GEOTECHNICAL DATA REPORT

For

PESCADITO ENVIRONMENTAL RESOURCE CENTER
TYPE I MUNICIPAL SOLID WASTE MANAGEMENT FACILITY
LAREDO, WEBB COUNTY, TEXAS
MSW PERMIT NO. 2374

Prepared for

CB&I
Dallas, Texas

On behalf of

RANCHO VIEJO WASTE MANAGEMENT, LLC

Prepared by

RABA KISTNER CONSULTANTS, INC.
San Antonio, Texas

PROJECT NO. ASF13-140-00

February 25, 2015

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1.0 INTRODUCTION

This Geotechnical Data Report (GDR) was prepared specifically to present a discussion of geotechnical testing and results for a municipal solid waste (MSW) permit application (MSW Permit No. 2374) for the proposed Pescadito Environmental Resource Center facility. As depicted on ***Figure 1 – Site Location Map***, the proposed facility is located within an approximate 12,194-acre ranch property, located about 18 miles east of Laredo and south of U.S. Highway 59 in rural south-central Webb County, Texas. Rancho Viejo Waste Management, LLC is seeking a MSW permit to construct a new Type I municipal solid waste management facility at the referenced site. The proposed facility is approximately 1,100 acres, which includes a municipal solid waste landfill facility (MSWLF) unit comprising approximately 800 to 850 acres.

Geotechnical exploration and testing activities reported herein were conducted by **Raba Kistner Consultants, Inc. (RKCI)** This GDR is intended to accompany the Subsurface Investigation Report (SIR) for this permit application that was prepared under a separate cover by our affiliate company **Raba Kistner Environmental, Inc. (RKEI)**.

2.0 FIELD EXPLORATION PROGRAM

The proposed facility is approximately 1,100 acres, although the area of the proposed Type I MSWLF will comprise approximately 800 to 850 acres. As described in more detail in the SIR for this permit application, the field exploration program, which formed the basis of the geotechnical data study for this site, was accomplished in four (4) phases by our affiliate company **RKEI** from November 2009 through January 2012.

Following completion of the most recent field exploration activities in January 2012, collective subsurface characterization activities within the proposed permit boundary area had been evaluated by a total of 57 exploratory soil borings, 19 piezometers, and 2 exploratory test pits at the locations shown on ***Figure 2 – Boring/Test Pit Location Map*** attached to this report.

As presented on ***Figure 2***, soil borings installed during preliminary study phases (Phases I and II) are designated as borings B-1 through B-26 (excluding B-9), whereas borings installed following TCEQ approval of the Soil Boring Plan (Phase III) are designated as borings B-9, B-101 through B-126, B-11A, B-109A, B-114A, and DB-1, respectively. Exploratory test pits designated as TP-1 and TP-2 were excavated in January 2012 (Phase IV).

2.1 STANDARD PENETRATION TEST (SPT)

The Standard Penetration Test (SPT) is a field procedure used to obtain disturbed samples and estimate relative density of granular material and consistency of cohesive material by driving a thick-walled sampler into the bottom of a boring at specific sampling intervals. The field test is expressed as blows per foot (BPF), which has been correlated with a variety of soil properties. A total of 29 SPTs were conducted in borings B-1 and B-2 and are presented on the boring logs provided in the SIR, ***Appendix B***.

2.2 POCKET PENETROMETER

A pocket penetrometer is a small handheld testing device used to estimate the consistency of cohesive soils. Pocket penetrometer results (as Shear Strength) for borings B-2 through B-27, B-103 through B-105, B-107 through B-126, B-11A, B-109A, B-114A, and DB-1 are shown on boring logs in ***Appendix B*** of the SIR. Pocket penetrometer measurements were not obtained at borings B-101, B-102, and B-106. Pocket Penetrometer results (as Shear Strength) are presented on ***Figures A-1 through A-78*** in ***Appendix A***, of this report.

