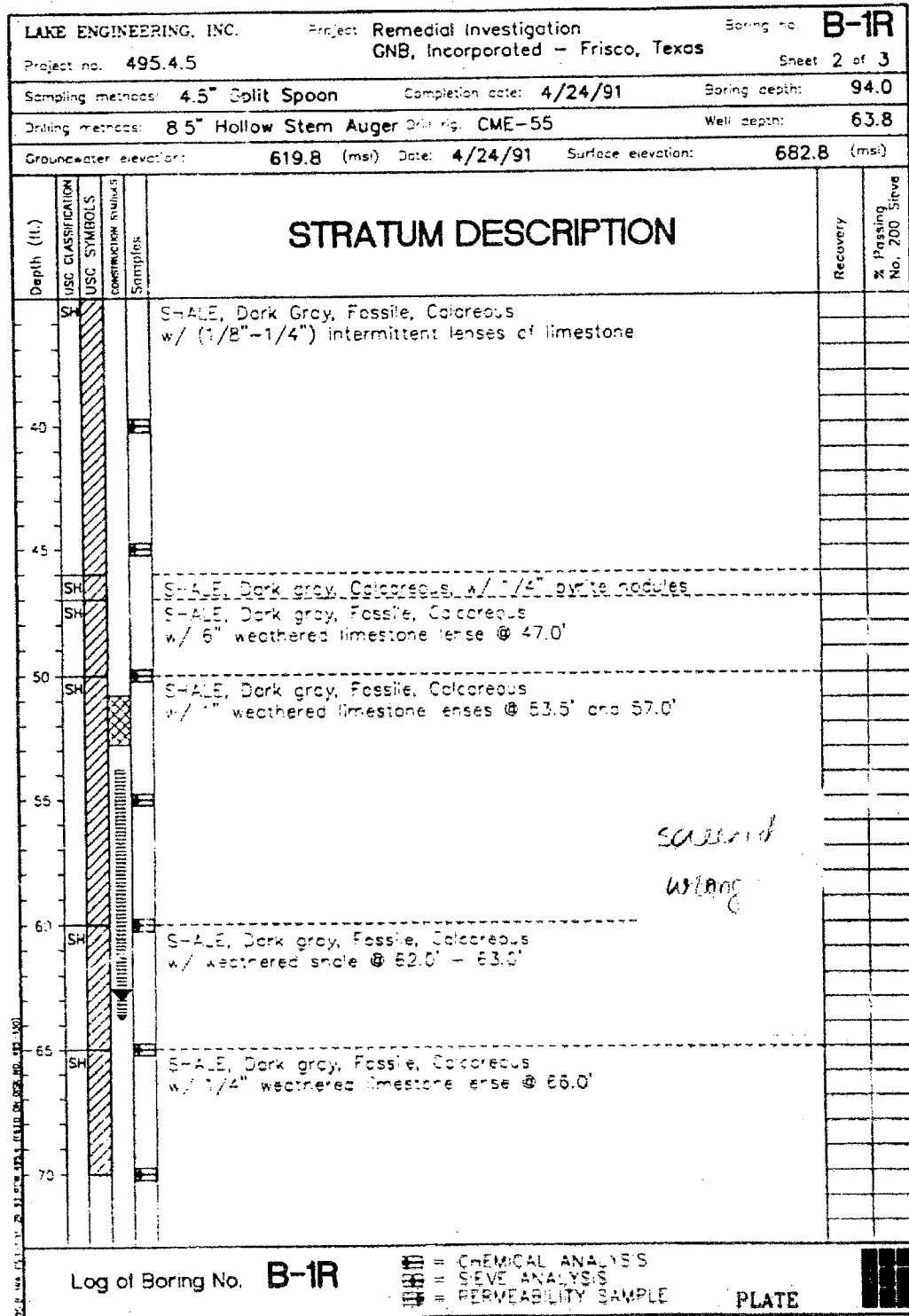
Surface elevation: 682.8 (msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION		Recovery	% Passing No. 200 Sieve
	LS				LIMESTONE, (Austin Chalk Group), Light Brown			
	CH				CLAY, Light brown, weathered			
5	SH				S-SALE, Dark gray w/ 1/4" hard limestone lenses @ 13.5'			
10								
15	SH				SHALE, Dark gray, Fossile, Calcareous			
20								
25								
30								
35								
40	SH				SHALE, Dark gray, Fossile, Calcareous w/ fine limestone weathered lenses			
45								
50								
55								
60								
65								
70								
75								
80								
85								
90								
94.0								

Log of Boring No. **B-1R**

 = CHEMICAL ANALYSIS
 = SEVE ANALYSIS





LAKE ENGINEERING, INC

Project: Remedial Investigation

Boring no. **B-1R**

Project no. 495.4.5

GNB, Incorporated - Frisco, Texas

Sheet 3 of 3

Sampling methods: 4.5" Split Spoon

Completion date: 4/24/91

Boring depth: 94.0

Drilling methods: 8.5" Hollow Stem Auger Drilling: CME-55

Well depth: 63.8

Groundwater elevation:




619.8 (msl) Date: 4/24/91

Surface elevation:

682.8 (msl)

Depth (ft.)	USC CLASSIFICATION USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
74.5	SH			SHALE, Dark gray, Fossile, Calcareous w/ 5" weathered limestone lense @ 74.5' - 75.0'		
75.0	SH			SHALE, Dark gray, Fossile, Calcareous w/ fine intermittent limestone lenses from 75.0' - 76.0'		
80.0	SH			SHALE, Dark gray, Fossile, Calcareous		
85.0	SH			SHALE, Dark gray, Fossile, Calcareous w/ fossils from 85.0' - 87.0'		
90.0						
95.0						
100.0						
105.0						

Log of Boring No. **B-1R**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **B-2R**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet 1 of 1

Sampling methods: **4.5" Split Spoon**Completion date: **7/11/90**Boring depth: **19.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **17.0**

Groundwater elevation:

633.76

(msl)

Date: **7/16/90**

Surface elevation:

642.79

(msl)

STRATUM DESCRIPTION

Depth (ft.)

USC CLASSIFICATION

USC SYMBOLS

CONSTRUCTION SYMBOLS

Samples

Recovery

% Passing
No. 200 Sieve

CL

CLAY, dry, calcareous pebbles

5

CL

CLAY, shaley

10

15

SH

SHALE

20

25

30

35

Log of Boring No. **B-2R**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.

Project Remedial Investigation
GNB, Incorporated - Frisco, TexasBoring no. **B-3R**Project no. **495.4.5**

Sheet 1 of 1

Sampling methods: **4.5" Split Spoon**Completion date: **7/21/90**Boring depth: **14.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **14.0**

Groundwater elevation:

638.51

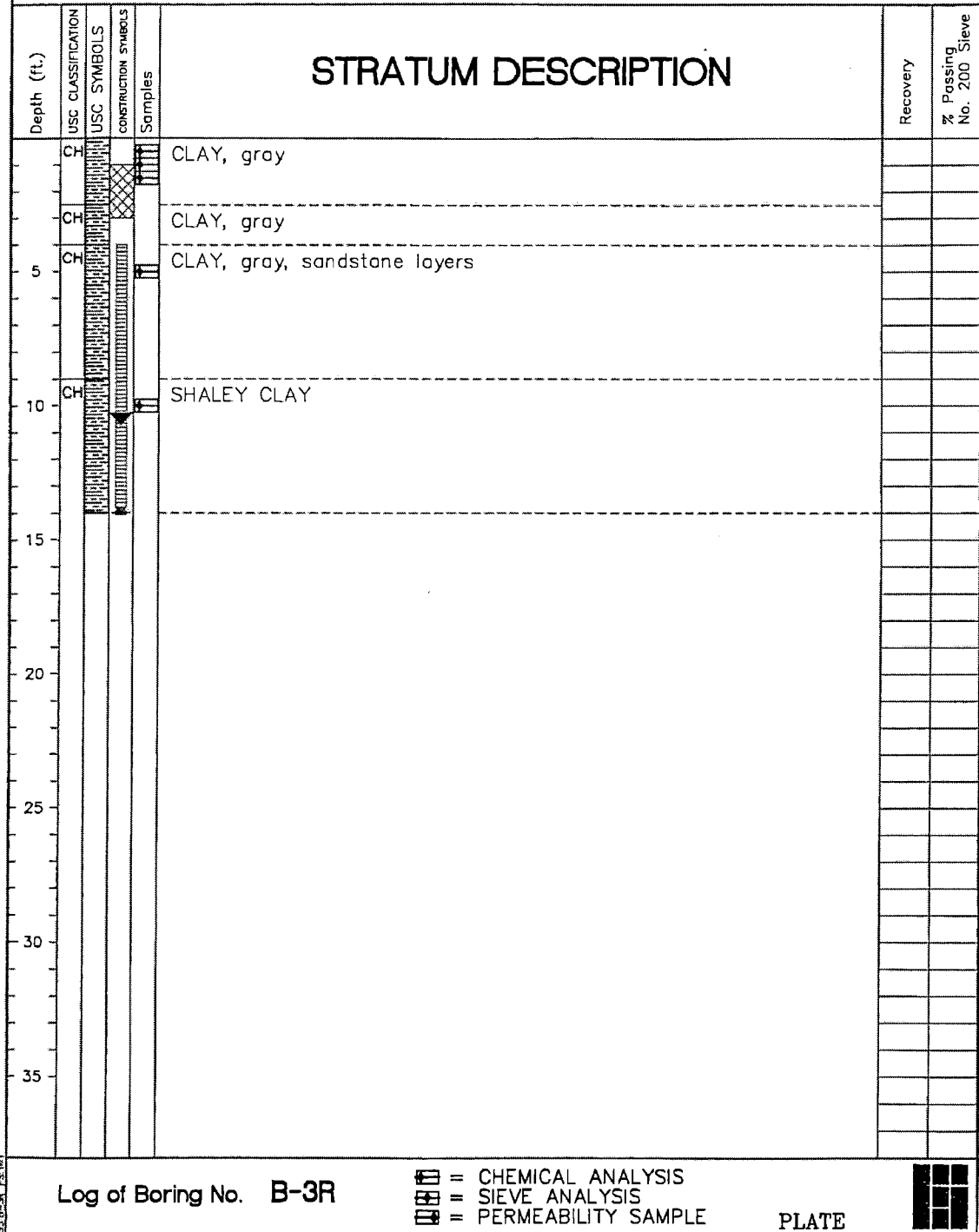
(msl)

Date: **7/16/90**

Surface elevation:

649.23

(msl)

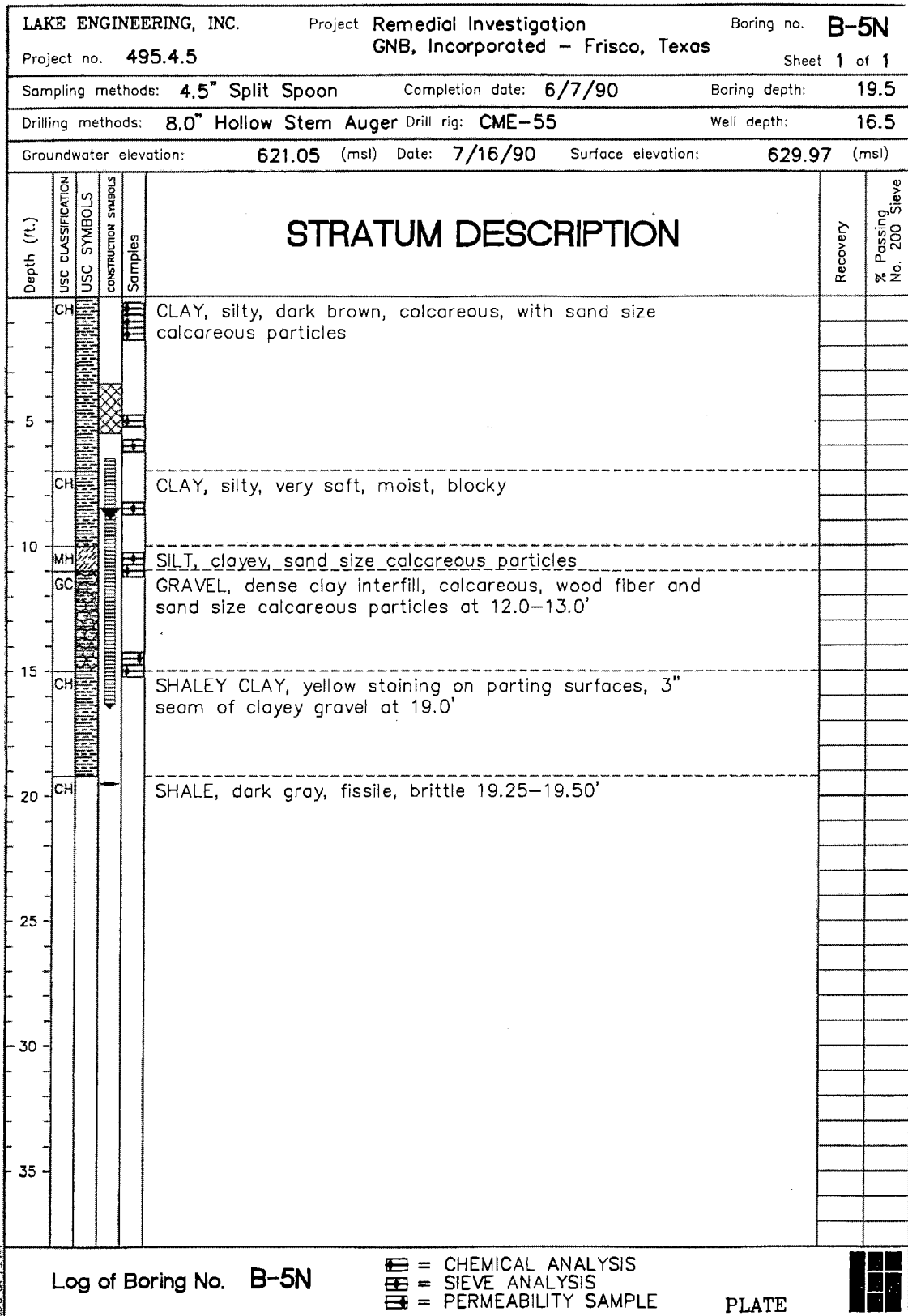


LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. B-4R	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 7/11/90		Boring depth: 9.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 9.0	
Groundwater elevation: 654.44 (msl)		Date: 7/16/90		Surface elevation: 661.40 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CL				CLAY, dry		
5	CL				SHALEY CLAY		
	SH				SHALE, dark gray		
10							
15							
20							
25							
30							
35							

Log of Boring No. B-4R	= CHEMICAL ANALYSIS = SIEVE ANALYSIS = PERMEABILITY SAMPLE	PLATE	
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495 B-4R PS, Inc.



LAKE ENGINEERING, INC.

Project Remedial Investigation
GNB, Incorporated - Frisco, TexasBoring no. **B-7N**

Project no. 495.4.5

Sheet 1 of 1

Sampling methods: 4.5" Split Spoon

Completion date: 5/10/90

Boring depth: 25.0

Drilling methods: 8.0" Hollow Stem Auger Drill rig: CME-55

Well depth: 24.0

Groundwater elevation:

634.66 (msl) Date: 7/16/90


Surface elevation:

644.08 (msl)

STRATUM DESCRIPTION

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	Recovery	% Passing No. 200 Sieve
	CH			CLAY, dark brown to brown, calcareous, increase in amount and size of calcareous particles at depth		
5	CH			CLAY, gray mottled tan, slightly moist, blocky, with calcareous pebbles		
10	CH			CLAY, gray mottled tan, calcareous, fewer and smaller calcareous particles pebbles than above		
15	CH			SHALEY CLAY, gray, yellow and tan weathering, selenite crystals on parting surfaces		
20	SH			SHALE, dark gray, clayey, moist, very brittle, less brittle and more fissile at depth, shell fragments 23-25'		
25						
30						
35						

Log of Boring No. **B-7N**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

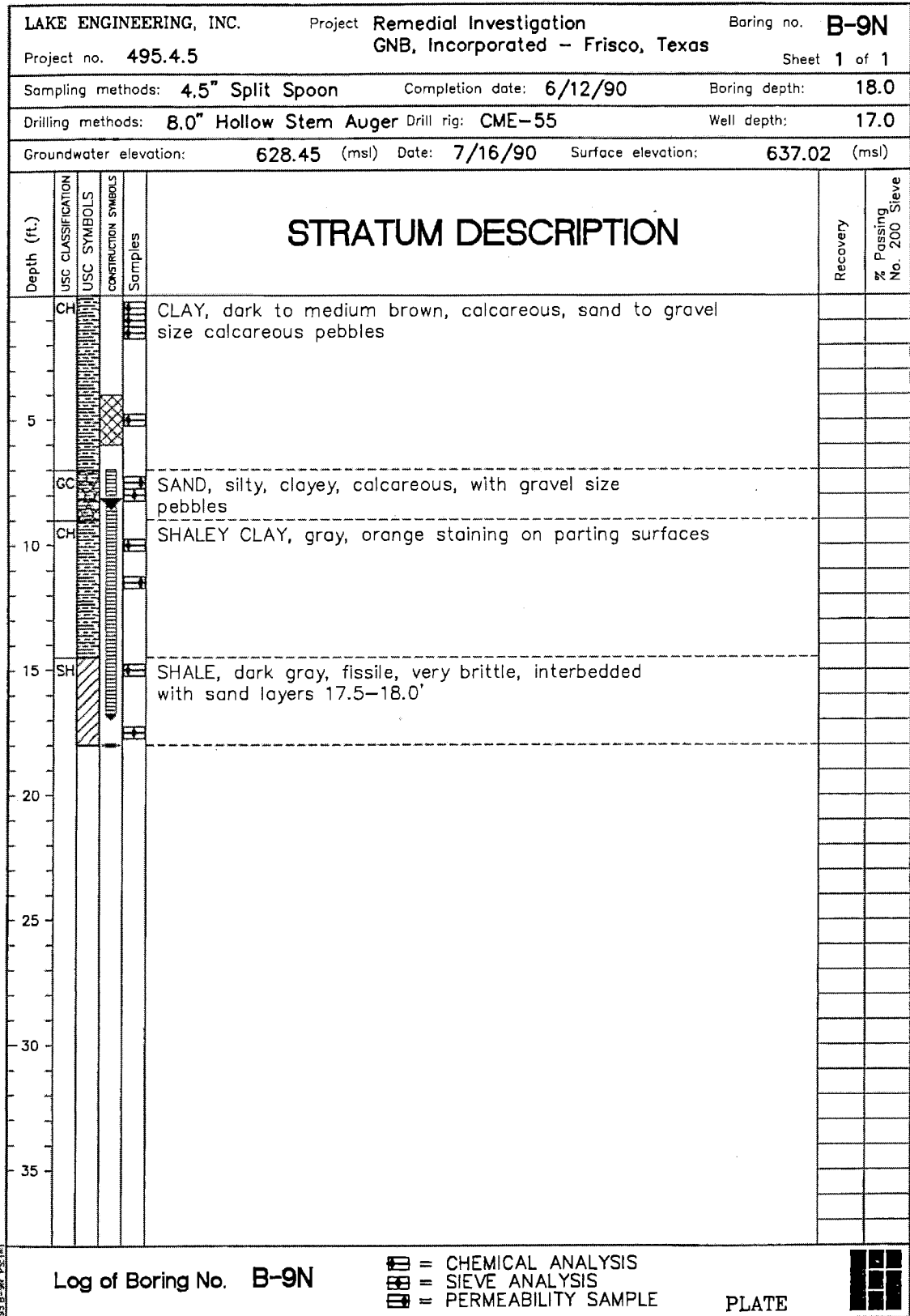
PLATE



LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. B-8N	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 5/15/90		Boring depth: 20.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 14.0	
Groundwater elevation: 618.89 (msl)		Date: 7/16/90		Surface elevation: 626.93 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, highly plastic, calcareous, shell fragment at 3'		
5	CH				CLAY, dark brown, highly plastic, with calcareous pebbles		
	CH				SHALEY CLAY, gray, highly plastic, calcareous, light yellow and orange weathering on parting surfaces		
10	CH				SHALEY CLAY, gray, yellow weathering on parting surfaces		
	CH				SHALEY CLAY, dark gray, light yellow staining on parting surfaces		
15	SH				SHALE, dark gray, fissile, thin sand lenses		
	SH				SHALE, dark gray, brittle, fissile, very dry		
	SH				SHALE, dark gray, moderately fissile		
20							
25							
30							
35							

Log of Boring No. B-8N	<div style="display: flex; justify-content: space-between;"> = CHEMICAL ANALYSIS = SIEVE ANALYSIS </div> <div> = PERMEABILITY SAMPLE</div>	PLATE
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LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW10**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet **1** of **1**Sampling methods: **4.5" Split Spoon**Completion date: **6/13/90**Boring depth: **19.0**Drilling methods: **8.0" Hollow Stem Auger**Drill rig: **CME-55**Well depth: **17.0**

Groundwater elevation:

637.95

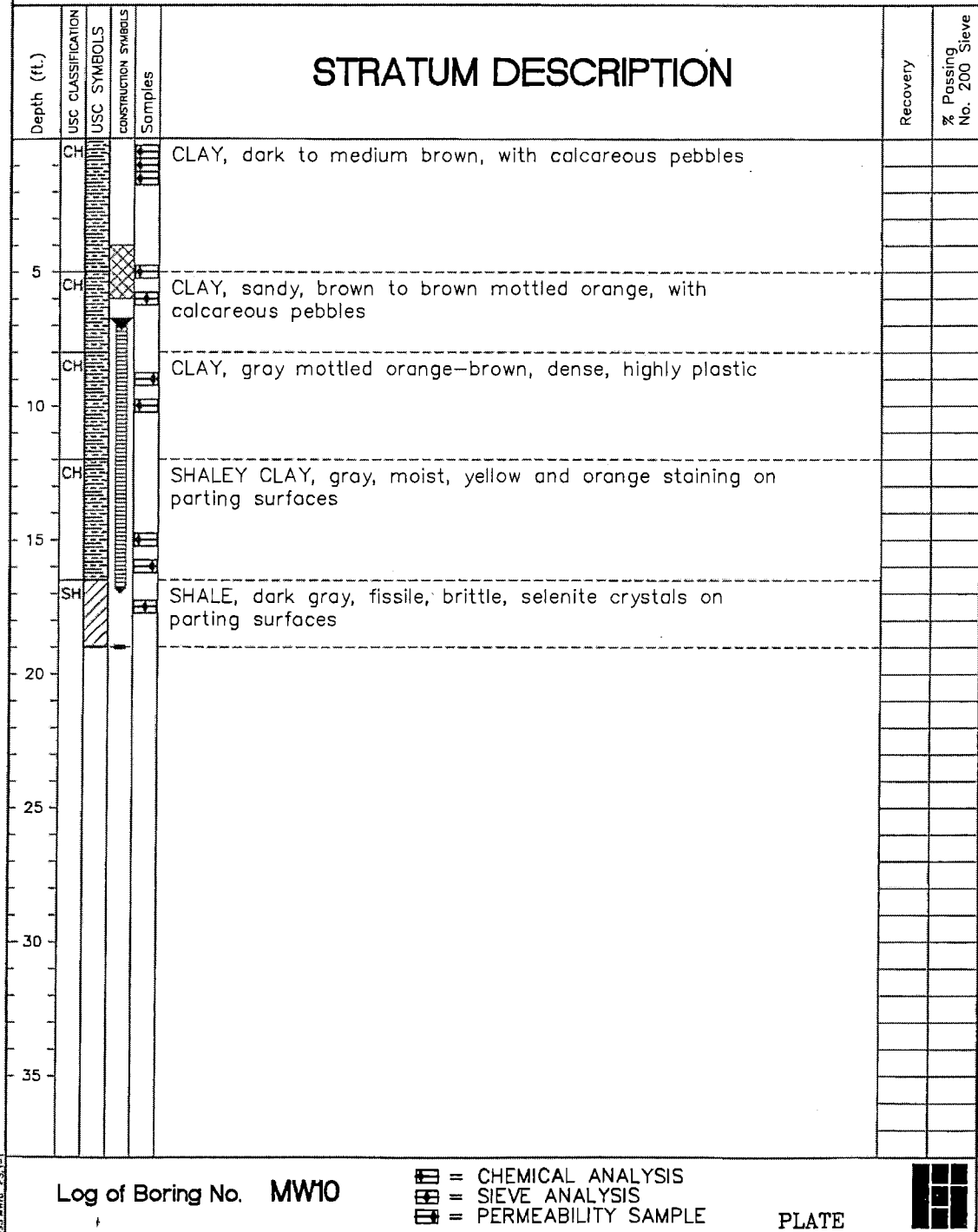
(msl)

Date: **7/16/90**

Surface elevation:

645.12

(msl)



LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW11**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet 1 of 1

Sampling methods: **4.5" Split Spoon**Completion date: **6/11/90**Boring depth: **19.0**Drilling methods: **8.0" Hollow Stem Auger Drill rig: CME-55**Well depth: **17.0**

Groundwater elevation:

615.76

(msl)

Date: **7/16/90**




Surface elevation:

625.58

(msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, dense, highly plastic, calcareous, blocky with calcareous pebbles, shell fragment at 18.0"		
5	CH				CLAY, dark to medium brown, highly plastic, calcareous, moist, larger calcareous pebbles at depth		
10	GC				GRAVEL, sandy, clayey, calcareous		
	CH				CLAY, light brown to gray, moist, highly plastic		
15	SH				SHALE, dark gray, brittle, fissile		
20							
25							
30							
35							

Log of Boring No. **MW11**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW12	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 6/19/90		Boring depth: 18.5	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 18.5	
Groundwater elevation: 624.43 (msl)		Date: 7/16/90		Surface elevation: 633.94 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, medium brown, firm, calcareous pebbles		
5	CH				CLAY, medium brown, firm, calcareous pebbles		
10	CH				CLAY, medium brown, firm, calcareous pebbles		
15	CH				SHALEY CLAY, brown to gray, yellow and orange weathering on parting surfaces Limestone, very hard, 1" layer-12'		
	SH				SHALE, dark gray, fissile		
20	SH				COMPOSITE LOG, 0-12.0' 1st, 12.0-18.5' 2nd, 6' offset NW		
25							
30							
35							

Log of Boring No. MW12

= CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE

LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW13	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 6/18/90		Boring depth: 25.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 22.0	
Groundwater elevation: 620.94 (msl)		Date: 7/16/90		Surface elevation: 636.17 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, fill		
5	CH				CLAY, dark brown, dense, stiff		
	CL				CLAY, moist, loose, blocky		
	CH				CLAY, dark brown, dense, stiff		
10	CL				CLAY, silty, dark brown, loose, moist, sand layers 8.0' and 9.0', shell fragments 11.0' and 12.0'		
15	CH				CLAY, dark brown, calcareous, stiff, no recovery 13.5-15.0'		
	CL				CLAY, silty, dark brown, calcareous		
20	SC				SILT, clayey, brown, calcareous		
	GM				GRAVEL, silty, sandy, wet		
	CH				SHALEY CLAY, gray, yellow staining on parting surfaces		
25	SH				SHALE, dark gray		
30							
35							

Log of Boring No. MW13	<div style="display: flex; justify-content: space-between;"> = CHEMICAL ANALYSIS = SIEVE ANALYSIS </div> <div> = PERMEABILITY SAMPLE</div>	PLATE
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LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW14**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet 1 of 1

Sampling methods: **4.5" Split Spoon**Completion date: **6/18/90**Boring depth: **20.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **17.0**

Groundwater elevation:

622.77 (msl)Date: **7/16/90**

Surface elevation:

629.89 (msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, blocky, calcareous, with calcareous pebbles		
5	CL				CLAY, sandy, gravelly, brown, slightly moist, dense, stiff		
10	CH				CLAY, slightly silty, light brown mottled gray, calcareous pebbles, weathered limestone layers 13' and 13.5'		
	CH				CLAY, gray mottled brown		
15	MH				SILT, clayey, moist		
	CH				SHALEY CLAY, dark gray, dry, brittle, yellow staining on parting surfaces		
	SH				SHALE, dark gray, brittle, fissile		
20							
25							
30							
35							

Log of Boring No. **MW14**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



495.4.5-1-1

LAKE ENGINEERING, INC.		Project Remedial Investigation GNB, Incorporated - Frisco, Texas		Boring no. MW15	
Project no. 495.4.5				Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 6/11/90		Boring depth: 22.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 22.0	
Groundwater elevation: 617.05 (msl)		Date: 7/16/90		Surface elevation: 624.99 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, moist, calcareous, blocky		
5	CH				CLAY, dark brown, blocky, moist, highly plastic, loose, shell fragments		
10	CH				CLAY, silty, sandy, dark gray, loose, very moist		
15	CL				CLAY, stiff, sand size calcareous pebbles		
	CH				CLAY, silty, dark brown mottled gray, calcareous, calcareous pebbles		
20	GW				GRAVEL, sandy, well graded, well rounded, calcareous, wet, clayey at 17.5-18.5'		
25	SH				SHALE, dark gray, weathered		
30							
35							

Log of Boring No. MW15	<div style="display: flex; justify-content: space-between;"> = CHEMICAL ANALYSIS = SIEVE ANALYSIS </div> <div> = PERMEABILITY SAMPLE </div>	PLATE
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LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW16	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 8	
Sampling methods: 4.5" Split Spoon		Completion date: 5/23/90		Boring depth: 269.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 77.5	
Groundwater elevation: 562.54 (msl)		Date: 7/16/90		Surface elevation: 627.93 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, blocky, calcareous, calcareous pebbles		
5	CH				CLAY, dark brown, moist, blocky		
10	CH				CLAY, brown, blocky, calcareous pebbles		
15	CH				CLAY, sandy, silty, gravelly, wet		
	CH				SHALEY CLAY, gray with yellow and orange staining on parting surface		
20	SH				SHALE, dark gray, brittle, fissile, grading to less brittle, yellow weathering on parting surface		
25	SH				SHALE, dark gray, shell fragments at 28.0' ((Rig change to Mobile B-53 for rock coring))		
30							
35							

Log of Boring No. **MW16**

= CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE

LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW16**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet **2 of 8**Sampling methods: **4.5" Split Spoon**Completion date: **5/23/90**Boring depth: **269.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **77.5**

Groundwater elevation:

562.54

(msl)

Date: **7/16/90**




Surface elevation:

627.93

(msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	SH				SHALE, dark gray, 1/4" clay layer at 36.0' and 37.0'		
40	SH				SHALE, dark gray, calcareous particles on parting surface from 42.0' to 136.0'		
45	SH				SHALE, dark gray, pyrite found at 48.5', 4" limestone layer at 53.0'		
50							
55	SH				SHALE, dark gray, sandstone layers at 59.5' and 61.5' clay lense at 62.0', sandstone layers at 64.0' and 64.5'		
60							
65	SH				SHALE, dark gray, limestone layers at 66.0', 66.5', and 68.0'		
70							

Log of Boring No. **MW16**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW16**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet **3 of 8**Sampling methods: **4.5" Split Spoon**Completion date: **5/23/90**Boring depth: **269.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **77.5**

Groundwater elevation:

562.54

(msl)

Date: **7/16/90**




Surface elevation:

627.93

(msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION		Recovery	% Passing No. 200 Sieve
	SH				SHALE, dark gray, limestone layers at 73.0' and 73.5'			
75	SH				SHALE, dark gray, limestone layers at 76.5', 79.0', and 84.5', sand layers at 82.0' and 84.0'			
80								
85	SH				SHALE, dark gray, limestone layer at 86.0'			
90								
95	SH				SHALE, dark gray, limestone layers at 96.0', 97.0', 103.0', and 104.0'			
100								
105								

Log of Boring No. **MW16**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



495 MW16 PG. 3 of 8

LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW16	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 4 of 8	
Sampling methods: 4.5" Split Spoon		Completion date: 5/23/90		Boring depth: 269.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 77.5	
Groundwater elevation: 562.54 (msl)		Date: 7/16/90		Surface elevation: 627.93 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	SH				SHALE, dark gray, limestone layer at 107.0' and 108.0' sandstone layer at 108.75' and 110.0'		
110	SH				SHALE, dark gray, limestone layer		
115	SH				SHALE, dark gray, limestone layers		
120	SH				SHALE, dark gray, thin limestone layers throughout fossil fragments found in limestone layers		
125							
130	SH				SHALE, dark gray, limestone layers, fractures at 60 at 136.0' and 136.5'		
135	SH				SHALE, dark gray, hard, dense, non-calcareous		
140	SH				SHALE, dark gray, non-calcareous particles		

Log of Boring No. MW16	<div style="display: flex; justify-content: space-between;"> <div> = CHEMICAL ANALYSIS = SIEVE ANALYSIS = PERMEABILITY SAMPLE </div> <div> PLATE </div> </div>
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LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW16**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet **5** of **8**Sampling methods: **4.5" Split Spoon**Completion date: **5/23/90**Boring depth: **269.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **77.5**

Groundwater elevation:

562.54

(msl)

Date: **7/16/90**




Surface elevation:

627.93

(msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	SH				SHALE, dark gray, non-calcareous particles		
145							
	SH				SHALE, dark gray, solid, non-calcareous		
150							
	SH				SHALE, dark gray, non-calcareous		
155							
160							
165							
	SH				SHALE, dark gray, 1.5" limestone layer at 173.0'		
170							
175							

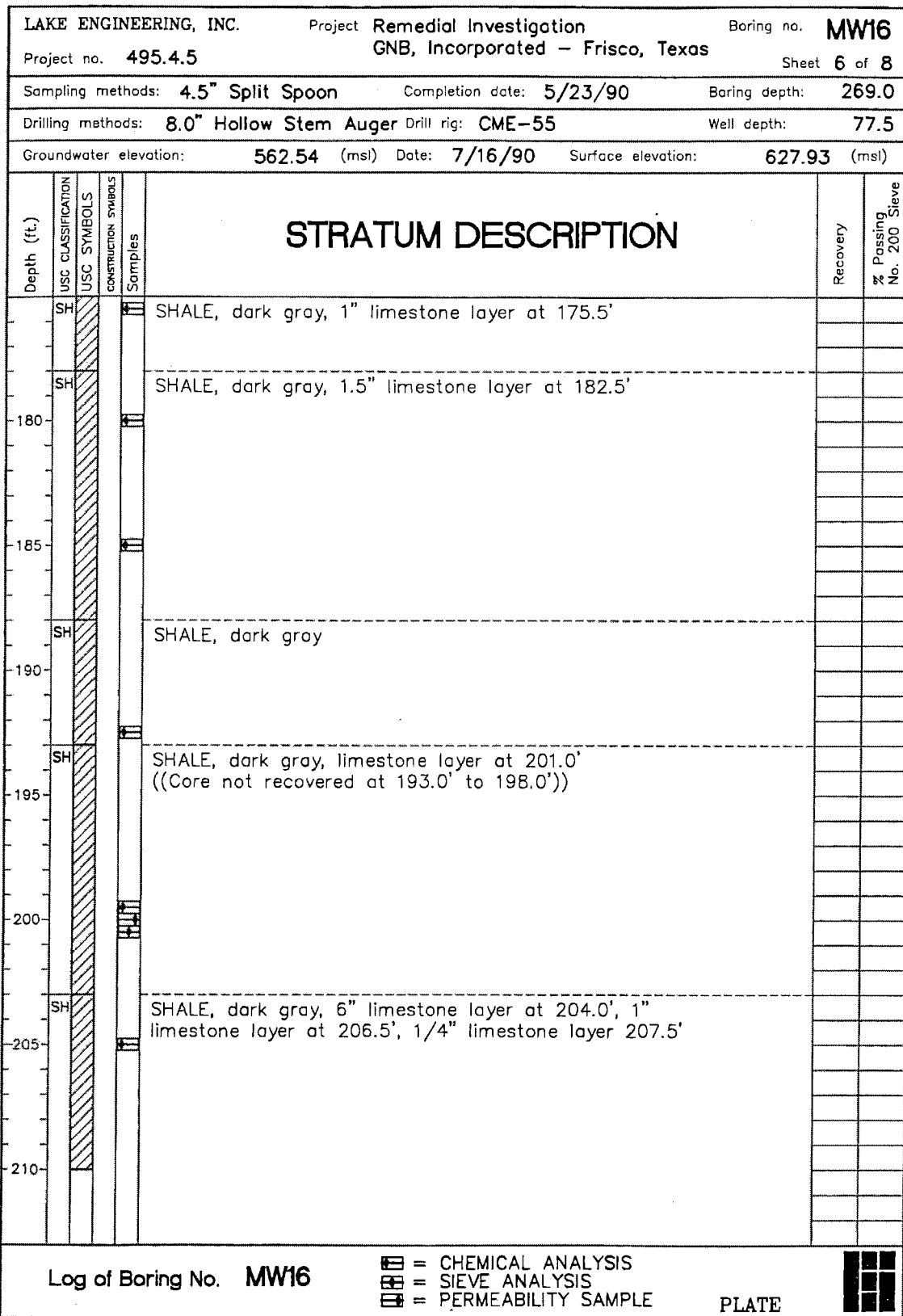
Log of Boring No. **MW16**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



495.4.5 MW16 PS-141



LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW16**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet **7 of 8**Sampling methods: **4.5" Split Spoon**Completion date: **5/23/90**Boring depth: **269.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **77.5**

Groundwater elevation:

562.54

(msl)

Date: **7/16/90**

Surface elevation:

627.93

(msl)

STRATUM DESCRIPTION

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	Recovery	% Passing No. 200 Sieve
	SH			SHALE, dark gray, limestone layer at 214.0'		
215						
	SH			SHALE, dark gray, 1/2" limestone layer at 227.5' and 228.0'		
220						
225						
	SH			1/4" limestone layer at 237.0'		
230						
235						
	SH			SHALE, dark gray, 1/2" siltstone layer at 239.0', several siltstone layers at 240.0' and 241.0'		
240						
245						

Log of Boring No. **MW16**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW16	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 8 of 8	
Sampling methods: 4.5" Split Spoon		Completion date: 5/23/90		Boring depth: 269.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 77.5	
Groundwater elevation: 562.54 (msl)		Date: 7/16/90		Surface elevation: 627.93 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	SH				SHALE, dark gray		
	SH				SHALE, dark gray, siltstone layers at 250.0' and 251.0'		
250							
	SH				SHALE, dark gray ((Core not recovered from 256.0' to 259.0'))		
255							
	SH				SHALE, dark gray, siltstone layers at 260.0' and 264.0' limestone layers at 264.0' and 268.0', EOB at 269.0'		
260							
265							
270							
275							
280							

Log of Boring No. **MW16**

= CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE

LAKE ENGINEERING, INC.

Project Remedial Investigation

Boring no. **MW16S**Project no. **495.4.5**

GNB, Incorporated - Frisco, Texas

Sheet 1 of 1

Sampling methods: **4.5" Split Spoon**Completion date: **6/6/90**Boring depth: **19.0**Drilling methods: **8.0" Hollow Stem Auger** Drill rig: **CME-55**Well depth: **17.0**

Groundwater elevation:

620.31

(msl)

Date: **7/16/90**




Surface elevation:

627.51

(msl)

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION		Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, blocky, highly plastic, clacareous			
5	CH				CLAY, silty, dark brown, blocky, highly plastic, calcareous			
10	CH				CLAY, dark brown, blocky, calcareous pebbles at 11.5' and 12.5'			
15	GC				GRAVEL, clayey, sandy, well rounded, calcareous			
	CH				SHALEY CLAY			
20	SH				SHALE, dark gray, weathered, fissile			
25								
30								
35								

Log of Boring No. **MW16S**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.

Project Remedial Investigation
GNB, Incorporated - Frisco, TexasBoring no. **MW17**

Project no. 495.4.5

Sheet 1 of 1

Sampling methods: 4.5" Split Spoon

Completion date: 6/7/90

Boring depth: 19.0

Drilling methods: 8.0" Hollow Stem Auger Drill rig: CME-55

Well depth: 17.0

Groundwater elevation:

620.83 (msl) Date: 7/16/90

Surface elevation: 628.58 (msl)

STRATUM DESCRIPTION

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples		Recovery	% Passing No. 200 Sieve
	CH				CLAY, silty, dark brown, blocky		
5	CH				CLAY, dark brown to brown, sand size calcareous pebbles		
	CH				CLAY, very soft, blocky, moist		
10	CH				CLAY, brown mottled gray, with zones of calcareous pebbles varying in grain size from sand to gravel		
15	CH				SHALEY CLAY, dark gray, light yellow staining on parting surfaces		
20	SH				SHALE, dark gray		
25							
30							
35							

Log of Boring No. **MW17**

 = CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE



LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW18	
Project no. 495.4.5		GNB, Incorporated - Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 6/12/90		Boring depth: 18.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 15.5	
Groundwater elevation: 626.17 (msl)		Date: 7/16/90		Surface elevation: 631.84 (msl)	

Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark to light brown, with calcareous pebbles		
5	GC				GRAVEL, clayey, sandy, dense, calcareous		
	CH				CLAY, gray mottled orange, moist, very plastic, interbedded with light yellow slit laminae		
10	CH				SHALEY CLAY, gray mottled orange-brown, some interbedded light yellow silt and iron stained laminae		
15	SH				SHALE, dark gray, wet		
20							
25							
30							
35							

Log of Boring No. MW18	<div style="display: flex; justify-content: space-between;"> = CHEMICAL ANALYSIS = SIEVE ANALYSIS </div> <div> = PERMEABILITY SAMPLE</div>	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <p>PLATE</p>
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**Phase I RCRA Facility Investigation Addendum Disposal Area Boring Description Tables
(Lake, 1993)**

TABLE 12-1a
Delineation Boring Descriptions
North Landfill

Boring Number	Total Depth	Description
NB-1	12'	0-2' clay; 2-4' trash; 4-12' clay; 12' water
NB-2	13'	0-12' trash; 7' water; 13' slag
NB-3	7'	0-2' clay; 2-3' organics; 3-7' clay; 6' water
NB-4	12'	0-12' clay; 12' water
NB-5	12.5'	0-3' clay; 3-12.5' trash; 12.5' slag; 12' water
NB-6	14'	0-2' clay; 2-5' trash; 5-14' clay; 14' slag; 7' water
NB-7	10'	0-2' clay; 2-3' trash; 3-10' clay; 10' water
NB-8	14'	0-3' clay; 3-6' trash; 6-14' clay; 14' slag; 12' water
NB-9	10'	0-2' clay; 2-3' trash; 3-10' clay; 10' water
NB-10	7'	0-7' clay; 7' water
NB-11	10'	0-2' clay; 2-8' trash; 8-10' clay; 10' water
NB-12	8'	0-2' clay; 2-3' trash; 3-8' clay; 8' water
NB-13	5'	0-1' clay; 1-5' trash; 2-3' slag; 5' water
NB-14	8'	0-2' clay; 2-3' organics; 3-8' clay; 8' water
NB-15	4'	0-3' clay; 3-4' trash/organics; 4' water
NB-16	14'	0-3' clay; 3-4' trash; 4-14' clay; 14' slag; 4-5' water
NB-17	14.5'	0-3' clay; 3-14.5' trash; 14.5' slag; 4' water
NB-18	5'	0-2' clay; 2-5' trash/organics; 5' water
NB-19	15'	0-3' clay; 3-15' slag/organics; 15' slag; 7' water
NB-20	14'	0-3' clay; 3-14' trash; 14' slag; 7' water
NB-21	20'	0-3' clay; 3-20' trash; 20' clay; 4' water
NB-22	8'	0-2' clay; 2-8' trash; 8' water
NB-23	20'	0-3' clay; 3-9' trash/organics; 9-20' clay; 14' water
NB-24	9'	0-0.5' clay; 0.5-2.5' rubber; 9' carpet; 5' water
NB-25	13'	0-3' clay; 3-12' trash/organics; 13' slag; 8' water
NB-26	20'	0-2' clay; 2-3' trash; 3-20' clay; 14' water
NB-27	10'	0-0.5' clay; 0.5'-1' rubber; 1-10' clay; 10' water
NB-28	11'	0-1' clay; 1-5' slag; 5-10' trash; 11' slag

TABLE 12-1a (Continued)
Delineation Boring Descriptions
North Landfill

Boring Number	Total Depth	Description
NB-29	6'	0-4' clay; 4-6' trash; 6' water
NB-30	10'	0-4' clay; 4-10' wire
NB-31	7'	0-7' clay; 7' water
NB-32	8'	0-2' clay; 2-8' trash; 8' water
NB-33	12'	0-4' clay; 4-12' trash; 10' water
NB-34	9'	0-3' clay; 3-8' trash; 9' water
NB-35	12'	0-3' clay; 3-12' trash
NB-36	6'	0-6' clay; 6' water
NB-37	6'	0-2' clay; 2-3' trash; 3-6' clay; 6' water
NB-38	10'	0-4' clay; 4-6' trash; 10' water
NB-39	12'	0-4' clay; 4-12' trash/organics
NB-40	4'	0-4' clay; 4' trash/rubber
NB-41	10'	0-3' clay; 3-4' organics; 4-10' clay; 10' water
NB-42	10'	0-2' clay; 2-3' trash; 3-10' clay; 10' water
NB-43	12'	0-1' clay; 1-2' trash; 2-10' clay; 10-12' sand; 10' water
NB-44	6'	0-6' clay
NB-45	2'	0-2' clay; 2' trash
NB-46	5'	0-5' clay; 5' trash
NB-47	2'	0-1' clay; 1-2' slag
NB-48	2'	0-1' clay; 1-2' slag
NB-49	3'	0-2' clay; 2-3' slag
NB-50	1'	0-0.5' clay; 0.5-1' slag
NB-51	3'	0-2' clay; 2-3' slag/rubber
NB-52	3'	0-2' clay; 2-3' slag
NB-53	3'	0-2.5' clay; 2.5-3' slag/rubber
NB-54	7'	0-7' clay; 7-8' trash

445-95 TABLE 12-1A

TABLE 12-3a
Delineation Boring Descriptions
South Landfill

Boring Number	Total Depth	Description
SB-1	8'	0-2' clay; 2-8' slag/rubber; 8' shale
SB-2	6'	0-6' clay
SB-3	2'	0-1' clay; 1-2' slag
SB-4	6'	0-6' clay
SB-5	4'	0-3' clay; 3-4' slag
SB-6	10'	0-10' clay
SB-7	3'	0-2' clay; 2-3' slag
SB-8	10'	0-10' clay
SB-9	10'	0-10' clay
SB-10	10'	0-10' clay
SB-11	4'	0-3' clay; 3-4' slag
SB-12	10'	0-10' clay
SB-13	10'	0-10' clay
SB-14	10'	0-10' clay
SB-15	4'	0-3' clay; 3-4' slag
SB-16	6'	0-6' clay
SB-17	6'	0-6' clay
SB-18	3'	0-3' clay
SB-19	4'	0-3' clay; 3-4' slag
SB-20	10'	0-10' clay
SB-21	10'	0-10' clay
SB-22	10'	0-10' clay
SB-23	4'	0-3' clay; 3-4' slag
SB-24	4'	0-3' clay; 3-4' slag
SB-25	10'	0-10' clay
SB-26	3'	0-2' clay; 2-3' slag
SB-27	4'	0-3' clay; 3-4' slag

W-93-TABLE 12-3A

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06DDATE 6/11/2015

LOCATION Class 2 Landfill

DRILLER SCI, Vincent Burnham

TIME 1125

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

[illegible]

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Class 2 Landfill

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06E

DATE 6/08/2015

LOCATION Class 2 Landfill

DRILLER SCI, Vincent Burnham

TIME 1435

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<div><div>2.6</div><div>4.0</div></div>	0.0-0.5 (1445)	0.0-2.0 FT, (ML) CLAYEY SILT with some gravel, loose, organic material; brown; very dry, hard.
				0.5-2.0 (1445)	
				2.0-4.0 (1445)	2.0-4.0 FT, (CH) CLAY; brown, trace gravel; dry, firm.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Class 2 Landfill

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06FDATE 6/08/2015LOCATION Class 2 LandfillDRILLER SCI, Vincent BurnhamTIME 1440TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1500)	0.0-0.25 FT, (ML) CLAYEY SILT; brown, loose, organic material; very dry.
					0.25-1.0 FT, (CL) SILTY CLAY, some fine-medium grain gravel (<10%); organics; brown; dry, stiff.
				0.5-2.0 (1500)	1.0-4.0 FT, (CH) CLAY; dark brown, white mottling; dry, stiff.
	1	N/A	<u>3.92</u> 4.0	2.0-4.0 (1500)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Class 2 LandfillREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06GDATE 07/29/2015

LOCATION Class 2 Landfill

DRILLER SCI, Vincent BurnhamTIME 0732

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
<div>5</div> <div>10</div> <div>15</div>	1	N/A	<div><div>3.95</div><div>4.0</div></div>	0.0-0.5 (0745)	0.0-1.0 FT, (CH) CLAY with some silt; dark brown, white motteling; dry.
				0.5-2.0 (0745)	1.0-2.5 FT, (CH) CLAY; dark brown/black; dry, very stiff.
					1.0 FT, area of gypsum deposits (<4%).
				2.0-4.0 (0745)	2.5-4.0 FT, (CH) CLAY and GRAVEL; dark brown/black; dry, very stiff.

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION Class 2 Landfill

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06HDATE 07/29/2015LOCATION Class 2 LandfillDRILLER SCI, Vincent BurnhamTIME 0721TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	<u>4.0</u> 4.0	0-0.5 FT, GRAVEL	0-0.5 FT, GRAVEL
				0.5-1.0 (0730)	0.5-4.0 FT, (CH) CLAY; dark brown; dry, very stiff.
				1.0-2.5 (0734)	
				2.5-4.0 (0737)	
10					End of borehole at 4 FT BGS
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Class 2 LandfillREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2I-06JDATE 07/29/2015LOCATION Class 2 LandfillDRILLER SCI, Vincent BurnhamTIME 0752TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.0</u> 4.0	0.0-0.5 (0800)	0.0-3.5 FT, (MLG) GRAVEL and SILT; tan; very dry, very dry.
				0.5-2.0 (0803)	
				2.0-4.0 (0805)	
					3.5-4.0 FT, (CLG) CLAY and GRAVEL; tan; dry, firm.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Class 2 LandfillREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06KDATE 07/29/2015

LOCATION Class 2 Landfill

DRILLER SCI, Vincent BurnhamTIME 0757

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2.0</u> 4.0	0.0-0.5 (0825)	0.0-3.5 FT, (CL/MLG) CLAY, GRAVEL and SILT; brown; very dry, loose.
					0.5-1.0 FT, (CL/MLG) CLAY, GRAVEL and SILT; brown; dry, loose.
				0.5-2.0 (0827)	1.0-4.0 FT, (CL/MLS) GRAVEL, CLAY, and SAND; brown; slightly moist, firm.
				2.0-4.0 (0850)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION Class 2 Landfill

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-C01DDATE 6/11/2015LOCATION Class 2 LandfillDRILLER SCI, Vincent BurnhamTIME 1527TOTAL DEPTH 1 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>1</u> 1.0	0.0-0.5 (1535) 0.5-1.0 (1535)	0-1.0 FT, (CH) CLAY with some gravel; brown with orange mottling; dry, stiff.
5					End of borehole at 1 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Class 2 LandfillREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-15ADATE 6/08/2015

LOCATION Crystallizer Area

DRILLER SCI, Vincent Burnham

TIME 0955

TOTAL DEPTH 6 FT BGSRIG Geoprobe

NO. SAMPLES 4

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
0-5	1	N/A	<div>34.0</div>	0.0-0.5 (1000)	0-6.0 FT, (CH) CLAY; dark brown, light brown, orange, & black mottling; dry, stiff.
				0.5-2.0 (1000)	
				2.0-4.0 (1000)	
5	2	N/A	<div>22.0</div>	4.0-6.0 (1000)	
6-16					End of borehole at 6 FT BGS

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Crystallizer Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-16ADATE 6/08/2015LOCATION Crystallizer AreaDRILLER SCI, Vincent BurnhamTIME 0915TOTAL DEPTH 6 FT BGSRIG GeoprobeNO. SAMPLES 4

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	$\frac{3}{4.0}$	0.0-0.5 (0925)	0-0.5 FT, (CL) SILTY CLAY, some gravel (<5%); brown; dry, firm.
				0.5-2.0 (0925)	0.5-4.5 FT, (CL) SILTY CLAY, some fine-medium grain gravel (<10%); organics; brown; dry, stiff.
				2.0-4.0 (0925)	
	2	N/A	$\frac{1.8}{2.0}$	4.0-6.0 (0925)	4.5-5.0 FT, (GC/ML) CLAYEY GRAVEL and some SILT; brown, dry, hard.
					5.0-6.0 FT, (CH) CLAY; dark brown, orange motteling; dry, firm.
10					End of borehole at 6 FT BGS
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Crystallizer AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-16BDATE 6/08/2015

LOCATION Crystallizer Area

DRILLER SCI, Vincent BurnhamTIME 0945

TOTAL DEPTH 6 FT BGS

RIG Geoprobe

NO. SAMPLES 4

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	$\frac{3.2}{4.0}$	0.0-0.5 (0950)	0-6.0 FT, (CH) CLAY, dark brown; dry, firm.
				0.5-2.0 (0950)	
				2.0-4.0 (0950)	
	2	N/A	$\frac{1.7}{2.0}$	4.0-6.0 (0950)	
					End of borehole at 6 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Crystallizer Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-16CDATE 6/08/2015LOCATION Crystallizer AreaDRILLER SCI, Vincent BurnhamTIME 1352TOTAL DEPTH 6 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	$\frac{3}{4.0}$	2.0-4.0 (1355)	0-0.5 FT, (CL) SILTY CLAY; brown; very dry, hard.
					0.5-6.0 FT, (CL) SILTY CLAY, dark brown; dry, firm.
	2	N/A	$\frac{1.4}{2.0}$	4.0-6.0 (1357)	
10					
15					
					End of borehole at 6 FT BGS

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Crystallizer AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-16D

DATE 07/27/2015

LOCATION Crystallizer Area

DRILLER SCI, Vincent Burnham

TIME 0951

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES_4

[illegible]

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION Crystallizer Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-FFTA-08A

DATE 6/11/2015

LOCATION Former Fire Fighter Training Area

DRILLER SCI, Vincent Burnham

TIME 1020

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
0-5	1	N/A	<u>4</u> 4.0	0.0-0.5 (1035)	0-1.0 FT, (CL) SILTY CLAY, some gravel; organics; brown; moist, soft.
				0.5-2.0 (1035)	1.0-3.0 FT, (CHG) CLAY and GRAVEL; tan/brown with orange and grey mottling; dry, stiff.
				2.0-4.0 (1035)	3.0-4.0 FT, (CH) CLAY; tan/orange with grey mottling; dry, stiff.
					End of borehole at 4 FT BGS
5-10					
10-15					
15-20					
20-25					
25-30					
30-35					
35-40					
40-45					
45-50					
50-55					
55-60					
60-65					
65-70					
70-75					
75-80					
80-85					
85-90					
90-95					
95-100					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Former Fire Fighter Training Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-MW-17CDATE 6/10/2015LOCATION Stewart Creek CorridorDRILLER SCI, Vincent BurnhamTIME 1243TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2.8</u> 4.0	0.0-0.5 (1305)	0-4.0 FT, (CL) SILTY CLAY; dark brown, organics and ferrous nodules; dry, stiff, hard.
				0.5-2.0 (1305)	
				2.0-4.0 (1305)	
5					End of borehole at 4 FT BGS.
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Stewart Creek CorridorREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-MW-17DDATE 6/10/2015LOCATION Stewart Creek CorridorDRILLER SCI, Vincent BurnhamTIME 1253TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
					0-0.75 FT, (CL) SILTY CLAY with some gravel; brown; dry, hard.
				0.5-2.0 (1310)	0.75-4.0 FT, (CL) SILTY CLAY; dark brown; dry, stiff.
	1	N/A	<u>2.8</u> 4.0	2.0-4.0 (1310)	
5					End of borehole at 4 FT BGS.
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Stewart Creek CorridorREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-NDA-11DATE 6/11/2015

LOCATION North Disposal Area

DRILLER SCI, Vincent BurnhamTIME 0902

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS	
	1	N/A	<u>3.2</u> 4.0	0.0-0.5 (0925)	0-0.5 FT, (CL) SILTY CLAY with organics; brown; slightly moist, firm.	
				0.5-2.0 (0925)	0.5-4.0 FT, (CH) CLAY with some gravel; dark brown; slightly moist, stiff.	
					2.0-4.0 (0925)	
5					End of borehole at 4 FT BGS	
10						
15						

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION North Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-NDA-12

DATE 6/11/2015

LOCATION North Disposal Area

DRILLER SCI, Vincent Burnham

TIME 1040

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<div> <div>2.8</div> <div>4.0</div> </div>	0.0-0.5 (1110)	0-0.5 FT, (CH) CLAY, some gravel and organics; dark brown; dry, stiff.
				0.5-2.0 (1110)	0.5-4.0 FT, (CH) CLAY, some gravel; dark brown/black; dry, stiff.
				2.0-4.0 (1110)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION North Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-NDA-13DATE 6/11/2015

LOCATION North Disposal Area

DRILLER SCI, Vincent Burnham

TIME 0955

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
<div>5</div> <div>10</div> <div>15</div>	1	N/A	<div>2.8</div> <div>4.0</div>	0.0-0.5 (1000)	0-0.5 FT, (CH) CLAY; brown; moist, soft.
				0.5-2.0 (1000)	0.5-1.5 FT, (CH) CLAY; tan orange mottling; dry, firm.
					1.5-1.75 FT, (CH/GC) GRAVELLY CLAY; tan with orange mottling; dry, firm.
					2.0-3.5 FT, (CH) CLAY; tan; dry, firm.
	2.0-4.0 (1000)	3.5-3.75 FT, (CH/GC) GRAVELLY CLAY; tan with orange mottling; dry, firm.			
		3.75-4.0 FT, (CH) CLAY; tan; dry, firm.			
		End of borehole at 4 FT BGS			

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION North Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16A

DATE 6/10/2015

LOCATION Stewart Creek Corridor

DRILLER SCI, Vincent Burnham

TIME 0930

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

[illegible]

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Stewart Creek Corridor

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16BDATE 6/10/2015

LOCATION Stewart Creek Corridor

DRILLER SCI, Vincent BurnhamTIME 0958

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.6</u> 4.0	0.0-0.5 (1005)	0-0.75 FT, (CL) SILTY CLAY; dark brown with orange and light brown mottling; organics; very dry, hard.
				0.5-2.0 (1005)	0.75-4.0 FT, (CH) CLAY with some gravel; dark brown with orange mottling; dry, very stiff.
				2.0-4.0 (1005)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Stewart Creek Corridor

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16CDATE 6/10/2015

LOCATION Stewart Creek Corridor

DRILLER SCI, Vincent BurnhamTIME 0946

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2</u> 4.0	0.0-0.5 (0955)	0-0.5 FT, (CL) SILTY CLAY; brown, organics; very dry, firm.
				0.5-2.0 (0955)	0.5-4.0 FT, (CH) CLAY; dark brown, ferrous nodules; dry, stiff.
				2.0-4.0 (0955)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Stewart Creek Corridor

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16DDATE 6/10/2015LOCATION Stewart Creek CorridorDRILLER SCI, Vincent BurnhamTIME 0940TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
					0-0.25 FT, (CL) SILTY CLAY; brown; organics; dry, firm. 0.25-4.0 FT, (CH) CLAY; dark brown with light grey mottling; dry, stiff.
	1	N/A	<u>3.4</u> 4.0	0.5-2.0 (0945) 2.0-4.0 (0945)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Stewart Creek CorridorREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16EDATE 07/27/2015

LOCATION Stewart Creek Corridor

DRILLER SCI, Vincent Burnham

TIME 0900

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<div> <div>4.0</div> <div>4.0</div> </div>	0.0-0.5 (0912)	0-0.5 FT, (CH) CLAY; dark brown; mostly dry, firm.
					0.5-0.75 FT, (CLG) SILTY CLAY and GRAVEL; grey; very dry, loose.
				0.5-2.0 (0914)	0.75-4.0 FT, (CH) CLAY; dark brown/black; mostly dry, firm
				2.0-4.0 (0916)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION Stewart Creek Corridor

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16FDATE 07/27/2015

LOCATION Stewart Creek Corridor

DRILLER SCI, Vincent Burnham

TIME 0911

TOTAL DEPTH 4 FT BGSRIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
0-5	1	N/A	<u>3.95</u> 4.0	0.0-0.5 (0925)	0-0.5 FT, (CH) CLAY, organics; dark brown; dry, firm.
				0.5-2.0 (0927)	0.5-4.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
				2.0-4.0 (0929)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION Stewart Creek Corridor

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16GDATE 07/27/2015LOCATION Stewart Creek CorridorDRILLER SCI, Vincent BurnhamTIME 0840TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	<u>4.0</u> 4.0	0.0-0.5 (1000)	0-0.5 FT, (CL) SILTY CLAY; brown; very dry, hard.
					0.5-1.0 FT, (CH) CLAY; red; very dry, hard.
				0.5-2.0 (1003)	1.0-4.0 FT, (CH) CLAY; brown with grey mottling; stiff, dry.
					2.0-3.0 with some sand.
				2.0-4.0 (1005)	
10					End of borehole at 4 FT BGS
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Stewart Creek CorridorREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SDA-3C

DATE 6/09/2015

LOCATION South Disposal Area

DRILLER SCI, Vincent BurnhamTIME 0939

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<div><div>3.6</div><div>4.0</div></div>	0.0-0.5 (0945)	0-0.5 FT, (ML) CLAYEY SILT, oragnics; brown; dry, firm.
				0.5-2.0 (0945)	0.5-4.0 FT, (CL) SILTY CLAY; dark brown; dry, firm.
				2.0-4.0 (0945)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION South Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-STB-6A

DATE 6/09/2015

LOCATION Slag Treatment Building DRILLER SCI, Vincent Burnham TIME 1357

TOTAL DEPTH 8 FT BGS RIG Geoprobe NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	4.7	<u>3.4</u> 4.0	1.0-2.0 (1405)	0-1.0 FT, Concrete.
					1.0-1.25 FT, FILL - (GP/SP) SAND, coarse, and GRAVEL, fine; dark black; slightly wet, loose, soft.
		1.25-1.5 FT, (CL) SILTY CLAY and gravel; dark brown; slightly wet, soft.			
		1.5-5.0 FT, (CH) CLAY; dark brown with black mottling; dry, stiff.			
	2	4.6	<u>1.6</u> 4.0	4.0-6.0 (1405)	5.0-8.0 FT, (CH) CLAY; dark brown; dry, stiff.
200		6.0-8.0 (1405)			
10					End of borehole at 8.0 FT BGS
15					

PROJECT No 130-2086 LOGGED BY AM

PROJECT Exide Frisco CHECKED BY JX

LOCATION	Slag Treatment Building	REVIEWED BY	JW
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LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-STB-6BDATE 6/09/2015LOCATION Slag Treatment BuildingDRILLER SCI, Vincent BurnhamTIME 1638TOTAL DEPTH 8 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	3.7	<u>3.6</u> 4.0	1.0-2.0 (1450)	0-1.0 FT, Concrete.
					1-2.5 FT, (CL) SILTY CLAY and gravel; dark brown; wet, soft.
		4.5		2.0-4.0 (1450)	2.5-8.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
	2	6.0	<u>3.8</u> 4.0	4.0-6.0 (1450)	
10		5.0			
15					End of borehole at 8.0 FT BGS

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Slag Treatment BuildingREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-STB-6C

DATE 6/09/2015

LOCATION Slag Treatment Building DRILLER SCI, Vincent Burnham TIME 1425

TOTAL DEPTH 8 FT BGS RIG Geoprobe NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	10.1	<u>3</u> 4.0	0.75-2.0 (1435)	0-0.75 FT, Concrete.
					0.75-1.25 FT, (ML) CLAYEY SILT; red with black mottling; slightly moist, soft. 1.25-1.3 FT, (CL) CLAY and GRAVEL; black, dry, thick/firm. 1.3-2.0 FT, (ML) SILT; light grey/white; dry, loose.
		7.2		2.0-4.0 (1435)	2.0-4.0 FT, (CL) CLAY; dark brown; dry, stiff.
	2	5.8	<u>3.6</u> 4.0	4.0-6.0 (1438)	4.0-5.0 FT, (CL) CLAY, with some gravel, dark brown and light brown; slightly wet, stiff.
					5.0-8.0 FT, (CL) CLAY, dark brown; dry, stiff.
		5.9			
10					End of borehole at 8 FT BGS
15					

PROJECT No 130-2086 LOGGED BY AM

PROJECT	Exide Frisco	CHECKED BY	JX
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LOCATION	Slag Treatment Building	REVIEWED BY	JW
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LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-ADATE 6/08/2015LOCATION South Disposal AreaDRILLER SCI, Vincent BurnhamTIME 1240TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	$\frac{4}{4.0}$	0.0-0.5 (1255)	0.0-4 FT, (CL) SILTY CLAY, dark brown/black, some light brown mottling; dry, firm.
				0.5-2.0 (1255)	
				2.0-4.0 (1255)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION South Disposal AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-BDATE 6/08/2015

LOCATION South Disposal Area

DRILLER SCI, Vincent BurnhamTIME 1248

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	$\frac{4}{4.0}$	0.0-0.5 (1300)	0-0.5 FT, (CL) SILTY CLAY, dark brown; very dry, hard.
				0.5-2.0 (1300)	0.5-4.0 FT, (CL) SILTY CLAY, dark brown; dry, firm.
				2.0-4.0 (1300)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION South Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-CDATE 6/08/2015

LOCATION South Disposal Area

DRILLER SCI, Vincent Burnham

TIME 1255

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.8</u> 4.0	0.0-0.5 (1310)	0-0.5 FT, (ML) CLAYEY SILT, organics; dark brown; dry, stiff.
				0.5-2.0 (1310)	0.5-4.0 FT, (CL) SILTY CLAY, trace fine grain gravel (<3%), brown; dry, firm.
				2.0-4.0 (1310)	
				5	
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION South Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-DDATE 07/27/2015

LOCATION South Disposal Area

DRILLER SCI, Vincent Burnham

TIME 0800

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.9</u> 4.0	0.0-0.5 (0810)	0-2.0 FT, (CH) CLAY; dark brown, some orange/ferrous mottling; dry, stiff, stiff-hard.
				0.5-2.0 (0812)	
				2.0-4.0 (0814)	2.0-4.0 FT, (CH) CLAY; dark brown, some light brown mottling; dry, stiff, hard.
5					End of borehole at 4 FT BGS
					</

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION South Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE D-11CDATE 6/10/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent BurnhamTIME 1340TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	$\frac{4}{4.0}$	0.5-2.0 (1345) 2.0-4.0 (1345)	0-4.0 FT, (CH) CLAY; dark brown/black; trace amounts of gravel (<2%), dry, very stiff.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION North Tributary Corridor and North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE D-11DDATE 6/10/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent Burnham TIME 1350TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	<u>0.75</u> 4.0	0.0-0.5 (1355)	0-0.5 FT, (CL) SILTY CLAY; light brown; slightly moist, soft.
				0.5-2.0 (1355)	0.5-4.0 FT, (CH) CLAY with some silt; dark brown with black mottling; dry, firm.
				2.0-4.0 (1355)	
					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086 LOGGED BY AMPROJECT Exide Frisco CHECKED BY JXLOCATION North Tributary Corridor and North Wooded Area REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE D-11EDATE 6/10/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent BurnhamTIME 1332TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	$\frac{4}{4.0}$	0.0-0.5 (1340)	0-0.25 FT, (CL) SILTY CLAY; brown; organics; very dry, hard.
				0.5-2.0 (1340)	0.5-4.0 FT, (CH) CLAY with some gravel; dark brown; dry, stiff.
				2.0-4.0 (1340)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION North Tributary Corridor and North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE D-11FDATE 07/29/2015LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent BurnhamTIME 0840TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>4.0</u> 4.0	0.0-0.5 (0855)	0-0.75 FT, (CL) SILTY CLAY; dark brown; organics, dry, firm.
				0.5-2.0 (0857)	0.75-2.5 FT, (CH) CLAY with trace gravel; dark brown/black; dry, stiff.
				2.0-4.0 (0900)	2.5-4.0 FT, (CH) GRAVELLY CLAY; dark brown/black with some orange mottling, gypsum deposits; dry, stiff.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION North Tributary Corridor & North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE E-11C-BDATE 6/10/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent BurnhamTIME 1401TOTAL DEPTH 8 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	<u>3.4</u> 4.0	0.0-0.5 (1410)	0-0.25 FT, (CL) SILTY CLAY; brown; organics; very dry, hard.
					0.5-6.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
	2	N/A	<u>4</u> 4.0	0.5-2.0 (1410)	6.0-7.0 FT, (CH) GRAVELLY CLAY; brown; dry, very stiff.
					2.0-4.0 (1410)
	10				
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION North Tributary Corridor and North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE E-11C-CDATE 6/10/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent BurnhamTIME 1384TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.4</u> 4.0	0.0-0.5 (1440)	0-4.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
				0.5-2.0 (1440)	
				2.0-4.0 (1440)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION North Tributary Corridor and North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE E-11C-DDATE 6/10/2015

LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent Burnham TIME 1323

TIME 1323

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

NO. SAMPLES 3

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PROJECT No 130-2086 LOGGED BY AM

PROJECT Exide Frisco CHECKED BY JX

LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW
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LOG OF DIRECT PUSH BOREHOLE BOREHOLE E-15BDATE 07/29/2015LOCATION N Tributary Corridor & N Wooded AreaDRILLER SCI, Vincent BurnhamTIME 1510TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	NA	<u>3.95</u> 4.0	0.0-0.5 (1515)	0-0.5 FT, (CL) SILTY CLAY with some gravel; dark brown; very dry, hard.
				0.5-2.0 (1517)	0.5-4 FT, (CL) GRAVELLY SILTY CLAY; brown; loose, dry, hard.
				2.0-4.0 (1520)	
10					End of borehole at 4 FT BGS
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION N Tributary Corridor & N Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11ADATE 6/11/2015LOCATION N Tributary Corridor & N Wooded Area DRILLER SCI, Vincent Burnham TIME 1400TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.2</u> 4.0	0.0-0.5 (1410)	0-1.0 FT, (CH) CLAY; dark brown; dry, soft.
				0.5-2.0 (1410)	1.0-4.0 FT, (CH) CLAY; dark brown, black mottling; dry, firm.
				2.0-4.0 (1410)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086 LOGGED BY AMPROJECT Exide Frisco CHECKED BY JXLOCATION N Tributary Corridor & N Wooded Area REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11BDATE 6/11/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent BurnhamTIME 1431TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2.8</u> 4.0	0.0-0.5 (1435)	0-4.0 FT, (CL) SILTY CLAY with organics; dark brown/black, dry, soft.
				0.5-2.0 (1435)	
				2.0-4.0 (1435)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION North Tributary Corridor and North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11CDATE 6/11/2015LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent BurnhamTIME 1419TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	$\frac{3}{4.0}$	0.0-0.5 (1425)	0-0.25 FT (ML) CLAYEY SILT; brown; slightly moist, soft.
				0.25-2.0 FT, (CH) CLAY; dark brown; dry, firm.	
				0.5-2.0 (1425)	
				2.0-2.25 FT, (CH) CLAY and GRAVEL; gray and reddish brown; moist, stiff-hard.	
				2.25-4.0 FT, (CH) CLAY; dark brown; dry, firm.	
				2.0-4.0 (1425)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION North Tributary Corridor and North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11DDATE 6/11/2015

LOCATION North Tributary Corridor and North Wooded Area DRILLER SCI, Vincent Burnham TIME 1350

TIME 1350

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2.8</u> 4.0	0.0-0.5 (1450)	0-0.5 FT (ML) CLAYEY SILT with organics; dark brown; dry, hard.
				0.5-2.0 (1450)	0.5-4.0 FT, (CL) SILTY CLAY with organics; dark brown, dry, stiff.
				2.0-4.0 (1450)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086 LOGGED BY AM

PROJECT Exide Frisco CHECKED BY JX

LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW
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LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-13DATE 07/28/2015LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent BurnhamTIME 0742TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.8</u> 4.0	0.0-0.5 (0746)	0-0.75 FT (ML) CLAYEY SILT with organics; brown; dry, loose, soft.
				0.5-2.0 (0750)	0.75-4.0 FT, (CL) CLAY with some silt; dark brown with tan mottling; dry, stiff.
				2.0-4.0 (0752)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION North Tributary Corridor & North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-14DATE 07/28/2015

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 0757

TIME 0757

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

NO. SAMPLES 3

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PROJECT No 130-2086 LOGGED BY AM

PROJECT	Exide Frisco	CHECKED BY	EPW
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LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW
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LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-16DATE 07/28/2015LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent BurnhamTIME 0959TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.75</u> 4.0	0.0-0.5 (1005)	0-2.5 FT, (CL) SILTY CLAY; dark brown; very dry, hard, firm.
				0.5-2.0 (1008)	
				2.0-4.0 (1010)	2.5-4.0 FT, (CL) GRAVELLY SILTY CLAY; brown; dry, hard, firm.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION North Tributary Corridor & North Wooded AreaREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-18DATE 07/27/2015

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 1325

TOTAL DEPTH 3.5 FT BGS RIG Geoprobe NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5 10 15	1	N/A	<u>NA</u> 3.5	0.0-0.5 (1326)	0-0.5 FT, (ML) SILT with some clay and organics; dark brown; loose, very dry.
				0.5-2.0 (1337)	0.5-3.0 FT, (CL) SILTY CLAY and some gravel; dark brown with orange ferrous mottling; dry, firm.
				2.0-3.5 (1345)	3.0-3.5 FT, (CL) SILTY CLAY and GRAVEL; dark brown, loose, dry.
					Refusal at 3.5 FT BGS

PROJECT No 130-2086 LOGGED BY AM

PROJECT	Exide Frisco	CHECKED BY	EPW
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LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW
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LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-19DATE 07/28/2015

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 1037

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.85</u> 4.0	0.0-0.5 (1045)	0-0.5 FT, (ML) CLAYEY SILT; brown; dry, hard, loose.
				0.5-2.0 (1047)	0.5-2.5 FT, (CL) CLAY with some silt; dark brown; dry, stiff.
				2.0-4.0 (1050)	2.5-4.0 FT, (CL) CLAY; dark brown; mostly dry, stiff.
				End of borehole at 4 FT BGS	
5					
10					
15					

PROJECT No 130-2086 LOGGED BY AM

PROJECT	Exide Frisco	CHECKED BY	EPW
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LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW
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BOREHOLE ECO-8C

DATE 6/09/2015

LOCATION South Disposal Area

DRILLER SCI, Vincent Burnham

TIME 0947

TOTAL DEPTH 4 FT BGS

RIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.2</u> 4.0	0.0-0.5 (0955)	0-0.5 FT, (CL) SILTY CLAY; brown; dry, firm.
				0.5-2.0 (0955)	0.5-2.0 FT, (CH) CLAY with some silt; dark brown; dry, firm.
				2.0-4.0 (0955)	2.0-4.0 FT, (CL) SILTY CLAY and GRAVEL; reddish brown; dry, firm.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION South Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-8D

DATE 6/09/2015

LOCATION South Disposal Area

DRILLER SCI, Vincent Burnham

TIME 0953

TOTAL DEPTH 4 FT BGS

RIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>1.6</u> 4.0	0.0-0.5 (1055)	0-0.5 FT, (CL) SILTY CLAY; dark brown; organics, dry, firm.
					0.5-4.0 FT, (CH) CLAY; some fine grain gravel (<5%), dark brown; dry, stiff.
				0.5-2.0 (1055)	
				2.0-4.0 (1055)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION South Disposal Area

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE F-4ADATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1333TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.95</u> 4.0	0-0.5 (1340)	0-0.25 FT organics. 0-4.0 FT, (CL) CLAY; dark brown/black; dry, stiff.
				0.5-2.0 (1342)	
				2.0-4.0 (1346)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE F-4BDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1328TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.85</u> 4.0	0.0-0.5 (1338)	0-0.25 organics.
				0.5-2.0 (1340)	0-4.0 FT, (CL) CLAY; dark brown/black with significant orange ferrous mottling; dry, very stiff.
				2.0-4.0 (1342)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE F-4CDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1321TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.90</u> 4.0	0.0-0.5 (1327)	0-0.25 FT, organics
				0.5-2.0 (1331)	0-4.0 FT, (CL) CLAY; dark brown/black; dry, very stiff.
				2.0-4.0 (1337)	2.0-4.0 FT, orange ferrous mottling
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE F-4DDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1315TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.90</u> 4.0	0.0-0.5 (1327)	0-0.25 organics
				0-2.0 FT, Orange ferrous mottling	
				0.5-2.0 (1329)	0-4.0 FT, (CL) CLAY; dark brown/black; dry, stiff.
				2.0-4.0 (1330)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE F-4EDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1310TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>3.85</u> 4.0	0.5-2.0 (1320) 2.0-4.0 (1322)	0-4.0 FT, (CL) CLAY; dark brown/black with orange ferrous mottling; dry, very stiff.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-5ADATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1100TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	NA	<u>3.25</u> 4.0	0.0-0.5 (1112)	0-4.0 FT, (CH) CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1119)	
				2.0-4.0 (1120)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-5BDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1039TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	NA	<u>3.95</u> 4.0	0.0-0.5 (1044)	0-0.5 FT, organics.
				0.5-2.0 (1046)	0-4.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
				2.0-4.0 (1048)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-5CDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1043TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	NA	<u>4.0</u> 4.0	0.0-0.5 (1100)	0-4.0 FT, (CH) CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1103)	
				2.0-4.0 (1105)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-5DDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1054TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	NA	<u>3.0</u> 4.0	0.0-0.5 (1111)	0-4.0 FT, (CH) CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1115)	
				2.0-4.0 (1117)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-6ADATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1334TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	NA	<u>3.5</u> 4.0	0.0-0.5 (1443)	0-0.2 FT, organics 0-4.0 FT, (CH) GRAVELLY CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1447)	
				2.0-4.0 (1450)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-6BDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1340TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	NA	<u>3.8</u> 4.0	0.0-0.5 (1450)	0-0.2 FT, organics.
				0.5-2.0 (1452)	0-4.0 FT, (CH) GRAVELLY CLAY; dark brown/black; dry, very stiff.
				2.0-4.0 (1454)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

SHEET 1 of 1

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-6DDATE 07/27/2015LOCATION Lake ParcelDRILLER SCI, Vincent BurnhamTIME 1426TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
					0-2.0 FT, (CH) CLAY with organics; brown with orange, black, and grey mottling; dry, stiff.
					0.5-0.75 FT, (CH) CLAY, organics, brown with orange mottling; dry.
					0.75-4.0 FT, (CH) CLAY; dark brown/black, dry, stiff.
	1	NA	<u>2.0</u> <u>4.0</u>	0.5-2.0 (1434) 2.0-4.0 (1436)	
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY EPWLOCATION Lake ParcelREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SCC-5CDATE 6/10/2015LOCATION Stewart Creek CorridorDRILLER SCI, Vincent BurnhamTIME 1017TOTAL DEPTH 4 FT BGSRIG GeoprobeNO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2.4</u> 4.0	0.5-2.0 (1025)	0-0.5 FT, (ML) CLAYEY SILT with some gravel and organics; brown; very dry, hard.
				2.0-4.0 (1025)	0.5-4.0 FT, (CH) CLAY, some gravel, ferrous nodules, and organics; brown with some orange mottling; dry, stiff.
5					End of borehole at 4 FT BGS
10					
15					

PROJECT No 130-2086LOGGED BY AMPROJECT Exide FriscoCHECKED BY JXLOCATION Stewart Creek CorridorREVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SCC-5DDATE 07/27/2015

LOCATION Stewart Creek Corridor

DRILLER SCI, Vincent BurnhamTIME 0740

TOTAL DEPTH 6 FT BGS

RIG Geoprobe

NO. SAMPLES 2

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
5	1	N/A	<u>3.75</u> 4.0	2.0-4.0 (0745)	0-1.0 FT, (ML) CLAYEY SILT with organics; brown; loose, very dry.
					1.0-4.0 FT, (CH) CLAY with trace gravel; brown with some orange ferrous mottling; dry, stiff.
	2	N/A	<u>2.0</u> 2.0	4.0-6.0 (0750)	4.0-6.0 FT, (CH) CLAY with trace gravel; brown with some orange ferrous mottling; slightly moist, stiff.
10					End of borehole at 6 FT BGS
15					

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY EPW

LOCATION Stewart Creek Corridor

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SRB-VS-3ADATE 6/08/2015

LOCATION Shooting Range Berm & South Berm

DRILLER SCI, Vincent Burnham

TIME 1230

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
<div>0</div> <div>5</div> <div>10</div> <div>15</div>	1	N/A	<div>3</div> <div>4.0</div>	0.0-0.5 (1230)	0-2.0 FT, (CL) SILTY CLAY; grey/brown with orange mottling; dry, firm.
				0.5-2.0 (1230)	
				2.0-4.0 (1230)	2.0-2.25 FT, (CL) SILTY CLAY; grey with black and orange ferrous nodules; dry, firm. 2.25-4.0 FT, (CL) SILTY CLAY; grey/brown with orange mottling; dry, firm.
					End of borehole at 4 FT BGS

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Shooting Range Berm & South Berm

REVIEWED BY JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SRB-VS-7ADATE 6/08/2015

LOCATION Shooting Range Berm & South Berm

DRILLER SCI, Vincent Burnham

TIME 1030

TOTAL DEPTH 4 FT BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
0-5	1	N/A	<u>3.8</u> 4.0	0.0-0.5 (1045)	0-0.5 FT, (CL) SILTY CLAY; orange/brown; very dry, hard.
				0.5-2.0 (1045)	0.5-2.0 FT, (CH) CLAY; orange/brown; dry, firm.
					2.0-2.25 FT, (CL) SILTY CLAY; red/brown; dry, stiff.
					2.25-4.0 FT, (CH) CLAY; orange brown with some light grey mottling; dry, firm.
				2.0-4.0 (1045)	
5-15					End of borehole at 4 FT BGS

PROJECT No 130-2086

LOGGED BY AM

PROJECT Exide Frisco

CHECKED BY JX

LOCATION Shooting Range Berm & South Berm

REVIEWED BY JW



LOG OF LMW-9R

DRILLING METHOD: HSA

NORTHING: 7,103,254 FT

DATE/TIME: 3/1/2016, 1322





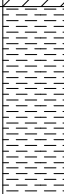
DRILLER: West Drilling, Steven Wimple

EASTING: 2,480,865 FT

TOTAL DEPTH: 30 FT BGS

RIG: CME-75

SURFACE ELEVATION: 661.39 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		<u>5.0</u> 5.0		CL-ML		0.0-0.75 FT, (CL-ML) SILTY CLAY, organics, trace fine gravel; brown and orange; dry, firm.
					CL-ML		0.75-2.5 FT, (CL-ML) SILTY CLAY, trace fine gravel; dark brown; dry, firm.
	2		CL			2.5-7.5 FT, (CL) CLAY, trace fine gravel; brown; dry, stiff.	
						7.5-17.5 FT, (CL) CLAY; gray with orange mottling; dry, hard.	
	3		CL				
15	4	<u>5.0</u> 5.0	CL & SHALE		17.5-24 FT, INTERBEDDED (CL) CLAY AND SHALE; gray with orange mottling, dry, hard.		

PROJECT No: 130-2086-01

COMPILED BY: AM

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: CL2LF





REVIEWED BY: AMF

Exide Technologies				Log of Boring: MW-28	
Frisco Recycling Center Frisco, TX		Completion Date: 2/27/2013		Drilling Method: HSA	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Chris Combs		Total Depth (ft): 20	
		Driller's License: 56033		Northing: 7102977.6985	
		Logged By: Roberta Russell		Easting: 2479831.956	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 639.47	
		Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 642.91	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0					(0 - 10.8) Silty CLAY/Clayey SILT, dark reddish brown, soft to firm, low to medium plasticity, calcareous nodules starting at 7.5'.
		5.0/5.0			
5			CL/ML		
		5.0/5.0			
10					(10.8 - 13.5) Gravelly CLAY, yellowish brown, moist, wet at 12.8', soft to firm, low to medium plasticity clay, calcareous nodules, ~10% gravel in clay matrix.
		4.2/5.0	CL		
15					(13.5 - 16.5) Sandy CLAY, yellowish brown, wet, soft to firm, low plasticity clay, calcareous nodules.
		5.0/5.0	CL/ML		
20			SH		(16.5 - 19.5) Silty CLAY/Clayey SILT, yellowish brown, moist, soft to firm, low to medium plasticity.
					(19.5 - 20.0) SHALE, dry, hard.
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446			Notes: This log should not be used separately from the report to which it is attached.		
Annular Materials (0.0 - 0.5) Concrete (0.5 - 1.0) Bentonite Grout (1.0 - 2.5) Bentonite Hole Plug (2.5 - 20.0) 20/40 Silica Sand			Well Materials (+3.44 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot		

RECORD OF BOREHOLE RCA-BH-1

SHEET 1 of 1
ELEVATION: N/A
INCLINATION: -90

PROJECT: Exide Frisco
PROJECT NUMBER: 130-2086
LOCATION: Inside Wall S of Former Oxide Bldg
DRILLING METHOD: Geoprobe 7822DT
DATUM: Local
AZIMUTH: N/A
COORDINATES: N: N/A E: N/A

DEPTH (feet)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE BLOWS / ft ■				REMARKS			
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV.	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC ATT	10	20	30	40				
					DEPTH (ft)													
0	HSA	(0.0 - 1.0) CONCRETE and GRAVEL																
		(1.0 - 10.5) (CL) SILTY CLAY, low to medium plastic, some fine sand; dark yellowish brown (10YR 4/2); cohesive, w~PL, very stiff. (PP~2.5 tsf) (3.5) Soil color changes to moderate yellowish brown (10YR 5/4).	CL		1.0													
					1	SPT	2 3 5	8	1.4 1.5	■								
					2	SPT	2 4 7	11	1.2 1.5	■								
5																		
10			(10.5 - 16.0) (CH) CLAY, high plastic, some nonplastic fines; light brown (5YR 5/6) marbled with moderate yellowish brown (10YR 5/4); cohesive, w~PL, very stiff. (PP~3 tsf)	CH		10.5	3	SPT	2 4 6	10	1.5 1.5	■						
15							4	SH			1.4 2.0							
			(16.0 - 25.0) SHALE - (CH) CLAY, high plastic; medium dark gray (N4); cohesive, w<PL, hard. (PP>4.5 tsf)	CH		16.0												
20								5	SPT	15 19 28	47	1.5 1.5				■		
								6	SPT	15 23 23	46	1.5 1.5				■		
25																		
30																		
35																		
40																		

RCA-BH-1 SH-4: UU = 3,200 psf, Dry Unit Weight = 90.1 pcf

RCA-BH-1 SH-4: UU =
3,200 psf, Dry Unit
Weight = 90.1 pcf

GOLDER STL RECORD OF BOREHOLE MWD 1302086 EXIDE FRISCO.GPJ GLDR_CO.GDT 8/13/18

SCALE: 1 in = 5 ft
DRILLING CONTRACTOR: WEST Drilling
DRILLER: Bob Williams

LOGGED: PJJ
CHECKED: BCW
REVIEWED: KMB



RECORD OF BOREHOLE RCA-BH-2



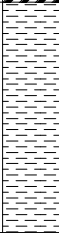
SHEET 1 of 1

PROJECT: Exide Frisco
PROJECT NUMBER: 130-2086
LOCATION: Inside Wall W of Former Admin

DRILLING METHOD:
DRILLING DATE: 7/12/2018
DRILL RIG: Geoprobe 7822DT

DATUM: Local
AZIMUTH: N/A
COORDINATES: N: N/A E: N/A

ELEVATION: N/A
INCLINATION: -90

DEPTH (feet)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE BLOWS / ft ■				REMARKS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV.	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC ATT	10	20	30	40		
					DEPTH (ft)											
0	HSA	(0.0 - 19.0) (CL) SILTY CLAY, low to medium plastic; dusky yellowish brown (10YR 2/2); cohesive, w<PL, firm. (3.0) Trace organics, soil becomes hard. (PP>4.5 tsf)	CL		3.0											RCA-BH-2 SH-4: UU = 14,200 psf, Dry Unit Weight = 95.6 pcf
		1				SPT	6 6 7	13	0.8 1.5	■						
		2				SPT	7 6 6	12	1.5 1.5	■						
5																
		(9.0 - 19.0) (CH) CLAY, high plastic; dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff. (PP~1.25 tsf)	CH		9.0	3	SPT	WH 3 4	7	1.5 1.5	■					
10						4	SH			1.3 2.0						
15						5	SPT	2 4 5	9	0.6 1.5	■					
20		(19.0 - 25.0) SHALE - (CH) CLAY, high plastic; medium dark gray (N4); cohesive, w<PL, hard. (PP>4.5 tsf).	CH		19.0	6	SPT	5 6 9	15	1.5 1.5	■					
		7				SPT	7 9 11	20	1.5 1.5	■						
25																
30																
35																
40																

SCALE: 1 in = 5 ft
DRILLING CONTRACTOR: WEST Drilling
DRILLER: Bob Williams

LOGGED: PJJ
CHECKED: BCW
REVIEWED: KMB



GOLDER STL RECORD OF BOREHOLE MWD 1302086 EXIDE FRISCO.GPJ GLDR_CO.GDT 8/13/18

RECORD OF BOREHOLE RCA-BH-3








SHEET 1 of 1

PROJECT: Exide Frisco
PROJECT NUMBER: 130-2086
LOCATION: Inside Wall E of Former Diesel AS

DRILLING METHOD:
DRILLING DATE: 7/12/2018
DRILL RIG: Geoprobe 7822DT

DATUM: Local
AZIMUTH: N/A
COORDINATES: N: N/A E: N/A

ELEVATION: N/A
INCLINATION: -90

DEPTH (feet)	BORING METHOD	SOIL PROFILE			SAMPLES					PENETRATION RESISTANCE BLOWS / ft ■				REMARKS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV.	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC ATT	10	20	30		40	
					DEPTH (ft)											
0	HSA	(0.0 - 1.0) CONCRETE and GRAVEL														
		(1.0 - 8.5) (CH) CLAY, high plastic, some nonplastic fines, some fine sand; olive gray (5Y 4/1); cohesive, w~PL, stiff. (PP~1.5 tsf)	CL		1.0	1	SPT	2 3 5	8	1.5 1.5	■					
						2	SPT	5 5 6	11	1.3 1.5	■					
5																
		(8.5 - 13.5) (CL) Sandy SILTY CLAY, low to medium plastic, fine to medium sand; olive gray (5Y 4/1); cohesive, w~PL, soft.	CL		8.5	3	SPT	1 1 1	2	1.5 1.5	■					
10						4	SH			1.8 2.0						
		(13.5 - 18.5) (CL) gravelly CLAY, low plastic, fine to medium gravel; light olive gray (5Y 6/1), olive gray gray (5Y 4/1), and yellowish gray (5Y 8/1); cohesive, w~PL, stiff. (PP~2 tsf).	CL		13.5	5	SPT	3 3 4	7	1.5 1.5	■					
15																
		(18.5 - 23.5) SHALE - (CH) CLAY, high plastic; medium dark gray (N4); cohesive, w<PL, hard. (PP>4.5 tsf)	CH		18.5	6	SPT	7 15 22	37	1.5 1.5			■			
20																
		(23.5 - 24.8) (SC) CLAYEY SAND, fine sand, low plastic fines; medium dark gray (N4); cohesive, very stiff. (PP~2.5 tsf)	SC		23.5	7	SPT	27 13 9	22	1.5 1.5		■				
25		(24.8 - 25.0) SHALE - (CH) CLAY, high plastic; medium dark gray (N4); cohesive, w~PL, hard. (PP>4.5 tsf)	CH		24.8											

RCA-BH-3 SH-4:
Hydraulic Conductivity =
2.94e-8 cm/sec, Dry Unit
Weight = 95.5 pcf

GOLDER STL RECORD OF BOREHOLE MWD 1302086 EXIDE FRISCO.GPJ GLDR_CO.GDT 8/13/18

SCALE: 1 in = 5 ft
DRILLING CONTRACTOR: WEST Drilling
DRILLER: Bob Williams

LOGGED: PJJ
CHECKED: BCW
REVIEWED: KMB










RECORD OF BOREHOLE RCA-BH-4

SHEET 1 of 1
ELEVATION: N/A
INCLINATION: -90

PROJECT: Exide Frisco
PROJECT NUMBER: 130-2086
LOCATION: Inside Flood Wall and STB

DRILLING METHOD:
DRILLING DATE: 7/13/2018
DRILL RIG: Geoprobe 7822DT

DATUM: Local
AZIMUTH: N/A
COORDINATES: N: N/A E: N/A

DEPTH (feet)	BORING METHOD	SOIL PROFILE			SAMPLES					PENETRATION RESISTANCE BLOWS / ft ■				REMARKS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV.	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC ATT	10	20	30		40	
					DEPTH (ft)											
0	HSA	(0.0 - 1.0) CONCRETE and GRAVEL														
		(1.0 - 9.5) (CL) SILTY CLAY, low plastic, high silt content; olive black (5Y 2/1); cohesive, w~PL, very soft, sticky.	CL		1.0											
					1	SPT	WH WH WH	WH	1.5 1.5							
					2	SPT	WH WH 1	1	1.5 1.5							
5																
		(9.5 - 10.0) (CL) gravelly CLAY, low plastic fines, fine to medium gravel; olive black (5Y 2/1); cohesive, w~PL, firm, sticky.	CL		9.5	4	SPT	3 3 3	6	1.5 1.5	■					
			(10.0 - 14.0) (CH) CLAY, high plastic; olive black (5Y 2/1); cohesive, w~PL, firm.	CH		10.0										
		5		SH				2.0 2.0								
15		(14.0 - 18.5) (CL) SILTY CLAY, low plastic; light olive gray (5Y 6/1) with light brown (5YR 5/6) marbling; cohesive, w<PL, hard. (PP>4.5 tsf)	CL		14.0	6	SPT	4 8 17	25	1.5 1.5		■				
20		(18.5 - 23.5) (CL) SILTY CLAY, low plastic, some fine grained sand; medium dark gray (N4); cohesive, w>PL, very stiff.	CL		18.5	7	SPT	16 28 32	>50	1.5 1.5				>>■		
25	(23.5 - 25.0) SHALE - (CH) CLAY, high plastic; medium dark gray (N4); cohesive, w<PL, hard. (PP>4.5 tsf)	CH		23.5	8	SPT	18 29 50	>50	1.5 1.5				>>■			
30																
35																
40																

RCA-BH-4 SH-3:
Hydraulic Conductivity =
4.47e-7 cm/sec, Dry Unit
Weight = 84.2 pcf

RCA-BH-4 SH-5: UU =
2,400 psf, Dry Unit
Weight = 95.3 pcf

GOLDER STL RECORD OF BOREHOLE MWD 1302086 EXIDE FRISCO.GPJ GLDR_CO.GDT 8/13/18

SCALE: 1 in = 5 ft
DRILLING CONTRACTOR: WEST Drilling
DRILLER: Bob Williams

LOGGED: PJJ
CHECKED: BCW
REVIEWED: KMB



RECORD OF BOREHOLE RCA-BH-5




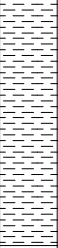
SHEET 1 of 1

PROJECT: Exide Frisco
PROJECT NUMBER: 130-2086
LOCATION: Inside Flood Wall and WWTP

DRILLING METHOD:
DRILLING DATE: 7/13/2018
DRILL RIG: Geoprobe 7822DT

DATUM: Local
AZIMUTH: N/A
COORDINATES: N: N/A E: N/A

ELEVATION: N/A
INCLINATION: -90

DEPTH (feet)	BORING METHOD	SOIL PROFILE			SAMPLES					PENETRATION RESISTANCE BLOWS / ft ■				REMARKS			
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV.	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC ATT	10	20	30		40		
					DEPTH (ft)												
0	HSA	(0.0 - 1.0) CONCRETE and GRAVEL															
		(1.0 - 10.5) (CL) SILTY CLAY, low plastic; olive black (5Y 2/1); cohesive, w~PL, firm. (PP~1 tsf) (3.5) Soil color changes to olive black (5Y 2/1) marbled with light olive gray (5Y 5/2)	CL		1.0												
					1	SPT	1 1 2	3	1.2 1.5	■							
					2	SPT	2 2 2	4	1.1 1.5	■							
5																	
		(8.5 - 18.5) (CH) CLAY, high plastic; moderate yellowish brown (10YR 5/4); cohesive, w~PL, stiff. (PP~1.5 tsf)	CH		8.5	3	SH			1.1 2.0							
					4	SPT	2 3 5	8	1.5 1.5	■							
					5	SH			0.95 2.0								
		(18.5 - 25.0) SHALE - (CH) CLAY, high plastic; medium dark gray (N4); cohesive, w<PL, hard. (PP~4.5 tsf)	CH		18.5	6	SPT	15 25 36	>50	1.5 1.5						>> ■	
20																	
	7				SPT	18 27 42	>50	1.5 1.5					>> ■				
25																	
30																	
35																	
40																	

RECORD OF BOREHOLE MWD 1302086 EXIDE FRISCO GPJ GLDR_CO.GDT 8/13/18

RCA-BH-5 SH-3: UU =
5,200 psf, Dry Unit
Weight = 107.1 pcf

RCA-BH-5 SH-5:
Hydraulic Conductivity =
2.42e-8 cm/sec, Dry Unit
Weight = 86 pcf

GOLDER STL RECORD OF BOREHOLE MWD 1302086 EXIDE FRISCO.GPJ GLDR_CO.GDT 8/13/18

SCALE: 1 in = 5 ft
DRILLING CONTRACTOR: WEST Drilling
DRILLER: Bob Williams

LOGGED: PJJ
CHECKED: BCW
REVIEWED: KMB





LOG OF 2018-PB-1

DRILLING METHOD: Direct Push

NORTHING: 7,103,178 FT

DATE/TIME: 07/31/2018, 1353 - 1357

DRILLER: West Drilling, Robert Williams

EASTING: 2,480,980 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 573.123 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			1.7 1.7		CORE		(0.0-1.7) CONCRETE. Fabric on bottom of core.
		40					
		17		(2-3) 1424	GM		(1.7-2.0) (GM) SILTY GRAVEL, fine to medium sub-angular gravels, non-plastic fines; white (N9) gravels with dusky yellowish brown (10YR 2/2); non-cohesive, dry, loose.
5	1	ND +/- 12	2.0 4.0	(4-5) 1426	CL		(2.0-5.0) (CL) gravelly SILTY CLAY, medium-plasticity fines, fine to medium sub-angular to sub-rounded gravels; moderate yellowish brown (10YR 5/4) with light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
		26		(5-6) 1428			
	2	ND +/- 12	4.0 4.0		CL		(5.0-8.0) (CL) SILTY CLAY, high-plasticity fines, some fine sub-rounded gravels; medium light gray (N6) with dark yellowish orange (10YR 6/6) and light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
		17					
				(TCLP Composite) 1430			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
10							
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West side of road - West of Tract H (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-3

DRILLING METHOD: Direct Push

NORTHING: 7,103,134 FT

DATE/TIME: 07/31/2018, 1249 - 1253

DRILLER: West Drilling, Robert Williams

EASTING: 2,480,967 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 578.466 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			1.5 1.5		CORE		(0.0-1.5) CONCRETE.
	1	19 48 ND +/- 7	2.0 4.0	(2-3) 1320	GM		(1.5-3.0) (GM) SILTY GRAVEL, fine to coarse sub-angular gravels, non-plastic fines; very pale orange (10YR 8/2) with dark yellowish brown (10YR 4/2); non-cohesive, dry, loose.
5		ND +/- 8		(4-5) 1322	SP		(3.0-5.0) (SP) SAND, very fine sand; dark yellowish orange (10YR 6/6); non-cohesive, dry, loose. Sand similar to that used when backfilling utilities.
	2	ND +/- 12 25 15	3.5 4.0	(7-8) 1324 (TCLP Composite) 1326	CL CL		(5.0-7.0) (CL) SILTY CLAY, medium-plasticity fines, trace fine sub-angular to sub-rounded gravels; dusky yellowish brown (10YR 2/2); cohesive, W<PL, stiff. (7.0-8.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular to sub-rounded gravels; dark yellowish brown (10YR 4/2) with light olive gray (5Y 5/2) and dark gray (N3) mottling; cohesive, W<PL, very stiff.
10							END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West side of road - West of Tract H (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-4

DRILLING METHOD: Direct Push

NORTHING: 7,103,128 FT

DATE/TIME: 07/30/2018, 1409 - 1413

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,007 FT

TOTAL DEPTH: 9.5 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 570.142 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			$\frac{1.2}{1.2}$		CORE		(0.0-1.2) CONCRETE.
		24 ND +/- 11	$\frac{3.0}{4.0}$	(1-2) 1445	CL		(1.2-4.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular gravels; light olive gray (5Y 5/2) with some dark gray (N3) mottling; cohesive, W<PL, firm.
5		22		(3-4) 1446			
		13		(4-5) 1448			
		11 ND +/- 10	$\frac{5.5}{5.5}$		CL		(4.0-9.5) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-rounded gravels, trace fine sand; very light gray (N8) with dark yellowish orange (10YR 6/6) and grayish brown (5Y 8/4); cohesive, W<PL, firm. No recovery on first attempt of second run - driller says too loose/wet. Pushes 5.5 feet and recovers all 5.5 feet.
		14 ND +/- 11					
10				(TCLP Composite) 1450, DUP-02			END OF BORING AT 9.5 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East side of Road - West of Tract H (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-5

DRILLING METHOD: Direct Push

NORTHING: 7,102,525 FT

DATE/TIME: 07/31/2018, 1053 - 1057

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,262 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.937 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			1.1 1.1		CORE		(0.0-1.1) CONCRETE.
	1	ND +/- 10 ND +/- 14 ND +/- 11	3.3 4.0	(2-3) 1138	CL		(1.1-4.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular gravels; dark yellowish brown (10YR 4/2); cohesive, W<PL, stiff.
5		15		(4-5) 1140			
	2	ND +/- 12 ND +/- 10 ND +/- 12	4.0 4.0	(5-6) 1142	CL		(4.0-8.0) (CL) gravelly SILTY CLAY, high-plasticity fines, fine to medium sub-angular gravels; medium light gray (N6) with dark yellowish orange (10YR 6/6) and dark gray (N3) mottling; cohesive, W<PL, stiff.
10				(TCLP Composite) 1144			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West side of road - North Eagan Edge (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-6

DRILLING METHOD: Direct Push

NORTHING: 7,102,556 FT

DATE/TIME: 07/30/2018, 1137 - 1140

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,285 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.452 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			1.5 1.5	(1-2) 1218	CORE		(0.0-1.5) CONCRETE.
	1	12 12 17	3.4 4.0	(3-4) 1220, DUP-01	CL		(1.5-4.5) (CL) SILTY CLAY, medium-plasticity fines; dark yellowish brown (10YR 4/2); cohesive, W<PL, stiff. (2.5) SAA (Same As Above), except with trace fine sub-angular gravels.
5		ND +/- 15		(5-6) 1222			(4.0) SAA, except W>PL.
	2	13 ND +/- 15 ND +/- 13	4.0 4.0		CL		(4.5-8.0) (CL) SILTY CLAY, high-plasticity fines, some fine sub-angular to sub-rounded gravels; very light gray (N8) with dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff.
10				(TCLP Composite) 1224			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - North Eagan edge (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-7

DRILLING METHOD: Direct Push

NORTHING: 7,102,478 FT

DATE/TIME: 07/31/2018, 1015 - 1020

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,320 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 563.085 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			0.7 0.7		CORE		(0.0-0.7) CONCRETE.
	1	13 ND +/- 15 ND +/- 14	2.5 4.0	(1-2) 1052 (3-4) 1054, DUP-04	CL		(0.7-5.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular to sub-rounded gravels; dusky yellowish brown (10YR 2/2) with light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
5	2	ND +/- 11 ND +/- 10 ND +/- 11	4.0 4.0	(5-6) 1056	CL		(5.0-8.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-rounded gravels; light gray (N7) with medium dark gray (N4) and dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff. (7.0) color change to light gray (N7) with dark yellowish orange mottling.
10				(TCLP Composite) 1058			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - South Eagan edge (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-8

DRILLING METHOD: Direct Push

NORTHING: 7,102,508 FT

DATE/TIME: 07/30/2018, 1030 - 1100

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,345 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.644 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			0.7 0.7		CORE		(0.0-0.7) CONCRETE.
	1	ND +/- 9 ND +/- 11 14	3.8 4.0	(2-3) 1130	CL		(0.7-4.5) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular gravels; light olive gray (5Y 5/2) with dark gray (N3) mottling and white (N9) gravels; cohesive, W<PL, very stiff.
5		ND +/- 12		(4-5) 1132			
	2	ND +/- 11 ND +/- 11 ND +/- 14	2.3 4.0	(6-7) 1134	CL		(4.5-8.0) (CL) SILTY CLAY, high-plasticity fines, some fine sub-angular to sub-rounded gravels; very light gray (N8) with dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, very stiff.
10				(TCLP Composite) 1136			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - South Eagan edge (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-9

DRILLING METHOD: Direct Push

NORTHING: 7,103,001 FT

DATE/TIME: 07/30/2018, 1515 - 1521

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,032 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 564.849 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	25 16 13 13	3.6 4.0	(0-1) 1552 (1-2) 1554	CL		(0.0-4.0) (CL) SILTY CLAY, medium-plasticity fines, trace fine sub-angular gravels; dark gray (N3); cohesive, W<PL, very stiff.
	2	11 ND +/- 12 ND +/- 12 ND +/- 15	4.0 4.0	(6-7) 1556	CL		(4.0-6.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular gravels; dark yellowish brown (10YR 4/2); cohesive, W<PL, very stiff.
					CL		(6.0-8.0) (CL) gravelly SILTY CLAY, high-plasticity fines, fine to medium sub-angular gravels; light olive gray (5Y 5/2) with some dark yellowish brown (10YR 4/2) mottling; cohesive, W<PL, very stiff.
10				(TCLP Composite) 1600			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - West of Tract H (in grass)

REVIEWED BY: AMF



LOG OF 2018-PB-10

DRILLING METHOD: Direct Push

NORTHING: 7,102,675 FT

DATE/TIME: 07/30/2018, 1643 - 1648

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,177 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 561.742 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	16	<u>3.9</u> 4.0	(3-4) 1714 (4-5) 1716	CL		(0.0-5.5) (CL) gravelly SILTY CLAY, medium-plasticity fines, fine to medium sub-angular to sub-rounded gravels; dark yellowish brown (10YR 4/2) with dark gray (N3) and pale yellowish brown (10YR 6/2) mottling; cohesive, W<PL, stiff.
		20					
		12					
	5	2	115	<u>4.0</u> 4.0	(6-7) 1718	CL	
ND +/- 14							
ND +/- 10							
ND +/- 11							
10		ND +/- 10		(TCLP Composite) 1720			(5.5-8.0) (CL) SILTY CLAY, high-plasticity fines; dark yellowish brown (10YR 4/2) with dusky yellowish brown (10YR 2/2) mottling and trace iron staining; cohesive, W<PL, firm.
15							END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - West of Tract G (in grass)

REVIEWED BY: AMF



LOG OF 2018-PB-11

DRILLING METHOD: Direct Push

NORTHING: 7,102,571 FT

DATE/TIME: 07/31/2018, 0841 - 0846

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,284 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.816 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	725	<u>3.1</u> 4.0	(0-1) 0922	ML		(0.0-1.0) TOPSOIL (ML) SILT, non-plastic fines, trace roots and sub-angular coarse gravels; dusky yellowish brown (10YR 2/2); non-cohesive, dry, loose.
		250		(3-4) 0924	CL		(1.0-5.0) (CL) SILTY CLAY, medium-plasticity fines, some fine sub-angular to sub-rounded gravels; medium dark gray (N4) with light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
		43					
		315					
	2	ND +/- 18	<u>4.0</u> 4.0	(5-6) 0926, DUP-03	CL		(5.0-8.0) (CL) gravelly SILTY CLAY, high-plasticity fines, fine sub-angular to sub-rounded gravels; medium light gray (N6) with dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff.
		28					
		42					
		51					
10				(TCLP Composite) 0928			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - Southwest Tract G (in grass)

REVIEWED BY: AMF



LOG OF 2018-PB-12

DRILLING METHOD: Direct Push

NORTHING: 7,102,626 FT

DATE/TIME: 07/31/2018, 1600 - 1604

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,146 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 563.276 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	66	<u>3.1</u> 4.0	(0-1) 1640	ML		(0.0-2.0) TOPSOIL (ML) SILT, non-plastic fines, some fine to medium sub-angular gravels, roots; dark yellowish brown (10YR 4/2); non-cohesive, dry, loose.
		45		(2-3) 1642	ML		(2.0-3.5) (ML) gravelly SILT, non-plastic fines, fine to coarse sub-angular to angular gravels; very pale orange (10YR 8/2); non-cohesive, dry, loose.
	2	15	<u>2.7</u> 4.0	(7-8) 1644 (TCLP Composite) 1646	CL		(3.5-7.5) (CL) SILTY CLAY, medium-plasticity fines, some fine sub-angular to sub-rounded gravels; dusky yellowish brown (10YR 2/2) with dark yellowish brown (10YR 4/2) and dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff.
		26			CL		(7.5-8.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular to sub-rounded gravels; moderate brown (5YR 4/4) with dark gray (N3) and light olive gray (5Y 5/2) mottling; cohesive, W<PL, very stiff
10							END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - in grass

REVIEWED BY: AMF



LOG OF 2018-PB-13

DRILLING METHOD: Direct Push

NORTHING: 7,102,536 FT

DATE/TIME: 07/31/2018, 0936 - 0940

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,226 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 563.256 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	88	3.2 4.0	(0-1) 1015	ML		(0.0-0.8) TOPSOIL (ML) SILT, non-plastic fines, trace coarse angular gravels; dusky yellowish brown (10YR 2/2); non-cohesive, dry, loose.
		ND +/- 11		(4-5) 1016 (5-6) 1018	CL		(0.8-4.5) (CL) SILTY CLAY, medium-plasticity fines, some fine sub-angular to sub-rounded gravels; dark yellowish brown (10YR 4/2); cohesive, W<PL, stiff.
		13			CL		(4.5-6.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-angular gravels; light gray (N7) with dark yellowish orange (10YR 6/6) and light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
	2	23	4.0 4.0		CL		(6.0-8.0) (CL) gravelly SILTY CLAY, high-plasticity fines, fine sub-angular to sub-rounded gravels; light gray (N7) with dark yellowish orange (10YR 6/6) and light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
10		ND +/- 18		(TCLP Composite) 1020			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15		ND +/- 19					
20		ND +/- 15					
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - North Eagan edge (in grass)

REVIEWED BY: AMF



LOG OF 2018-PB-14

DRILLING METHOD: Direct Push

NORTHING: 7,102,575 FT

DATE/TIME: 07/30/2018, 1227 - 1232

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,258 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.515 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			1.1 1.1		CORE		(0.0-1.1) CONCRETE.
	1	ND +/- 11 50 ND +/- 9	3.6 4.0	(2-3) 1305	CL		(1.1-4.5) (CL) SILTY CLAY, medium-plasticity fines, some fine sub-angular gravels; light olive gray (5Y 5/2) with trace dark gray (N3) mottling; cohesive, W<PL, very stiff.
5		15		(4-5) 1306			(4.0) SAA (Same As Above), except W>PL.
	2	ND +/- 14 ND +/- 14 ND +/- 12	4.0 4.0	(5-6) 1308	CL		(4.5-8.0) (CL) SILTY CLAY, high-plasticity fines, some fine sub-angular to sub-rounded gravels; medium gray (N5) with very light gray (N8) and dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff.
10				(TCLP Composite) 1310			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - Southwest Air Monitor (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-15

DRILLING METHOD: Direct Push

NORTHING: 7,102,634 FT

DATE/TIME: 07/30/2018, 1320 - 1325

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,204 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.701 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			<u>1.3</u> 1.3		CORE		(0.0-1.3) CONCRETE.
	1	12		(2-3)	CL		(1.3-2.5) (CL) gravelly SILTY CLAY, medium-plasticity fines, fine sub-angular to sub-rounded gravels; light olive gray (5Y 5/2); cohesive, W>PL, stiff.
		119	<u>2.5</u> 4.0	(3-4)	CL		(2.5-4.0) (CL) SILTY CLAY, high-plasticity fines; dark gray (N3); cohesive, W~PL, stiff.
5		139		1356	CL		(3.0) some fine pieces of sub-angular asphalt.
	2	ND +/- 10		(5-6)	CL		(4.0-4.5) (CL) SILTY CLAY, low-plasticity fines, some fine sub-angular gravels; light olive gray (5Y 5/2); cohesive, W>PL, firm.
		ND +/- 12	<u>3.7</u> 4.0	1358			(4.5-8.0) (CL) SILTY CLAY, medium-plasticity fines, trace fine sub-rounded gravels; very light gray (N8) with dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff.
		ND +/- 10					END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
10				(TCLP Composite) 1400			
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - West of Tract G (in road)

REVIEWED BY: AMF



LOG OF 2018-PB-16

DRILLING METHOD: Direct Push

NORTHING: 7,102,618 FT

DATE/TIME: 07/31/2018, 1148 - 1153

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,168 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 561.87 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
			1.0 1.0		CORE		(0.0-1.0) CONCRETE.
		21			CL		(1.0-2.0) (CL) SILTY CLAY, medium-plasticity fines; dusky yellowish brown (10YR 2/2); cohesive, W<PL, firm.
	1	42	3.5	(2-3)	CL		(2.0-3.0) (CL) SILTY CLAY, low-plasticity fines; very pale brown (10YR 6/2); cohesive, W<PL, firm.
		39	4.0	(3-4)			(2.1) 2 - inch seam of medium sub-angular black (N1) asphalt and very pale orange (10YR 8/2) concrete pieces.
5		12		1222	CL		(3.0-7.5) (CL) SILTY CLAY, medium-plasticity fines, very trace fine sub-angular gravels; dusky yellowish brown (10YR 2/2) with trace light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
	2	14	3.3				
		14	4.0				
		ND +/- 12		(7-8)	CL		(7.5-8.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-rounded gravels; light olive gray (5Y 5/2) with dark yellowish orange (10YR 6/6) and light gray (N7) mottling; cohesive, W<PL, stiff.
10				(TCLP Composite) 1226			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - in road

REVIEWED BY: AMF



LOG OF 2018-PB-17

DRILLING METHOD: Direct Push

NORTHING: 7,102,920 FT

DATE/TIME: 07/30/2018, 1549 - 1553

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,038 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.856 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	43 49 115 144	3.1 4.0	(2-3) 1620 (3-4) 1622	CL		(0.0-8.0) (CL) gravelly SILTY CLAY, medium-plasticity fines, sub-angular to sub-rounded fine gravels; dusky yellowish brown (10YR 2/2) with light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
	2	16 ND +/- 10 ND +/- 11 ND +/- 11	3.8 4.0	(5-6) 1624			(2.5) pieces of angular asphalt. (4.0) color change to pale yellowish brown (10YR 6/2) with dark yellowish orange (10YR 6/6) and moderate yellowish brown (10YR 5/4) mottling.
10				(TCLP Composite) 1626			END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: East Side of Road - West of Tract H (in grass)

REVIEWED BY: AMF



LOG OF 2018-PB-18

DRILLING METHOD: Direct Push

NORTHING: 7,102,748 FT

DATE/TIME: 07/31/2018, 1653 - 1659

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,058 FT

TOTAL DEPTH: 10 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 562.043 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	99 26 ND +/- 11	2.2 4.0	(0-1) 1728	ML		(0.0-3.0) TOPSOIL (ML) SILT, non-plastic fines, some fine sub-angular gravels and roots; dusky yellowish brown (10YR 2/2); non-cohesive, dry, loose. (1.0) color change to very pale orange (10YR 8/2).
	2	16 97 174 18 ND +/- 16	3.2 4.0	(5-6) 1730	CL		(3.0-6.8) (CL) gravelly SILTY CLAY, high-plasticity fines, fine to medium sub-angular gravels; dark yellowish brown (10YR 4/2) with dark gray (N3) and light olive gray (5Y 5/2) mottling; cohesive, W<PL, stiff.
	3	17 21	1.6 2.0	(8-9) 1732	CL		(6.8-10.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-rounded gravels; dark gray (N3) with moderate brown (5YR 4/4) and light olive gray (5Y 5/2) mottling; cohesive, W<PL, very stiff.
10				(TCLP Composite) 1734			END OF BORING AT 10.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - in grass

REVIEWED BY: AMF



LOG OF 2018-PB-19

DRILLING METHOD: Direct Push

NORTHING: 7,102,818 FT

DATE/TIME: 07/31/2018, 1520 - 1525

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,034 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 563.778 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	134	<u>3.5</u> 4.0	(0-1)	ML		(0.0-0.5) TOPSOIL (ML) SILT, non-plastic fines, some fine to medium sub-angular gravels, roots; dark yellowish brown (10YR 4/2); non-cohesive, dry, loose.
		37			ML		(0.5-3.5) (ML) gravelly SILT, non-plastic fines, fine to medium sub-angular to sub-rounded gravels; very pale orange (10YR 8/2); non-cohesive, dry, loose.
		16			CL		(3.5-4.0) (CL) SILTY CLAY, high-plasticity fines; dusky yellowish brown (10YR 2/2) with moderate brown (5YR 4/4) mottling and iron staining; cohesive, W<PL, stiff.
	2	29	<u>3.7</u> 4.0	(6-7)	CL		(4.0-7.0) (CL) gravelly SILTY CLAY, medium-plasticity fines, fine to medium sub-angular gravels; dark yellowish brown (10YR 4/2) with some dark yellowish orange (10YR 6/6) mottling; cohesive, W<PL, stiff.
		308		(7-8)	CL		(7.0-8.0) (CL) SILTY CLAY, high-plasticity fines, trace fine sub-rounded gravels; dusky yellowish brown (10YR 2/2) with moderate brown (5YR 4/4) and grayish orange (10YR 7/4) mottling; cohesive, W<PL, very stiff.
		342					(7.1) shard of glass.
10		277		(TCLP Composite) 1606 1620			(7.9) small pieces of asphalt. END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - in grass

REVIEWED BY: AMF



LOG OF 2018-PB-20

DRILLING METHOD: Direct Push

NORTHING: 7,102,884 FT

DATE/TIME: 07/31/2018, 1443 - 1447

DRILLER: West Drilling, Robert Williams

EASTING: 2,481,003 FT

TOTAL DEPTH: 8 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 564.164 FT AMSL

DEPTH (Feet)	RUN No.	XRF (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1	162	<u>2.5</u> 4.0	(0-1) 1514	ML		(0.0-0.5) TOPSOIL (ML) SILT, non-plastic fines, some fine sub-angular gravels; dusky yellowish brown (10YR 2/2); non-cohesive, dry, loose.
		42 ND +/- 11		ML	(0.5-4.0) (ML) gravelly SILT, non-plastic fines, fine to coarse sub-angular to sub-rounded gravels; very pale orange (10YR 8/2); non-cohesive, dry, loose.		
	14	(4-5) 1516	CL	(4.0-8.0) (CL) gravelly SILTY CLAY, high-plasticity fines, fine sub-angular to sub-rounded gravels; dusky yellowish brown (10YR 2/2); cohesive, W<PL, stiff.			
10	2	58 ND +/- 14 ND +/- 13 ND +/- 11	<u>3.5</u> 4.0	(7-8) 1518 (TCLP Composite) 1520			(7.0) color change to moderate yellowish brown (10YR 5/4) with dark yellowish brown (10YR 4/2) mottling. (7.5) color change to grayish orange (10YR 7/4) with dark yellowish orange (10YR 6/6) mottling.
							END OF BORING AT 8.0 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: EMS

LOCATION: West Side of Road - West of Tract G (in grass)

REVIEWED BY: AMF



LOG OF DGW-MW-1

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,738 FT

DATE/TIME: 5/15/2018, 0950 - 1020

DRILLER: West Drilling, Gus Alejandre

EASTING: 2,480,600 FT

TOTAL DEPTH: 30 FT BGS

RIG: CME-75

SURFACE ELEVATION: 635.52 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		4.5 5.0		ML		(0.0-5.0) (ML) SILT, non-plastic fines, trace fine sand; moderate yellowish brown (10YR 5/4); non-cohesive, dry, loose. (1.0) No fine sand, soil color changes to dark yellowish brown (10YR 4/2).
10	2		1.5 5.0		ML		(5.0-10.0) (ML) sandy SILT, non-plastic fines, fine sand, trace fine sub-angular gravel; dark yellowish brown (10YR 4/2); non-cohesive, dry, loose.
15	3		5.0 5.0		CL		(10.0-15.0) (CL) gravelly SILTY CLAY, low plastic fines, fine to coarse well graded sub-angular gravel; brownish gray (5YR 4/1); cohesive, W<PL, firm.
20	4		2.0 5.0		CH		(15.0-15.5) (CL) SILTY CLAY, medium plastic fines, trace fine sub-angular gravel; brownish gray (5YR 4/1); cohesive, W~PL, soft. (15.5-20.0) (CH) CLAY, high plastic fines; brownish gray (5YR 4/1) with moderate yellowish brown (10YR 5/4) mottling, iron staining; cohesive, W<PL, stiff.
25	5		3.5 5.0				(19.5) Soil color changes to dark gray (N3). (20.0-30.0) SHALE; dark gray (N3); dry, very stiff.
30	6		5.0 5.0				(25.0) Shale becomes medium light gray (N4).
35							END OF BORING AT 30 FEET BELOW GROUND SURFACE.

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: Near Flood Wall and Admin Building

REVIEWED BY: THR/AMF



LOG OF DGW-MW-3

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,694 FT

DATE/TIME: 5/15/2018, 1540 - 1620






DRILLER: West Drilling, Gus Alejandre

EASTING: 2,480,288 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 633.68 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		<u>4.0</u> 5.0		CH		(0.0-0.4) CONCRETE. *approximately 3" of subgrade gravel fill. (0.4-7.5) (CH) CLAY, high plastic fines; brownish black (5YR 2/1), hydrocarbon staining and mild odor; cohesive, W<PL, very stiff.
	2		<u>2.5</u> 5.0		CL		(7.5-10.0) (CL) SILTY CLAY, low plastic fines, some fine sand; brownish gray (5YR 4/1); cohesive, W>PL, soft.
	3		<u>5.0</u> 5.0		CH		(10.0-14.6) (CH) CLAY, high plastic fines, trace fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.
	4		<u>5.0</u> 5.0		CH		(14.6-15.0) (CH) gravelly CLAY, high plastic fines, fine to medium well graded sub-rounded to rounded gravel; brownish gray (5YR 4/1); cohesive, W~PL, very stiff. (15.0-19.0) (CH) CLAY, high plastic fines, trace fine sand; brownish gray (5YR 4/1) with pale yellowish brown (10YR 6/2) mottling, iron staining; cohesive, W<PL, very stiff.
20							(19.0-20.0) SHALE; dark gray (N3); dry, stiff.
							END OF BORING AT 20 FEET BELOW GROUND SURFACE.
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: South of Former Diesel Tank

REVIEWED BY: THR/AMF



LOG OF DGW-MW-4

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,711 FT

DATE/TIME: 5/15/2018, 1350 - 1440






DRILLER: West Drilling, Gus Alejandro

EASTING: 2,480,132 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 632.50 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							(0.0-0.5) CONCRETE.
	1		3.6 5.0		CH		*approximately 3" of subgrade gravel fill. (0.5-5.0) (CH) CLAY, high plastic fines; brownish gray (5YR 2/1), heavy hydrocarbon odor and staining; cohesive, W<PL, stiff. (2.5) 1 inch seam of fine to coarse well graded sub-rounded gravel.
5	2		1.7 5.0		CH		(5.0-14.5) (CH) CLAY, high plastic fines; brownish gray (5YR 4/1); cohesive, W~PL, firm.
10	3		2.8 5.0		CH		
15	4		5.0 5.0		CH		(14.5-15.0) (CH) gravelly CLAY, high plastic fines, fine to medium sub-angular gravel; brownish gray (5YR 4/1); cohesive, W~PL, very stiff. (15.0-19.0) (CH) CLAY, high plastic fines, trace fine sand; dark gray (N3) with moderate yellowish brown (10YR 5/4) & brownish gray (5YR 4/1) mottling, iron staining; cohesive, W~PL, very stiff to hard.
20							(19.0-20.0) SHALE; dark gray (N3); dry, very stiff.
							END OF BORING AT 20 FEET BELOW GROUND SURFACE.
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: Flood Wall Apex; Near Former French Drain

REVIEWED BY: THR/AMF

LOG OF DGW-MW-5

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,102,077 FT

DATE/TIME: 5/16/2018, 0910 - 0945

DRILLER: West Drilling, Gus Alejandre

EASTING: 2,479,632 FT

TOTAL DEPTH: 20 FT BGS

RIG: CME-75

SURFACE ELEVATION: 626.99 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5 <							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: West of Former Battery Storage Building

REVIEWED BY: THR/AMF



LOG OF DGW-MW-6

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,102,081 FT

DATE/TIME: 5/16/2018, 1040 - 1130

DRILLER: West Drilling, Gus Alejandre

EASTING: 2,479,880 FT

TOTAL DEPTH: 30 FT BGS

RIG: CME-75

SURFACE ELEVATION: 640.42 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		2.2 5.0		ML		(0.0-2.5) gravelly sandy SILT, non-plastic fines, fine to coarse well graded sub-rounded to sub-angular gravel, fine sand; dark yellowish brown (10YR 4/2); non-cohesive, dry, loose.
					CH		(2.5-5.0) (CH) CLAY, high plastic fines, trace fine sand; dark yellowish brown (10YR 4/2); cohesive, W<PL, stiff.
10	2		5.0 5.0		CH		(5.0-10.0) (CH) CLAY, high plastic fines, trace sub-rounded gravel; dusky yellowish brown (10YR 2/2); cohesive, W<PL, very stiff.
					CH		(10.0-12.5) (CH) CLAY, high plastic fines, trace fine sub-rounded gravels, trace fine sand; dusky yellowish brown (10YR 2/2); cohesive, W<PL, very stiff.
15	3		5.0 5.0		CL		(12.5-15.0) (CL) SILTY CLAY, low plastic fines, trace fine sand; pale yellowish brown (10YR 2/2); cohesive, W<PL, stiff.
					CL		(15.0-20.0) (CL) sandy SILTY CLAY, low plastic fines, fine sand; brownish gray (5YR 4/1); cohesive, W~PL, firm.
20	4		2.5 5.0		CL		(20.0-22.5) (CH) CLAY, high plastic fines, some fine to coarse well graded sub-rounded to sub-angular gravels, some fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.
					CH		(22.5-29.6) (CH) gravelly CLAY, high plastic fines, fine to medium well graded sub-rounded to rounded gravels, some fine sand; pale yellowish brown (10YR 6/2) with moderate yellowish brown (10YR 5/4) mottling, iron staining; cohesive, W~PL, very stiff.
25	5		5.0 5.0		CH		
					CH		
30	6		5.0 5.0				(29.6-30.0) SHALE; dark gray (N3), dry, very stiff.
							END OF BORING AT 30 FEET BELOW GROUND SURFACE.
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: South of North Disposal Area

REVIEWED BY: THR/AMF

LOG OF DGW-MW-7

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,102,104 FT

DATE/TIME: 5/16/2018, 1300 - 1400








DRILLER: West Drilling, Gus Alejandre

EASTING: 2,479,782 FT

TOTAL DEPTH: 30 FT BGS

RIG: CME-75

SURFACE ELEVATION: 639.95 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		<u>1.3</u> 5.0		CL		(0.0-5.0) (CL) gravelly SILTY CLAY, low plastic fines, fine to coarse sub-rounded to sub-angular gravel, trace fine sand; dusky yellowish brown (10YR 2/2); cohesive, W<PL, stiff.
	2		<u>5.0</u> 5.0		CL		(5.0-19.0) (CL) SILTY CLAY, low plastic fines, trace fine sand, trace fine sub-rounded to rounded gravel; dusky yellowish brown (10YR 2/2); cohesive, W<PL, very stiff.
	3		<u>5.0</u> 5.0				
	15	4	<u>4.5</u> 5.0				(15.0) No gravel
	20	5	<u>5.0</u> 5.0	CH			
				CH		(20.0-22.5) (CH) CLAY, high plastic fines, trace fine sub-rounded to rounded gravel, trace fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.	
	CH				(22.5-23.0) (CH) gravelly CLAY, high plastic fines, fine to coarse well graded sub-rounded to sub-angular gravel, trace fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.		
25	CH				(23.0-28.0) (CH) CLAY, high plastic fines, trace fine rounded gravel, trace fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.		
30	6		<u>5.0</u> 5.0		CH		(28.0-29.5) (CH&GW) CLAY and GRAVEL, high plastic fines, fine to coarse well graded sub-rounded to sub-angular gravel, trace fine sand; pale yellowish brown (10YR 6/2); cohesive, W>PL, very stiff.
							(29.5-30.0) SHALE; dark gray (N3), moist, very stiff.
							END OF BORING AT 30 FEET BELOW GROUND SURFACE.
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: South of North Disposal Area

REVIEWED BY: THR/AMF



LOG OF DGW-MW-9

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,771 FT

DATE/TIME: 5/16/2018, 1535 - 1605

DRILLER: West Drilling, Gus Alejandro

EASTING: 2,480,655 FT

TOTAL DEPTH: 25 FT BGS

RIG: CME-75

SURFACE ELEVATION: 642.22 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		3.0 5.0		SC		(0.0-9.0) (SC) CLAYEY SAND, fine sand, low to medium plastic fines; moderate brown (5YR 3/4); non-cohesive, dry, compact.
	2		3.0 5.0				(5.0) Increasing fines content
10	3		5.0 5.0		CH		(9.0-10.0) (CH) sandy CLAY, high plastic fines, fine sand; dark yellowish brown (10YR 4/2); cohesive, W<PL, stiff.
					CH		(10.0-12.5) (CH) CLAY, high plastic fines, trace fine sand; dusky yellowish brown (10YR 2/2); cohesive, W<PL, stiff.
					CH		(12.5-15.0) (CH) sandy CLAY, high plastic fines, fine sand; brownish gray (5YR 4/1); cohesive, W<PL, soft.
15	4		5.0 5.0		CH		(15.0-16.0) (CH) sandy CLAY, high plastic fines, fine sand; brownish gray (5YR 4/1); cohesive, W<PL, stiff.
					CH		(16.0-20.0) (CH) gravelly CLAY, high plastic fines, fine to coarse well graded sub-rounded to sub-angular gravel, some fine sand; brownish gray (5YR 4/1), iron staining; cohesive, W~PL, stiff.
20	5		5.0 5.0		CH		(20.0-22.0) (CH) sandy CLAY, high plastic fines, fine sand, some fine sub-rounded to rounded gravel; brownish gray (5YR 4/1); cohesive, W~PL, soft.
					CH		(22.0-24.0) (CH) sandy gravelly CLAY, high plastic fines, fine sand, fine to coarse well graded gravel; pale yellowish brown (10YR 6/2); cohesive, W~PL, very stiff.
							(24.0-25.0) SHALE; dark gray (N3); moist, very stiff.
25							END OF BORING AT 25 FEET BELOW GROUND SURFACE.
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: Near Admin Building

REVIEWED BY: THR/AMF



LOG OF DGW-MW-10

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,804 FT

DATE/TIME: 5/18/2018, 0900 - 1000

DRILLER: West Drilling, Robert Williams

EASTING: 2,479,984 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 631.97 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
							(0.0-0.6) CONCRETE.
	1		1.0 5.0		CL		*approximately 3" of subgrade gravel fill. (0.6-5.0) (CL) SILTY CLAY, low plastic fines, some medium sub-angular gravels, trace fine sand; brownish black (5YR 2/1); cohesive, W<PL, soft.
5	2		2.6 5.0		CL		(5.0-7.5) (CL) gravelly SILTY CLAY, low plastic fines, medium to coarse sub-angular to angular gravels, trace fine sand; brownish gray (5YR 4/1); cohesive, W>PL, very stiff.
10	3		3.8 5.0		CH		(7.5-13.0) (CH) CLAY, high plastic fines, trace fine sand; brownish gray (5YR 4/1) cohesive, W~PL, stiff. (10.0) Soil water content becomes greater than plastic limit.
15	4		1.0 1.0		CH		(13.0-14.5) (CH) CLAY, high plastic fines, some fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.
	5		4.0 4.0		CH		(14.5-15.0) (CH) CLAY, high plastic fines, some fine to coarse sub-rounded to sub-angular well graded gravel, some fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.
					SM		(15.0-16.0) (CH) CLAY, high plastic fines, some fine sand, trace fine to medium sub-angular to angular gravels; brownish gray (5YR 4/1); cohesive, W>PL, firm.
20					CH		(16.0-18.0) (SM) SILTY SAND, fine sand, non-plastic fines; brownish gray (5YR 4/1); non-cohesive, wet, dense.
							*Driller encounters hard drilling section at 16.5 ft BGS (18.0-19.5) (CH) CLAY, high plastic fines, trace fine sand; medium gray (N5); cohesive, W~PL, very stiff. (19.5-20.0) SHALE; dark gray (N3); moist, very stiff. END OF BORING AT 20 FEET BELOW GROUND SURFACE.
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: South of Slag Treatment Building

REVIEWED BY: THR/AMF



LOG OF DGW-MW-10S

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,802 FT

DATE/TIME: 5/18/2018, 1150 - 1233

DRILLER: West Drilling, Robert Williams

EASTING: 2,479,986 FT

TOTAL DEPTH: 10 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 631.90 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		1.6 5.0				(0.0-0.6) CONCRETE.
					ML		*approximately 3" of subgrade gravel fill.
					CH		(0.6-2.5) (ML) sandy gravelly SILT, non-plastic fines, fine sand, fine to medium well graded sub-angular gravel; brownish gray (5YR 4/1) fines with grayish black (N2) sand; non-cohesive, wet, compact.
	2		5.0 5.0		SM		(2.5-5.0) (CH) CLAY, high plastic fines, some fine sand; brownish black (5YR 2/1); cohesive, W~PL, firm.
					CH		(5.0-5.5) (SM) SILTY SAND, fine sand, non-plastic fines, trace fine to medium sub-angular gravels; brownish black (5YR 2/1); non-cohesive, wet, compact.
10					CH		(5.5-6.0) (CH) CLAY, high plastic fines, some fine sand; brownish black (5YR 2/1); cohesive, W~PL, firm. (6.0-10.0) (CH) CLAY, high plastic fines, trace fine sand; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.
							END OF BORING AT 10 FEET BELOW GROUND SURFACE.
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: South of Slag Treatment Building

REVIEWED BY: THR/AMF



LOG OF DGW-MW-11

DRILLING METHOD: Direct Push/HSA

NORTHING: 7,101,855 FT

DATE/TIME: 5/18/2018, 1400 - 1607

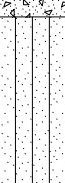




DRILLER: West Drilling, Robert Williams

EASTING: 2,479,920 FT

TOTAL DEPTH: 17 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 631.76 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		1.0		SM		(0.0-0.6) CONCRETE.
			5.0				*approximately 3" of subgrade gravel fill. (0.6-5.0) (SM) SILTY SAND, fine sand, non-plastic fines; mix of moderate yellowish brown (10YR 5/4) and dusky yellowish brown (10YR 2/2); non-cohesive, wet, loose.
	2		2.9		CH		(5.0-7.5) (CH) sandy CLAY, high plastic fines, fine sand, trace medium sub-angular gravels; dusky yellowish brown (10YR 2/2); cohesive, W>PL, soft.
			5.0		CH		(7.5-10.0) (CH) CLAY, high plastic fines, trace fine sand; brownish black (5YR 2/1); cohesive, W~PL, stiff.
	3		4.5		CH		(10.0-14.0) (CH) gravelly CLAY, high plastic fines, fine to coarse well graded sub-angular gravel, trace fine sand; dark yellowish brown (10YR 4/2); cohesive, W>PL, stiff.
5.0			CH		(14.0-15.0) (CH) CLAY, high plastic fines, trace fine sand, trace medium sub-angular gravels; brownish gray (5YR 4/1); cohesive, W~PL, very stiff.		
15	2		5.0		CL		(15.0-16.0) (CL) SILTY CLAY, medium plastic fines, trace fine sand, trace medium sub-angular gravels; brownish gray (5YR 4/1); cohesive, W>PL, soft.
			1.0		CL		(16.0-17.0) (CL) SILTY CLAY, medium plastic fines, some fine sand, trace fine sub-angular gravels; pale yellowish brown (10YR 6/2); cohesive, W>PL, very stiff.
20							REFUSAL AT 17 FEET BELOW GROUND SURFACE.
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: BCW

PROJECT: Exide Frisco

CHECKED BY: PJJ

LOCATION: South of WWTP

REVIEWED BY: THR/AMF



LOG OF DGW-MW-11S

DRILLING METHOD: Direct Push/HSANORTHING: 7,101,854 FTDATE/TIME: 5/18/2018, 1630 - 1710DRILLER: West Drilling, Robert WilliamsEASTING: 2,479,922 FTTOTAL DEPTH: 10 FT BGSRIG: Geoprobe 7822DTSURFACE ELEVATION: 631.78 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		2.1 5.0				(0.0-0.6) CONCRETE.
				ML		*approximately 3" of subgrade gravel fill.	
				SM		(0.6-1.5) (ML) SILT, non-plastic fines, some fine to medium sub-rounded gravels, some fine sand; medium gray (N5) with white (N9) gravel; non-cohesive, dry, loose.	
				CH		(1.5-2.5) (SM) SILTY SAND, fine sand, non-plastic fines, trace fine sub-angular gravel; moderate yellowish brown (10YR 5/4) with black (N1) gravel; non-cohesive, moist, compact.	
	2		ML		(2.5-5.0) (CH) CLAY, high plastic fines, trace fine sand; brownish black (5YR 2/1); cohesive, W~PL, firm.		
			CH		(5.0-6.0) (ML) sandy SILT, non-plastic fines, fine sand, some fine to medium sub-angular gravel; dark gray (N3); non-cohesive, wet, compact.		
					(6.0-9.0) (CH) CLAY, high plastic fines, trace fine sand; gradation from brownish black (5YR 2/1) to pale yellowish brown (10YR 6/2); cohesive, W<PL, stiff.		
			CH		(9.0-10.0) (CH) gravelly CLAY, high plastic fines, fine to coarse well graded sub-rounded to sub-angular gravels; pale yellowish brown (10YR 6/2); cohesive, W<PL, very stiff.		
10						END OF BORING AT 10 FEET BELOW GROUND SURFACE.	
15							
20							
25							
30							
35							

PROJECT No: 130-2086-06COMPILED BY: BCWPROJECT: Exide FriscoCHECKED BY: PJJLOCATION: South of WWTPREVIEWED BY: THR/AMF



LOG OF 2019-BH-04 / DGW-MW-12

DRILLING METHOD: Direct Push

NORTHING: 7,102,370 FT

DATE/TIME: 01/21/2019, 1620






DRILLER: West Drilling, Robert Williams

EASTING: 2,479,330 FT

TOTAL DEPTH: 23.5 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 637.02 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		<u>3.2</u> 5.0		CL		(0.0-16.5) (CL) SILTY CLAY, some gravels, trace fine sand, roots; dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff. (3.2) Soil color changes to light gray (N7), dusky yellowish brown (10YR 2/2), and dark yellowish orange (10YR 6/6). (4.1) Soil color changes to dusky yellowish brown (10YR 2/2). (5.9) Same as above (SAA) except with dark yellowish brown (10YR 4/2). (6.5) SAA except no dark yellowish brown (10YR 4/2). (8.5) SAA except no roots remaining; stiff.
10	2		<u>5.0</u> 5.0		CL		(10.5) Soil color changes to dark yellowish brown (10YR 4/2) to moderate yellowish brown (10YR 5/4); very stiff.
15	3		<u>4.8</u> 5.0		CL		(12.8) Soil color changes to light gray (N7) with dark yellowish orange (10YR 6/6); stiff.
20	4		<u>4.6</u> 5.0		MH		(16.5-16.7) (MH) CLAYEY SILT, trace fine sand; light gray (N7) with grayish brown (5Y 8/4); cohesive, w<PL, soft.
25	5		<u>4.1</u> 3.5		CL		(16.7-23.0) (CL) SILTY CLAY, trace fine sand; light gray (N7) with grayish brown (5Y 8/4); cohesive, w~PL, very stiff. (17.8) SAA except no grayish brown (5Y 8/4) and with dark yellowish orange (10YR 6/6); hard. (22.1) Soil color changes to medium gray (N5). (23.0-23.5) SHALE; medium gray (N5); Hard.
30							END OF BOREHOLE AT 23.5 FEET BELOW GROUND SURFACE.
35							

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: West of Slag Landfill

REVIEWED BY: THR



LOG OF 2019-BH-01

DRILLING METHOD: Direct Push

NORTHING: 7,102,416 FT

DATE/TIME: 01/21/2019, 1150

DRILLER: West Drilling, Robert Williams

EASTING: 2,479,280 FT

TOTAL DEPTH: 25 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 636.48 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		3.8 5.0		CL		(0.0-13.5) (CL) SILTY CLAY, trace fine grained sands, trace roots and gravel; dusky yellowish brown (10YR 2/2); cohesive, w~PL, firm. (0.2) Pink granite from railroad observed. (1.1) Shells observed, no roots remain. (2.5) Same as above (SAA) except with some dark yellowish brown (10YR 4/2); stiff.
10	2		5.0 5.0		CL		(7.5) Soil color changes to only dusky yellowish brown (10YR 2/2); very stiff.
15	3		5.0 5.0		CL		(10.5) Soil color changes to dark yellowish brown (10YR 4/2).
20	4		5.0 5.0		CL		(13.5-21.0) (CL) gravelly SILTY CLAY, rounded gravel, trace fine sand; dark yellowish brown (10YR 4/2); cohesive, w~PL, very stiff. (15.5) Soil color changes to moderate yellowish brown (10YR 5/4); stiff. (17.0) Soil color changes to pale yellowish brown (10YR 6/2) with dark yellowish orange (10YR 6/6) mottling; firm. (18.5) SAA except with larger gravels; soft, w>PL.
25	5		3.3 5.0		CL		(21.0-23.5) (CL) SILTY CLAY, some gravel, trace fine sand; light gray (N7) with dark yellowish orange (10YR 6/6) mottling; cohesive, w~PL, firm. (22.0) w>PL, very soft. (22.5) w~PL, stiff.
					SHALE		(23.0) Soil color changes to medium gray (N5); hard. (23.5-25.0) SHALE; medium dark gray (N4); hard.
							END OF BOREHOLE AT 25.0 FEET BELOW GROUND SURFACE.
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: West of Slag Landfill, Southeast of North Tributary

REVIEWED BY: THR



LOG OF 2019-BH-02

DRILLING METHOD: Direct Push

NORTHING: 7,102,402 FT

DATE/TIME: 01/21/2019, 1400

DRILLER: West Drilling, Robert Williams

EASTING: 2,479,298 FT

TOTAL DEPTH: 25 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 636.70 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		3.7 5.0		CL		(0.0-7.5) (CL) gravelly SILTY CLAY, trace fine sand, trace roots; dusky yellowish brown (10YR 2/2) and dark yellowish brown (10YR 4/2); cohesive, w~PL, stiff. (4.1) Soil color changes to dark yellowish brown (10YR 4/2) with dusky yellowish brown (10YR 2/2); very stiff.
10	2		5.0 5.0		CL		(7.5-10.0) (CL) SILTY CLAY, some gravel (5%), trace fine sand; light gray (N7) with dark yellowish orange (10YR 6/6) mottling; cohesive, w~PL, very stiff. (8.0) Soil color changes to dusky yellowish brown (10YR 2/2).
15	3		5.0 5.0		CL		(10.0-17.5) (CL) gravelly SILTY CLAY, rounded gravel, trace fine sand; dark yellowish brown (10YR 4/2); cohesive, w~PL, very stiff.
20	4		5.0 5.0		CL&CG SM		(17.5-18.5) (CL and GC) SILTY CLAY and GRAVEL, rounded gravel; pale yellowish brown (10YR 6/2) with dark yellowish orange (10YR 6/6) mottling ; cohesive, w~PL, stiff.
25	5		3.7 5.0		CL		(18.5-19.0) (SM) SILTY SAND; light brown (5YR 5/6); non-cohesive, moist. (19.0-24.5) (CL) SILTY CLAY, trace fine sand; light gray (N7) and dark yellowish orange (10YR 6/6); cohesive, w~PL, very stiff.
					SM		(22.0) Same as above (SAA) except no dark yellowish orange (10YR 6/6). (23.0) Soil color changes to medium gray (N5); very stiff.
					SHALE		(24.0-24.5) (SM) SILTY SAND; light gray (N7); non-cohesive, dry. (24.5-25.0) SHALE; medium dark gray (N4); hard.
							END OF BOREHOLE AT 25.0 FEET BELOW GROUND SURFACE.