3.0 LABORATORY TESTING

Laboratory testing was performed on selected samples of the soil strata encountered and recovered during our field exploration operations. Samples were selected for testing so that the engineering properties of at least one sample per soil stratum that may form the bottom or sides of potential excavations would be determined. Additional samples were tested to provide general information about each stratum.

Laboratory testing focused on classification, moisture content, and permeability testing specifically referenced in the TCEQ permitting requirements at 30 TAC §330.63(e)(5). Note that much of the classification testing was conducted on disturbed samples obtained from RotoSonic borings (Phases II and III). While disturbed samples are suitable for classification and moisture content testing, other geotechnical test results from RotoSonic samples should only be used for qualitative reference purposes. Undisturbed samples for all four strata identified in the SIR were subsequently obtained from the test pits (Phase IV) and tested for classification, moisture content, and permeability. The sections below provide a more detailed description of testing and the results.

3.1 CLASSIFICATION TESTS

Index testing such as Atterberg Limits and the percentage passing, the No. 200 sieve, were used to classify soils in accordance with ASTM Standard Test Methods D4318 and D1140, respectively. Classification tests were assigned to each soil strata visually identified during field sampling and logging to assist in the interpretation and presentation of final boring logs. In addition, classification tests were assigned to all advanced testing, (e.g., permeability). Classification test results are useful as correlative tools for other properties such as permeability. Classification tests were conducted on samples collected from each stratum (I through IV) identified in the SIR. The results of the classification tests are presented on ***Figures A-1 through A-78*** in ***Appendix A*** of this report.

3.2 MOISTURE CONTENT TESTS

Natural moisture content tests were performed in accordance with ASTM Standard Test Method D2216. Moisture content results, when combined with classification testing results, are useful as performance indicators of cohesive soils such as estimating the shrink or swell potential of cohesive materials. Moisture content tests were conducted on samples collected from each stratum (I through IV) identified in the SIR. The results of the moisture content tests are presented on ***Figures A-1 through A-78*** in ***Appendix A*** of this report.

3.3 PERMEABILITY TESTS

Permeability (hydraulic conductivity) tests were conducted in accordance with ASTM Standard Test Method D5084, Method C or falling head procedures using de-aired tap water. Permeability tests were assigned to relatively undisturbed samples obtained at test pits TP-1 and TP-2. Permeability tests were conducted on samples collected from each stratum (I through IV) identified in the SIR. Samples from Strata I through IV were tested on their horizontal axis as they represent the sidewall of the proposed landfill excavation. Additionally, a sample of Stratum IV was tested along the vertical axis to represent the bottom of the proposed landfill excavation. A summary of the permeability test results are presented in tabular form on ***Figure B-1*** in ***Appendix B*** of this report. In addition, a detailed summary and graphical presentation of each hydraulic conductivity test is provided as ***Figures B-2 through B-19*** in ***Appendix B*** of this report. Note that the majority of permeability tests were performed for horizontal flow paths; the sample trimmed for a vertical flow path is indicated with "-V" as the sample number suffix on ***Figures B-16 and B-17***.

4.0 STRATIGRAPHY AND SOIL PROPERTIES

The following sections address the generalized stratigraphy observed in the borings and test pit excavations performed for this study, potential uses of materials that may be excavated during construction, and typical properties of those materials. The majority of laboratory test results are presented in graphical and numerical form on the borings logs presented in ***Appendix C*** of the SIR.

4.1 GENERALIZED STRATIGRAPHY

The subsurface conditions encountered at the boring locations are shown on the boring logs presented in ***Appendix B*** of the SIR. The boring logs should be consulted for boring specific (detailed) stratigraphic information. These boring logs represent our interpretation of the subsurface conditions based on the field logs, visual examination of field samples by our personnel, and laboratory test results of selected field samples. Each stratum has been designated by grouping soils that possess similar physical and engineering characteristics. The lines designating the interfaces between strata on the boring logs represent approximate boundaries. Transitions between strata may be gradual.