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: West of Slag Landfill

REVIEWED BY: THR

**GOLDER****LOG OF 2019-BH-03**DRILLING METHOD: Direct PushNORTHING: 7,102,380 FTDATE/TIME: 01/21/2019, 1525DRILLER: West Drilling, Robert WilliamsEASTING: 2,479,313 FTTOTAL DEPTH: 23.5 FT BGSRIG: Geoprobe 7822DTSURFACE ELEVATION: 636.55 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		<u>3.8</u> 5.0		CL		(0.0-6.8) (CL) gravelly SILTY CLAY, trace fine sand, trace roots; dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff.
							(4.2) larger gravels and tree roots observed.
10	2		<u>5.0</u> 5.0				(5.1) Soil color changes to dusky yellowish brown (10YR 2/2) with dark yellowish orange (10YR 6/6).
							(6.8-23.0) (CL) SILTY CLAY, some gravel (10%); pale yellowish brown (10YR 6/2) with dark yellowish orange (10YR 6/6); cohesive, w~PL, stiff.
15	3		<u>5.0</u> 5.0		CL		(8.3) Soil color changes to dusky yellowish brown (10YR 2/2).
							(10.1) Soil color changes to brownish gray (5YR 4/1).
20	4		<u>5.0</u> 5.0				(12.0) Soil color changes to dark yellowish brown (10YR 4/2) with dark yellowish orange (10YR 6/6) mottling.
							(14.3) Soil color changes to light gray (N7) with dark yellowish orange (10YR 6/6) and grayish brown (5Y 8/4).
25	5		<u>3.5</u> 3.5				(18.8) Soil color changes to light brown (5YR 5/6).
							(18.9) Soil color changes to light gray (N7) with dark yellowish orange (10YR 6/6) and grayish brown (5Y 8/4).
30					SHALE		(22.5) Soil color changes to medium gray (N5) with intermittent light gray (N7) (SM) SILTY SAND layers (hair thin).
							(23.0-23.5) SHALE; medium gray (N5); hard.
35							END OF BOREHOLE AT 23.5 FEET BELOW GROUND SURFACE.

PROJECT No: 130-2086-06COMPILED BY: AGAPROJECT: Exide FriscoCHECKED BY: EPWLOCATION: West of Slag LandfillREVIEWED BY: THR



LOG OF 2019-BH-05

DATE/TIME: 01/22/2019, 1200

DRILLING METHOD: Direct Push

NORTHING: 7,102,090 FT

DRILLER: West Drilling, Robert Williams

EASTING: 2,480,296 FT

TOTAL DEPTH: 25 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 639.97 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		3.9 5.0		CH		(0.0-7.3) (CH) CLAY, high plasticity, trace roots; dark yellowish brown (10YR 4/2); cohesive, w~PL, soft. (0.5) Same as above (SAA) except with trace sub-angular gravels. (2.1) SAA except with some fine grained sand (5%); soil color changes to dusky yellowish brown (10YR 2/2). (3.9) SAA except stiff.
10	2		4.5 5.0		CL		(6.8) Soil color changes to light olive gray (5Y 5/2); very stiff. (7.3-12.5) (CL) SILTY CLAY, low plasticity, some fine sand, trace roots; dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff.
15	3		5.0 5.0		CL		(11.1) SAA except with trace gravel. (11.5) SAA except some fine sand; no roots. (12.5-15.8) (CL) sandy SILTY CLAY, fine grained sand, trace gravel; dusky yellowish brown (10YR 2/2); cohesive, w>PL, soft-very soft.
20	4		5.0 5.0		GP&SM		(15.8-16.3) (GP&SM) GRAVEL and SILTY SAND, rounded gravels, fine grained sand; dusky yellowish brown (10YR 2/2); non-cohesive, wet, very loose.
25	5		5.0 5.0		CL		(16.3-21.2) (CL) sandy SILTY CLAY, fine grained sand; dusky yellowish brown (10YR 2/2); cohesive, w>PL, soft. (20.0) Fall in noted at beginning of run.
30					SHALE		(21.2-24.5) (CL) SILTY CLAY, trace fine sand; light olive gray (5Y 5/2) with grayish brown (5Y 8/4); cohesive, w~PL, firm. (21.5) SAA except with dark yellowish orange (10YR 6/6); firm. (23.0) SAA except very stiff.
35							(24.5-25.0) SHALE; medium gray (N5); hard. END OF BOREHOLE AT 25.0 FEET BELOW GROUND SURFACE.

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: South of North Disposal Area

REVIEWED BY: THR



LOG OF 2019-BH-06

DRILLING METHOD: Direct Push

NORTHING: 7,102,387 FT

DATE/TIME: 01/22/2019, 1315







DRILLER: West Drilling, Robert Williams

EASTING: 2,480,374 FT

TOTAL DEPTH: 15 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 636.45 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		3.9 5.0		CL		(0.0-2.5) (CL) SILTY CLAY, trace gravel, trace fine sand, trace roots; moderate yellowish brown (10YR 5/4); cohesive, w~PL, soft. (0.5) Same as above (SAA) except soil changes color to dark yellowish brown (10YR 4/2); firm-stiff.
					CL		(2.5-3.9) (CL) gravelly SILTY CLAY, sub-angular gravels, trace fine sand, trace roots; dark yellowish brown (10YR 4/2) with moderate yellowish brown (10YR 5/4); cohesive, W~PL, firm-stiff.
	2		5.0 5.0		CL		(3.9-9.5) (CL) SILTY CLAY, some sub-angular gravels, trace fine sand, trace roots; dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff. (4.5) SAA except trace (2%) gravel. (6.0) SAA except some gravel (10%), no roots; very stiff. (7.0) Gravel increasing with depth.
							3
	CL				(9.9-12.5) (CL) SILTY CLAY, trace fine sand; light gray (N7) with dark yellowish orange (10YR 6/6); cohesive, w~PL, very stiff.		
	15						
CL				(12.6-14.5) (CL) SILTY CLAY, trace fine sand; light gray (N7) with dark yellowish orange (10YR 6/6); cohesive, w~PL, very stiff.			
SHALE				(14.5-15.0) SHALE; medium gray (N5) with dark yellowish orange (10YR 6/6); hard.			
							END OF BOREHOLE 15.0 FEET BELOW GROUND SURFACE.
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: North of North Disposal Area

REVIEWED BY: THR



LOG OF 2019-BH-07

DATE/TIME: 01/22/2019, 1420

DRILLING METHOD: Direct Push

NORTHING: 7,102,382 FT


DRILLER: West Drilling, Robert Williams

EASTING: 2,480,142 FT

TOTAL DEPTH: 24 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 636.01 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS		
5	1		<u>2.5</u> 5.0		CL		(0.0-2.5) (CL) SILTY CLAY, trace fine sand, some roots; dark yellowish brown (10YR 6/2) with dusky yellowish brown (10YR 2/2); cohesive, w~PL, firm.		
					GP		(2.0) Soil color changes to only dusky yellowish brown (10YR 2/2).		
	2		<u>5.0</u> 5.0		CL		(2.5-3.0) (GP) GRAVEL, sub-angular gravel, battery case fragments noted; non-cohesive, moist, loose. (3.0-8.0) (CL) SILTY CLAY, trace fine sand, some roots; dusky yellowish brown (10YR 2/2); cohesive, w~PL, firm.		
					CL		(6.5) SAA except with some fine sand (10%), no roots remain.		
							CL		(8.0-10.2) (CL) sandy SILTY CLAY, fine sand; dusky yellowish brown (10YR 2/2); cohesive, w~PL, firm.
10	3		<u>5.0</u> 5.0		CL&SP		(10.2-14.0) (CL&SP) SILTY CLAY and SAND, fine grained, trace rounded gravel; light olive gray (5Y 5/2) and dark yellow orange (10YR 6/6); cohesive, w~PL, firm.		
					GW&SW		(12.7) Small pocket of sub-angular gravel, some medium grained sand. (13.0) Small pocket of rounded to sub-rounded gravel; stiff.		
							4	<u>5.0</u> 5.0	CL
	OH				(18.8-20.0) (OH) sandy ORGANIC SILT, fine grained sand; medium dark gray (N4); cohesive, w~PL, firm.				
					CL				(20.0-21.1) (CL) SILTY CLAY, trace very fine sand; medium gray (N5); cohesive, w~PL, hard.
15	5		<u>4.0</u> 4.0		SHALE		(21.1-24.0) SHALE; medium gray (N5); hard.		
							END OF BOREHOLE 24.0 FEET BELOW GROUND SURFACE.		
	20								
25									
30									
35									

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: North of North Disposal Area, western edge

REVIEWED BY: THR



LOG OF 2019-BH-08

DRILLING METHOD: Direct Push

NORTHING: 7,102,417 FT

DATE/TIME: 01/22/2019, 1510

DRILLER: West Drilling, Robert Williams

EASTING: 2,480,634 FT

TOTAL DEPTH: 15 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 642.40 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
5	1		2.0 5.0		CL		(0.0-1.0) (CL) gravelly SILTY CLAY, sub-angular gravel, trace roots (5%); dark yellowish brown (10YR 4/2) with medium gray (N5) and grayish orange (10YR 7/4); non-cohesive, moist, loose.
					GW		(1.0-2.8) (GW) GRAVEL, some silty clay (10%), sub-angular to sub-rounded gravel; dusky yellowish brown (10YR 2/2); non-cohesive, moist, loose.
					CL&GW		(2.8-5.4) (CL&GW) SILTY CLAY and GRAVEL, sub-angular gravel; dusky yellowish brown (10YR 2/2); non-cohesive, moist, loose.
10	2		1.9 5.0		SM		(4.8) Battery case fragment observed. (5.4-10.0) (SM) SILTY SAND, very coarse grained; pale yellowish brown (10YR 6/2) with dark yellowish orange (10YR 6/6); cohesive, w~PL, soft. (5.8) w>PL.
					GP&SP		(10.0-11.0) (GP&SP) silty GRAVEL and SAND, poorly graded sand; light olive gray (5Y 5/2); non-cohesive, wet, loose.
					GP&OH		(11.0-12.2) (GP&OH) GRAVEL and SILT, some fine sand; yellowish gray (5Y 7/2) and grayish brown (5Y 8/4); cohesive, w>PL, firm.
15	3		4.5 5.0		CL		(12.2-14.5) (CL) SILTY CLAY; yellowish gray (5Y 7/2) and dark yellowish orange (10YR 6/6); cohesive, w~PL, hard.
					SHALE		(14.5-15.0) SHALE; medium dark gray (N4); hard.
							END OF BOREHOLE 15.0 FEET BELOW GROUND SURFACE.
20							
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: North of North Disposal Area, eastern edge

REVIEWED BY: THR



LOG OF 2019-BH-09

DATE/TIME: 01/22/2019, 1610

DRILLING METHOD: Direct Push

NORTHING: 7,101,842 FT

DRILLER: West Drilling, Robert Williams

EASTING: 2,480,769 FT

TOTAL DEPTH: 20 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 642.34 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS
					SP		(0.0-0.1) TOPSOIL.
	1		3.3 5.0		CL		(0.1-0.9) (SP) SAND, very fine grained, uniformly graded; dark yellowish orange (10YR 6/6) to moderate brown (5YR 4/4); non-cohesive, moist, very loose. (0.9-4.0) (CL) SILTY CLAY, trace fine sand; dark yellowish brown (10YR 4/2) and dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff. (2.5) Same as above (SAA) except with trace gravel. (3.7) SAA except no gravel; soil changes color to dark yellowish brown (10YR 4/2).
5					OH&SP		(4.0-12.1) (OH&SP) clayey ORGANIC SILT and SAND, very fine grained sand; moderate yellowish brown (10YR 5/4); cohesive, w~PL, soft. (8.0) SAA except with some gravel, gravel increasing with depth; soil changes color to dark yellowish brown (10YR 4/2).
10	2		5.0 5.0				
	3		5.0 5.0		CL		(10.0) Calcite observed at end of 10 foot run. (10.2) SAA except soil changes color to yellowish gray (5Y 7/2) with dark yellowish orange (10YR 6/6) with some grayish brown (5Y 8/4); very stiff. (11.5) Soil changes color to dark yellowish brown (10YR 4/2).
15					SM		(12.1-15.1) (CL) SILTY CLAY, some rounded gravels, trace fine sand; dusky yellowish brown (10YR 2/2); cohesive, w~PL, stiff. (13.7) Soil color moderate reddish brown (10R4/6) on seams.
	4		2.1 5.0		SHALE		(15.1-17.5) (SM) SILTY SAND, fine grained; light olive gray (5Y 5/2) with moderate yellowish brown (10YR 5/4); non-cohesive, dry, compact.
20							(17.5-20.0) SHALE; medium dark gray (N4); hard.
							END OF BOREHOLE 20.0 FEET BELOW GROUND SURFACE.
25							
30							
35							

PROJECT No: 130-2086-06

COMPILED BY: AGA

PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: Near Admin building

REVIEWED BY: THR



LOG OF 2019-BH-10

DATE/TIME: 01/22/2019, 1650

DRILLING METHOD: Direct Push

NORTHING: 7,101,688 FT




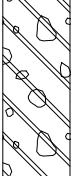
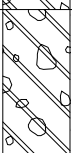
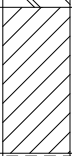
DRILLER: West Drilling, Robert Williams

EASTING: 2,480,718 FT

TOTAL DEPTH: 18.5 FT BGS

RIG: Geoprobe 7822DT

SURFACE ELEVATION: 635.28 FT AMSL

DEPTH (Feet)	RUN No.	PID (PPM)	REC (Feet)	SAMPLE	USCS	GRAPHIC LOG	DESCRIPTION AND COMMENTS				
5	1		4.3 5.0		CL		(0.0-0.1) TOPSOIL, grass, roots. (0.1-2.5) (CL) SILTY CLAY, trace gravels; dark yellowish brown (10YR 4/2); cohesive, w~PL, stiff.				
					CL&GP		(2.1) Gravel increases with depth. (2.5-4.0) (CL&GP) SILTY CLAY and GRAVEL, sub-rounded to sub-angular gravel; dark yellowish brown (10YR 4/2); cohesive, w~PL, stiff.				
					CL		(4.0-4.9) (CL) gravelly SILTY CLAY, sub-rounded to sub-angular; dark yellowish brown (10YR 4/2); cohesive, w~PL, stiff.				
10	2		3.3 5.0		CL&SP		(4.9-10.2) (CL&GP) SILTY CLAY and GRAVEL, sub-rounded to sub-angular gravel, some fine to medium grained sand; grayish yellow (5Y 5/2); cohesive, w~PL, firm.				
							(8.3) w>PL. (9.0) Soil color changes to medium gray (N5).				
							15	3	3.4 5.0	CL&GP	
4	3.5 3.5		CL			(14.1-17.9) (CL) SILTY CLAY; medium dark gray (N4) with dark yellowish orange (10YR 6/6); cohesive, w~PL, very stiff.					
						SHALE					
20							END OF BOREHOLE 18.5 FEET BELOW GROUND SURFACE.				
25											
30											
35											

PROJECT No: 130-2086-06

COMPILED BY: AGA

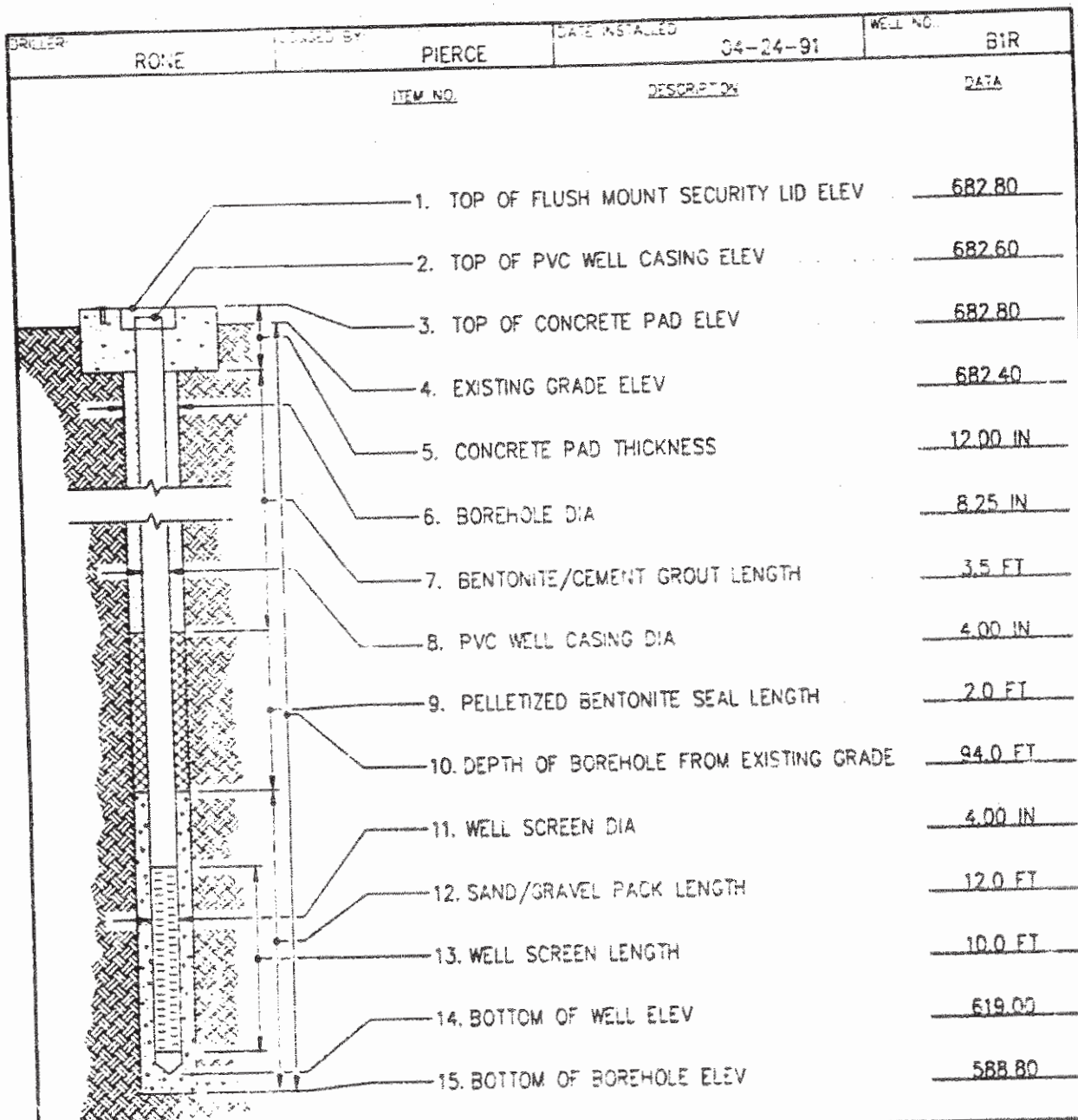
PROJECT: Exide Frisco

CHECKED BY: EPW

LOCATION: South West of Admin building

REVIEWED BY: THR

ATTACHMENT C
MONITORING WELL CONSTRUCTION DIAGRAMS



ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01" NON-CONTINUOUS SLOT CONSTRUCTION



LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION


DESIGNED BY RCW	DATE 04-10-91	NOTES 495-45	REVISIONS 495-193
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DRILLER:	RONE	LOGGED BY:	GANTZ	DATE INSTALLED:	07-11-90	WELL NO.:	B2R
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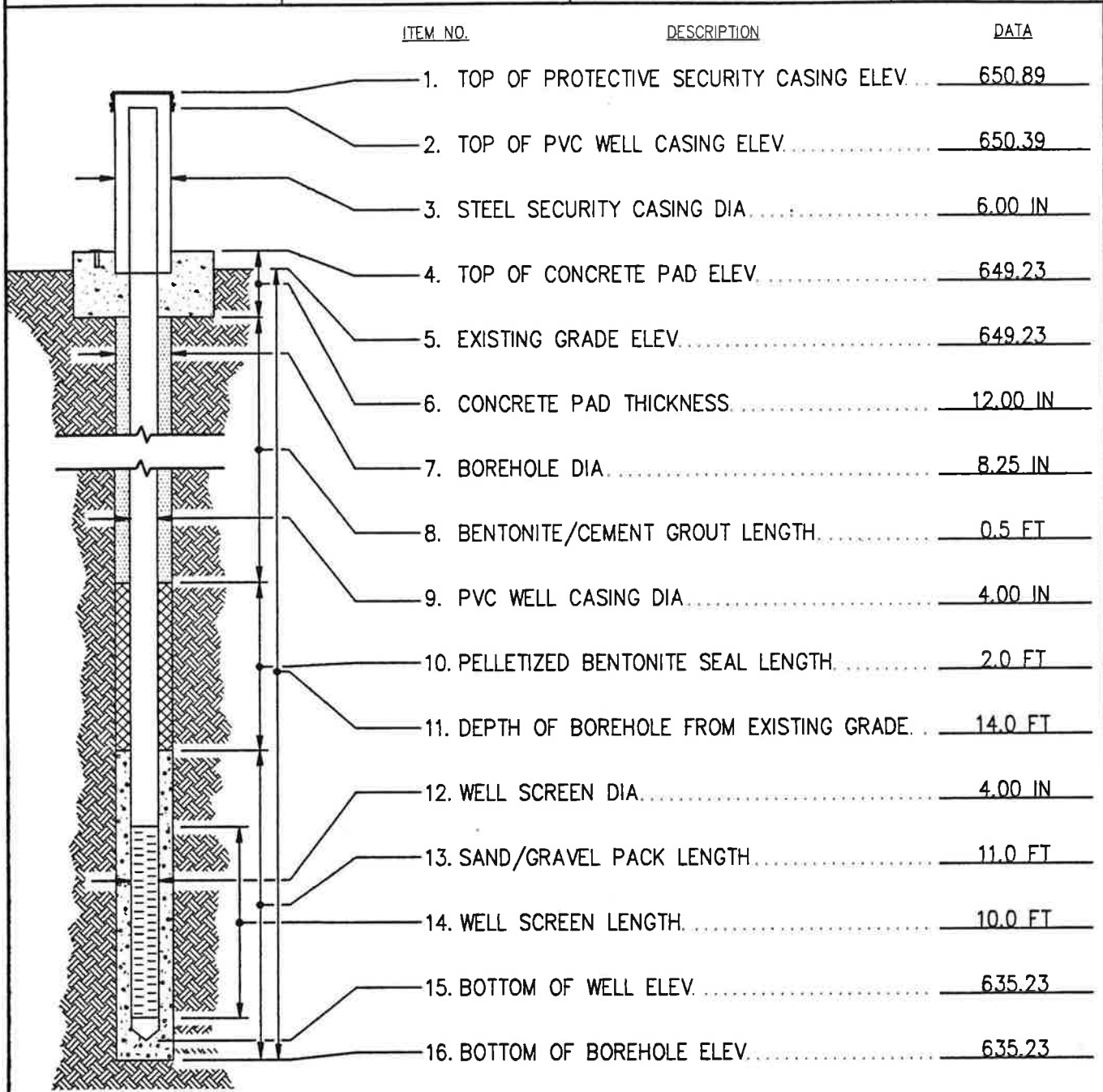
ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	644.46
2.	TOP OF PVC WELL CASING ELEV.	643.96
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	642.79
5.	EXISTING GRADE ELEV.	642.79
6.	CONCRETE PAD THICKNESS.	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH.	3.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH.	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE.	19.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH.	13.0 FT
14.	WELL SCREEN LENGTH.	10.0 FT
15.	BOTTOM OF WELL ELEV.	625.79
16.	BOTTOM OF BOREHOLE ELEV.	623.79

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9,12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

 LAKE ENGINEERING, INCORPORATED 6000 LAKE FORREST DR. SUITE 350 ATLANTA, GEORGIA 30328 (404) 257-9634	GNB Incorporated FRISCO, TEXAS					
	TYPICAL MONITOR WELL CONSTRUCTION					
DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.	JOB NO.: 495.4.5	DRAWING NO.: 495-135	FIGURE:

495-135 1=1 02-20-91 RCW



ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

495-136 1=1 02-20-91 RCW



LAKE ENGINEERING, INCORPORATED
 6000 LAKE FORREST DR. SUITE 350
 ATLANTA, GEORGIA 30328
 (404) 257-9634

GNB Incorporated
 FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.	JOB NO.: 495.4.5	DRAWING NO.: 495-136	FIGURE:
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DRILLER:	RONE	LOGGED BY:	GANTZ	DATE INSTALLED:	07-11-90	WELL NO.:	B4R
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ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	663.26
2.	TOP OF PVC WELL CASING ELEV.	662.76
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	661.40
5.	EXISTING GRADE ELEV.	661.40
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	0.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	9.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	6.0 FT
14.	WELL SCREEN LENGTH	5.0 FT
15.	BOTTOM OF WELL ELEV.	652.40
16.	BOTTOM OF BOREHOLE ELEV.	652.40

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION



LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR. SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-137	

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	06-07-90	B5N

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	631.71
2.	TOP OF PVC WELL CASING ELEV.	631.21
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	629.97
5.	EXISTING GRADE ELEV.	629.97
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH.	3.0 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH.	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE.	19.5 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	14.0 FT
14.	WELL SCREEN LENGTH.	10.0 FT
15.	BOTTOM OF WELL ELEV.	613.47
16.	BOTTOM OF BOREHOLE ELEV.	610.47

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION
3	SECURITY CASING REINFORCED WITH A CONC FILLED VERT 18 IN Ø CORRIGATED DRAIN PIPE



LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR. SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-138	

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	05-10-90	B7N

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	645.83
2.	TOP OF PVC WELL CASING ELEV.	645.32
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	644.08
5.	EXISTING GRADE ELEV.	644.08
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	10.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE.	25.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	12.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	620.08
16.	BOTTOM OF BOREHOLE ELEV.	619.08

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9,12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

495-139 1=1 02-20-91 RCW



LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR. SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-139	

DRILLER:	RONE	LOGGED BY:	GANTZ	DATE INSTALLED:	05-15-90	WELL NO.:	B8N
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ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	627.93
2.	TOP OF PVC WELL CASING ELEV.	627.43
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	626.93
5.	EXISTING GRADE ELEV.	626.93
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH.	0.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH.	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	20.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	17.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	612.93
16.	BOTTOM OF BOREHOLE ELEV.	606.93

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION
3	SECURITY CASING REINFORCED WITH A CONC FILLED VERT 18 IN ϕ CORRUGATED DRAIN PIPE



LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR. SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION


DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-140	

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	06-12-90	B9N

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	638.75
2.	TOP OF PVC WELL CASING ELEV.	638.25
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	637.02
5.	EXISTING GRADE ELEV.	637.02
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	3.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	18.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	12.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	620.02
16.	BOTTOM OF BOREHOLE ELEV.	619.02

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION


LAKE ENGINEERING, INCORPORATED
 6000 LAKE FORREST DR. SUITE 350
 ATLANTA, GEORGIA 30328
 (404) 257-9634

GNB Incorporated
 FRISCO, TEXAS
TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-141	

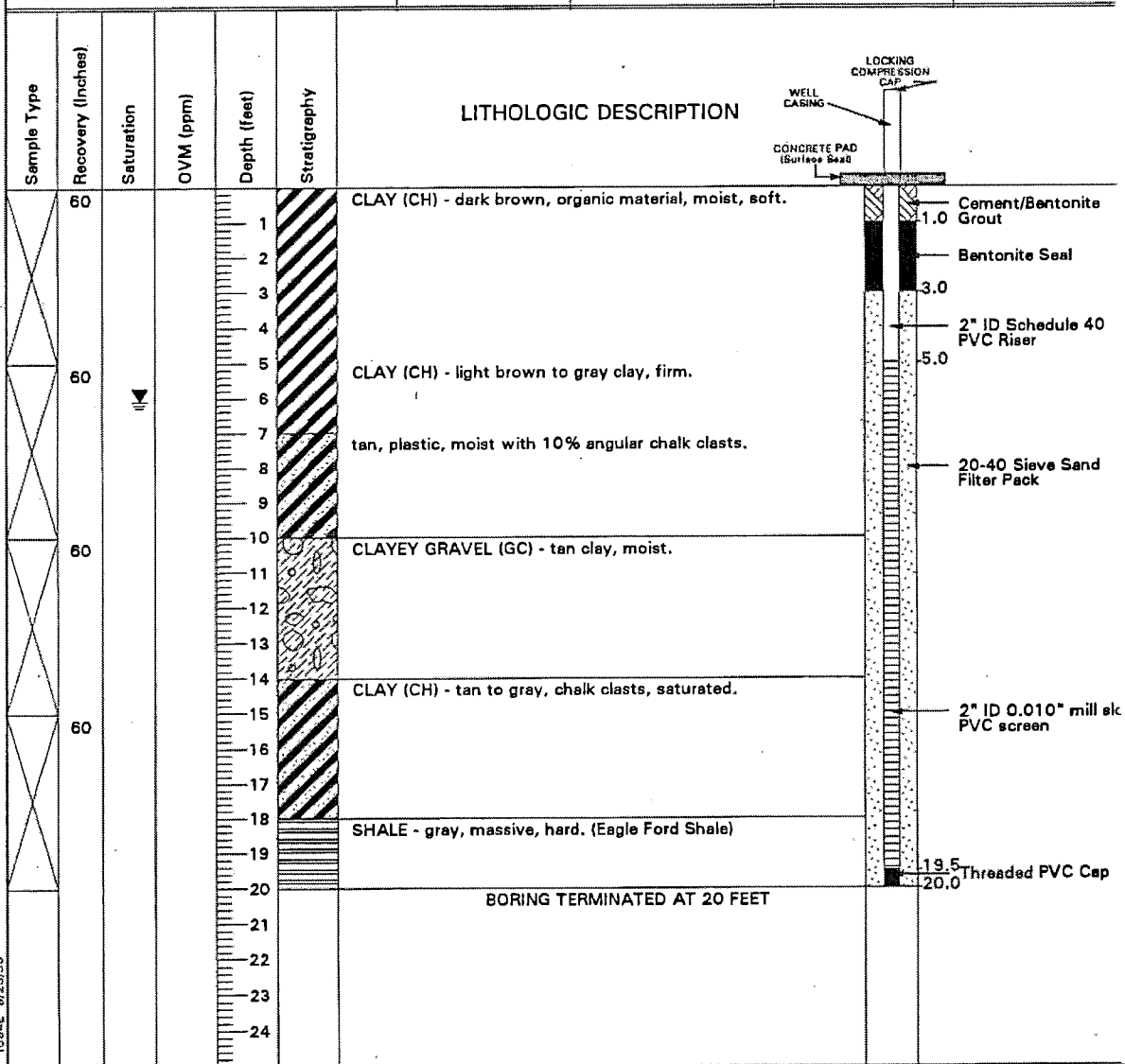


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B1/LMW-1

Client:	GNB TECHNOLOGIES	Start Date:	2-3-95	End Date:	2-3-95	Page 1 of 1
Site:	FRISCO, TEXAS	Drilling Method:	HOLLOW STEM AUGER	Project Number:	50-01584.13	
Geologist:	BLAKE GILLESPIE	Driller:	E.D.S.I./R. BROTHERS	Drill Rig Type:	CME-750	Borehole Diameter: 6 inches
Site Coordinates:	N: 1130.5500 E: 3406.1100	Total Depth:	20.00	Surface Elevation (ft.):	635.90	TOC Elevation (ft.): 638.74 PAD Elevation (ft.): 635.90
Datum Description:	Site Datum - Elevations ref. from MSL	Datum Elevation:	NA	Water Level Depth (ft.):	6.10	Date: 7/26/95 Time: 0832



WELL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

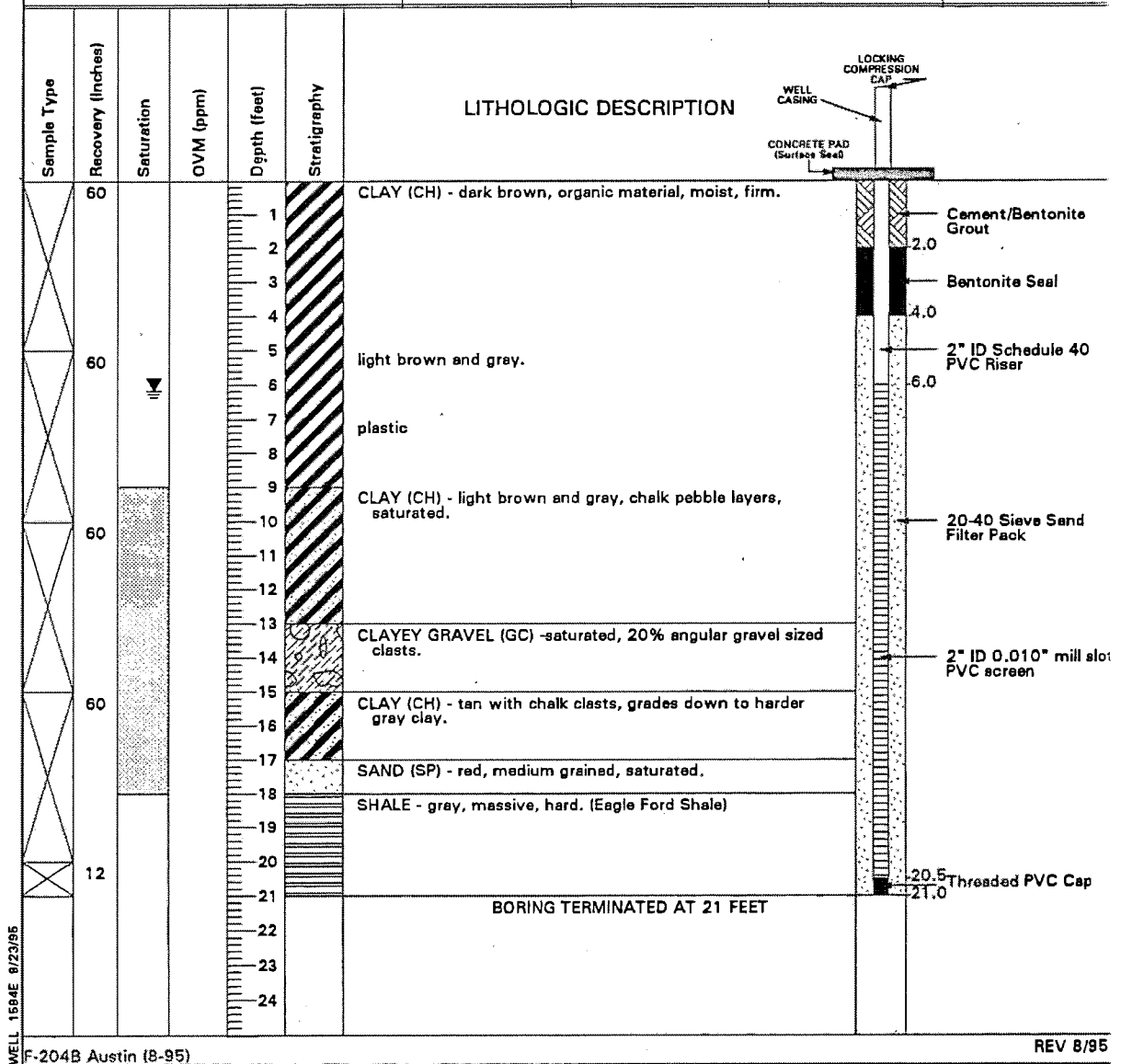


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B2/LMW-2

Client: GNB TECHNOLOGIES		Start Date: 2-3-95	End Date: 2-3-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GELLISPIE	Driller: RMT-JN/R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 6183.6400 E: 3546.9700		Total Depth: 30.00	Surface Elevation (ft.): 638.72	TOC Elevation (ft.): 641.01	PAD Elevation (ft.): 638.72
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 6.18	Date: 7/26/95	Time: 1045



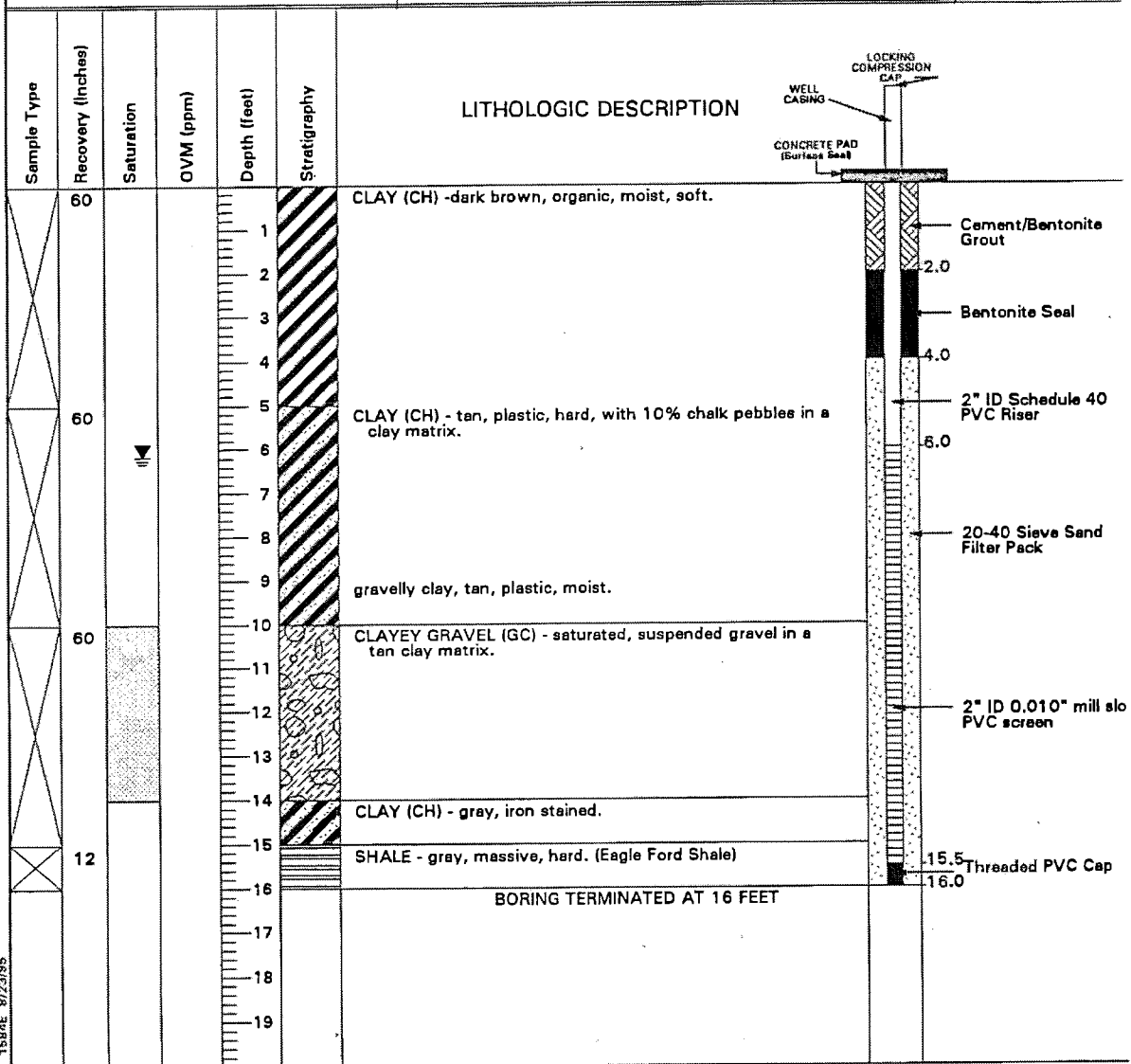


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B3/LMW-3

Client: GNB TECHNOLOGIES		Start Date: 2-3-95	End Date: 2-3-95	Page 1 of 1
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGERS		Project Number: 50-01584.13
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 Inches
Site Coordinates: N: 5364.7800 E: 3928.4200		Total Depth: 15.00	Surface Elevation (ft.): 637.76	TOC Elevation (ft.): 639.78
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 6.18	PAD Elevation (ft.): 637.76
			Date: 7/26/95	Time: 0828



WELL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

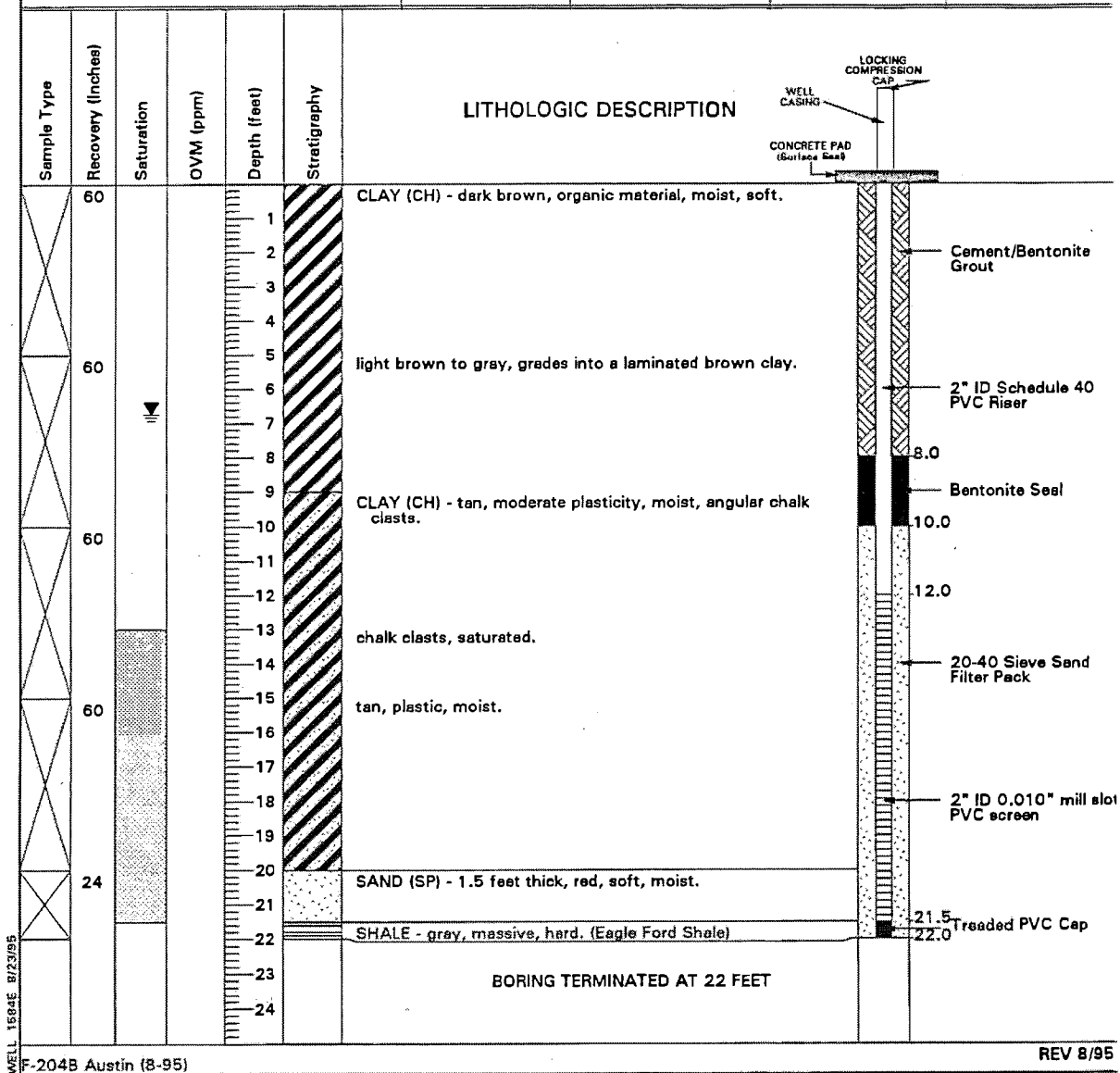


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B4/LMW-4

Client: GNB TECHNOLOGIES		Start Date: 2-3-95	End Date: 2-3-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 5735.6900 E: 3757.2000		Total Depth: 22.00	Surface Elevation (ft.): 639.15	TOC Elevation (ft.): 641.42	PAD Elevation (ft.): 638.15
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 6.76	Date: 7/26/95	Time: 1030hrs.



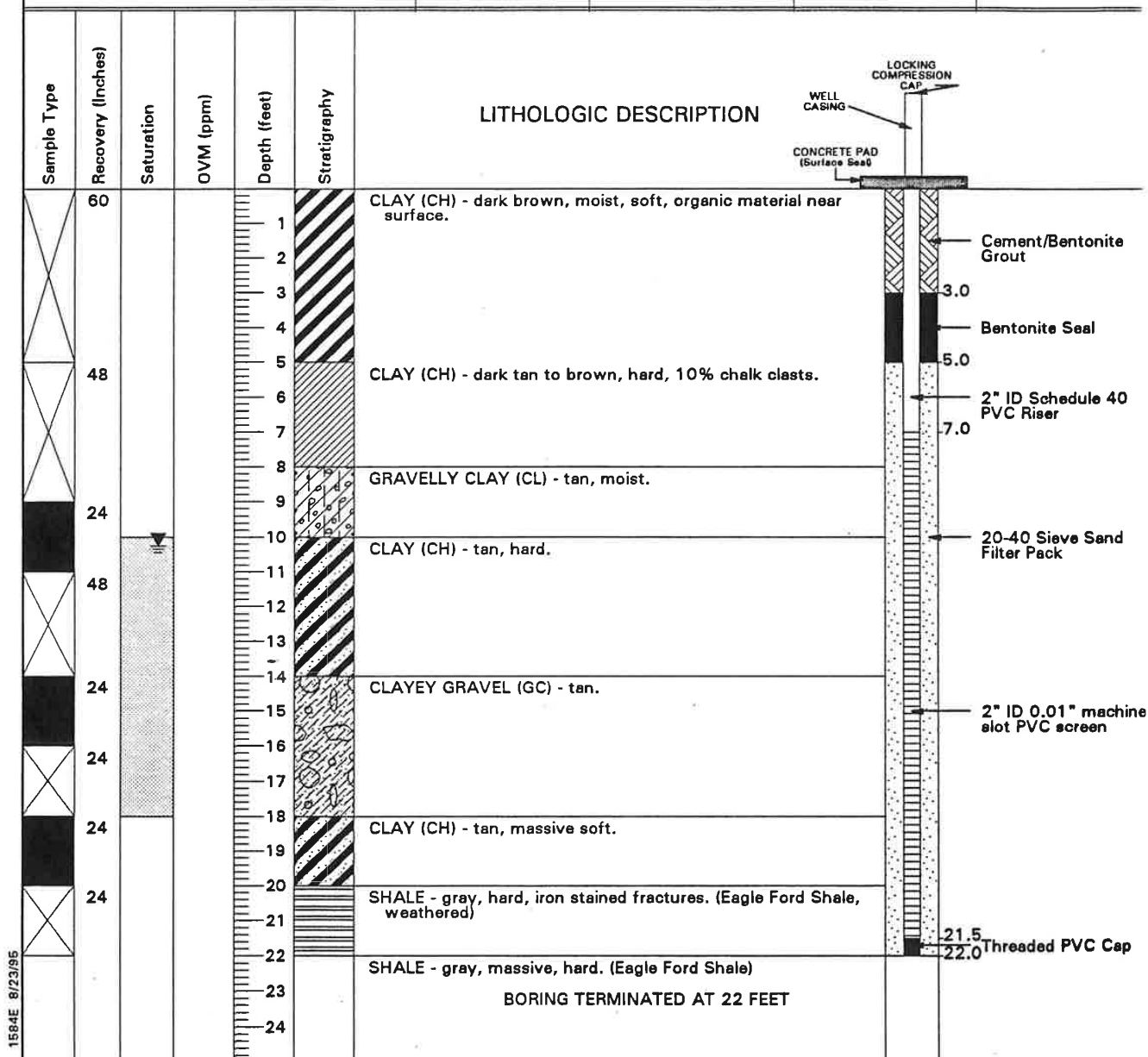


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B5/LMW-5

Client: GNB TECHNOLOGIES			Start Date: 2-3-95		End Date: 2-3-95		Page 1 of 1	
Site: FRISCO, TEXAS			Drilling Method: HOLLOW STEM AUGER				Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE		Driller: RMT-JN/R. BROTHERS		Drill Rig Type: CME-750			Borehole Diameter: 6 Inches	
Site Coordinates: N: 5706.3200 E: 4174.7100		Total Depth: 22.00	Surface Elevation (ft.): 643.27		TOC Elevation (ft.): 646.61		PAD Elevation (ft.): 643.27	
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 10.25		Date: 7/25/95		Time: 0647hrs.	



WELL 1564E 8/23/95

F-204B Austin (8-95)

REV 8/95

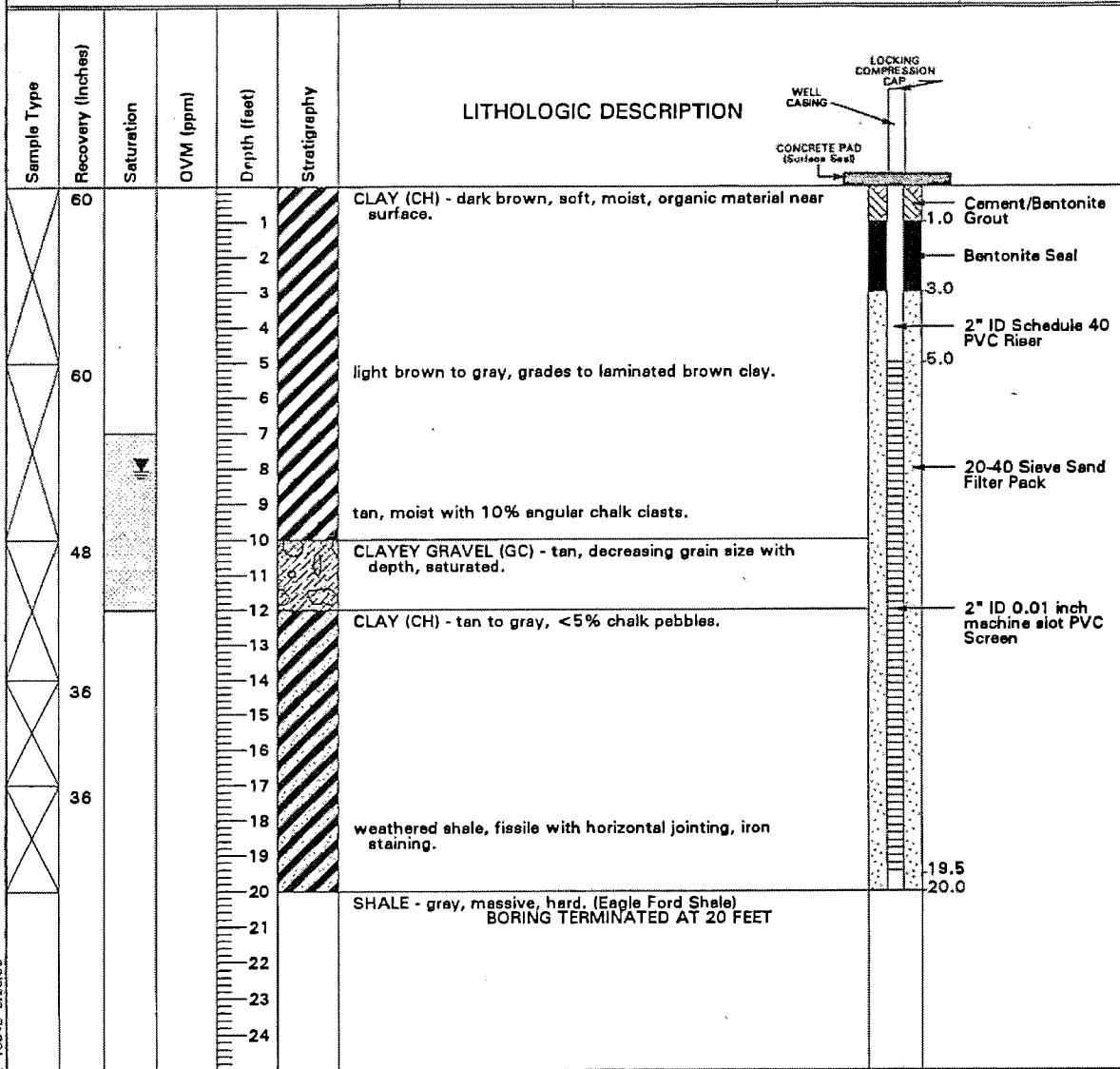


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B7/LMW-7

Client: GNB TECHNOLOGIES		Start Date: 2-2-95	End Date: 2-3-95	Page 1 of 1
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R. BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches
Site Coordinates: N: 6574.6800 E: 4322.6900		Total Depth: 20.00	Surface Elevation (ft.): 657.45	TOC Elevation (ft.): 659.07
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 8.06	Date: 7/26/95
				Time: 1050hrs.



WELL 1584E 8/23/95

F-204B Austin (8-95)

REV 8/95

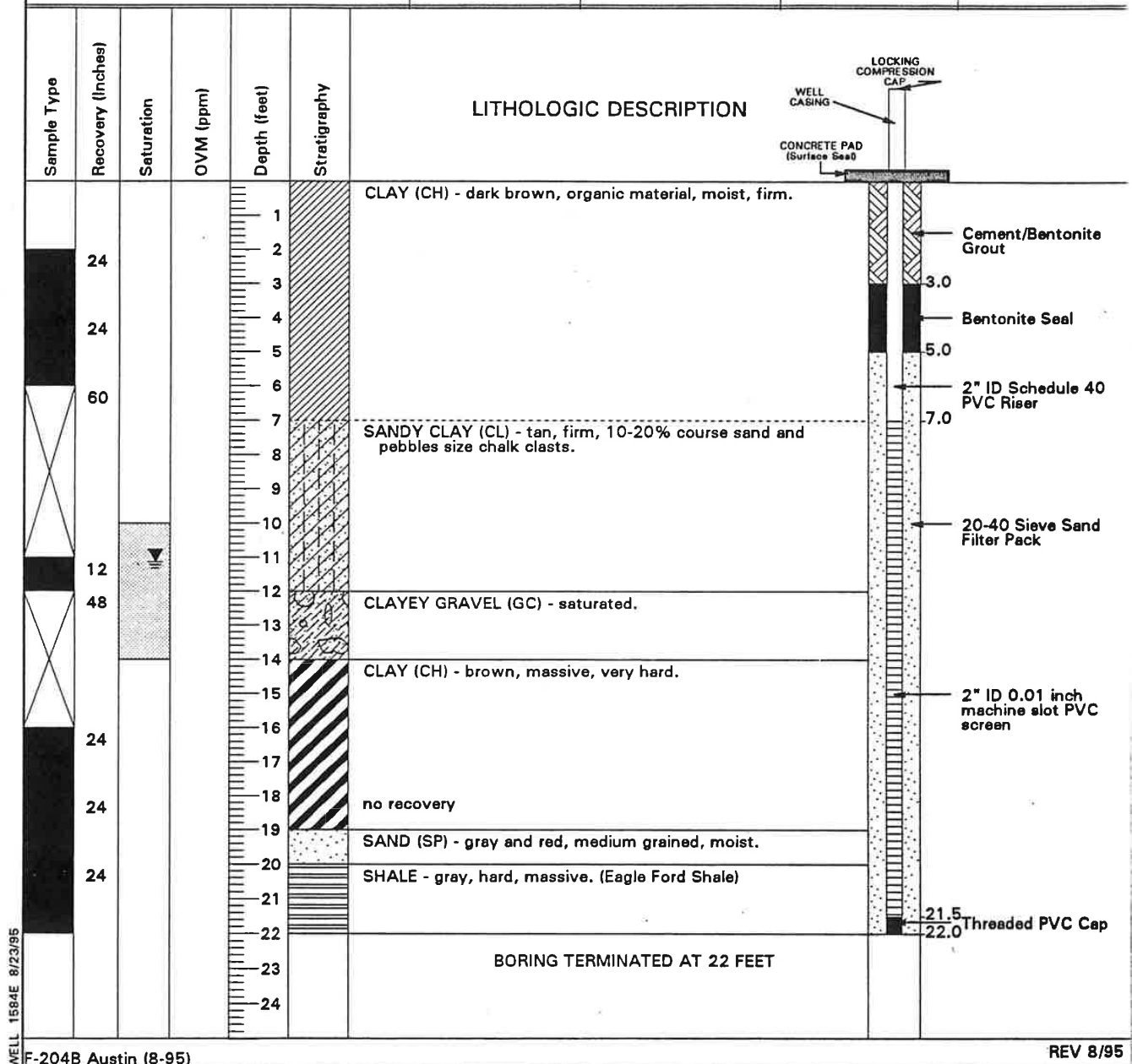


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B8/LMW-8

Client: GNB TECHNOLOGIES		Start Date: 2-4-95	End Date: 2-4-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/R. BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 Inches	
Site Coordinates: N: 5539.0400 E: 4812.0100		Total Depth: 22.00	Surface Elevation (ft.): 645.57	TOC Elevation (ft.): 648.68	PAD Elevation (ft.): 645.57
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 11.13	Date: 7/26/95	Time: 0630hrs.



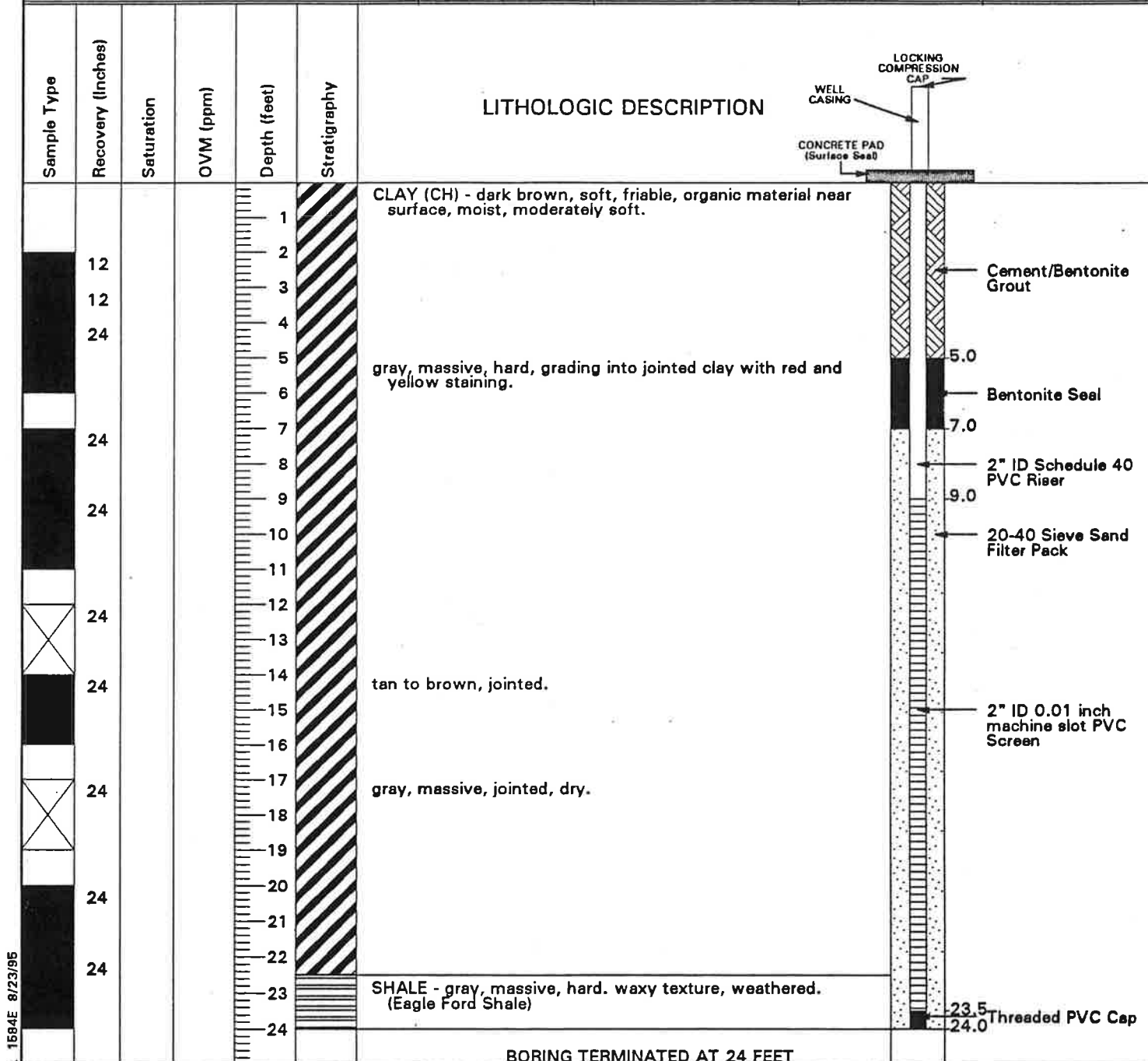


JONES & NEUSE

LOG OF TEST BORING

BORING NO. B9/LMW-9

Client: GNB TECHNOLOGIES			Start Date: 2-4-95		End Date: 2-4-95		Page 1 of 1	
Site: FRISCO, TEXAS			Drilling Method: HOLLOW STEM AUGER				Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE		Driller: RMT-JN/R. BROTHERS		Drill Rig Type: CME-750			Borehole Diameter: 6 Inches	
Site Coordinates: N: 5888.8400 E: 4833.3600		Total Depth: 24.00	Surface Elevation (ft.): 660.48		TOC Elevation (ft.): 663.72		PAD Elevation (ft.): 660.48	
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 18.74ft.		Date: 4/24/95		Time:	



WELL 1584E 8/23/95

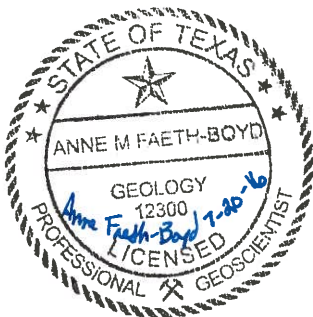
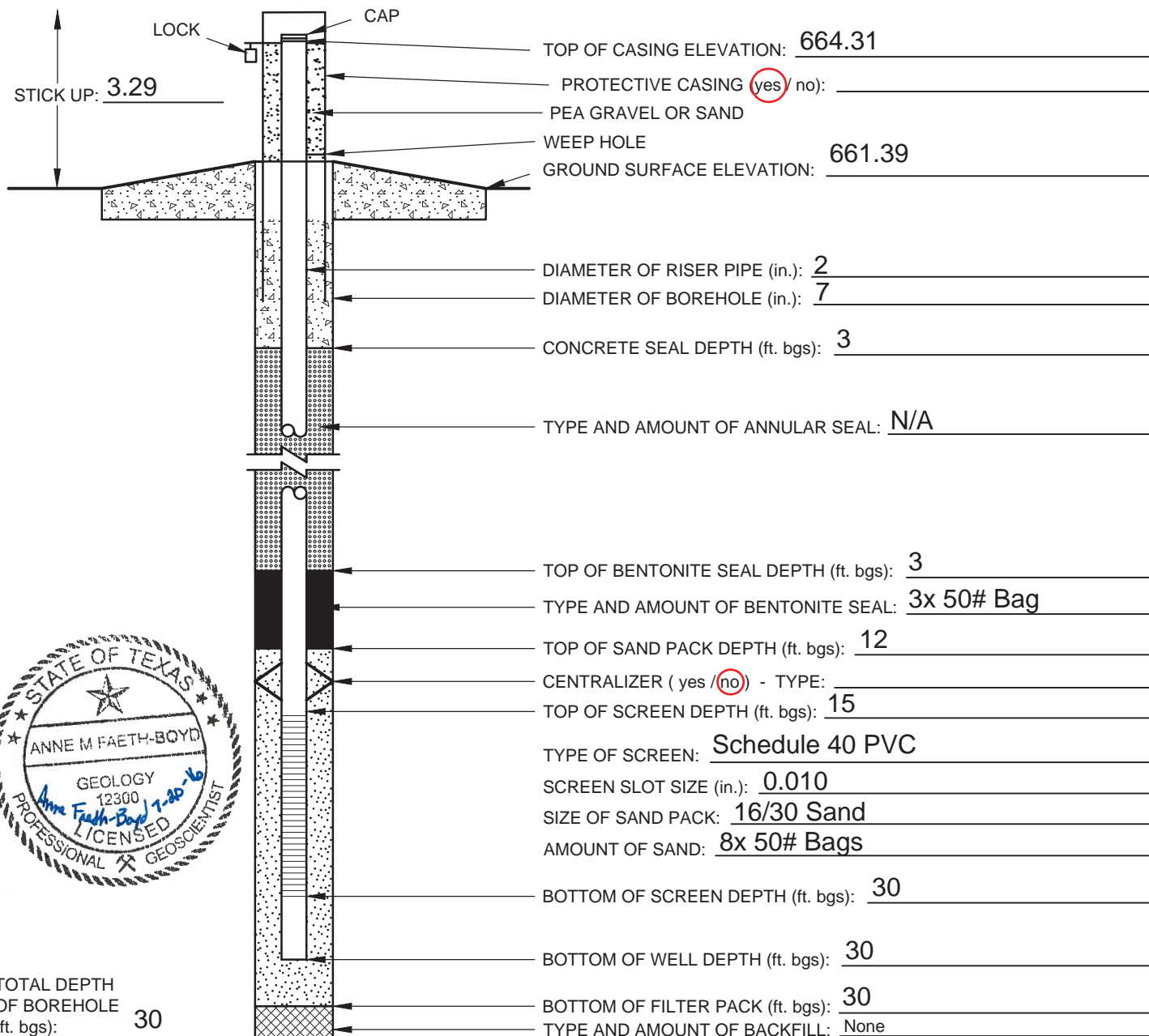
F-204B Austin (8-95)

REV 8/95



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG LMW-9R

PROJECT NAME: Exide Groundwater Monitoring		PROJECT NUMBER: 130-2086-01
SITE NAME: CL2LF		LOCATION: Frisco, Texas
CLIENT: Exide		SURFACE ELEVATION: 661.39 ft MSL
GEOLOGIST: A. Marlow	NORTHING: 7103254.02	EASTING: 2480865.36
DRILLER: Steven Wimple	STATIC WATER LEVEL:	COMPLETION DATE: 3/1/2016
DRILLING COMPANY: West Drilling		DRILLING METHODS: Hollow Stem Auger



ADDITIONAL NOTES:

CHECKED BY: P. Joplin, A. Faeth-Boyd
DATE CHECKED: 7/18/2016

PREPARED BY: A. Marlow

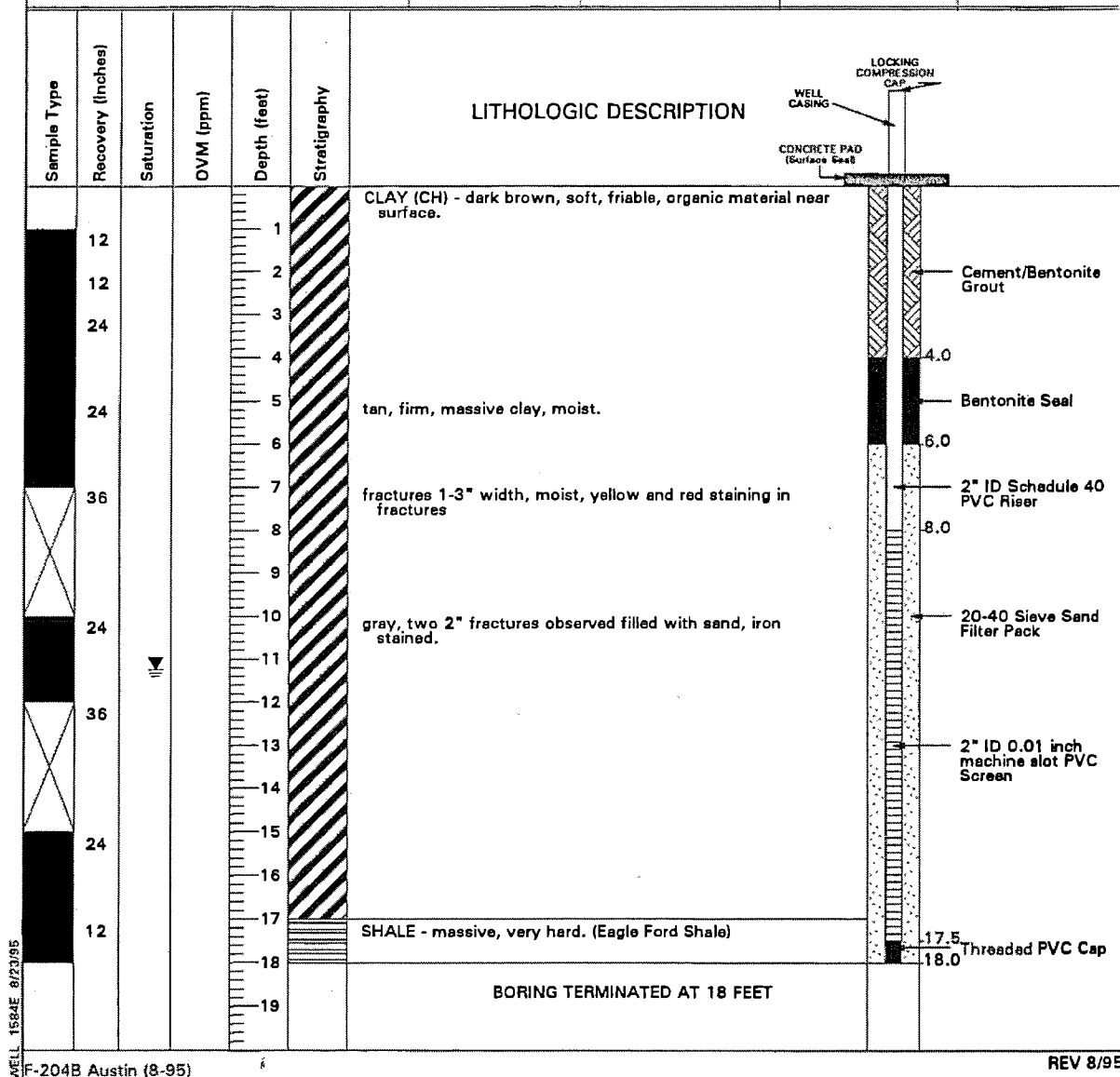


JONES & NEUSE

LOG OF TEST BORING

BORING NO. LMW-10

Client: GNB TECHNOLOGIES		Start Date: 2-4-95	End Date: 2-4-95	Page 1 of 1	
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13	
Geologist: BLAKE GILLESPIE	Driller: RMT-JN/ R.BROTHERS	Drill Rig Type: CME-750		Borehole Diameter: 6 inches	
Site Coordinates: N: 6390.7500 E: 4954.0700		Total Depth: 18.00	Surface Elevation (ft.): 681.03	TOC Elevation (ft.): 683.05	PAD Elevation (ft.): 681.03
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 11.26	Date: 7/26/95	Time: 1053hrs.