Generalized soil profiles corresponding to geologic (stratigraphic) fence diagrams included as ***Figures 4 through 13*** of the SIR present the soil type, layer thickness, and depth to water are also presented on ***Figures C-1 through C-10*** in ***Appendix C*** of this report. An index map is provided as ***Figure 3 – Fence Diagram Index Map***. These profiles depict that the majority of soils observed in the borings were cohesive in nature and the granular inclusions were sporadic and discontinuous across the site.

As presented on the referenced figures, the stratigraphic units have been designated at the site based upon review and interpretation of boring logs and geologic sections, in addition to consideration of down hole geophysical logging data, and test pit information and photographs. In general, the soils observed within the borings and test pits performed for this study are predominately cohesive in nature. Fat clays (CH) and lean clays (CL) are predominant and were observed in about 95.5% of the samples obtained during drilling operations. Test pit observations were similar. The remaining 4.5% of samples included about 2.5% cemented soils and about 2% "granular" soils. The cemented soils included thin layers of siltstones, claystones, and clay shales. Thick layers of sandstones were observed in the relatively deep

boring DB-1. The types of "granular" soils observed included silts (ML and MH), poorly graded sands (SP), clayey sands (SC), and silty sands (SM).

4.2 SOIL PROPERTIES

A graphical summary of the engineering properties for each of the four soil strata described above are presented on ***Figures C-11 through C-14*** in ***Appendix C*** of this report. The results of Atterberg Limits testing, specifically the Liquid Limit and the Plastic Limit have been presented in the first column/graph of these graphical summaries. Atterberg Limit testing includes Liquid Limits, Plastic Limits, and a resultant Plasticity Index. The Plasticity Index (PI) is simply the numerical difference between the Liquid and Plastic Limits. The PI is used in soil classification and also commonly used as a correlative tool for estimating volume change (shrink/swell), soil shear strength, and even permeability characteristics. Results of laboratory tests indicate that about 89% of samples tested for plasticity have a PI greater than 20.

The second column/graph presented on ***Figures C-11 through C-14*** presents the results of moisture content testing. As depth increases, the range of moisture variation decreases.

The last column/graph presents a comparison of the information presented in the first two columns/graphs. That is, the measured Plastic Limit less the corresponding measured moisture content. On the basis of these results, the in-situ moisture conditions are consistently dryer than the soil's plastic limit, indicating:

- soils are significantly desiccated,(i.e., very dry in their present condition).
- soils could experience significant swell with increases in moisture content.
- soils are generally overconsolidated.

5.0 CONCLUSIONS

In general, the subsurface soils encountered in this study are predominately cohesive (clayey) in nature. Fat clays (CH) and lean clays (CL) are predominant and were observed in about 95.5% of the samples obtained during drilling operations. Test pit observations were similar. The remaining 4.5% of samples included about 2.5% cemented soils and about 2% "granular" soils. The cemented soils included thin layers of siltstones, claystones, and clay shales. Thick layers of sandstones were observed in the relatively deep boring DB-1. The types of "granular" soils observed included silts (ML and MH), poorly graded sands (SP), clayey sands (SC), and silty sands (SM).

The cohesive soils encountered in the borings and test pits were stiff to hard in consistency, and appear overconsolidated, (i.e., "stiff, fissured clays"). The presence of stiff, fissured clays, and their associated strength characteristics, should be accounted for in the facility design.

The cohesive soils were also highly plastic while the natural moisture contents were seven to eight percentage points (on average) below the soil plastic limit. These conditions result in a potential for shrink/swell movements with changes in the moisture content. There is a significant swell potential of the highly plastic clay with the increase in the soil moisture contents. The shrink or swell potential of the predominantly clayey soils should be accounted for in the facility design.

6.0 REFERENCES

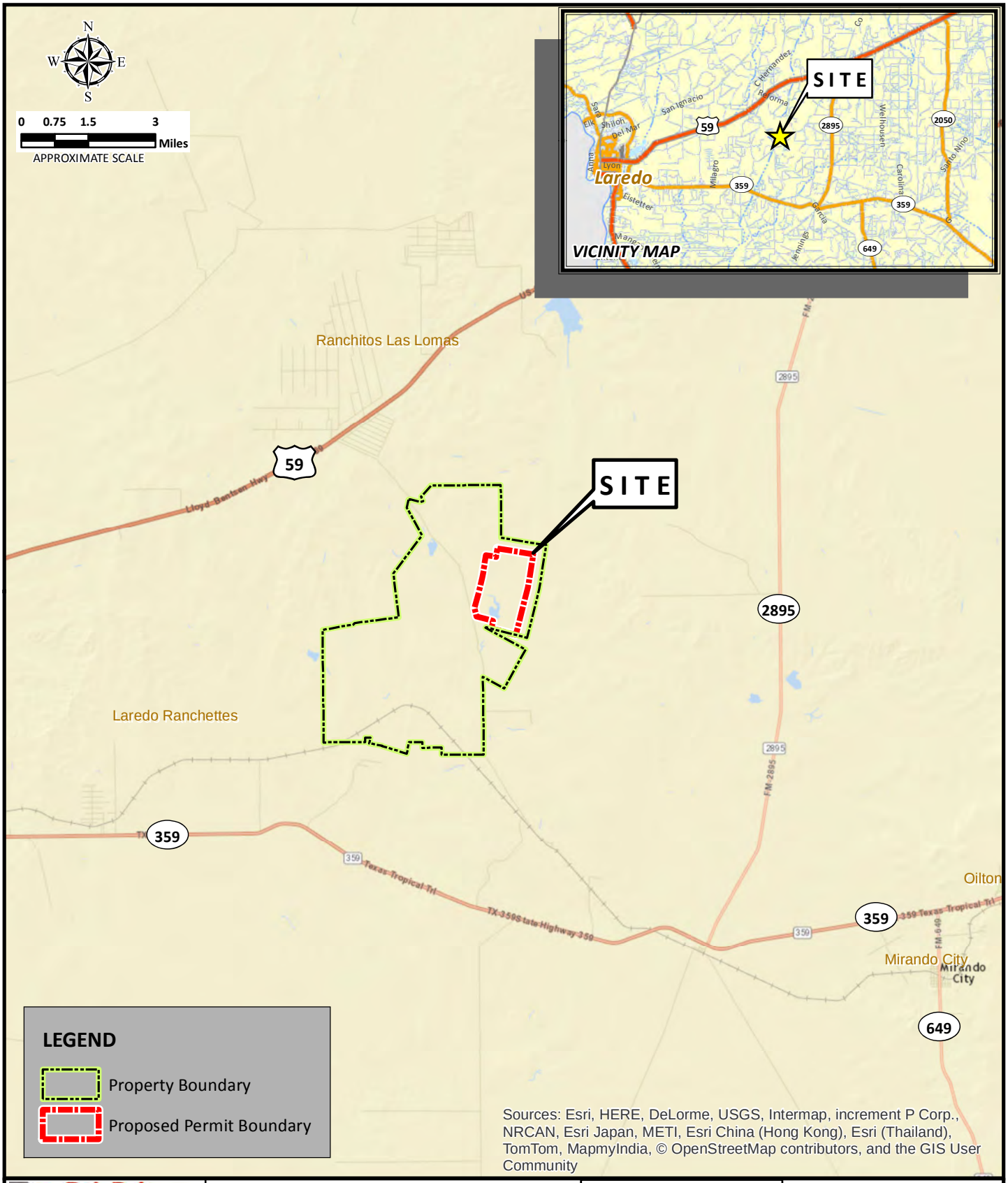
1. ASTM Standard Test Methods

ASTM Standard	Description	Latest Revision *
D1140	Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75-µm) Sieve	2006
D2216	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass	2010
D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils	2010
D5084	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	2010

* Latest revisions to the referenced Standards as of November 21, 2013.