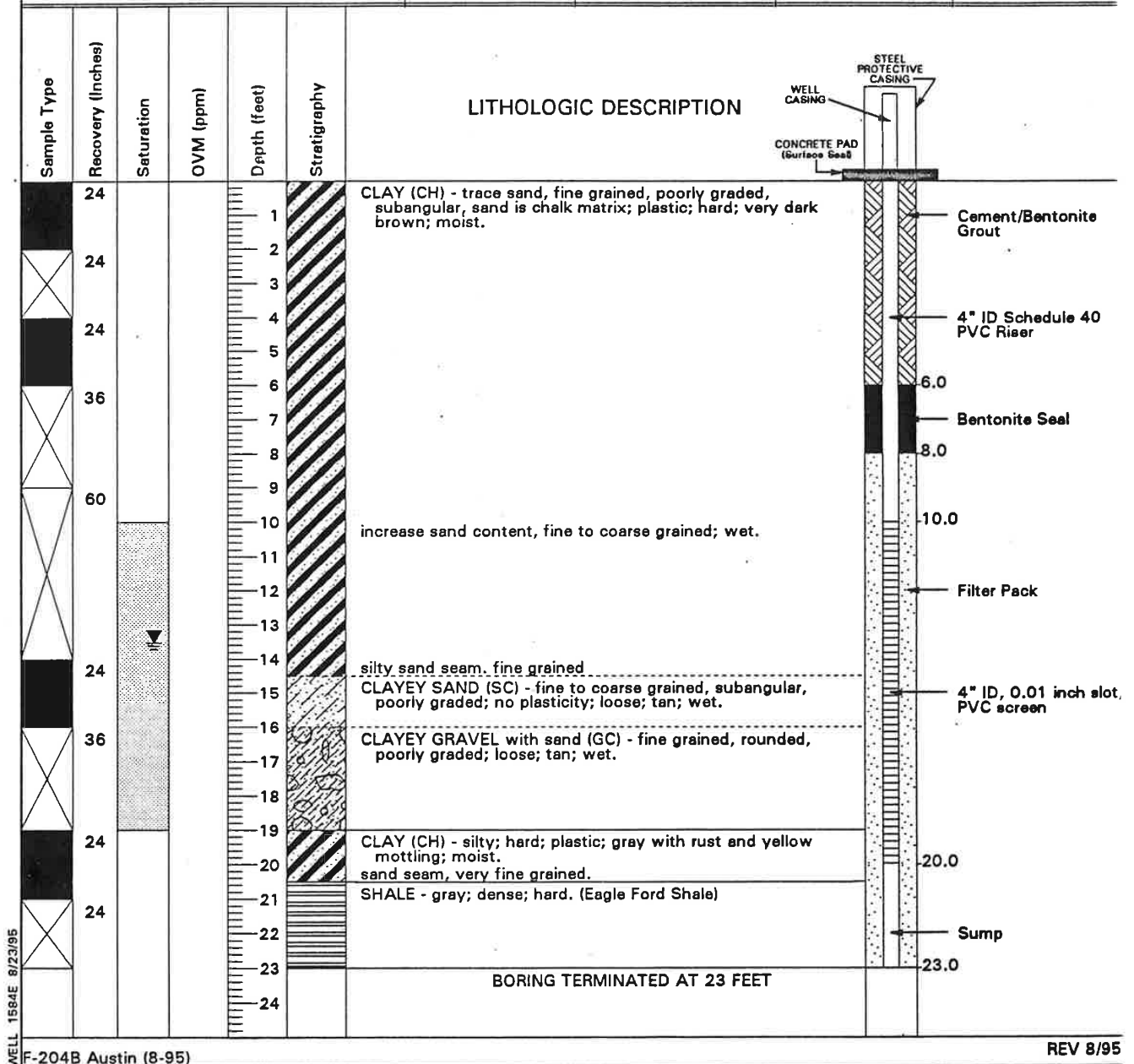


JONES & NEUSE

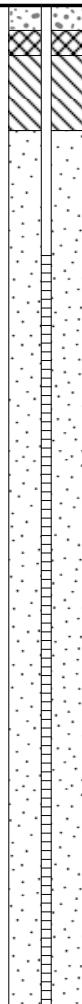

LOG OF TEST BORING

BORING NO. LMW-17

Client: GNB TECHNOLOGIES		Start Date: 7-21-95	End Date: 7-24-95	Page 1 of 1
Site: FRISCO, TEXAS		Drilling Method: HOLLOW STEM AUGER		Project Number: 50-01584.13
Geologist: DAVID McQUADE	Driller: E.D.S.I./MIKE McNITT	Drill Rig Type: CME-750		Borehole Diameter: 8 inches
Site Coordinates: N: 5626.1663 E: 4507.0130		Total Depth: 23.00	Surface Elevation (ft.): 646.34	TOC Elevation (ft.): 648.84
Datum Description: Site Datum - Elevations ref. from MSL		Datum Elevation: NA	Water Level Depth (ft.): 13.52	PAD Elevation (ft.): 646.34
		Date: 7/26/95	Time: 0643hrs.	



Exide Technologies				Log of Boring: LMW-21							
Frisco Recycling Center Frisco, TX				Completion Date:		2/27/2013		Drilling Method:		HSA	
				Drilling Company:		Strata Core Services, LLC		Borehole Diameter (in.):		7.75	
				Driller:		Chris Combs		Total Depth (ft):		25	
PBW Project No. 1755				Driller's License:		56033		Northing:		7103205.9759	
				Logged By:		Tim Jennings, P.G.		Easting:		2480099.7956	
				Field Supervisor:		Tim Jennings, P.G.		Ground Elev. (ft AMSL):		645.12	
				Sampling Method:		5' Split Spoon		TOC Elev. (ft AMSL):		648.28	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description						
0		5.0/5.0	CH	0-0.5	(0 - 1.1) Sandy, gravelly CLAY; wet, very soft, slow dilatancy, high plasticity clay, ~20-30% fine sand and fine gravel.						
0.5-2				(1.1 - 7.9) Silty CLAY, dark gray, moist, firm to hard, no dilatancy, medium to high plasticity, trace carbonate gravel below 5'.							
2-4											
4-5											
5		5.0/5.0	SW		(7.9 - 10.6) Clayey, gravelly SAND; light brown, fine to coarse sand, moist, soft to firm, medium plasticity clay, ~10-20% clay and ~10-20% fine to medium gravel.						
10		5.0/5.0	CL		(10.6 - 13.5) Clayey SILT, light brown, moist, soft to firm, slow dilatancy, medium plasticity.						
15		2.5/5.0	SW		(13.5 - 16.0) Gravelly, clayey SAND; light brown, fine to coarse sand, moist to wet, wet at 15.8-16', firm to soft, ~40-50% fine to medium gravel, ~5-10% clay above 15'.						
		2.5/5.0	ML		(16.0 - 17.2) Sandy SILT, light brown, wet, soft, medium plasticity.						
20		2.2/5.0	CL		(17.2 - 21.8) Sandy, gravelly CLAY; wet to dry, firm to hard, medium plasticity clay, fine to medium gravel (~5-10%) and fine to coarse sand (~10-20%) in clay matrix.						
25		2.2/5.0	SH		(21.8 - 25.0) SHALE, brownish gray, dry, very hard.						
<div><div>PBW</div><div>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div></div>				<div>Notes: This log should not to be used separately from the report to which it is attached.</div> <div><div>Annular Materials (0.0 - 2.0) Concrete (2.0 - 8.0) Bentonite Hole Plug (8.0 - 25.0) 20/40 Silica Sand</div><div>Well Materials (+3.16 - 10.0) Casing, 2" Sch 40 FJT PVC (10.0 - 25.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot</div></div>							

Exide Technologies				Log of Boring: LMW-22					
Frisco Recycling Center Frisco, TX				Completion Date:	2/27/2013	Drilling Method:	HSA		
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75		
PBW Project No. 1755				Driller:	Dan Spaust	Total Depth (ft):	20		
				Driller's License:	3038M	Northing:	7102891.2829		
				Logged By:	Roberta Russell	Easting:	2480355.4657		
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	643.32		
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	646.71		
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description				
0		4.5/5.0		0-0.5	(0 - 12.5) CLAY/Silty CLAY, dark reddish brown, yellowish brown from 9-12.5', moist, soft to firm, low to medium plasticity, ~10% calcareous nodules from 9-12.5'.				
0.5-2									
2-4									
4-5									
5		4.4/5.0	CL						
10		4.0/5.0							
15		4.3/5.0			(12.5 - 13.0) CLAY with gravel; yellowish brown, moist, soft, low plasticity, ~30-40% gravel in clay matrix. (13.0 - 16.0) Sandy CLAY, yellowish brown, moist, soft, low plasticity.				
					(16.0 - 17.0) Gravelly CLAY, yellowish brown, ~30-40% gravel in clay matrix. (17.0 - 19.5) Silty CLAY, grayish brown with orange staining, very moist, soft to firm, low plasticity.				
20			SH		(19.5 - 20.0) SHALE, gray, dry, hard, low to medium plasticity.				
<div>PBW</div> <div>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div>				Notes: This log should not to be used separately from the report to which it is attached.					
				<u>Annular Materials</u> (0.0 - 0.5) Concrete (0.5 - 1.0) Bentonite Grout (1.0 - 2.5) Bentonite Hole Plug (2.5 - 20.0) 20/40 Silica Sand		<u>Well Materials</u> (+3.67 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 20.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

DRILLER:	RONE	LOGGED BY:	GANTZ	DATE INSTALLED:	06-13-90	WELL NO.:	MW10
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ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	645.12
2.	TOP OF PVC WELL CASING ELEV.	644.80
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	645.12
5.	EXISTING GRADE ELEV.	645.12
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	3.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	19.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	13.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	628.12
16.	BOTTOM OF BOREHOLE ELEV.	626.12

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION



LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-142	

LAKE ENGINEERING, INC.		Project Remedial Investigation		Boring no. MW11	
Project no. 495.4.5		GNB, Incorporated – Frisco, Texas		Sheet 1 of 1	
Sampling methods: 4.5" Split Spoon		Completion date: 6/11/90		Boring depth: 19.0	
Drilling methods: 8.0" Hollow Stem Auger		Drill rig: CME-55		Well depth: 17.0	
Groundwater elevation: 615.76 (msl)		Date: 7/16/90		Surface elevation: 625.58 (msl)	

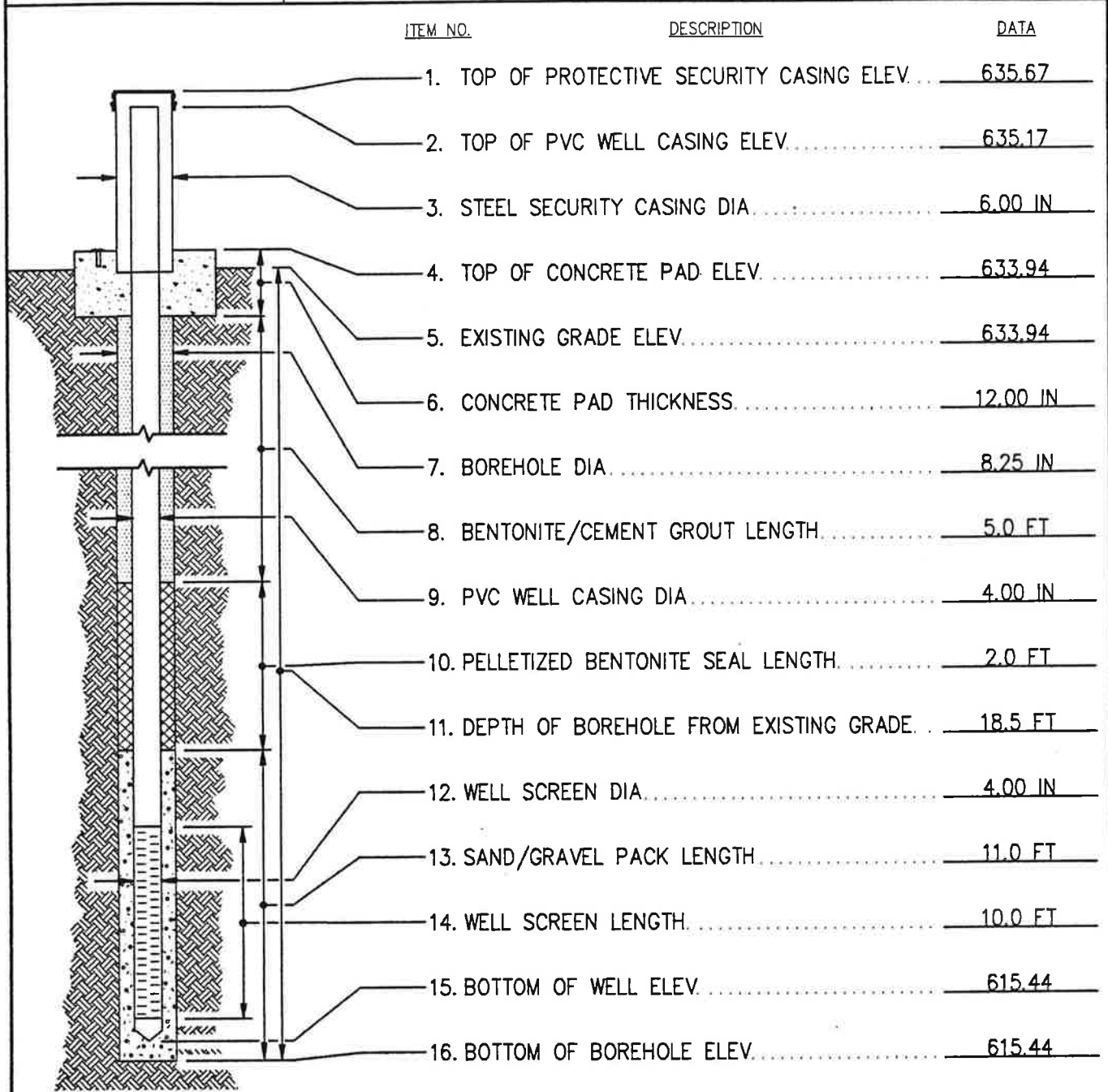
Depth (ft.)	USC CLASSIFICATION	USC SYMBOLS	CONSTRUCTION SYMBOLS	Samples	STRATUM DESCRIPTION	Recovery	% Passing No. 200 Sieve
	CH				CLAY, dark brown, dense, highly plastic, calcareous, blocky with calcareous pebbles, shell fragment at 18.0"		
5	CH				CLAY, dark to medium brown, highly plastic, calcareous, moist, larger calcareous pebbles at depth		
10	GC				GRAVEL, sandy, clayey, calcareous		
	CH				CLAY, light brown to gray, moist, highly plastic		
15	SH				SHALE, dark gray, brittle, fissile		
20							
25							
30							
35							

Log of Boring No. **MW11**

= CHEMICAL ANALYSIS
 = SIEVE ANALYSIS
 = PERMEABILITY SAMPLE

PLATE

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	06-19-90	MW12



ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

495-144 1-1 02-19-91 RCW

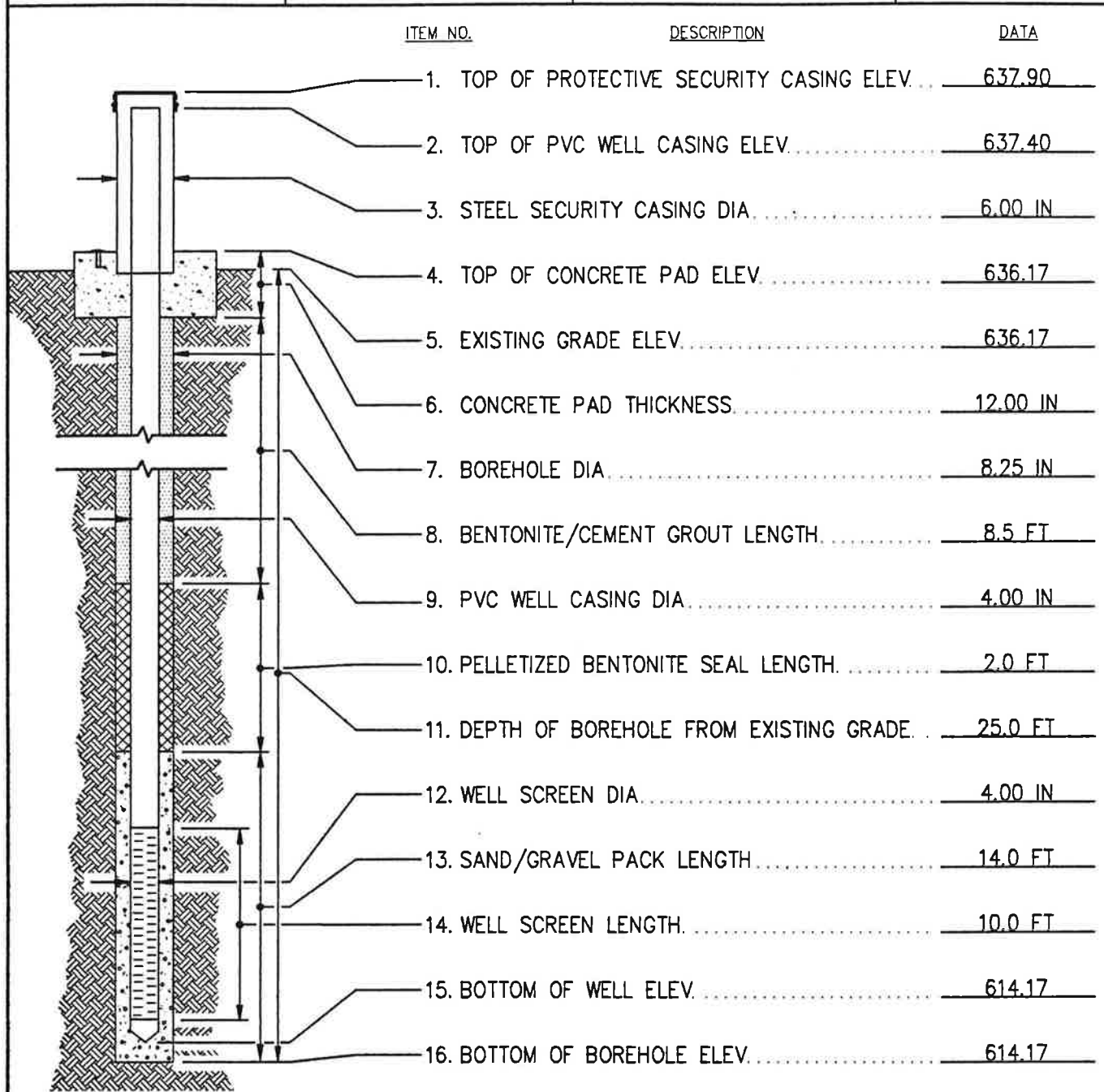


LAKE ENGINEERING, INCORPORATED
6000 LAKE FORREST DR. SUITE 350
ATLANTA, GEORGIA 30328
(404) 257-9634

GNB Incorporated
FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-144	



ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES	
ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

495-145 1=1 02-20-91 RCW

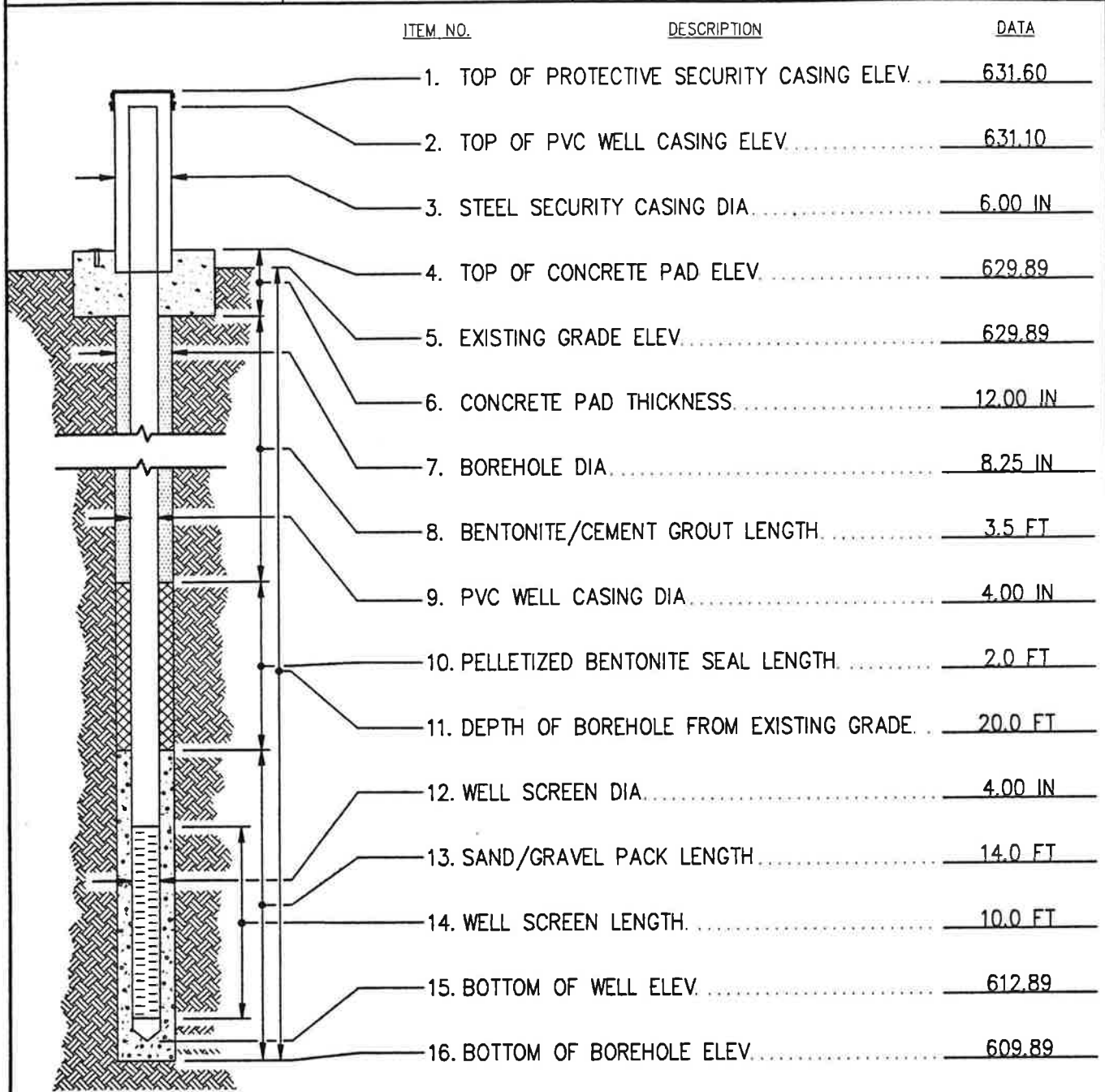


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 FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.	JOB NO.: 495.4.5	DRAWING NO.: 495-145	FIGURE:
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ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION



LAKE ENGINEERING, INCORPORATED
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TYPICAL MONITOR WELL CONSTRUCTION


DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.	JOB NO.: 495.4.5	DRAWING NO.: 495-146	FIGURE:
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DRILLER:	RONE	LOGGED BY:	GANTZ	DATE INSTALLED:	06-11-90	WELL NO.:	MW15
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ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	626.70
2.	TOP OF PVC WELL CASING ELEV.	626.20
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	624.99
5.	EXISTING GRADE ELEV.	624.99
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	8.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	22.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	11.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	602.99
16.	BOTTOM OF BOREHOLE ELEV.	602.99

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION


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TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-147	


495-147 1-1 02-19-91 RCW

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	05-22-90	MW16

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	629.02
2.	TOP OF PVC WELL CASING ELEV.	628.52
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	627.93
5.	EXISTING GRADE ELEV.	627.93
6.	CONCRETE PAD THICKNESS.	12.00 IN
7.	BOREHOLE DIA.	3.00 IN/8.00 IN
8.	BENTONITE/CEMENT GROUT LENGTH.	64.0 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH.	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE.	269.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH.	202.5 FT
14.	WELL SCREEN LENGTH.	10.0 FT
15.	BOTTOM OF WELL ELEV.	550.43
16.	BOTTOM OF BOREHOLE ELEV.	358.93

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9,12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION
3	SECURITY CASING REINFORCED WITH A CONC FILLED VERT 18 IN Ø CORRUGATED DRAIN PIPE
13	CEMENT GROUT FILLED FROM 358.93 TO 550.43
7	INITIAL HOLE DRILLED W/3 IN AUGER, HOLE REDRILLED W/8 IN AUGER FOR WELL PLACEMENT

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	<p>TYPICAL MONITOR WELL CONSTRUCTION</p>		
DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.
JOB NO.:	495.4.5	DRAWING NO.:	495-149
FIGURE:			

495-149 1=1 02-19-91 RCW

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	06-06-90	MW16S

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	628.81
2.	TOP OF PVC WELL CASING ELEV.	628.31
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	627.51
5.	EXISTING GRADE ELEV.	627.51
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	3.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	19.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	13.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	610.51
16.	BOTTOM OF BOREHOLE ELEV.	608.51

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9,12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION
3	SECURITY CASING REINFORCED WITH A CONC FILLED VERT 18 IN Ø CORRIGATED DRAIN PIPE

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TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-148	

495-148 1-1 02-20-91 RCW

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	06-12-90	MW17

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	629.64
2.	TOP OF PVC WELL CASING ELEV.	629.14
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	628.58
5.	EXISTING GRADE ELEV.	628.58
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH.	3.5 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH.	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE.	19.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	13.0 FT
14.	WELL SCREEN LENGTH.	10.0 FT
15.	BOTTOM OF WELL ELEV.	611.58
16.	BOTTOM OF BOREHOLE ELEV.	609.58

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9,12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION
3	SECURITY CASING REINFORCED WITH A CONC FILLED VERT 18 IN Ø CORRUGATED DRAIN PIPE

495-150 1=1 02-20-91 RCW



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TYPICAL MONITOR WELL CONSTRUCTION


DRAWN BY:	CHECKED BY:	DATE:	SCALE:	JOB NO.:	DRAWING NO.:	FIGURE:
R.C.W.	J.A.P.	02-18-91	N.T.S.	495.4.5	495-150	

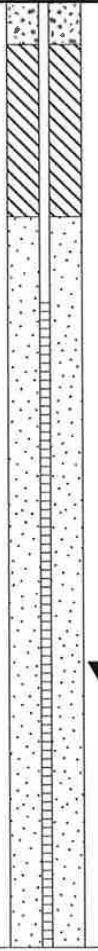
DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	06-12-90	MW18

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV.	633.63
2.	TOP OF PVC WELL CASING ELEV.	633.13
3.	STEEL SECURITY CASING DIA.	6.00 IN
4.	TOP OF CONCRETE PAD ELEV.	631.84
5.	EXISTING GRADE ELEV.	631.84
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA.	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	2.0 FT
9.	PVC WELL CASING DIA.	4.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE.	18.0 FT
12.	WELL SCREEN DIA.	4.00 IN
13.	SAND/GRAVEL PACK LENGTH	13.5 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV.	616.34
16.	BOTTOM OF BOREHOLE ELEV.	613.84

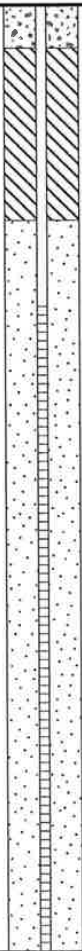
ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

 <p>LAKE ENGINEERING, INCORPORATED 6000 LAKE FORREST DR SUITE 350 ATLANTA, GEORGIA 30328 (404) 257-9634</p>		<p>GNB Incorporated FRISCO, TEXAS</p>	
<p>TYPICAL MONITOR WELL CONSTRUCTION</p>			
DRAWN BY:	CHECKED BY:	DATE:	SCALE:
R.C.W.	J.A.P.	02-18-91	N.T.S.
JOB NO.:	DRAWING NO.:	FIGURE:	
495.4.5	495-151		

Exide Technologies				Log of Boring: MW-19			
Frisco Recycling Center Frisco, TX				Completion Date:	1/12/2012	Drilling Method:	HSA
				Drilling Company:	StrataCore	Borehole Diameter (in.):	8.25
PBW Project No. 1755				Driller:	Mario Robles	Total Depth (ft):	22
				Driller's License:	52694	Northing:	7102589.0425
				Logged By:	Christopher Moore, P.G.	Easting:	2481314.6445
				Sampling Method:	3"x 5' Barrel	Ground Elev. (ft AMSL):	650.33
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Lithologic Description			
0		3.0/5.0	CH	(0 - 6.0) CLAY, CH, dark grayish brown, moist, firm, medium to high plasticity, trace gravel, no odor or staining observed. 2.0-3.5: with limestone gravel.			
5		3.7/5.0					
10		3.9/5.0					
15		4.5/5.0					
20		2.0/2.0		SH	(19.2 - 22.0) SHALE, dark gray, moist, hard, laminated, fissile.		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: 2em; font-weight: bold; margin: 0;">PBW</p> <p style="margin: 0;">Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</p> </div> <div style="width: 50%;"> <p>Notes: Boring location hand probed to 5 feet to check for utilities.</p> <p>This Log of Boring should not be used separately from the report to which it is attached.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><u>Annular Materials</u> (0.0 - 1.0) Concrete (1.0 - 5.0) Bentonite Hole Plug (5.0 - 22.0) 20/40 Silica Sand</p> </div> <div style="width: 45%;"> <p><u>Well Materials</u> (+2.6 - 7.0) Casing, 2" Sch 40 FJT PVC (7.0 - 22.0) Screen, 2" Sch 40 FJT PVC, 0.01 slot</p> </div> </div> </div> </div>				<p><u>Initial Fluid Level (1/16/12)</u> ▼ Depth to water: 15.58 ft BGS</p>			
				<p style="text-align: right;"><u>TOC Elevation (ft AMSL)</u> 653.34</p>			

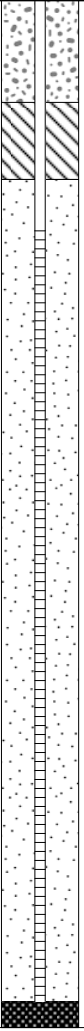
Exide Technologies			Log of Boring: MW-20		
Frisco Recycling Center Frisco, TX		Completion Date:	1/12/2012	Drilling Method:	HSA
		Drilling Company:	StrataCore	Borehole Diameter (in.):	8.25
PBW Project No. 1755		Driller:	Mario Robles	Total Depth (ft):	22
		Driller's License:	52694	Northing:	7101791.617
		Logged By:	Christopher Moore, P.G.	Easting:	2481082.2078
		Sampling Method:	3"x 5' Barrel	Ground Elev. (ft AMSL):	641.73


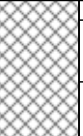

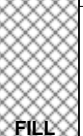
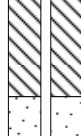
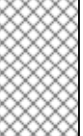
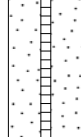

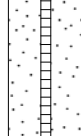
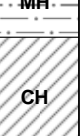
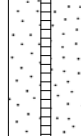


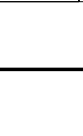


Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Lithologic Description
0		5.0/5.0	CH	(0 - 15.5) CLAY, CH, dark grayish brown, moist, firm, medium to high plasticity, trace sand size carbonate nodules, no odor, no staining or foreign material observed. 3.0-3.9: some gravel size carbonate nodules.
5		4.0/5.0		
10		5.0/5.0		
15			4.5/5.0	
20		2.0/2.0	SH	(19.7 - 22) SHALE, dark gray, moist, hard, laminated, fissile.

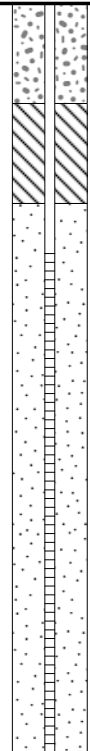
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446	Notes: Boring location hand probed to 5 feet to check for utilities.		Initial Fluid Level (1/16/12) ▼ Depth to water: 21.05 ft BGS
	This Log of Boring should not be used separately from the report to which it is attached.		
	<u>Annular Materials</u> (0.0 - 1.0) Concrete (1.0 - 5.0) Bentonite Hole Plug (5.0 - 22.0) 20/40 Silica Sand	<u>Well Materials</u> (+2.6 - 7.0) Casing, 2" Sch 40 FJT PVC (7.0 - 22.0) Screen, 2" Sch 40 FJT PVC, 0.01 slot	<u>TOC Elevation (ft AMSL)</u> 644.7

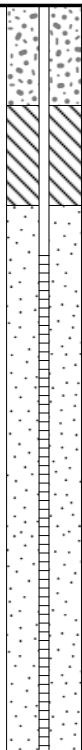
Exide Technologies				Log of Boring: MW-21	
Frisco Recycling Center Frisco, TX		Completion Date: 3/5/2013		Drilling Method: HSA/DPT	
		Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755		Driller: Dan Spaust		Total Depth (ft): 15	
		Driller's License: 3038M		Northing: 7102518.8983	
		Logged By: Tim Jennings, P.G.		Easting: 2480490.8249	
		Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 633.66	
		Sampling Method: 5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL): 635.99	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description
0		3.8/5.0	CL	0-0.5	(0 - 1.0) Silty CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low to medium plasticity.
0.5-2				(1.0 - 4.0) Gravelly CLAY, light brownish orange, very moist, soft to firm, low plasticity, ~20% medium gravel in clay matrix.	
2-4					
5		2.5/2.5	CH	4-5	(4.0 - 5.0) CLAY, light grayish brown, abundant orange staining (iron oxide), moist, hard, medium to high plasticity. (5.0 - 5.5) Gravelly CLAY, light brown and orange, moist, firm, medium plasticity, 10-30% fine to medium gravel in clay matrix. (5.5 - 10.5) Silty CLAY, light brown, orange and gray laminations, moist, hard, medium plasticity, heavily weathered shale.
		2.5/2.5	CL		
10		2.5/2.5			(10.5 - 15.0) SHALE, gray, moist, hard, weathered shale.
15		2.5/2.5	SH		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.	
Annular Materials (0.0 - 1.0) Concrete (1.0 - 2.5) Bentonite Hole Plug (2.5 - 15.0) 20/40 Silica Sand				Well Materials (+2.33 - 3.0) Casing, 2" Sch 40 FJT PVC (3.0 - 13.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: MW-22			
Frisco Recycling Center Frisco, TX				Completion Date:	3/5/2013	Drilling Method:	HSA/DPT
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
				Driller:	Dan Spaust	Total Depth (ft):	15
PBW Project No. 1755				Driller's License:	3038M	Northing:	7102440.5654
				Logged By:	Tim Jennings, P.G.	Easting:	2480046.6732
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	633.29
				Sampling Method:	5' Split Spoon/5' Samp Tube	TOC Elev. (ft AMSL):	636.89
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		3.5/5.0		0-0.5	(0 - 1.5) Gravelly CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low plasticity.		
0.5-2				(1.5 - 3.0) Silty CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low plasticity.			
2-4				(3.0 - 5.0) Gravelly CLAY, light grayish brown, abundant orange staining (iron oxide), moist, soft, low plasticity.			
4-5				(5.0 - 7.7) Silty CLAY, light brown, orange and gray, moist, firm, medium plasticity.			
5				(7.7 - 12.3) SHALE, gray, brown and orange; moist, firm, weathered.			
10		1.0/2.5			(12.3 - 15.0) SHALE, gray, dry, hard.		
		2.5/2.5					
		2.5/2.5					
		2.5/2.5					
15		2.5/2.5					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
				<u>Annular Materials</u> (0.0 - 1.0) Concrete (1.0 - 2.5) Bentonite Hole Plug (2.5 - 15.0) 20/40 Silica Sand		<u>Well Materials</u> (+3.6 - 3.0) Casing, 2" Sch 40 FJT PVC (3.0 - 13.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: MW-23							
Frisco Recycling Center Frisco, TX				Completion Date:		3/5/2013		Drilling Method:		HSA/DPT	
				Drilling Company:		Strata Core Services, LLC		Borehole Diameter (in.):		7.75	
				Driller:		Dan Spaust		Total Depth (ft):		20	
PBW Project No. 1755				Driller's License:		3038M		Northing:		7102124.8425	
				Logged By:		Tim Jennings, P.G.		Easting:		2480769.4386	
				Field Supervisor:		Tim Jennings, P.G.		Ground Elev. (ft AMSL):		644.32	
				Sampling Method:		5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL):		644.15	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description						
0		5.0/5.0	FILL	0-0.5	(0 - 0.3) FILL, surficial fill not associated with NDA, no foreign objects (e.g. slag, battery chips or trash) observed, sand with clay, reddish brown, moist, soft.						
0.5-2				(0.3 - 2.6) FILL, surficial fill not associated with NDA, no foreign objects (e.g. slag, battery chips or trash) observed, silty clay/clayey silt, trace gravel, dark reddish brown, moist, firm, low plasticity.							
2-4			(2.6 - 5.5) Clayey SILT, dark reddish brown, dry, hard, low plasticity, ~15% calcareous nodules.								
			ML	4-5							
0.5/5.0		CH		(5.5 - 10) Silty CLAY, light brown, moist, soft to firm, high plasticity, ~10-15% carbonate nodules in clay matrix (based on cuttings).							
			(10 - 12.2) Gravelly, sandy CLAY; light brown, moist to wet, ~20-30% fine to medium gravel and ~10-20% fine to medium sand in clay matrix.								
			(12.2 - 16.2) Silty CLAY, light brown, orange and gray, moist, firm to hard, laminated, possibly heavily weathered shale.								
			(16.2 - 17.7) SHALE, light brown, orange and gray, moist, firm, friable and weathered.								
			(17.7 - 20.0) SHALE, gray, moist, hard.								
5											
10											
15											
20											
<div><div>PBW</div><div>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div></div>					<div>Notes: This log should not to be used separately from the report to which it is attached.</div> <div><div>Annular Materials (0.0 - 2.0) Concrete (2.0 - 3.5) Bentonite Hole Plug (3.5 - 19.5) 20/40 Silica Sand (19.5 - 20.0) Sloughed Material</div><div>Well Materials (-.17 - 4.5) Casing, 2" Sch 40 FJT PVC (4.5 - 19.5) Screen, 2" Sch 40 FJT PVC, 0.010 slot</div></div>						

Exide Technologies				Log of Boring: MW-24							
Frisco Recycling Center Frisco, TX				Completion Date:		3/5/2013		Drilling Method:		HSA/DPT	
				Drilling Company:		Strata Core Services, LLC		Borehole Diameter (in.):		7.75	
				Driller:		Dan Spaust		Total Depth (ft):		29	
PBW Project No. 1755				Driller's License:		3038M		Northing:		7102133.0317	
				Logged By:		Tim Jennings, P.G.		Easting:		2479613.4306	
				Field Supervisor:		Tim Jennings, P.G.		Ground Elev. (ft AMSL):		639.62	
				Sampling Method:		5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL):		642.96	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description						
0		5.0/5.0		0-0.5	(0 - 5.0) Silty clay/clayey silt FILL, moist, firm, low plasticity, dry and very hard 3-5'.						
				0.5-2							
				2-4							
				4-5							
5		1.5/2.5			(5.0 - 12.8) Gravelly clay FILL, dark brown and dark grayish brown, light brown 7.5-9.5, moist, firm to hard, medium to high plasticity, ~5-10% fine to coarse gravel fill, large carbonate cobbles at 11'.						
10		2.5/2.5			(12.8 - 15.9) Sandy clay FILL; dark reddish brown, moist, hard, low plasticity clay, iron oxide staining, very stiff.						
15		2.5/2.5			(15.9 - 18.5) Silty, sandy CLAY; dark reddish brown, trace iron oxide staining, moist, firm, medium plasticity, increasing moisture downward.						
20		1.5/2.5			(18.5 - 20.2) Clayey SILT, dark brown, wet, soft, high plasticity.						
25		3.0/3.0			(20.2 - 23.1) Silty CLAY, grayish brown, moist to wet, firm, <5% fine calcareous nodules, wet sand interbedded at 22.5-22.6'.						
		1.0/2.0			(23.1 - 23.7) Clayey SAND, brown, wet, soft, sub-rounded sand, ~10-20% clay in fine to coarse sand.						
		1.0/2.5			(23.7 - 27.5) Gravelly CLAY, light brown to brown, wet, firm, sub-rounded gravel, medium plasticity clay, ~30-40% fine gravel in clay matrix, sandy gravel 27.3-27.5'.						
		1.5/1.5			(27.5 - 28.4) SHALE, light brown, orange and gray, abundant iron oxide staining, weathered.						
					(28.4 - 29.0) SHALE, gray, dry, very hard.						
<div>PBW</div> <div>Pastor, Behling & Wheeler, LLC</div> <div>2201 Double Creek Dr., Suite 4004</div> <div>Round Rock, TX 78664</div> <div>Tel (512) 671-3434 Fax (512) 671-3446</div>				Notes: This log should not to be used separately from the report to which it is attached.							
				<u>Annular Materials</u> (0.0 - 2.0) Concrete (2.0 - 12.0) Bentonite Hole Plug (12.0 - 29.0) 20/40 Silica Sand				<u>Well Materials</u> (+3.34 - 14.0) Casing, 2" Sch 40 FJT PVC (14.0 - 29.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			

Exide Technologies				Log of Boring: MW-26			
Frisco Recycling Center Frisco, TX				Completion Date: 3/6/2013		Drilling Method: HSA	
				Drilling Company: Strata Core Services, LLC		Borehole Diameter (in.): 7.75	
PBW Project No. 1755				Driller: Dan Spaust		Total Depth (ft): 15	
				Driller's License: 3038M		Northing: 7101865.0034	
				Logged By: Tim Jennings, P.G.		Easting: 2479876.33	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 628.34	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 631.93	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		4.0/5.0	CL		(0 - 1.0) Sandy CLAY, light reddish brown, moist, firm, low plasticity.		
(1.0 - 5.0) Silty CLAY, dark reddish brown, trace iron oxide orange staining, moist, wet at 3', soft to firm, low plasticity.							
5		1.5/2.5	CH		(5.0 - 9.4) Silty CLAY, brown, moist to wet, firm, high plasticity.		
(9.4 - 10.8) Gravelly CLAY, brown, moist to wet, firm, medium plasticity clay, ~20-40% fine to medium gravel.							
10		1.5/2.5	CL		(10.8 - 13.0) Silty CLAY, light brown and orange, laminated with trace iron oxide staining, moist to wet, firm, medium plasticity.		
(13.0 - 15.0) SHALE, gray, orange and light brown, trace iron oxide above 14', dry, hard, very hard at 14.5 to 15', low plasticity, weathered.							
15	1.5/2.5	SH					
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
				<u>Annular Materials</u> (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 15.0) 20/40 Silica Sand		<u>Well Materials</u> (+3.59 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 15.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: MW-27								
Frisco Recycling Center Frisco, TX				Completion Date:		3/6/2013		Drilling Method:		HSA/DPT		
				Drilling Company:		Strata Core Services, LLC		Borehole Diameter (in.):		7.75		
				Driller:		Dan Spaust		Total Depth (ft):		15		
PBW Project No. 1755				Driller's License:		3038M		Northing:		7101675.2344		
				Logged By:		Tim Jennings, P.G.		Easting:		2480260.288		
				Field Supervisor:		Tim Jennings, P.G.		Ground Elev. (ft AMSL):		629.89		
				Sampling Method:		5' Split Spoon/5' Samp Tube		TOC Elev. (ft AMSL):		633.42		
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	PID (ppm)	Lithologic Description						
0		4.5/5.0	CL	0-0.5	0.1	(0 - 2.5) Silty CLAY, dark reddish brown, moist, soft, low to medium plasticity, moderate hydrocarbon odor below 1'.						
				0.5-2								
2-4				-	(2.5 - 5.0) Silty CLAY, yellowish brown, wet, very soft, low to medium plasticity, trace sand, some black staining, moderate hydrocarbon odor.							
4-5				0.3								
5		2.5/2.5	MH		125.4	(5.0 - 7.0) Sandy, clayey SILT; gray, moist to wet, soft, high plasticity clay, <5% fine gravel, moderate hydrocarbon odor.						
2.5/2.5		CH	65		(7.0 - 8.0) Silty CLAY, gray, moist to wet, soft, high plasticity, trace calcareous nodules, moderate hydrocarbon odor.							
			13		(8.0 - 11.5) Sandy, gravelly CLAY; gray, moist to wet, locally wet, firm, high plasticity clay, ~10-20% fine to medium sand, ~5-10% fine gravel.							
2.5/2.5		CL	0.5		(11.5 - 13.4) Gravelly CLAY, gray, moist, firm, medium plasticity clay, ~20-40% fine to medium gravel in clay matrix.							
0.5												
2.5/2.5		SH	1.8		(13.4 - 14.6) SHALE, gray and orange, moist, hard, low plasticity, weathered.							
			(14.6 - 15.0) SHALE, gray, dry, hard.									
15												
<div>PBW</div> <div>Pastor, Behling & Wheeler, LLC</div> <div>2201 Double Creek Dr., Suite 4004</div> <div>Round Rock, TX 78664</div> <div>Tel (512) 671-3434 Fax (512) 671-3446</div>				Notes:								
				This boring log should not be used separately from the report to which it is attached.								
				<u>Annular Materials</u> (0.0 - 2.0) Concrete (2.0 - 4.0) Bentonite Hole Plug (4.0 - 15.0) 20/40 Silica Sand				<u>Well Materials</u> (+3.53 - 5.0) Casing, 2" Sch 40 FJT PVC (5.0 - 15.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot				

Exide Technologies

Log of Boring: MW-28

Undeveloped Buffer Property
Frisco, TX

PBW Project No. 1824

Completion Date:	2/27/2013	Drilling Method:	HSA
Drilling Company:	Sunbelt Environmental	Borehole Diameter (in.):	7.75
Driller:	Chris Combs	Total Depth (ft):	20
Driller's License:	56033	Northing:	7102977.699
Logged By:	Roberta Russell	Easting:	2479831.956
Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	639.47
Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	642.91

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0					(0 - 10.8) Silty CLAY/Clayey SILT, dark reddish brown, soft to firm, low to medium plasticity, calcareous nodules starting at 7.5'.
1					
2					
3					
4					
5		5.0/5.0			(10.8 - 13.5) Gravelly CLAY, yellowish brown, moist, wet at 12.8', soft to firm, low to medium plasticity clay, calcareous nodules, ~10% gravel in clay matrix.
6					
7					
8					
9					
10					(13.5 - 16.5) Sandy CLAY, yellowish brown, wet, soft to firm, low plasticity clay, calcareous nodules.
11					
12					
13					
14					
15					(16.5 - 19.5) Silty CLAY/Clayey SILT, yellowish brown, moist, soft to firm, low to medium plasticity.
16					
17					
18					
19					
20					(19.5 - 20.0) SHALE, dry, hard.

PBW

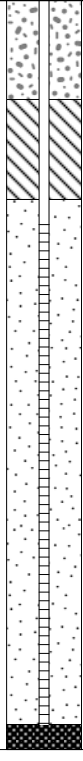
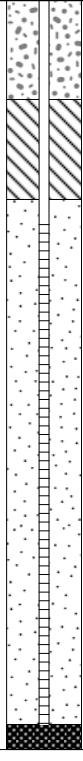
Pastor, Behling & Wheeler, LLC
2201 Double Creek Dr., Suite 4004
Round Rock, TX 78664
Tel (512) 671-3434 Fax (512) 671-3446


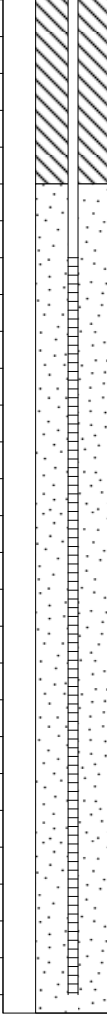
Notes:

This log should not be used separately from the report to which it is attached.

Annular Materials
(0.0 - 0.5) Concrete
(0.5 - 1.0) Bentonite Grout
(1.0 - 2.5) Bentonite Hole Plug
(2.5 - 20.0) 20/40 Silica Sand

Well Materials
(+3.44 - 5.0) Casing, 2" Sch 40 FJT PVC
(5.0 - 20.0) Screen, 2" Sch 40 FJT PVC,
0.010 slot

Exide Technologies			Log of Boring: MW-29						
Frisco Recycling Center Frisco, TX			Completion Date:		3/6/2013	Drilling Method:		HSA/DPT	
			Drilling Company:		Strata Core Services, LLC	Borehole Diameter (in.):		7.75	
PBW Project No. 1755			Driller:		Dan Spaust	Total Depth (ft):		15	
			Driller's License:		3038M	Northing:		7101741.6829	
			Logged By:		Tim Jennings, P.G.	Easting:		2480041.8696	
			Field Supervisor:		Tim Jennings, P.G.	Ground Elev. (ft AMSL):		629.39	
			Sampling Method:		5' Split Spoon/5' Samp Tube	TOC Elev. (ft AMSL):		633.51	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description				
0		5.0/5.0	CL/ML	0-0.5	(0 - 5.0) Silty CLAY/Clayey SILT, dark reddish brown, orange iron oxide staining from 0-0.5', moist, wet at 4', firm to hard, low plasticity, clayey gravel lens from 2.6-2.7'.				
0.5-2									
2-4									
4-5									
5		2.5/2.5	CH		(5.0 - 8.0) Silty CLAY, dark grayish brown, moist to wet, firm, high plasticity, fine to medium gravel in silty clay matrix at 5-5.8'.				
1.5/2.5				(8.0 - 11.4) Silty CLAY, light brown, moist, firm, high plasticity, <5% fine gravel.					
1.5/2.5				(11.4 - 14.0) SHALE, gray and orange, trace iron oxide, moist, firm to hard, medium plasticity, weathered.					
10		2.5/2.5	SH		(14.0 - 15.0) SHALE, gray, dry, hard.				
15									

Exide Technologies				Log of Boring: MW-30			
Frisco Recycling Center Frisco, TX				Completion Date:	3/28/2013	Drilling Method:	HSA
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755				Driller:	Dan Spaust	Total Depth (ft):	32.5
				Driller's License:	3038M	Northing:	7102086.1889
				Logged By:	Tim Jennings, P.G.	Easting:	2480011.0566
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	645.483805
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	645.148475
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		0.5/5	CL	0-0.5	(0 - 0.5) Sandy Gravelly CLAY, dark grayish brown, moist, firm, medium plasticity, ~10-20% fine to coarse sand, ~20-30% fine to coarse gravel and cobbles (railroad balast). (0.5 - 5.0) No Recovery		
				0.5-2			
			NR	2-4			
				4-5			
5		1.3/5	FILL		(5.0 - 20.9) FILL, silty clay, dark grayish brown, moist to wet, soft, medium to high plasticity, trace of fine gravel,		
10		1/2.5					
		2.5/2.5					
15		2/5					
20		2.5/2.5					
		2.5/2.5			(20.9 - 26.5) FILL, gravelly clay, light brown, wet, soft, high plasticity, ~30-40% fine gravel in clay matrix, wood fragments locally to 25'.		
25		2.5/2.5					
		2.5/2.5			(26.5 - 28.5) FILL, gravelly clay, wet, firm to hard, medium plasticity, ~40-50% fine to medium gravel in clay matrix, pieces of slag/lead at 28', shell fragments at 28-28.5'.		
30		2.5/2.5			(28.5 - 30.5) SHALE, gray and orange, abundant fe ox staining, wet, hard, medium plasticity.		
		2.5/2.5	SH		(30.5 - 32.5) SHALE, gray, moist, no cementation, very hard.		
<div><div><div>PBW</div><div>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div></div><div><div>Notes:</div><div>This log should not to be used separately from the report to which it is attached.</div></div><div><div>Annular Materials</div><div>(0.0 - 2.0) Concrete (2.0 - 10.0) Bentonite Hole Plug (10.0 - 32.5) 20/40 Silica Sand</div></div><div><div>Well Materials</div><div>(0 - 12.0) Casing, 2" Sch 40 FJT PVC (12.0 - 32.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot</div></div></div>							

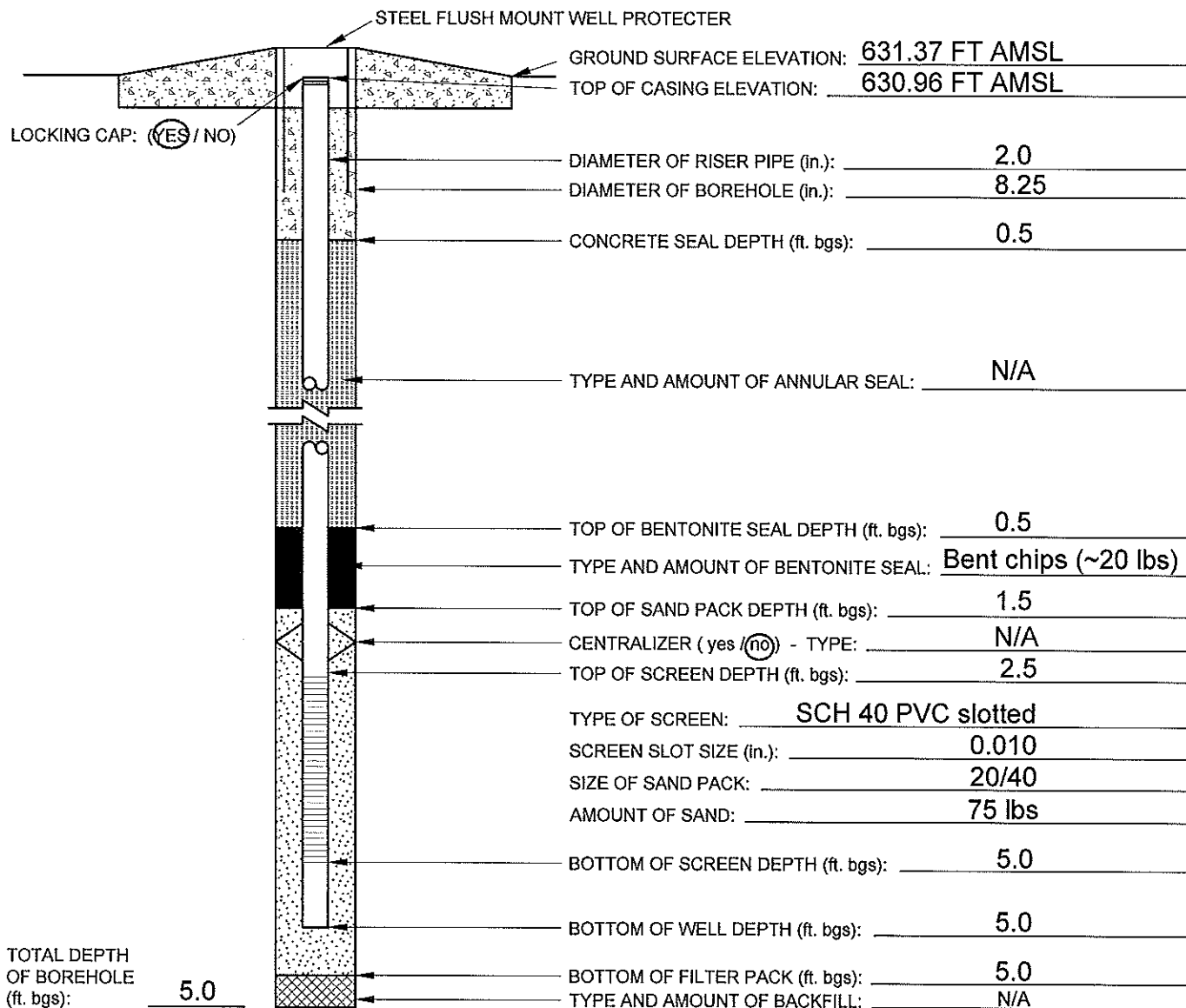
Exide Technologies				Log of Boring: MW-31			
Frisco Recycling Center Frisco, TX				Completion Date:	5/9/2013	Drilling Method:	HSA
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
				Driller:	Margarito Estrada	Total Depth (ft):	24
PBW Project No. 1755				Driller's License:	58164	Northing:	7102001.9818
				Logged By:	Tim Jennings, P.G.	Easting:	2479800.4009
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	637.17
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	636.71
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0			CON		(0 - 0.9) CONCRETE SLAB		
				0.9-2	(0.9 - 5.8) FILL, clayey sand and sandy clay, orange, trace iron oxide nodules.		
5		4/5	FILL				
				5.8-8	(5.8 - 8) FILL, silty clay, trace fine gravel, moist to wet, dark brown, trace battery chips at 5.8-8', wet at 9.5', slag observed.		
10		5/5			(8 - 16) Silty clay, dark brown.		
				9.5			
15		5/5	CL				
					(16 - 21) Silty CLAY and clayey SILT, trace gravel and sand, greater sand content with depth, yellowish brown.		
20		cuttings					
					(21 - 22) Gravelly CLAY, ~20% fine to medium gravel in clay matrix.		
			SH		(22 - 24) SHALE potentially, drilling more difficult.		
PBW Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not to be used separately from the report to which it is attached.			
<u>Annular Materials</u> (0.0 - 2.0) Concrete (2.0 - 6.0) Bentonite Hole Plug (6.0 - 23.0) 20/40 Silica Sand				<u>Well Materials</u> (0 - 8.0) Casing, 2" Sch 40 FJT PVC (8.0 - 23.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot			



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-32

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 631.21 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7101921.30 FT		EASTING: 2479831.17 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 4.16 FT BTOC		COMPLETION DATE: 1/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 5/12/14

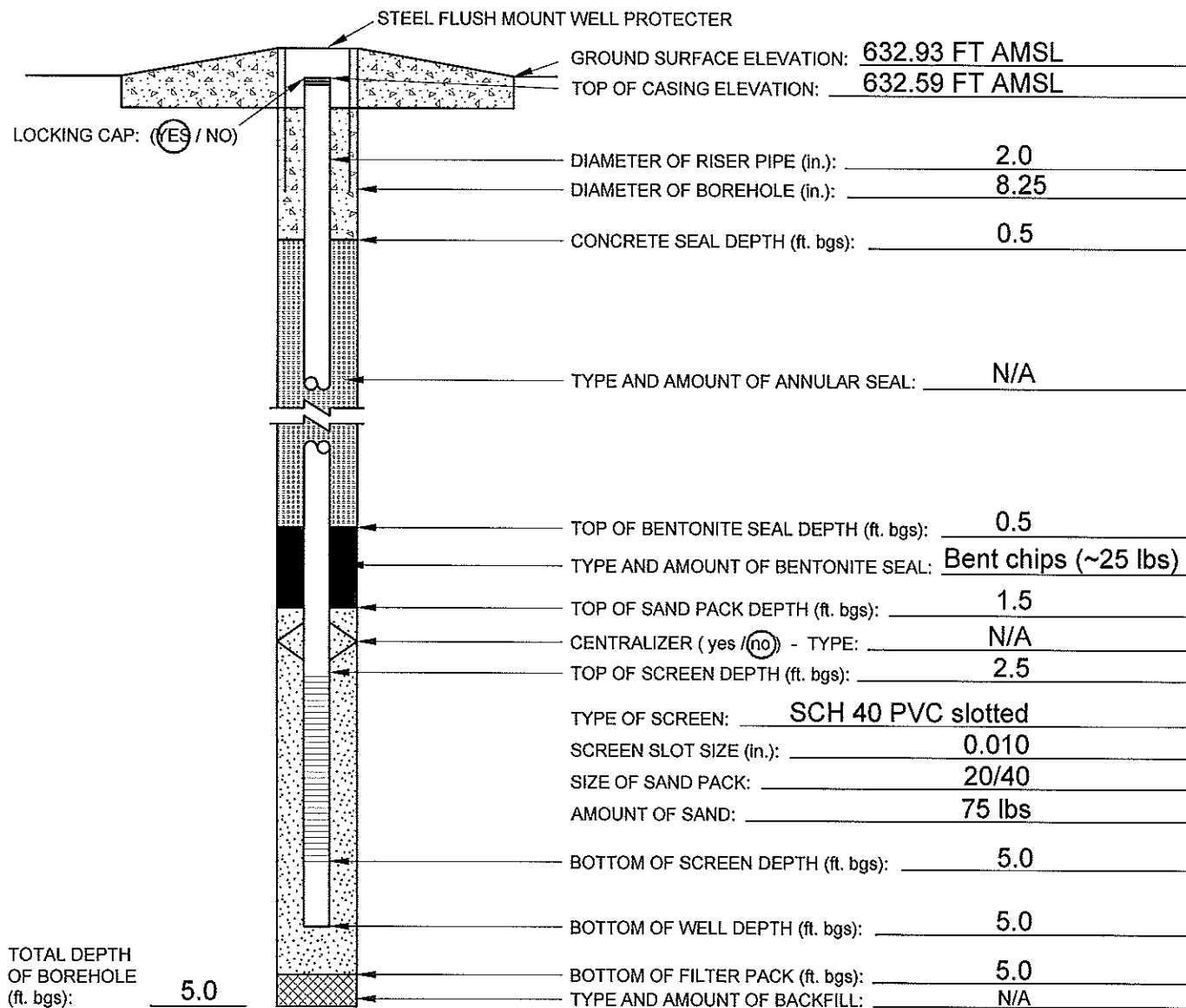
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-33

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 633.08 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7101871.99 FT		EASTING: 2480020.99 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 1.09 FT BTOC		COMPLETION DATE: 1/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 05/12/14

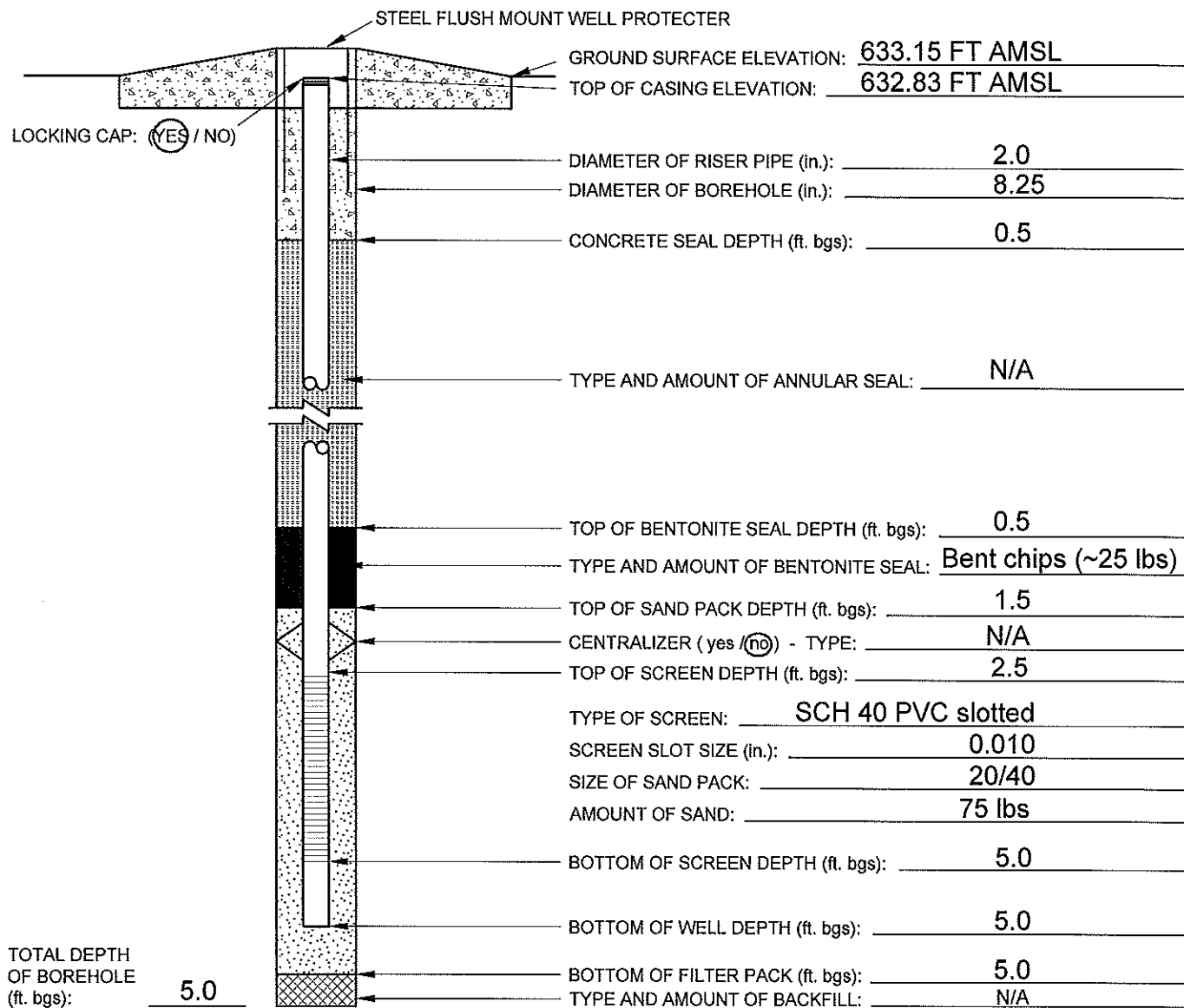
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-34

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 633.17 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7101877.20 FT	EASTING: 2480097.12 FT	
DRILLER: Dan Spaust	STATIC WATER LEVEL: 4.31 FT BTOC	COMPLETION DATE: 1/14/2014	
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 05/12/14

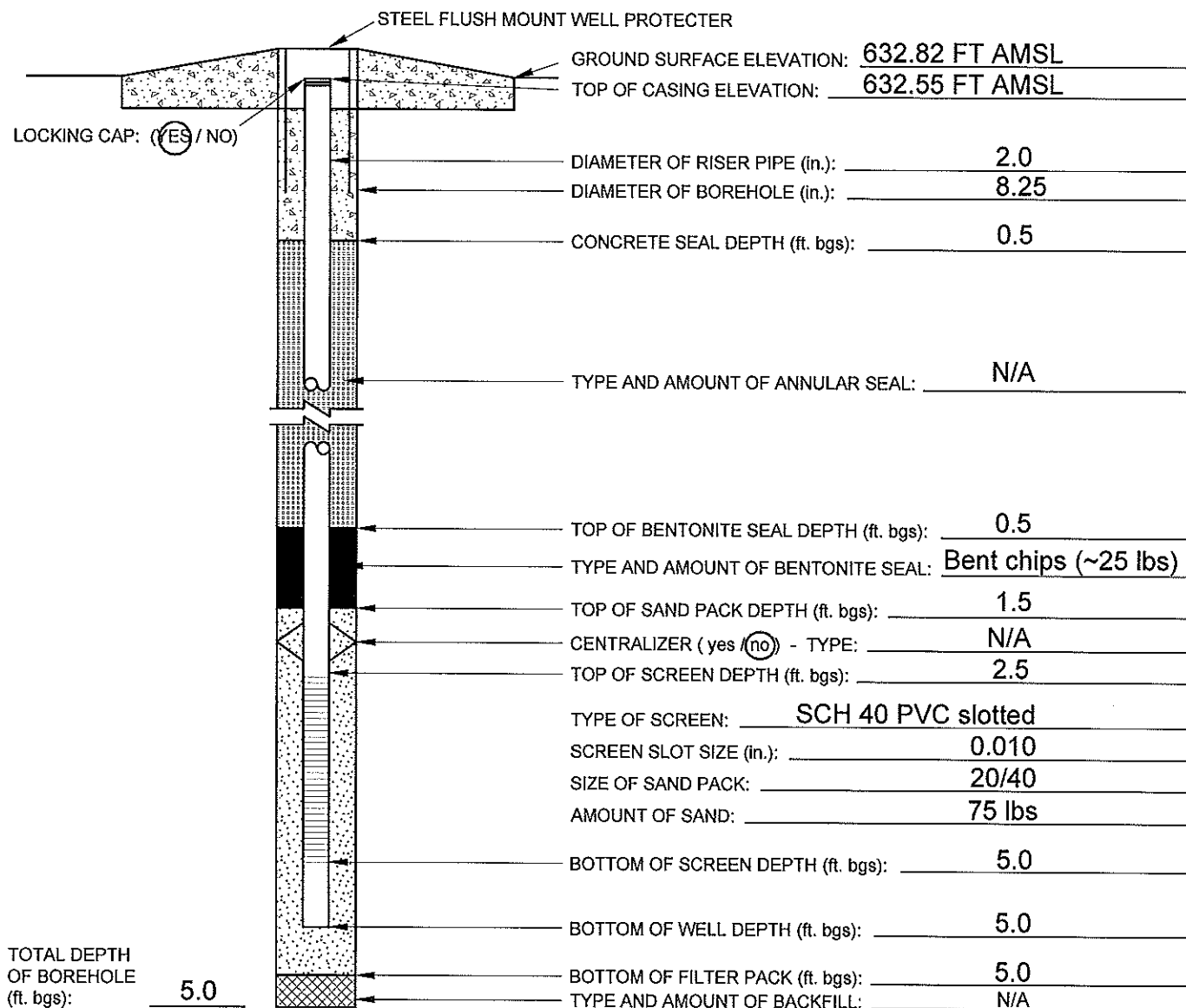
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-35

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas
CLIENT: Exide Technologies		SURFACE ELEVATION: 632.97 FT AMSL
GEOLOGIST: RMS	NORTHING: 7101736.25 FT	EASTING: 2480191.05 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: DRY	COMPLETION DATE: 1/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA



ADDITIONAL NOTES: Static water level collected 01/21/2014.

CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 05/12/14

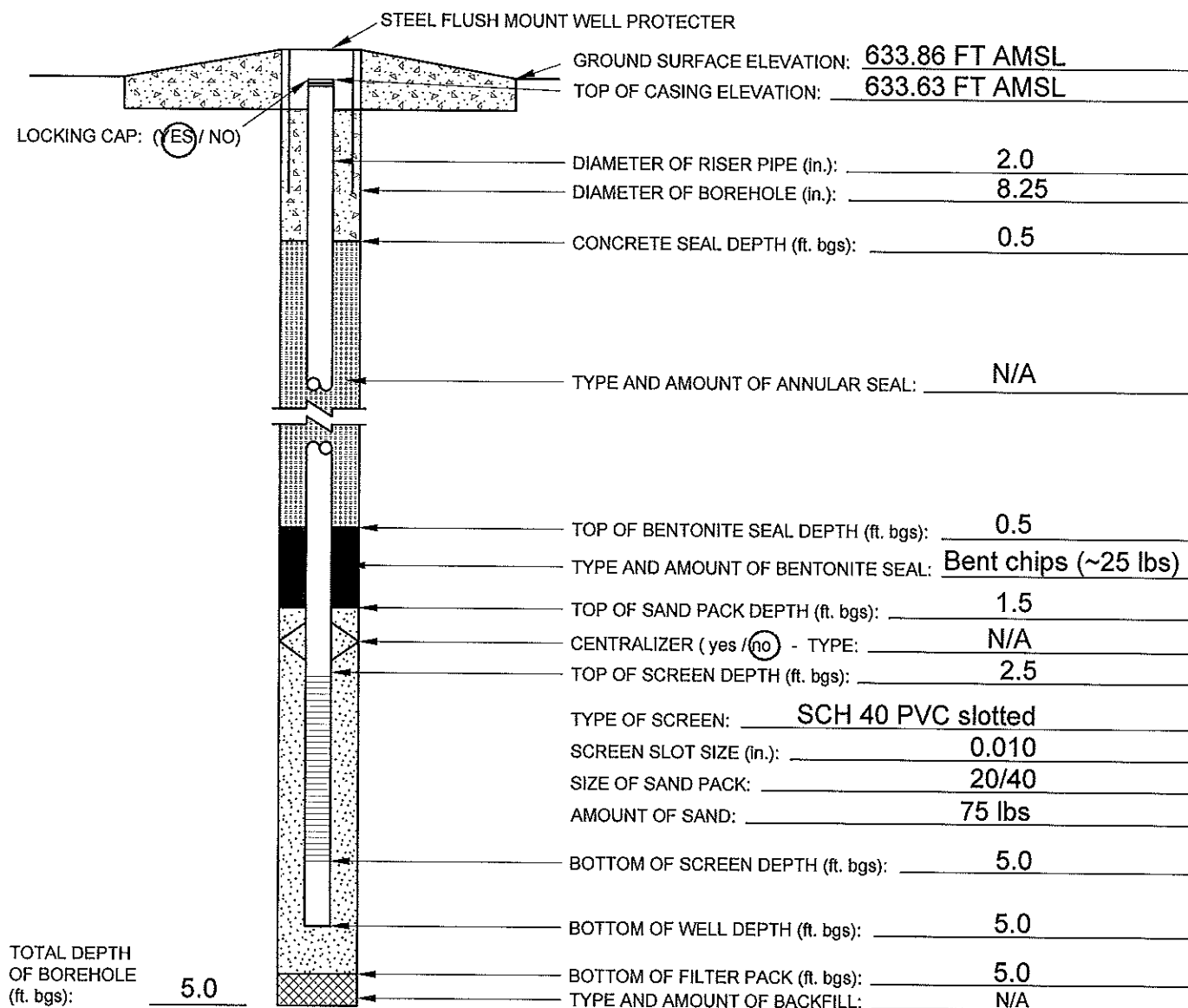
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-36

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 633.94 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7101814.87 FT	EASTING: 2480273.51 FT	
DRILLER: Dan Spaust	STATIC WATER LEVEL: DRY	COMPLETION DATE: 1/14/2014	
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 05/12/14

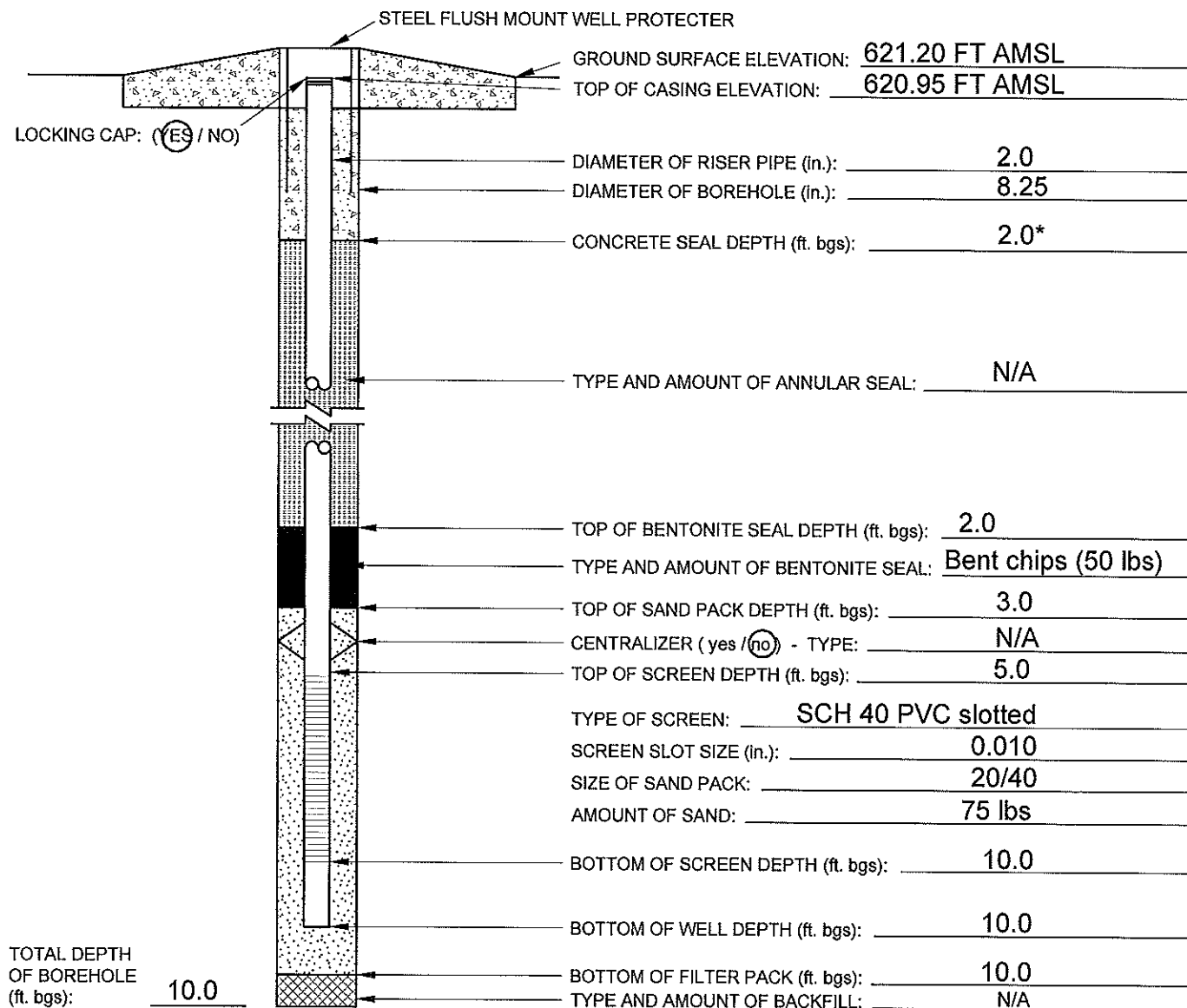
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-37

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 621.50 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7102342.00 FT		EASTING: 2479077.35 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 8.11 FT BTOC		COMPLETION DATE: 1/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

CHECKED BY: JDJ/TRM

DATE CHECKED: 01/28/14:05/12/14

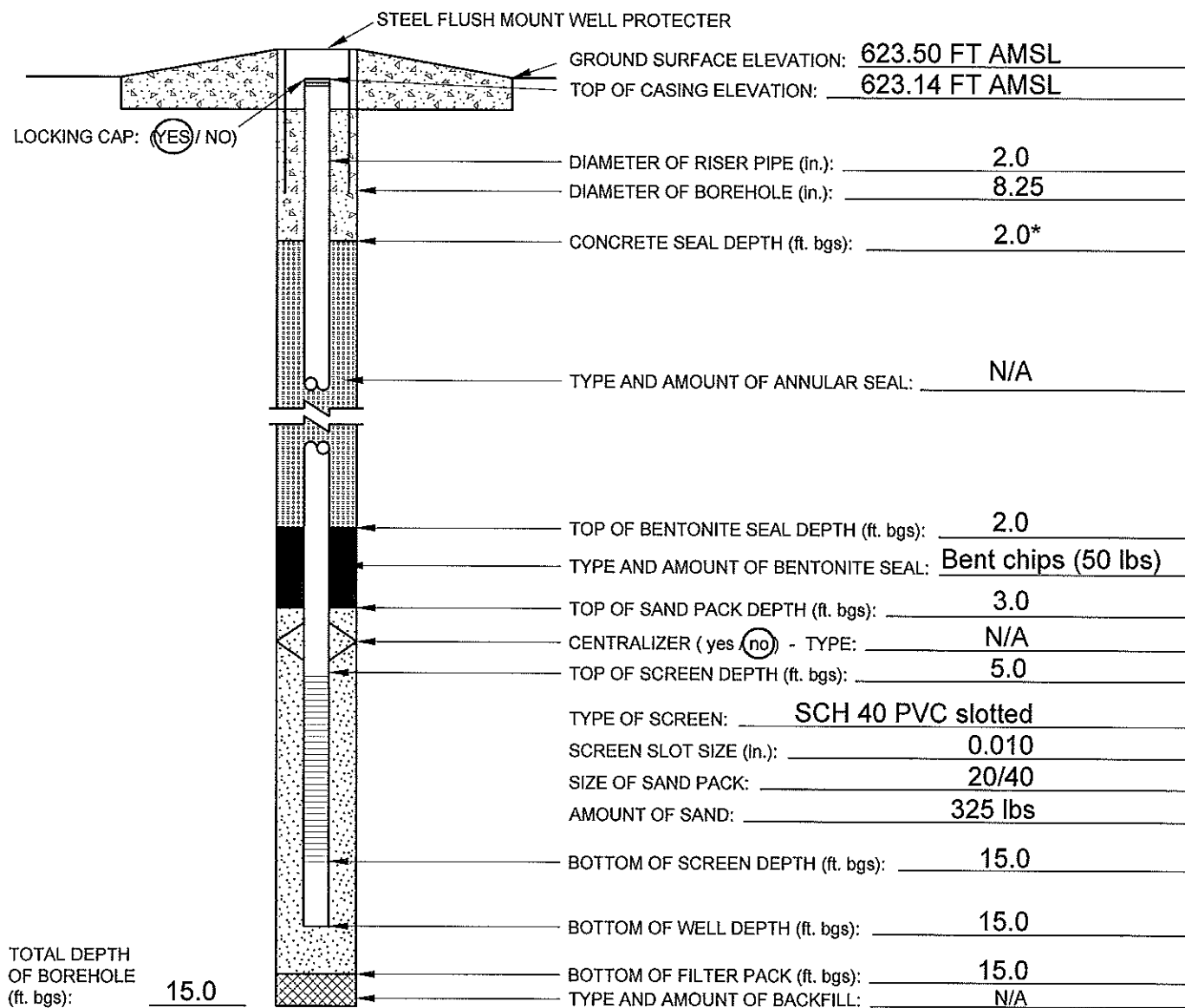
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-38

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 623.71 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7102173.07 FT		EASTING: 2479348.55 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 7.10 FT BTOC		COMPLETION DATE: 1/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

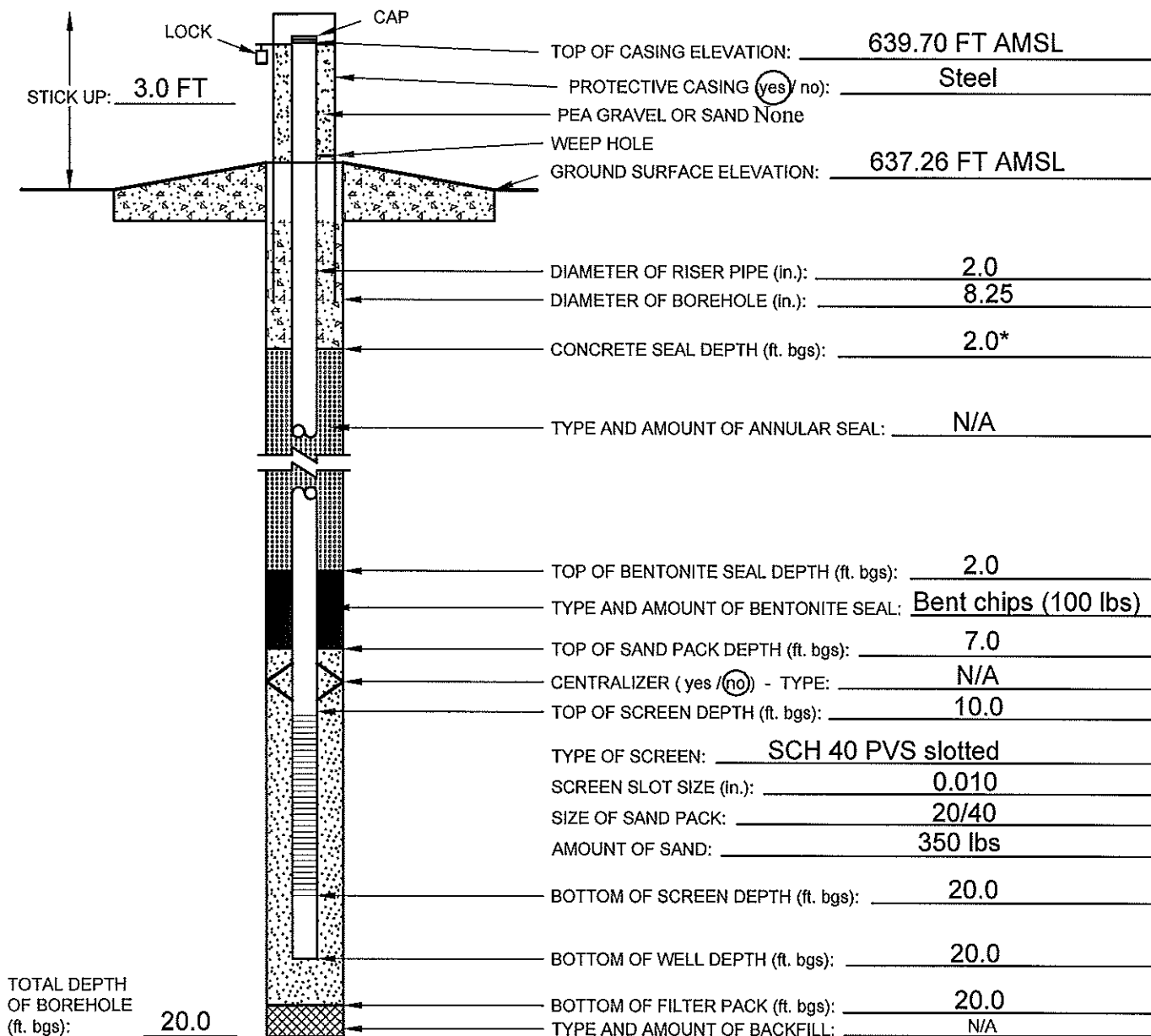
CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 05/12/14

PREPARED BY: RMS



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG MW-39

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 640.29 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7102473.02 FT	EASTING: 2479631.37 FT	
DRILLER: Dan Spaust	STATIC WATER LEVEL: 10.41 FT BTOW	COMPLETION DATE: 01/14/2014	
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	



ADDITIONAL NOTES: Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

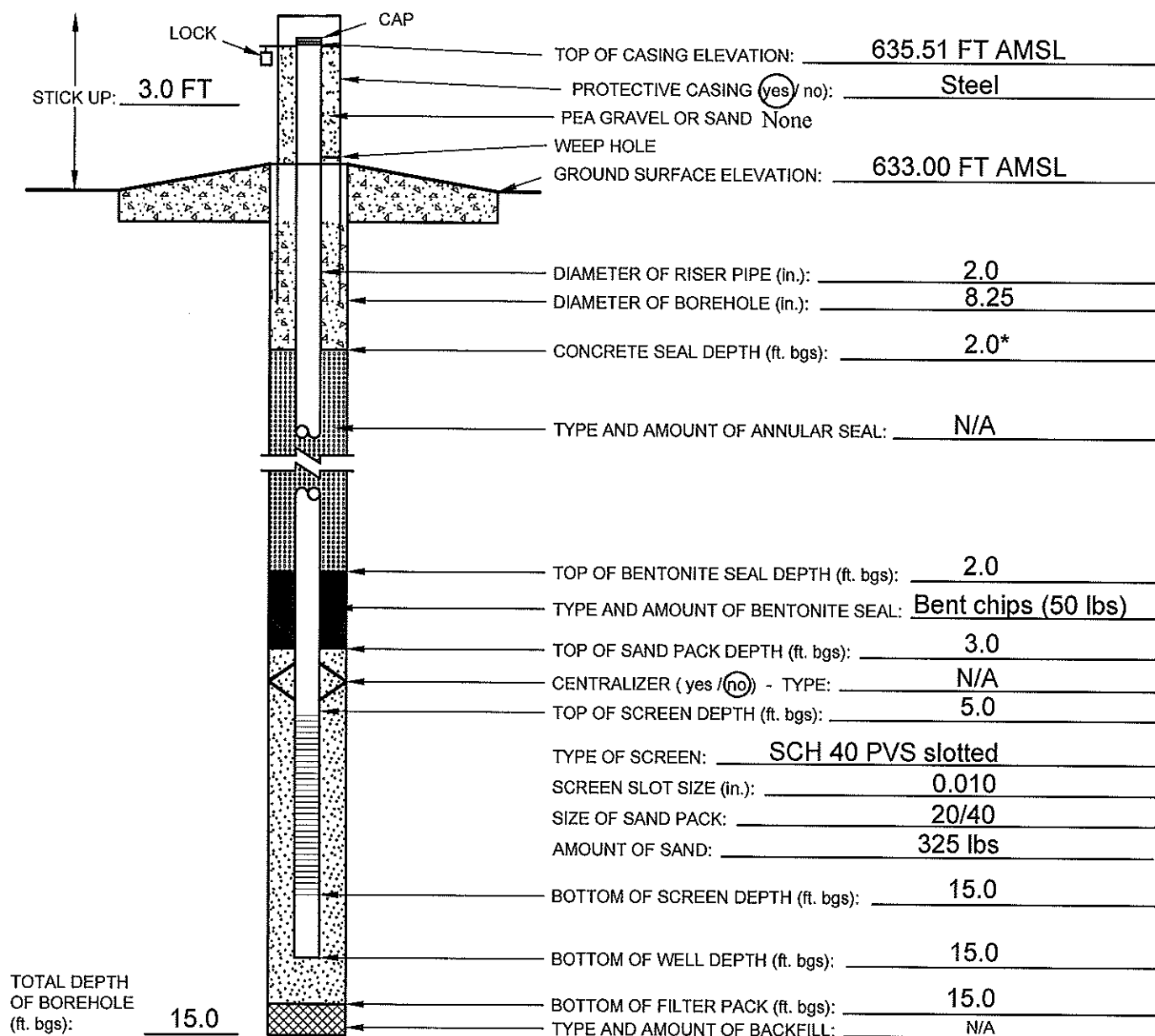
CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 5/12/14

PREPARED BY: RMS



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG MW-40

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas
CLIENT: Exide Technologies		SURFACE ELEVATION: 636.03 FT AMSL
GEOLOGIST: RMS	NORTHING: 7102568.11 FT	EASTING: 2479899.95 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 5.40 FT BTOC	COMPLETION DATE: 01/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA



ADDITIONAL NOTES: Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

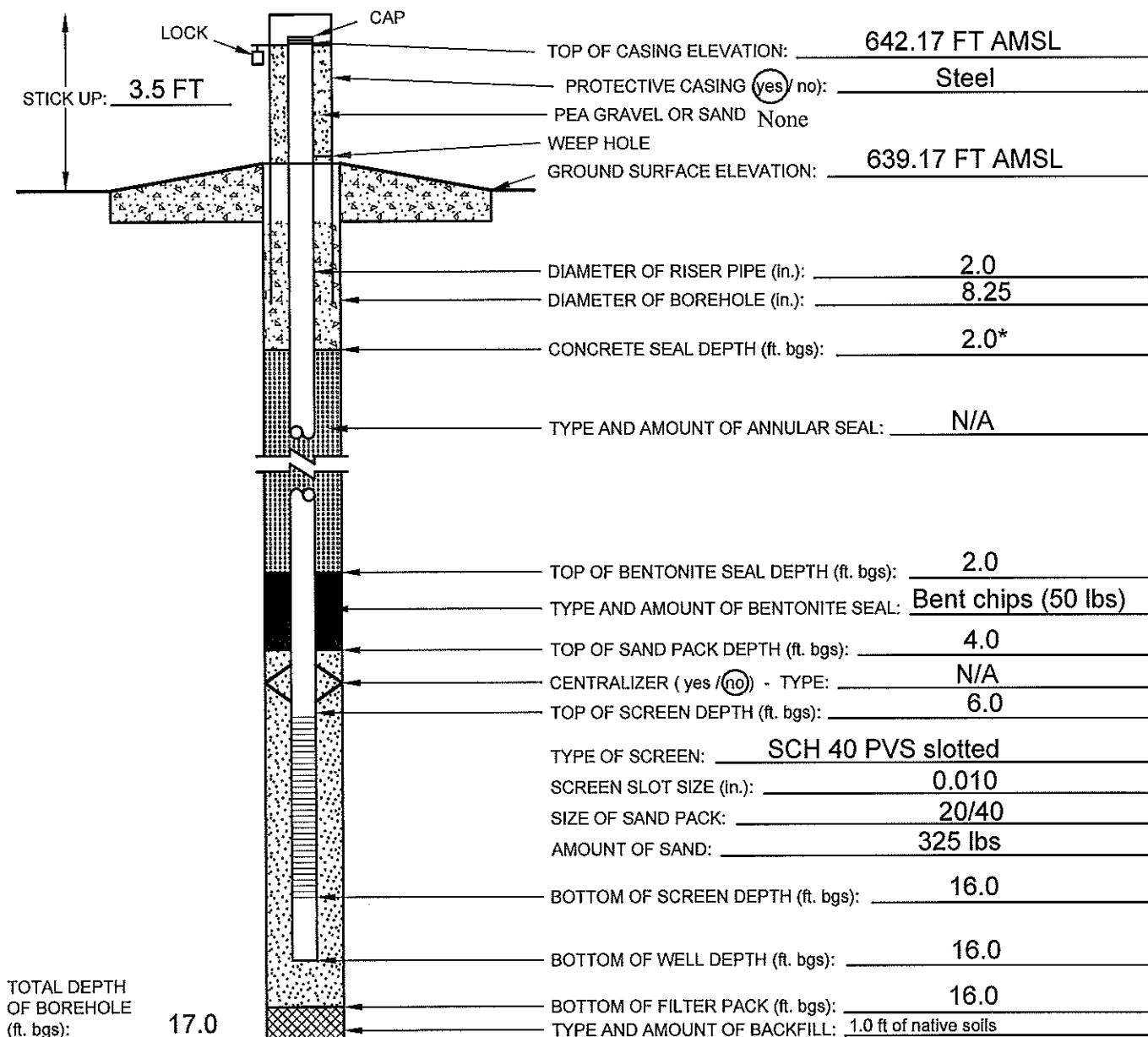
CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 5/12/14

PREPARED BY: RMS



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG MW-41

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas
CLIENT: Exide Technologies		SURFACE ELEVATION: 642.75 FT AMSL
GEOLOGIST: RMS	NORTHING: 7102693.17 FT	EASTING: 2480073.57 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 16.38 FT BTOC	COMPLETION DATE: 01/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA



ADDITIONAL NOTES: The borehole collapsed one foot when the well was being placed and the bottom was set at 16 feet total depth.
Static water level collected 01/21/2014.
* Driller indicates concrete is 2 feet thick.

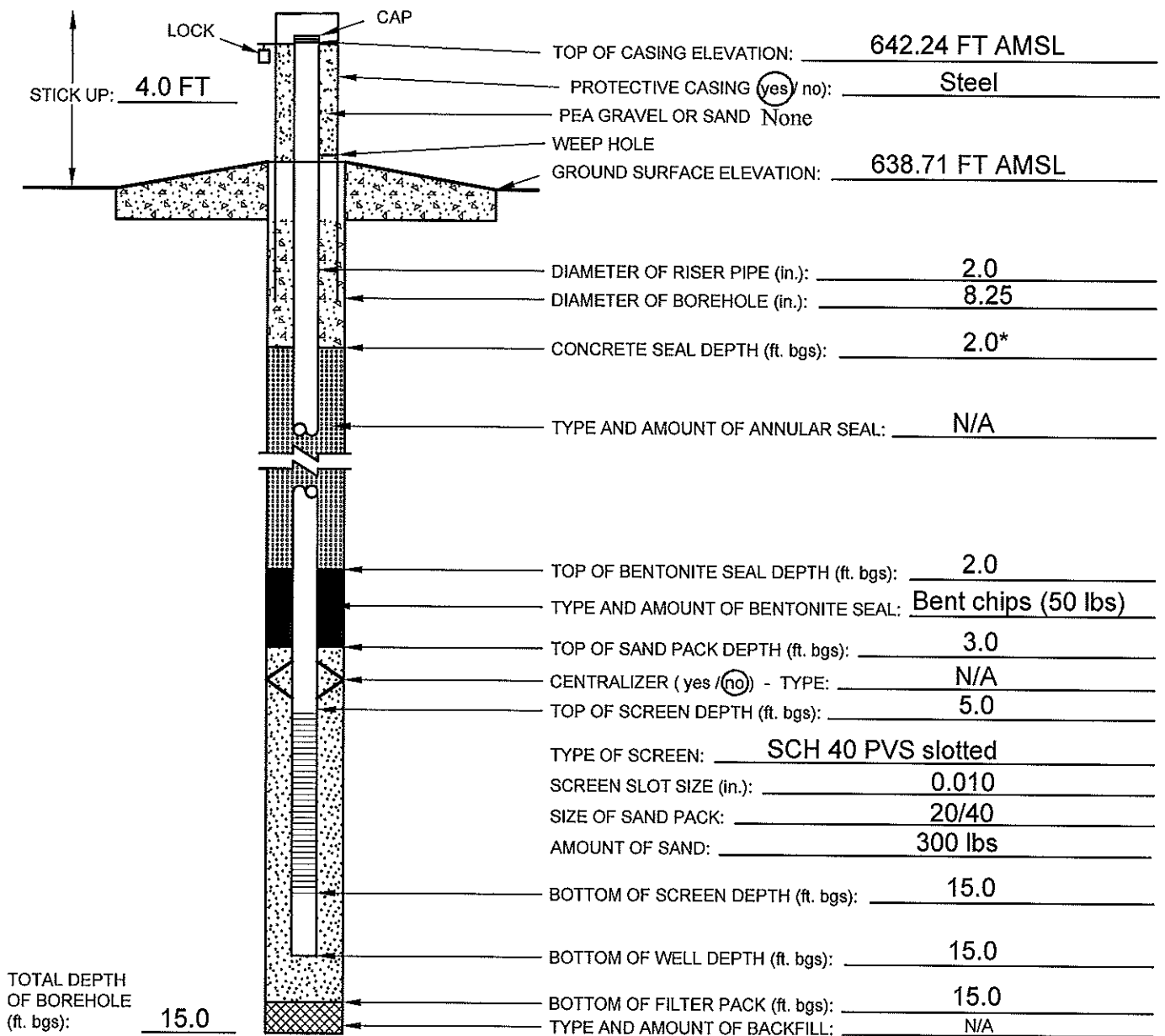
CHECKED BY: JDJ/TRM
DATE CHECKED: 01/28/14; 5/12/14

PREPARED BY: RMS



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG MW-42

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas
CLIENT: Exide Technologies		SURFACE ELEVATION: 642.90 FT AMSL
GEOLOGIST: RMS	NORTHING: 7102695.66 FT	EASTING: 2480711.60 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 9.38 FT BTOC	COMPLETION DATE: 01/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA



ADDITIONAL NOTES: Three bollards installed around pad.

Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

CHECKED BY: JDJ/TRM
DATE CHECKED: 1/28/14; 5/12/14

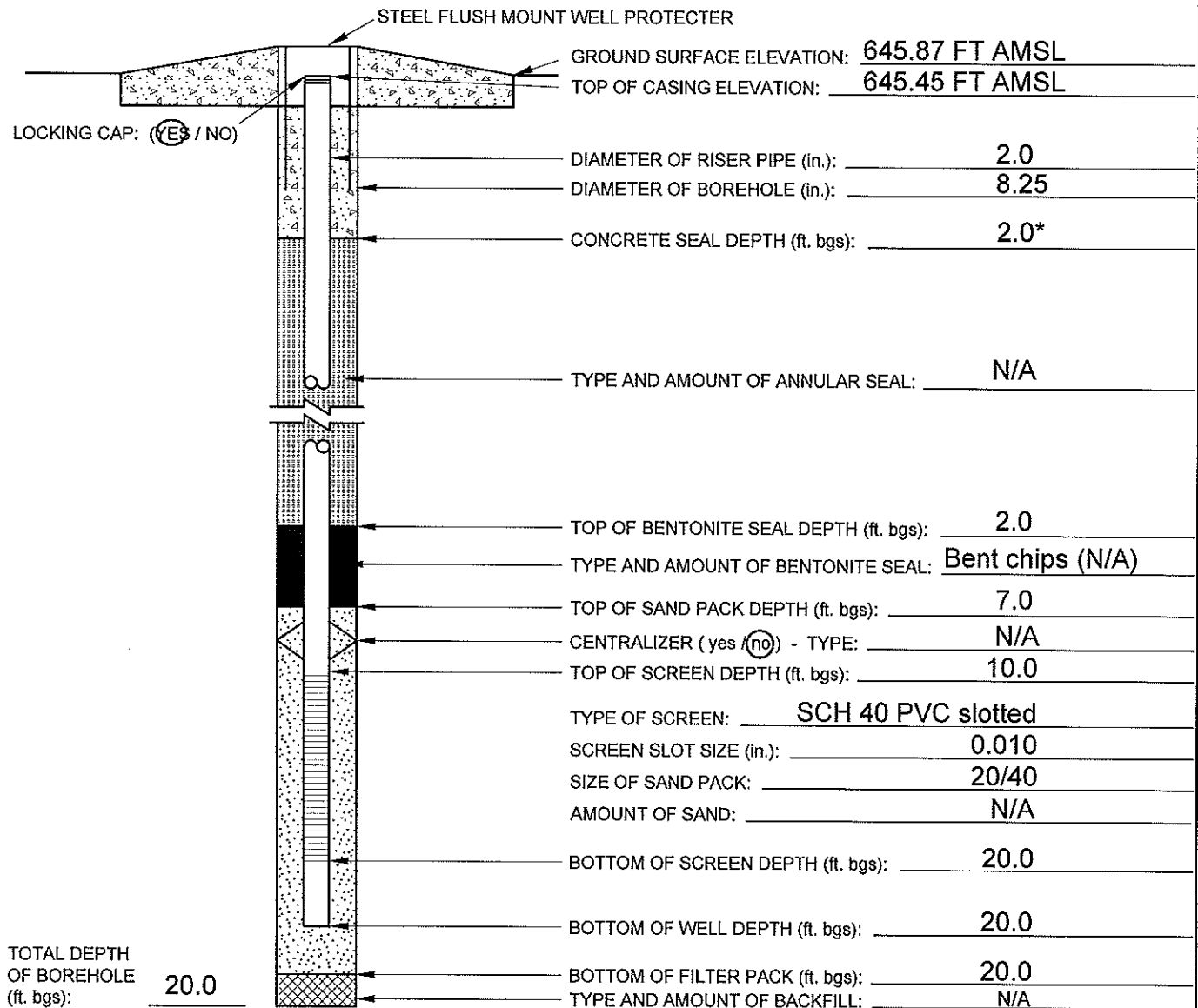
PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-43

PROJECT NAME: Exide Frisco	PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility	LOCATION: Frisco, Texas
CLIENT: Exide Technologies	SURFACE ELEVATION: 646.10 FT AMSL
GEOLOGIST: JSX	NORTHING: 7102421.95 FT
DRILLER: Dan Spaust	EASTING: 2480782.14 FT
DRILLING COMPANY: SCI	STATIC WATER LEVEL: 14.93 FT BTOC
	COMPLETION DATE: 1/14/2014
	DRILLING METHODS: HSA



ADDITIONAL NOTES: Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

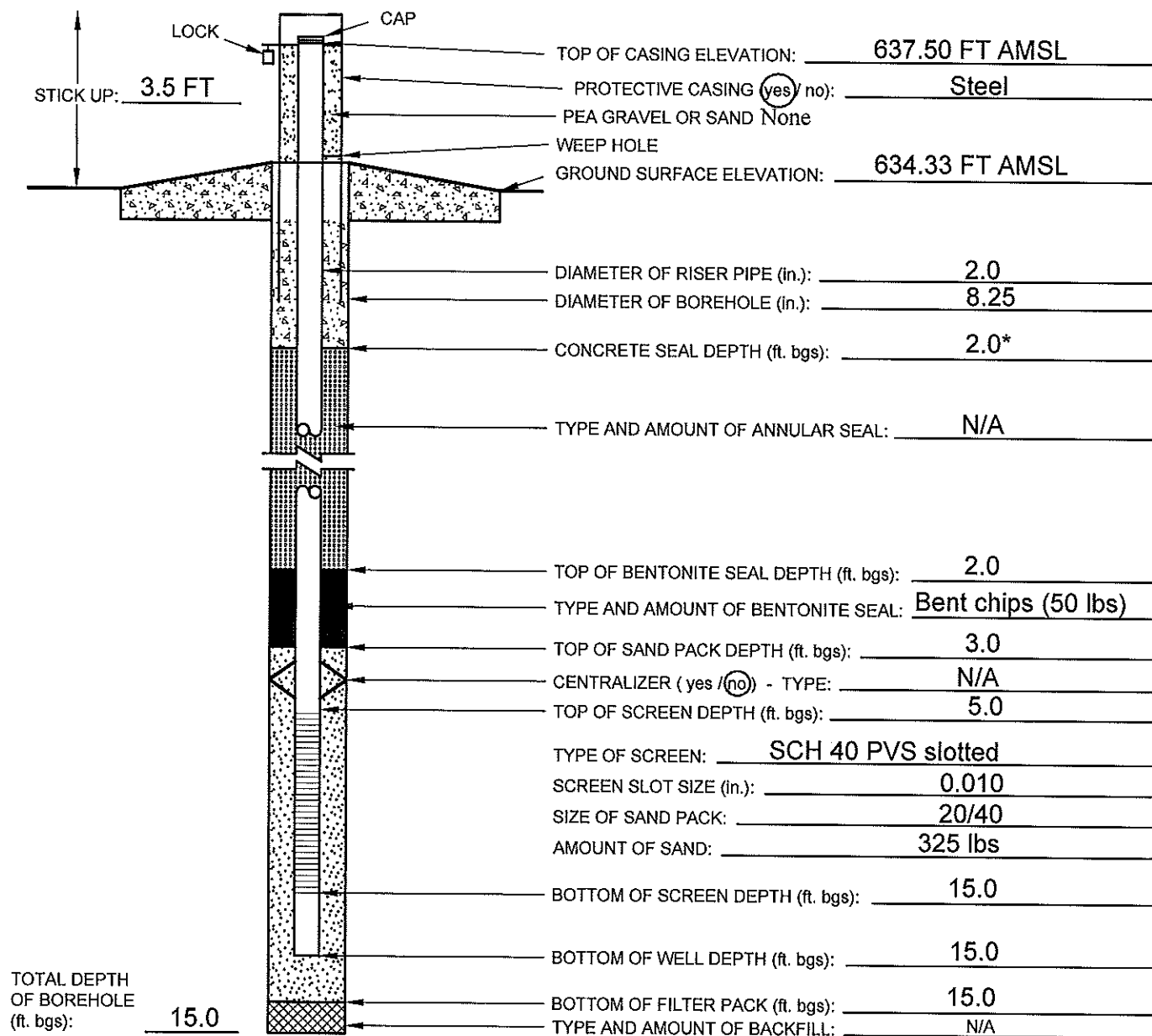
CHECKED BY: JDJ/TRM
DATE CHECKED: 1/28/2014; 5/12/14

PREPARED BY: CWA



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG MW-44

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas
CLIENT: Exide Technologies		SURFACE ELEVATION: 637.80 FT AMSL
GEOLOGIST: RMS	NORTHING: 7101659.80 FT	EASTING: 2480549.86 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 9.21 FT BTOC	COMPLETION DATE: 01/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA



ADDITIONAL NOTES: Three bollards installed around pad.

Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

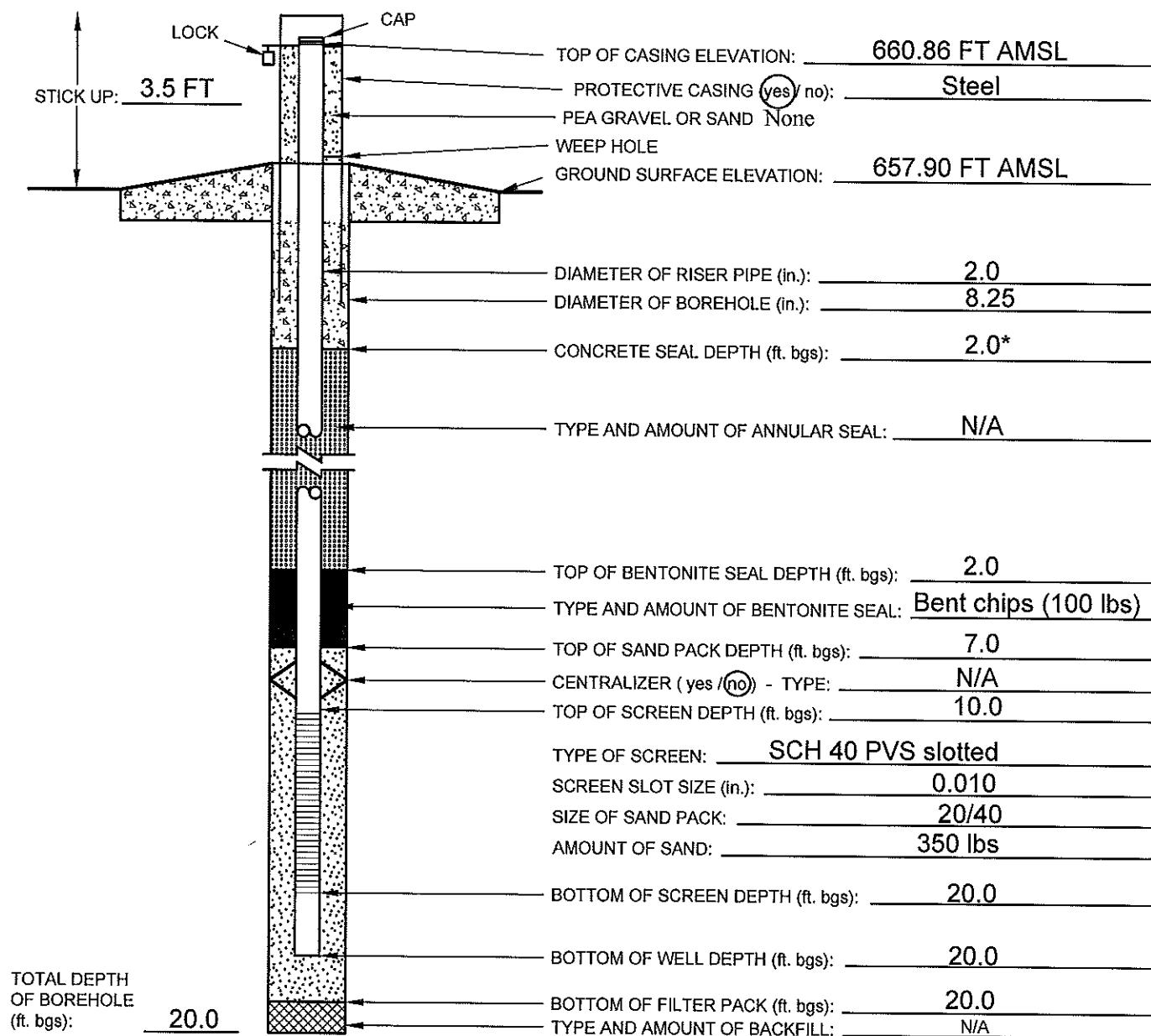
CHECKED BY: JDJ/TRM
DATE CHECKED: 1/28/14; 5/12/14

PREPARED BY: RMS



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG MW-45

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas
CLIENT: Exide Technologies		SURFACE ELEVATION: 661.42 FT AMSL
GEOLOGIST: RMS	NORTHING: 7103914.51 FT	EASTING: 2480303.20 FT
DRILLER: Dan Spaust	STATIC WATER LEVEL: 13.29 FT BTOC	COMPLETION DATE: 01/14/2014
DRILLING COMPANY: SCI		DRILLING METHODS: HSA



ADDITIONAL NOTES: Three bollards installed around pad.

Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

CHECKED BY: JDJ/TRM
DATE CHECKED: 1/28/14; 5/12/14

PREPARED BY: RMS



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

MW-46

PROJECT NAME: Exide Frisco		PROJECT NUMBER: 130-2086	
SITE NAME: Former Exide Recycling Facility		LOCATION: Frisco, Texas	
CLIENT: Exide Technologies		SURFACE ELEVATION: 631.41 FT AMSL	
GEOLOGIST: RMS	NORTHING: 7101919.46 FT	EASTING: 2479833.56 FT	
DRILLER: Dan Spaust	STATIC WATER LEVEL: 5.21 FT BTOC	COMPLETION DATE: 1/14/2014	
DRILLING COMPANY: SCI		DRILLING METHODS: HSA	

	STEEL FLUSH MOUNT WELL PROTECTOR	GROUND SURFACE ELEVATION: 631.38 FT AMSL
	LOCKING CAP: YES / NO	TOP OF CASING ELEVATION: 630.98 FT AMSL
	DIAMETER OF RISER PIPE (in.):	2.0
	DIAMETER OF BOREHOLE (in.):	8.25
	CONCRETE SEAL DEPTH (ft. bgs):	2.0*
	TYPE AND AMOUNT OF ANNULAR SEAL:	N/A
	TOP OF BENTONITE SEAL DEPTH (ft. bgs):	2.0
	TYPE AND AMOUNT OF BENTONITE SEAL:	Bent chips (100 lbs)
	TOP OF SAND PACK DEPTH (ft. bgs):	7.0
	CENTRALIZER (yes / <input checked="" type="radio"/> no) - TYPE:	N/A
	TOP OF SCREEN DEPTH (ft. bgs):	10.0
	TYPE OF SCREEN:	SCH 40 PVC slotted
	SCREEN SLOT SIZE (in.):	0.010
	SIZE OF SAND PACK:	20/40
	AMOUNT OF SAND:	350 lbs
TOTAL DEPTH OF BOREHOLE (ft. bgs): 20.0	BOTTOM OF SCREEN DEPTH (ft. bgs):	20.0
	BOTTOM OF WELL DEPTH (ft. bgs):	20.0
	BOTTOM OF FILTER PACK (ft. bgs):	20.0
	TYPE AND AMOUNT OF BACKFILL:	N/A

ADDITIONAL NOTES: Static water level collected 01/21/2014.

* Driller indicates concrete is 2 feet thick.

CHECKED BY: JDJ/TRM
DATE CHECKED: 1/28/14; 5/12/14

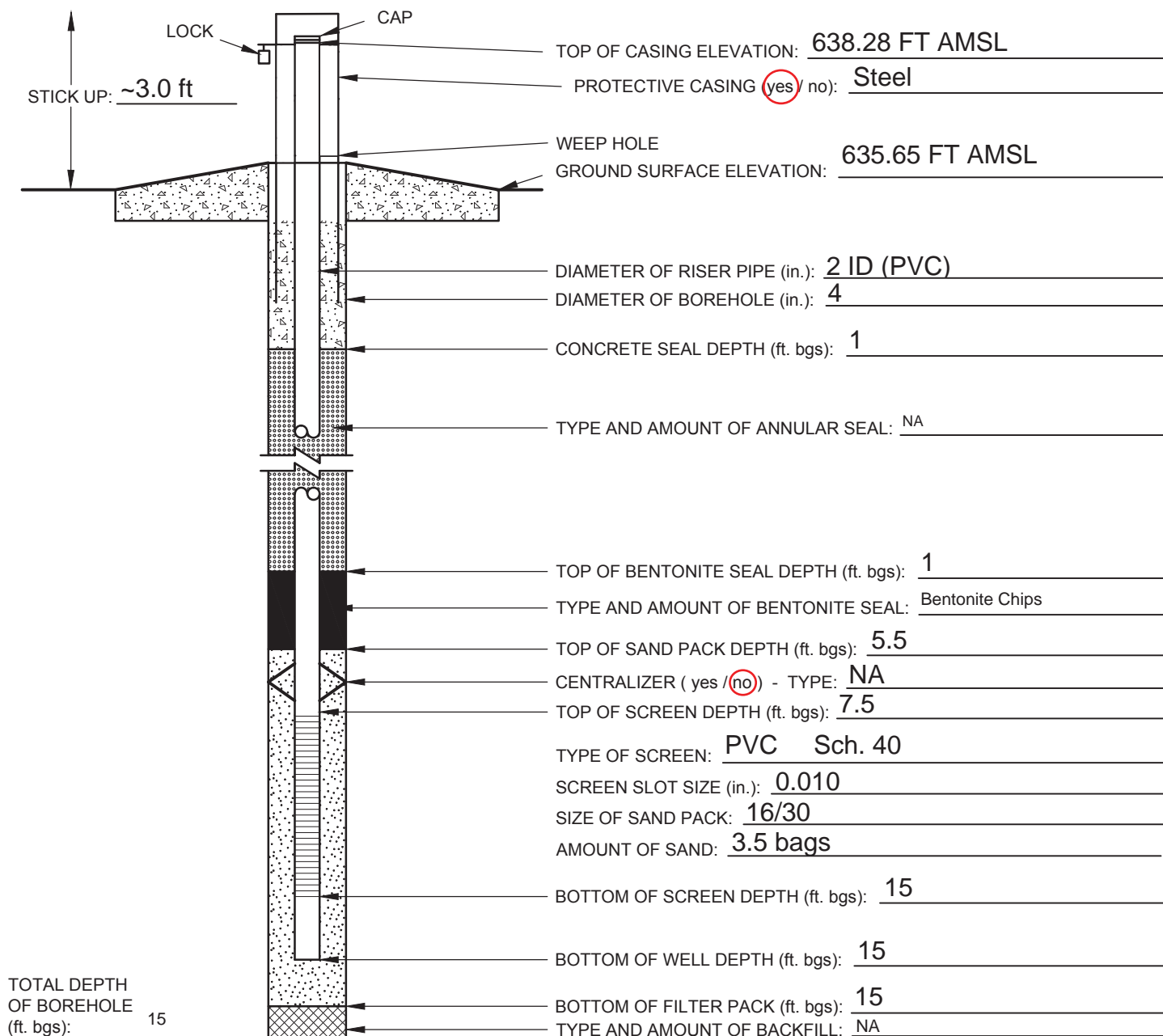
PREPARED BY: RMS



ABOVE GROUND WELL CONSTRUCTION LOG

MW-47

PROJECT NAME: CL2LF Groundwater Monitoring		PROJECT NUMBER: 130-2086-01
SITE NAME: Exide Recycling Center		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 635.65 FT AMSL
GEOLOGIST: A. Marlow	NORTHING: 7102777 FT	EASTING: 2480302 FT
DRILLER: Gus Alejandro	STATIC WATER LEVEL: 5.78 FT BTOC	COMPLETION DATE: 05-02-17
DRILLING COMPANY: West Drilling		DRILLING METHODS: Hollow Stem Auger / CME 75



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; bgs - below ground surface; ID - Inside Diameter; NA - Not Applicable; BTOC - below top of casing

CHECKED BY: TJG/AMF
DATE CHECKED: 05/30/2017


PREPARED BY: EPW

DRILLER:	LOGGED BY:	DATE INSTALLED:	WELL NO.:
RONE	GANTZ	05-08-90	P-1

ITEM NO.	DESCRIPTION	DATA
1.	TOP OF PROTECTIVE SECURITY CASING ELEV	647.79
2.	TOP OF PVC WELL CASING ELEV	647.29
3.	STEEL SECURITY CASING DIA	4.00 IN
4.	TOP OF CONCRETE PAD ELEV	645.95
5.	EXISTING GRADE ELEV	645.95
6.	CONCRETE PAD THICKNESS	12.00 IN
7.	BOREHOLE DIA	8.25 IN
8.	BENTONITE/CEMENT GROUT LENGTH	6.50 FT
9.	PVC WELL CASING DIA	2.00 IN
10.	PELLETIZED BENTONITE SEAL LENGTH	2.0 FT
11.	DEPTH OF BOREHOLE FROM EXISTING GRADE	25.0 FT
12.	WELL SCREEN DIA	2.00 IN
13.	SAND/GRAVEL PACK LENGTH	16.0 FT
14.	WELL SCREEN LENGTH	10.0 FT
15.	BOTTOM OF WELL ELEV	625.31
16.	BOTTOM OF BOREHOLE ELEV	620.95

ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES

ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION



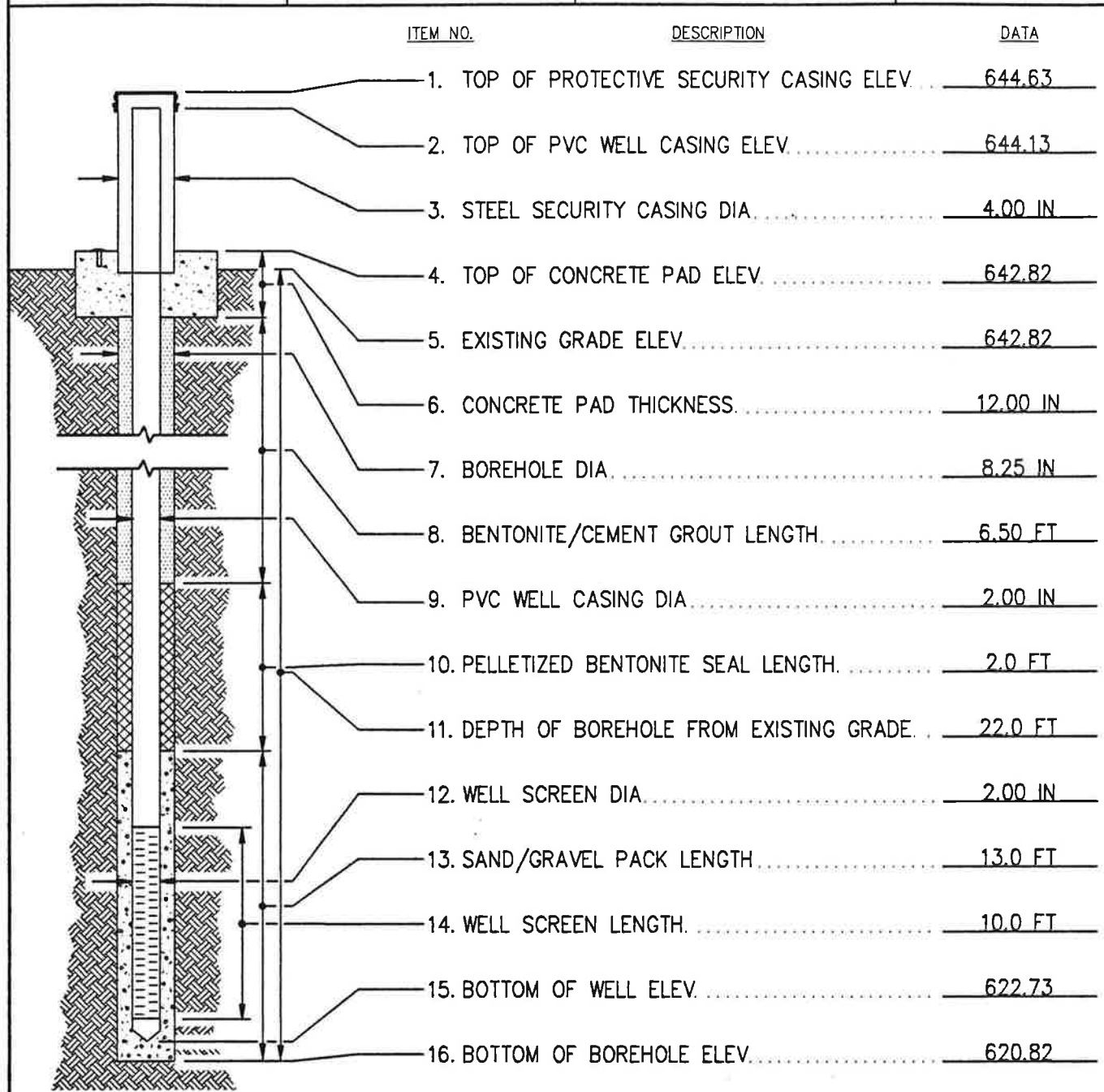
LAKE ENGINEERING, INCORPORATED
 6000 LAKE FORREST DR. SUITE 350
 ATLANTA, GEORGIA 30328
 (404) 257-9634

GNB Incorporated
 FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.	JOB NO.: 495.4.5	DRAWING NO.: 495-132	FIGURE:
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495-132 1=1 02-20-91 RCW



ADDITIONAL COMMENTS, PROBLEMS/SOLUTIONS AND NOTES	
ITEM NO.	DESCRIPTION
9.12	SCHEDULE 40 PVC
12	0.01 INCH CONTINUOUS SLOT CONSTRUCTION

495-133 1=1 02-20-91 RCW








LAKE ENGINEERING, INCORPORATED
 6000 LAKE FORREST DR. SUITE 350
 ATLANTA, GEORGIA 30328
 (404) 257-9834

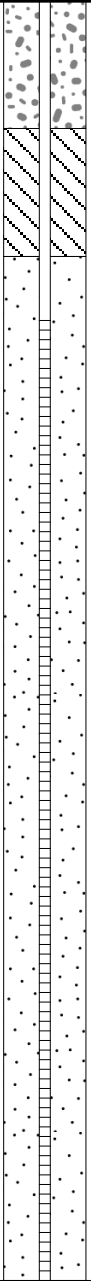
GNB Incorporated
 FRISCO, TEXAS

TYPICAL MONITOR WELL CONSTRUCTION

DRAWN BY: R.C.W.	CHECKED BY: J.A.P.	DATE: 02-18-91	SCALE: N.T.S.	JOB NO.: 495.4.5	DRAWING NO.: 495-133	FIGURE:
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Exide Technologies				Log of Boring: PMW-19R			
Frisco Recycling Center Frisco, TX				Completion Date:	2/26/2013	Drilling Method:	HSA
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755				Driller:	Dan Spaust	Total Depth (ft):	20
				Driller's License:	3038M	Northing:	7103664.081
				Logged By:	Roberta Russell	Easting:	2480920.3742
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	678.45
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	681.79
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0		3.6/5.0	CL	0-0.5	(0 - 3.0) CLAY with trace gravel, dark reddish brown, moist, soft to firm, low to medium plasticity, abundant calcareous nodules.		
				0.5-2			
		3.1/5.0	CL/ML	2-4	(3.0 - 13.0) Clayey SILT/Silty CLAY, dark reddish brown, yellowish brown from 7-10', slightly moist, very hard, low plasticity, friable from 5-6.5'.		
5				4-5			
		3.4/5.0	SC/CL		(13.0 - 14.0) Clayey SAND/Sandy CLAY, light yellowish brown with orange staining (iron oxide), moist, soft, low plasticity.		
10							
		4.5/5.0	SH		(14.0 - 19.0) SHALE, dark gray with orange staining (iron oxide along fractures and bedding planes), dry to slightly moist, soft to firm, high plasticity, weathered.		
15							
					(19.0 - 20.0) SHALE, dark gray, dry, very hard.		
20							
<div><div>PBW</div><div>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div></div>				Notes: This log should not to be used separately from the report to which it is attached.			
				<u>Annular Materials</u> (0.0 - 0.5) Concrete (0.5 - 1.0) Bentonite Grout (1.0 - 2.5) Bentonite Hole Plug (2.5 - 19.0) 20/40 Silica Sand (19.0 - 20.0) Sloughed Material		<u>Well Materials</u> (+3.34 - 4.0) Casing, 2" Sch 40 FJT PVC (4.0 - 19.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: PMW-20R			
Frisco Recycling Center Frisco, TX				Completion Date:	2/26/2013	Drilling Method:	HSA
				Drilling Company:	Strata Core Services, LLC	Borehole Diameter (in.):	7.75
PBW Project No. 1755				Driller:	Chris Combs	Total Depth (ft):	25
				Driller's License:	56033	Northing:	7103357.9244
				Logged By:	Roberta Russell	Easting:	2480030.2079
				Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	645.2
				Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	648.09
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	Sample	Lithologic Description		
0				0-0.5	(0 - 2.6) CLAY, dark reddish brown, moist, soft, high plasticity.		
			CH	0.5-2			
		5.0/5.0		2-4	(2.6 - 7.5) Clayey SILT, dark reddish brown, dry to moist, very hard, low plasticity, trace to moderate calcareous nodules.		
			ML	4-5			
5					(7.5 - 11.0) Sandy CLAY/Clayey SAND, moist, soft to firm, low plasticity, more clay with depth, abundant calcareous nodules.		
		2.7/5.0	SC/CL				
10					(11.0 - 19.5) CLAY, reddish yellow, with trace to moderate gravel, moist, firm, low to medium plasticity, very fine to medium gravel (5-20%) in clay matrix.		
		5.0/5.0	CL				
15							
		5.0/5.0					
20			GC		(19.5 - 20.0) GRAVEL with clay; reddish yellow, wet, very soft, ~20-30% clay matrix.		
			CL		(20.0 - 21.8) CLAY with gravel; reddish yellow, wet, soft to firm, low to medium plasticity clay, <5% carbonate gravel in clay.		
		5.0/5.0	GC		(21.8 - 23.0) GRAVEL with clay; reddish yellow, wet, soft, 30-40% low to medium plasticity clay matrix in fine to medium gravel.		
			CL		(23.0 - 23.5) CLAY with gravel; reddish yellow, very moist, hard, low to medium plasticity clay, 30-40% fine to medium gravel.		
25			SH		(23.5 - 25.0) SHALE, dark gray, dry, very hard, low to medium plasticity, fissile, slightly weathered.		
<div>PBW</div> <div>Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446</div>				Notes: This log should not to be used separately from the report to which it is attached.			
				Annular Materials (0.0 - 2.0) Concrete (2.0 - 7.0) Bentonite Grout (7.0 - 9.0) Bentonite Hole Plug (9.0 - 25.0) 20/40 Silica Sand		Well Materials (+2.89 - 10.0) Casing, 2" Sch 40 FJT PVC (10.0 - 25.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies				Log of Boring: VCP-MW-1			
Undeveloped Buffer Property Frisco, TX				Completion Date: 2/28/2013		Drilling Method: HSA	
				Drilling Company: Sunbelt Environmental		Borehole Diameter (in.): 7.75	
				Driller: Chris Combs		Total Depth (ft): 10	
PBW Project No. 1824				Driller's License: 56033		Northing: 7101502.004	
				Logged By: Tim Jennings, P.G.		Easting: 2479866.95	
				Field Supervisor: Tim Jennings, P.G.		Ground Elev. (ft AMSL): 652.99	
				Sampling Method: 5' Split Spoon		TOC Elev. (ft AMSL): 655.88	
Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description		
0		5.0/5.0	MH	0.9	(0 - 3.6) Clayey SILT, grayish brown, moist to wet, soft to firm, high plasticity.		
1			1.2				
2			1.2				
3			0.7				
4			0.5				
5		5.0/5.0	SH	1.3	(3.6 - 7.5) SHALE, light brown, orange and gray, moist, firm to hard, medium plasticity, weathered.		
6			1.1				
7			1.3				
8			0.9				
9			0.8				
10				(7.5 - 10.0) SHALE, dark gray, dry, hard.			
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">PBW</div> Pastor, Behling & Wheeler, LLC 2201 Double Creek Dr., Suite 4004 Round Rock, TX 78664 Tel (512) 671-3434 Fax (512) 671-3446				Notes: This log should not be used separately from the report to which it is attached.			
				Annular Materials (0.0 - 1.0) Concrete (1.0 - 2.0) Bentonite Hole Plug (2.0 - 10.0) 20/40 Silica Sand		Well Materials (+2.89 - 2.5) Casing, 2" Sch 40 FJT PVC (2.5 - 10.0) Screen, 2" Sch 40 FJT PVC, 0.010 slot	

Exide Technologies

Log of Boring: VCP-MW-2

Undeveloped Buffer Property
Frisco, TX

Completion Date: 3/1/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 7.75

Driller: Chris Combs

Total Depth (ft): 20

PBW Project No. 1824

Driller's License: 56033

Northing: 7101872.478

Logged By: Tim Jennings, P.G.

Easting: 2479265.912

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 627.74

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 631.16

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0				6.2	(0 - 4.0) Clayey SILT, dark grayish brown, moist, soft to firm, high plasticity, abundant roots to 4'.
1				7.0	
2		5.0/5.0	MH	9.3	
3				8.7	
4				7.2	(4.0 - 9.0) Silty CLAY, dark grayish brown, moist, soft, medium plasticity, rust colored mottling locally, friable, abundant roots, iron oxide mottling below 6'.
5				8.8	
6		5.0/5.0	CL	7.2	
7				8.1	
8				8.1	(9.0 - 11.1) Silty CLAY, dark grayish brown, moist, firm, medium to high plasticity, light gray laminae.
9				9.3	
10			CL/CH	8.5	(11.1 - 13.6) Gravelly CLAY, light brown and orange, moist to wet, firm, high plasticity clay, ~20-30% fine to medium gravel in clay matrix, increasing moisture with depth.
11				7.0	
12		5.0/5.0		6.6	
13			CH	3.2	(13.6 - 15.6) Silty CLAY, light brown to orange, wet, soft, high plasticity, <5% fine to coarse sand.
14				7.2	
15				8.1	(15.6 - 18.2) SHALE, gray to light brown, moist, hard, abundant iron oxide along bedding planes, weathered.
16				5.4	
17				5.2	
18		3.5/5.0	SH	12.0	(18.2 - 20.0) SHALE, dark gray, dry, hard.
19				25.1	
20					

PBW

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Tel (512) 671-3434 Fax (512) 671-3446

Notes:

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Annular Materials
(0.0 - 2.0) Concrete
(2.0 - 4.0) Bentonite Hole Plug
(4.0 - 20.0) 20/40 Silica Sand

Well Materials
(+3.42 - 5.0) Casing, 2" Sch 40 FJT PVC
(5.0 - 20.0) Screen, 2" Sch 40 FJT PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-3

Undeveloped Buffer Property
Frisco, TX

Completion Date:	2/28/2013	Drilling Method:	HSA
Drilling Company:	Sunbelt Environmental	Borehole Diameter (in.):	7.75
Driller:	Chris Combs	Total Depth (ft):	15
Driller's License:	56033	Northing:	7102743.49
Logged By:	Tim Jennings, P.G.	Easting:	2478984.765
Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	631.34
Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	634.06

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0		4.3/5.0	CH/MH	0.8	(0 - 3.4) Silty CLAY/Clayey SILT, dark grayish brown, moist, soft to firm, high plasticity, abundant roots at 0-0.5'.
1				0.1	
2				0.5	
3				0.3	
4				1.1	
5		2.4/5.0	CL	0.6	(3.4 - 7.3) Silty gravelly CLAY; light brown, moist, firm to hard, medium plasticity clay, ~10-30% fine calcareous gravel.
6				0.6	
7				0.1	
8				-	
9				-	
10		5.0/5.0	CH	0.4	(7.3 - 7.6) Silty CLAY, light brown, moist firm to hard, medium plasticity, orange and green laminated.
11				0.5	
12				0.4	
13				1.1	
14				0.4	
15			SH		(10.0 - 13.0) Silty CLAY, light brown, wet, soft, high plasticity.
					(13.0 - 15.0) SHALE, gray, moist, firm to hard, medium plasticity, abundant iron oxide partings, weathered.

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Notes:

Annular Materials
(0.0 - 2.0) Concrete
(2.0 - 4.0) Bentonite Hole Plug
(4.0 - 15.0) 20/40 Silica Sand

Well Materials
(+2.72 - 5.0) Casing, 2" Sch 40 FJT PVC
(5.0 - 15.0) Screen, 2" Sch 40 FJT PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-4

Undeveloped Buffer Property
Frisco, TX

PBW Project No. 1824

Completion Date:	2/28/2013	Drilling Method:	HSA
Drilling Company:	Sunbelt Environmental	Borehole Diameter (in.):	7.75
Driller:	Chris Combs	Total Depth (ft):	15
Driller's License:	56033	Northing:	7102521.052
Logged By:	Tim Jennings, P.G.	Easting:	2479285.077
Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	632.18
Sampling Method:	5' Split Spoon	TOC Elev. (ft AMSL):	635.43

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0				0	(0 - 1.8) Clayey SILT, dark grayish brown, moist, soft, high plasticity, trace calcareous nodules.
1			MH	0	
2		2.5/5.0		0.4	(1.8 - 5.3) Silty CLAY, brown to light brown, moist, soft to firm, medium to high plasticity, trace to 5% calcareous nodules.
3			CL/CH	-	
4				-	
5					
6			CL/GC	0.1	(5.3 - 6.6) Gravelly CLAY/Clayey GRAVEL, sub-rounded gravel, moist, soft to firm, medium plasticity clay, ~40-60% fine to medium gravel in clay matrix.
7		3.0/5.0		0	(6.6 - 10.7) Silty CLAY, orange, brown and gray mottled, moist, firm, medium to high plasticity.
8			CL/CH	0.1	
9				-	
10				-	
11				1	(10.7 - 15.0) SHALE, orangish brown to gray, moist to dry, firm to hard, medium plasticity, abundant iron oxide along bedding planes.
12		5.0/5.0		0	
13			SH	0.1	
14				0.3	
15				0.1	

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Notes:

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Annular Materials
(0.0 - 1.0) Concrete
(1.0 - 3.0) Bentonite Hole Plug
(3.0 - 15.0) 20/40 Silica Sand

Well Materials
(+3.25 - 5.0) Casing, 2" Sch 40 FJT PVC
(5.0 - 15.0) Screen, 2" Sch 40 FJT PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-5

Undeveloped Buffer Property
Frisco, TX

Completion Date: 2/27/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 7.75

Driller: Chris Combs

Total Depth (ft): 20

Driller's License: 56033

Northing: 7102925.899

Logged By: Tim Jennings, P.G.

Easting: 2480000.561

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 640.8

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 643.97

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0					(0 - 6.6) Silty CLAY, dark grayish brown, moist to dry, firm to hard, high plasticity, few (<5%) small calcareous nodules below 3.3', dry below 3.5'.
1					
2					
3		5.0/5.0	CH		
4					
5					
6					
7		2.5/5.0	CL/CH		(6.6 - 11.5) Sandy, silty CLAY; light brown, light gray and orange laminated, moist, very hard, medium to high plasticity, ~10-20% fine to coarse sand in clay matrix.
8					
9					
10					
11					
12		3.2/5.0	CH SW		(11.5 - 12.0) Sandy, gravelly CLAY; brown orange, moist, firm, high plasticity clay. (12.0 - 12.8) Clayey, gravelly SAND; wet, soft, ~20-30% clay, ~10-20% fine to medium gravel.
13					(12.8 - 15.9) Sandy, gravelly CLAY; brown orange, moist, firm, high plasticity clay, ~10-20% fine sand and fine gravel, possibly calcareous nodules.
14			CH		
15					
16					
17		2.5/5.0	CL		(15.9 - 17.5) CLAY, orange and gray mottled, moist, firm, medium plasticity, <5% fine to medium gravel and calcareous nodules, possible reworked shale.
18					(17.5 - 17.7) SHALE, gray, moist, firm, high plasticity. (17.7 - 20.0) SHALE, gray, very hard, poor recovery.
19			SH		
20					

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Annular Materials
(0.0 - 1.0) Concrete
(1.0 - 3.0) Bentonite Hole Plug
(3.0 - 20.0) 20/40 Silica Sand

Well Materials
(+3.17 - 5.0) Casing, 2" Sch 40 FJT PVC
(5.0 - 20.0) Screen, 2" Sch 40 FJT PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-6

Undeveloped Buffer Property
Frisco, TX

Completion Date: 2/27/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 7.75

Driller: Chris Combs

Total Depth (ft): 20

Driller's License: 56033

Northing: 7103251.552

Logged By: Tim Jennings, P.G.

Easting: 2479837.08

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 641.1

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 644.71

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0					(0 - 6.6) Silty CLAY, dark grayish brown, moist to dry, soft to hard, high plasticity, <5% calcareous nodules, hard and dry below 3.7', brown, ~5-10% calcareous nodules at 5-6.6', very stiff 6-6.6'.
1					
2					
3		5.0/5.0	CH		
4					
5					
6					
7		3.7/5.0	CL/CH		(6.6 - 10.0) Silty, gravelly CLAY; brown orange, moist, hard to very hard, medium to high plasticity clay, well laminated, ~10-20% fine to medium gravel and calcareous nodules.
8					
9					
10					
11					(10.0 - 15.0) Clayey SILT, moist to wet, soft, high plasticity, ~20-30% fine to medium gravel and fine to coarse sand from 12.3'.
12		3.7/5.0	MH		
13					
14					
15					
16			SM/SW		(15.0 - 16.5) Silty, gravelly SAND; brown, wet, soft, ~10% fines, ~20-30% fine to medium sub-rounded gravel in fine to coarse sand.
17			CH		(16.5 - 17.1) Silty CLAY, brown, wet, soft, high plasticity, trace fine gravel in clay matrix.
18		5.0/5.0	SH		(17.1 - 20.0) SHALE, gray and brown, moist, firm to hard, iron oxide staining along bedding planes, weathered.
19					
20					

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Annular Materials
(0.0 - 1.0) Concrete
(1.0 - 3.0) Bentonite Hole Plug
(3.0 - 20.0) 20/40 Silica Sand

Well Materials
(+3.61 - 5.0) Casing, 2" Sch 40 FJT PVC
(5.0 - 20.0) Screen, 2" Sch 40 FJT PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-7

Undeveloped Buffer Property
Frisco, TX

Completion Date: 4/18/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8.25

Driller: Joe Garcia

Total Depth (ft): 10

PBW Project No. 1824

Driller's License: 58780

Northing: 7100967.046

Logged By: Carolyn Sexton

Easting: 2481078.613

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 683.116976

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 685.176513

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0			FILL	0	(0 - 0.8) Silty CLAY, dark gray brown, moist, soft, low plasticity, trace med. size gravel in top 0.5', gradational contact.
1					(0.8 - 1.1) Chalky, silty LIMESTONE, weathered, orange iron oxide staining.
2		4.0/4.0		0	(1.1 - 6.2) Chalky, silty LIMESTONE, light tan, brittle, dry, hard, <5% dark brown and orange ironstone nodules from 4.0-4.2'.
3			LS	0	
4				0	
5				0	
6		5.0/5.0		0	(6.2 - 10) Chalky, silty LIMESTONE, dark gray, fissile, blocky at base, dry, hard.
7				0	
8			SH	0	
9		1.0/1.0		0	
10					

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Notes:

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Annular Materials
(0.0 - 1.0) Concrete
(1.0 - 2.0) Bentonite Hole Plug
(2.0 - 10.0) Industrial Quartz Sand

Well Materials
(+2.06 - 2.5) Casing, 2" Sch 40 PVC
(2.5 - 10.0) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-8

Undeveloped Buffer Property
Frisco, TX

Completion Date: 4/17/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8.25

Driller: Joe Garcia

Total Depth (ft): 16

Driller's License: 58781

Northing: 7102884.374

Logged By: Carolyn Sexton

Easting: 2481077.573

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 648.101225

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 651.023133

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0				0	(0 - 3.6) FILL, gray brown, dry, with silty clay, coarse sand to large gravel, asphalt-like nodules, calcareous nodules.
1				0	
2			FILL	0	
3				0	
4				0	(3.6 - 7.4) Silty CLAY, dark brown, moist, low plasticity, ~10% graded angular fine to med. sand and calcareous nodules.
5				0	
6				0	
7				0	
8				0	(7.4 - 11.1) Silty CLAY, medium-brown to gray, moist to wet, low to med. plasticity, ~10-20% coarse sand to medium gravel.
9				0	
10			CL	0	
11				0	
12				0	(11.1 - 15.9) Slightly silty CLAY, gray brown, moist to wet, low to med. plasticity, ~30-40% gravel from 11.1-11.3'.
13				0	
14				0	
15				0	
16			LS		(15.9 - 16) LIMESTONE, grayish tan, high toughness, competent, microcrystalline to very fine grained, contains veins of secondary calcite crystals.

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Annular Materials
(0.0 - 2.0) Concrete
(2.0 - 4.0) Bentonite Hole Plug
(4.0 - 16.0) Industrial Quartz Sand

Well Materials
(+2.92 - 6.0) Casing, 2" Sch 40 PVC
(6.0 - 16.0) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-9

Undeveloped Buffer Property
Frisco, TX

Completion Date: 4/17/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8.25

Driller: Joe Garcia

Total Depth (ft): 20

Driller's License: 58782

Northing: 7103297.519

Logged By: Carolyn Sexton

Easting: 2481042.415

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 664.314339

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 666.957891

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0				0	(0 - 0.7) Silty CLAY, dark brown, slightly moist, firm, low plasticity, with root fragments and angular coarse sand to med. gravel.
1				0	(0.7 - 2.7) Silty CLAY, dark brown to black, slightly moist, firm to hard, low plasticity, with calcareous nodules and 10-20% angular coarse sand to fine gravel.
2		4.0/5.0		0	
3			CL	0	(2.7 - 5) Gravelly CLAY, yellow-brown, moist to wet, firm, low plasticity, ~40-50% fine to med. carbonate gravel in clay matrix.
4				0	
5				0	
6				0	(5 - 6.1) Silty CLAY, gray with orange iron oxide staining, moist, soft to firm, low to medium plasticity, calcareous nodule lense from 5.5-5.6', laminated fine sand from 5.9-6.05'.
7		5.0/5.0		0	(6.1 - 18.8) SHALE, gray with orange iron oxide staining, moist, firm, low plasticity, moderately weathered throughout, contains horizontal silt and sand laminae and vertical iron oxide filled fractures, weathered.
8				0	
9				0	
10				0	
11				0	
12		5.0/5.0		0	
13			SH	0	
14				0	
15				0	
16				0	
17		5.0/5.0		0	
18				0	
19				0	(18.8 - 20) SHALE, dark gray, moist, firm, low plasticity, unweathered.
20				0	

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Annular Materials

(0.0 - 0.5) Concrete
(0.5 - 2.0) Bentonite Hole Plug
(2.0 - 20.0) Industrial Quartz Sand

Well Materials

(+2.64 - 2.5) Casing, 2" Sch 40 PVC
(2.5 - 20.0) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-10

Undeveloped Buffer Property
Frisco, TX

Completion Date: 4/17/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8.25

Driller: Joe Garcia

Total Depth (ft): 15

PBW Project No. 1824

Driller's License: 58783

Northing: 7103274.856

Logged By: Carolyn Sexton

Easting: 2481265.991

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 667.108585

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 669.744622

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0			CL	0	(0 - 0.4) Silty CLAY, dark brown, with roots and 5-10% fine gravel and calcareous nodules.
1			FILL	0	(0.4 - 1.2) FILL, light gray, interlayered soft clay and iron oxide stained sand, slightly moist, low to medium plasticity.
2		5.0/5.0		0	(1.2 - 5.6) Silty CLAY, dark brown-gray, moist, low to medium plasticity, coarse carbonate sand to fine gravel within clay matrix throughout, coarse gravel from 1.6-2.8'.
3			CL	0	
4				0	
5				0	
6		5.0/5.0		0	(5.6 - 12.4) SHALE, light to medium gray, moist, soft, friable and fissile, massive below 7.7', limonite and iron oxide staining throughout, weathered.
7				0	
8				0	
9				0	
10			SH	0	
11				0	
12		5.0/5.0		0	(12.4 - 15) SHALE, dark gray, slightly moist, low plasticity, slightly weathered.
13				0	
14				0	
15				0	

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Notes:

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Annular Materials
(0.0 - 0.5) Concrete
(0.5 - 2.0) Bentonite Hole Plug
(2.0 - 15.0) Industrial Quartz Sand

Well Materials
(+2.64 - 2.5) Casing, 2" Sch 40 PVC
(2.5 - 15.0) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-11

Undeveloped Buffer Property
Frisco, TX

Completion Date: 4/17/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8.25

Driller: Joe Garcia

Total Depth (ft): 15

Driller's License: 58784

Northing: 7103365.27

Logged By: Carolyn Sexton

Easting: 2481418.215

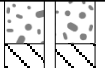



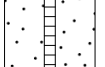

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 670.152153

Sampling Method: 5' Split Spoon

TOC Elev. (ft AMSL): 672.734085

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0		3.6/5.0		0	(0 - 0.8) Silty CLAY, deep brown, slightly moist, low plasticity, soft to firm, contains roots.
1				0	(0.8 - 5) Slightly silty CLAY, yellow-gray, slightly dry, firm to hard, low plasticity, 10-30% coarse sand to fine gravel dispersed in clay matrix.
2				0	
3				0	
4				0	
5		3.4/5.0		0	(5 - 10) SHALE, gray, slightly dry, firm to hard, low plasticity, iron oxide staining and carbonate filled laminae throughout, weathered.
6				0	
7				0	
8				0	
9				0	
10		5.0/5.0		0	(10 - 12.8) SHALE, dark gray, friable, iron oxide staining, weathered.
11				0	(12.8 - 15) SHALE, dark gray, dry, very hard, fissile, unweathered.
12				0	
13				0	
14				0	
15				0	

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Annular Materials

(0.0 - 0.5) Concrete
(0.5 - 2.0) Bentonite Hole Plug
(2.0 - 15.0) Industrial Quartz Sand

Well Materials

(+2.58 - 2.5) Casing, 2" Sch 40 PVC
(2.5 - 15.0) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-12

Undeveloped Buffer Property
Frisco, TX

Completion Date: 12/12/2013

Drilling Method: HSA

Drilling Company: Sunbelt Environmental

Borehole Diameter (in.): 8

Driller: Robert Flair

Total Depth (ft): 30

Driller's License: 2948

Northing: 7103109

PBW Project No. 1824

Logged By: Tim Jennings P.G.

Easting: 2481224.6

Field Supervisor: Tim Jennings, P.G.

Ground Elev. (ft AMSL): 652.88

Sampling Method: 5' Continuous Samples

TOC Elev. (ft AMSL): 656.04

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0				0	(0 - 1.5) Sandy gravelly CLAY, dark brown, moist, soft, ~20% fine to coarse limestone gravel
2		3.0/5.0		0.5	(1.5 - 9.5) Gravelly CLAY, dark brown, moist, very firm-stiff, ~10-15% very fine to fine gravel and carbonate nodules
4				0.5	
6			CL	0.5	
8		2.2/5.0		0.5	
10					(9.5 - 13) CLAY, olive gray, moist, firm, medium to high plasticity, few fine carbonate nodules
12		5.5/5.5	CL/CH	0.5	
14				1.1	
16				1.5	(13 - 25.5) SHALE, gray and orange banded, moist, friable, locally very clayey, weathered
18		5.0/5.0		1.6	
20				2.2	
22				2.2	
24		4.0/5.0	SH	2.2	
26		2.0/2.5		1.6	(25.5 - 27) SHALE, gray, moist to dry, locally friable, locally sandy, weathered
28		2.5/2.5		1.1	(27 - 30) SHALE, gray, dry, firm, friable, fissile
30				1.6	

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Tel (512) 671-3434 Fax (512) 671-3446

Notes:

This log should not be used separately from the report to which it is attached.

Annular Materials
(0.0 - 2.0) Concrete
(2.0 - 8.0) Bentonite Hole Plug
(8.0 - 30.0) Industrial Quartz Sand

Well Materials
(+3.2 - 9.5) Casing, 2" Sch 40 PVC
(9.5 - 29.5) Screen, 2" Sch 40 PVC,
0.010 slot

Exide Technologies

Log of Boring: VCP-MW-13

Undeveloped Buffer Property
Frisco, TX

Completion Date:	1/3/2014	Drilling Method:	HSA
Drilling Company:	Sunbelt Environmental	Borehole Diameter (in.):	8
Driller:	Robert Flair	Total Depth (ft):	24
Driller's License:	2948	Northing:	7103094
Logged By:	Tim Jennings, P.G.	Easting:	2481043.9
Field Supervisor:	Tim Jennings, P.G.	Ground Elev. (ft AMSL):	645.9
Sampling Method:	3"x5' Continuous Split Barrel	TOC Elev. (ft AMSL):	657.38

PBW Project No. 1824

Depth (ft)	Well Materials	Recovery (ft/ft)	USCS	PID (ppm)	Lithologic Description
0					CLAY, gravel and sand, brown, moist, soft (fill).
2					Sandy gravelly CLAY, dark brown, moist, ~10-15% very fine sand and fine carbonate nodules, very stiff.
4					
6					CLAY and sandy clay, light brown-orange-gray, moist to wet, very firm to firm, laminated, abundant carbonate nodules from 5-10', gypsum precipitate on bedding plane at 11', increasing moisture below 10' and locally wet below 15', very heavily weathered shale.
8					
10			CL		
12					
14					
16					
18					
20			SH		SHALE, weathered, dark gray with orange weathering locally, thin gravel interbeds locally, moist to wet, soft to firm, friable.
22					
24					

PBW

Pastor, Behling & Wheeler, LLC
2201 Double Creek Dr., Suite 4004
Round Rock, TX 78664
Tel (512) 671-3434 Fax (512) 671-3446

Notes:

This log should not be used separately from the report to which it is attached.

Annular Materials

(0.0 - 2.0) Concrete
(2.0 - 3.0) Bentonite Hole Plug
(3.0 - 24.0) 16/30 Silica Sand

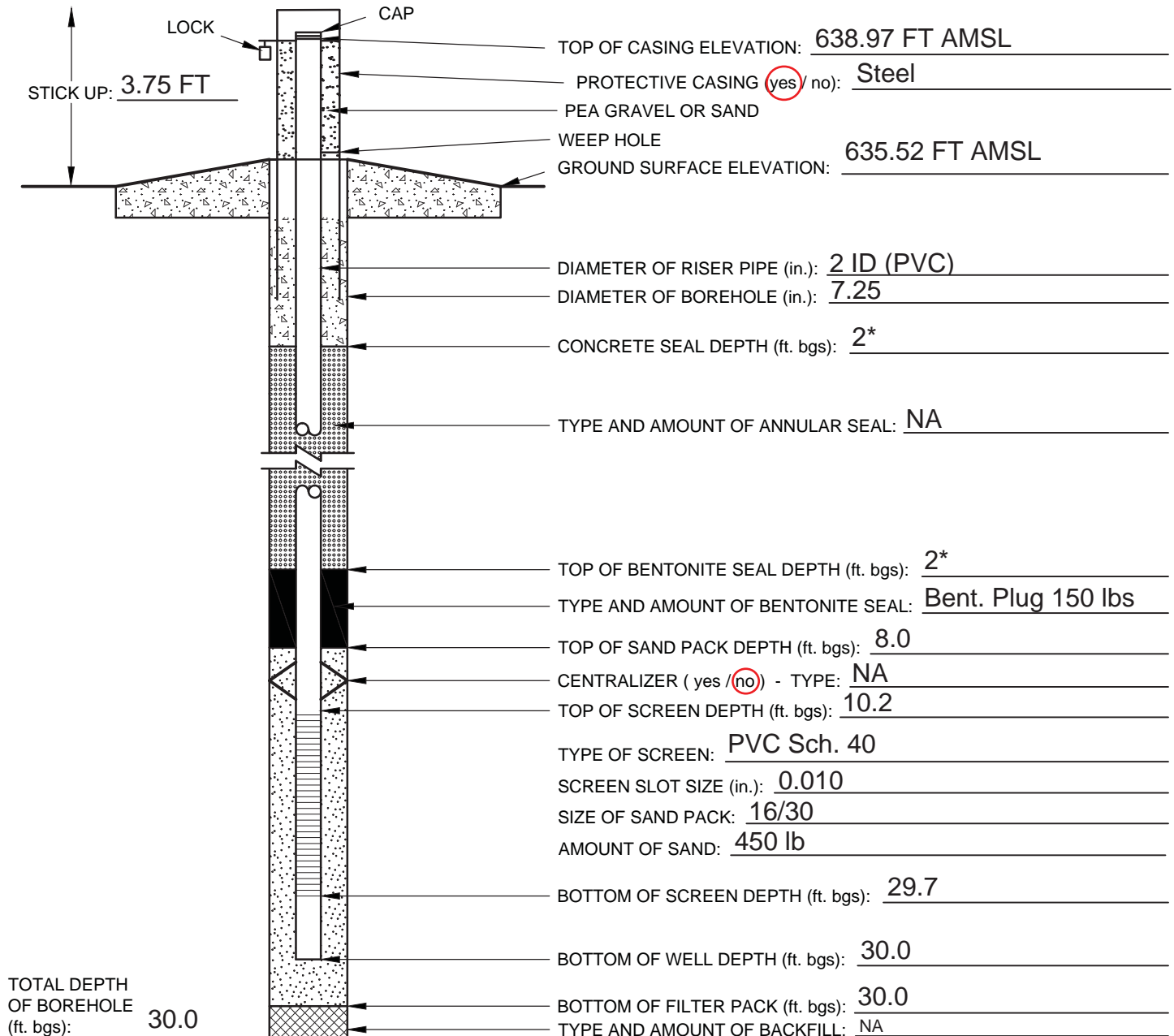
Well Materials

(+3.2 - 4.0) Casing, 2" Sch 40 FJT PVC
(4.0 - 24.0) Screen, 2" Sch 40 FJT PVC,
0.01 slot



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG DGW-MW-1

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 639.27 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101737.52 FT	EASTING: 2480599.66 FT
DRILLER: G Alejandr	STATIC WATER LEVEL: 10.91 FT BTOC	COMPLETION DATE: 05/15/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level;; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter;

NA - Not Applicable; BTOC - Below Top of Casing

Static Water level collected 05/22/2018.

* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

CHECKED BY: JS

DATE CHECKED: 06/01/2018

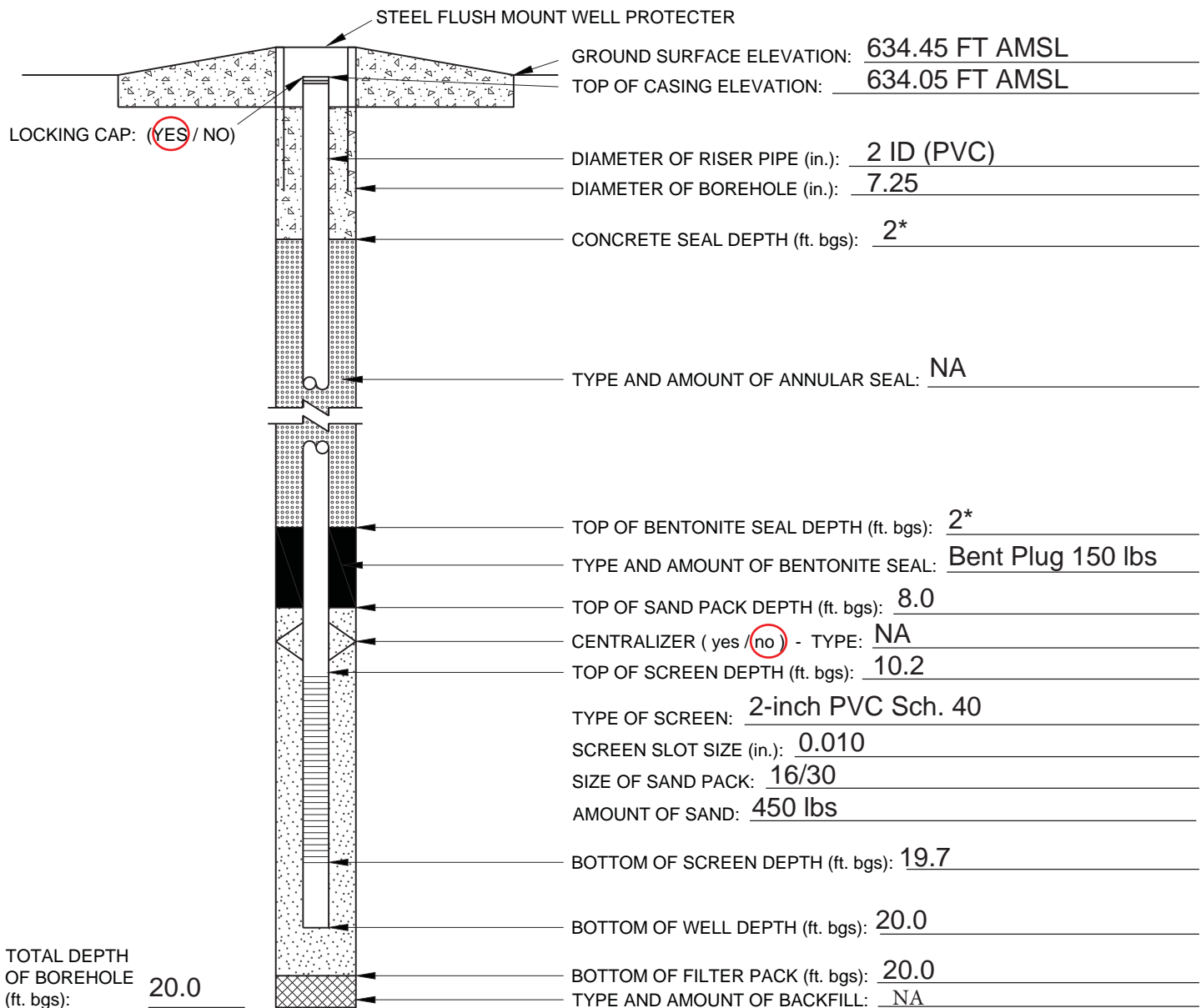
PREPARED BY: EPW



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-2

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 634.48 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101676.31 FT	EASTING: 2480414.56 FT
DRILLER: G. Alejandro	STATIC WATER LEVEL: 6.30 FT BTOC	COMPLETION DATE: 05/15/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.
* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

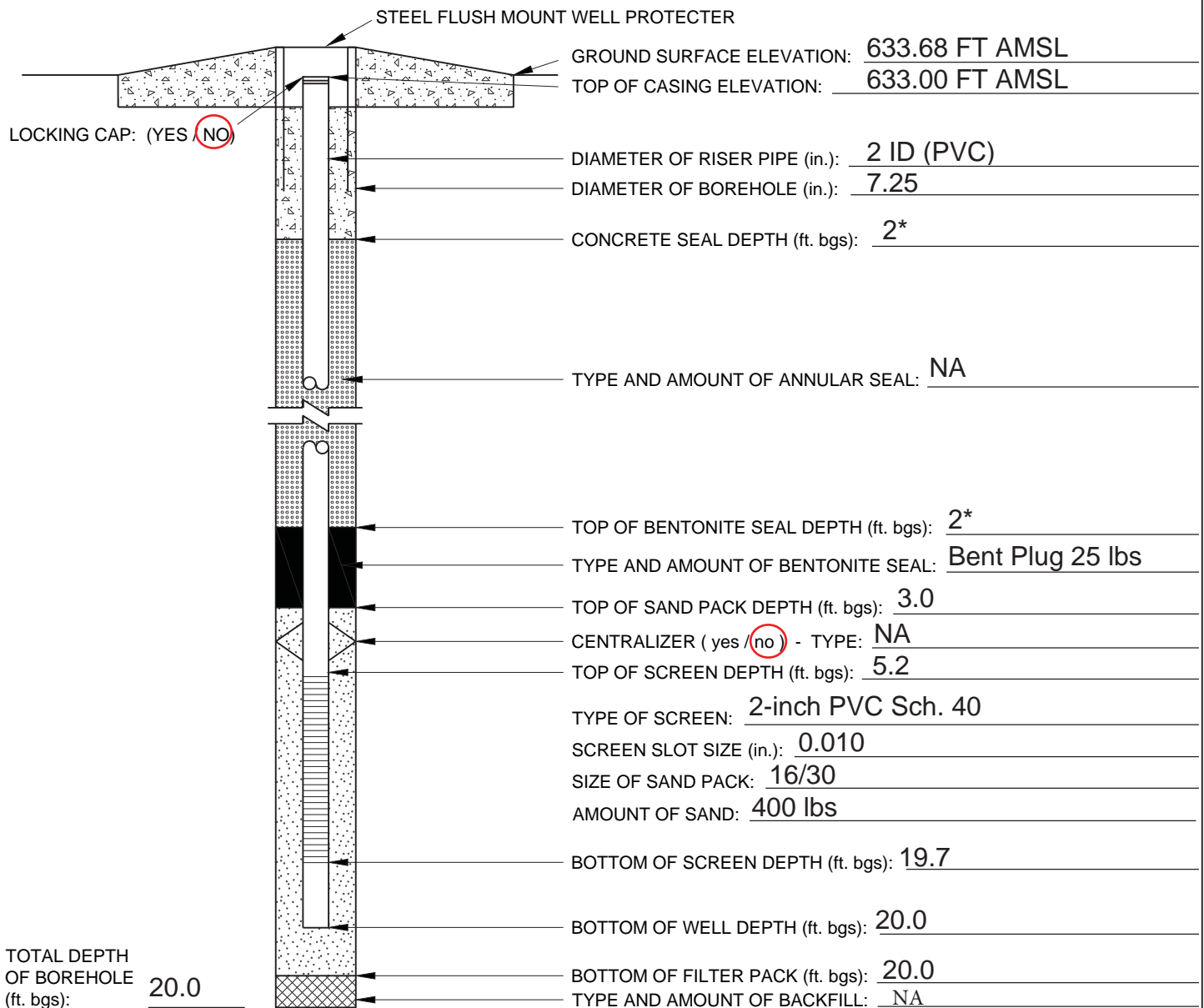
PREPARED BY: BCW



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-3

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 633.54 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101694.14 FT	EASTING: 2480288.02 FT
DRILLER: G. Alejandro	STATIC WATER LEVEL: 5.30 FT BTOC	COMPLETION DATE: 05/15/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.
* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

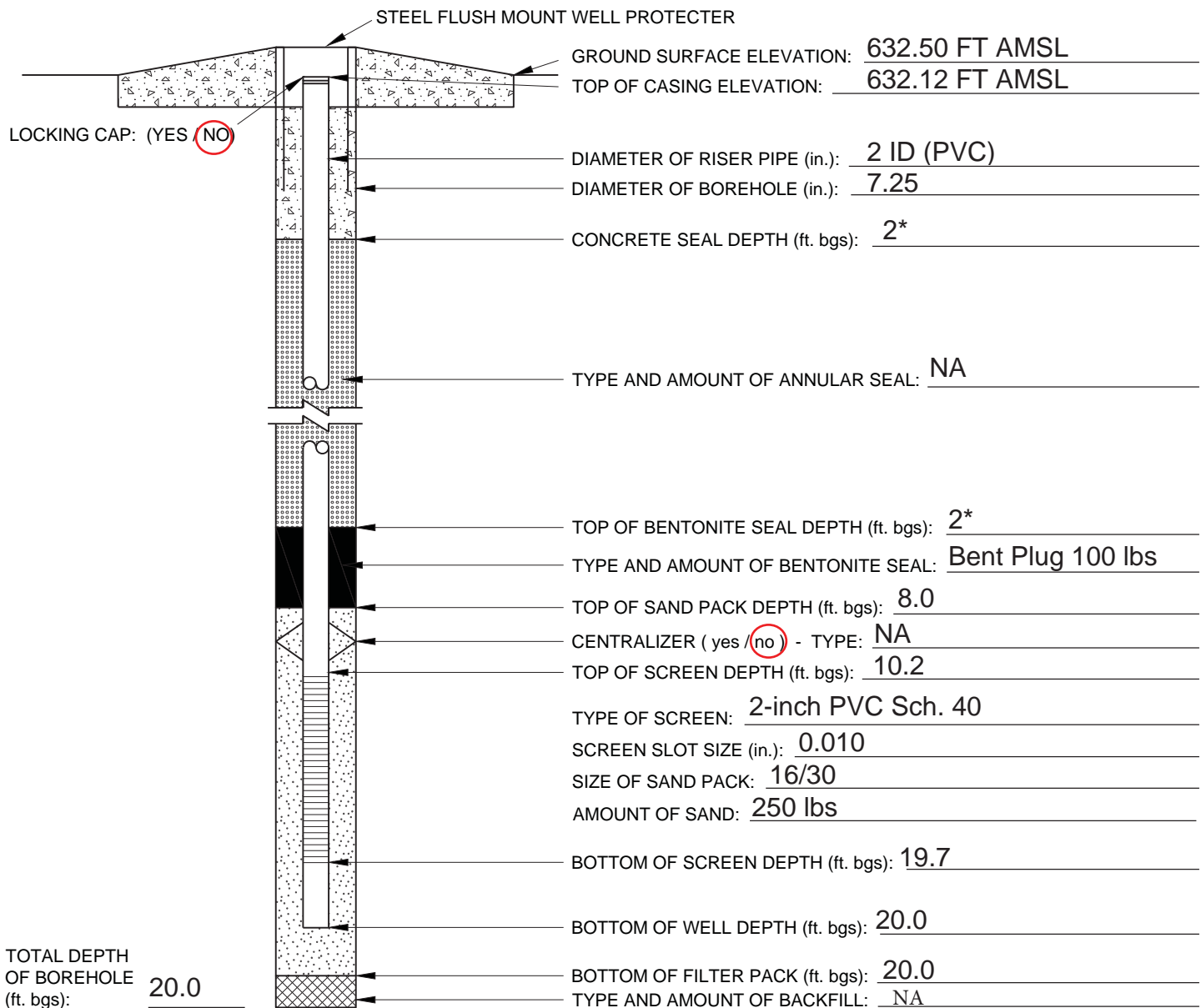
PREPARED BY: BCW



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-4

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 632.53 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101711.03 FT	EASTING: 2480132.29 FT
DRILLER: G. Alejandro	STATIC WATER LEVEL: 3.61 FT BTOC	COMPLETION DATE: 05/15/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.
* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

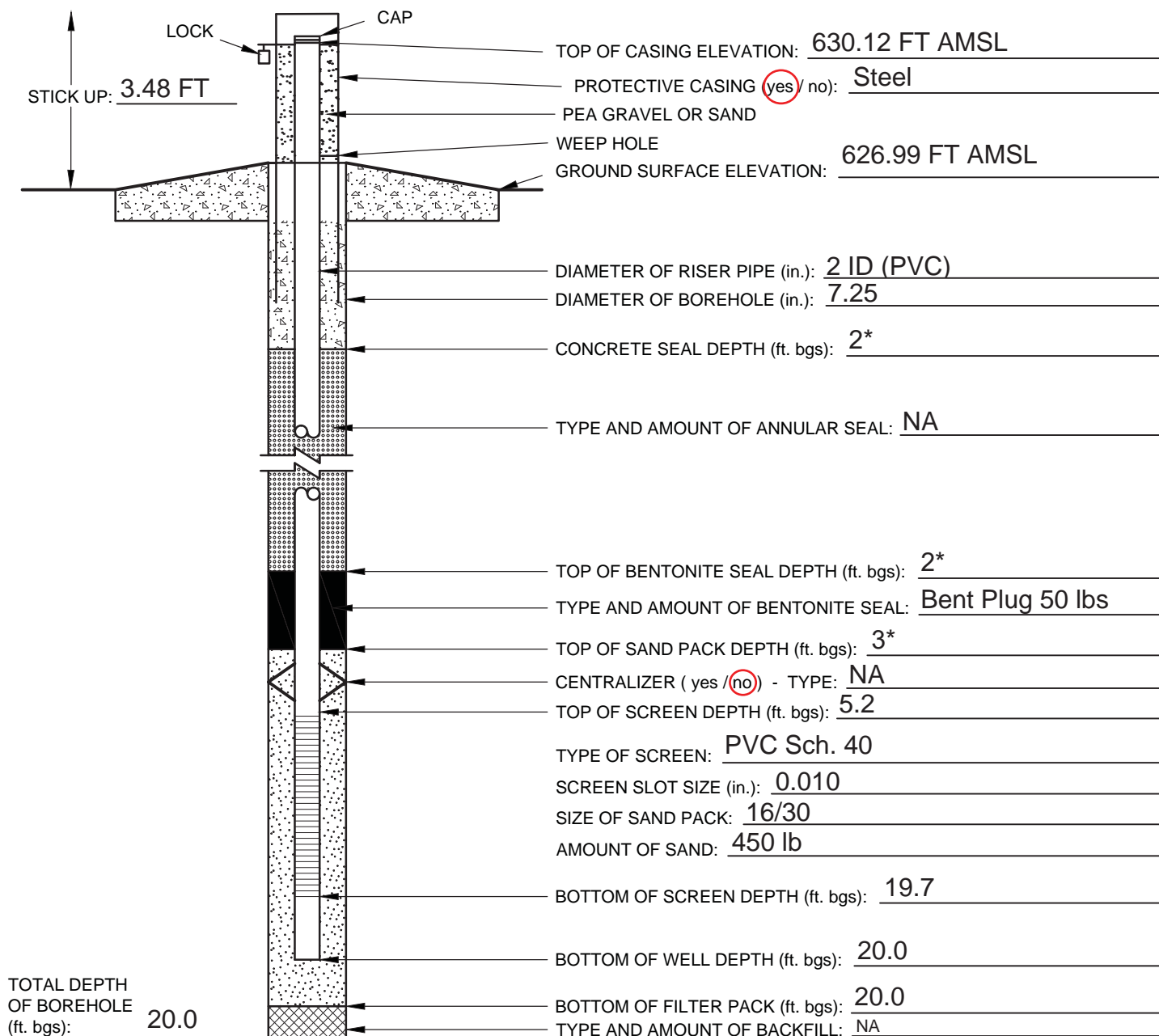
CHECKED BY: JS
DATE CHECKED: 06/01/2018

PREPARED BY: BCW



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG DGW-MW-5

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 630.47 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7102076.71 FT	EASTING: 2479631.95 FT
DRILLER: G Alejandro	STATIC WATER LEVEL: 9.95 FT BTOC	COMPLETION DATE: 05/16/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter;

NA - Not Applicable; BTOC - Below Top of Casing

Static Water level collected 05/22/2018.

* - Value indicated and confirmed by WEST Drilling 05/23/2019.

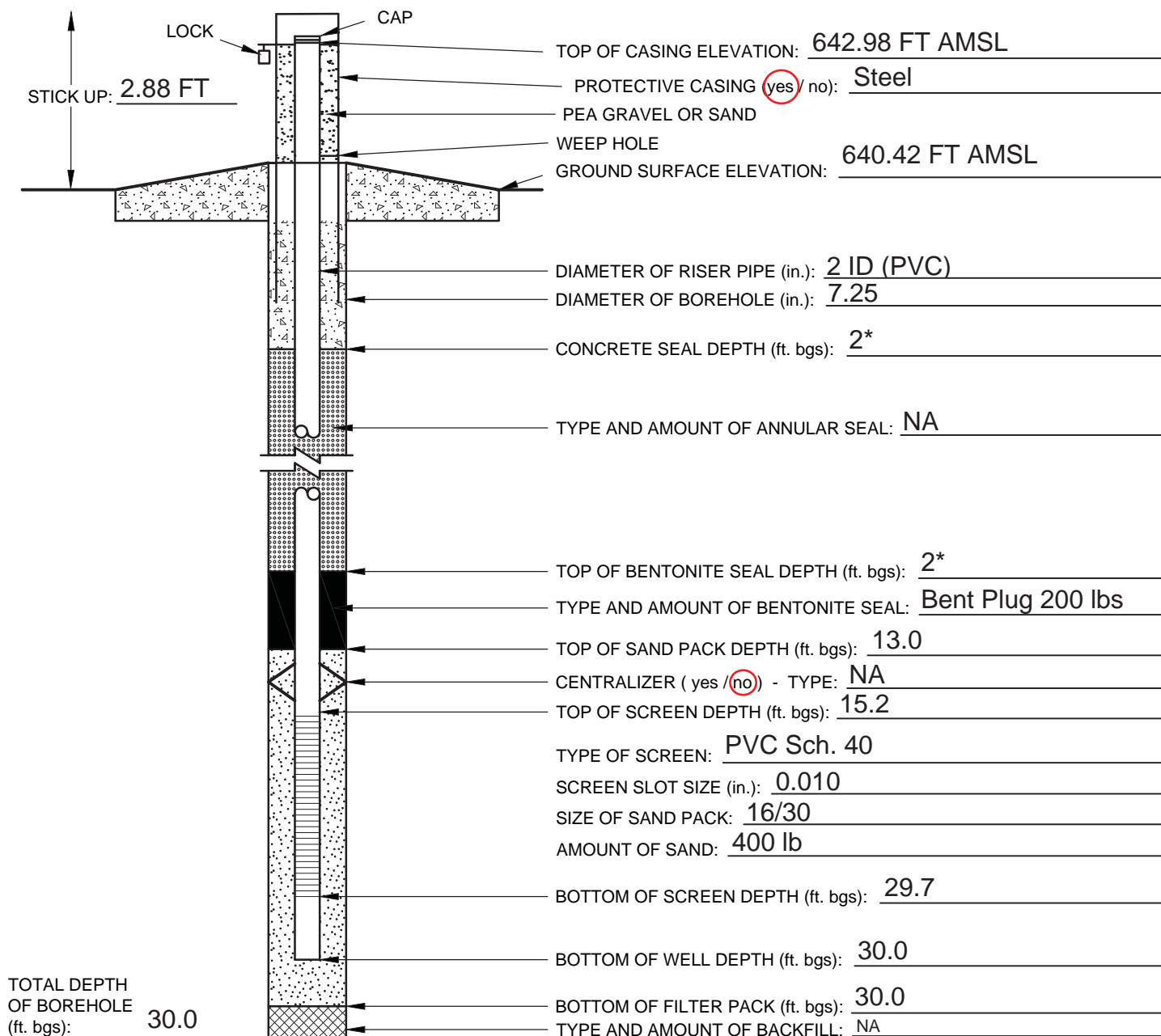
CHECKED BY: JS
DATE CHECKED: 06/01/2018

PREPARED BY: BCW



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG DGW-MW-6

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 643.30 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7102080.86 FT	EASTING: 2479880.14 FT
DRILLER: G Alejandro	STATIC WATER LEVEL: 12.92 FT BTOC	COMPLETION DATE: 05/16/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter;

NA - Not Applicable; BTOC - Below Top of Casing

Static Water level collected 05/22/2018.

* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

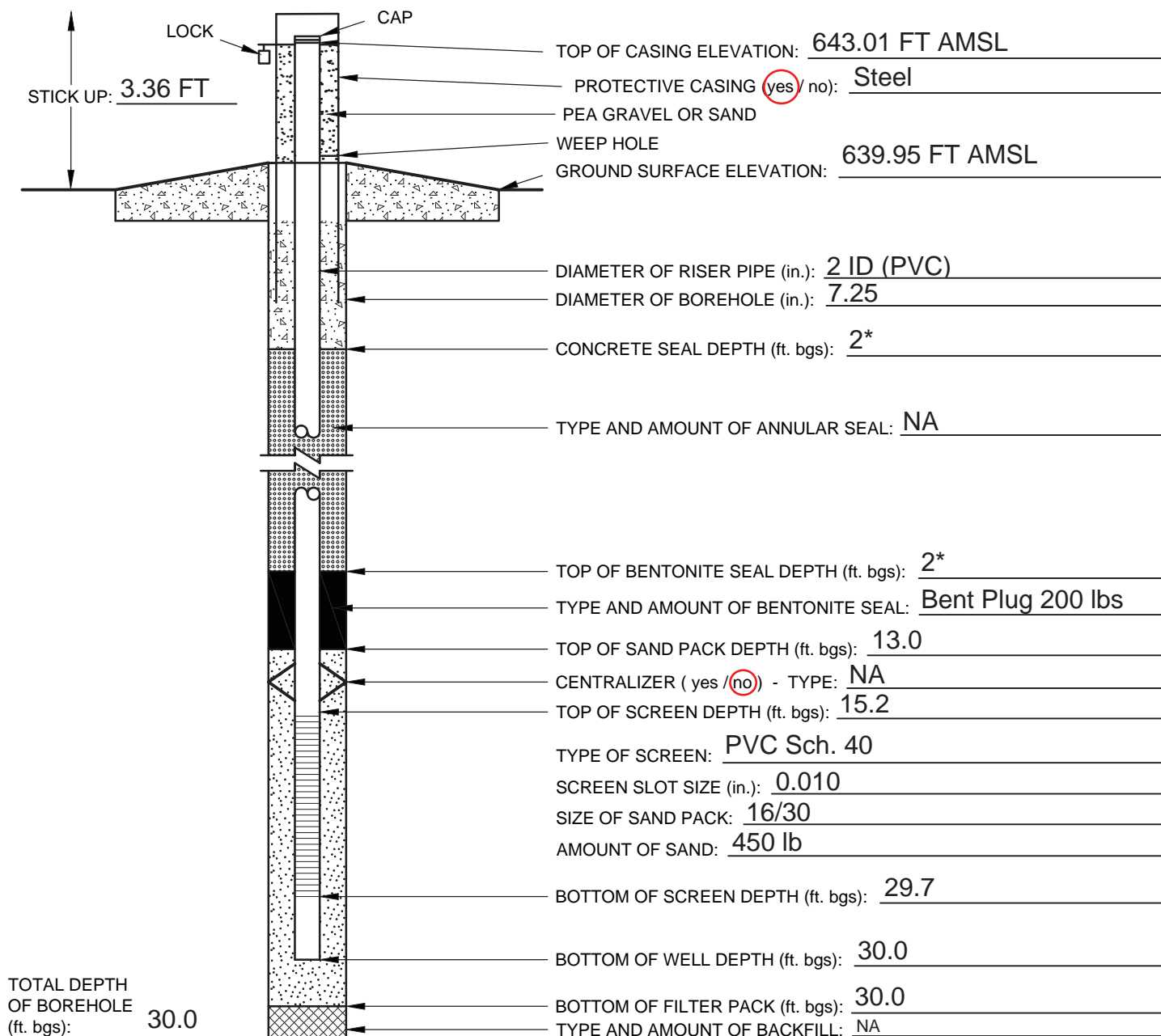
CHECKED BY: JS
DATE CHECKED: 06/01/2018

PREPARED BY: BCW



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG DGW-MW-7

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 643.31 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7102104.29 FT	EASTING: 2479782.04 FT
DRILLER: G Alejandro	STATIC WATER LEVEL: 13.20 FT BTOC	COMPLETION DATE: 05/16/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter;

NA - Not Applicable; BTOC - Below Top of Casing

Static Water level collected 05/22/2018.

* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

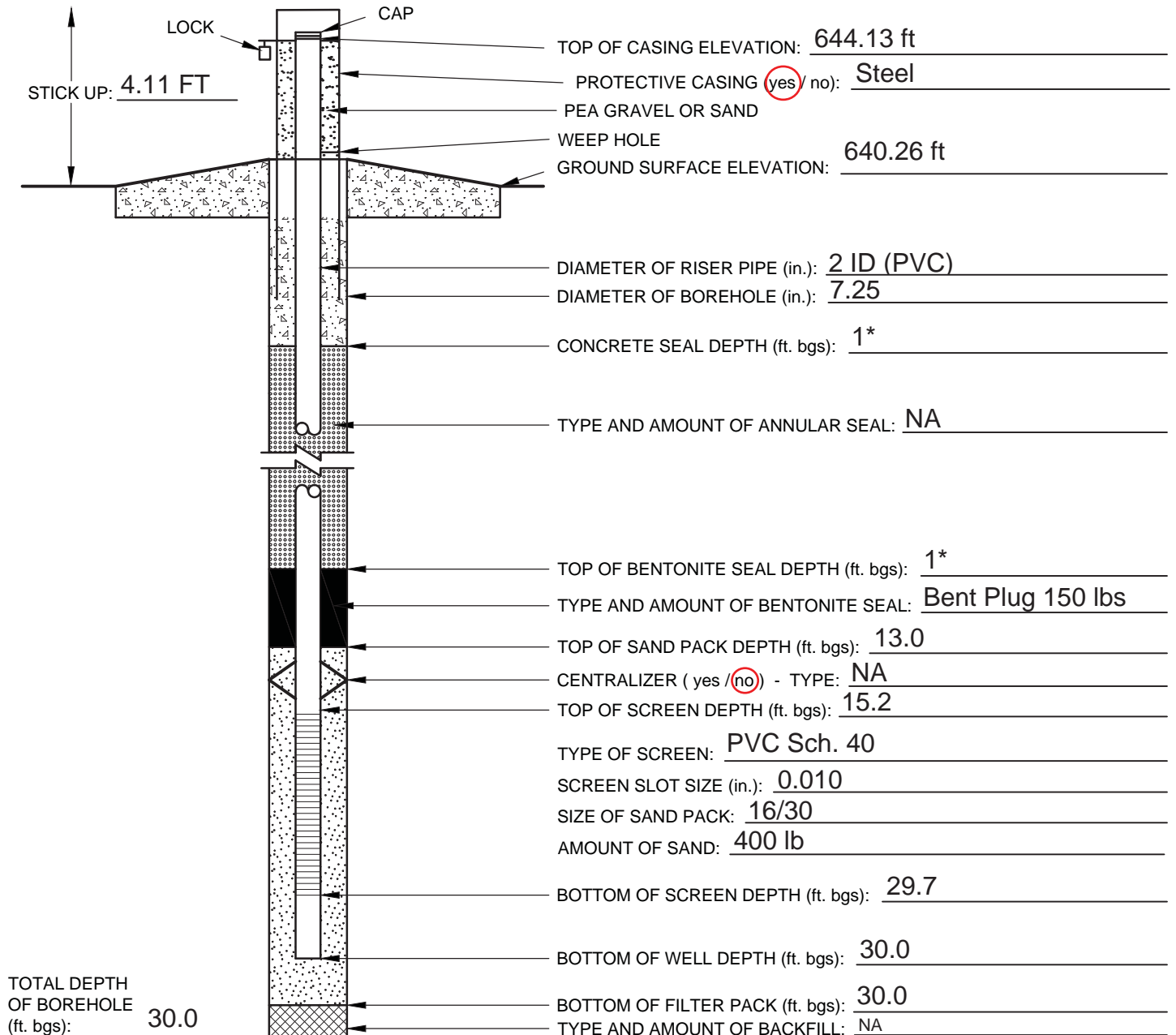
CHECKED BY: JS
DATE CHECKED: 06/01/2018

PREPARED BY: BCW



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG DGW-MW-8

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 644.37 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7102209.64 FT	EASTING: 2479510.83 FT
DRILLER: R Williams	STATIC WATER LEVEL: 24.24 FT BTOC	COMPLETION DATE: 05/17/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: Direct Push/HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter;

NA - Not Applicable; BTOC - Below Top of Casing

Static Water level collected 05/22/2018.

* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

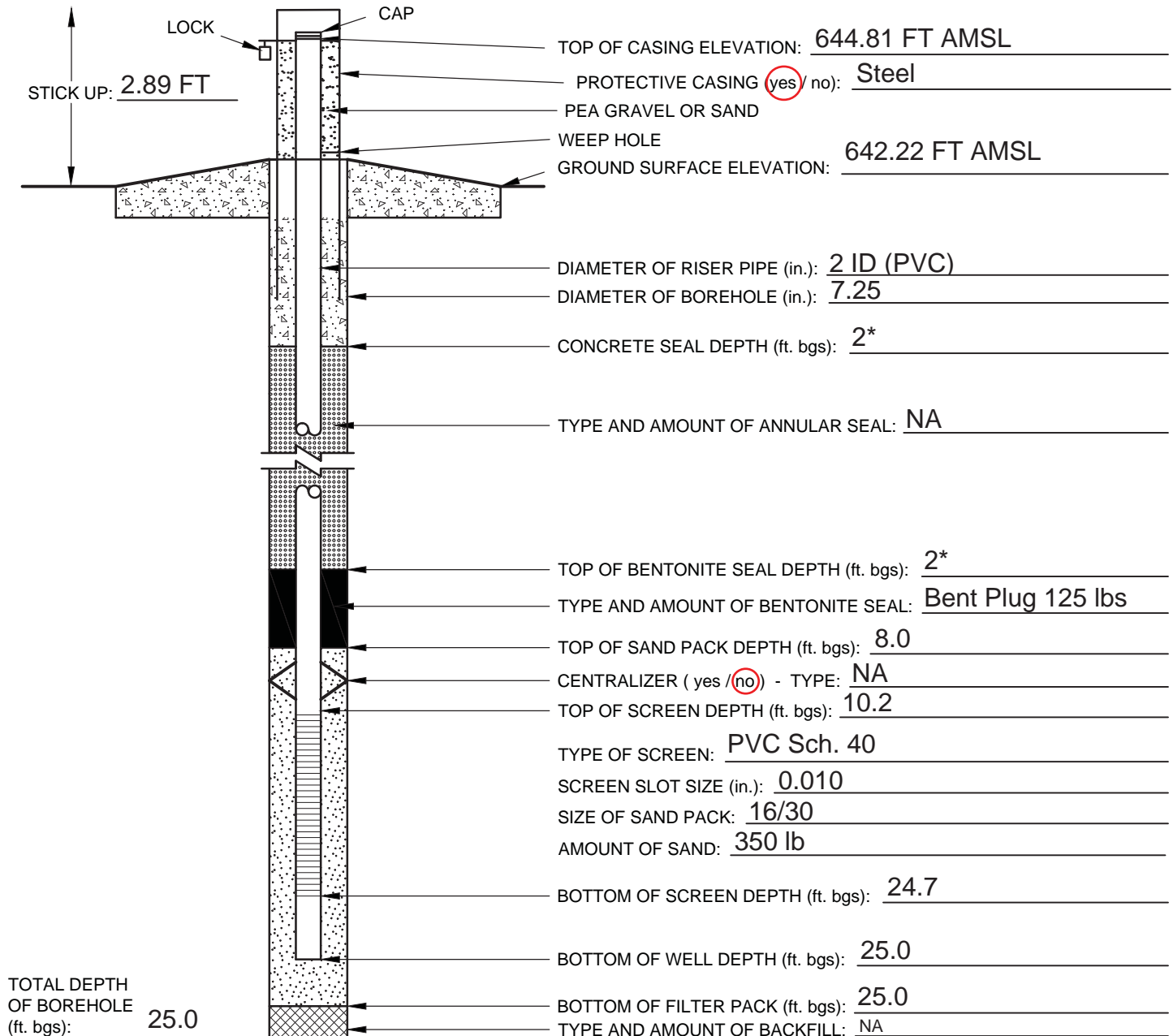
CHECKED BY: JS
DATE CHECKED: 06/01/2018

PREPARED BY: BCW



ABOVE GROUND MONITORING WELL CONSTRUCTION LOG DGW-MW-9

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 645.11 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101770.76 FT	EASTING: 2480655.11 FT
DRILLER: G Alejandro	STATIC WATER LEVEL: 16.85 FT BTOC	COMPLETION DATE: 05/16/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: Direct Push/HSA



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter;

NA - Not Applicable; BTOC - Below Top of Casing

Static Water level collected 05/22/2018.

* - Value indicated and confirmed by WEST Drilling on 05/23/2019.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

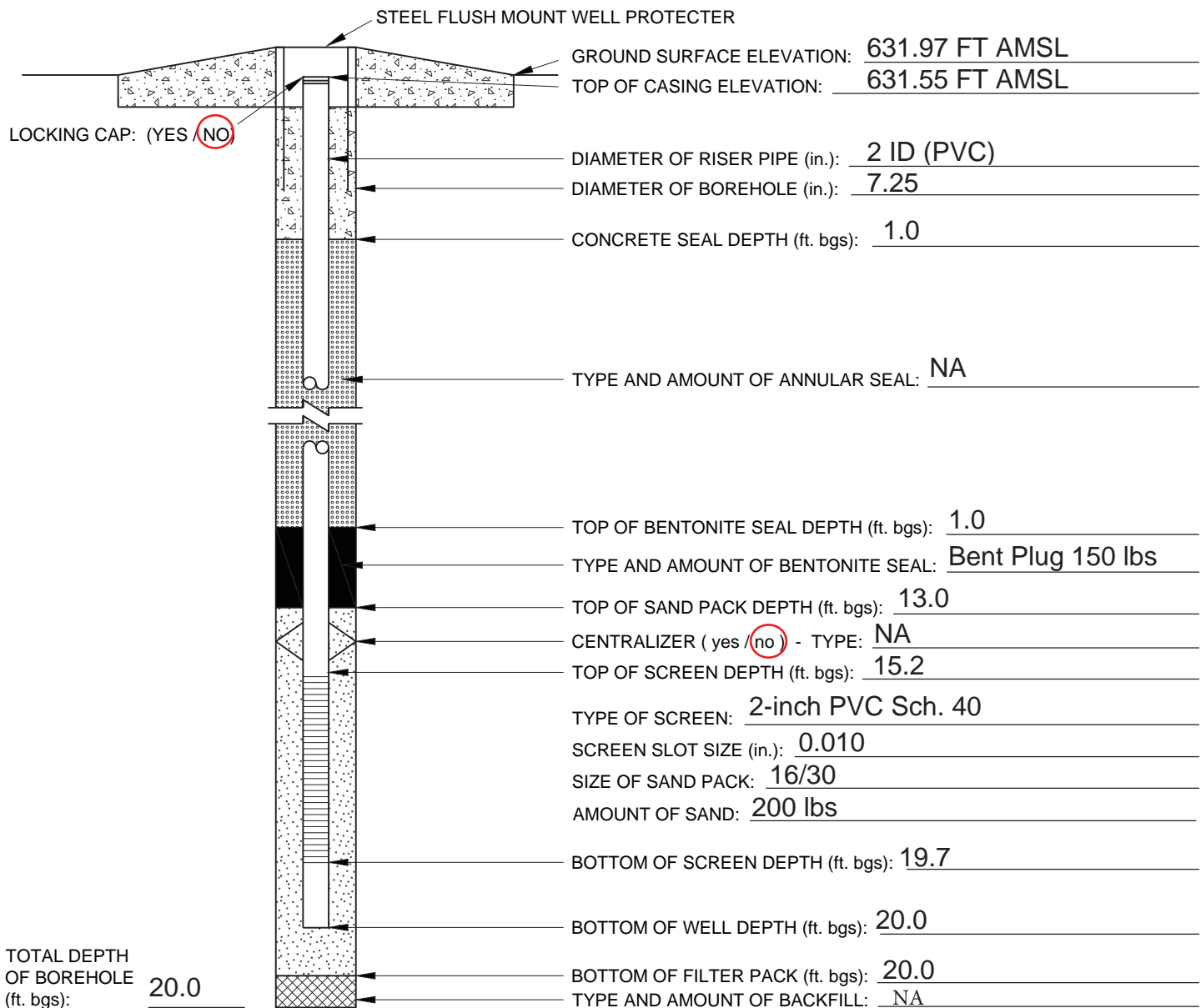
PREPARED BY: TJG



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-10

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 631.91 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101803.95 FT	EASTING: 2479984.25 FT
DRILLER: R. Williams	STATIC WATER LEVEL: 2.64 FT BTOC	COMPLETION DATE: 05/18/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA/Direct Push



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

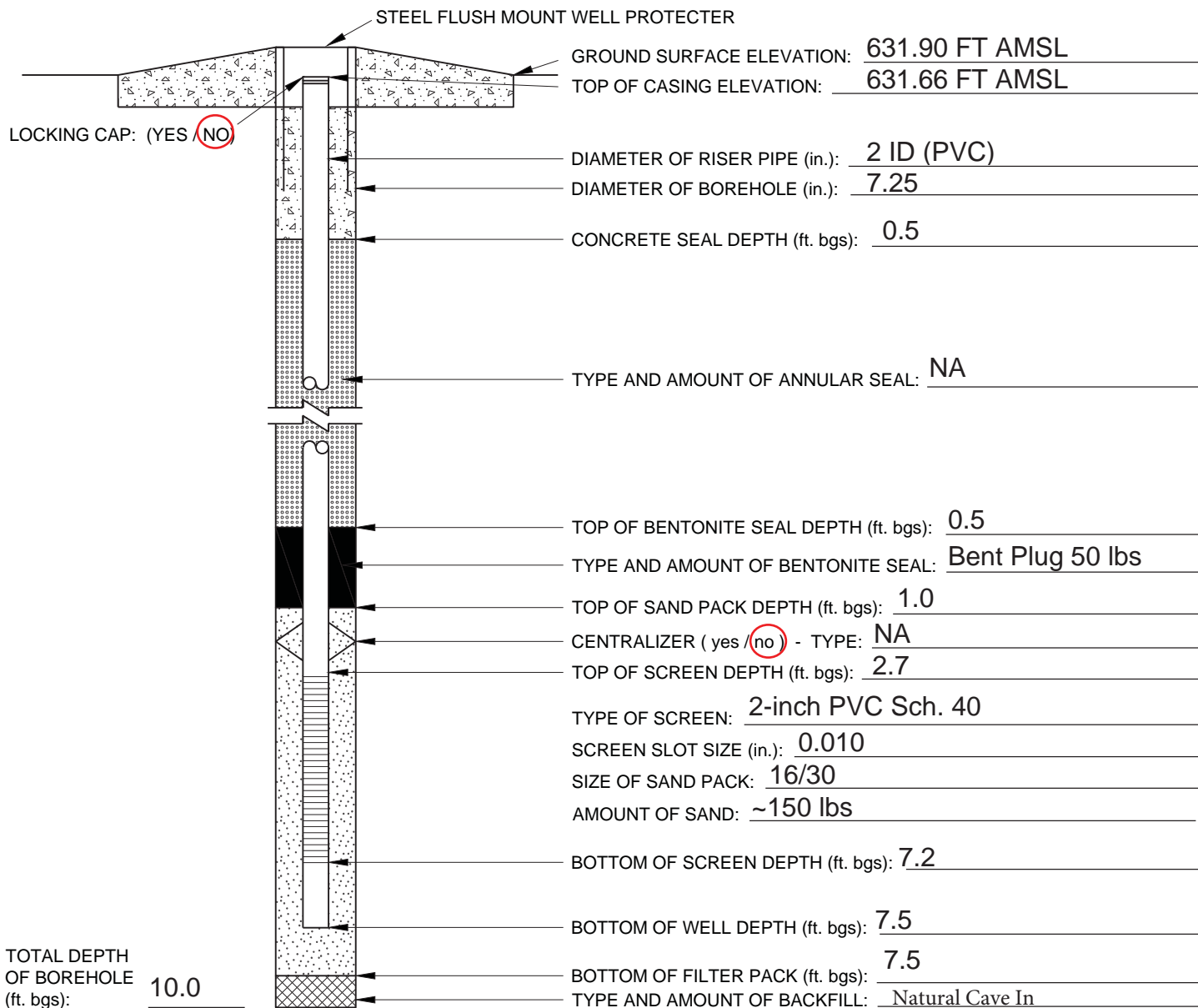
PREPARED BY: BCW



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-10S

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 631.89 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101802.23 FT	EASTING: 2479985.94 FT
DRILLER: R. Williams	STATIC WATER LEVEL: 7.08 FT BTOC	COMPLETION DATE: 05/18/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA/Direct Push



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

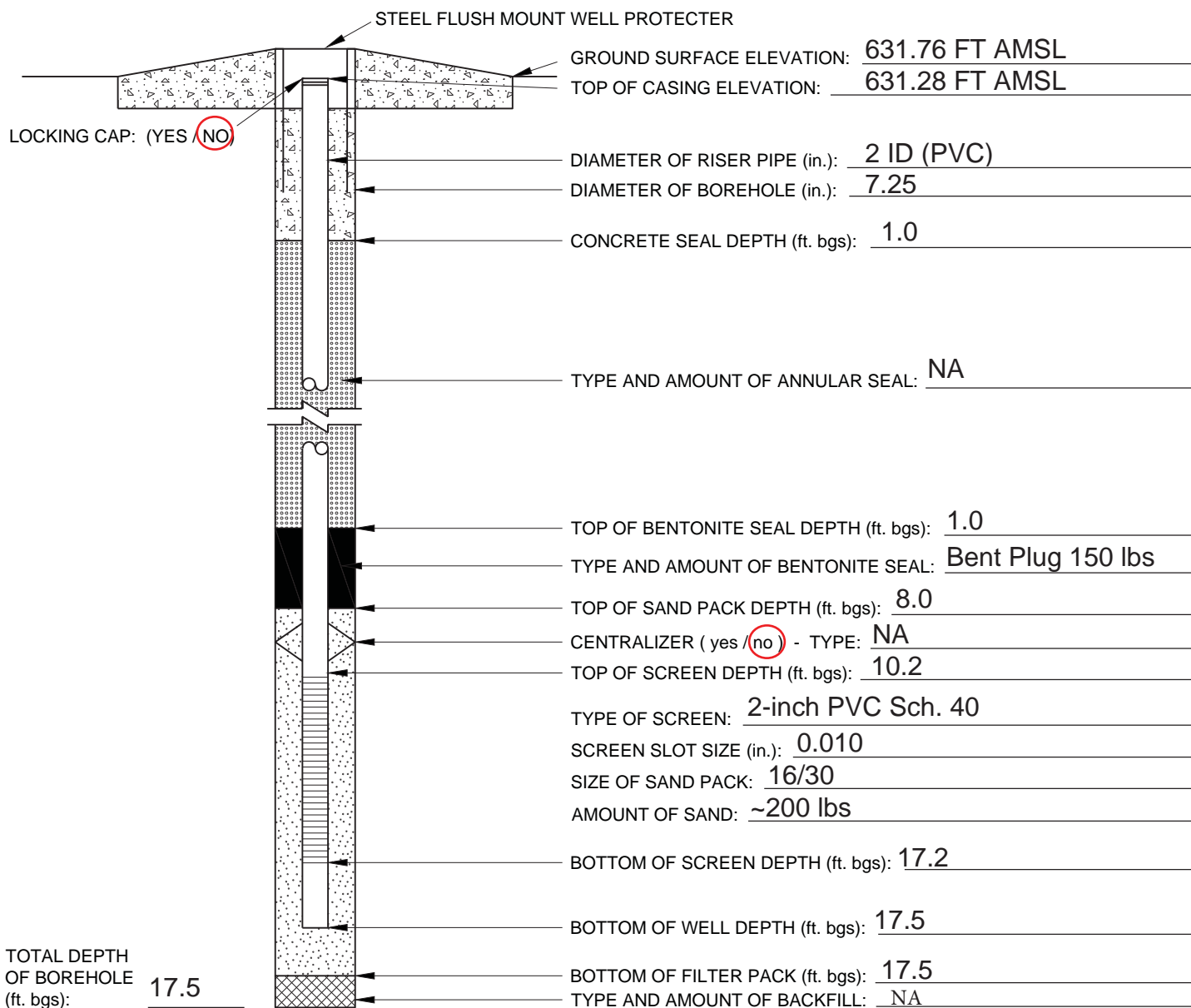
PREPARED BY: BCW



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-11

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 631.69 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101854.91 FT	EASTING: 2479920.24 FT
DRILLER: R. Williams	STATIC WATER LEVEL: 16.86 FT BTOC	COMPLETION DATE: 05/18/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA/Direct Push



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

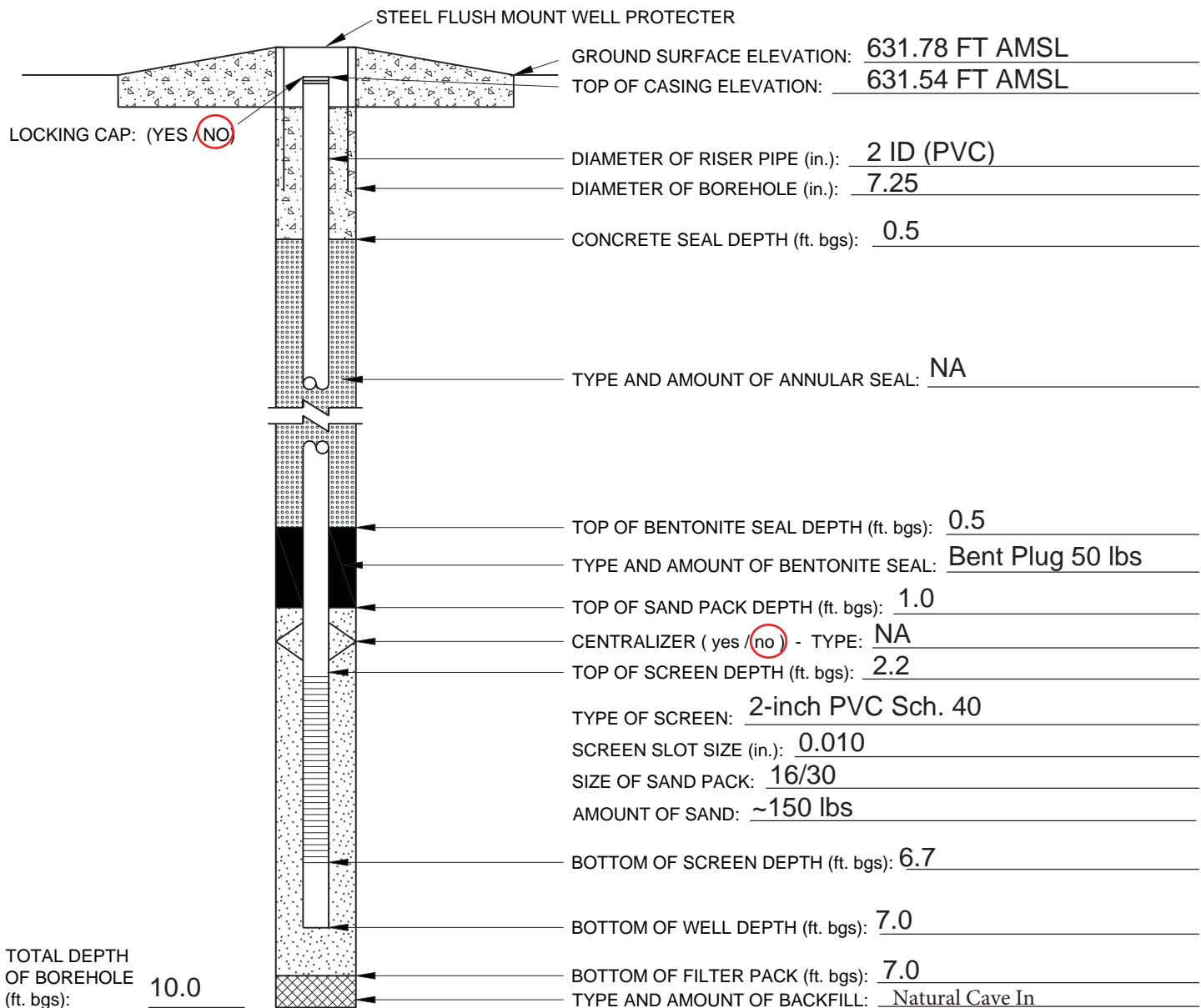
PREPARED BY: BCW



FLUSH-MOUNT MONITORING WELL CONSTRUCTION LOG

DGW-MW-11S

PROJECT NAME: Exide Deep GW PDI		PROJECT NUMBER: 130-2086-06
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX
CLIENT: Exide Technologies		SURFACE ELEVATION: 631.89 FT AMSL
GEOLOGIST: B. Works	NORTHING: 7101853.99 FT	EASTING: 2479921.90 FT
DRILLER: R. Williams	STATIC WATER LEVEL: 5.47 FT BTOC	COMPLETION DATE: 05/18/2018
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA

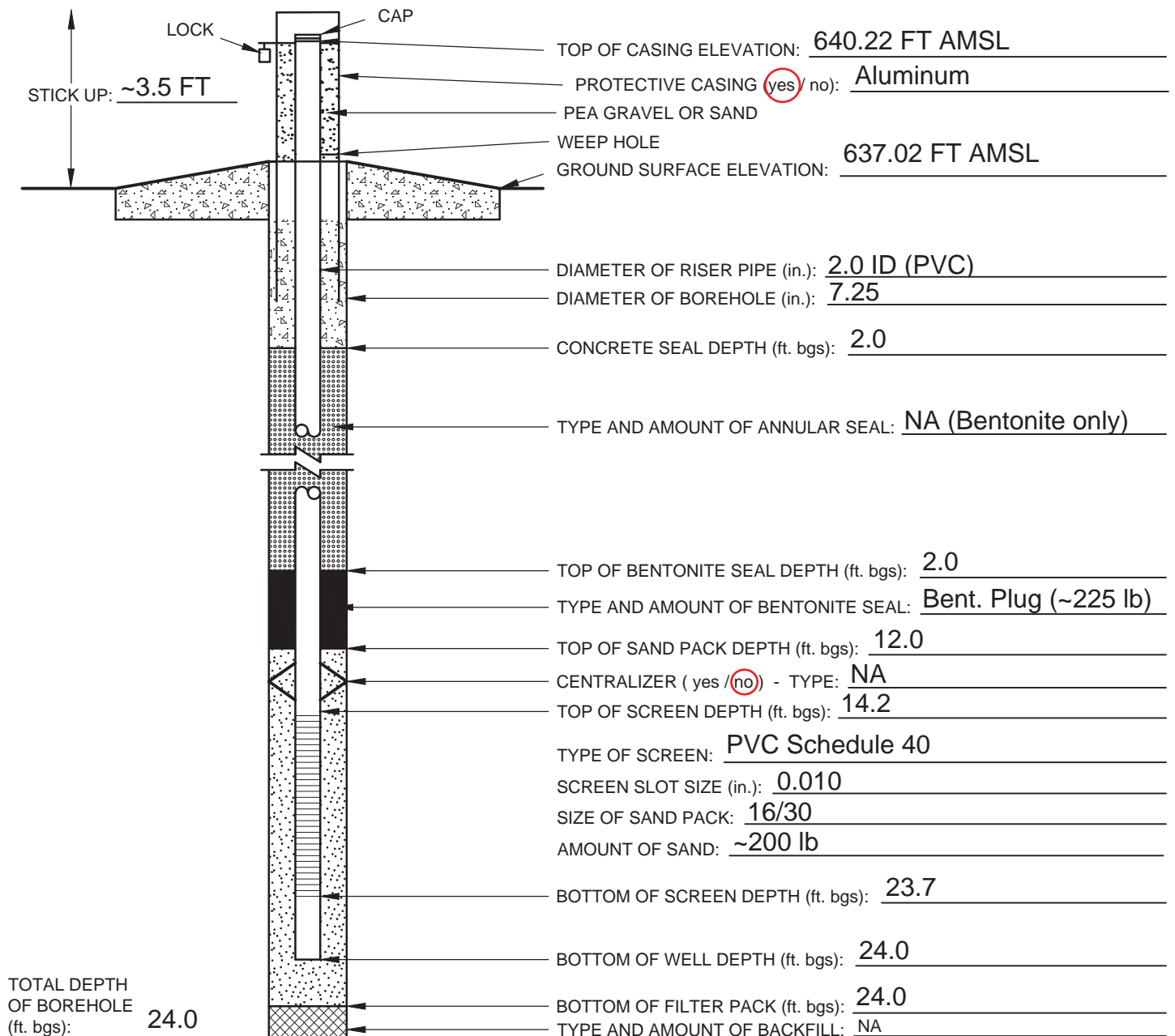


ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet;
bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable; BTOC - Below Top of Casing
Static Water level collected 05/22/2018.