ATTACHMENTS

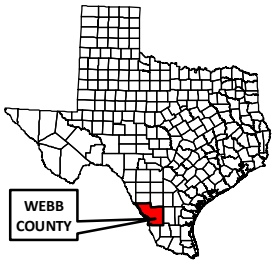
FIGURES



RABA KISTNER ENVIRONMENTAL
Raba Kistner Environmental, Inc.
12821 West Golden Lane
San Antonio, Texas 78249
www.rkci.com
P 210 :: 699 :: 9090
F 210 :: 699 :: 6426
TBPE Firm F-3257

SITE LOCATION MAP

PESCADITO ENVIRONMENTAL RESOURCE CENTER
TYPE I MSW MANAGEMENT FACILITY
RANCHO VIEJO WASTE MANAGEMENT, LLC
WEBB COUNTY, TEXAS
MSW PERMIT NO. 2374



PROJECT No.:	ASF13-140-00
ISSUE DATE:	02-25-15
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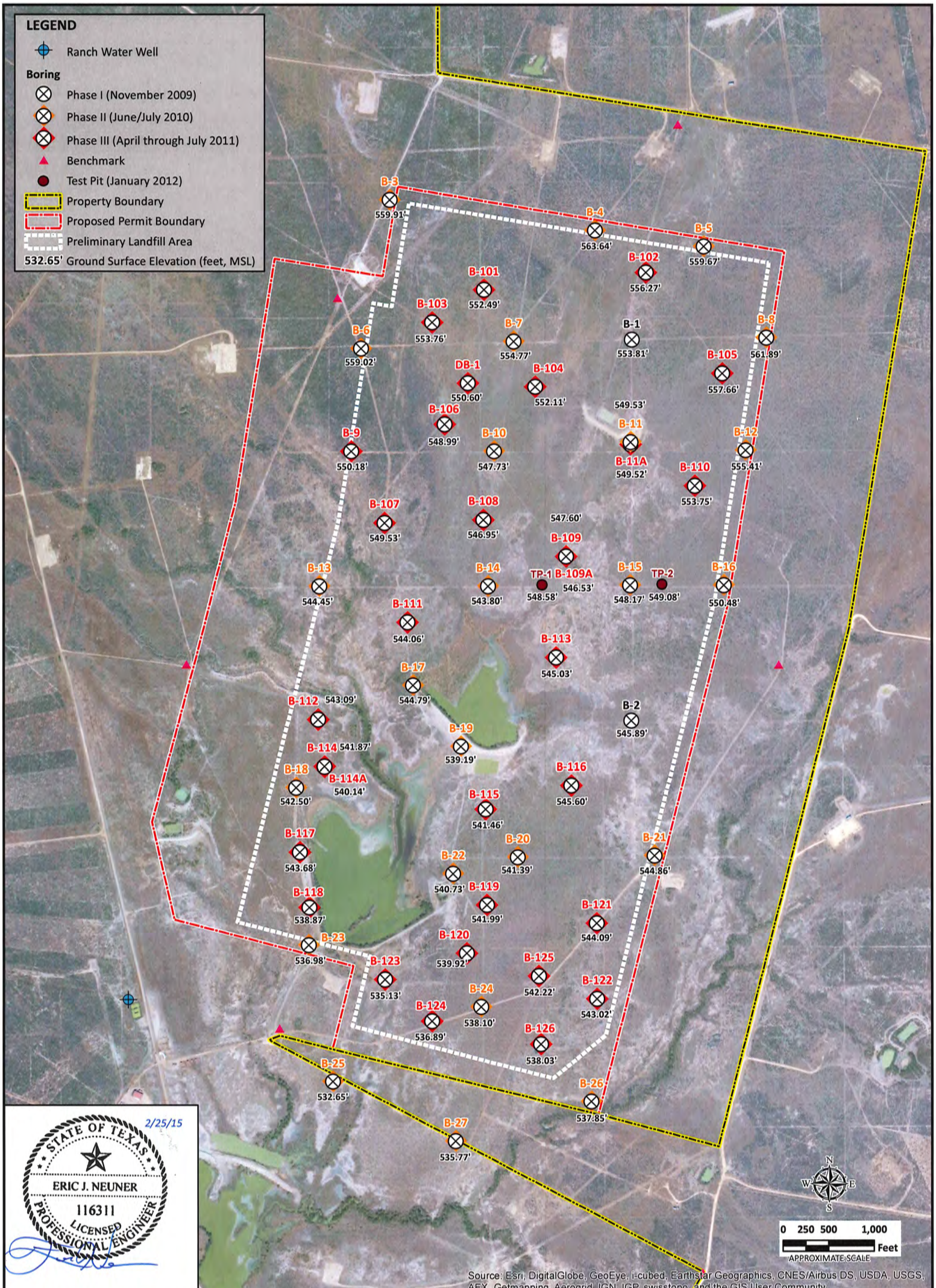
CHECKED BY:	PMS
REVIEWED BY:	RVK