CHECKED BY: JS
DATE CHECKED: 06/01/2018

PREPARED BY: BCW

PROJECT NAME: RAP Subsurface Investigation		PROJECT NUMBER: 130-2086-06	
SITE NAME: Exide - Frisco		LOCATION: Frisco, TX	
CLIENT: Exide Technologies		SURFACE ELEVATION: 637.02 FT AMSL	
GEOLOGIST: E. White	NORTHING: 7102370 FT		EASTING: 2479330 FT
DRILLER: R. Williams	STATIC WATER LEVEL: 13.26 FT BTOC		COMPLETION DATE: 01/22/2019
DRILLING COMPANY: WEST Drilling		DRILLING METHODS: HSA	



ADDITIONAL NOTES: AMSL - Above Mean Sea Level; lbs. - pounds; ft. - feet; bgs - below ground surface; ID- Inside Diameter; NA - Not Applicable;
 BTOC - Below Top of Casing; HSA - Hollow Stem Auger; Bent. - Bentonite; PVC - Polyvinyl chloride. Static water level measured on 01/26/2019 prior to conductivity testing.

CHECKED BY: AGA/THR
 DATE CHECKED: 02/11/19

PREPARED BY: EPW

ATTACHMENT D
WATER LEVEL ELEVATIONS OF THE WOODBINE AQUIFER, WINTER 1997

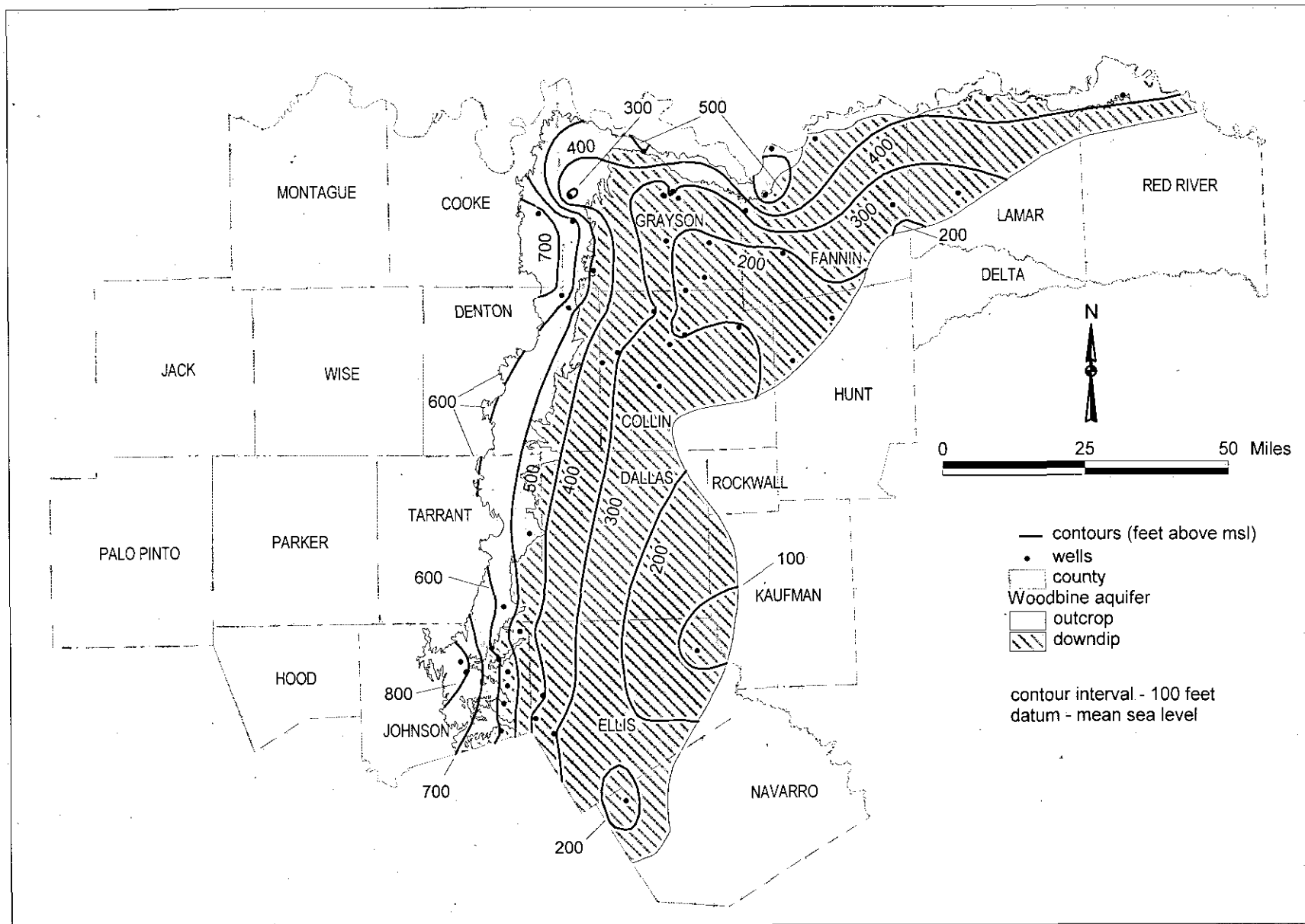


Figure 10. Approximate water-level elevations in the Woodbine aquifer, winter 1997.

ATTACHMENT E
WATER-LEVEL ELEVATIONS OF THE ANTLERS AND TWIN MOUNTAINS FORMATIONS,
WINTER 1997

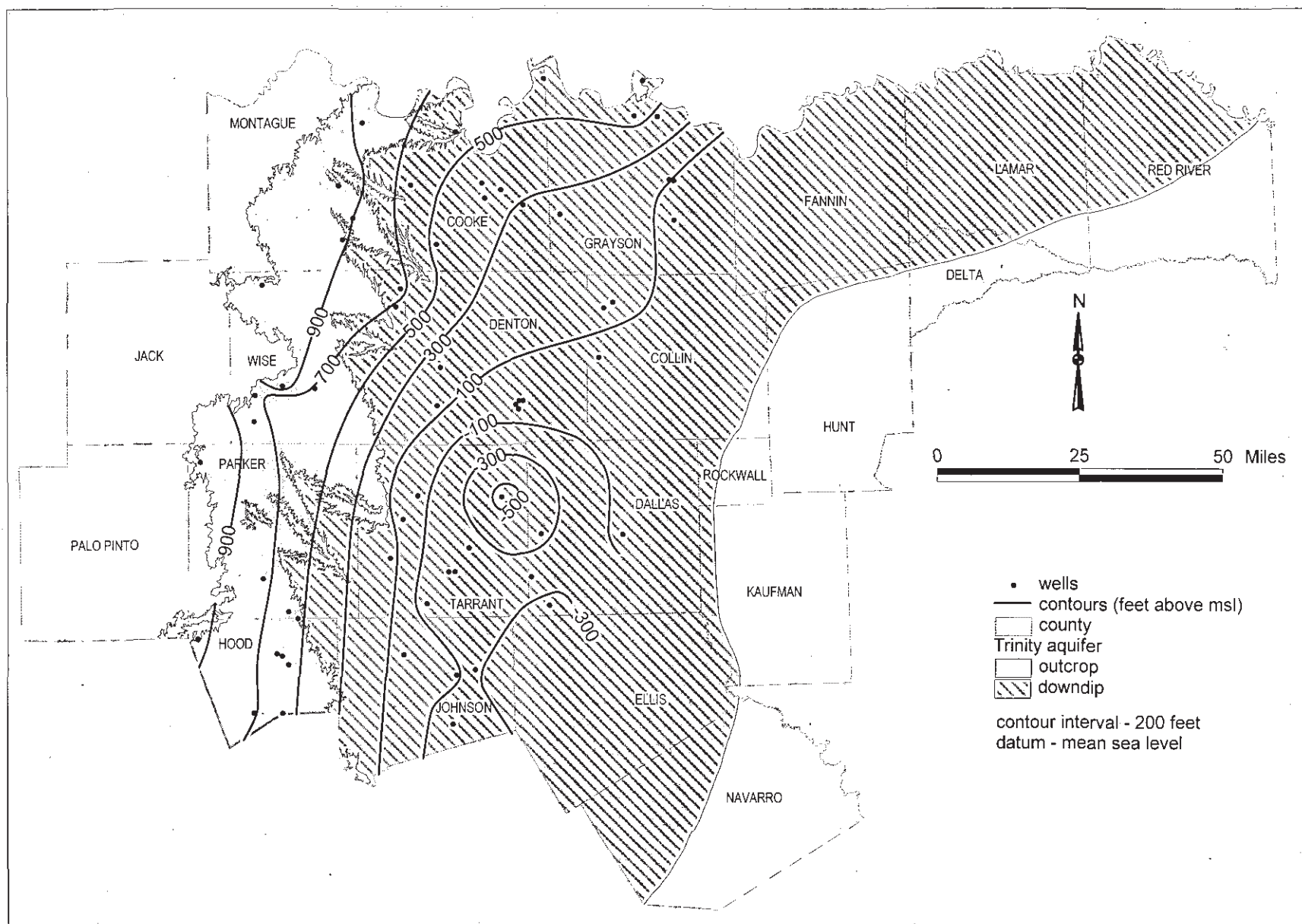


Figure 4. Approximate water-level elevations in the Antlers and Twin Mountains Formations, Trinity aquifer, winter 1997.

ATTACHMENT F
WATER-LEVEL ELEVATIONS OF THE PALUXY FORMATION, WINTER 1997

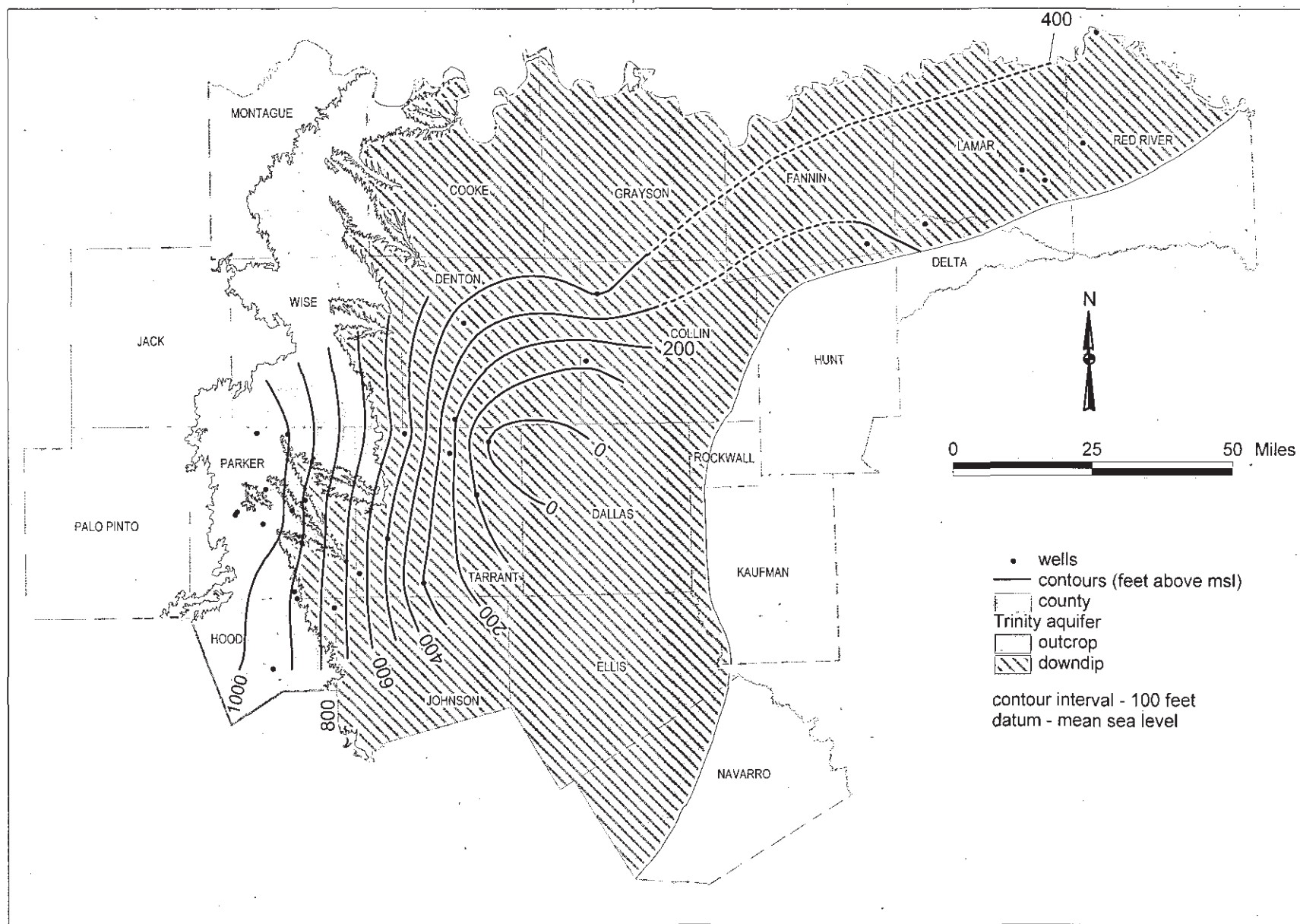


Figure 7. Approximate water-level elevations in the Paluxy Formation, Trinity aquifer, winter 1997.

ATTACHMENT G
CAMU PBW AQUIFER TEST RESULTS (TABLE 1)

TABLE 1
AQUIFER TEST RESULTS
AND CALCULATED WELL
YIELDS

Boring/ Well Number	Type of Test	Hydraulic Conductivity K (cm/sec)	Saturated Thickness b (ft)	Calculated Well Yield * Q (gpd)
Clay				
B7N	Slug	1.0E-05	10.0	18
MW-14	Slug	4.2E-05	12.0	90
MW-17	Slug	7.6E-04	8.0	565
MW-19	Slug	4.5E-08	10.0	0.3
MW-20	Slug	2.5E-08	9.0	0.2
LMW-9	Slug	2.2E-06	6.0	2.0
Clayey Gravel (Unit GC encountered in boring)				
B5N	Slug	3.8E-03	4.0	654
MW-16S	Slug	1.3E-03	2.0	65
B9N	Slug	1.8E-03	2.0	88
LMW-5	Slug	3.4E-02	4.0	4,975
LMW-7	Slug	2.0E-04	2.0	12
LMW-8	Slug	4.5E-04	2.0	25
Gravels and Sands (Unit SP/SW/SM/GM/GW encountered in boring)**				
MW-15	Slug	5.7E-03	4.5	1,192
MW-13	Slug	1.3E-02	2.0	536
LMW-17	Pump	1.2E-01	4.5	19,669
		Geomean K		
Avg for Clay		3.0E-06		
Avg for Clayey Gravel		1.7E-03		
Avg for Gravels or Sands		2.0E-02		

Notes:

K = hydraulic conductivity

* Well Yield formula from TCEQ TRRP-8 Section 2.7.1, Method 1

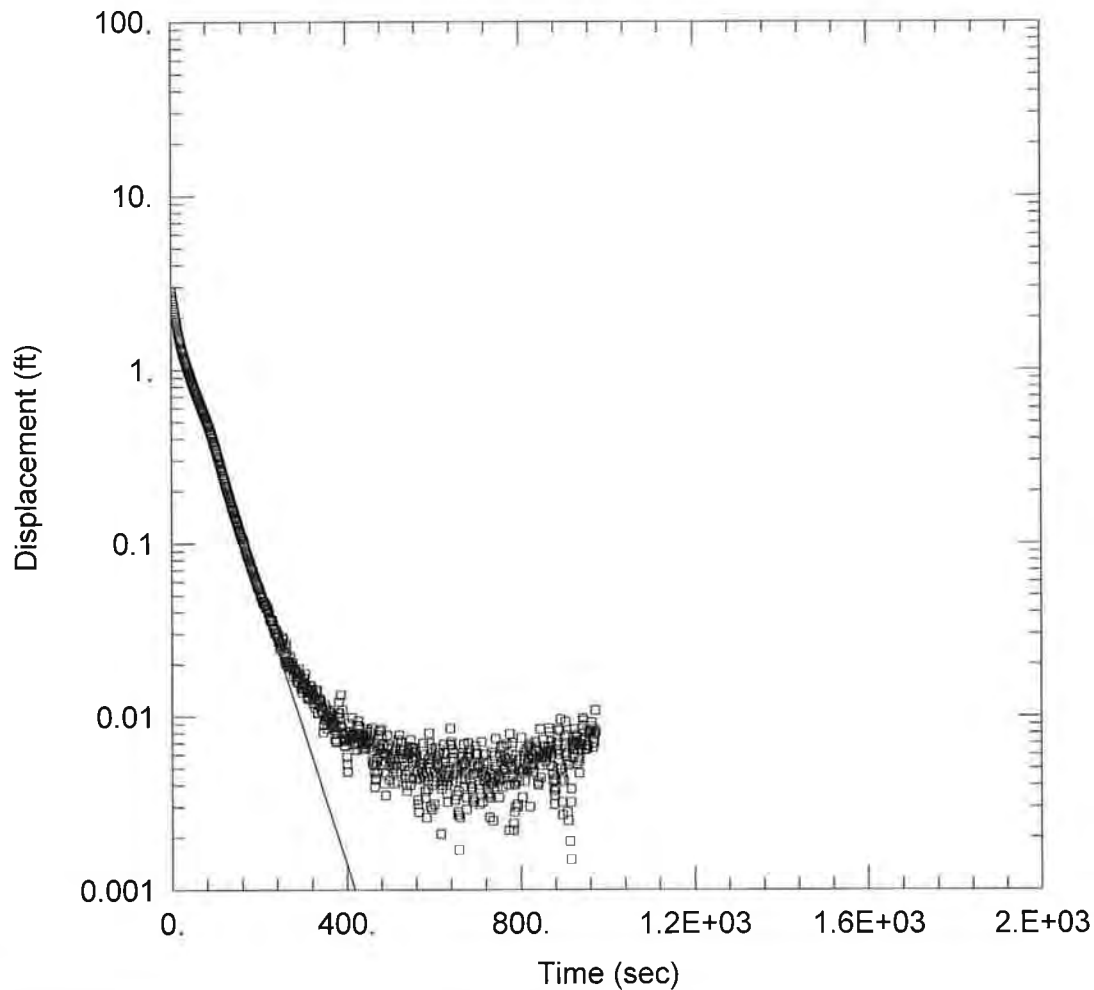
$$Q = \frac{57,923 * K * b^2}{7.2 + \log (K * b)}$$

** Includes clayey or sandy gravels described as "loose" on boring logs.

ATTACHMENT H
CAMU PBW SLUG TEST RESULTS

SUMMARY OF PBW SLUG TEST RESULTS

Well Number	Test Type	Test Hydraulic Conductivity (cm/sec)	Average Hydraulic Conductivity (cm/sec)
B5N	Slug Out 1	3.6E-03	3.8E-03
	Slug Out 2	3.8E-03	
	Slug Out 3	3.8E-03	
	Slug Out 4	3.9E-03	
B7N	Slug Out 1	1.0E-05	1.0E-05
	Slug Out 2	8.7E-06	
	Slug Out 3	1.1E-05	
B9N	Slug Out 1	1.8E-03	1.8E-03
	Slug Out 2	1.8E-03	
	Slug Out 3	1.8E-03	
MW-13	Slug Out 1	9.1E-03	1.3E-02
	Slug Out 2	1.9E-02	
	Slug Out 3	9.6E-03	
MW-14	Slug Out 1	3.9E-05	4.1E-05
	Slug Out 2	4.1E-05	
	Slug Out 3	4.2E-05	
MW-15	Slug Out 1	3.8E-03	5.7E-03
	Slug Out 2	5.5E-03	
	Slug Out 3	7.9E-03	
	Slug Out 4	7.7E-03	
	Slug In 1	3.6E-03	
MW-16S	Slug Out 1	1.5E-03	1.3E-03
	Slug Out 2	1.3E-03	
	Slug Out 3	1.0E-03	
MW-17	Slug Out 1	7.0E-04	7.6E-04
	Slug Out 2	7.7E-04	
	Slug Out 3	8.0E-04	
MW-19	Slug Out 1	2.2E-08	4.5E-08
	Slug Out 2	6.8E-08	
MW-20	Slug Out 1	7.8E-09	2.5E-08
	Slug Out 2	4.2E-08	



B5N SLUG OUT 1 UNCONFINED

Data Set: J:\...\B5N_SlugOut1_unconfined.aqt

Date: 05/17/13

Time: 16:10:38

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/22/12

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B5N)

Initial Displacement: 2.82 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

Gravel Pack Porosity: 0.2

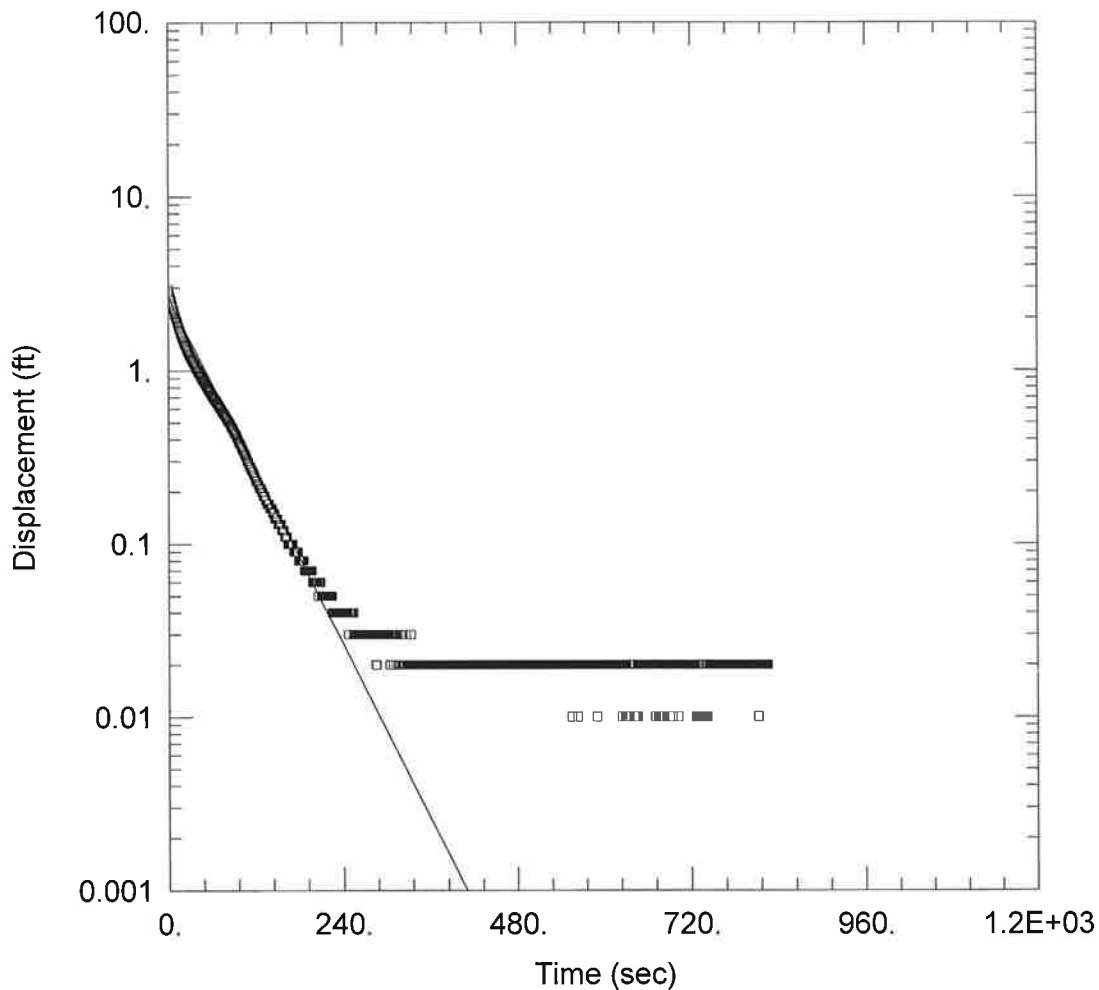
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.003583$ cm/sec

$y_0 = 1.924$ ft



B5N SLUG OUT 2 UNCONFINED

Data Set: J:\...\B5N_SlugOut2_unconfined.aqt

Date: 05/17/13

Time: 16:12:05

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/22/12

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B5N)

Initial Displacement: 2.82 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

Gravel Pack Porosity: 0.2

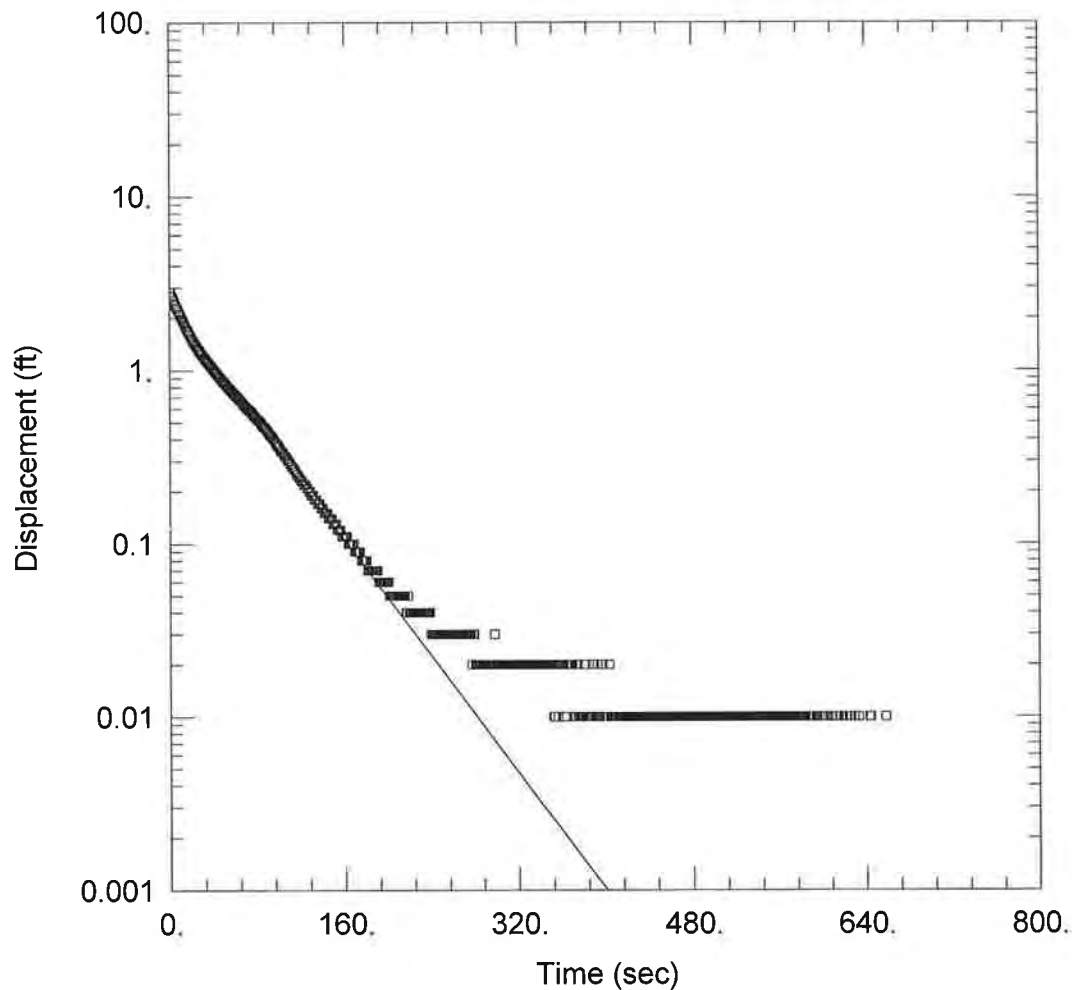
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.00382$ cm/sec

$y_0 = 2.677$ ft



B5N SLUG OUT 3 UNCONFINED

Data Set: J:\...\B5N_SlugOut3_unconfined.aqt

Date: 05/17/13

Time: 16:12:31

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/22/12

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B5N)

Initial Displacement: 2.82 ft

Wellbore Radius: 0.33 ft

Screen Length: 4. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 4. ft

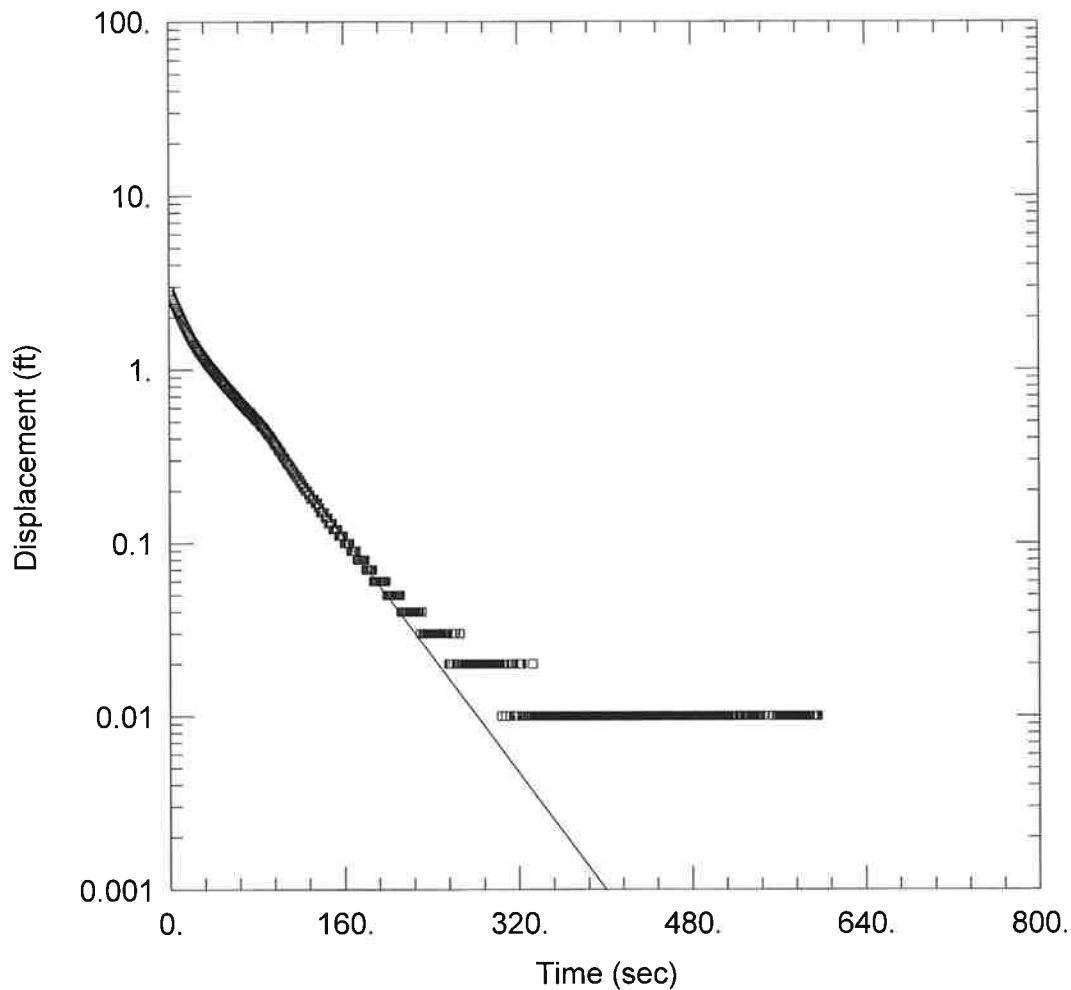
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.003834$ cm/sec

$y_0 = 2.305$ ft



B5N SLUG OUT 4 UNCONFINED

Data Set: J:\...\B5N_SlugOut4_unconfined.aqt

Date: 05/17/13

Time: 16:12:55

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/22/12

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B5N)

Initial Displacement: 2.82 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

Gravel Pack Porosity: 0.2

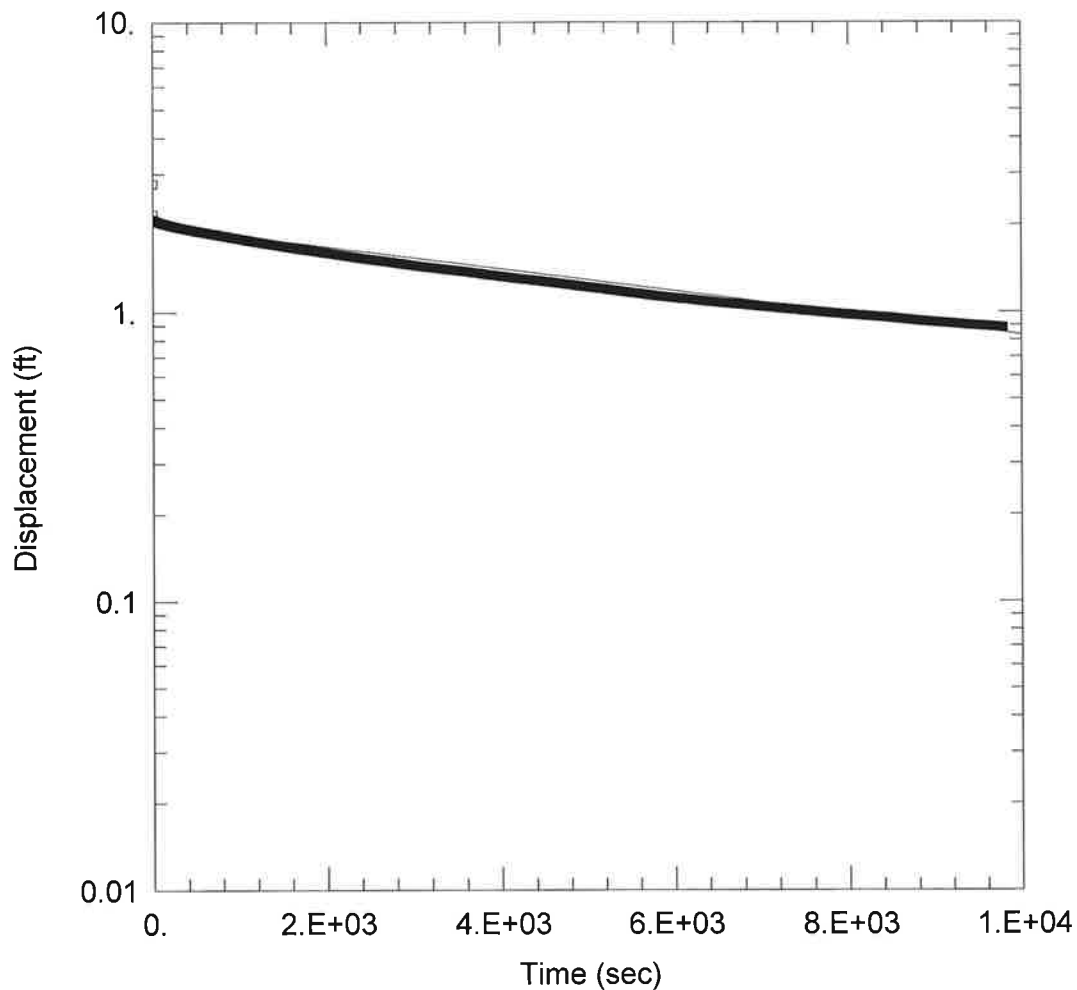
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.003861$ cm/sec

$y_0 = 2.401$ ft



B-7N SLUG OUT 1

Data Set: J:\...\B7N_SlugOut1.aqt

Date: 05/17/13

Time: 16:13:10

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: B-7N

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B-7N)

Initial Displacement: 2.78 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 10. ft

Total Well Penetration Depth: 10. ft

Gravel Pack Porosity: 0.2

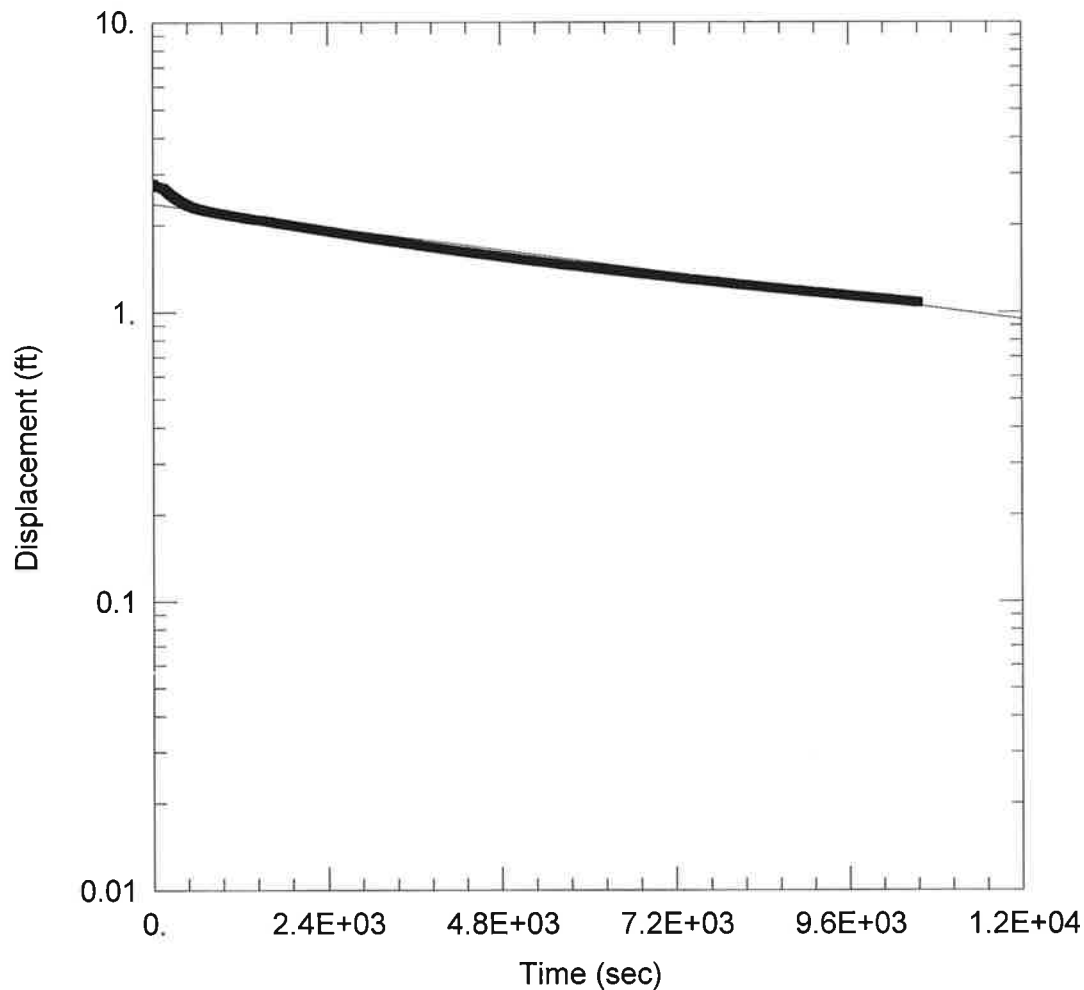
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 9.972E-06$ cm/sec

$y_0 = 2.006$ ft



B-7N SLUG OUT 2

Data Set: J:\...\B7N_SlugOut2.aqt

Date: 05/17/13

Time: 16:13:20

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: B-7N

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B-7N)

Initial Displacement: 2.78 ft

Wellbore Radius: 0.33 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 10. ft

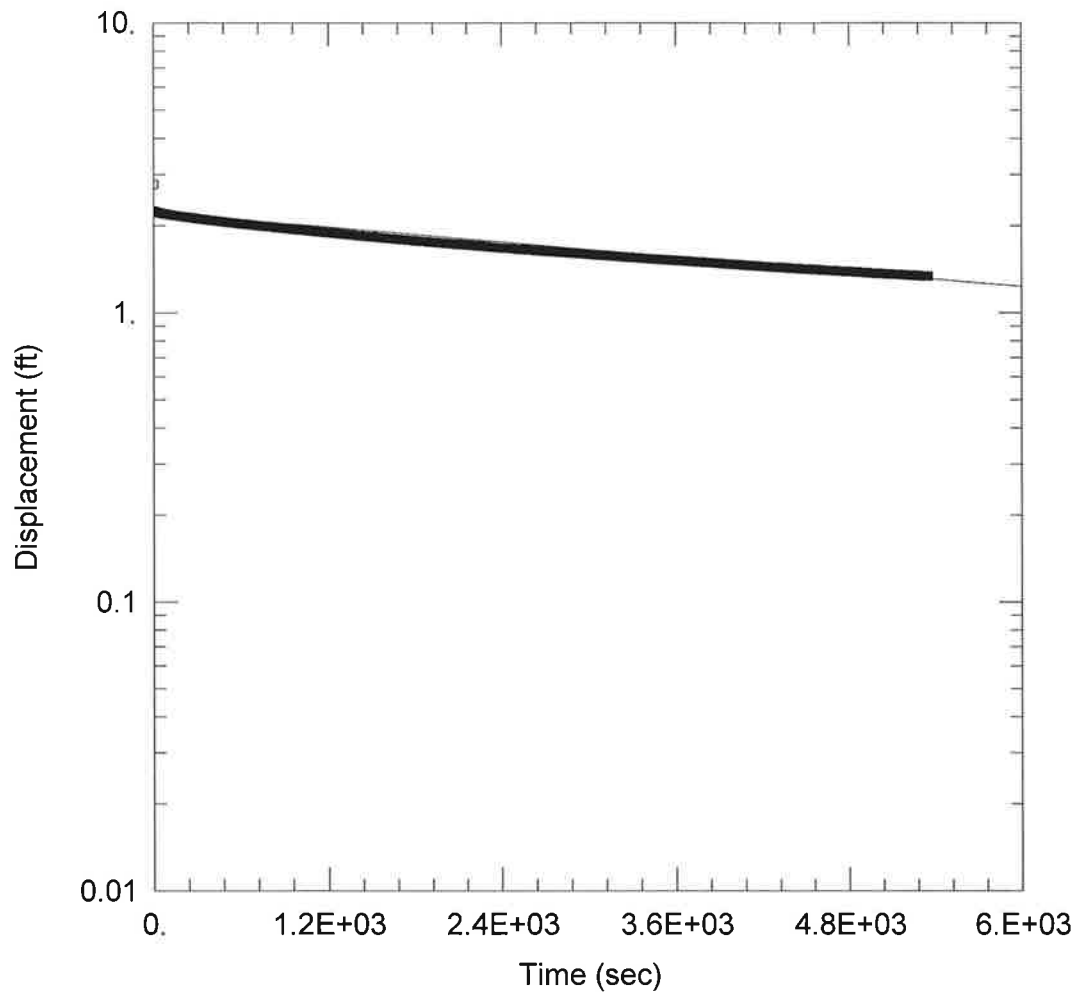
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 8.708E-06$ cm/sec

$y_0 = 2.368$ ft



B-7N SLUG OUT 3

Data Set: J:\...\B7N_SlugOut3.aqt

Date: 05/17/13

Time: 16:13:28

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: B-7N

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B-7N)

Initial Displacement: 2.78 ft

Wellbore Radius: 0.33 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 10. ft

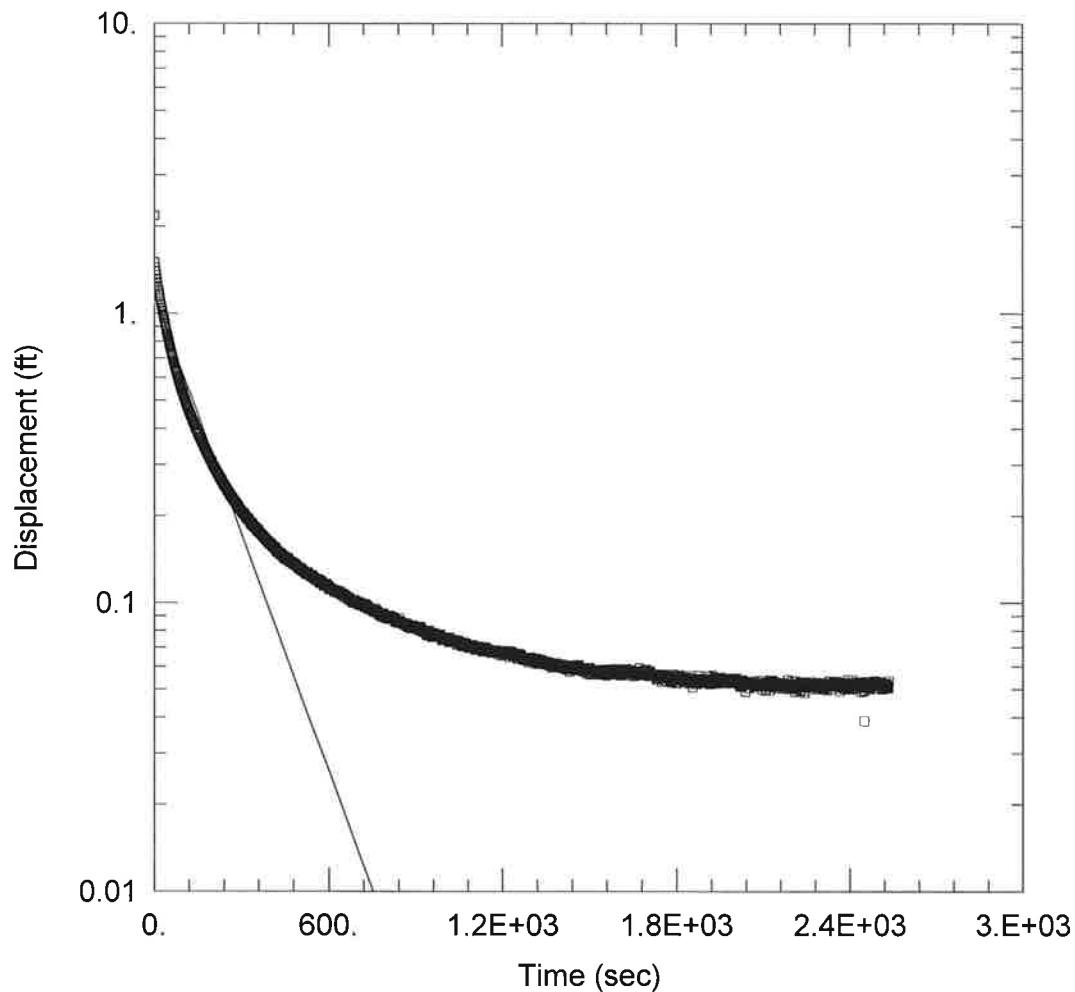
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 1.121E-05$ cm/sec

$y_0 = 2.226$ ft



B-9N SLUG OUT 1

Data Set: J:\...\B9N_SlugOut1.aqt

Date: 05/17/13

Time: 16:13:37

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: B-9N

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B-9N)

Initial Displacement: 1.5 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 2. ft

Total Well Penetration Depth: 2. ft

Gravel Pack Porosity: 0.2

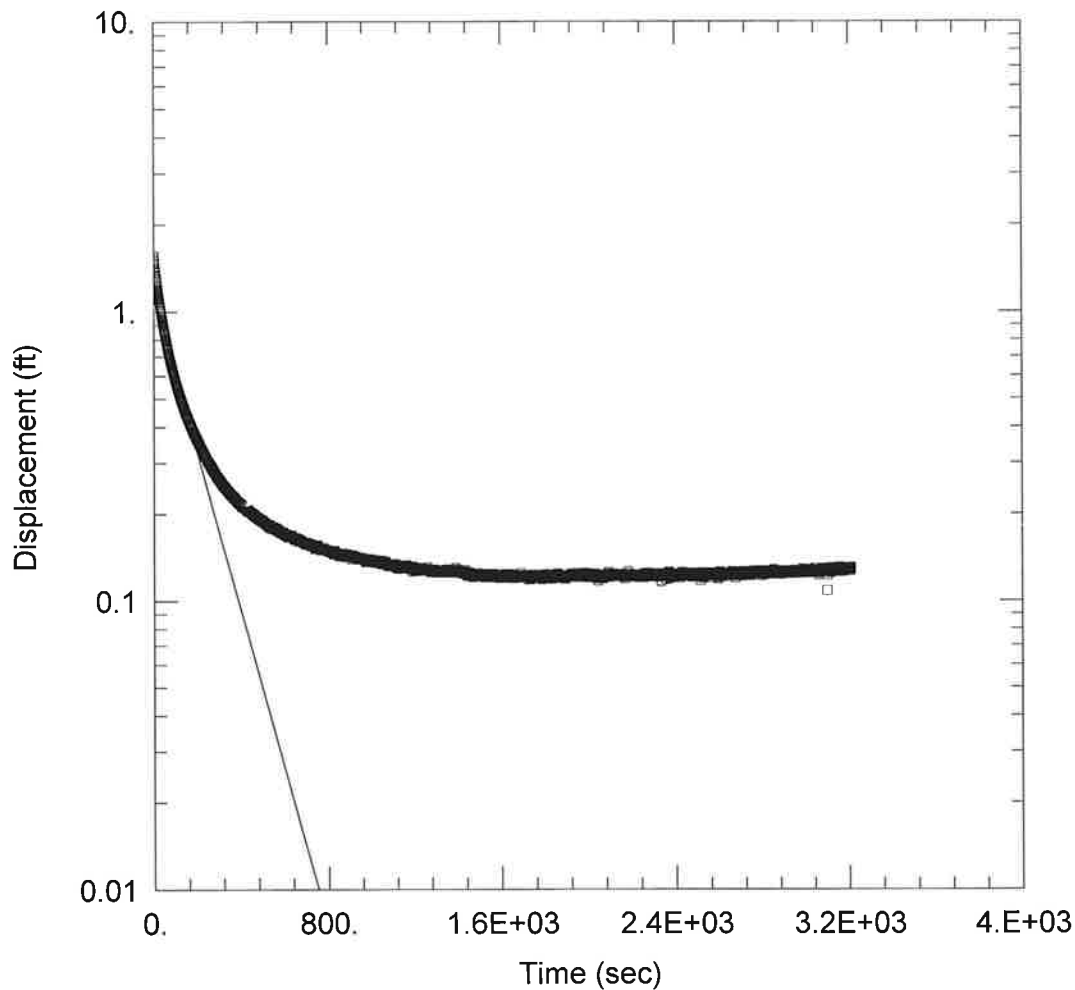
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.0018$ cm/sec

$y_0 = 1.159$ ft



B-9N SLUG OUT 2

Data Set: J:\...\B9N_SlugOut2.aqt

Date: 05/17/13

Time: 16:13:46

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: B-9N

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B-9N)

Initial Displacement: 1.5 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 2. ft

Total Well Penetration Depth: 2. ft

Gravel Pack Porosity: 0.2

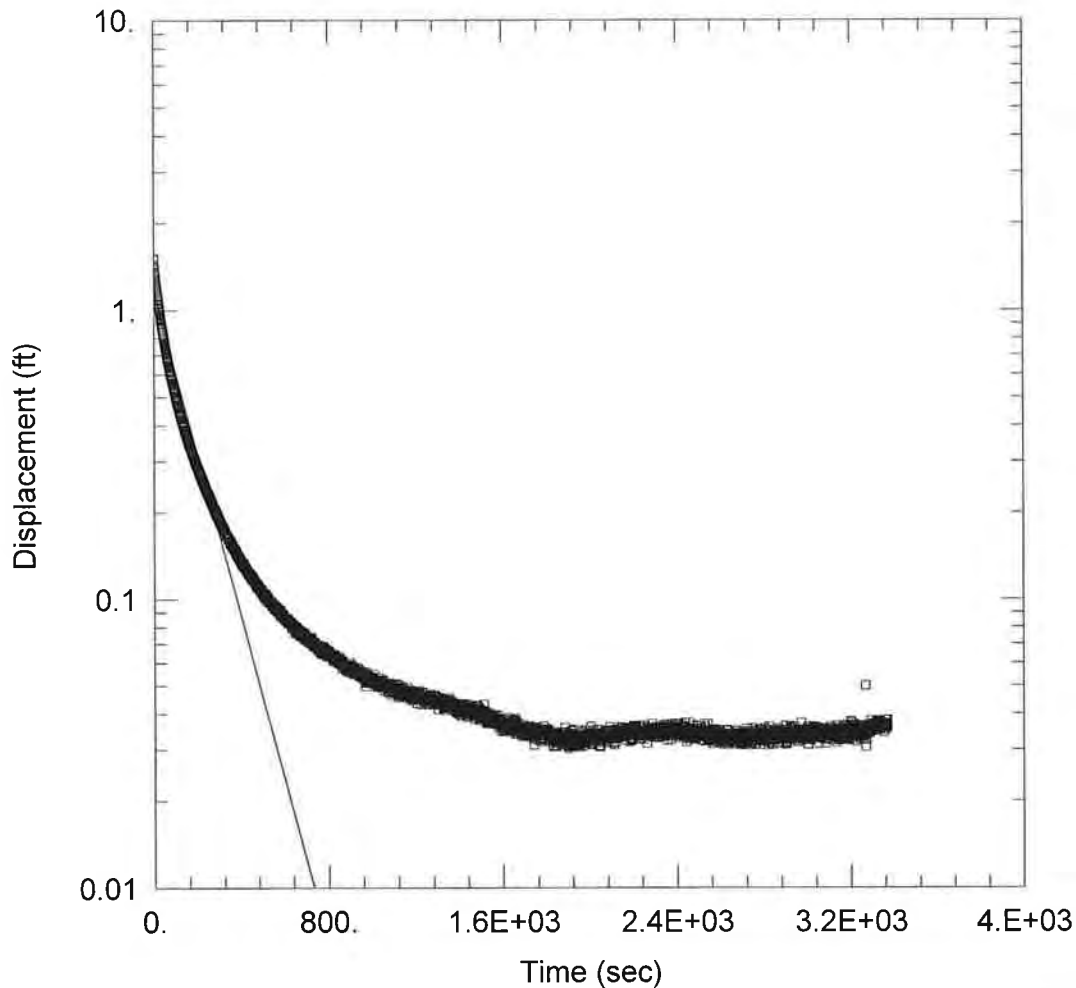
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.00179$ cm/sec

$y_0 = 1.143$ ft



B-9N SLUG OUT 3

Data Set: J:\...\B9N SlugOut3.aqt

Date: 05/17/13

Time: 16:13:55

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: B-9N

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (B-9N)

Initial Displacement: 1.5 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 2. ft

Total Well Penetration Depth: 2. ft

Gravel Pack Porosity: 0.2

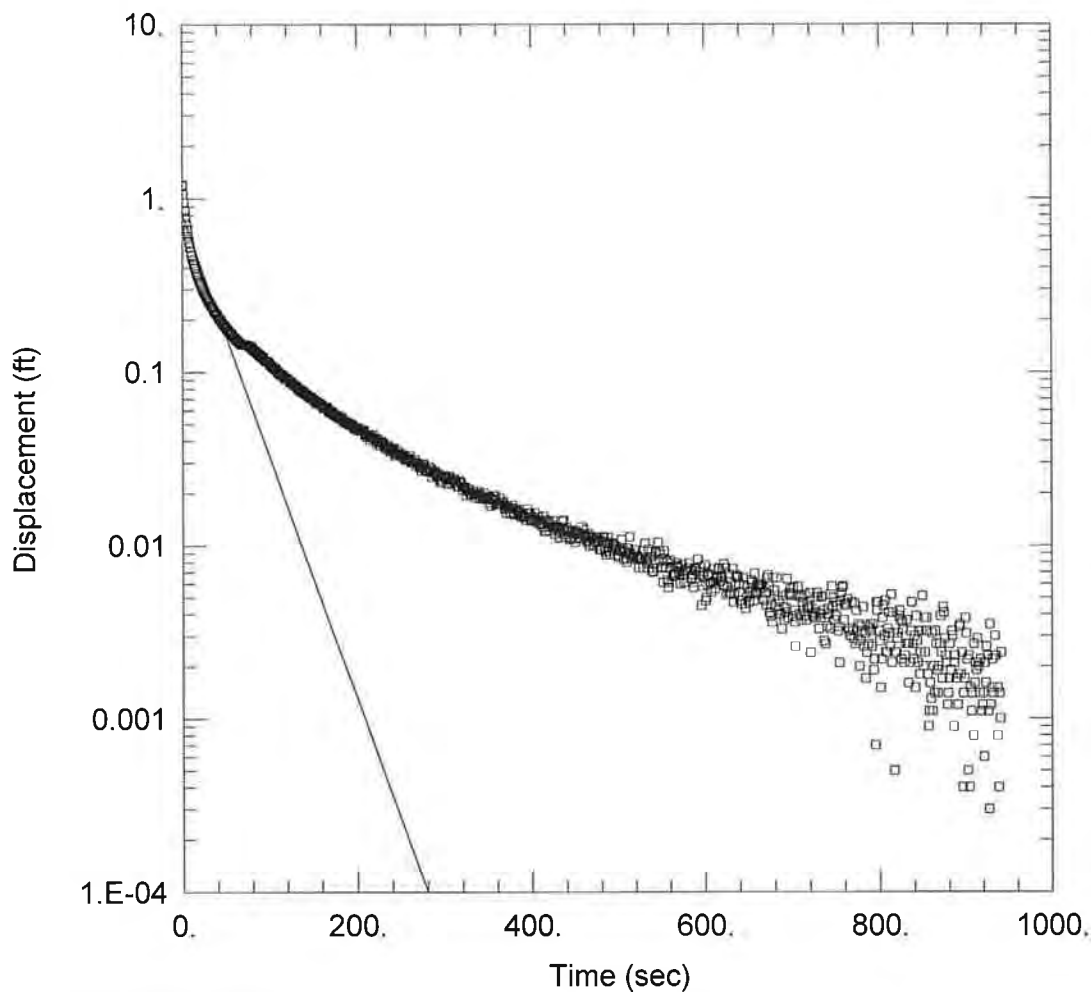
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.001847$ cm/sec

$y_0 = 1.164$ ft



MW-13 SLUG OUT 1

Data Set: J:\...MW13_SlugOut1.aqt

Date: 05/17/13

Time: 16:14:01

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-13)

Initial Displacement: 1.2 ft

Wellbore Radius: 0.33 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 2. ft

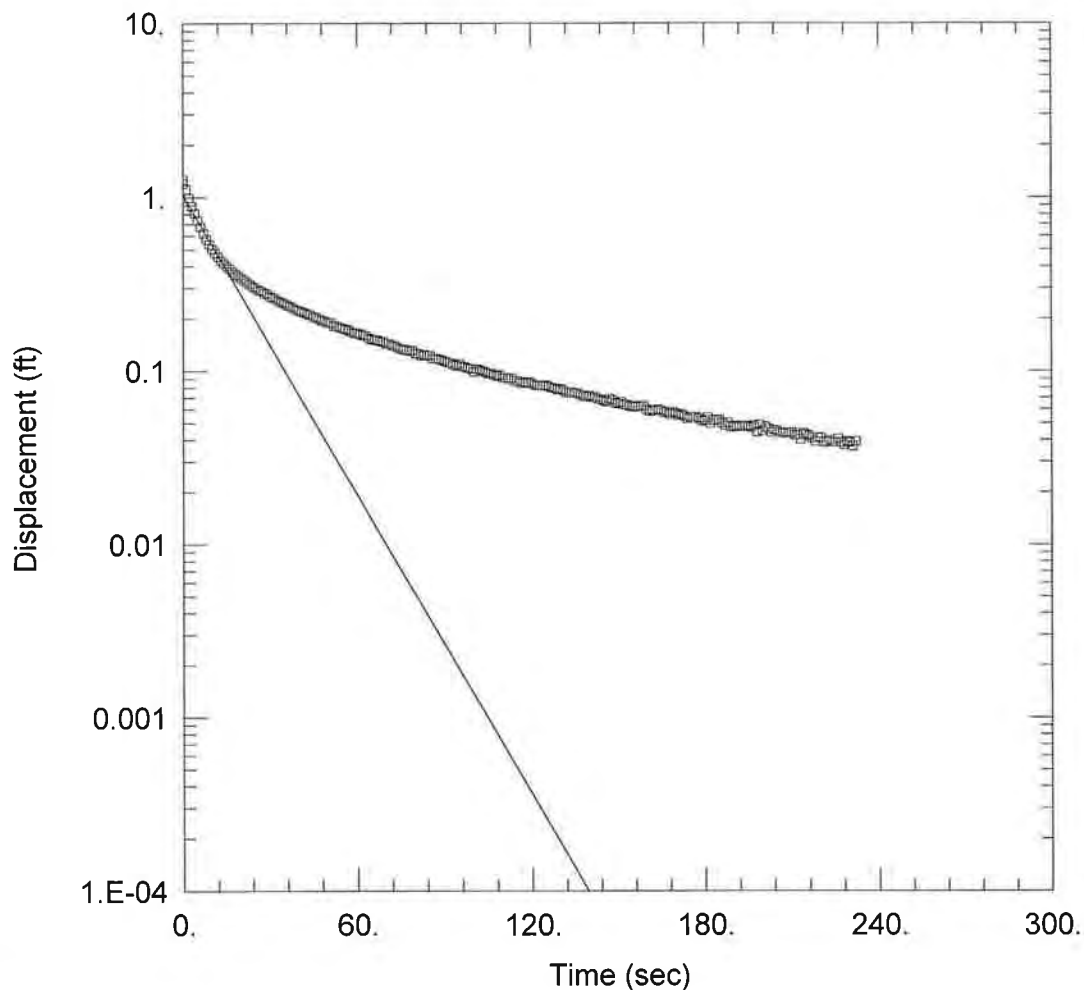
SOLUTION

Aquifer Model: Unconfined

$K = 0.009152$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 0.8143$ ft



MW-13 SLUG OUT 2

Data Set: J:\...MW13_SlugOut2.aqt

Date: 05/17/13

Time: 16:14:13

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-13)

Initial Displacement: 1.2 ft

Wellbore Radius: 0.33 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 2. ft

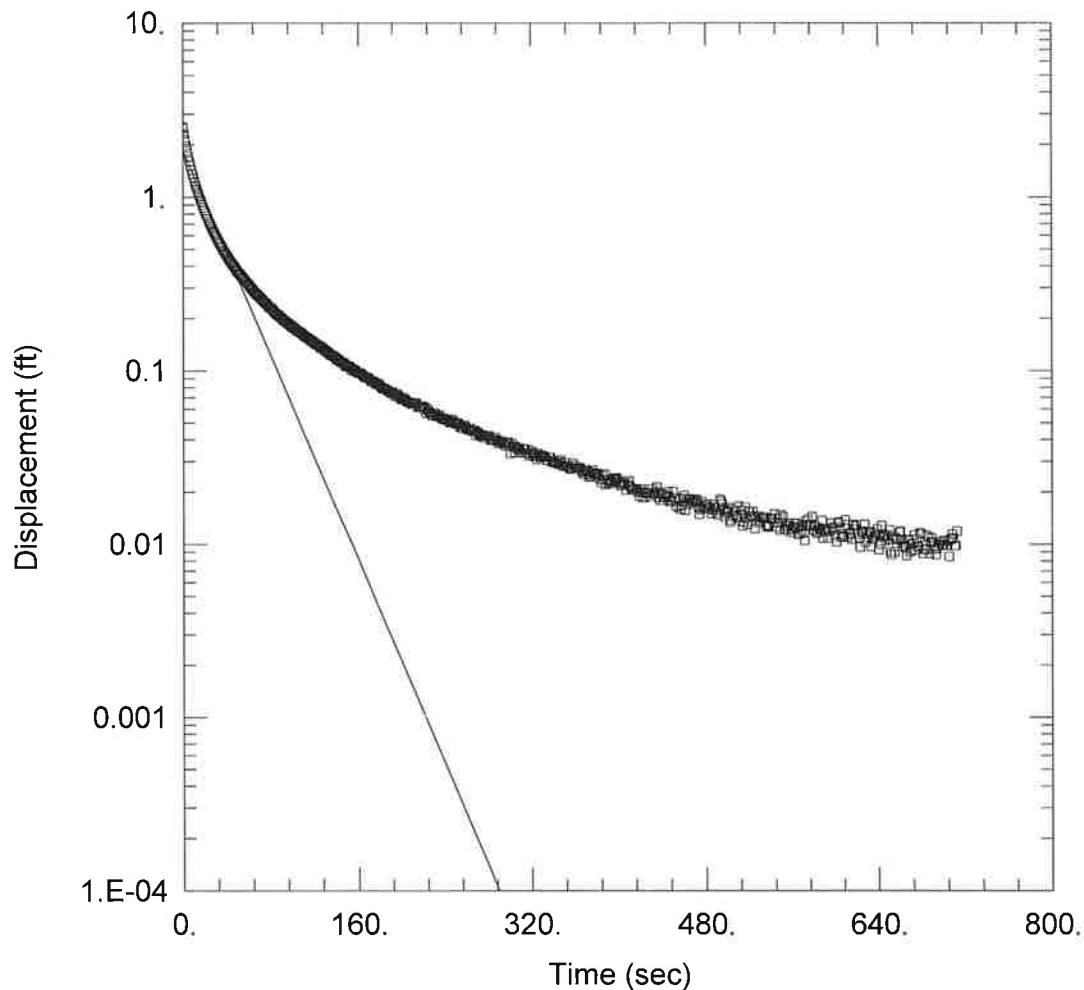
SOLUTION

Aquifer Model: Unconfined

$K = 0.01887$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 1.03$ ft



MW-13 SLUG OUT 3

Data Set: J:\...MW13_SlugOut3.aqt

Date: 05/17/13

Time: 16:14:20

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-13)

Initial Displacement: 2.5 ft

Wellbore Radius: 0.33 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 2. ft

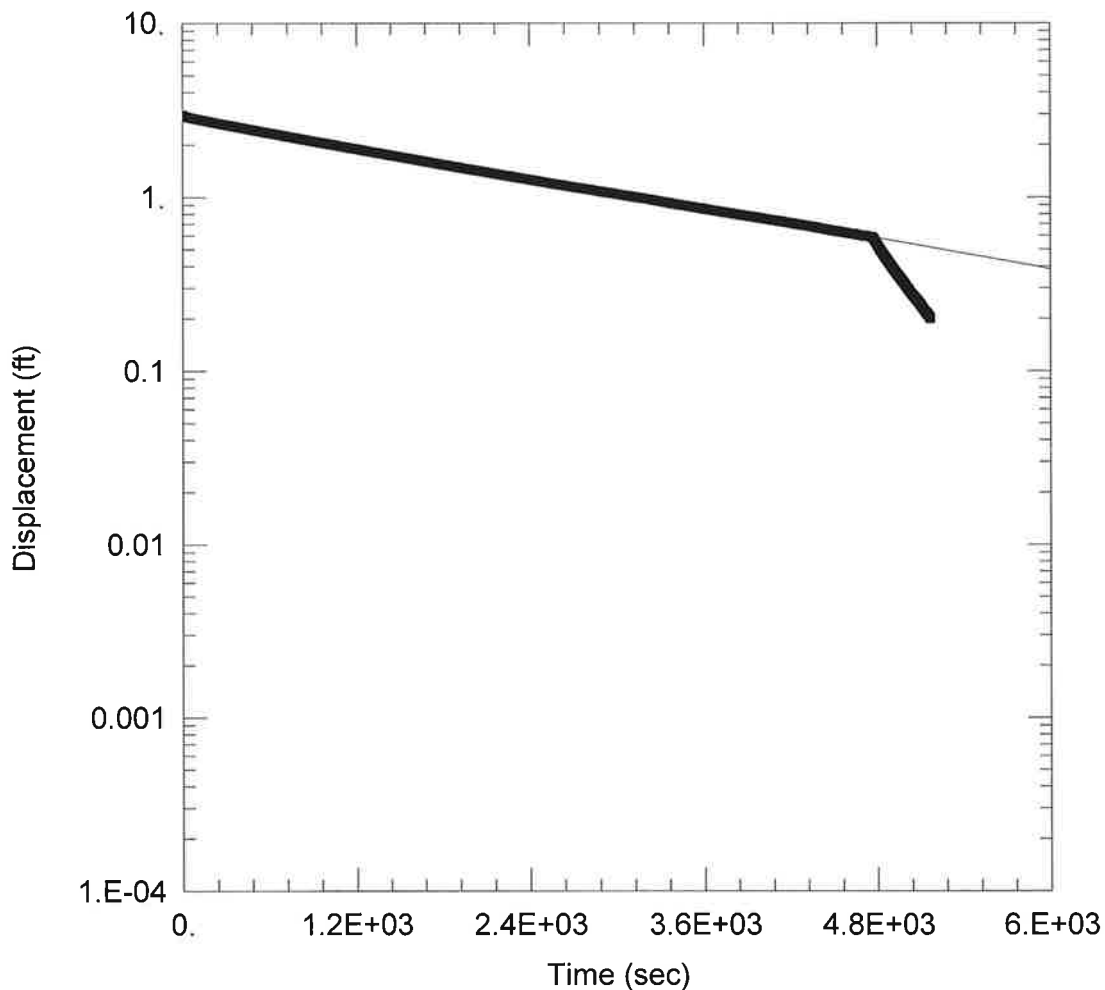
SOLUTION

Aquifer Model: Unconfined

$K = 0.009659$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 1.856$ ft



MW-14 SLUG OUT 1

Data Set: J:\...MW-14_SlugOut1.aqt

Date: 05/17/13

Time: 16:15:51

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-14)

Initial Displacement: 2.95 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 10. ft

Total Well Penetration Depth: 10. ft

Gravel Pack Porosity: 0.2

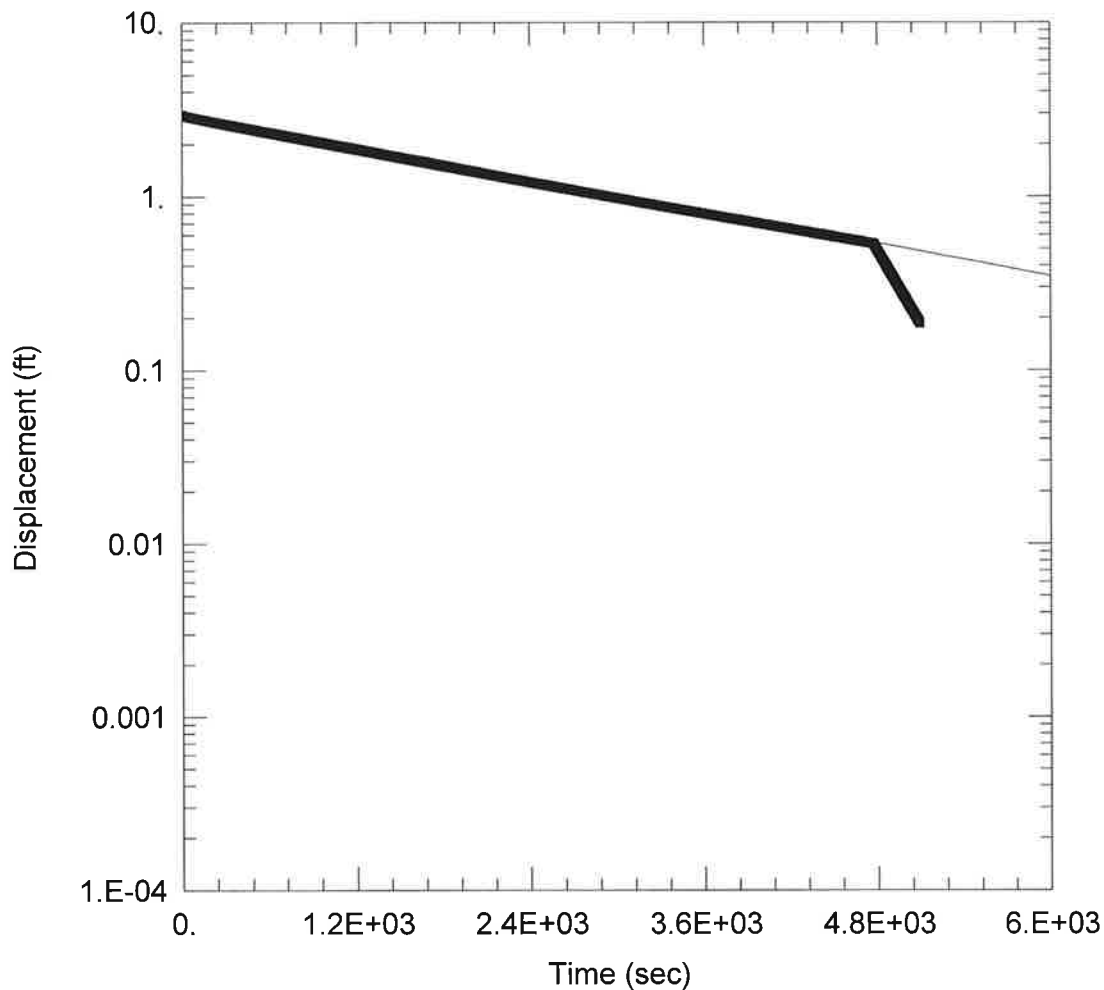
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.897E-05$ cm/sec

$y_0 = 3.027$ ft



MW-14 SLUG OUT 2

Data Set: J:\...\MW-14_SlugOut2.aqt

Date: 05/17/13

Time: 16:15:59

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-14)

Initial Displacement: 2.95 ft

Wellbore Radius: 0.33 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 10. ft

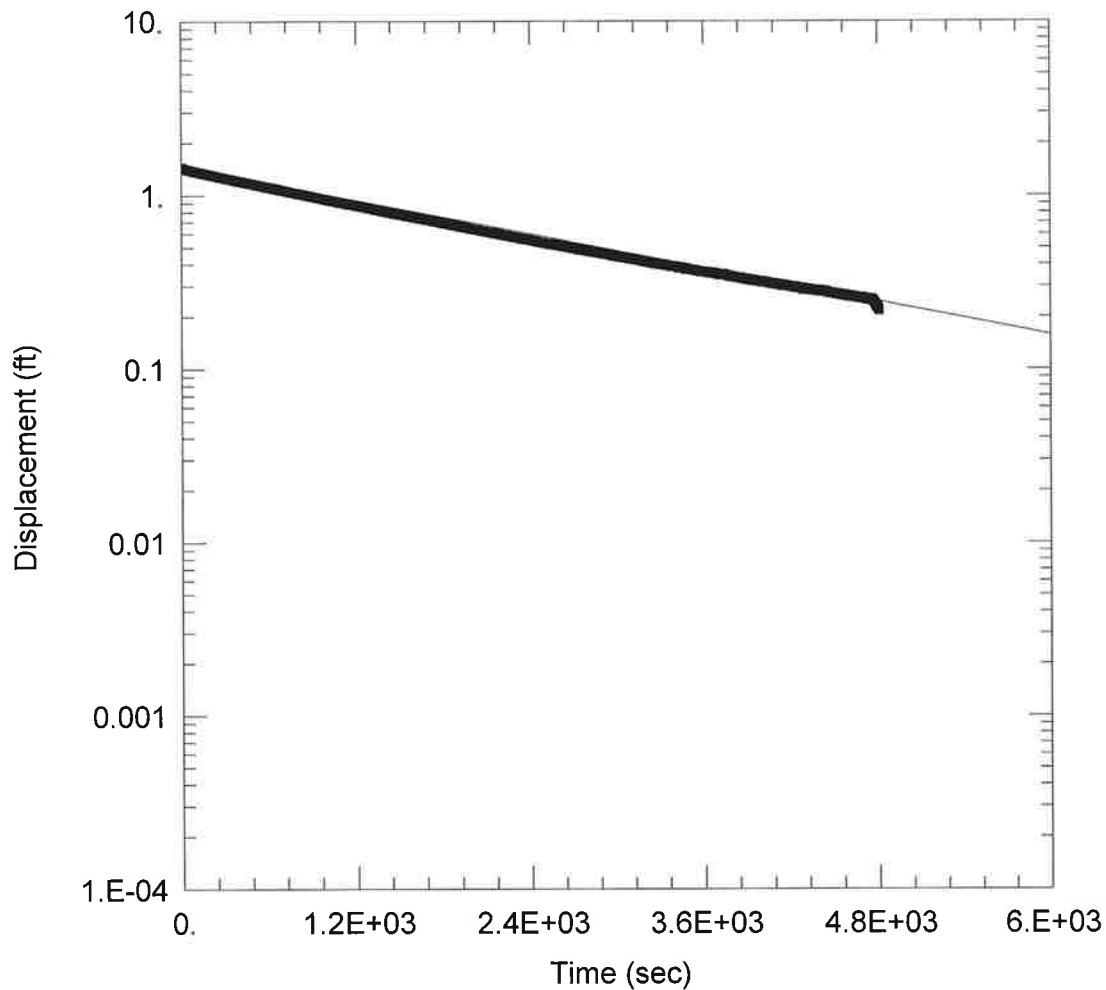
SOLUTION

Aquifer Model: Unconfined

$K = 4.147E-05$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 3.114$ ft



MW-14 SLUG OUT 3

Data Set: J:\...MW-14_SlugOut3.aqt

Date: 05/17/13

Time: 16:16:06

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-14)

Initial Displacement: 1.45 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 10. ft

Total Well Penetration Depth: 10. ft

Gravel Pack Porosity: 0.2

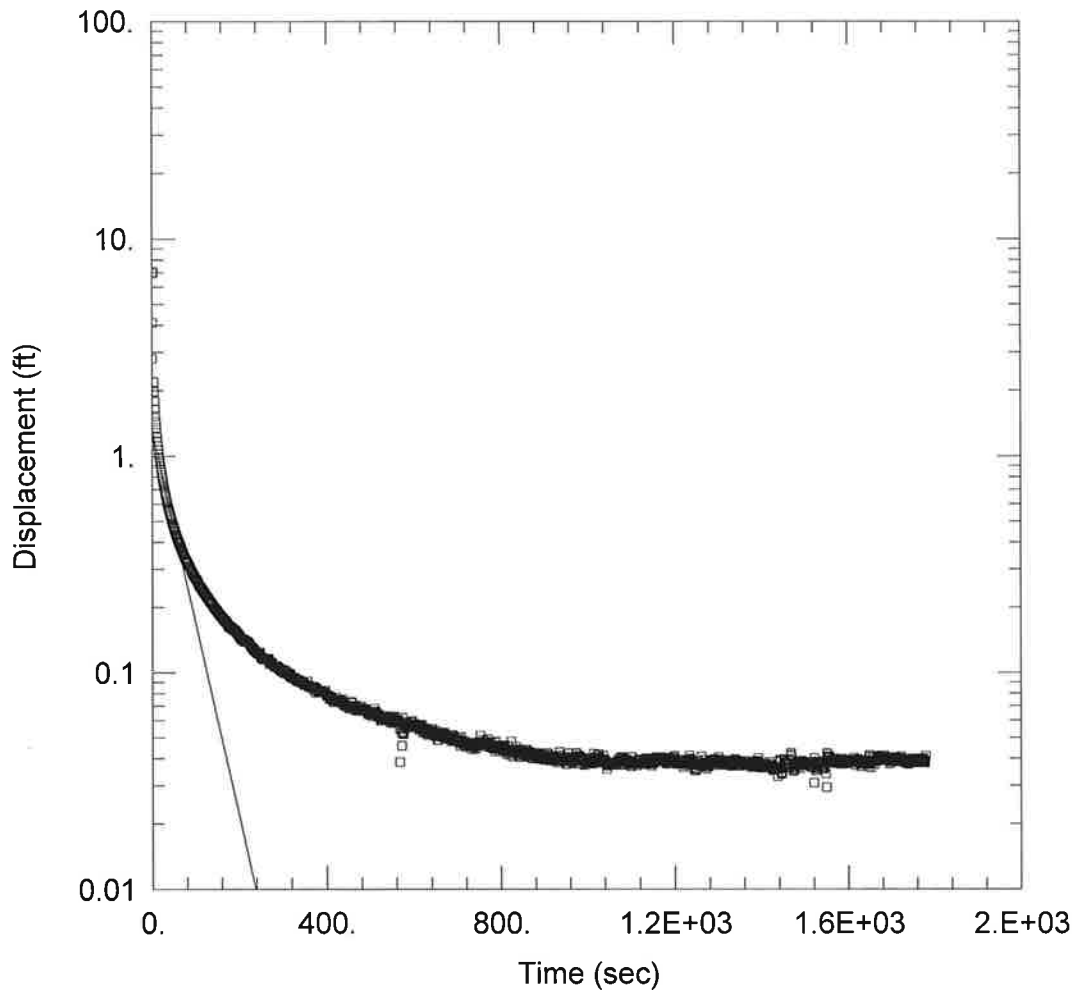
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 4.219E-05$ cm/sec

$y_0 = 1.463$ ft



MW-15 SLUG OUT 1 UNCONFINED

Data Set: J:\...MW-15 SlugOut1_unconfined.aqt

Date: 05/17/13

Time: 16:16:22

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 4.5 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15)

Initial Displacement: 2.82 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4.5 ft

Total Well Penetration Depth: 4.5 ft

Gravel Pack Porosity: 0.2

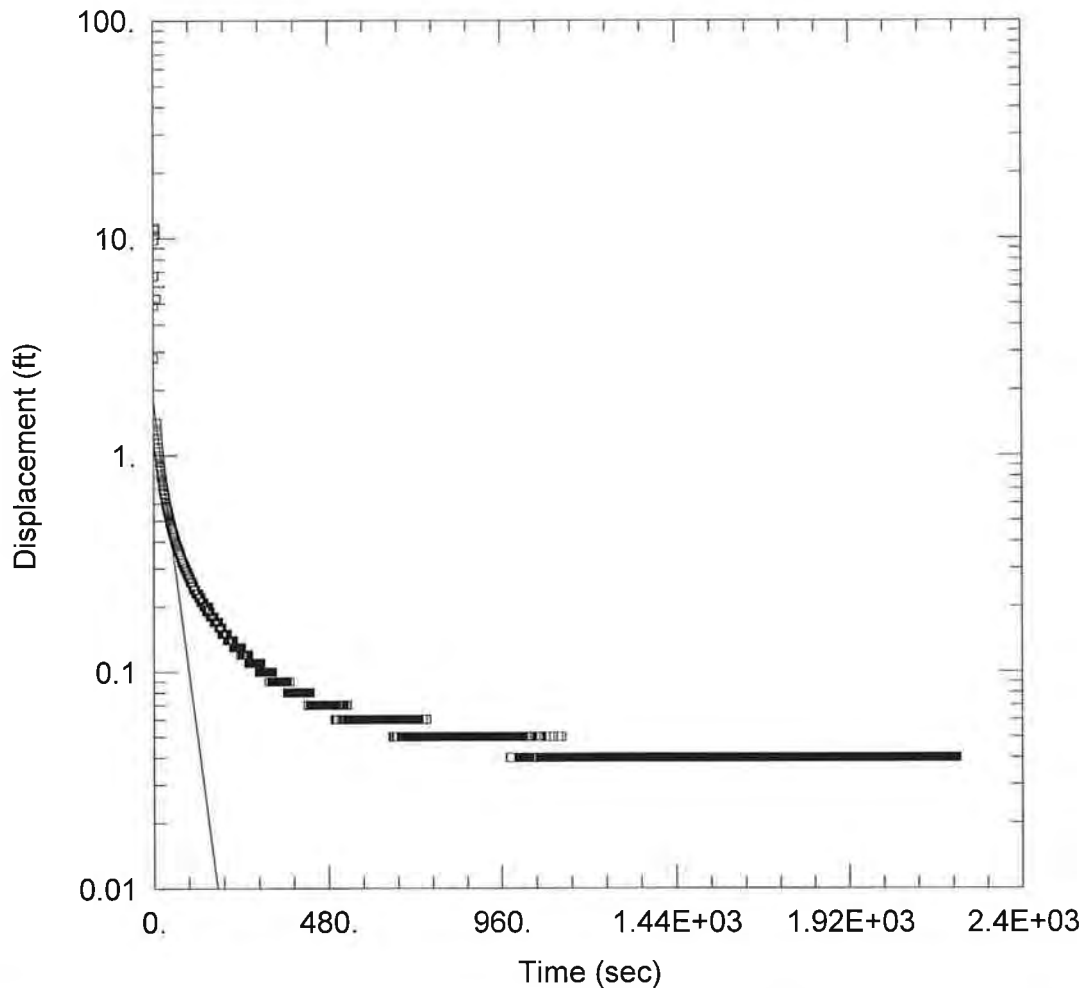
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.003794$ cm/sec

$y_0 = 1.309$ ft



MW-15 SLUG OUT 2 UNCONFINED

Data Set: J:\...\MW-15 SlugOut2 unconfined.aqt

Date: 05/17/13

Time: 16:16:39

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 4.5 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15)

Initial Displacement: 2.82 ft

Wellbore Radius: 0.33 ft

Screen Length: 4.5 ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 4.5 ft

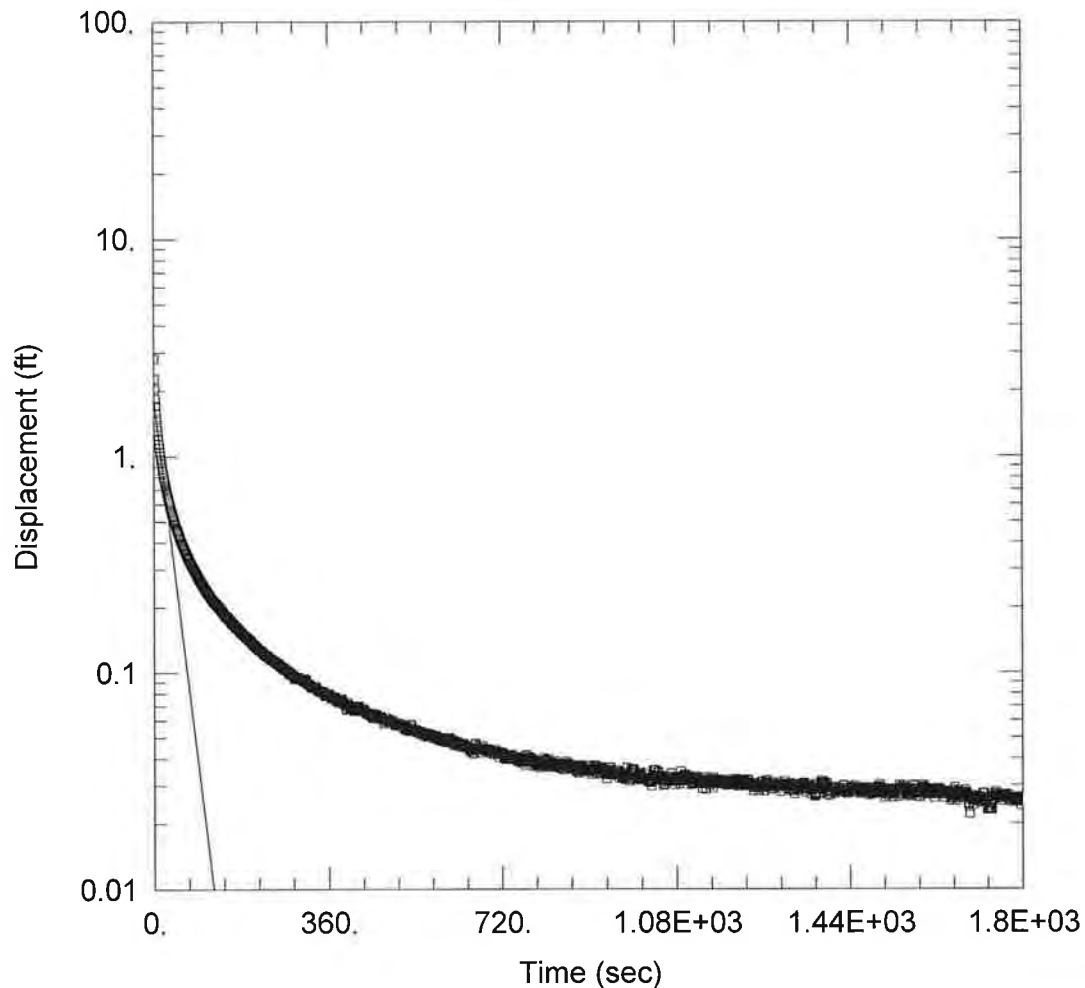
SOLUTION

Aquifer Model: Unconfined

$K = 0.005536$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 1.779$ ft



MW-15 SLUG OUT 3 UNCONFINED

Data Set: J:\...\MW-15_SlugOut3_unconfined.aqt

Date: 05/17/13

Time: 16:16:47

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 4.5 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15)

Initial Displacement: 2.82 ft

Wellbore Radius: 0.33 ft

Screen Length: 4.5 ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 4.5 ft

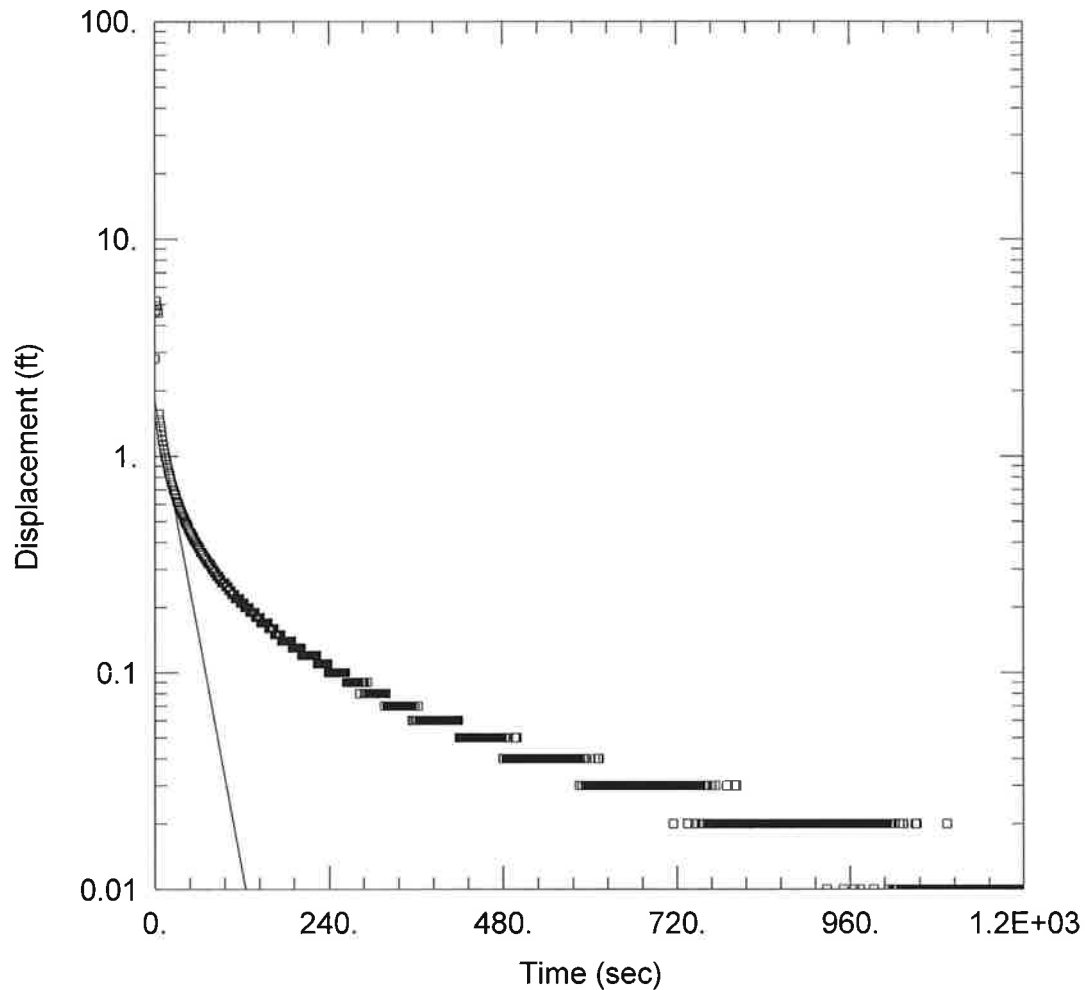
SOLUTION

Aquifer Model: Unconfined

$K = 0.007917$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 1.848$ ft



SLUG OUT 4 UNFCONFINED

Data Set: J:\...MW-15_SlugOut4_unfonfined.aqt

Date: 05/17/13

Time: 16:16:55

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 4.5 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15)

Initial Displacement: 2.82 ft

Wellbore Radius: 0.33 ft

Screen Length: 4.5 ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 4.5 ft

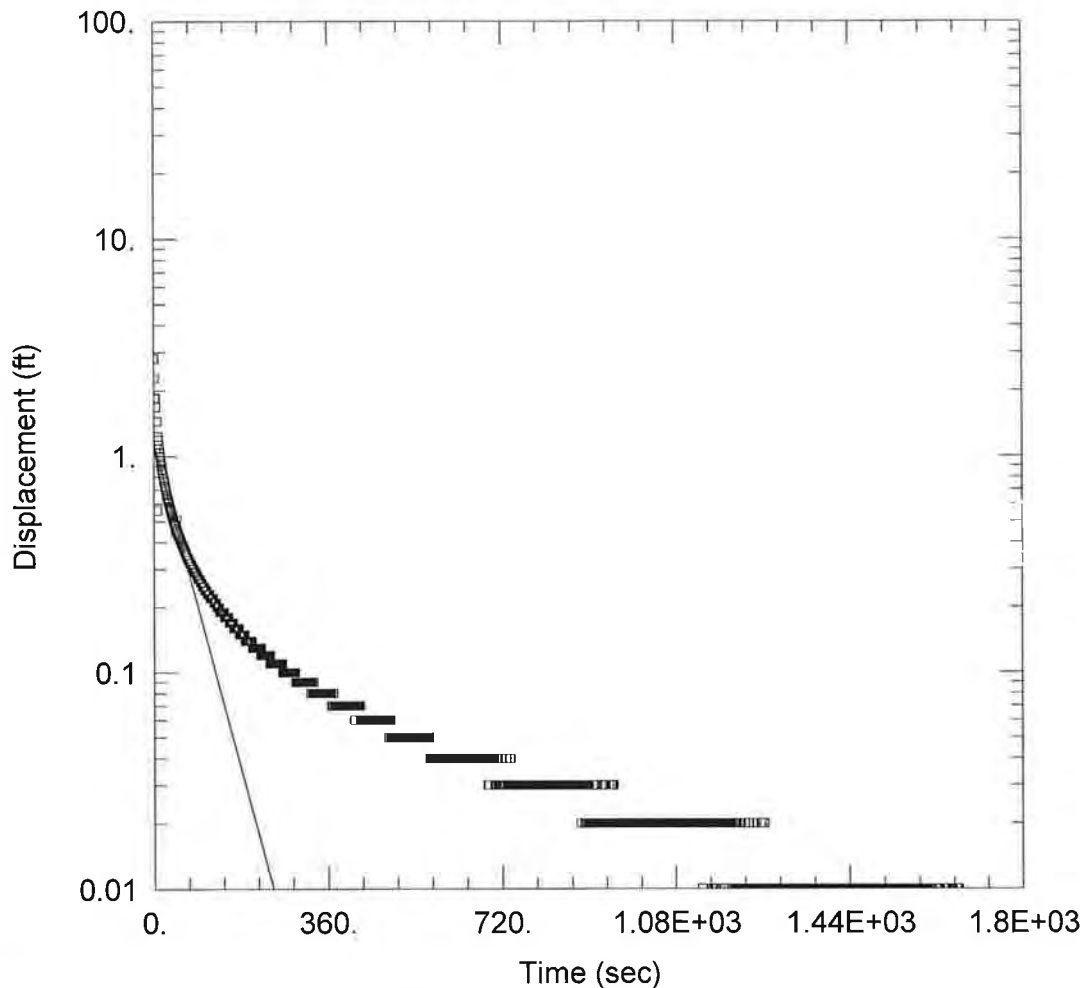
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.007719$ cm/sec

$y_0 = 1.802$ ft



SLUG IN 1 UNCONFINED

Data Set: J:\...MW-15_SlugIn1_unconfined.aqt

Date: 05/17/13

Time: 16:16:14

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-15

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 4.5 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15)

Initial Displacement: 2.82 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4.5 ft

Total Well Penetration Depth: 4.5 ft

Gravel Pack Porosity: 0.2

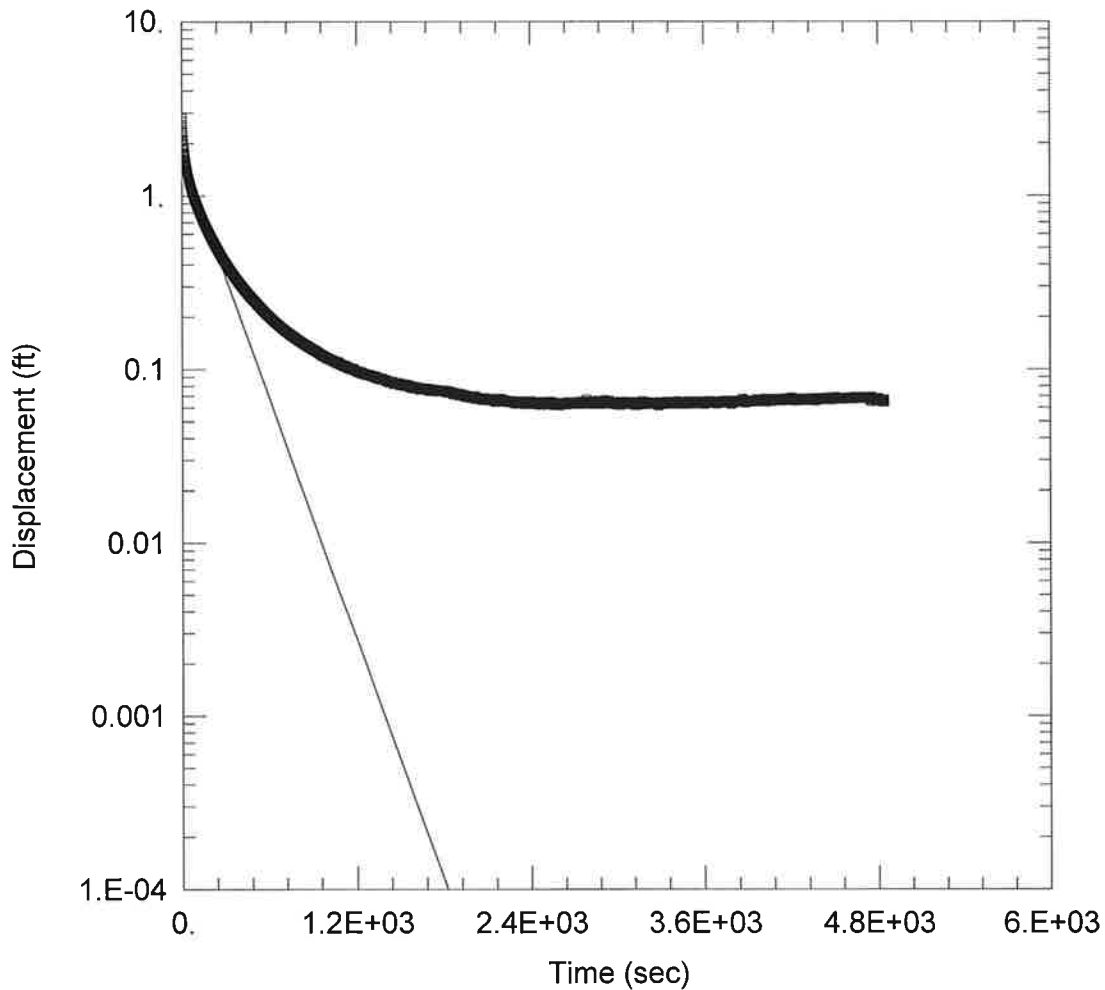
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.003563$ cm/sec

$y_0 = 1.145$ ft



MW-16S SLUG OUT 1

Data Set: J:\...MW16S_SlugOut1.aqt

Date: 05/17/13

Time: 16:14:31

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-16S)

Initial Displacement: 2.8 ft

Wellbore Radius: 0.33 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 2. ft

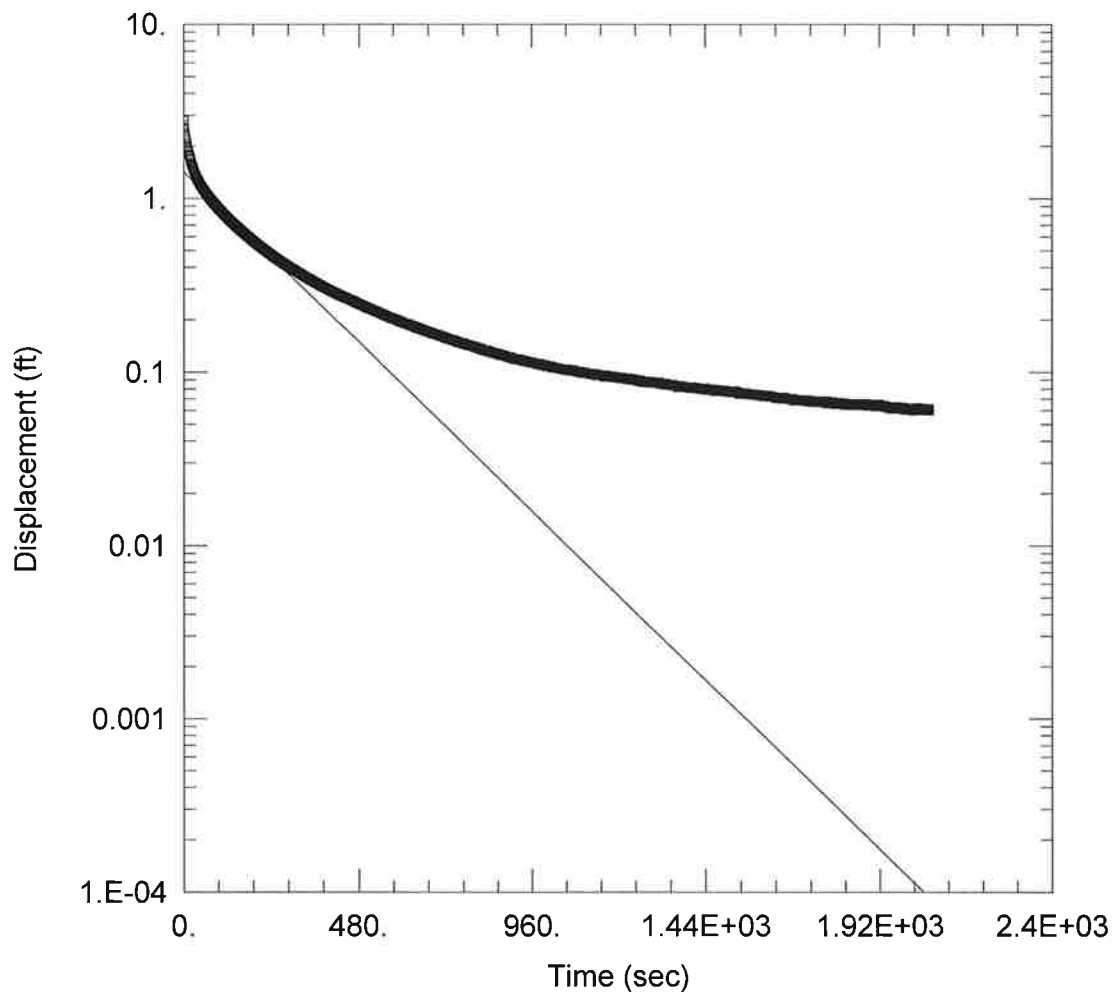
SOLUTION

Aquifer Model: Unconfined

$K = 0.00152$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 1.682$ ft



MW-16S SLUG OUT 2

Data Set: J:\...\MW16S_SlugOut2.aqt

Date: 05/17/13

Time: 16:14:59

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-16S)

Initial Displacement: 2.8 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 2. ft

Total Well Penetration Depth: 2. ft

Gravel Pack Porosity: 0.2

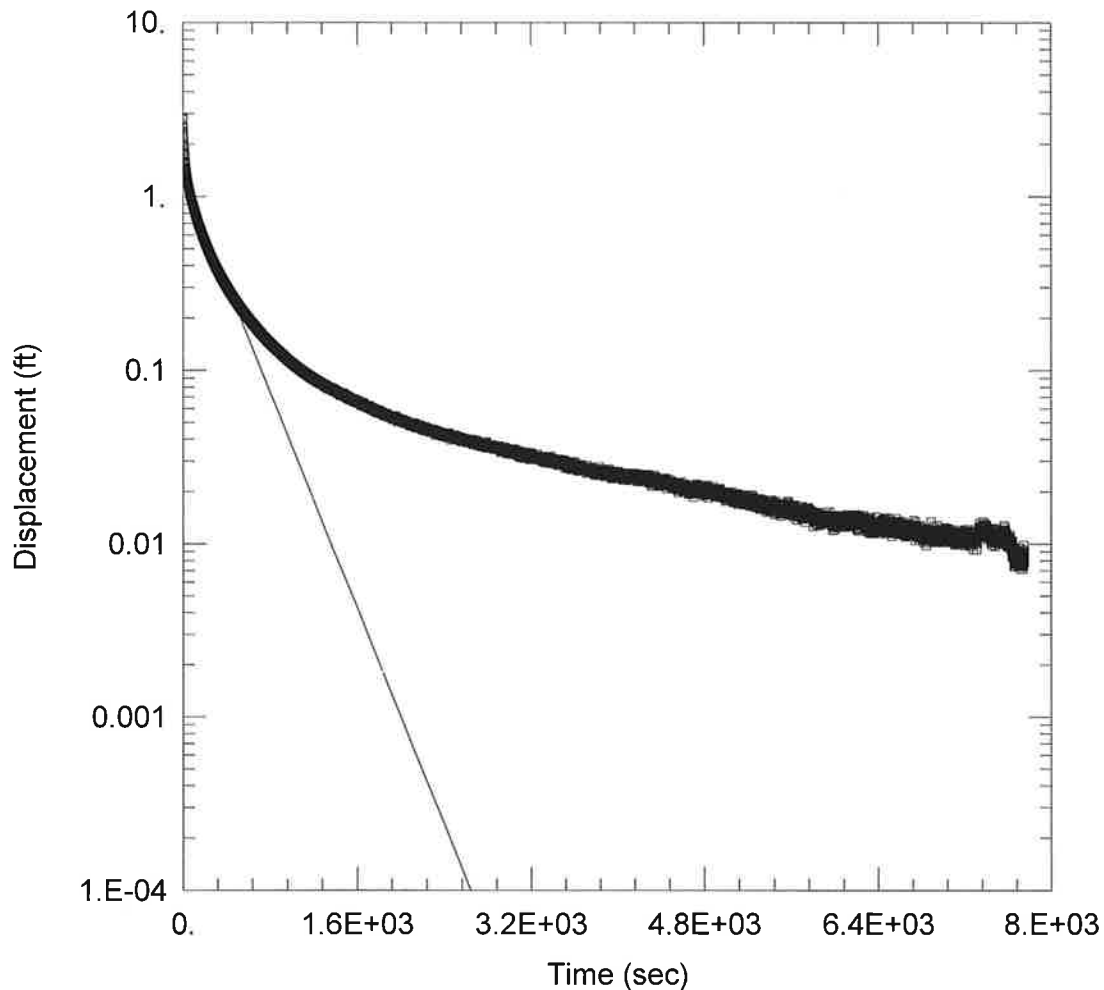
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.001333$ cm/sec

$y_0 = 1.415$ ft



MW-16S SLUG OUT 3

Data Set: J:\...MW16S_SlugOut3.aqt

Date: 05/17/13

Time: 16:15:09

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 2. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-16S)

Initial Displacement: 2.8 ft

Casing Radius: 0.17 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 2. ft

Total Well Penetration Depth: 2. ft

Gravel Pack Porosity: 0.2

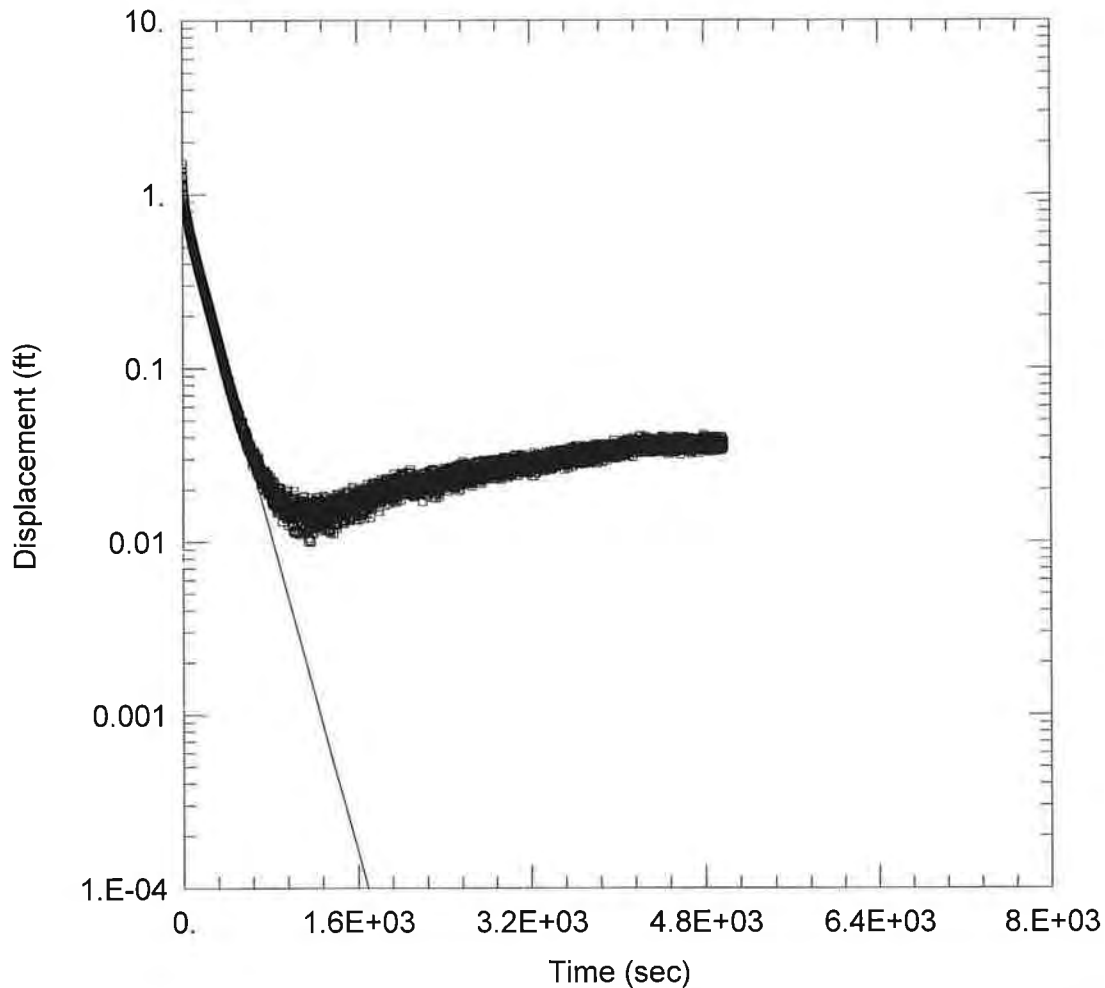
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.001024$ cm/sec

$y_0 = 1.35$ ft



MW-17 SLUG OUT 1

Data Set: J:\...\MW17 SlugOut1.aqt

Date: 05/17/13

Time: 16:15:17

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/14/2012

AQUIFER DATA

Saturated Thickness: 8. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-17)

Initial Displacement: 1.5 ft

Wellbore Radius: 0.33 ft

Screen Length: 8. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 8. ft

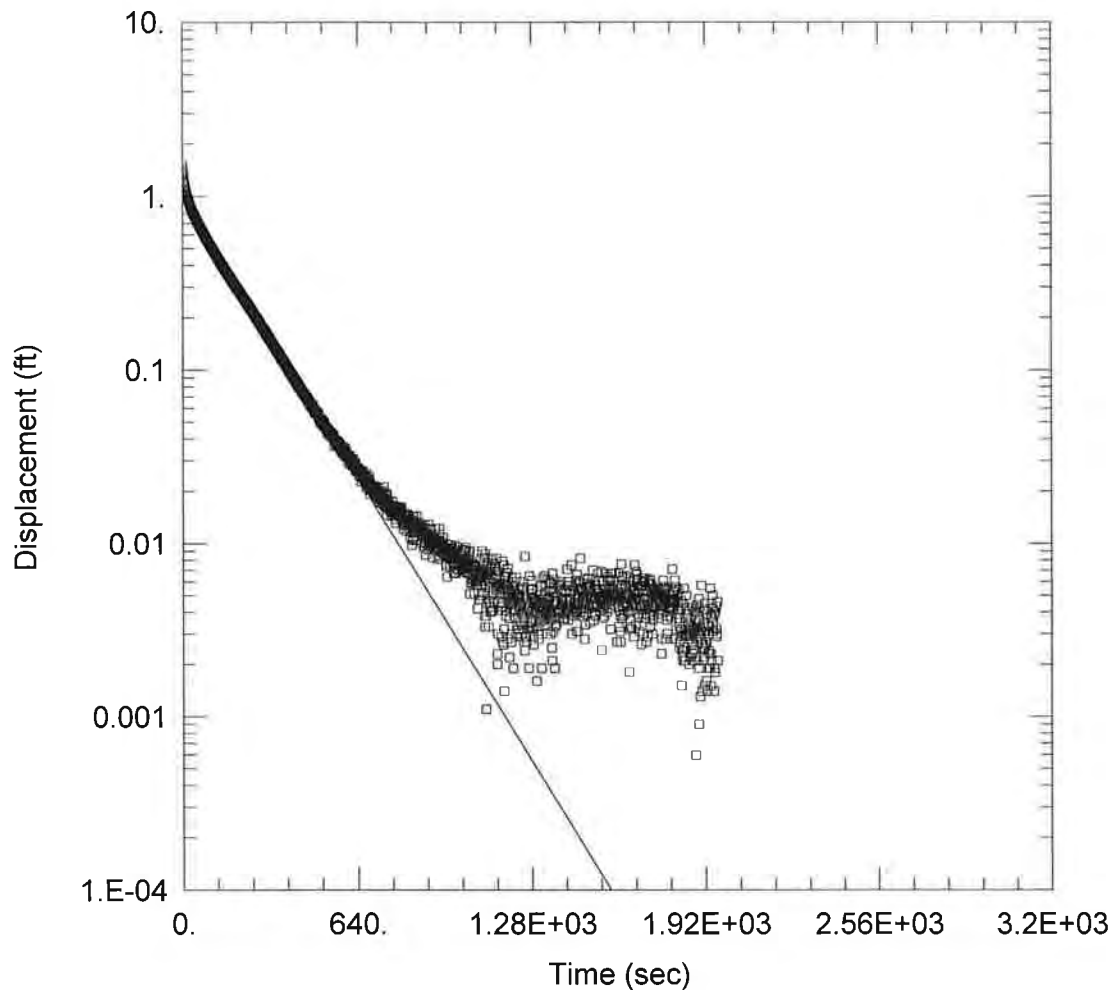
SOLUTION

Aquifer Model: Unconfined

$K = 0.0007008$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 0.8185$ ft



MW-17 SLUG OUT 2

Data Set: J:\...MW17_SlugOut2.aqt
 Date: 05/17/13

Time: 16:15:32

PROJECT INFORMATION

Company: PBW, LLC
 Client: Exide
 Test Location: Frisco Plant
 Test Well: MW-13
 Test Date: 5/14/2012

AQUIFER DATA

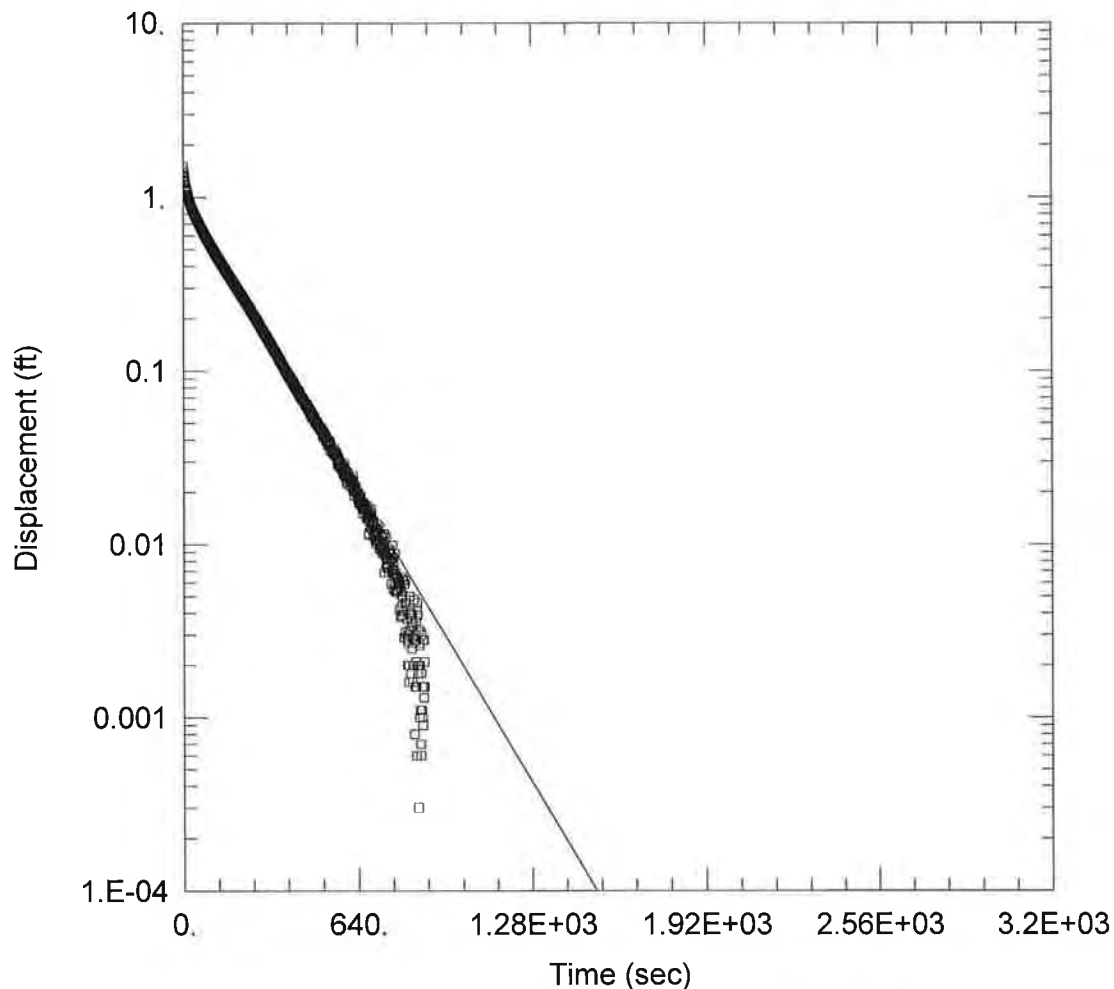
Saturated Thickness: 8. ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-17)

Initial Displacement: 1.5 ft Casing Radius: 0.17 ft
 Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
 Screen Length: 8. ft Total Well Penetration Depth: 8. ft
 Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.0007729$ cm/sec $y_0 = 1.03$ ft



MW-17 SLUG OUT 3

Data Set: J:\...MW17_SlugOut3.aqt

Date: 05/17/13

Time: 16:15:42

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-13

Test Date: 5/15/2012

AQUIFER DATA

Saturated Thickness: 8. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-17)

Initial Displacement: 1.5 ft

Wellbore Radius: 0.33 ft

Screen Length: 8. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.17 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 8. ft

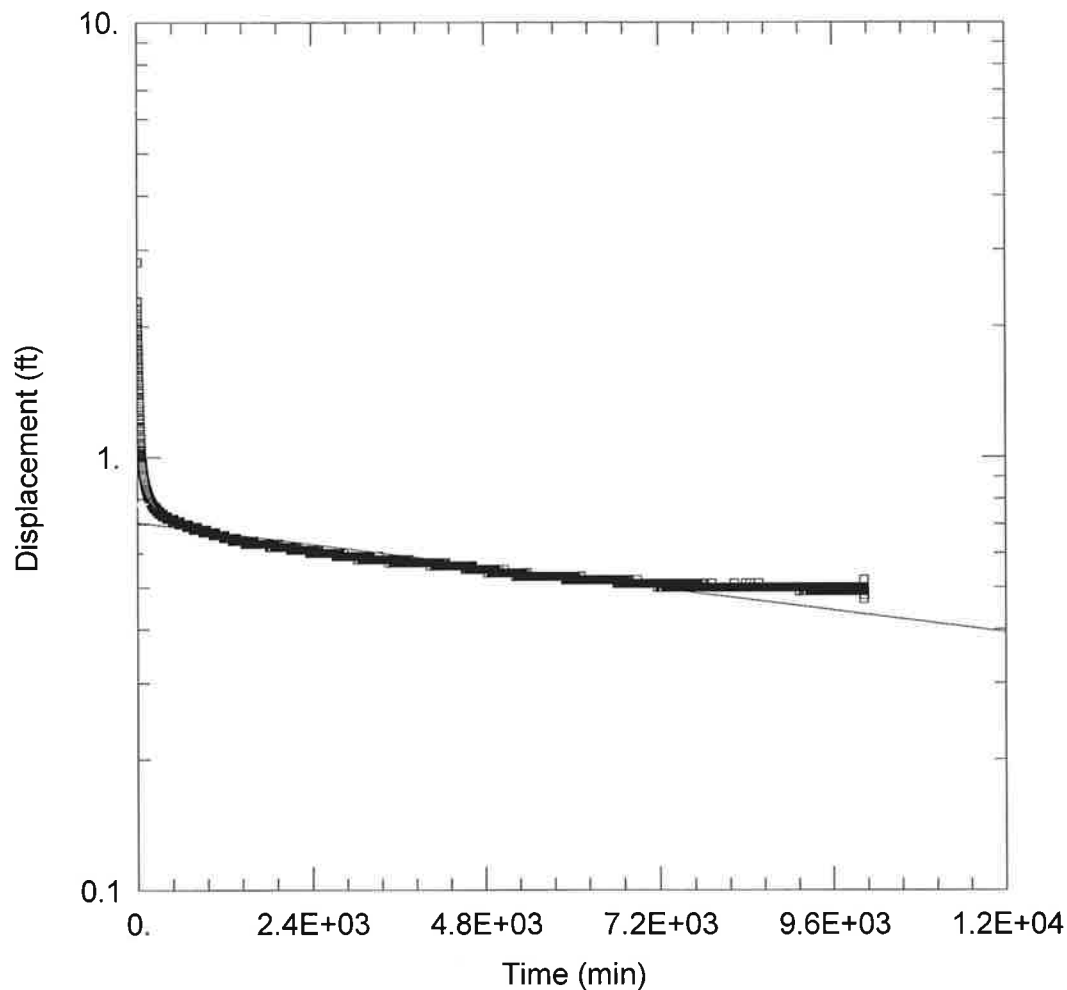
SOLUTION

Aquifer Model: Unconfined

$K = 0.0007977$ cm/sec

Solution Method: Bouwer-Rice

$y_0 = 1.003$ ft



MW-19 SLUG OUT 1

Data Set: J:\...MW-19 SlugOut1.aqt

Date: 05/17/13

Time: 16:17:17

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-19

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-19)

Initial Displacement: 2.81 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 10. ft

Total Well Penetration Depth: 10. ft

Gravel Pack Porosity: 0.2

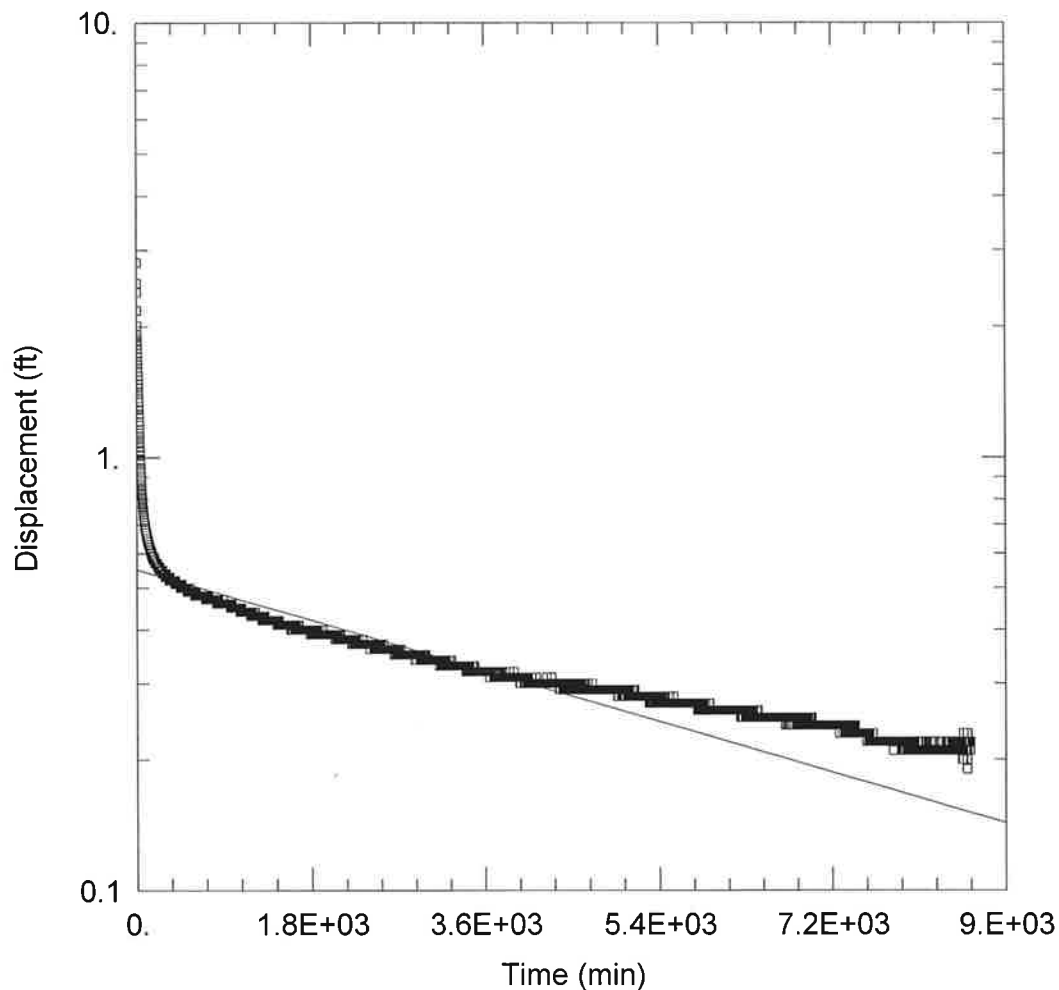
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 2.196E-08$ cm/sec

$y_0 = 0.7066$ ft



MW-19 SLUG OUT 2

Data Set: J:\...MW-19 SlugOut2.aqt

Date: 05/17/13

Time: 16:17:34

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-19

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 10. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-19)

Initial Displacement: 2.81 ft

Wellbore Radius: 0.33 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.2

Casing Radius: 0.083 ft

Well Skin Radius: 0.33 ft

Total Well Penetration Depth: 10. ft

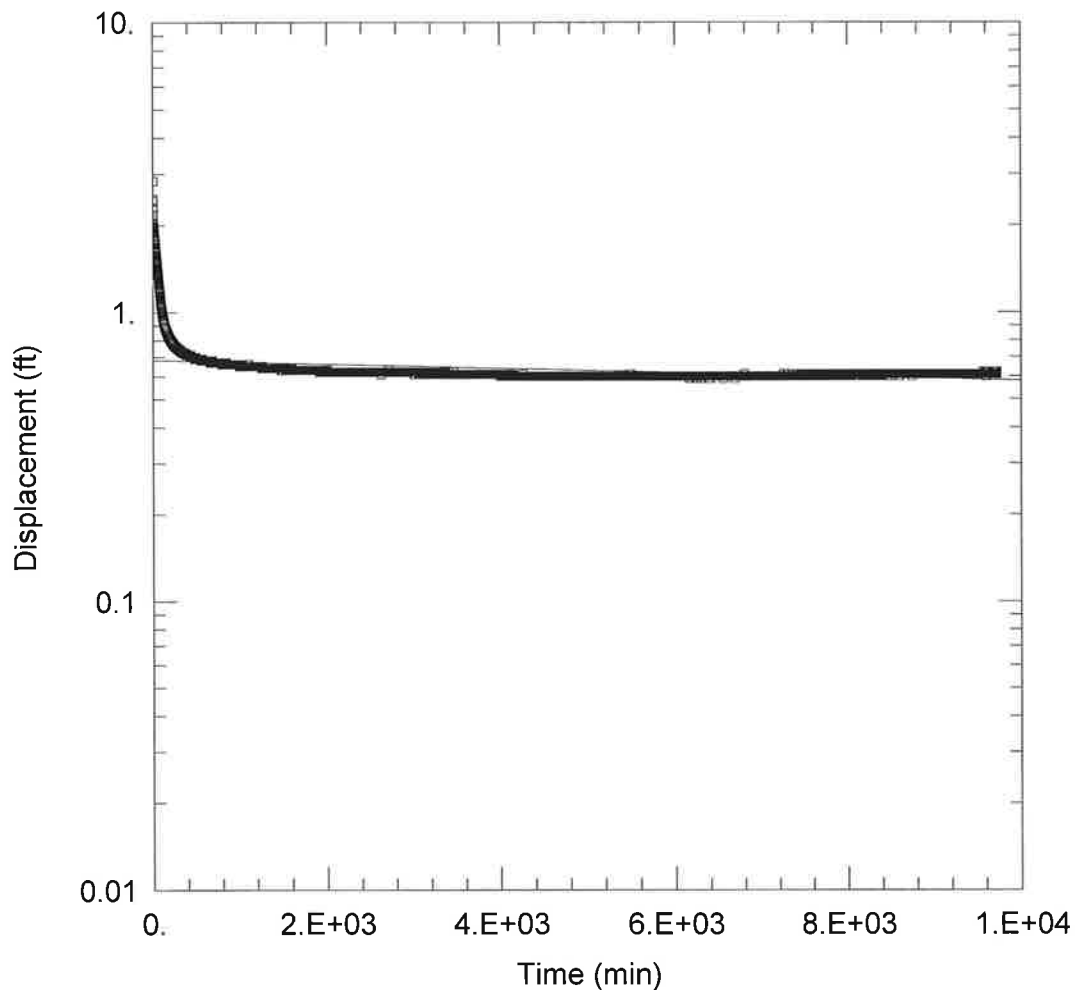
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 6.765E-08$ cm/sec

$y_0 = 0.5509$ ft



MW-20 SLUG OUT 1

Data Set: J:\...MW-20 Out1.aqt

Date: 05/17/13

Time: 16:17:43

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-20

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 9. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-20)

Initial Displacement: 2.84 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 9. ft

Total Well Penetration Depth: 9. ft

Gravel Pack Porosity: 0.2

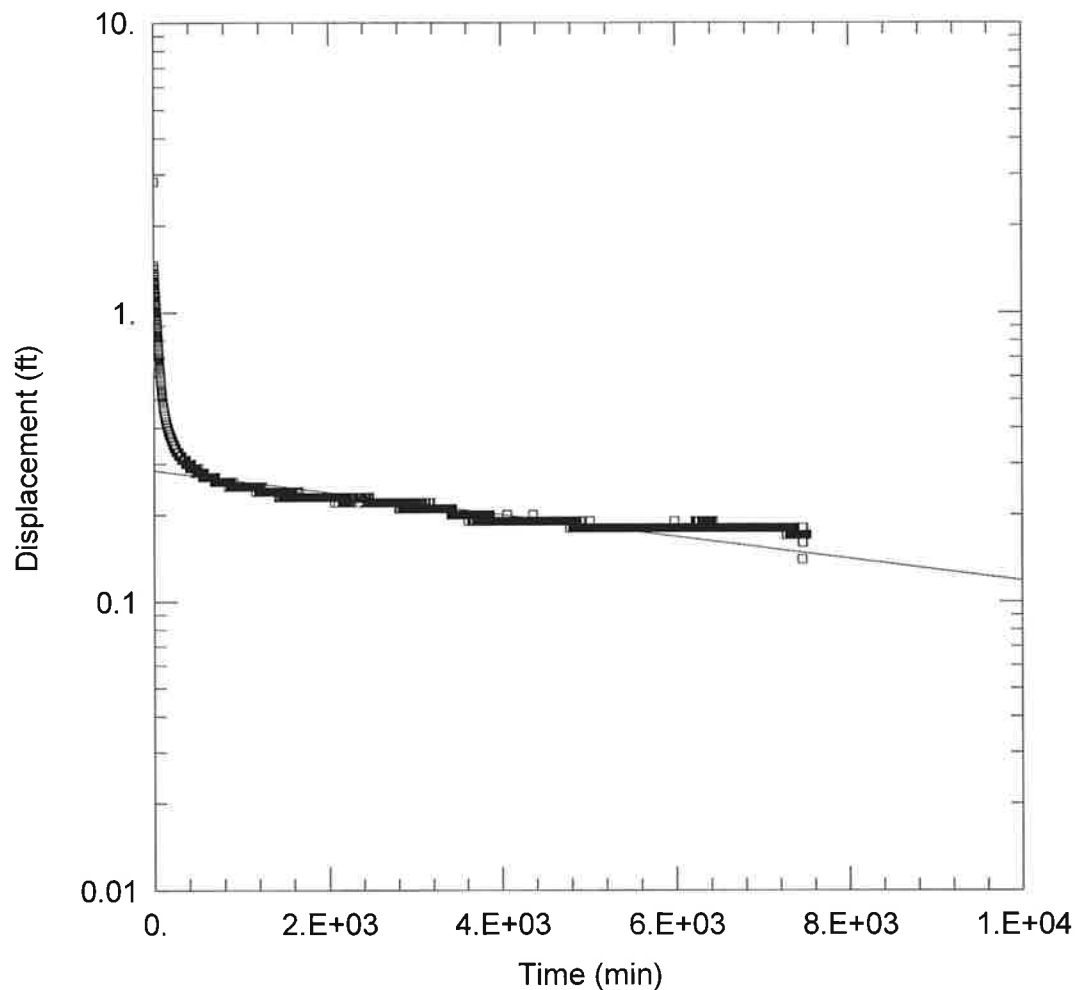
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 7.836E-09$ cm/sec

$y_0 = 0.6824$ ft



MW-20 SLUG OUT 2

Data Set: J:\...MW-20_Out2.aqt

Date: 05/17/13

Time: 16:17:50

PROJECT INFORMATION

Company: PBW, LLC

Client: Exide

Test Location: Frisco Plant

Test Well: MW-20

Test Date: 2/21/12

AQUIFER DATA

Saturated Thickness: 9. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-20)

Initial Displacement: 2.84 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 9. ft

Total Well Penetration Depth: 9. ft

Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 4.245E-08$ cm/sec

$y_0 = 0.2844$ ft

ATTACHMENT I
J&N (1995) SLUG AND PUMP TEST ANALYSIS

GNB TECHNOLOGIES

Frisco, Texas

Pumping Test Calculations LMW-17

July 25 & 26, 1995

$$\text{Transmissivity} = T = 264 (Q) / \Delta s$$

where:

$$Q = \text{Flow rate} = 8 \text{ GPM}$$

$$\Delta s = \text{drawdown per log cycle} = 0.19 \text{ foot}$$

therefore:

$$T = 264 (8) / 0.19$$

$$T = 11,116 \text{ gpd/ft}$$

$$T = Km$$

where:

$$T = \text{transmissivity} = 11,116 \text{ gpd/ft}$$

$$K = \text{the hydraulic conductivity}$$

$$m = \text{the aquifer thickness} = 4.5 \text{ feet}$$

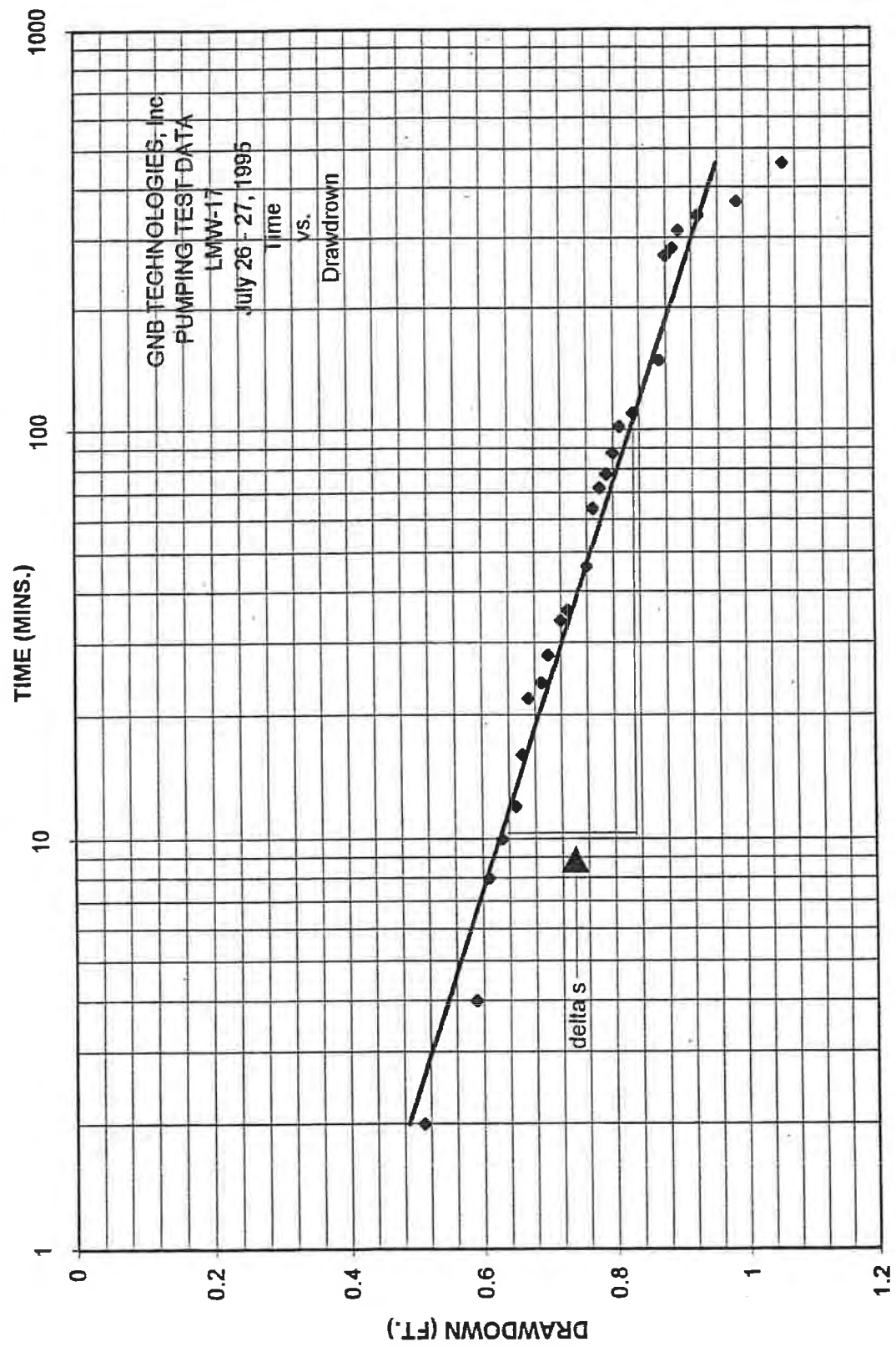
therefore:

$$K = T/m$$

$$K = 11,116 / 4.5$$

$$K = 2,470 \text{ gpd/ft} = 0.1165 \text{ cm/sec}$$

GNB PUMPING TEST LMW-17



RMT/JN REPORT
GNB TECHNOLOGIES, INC.

AUGUST 1995
FINAL COPY

Table 5-2

Summary of Slug Test Data
June 26, 1995
GNB Technologies, Inc., Frisco, Texas

Well #	Analysis Method	Hydraulic Conductivity (gpd/ft ²)	Hydraulic Conductivity (cm/sec)	Transmissivity (gpd/ft)	Material
MW-5	Cooper	719.25	3.4×10^{-2}	2877.12	Sand and Gravel
MW-7	Bouwer & Rice	4.321	2.0×10^{-4}	17.28	Clayey Gravel and Clay
MW-8	Bouwer & Rice	9.633	4.5×10^{-4}	27.74	Clayey Gravel and Clay
MW-9	Bouwer & Rice	0.047	2.2×10^{-6}	0.56	Clay



golder.com