FIGURE 1

NOTE: This Drawing is Provided for Illustration Only, May Not be to Scale and is Not Suitable for Design or Construction Purposes



STATE OF TEXAS
ERIC J. NEUNER
116311
LICENSED PROFESSIONAL ENGINEER
2/25/15

RABA KISTNER
ENVIRONMENTAL
Raba Kistner Environmental, Inc.
12821 West Golden Lane
San Antonio, Texas 78249
www.rkci.com
P 210 :: 699 :: 9090
F 210 :: 699 :: 6426
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BORING/TEST PIT LOCATION MAP

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REVISIONS:

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FIGURE

2

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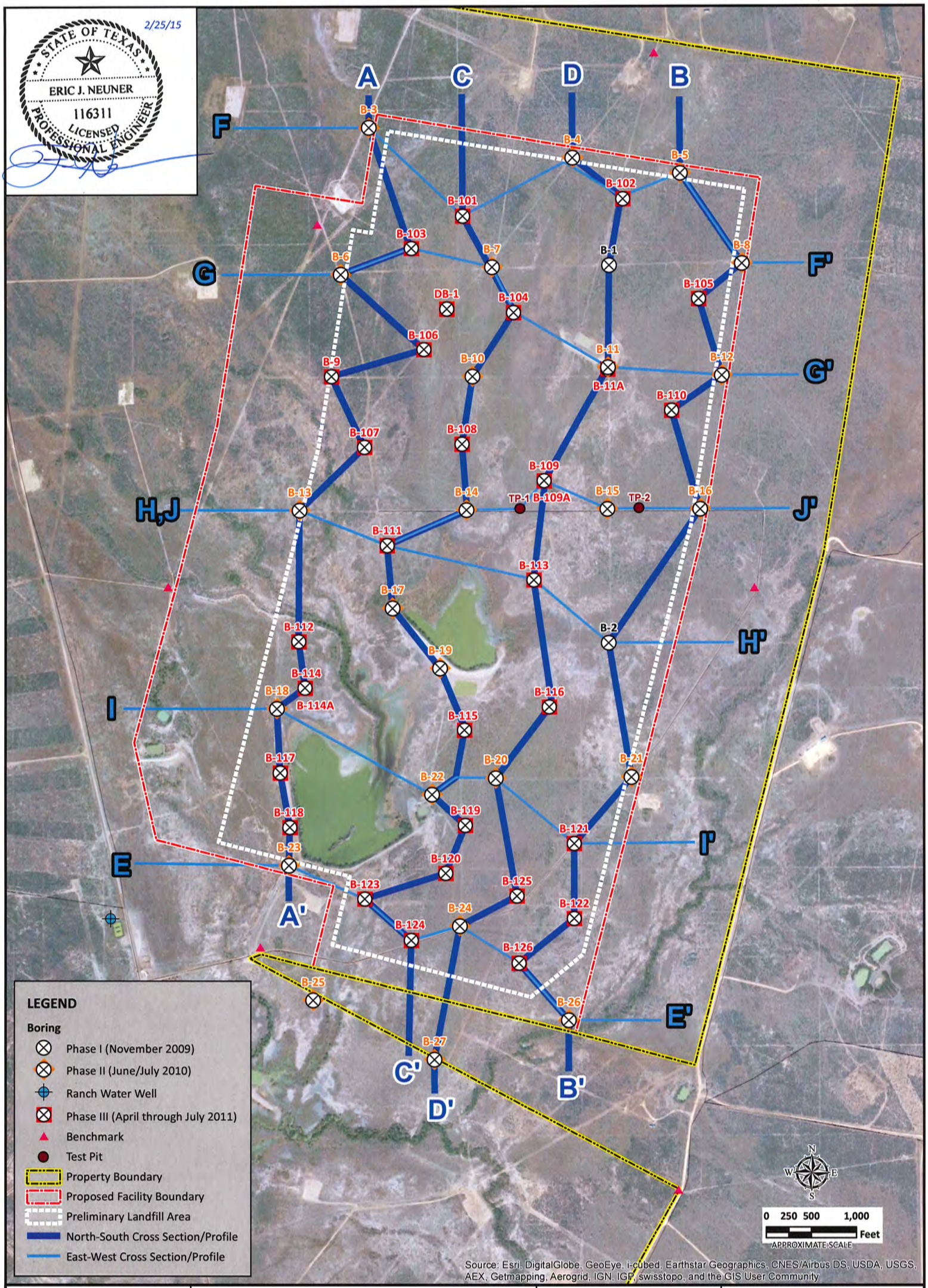

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FENCE DIAGRAM INDEX MAP

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FIGURE

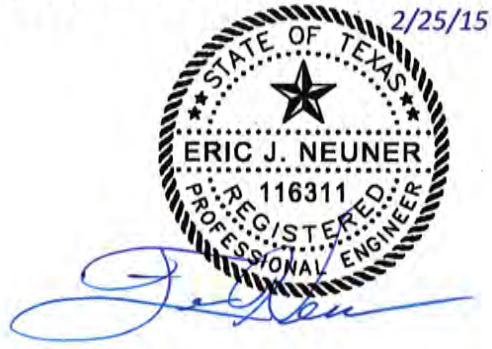
3

NOTE: This Drawing is Provided for Illustration Only, May Not be to Scale and is Not Suitable for Design or Construction Purposes

APPENDIX A

RESULTS OF SOIL SAMPLE ANALYSES

2/25/15



Pages 1 through 78

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-1	0.0 to 3.0										
	3.0 to 5.0	12	19	49	15	34	SC		50		
	5.0 to 7.5	11	22								
	7.5 to 10.0	10	34								
	10.0 to 12.5	16	35								
	12.5 to 15.0	30	28	116	24	92	CH		86		
	15.0 to 17.5	25	25								
	17.5 to 20.0	27	24								
	20.0 to 22.5	40	17								
	22.5 to 25.0	50	20	110	23	87	CH		86		
	25.0 to 27.5	50/4	15								
	27.5 to 30.0	50/5.5	15								
	30.0 to 35.0										
	35.0 to 40.0										
	40.0 to 45.0										
	45.0 to 50.0										
	50.0 to 55.0										
	55.0 to 57.5		34	152	39	113	CH		89		
	57.5 to 60.0										
	60.0 to 62.5	50/1	14								
	62.5 to 65.0										
	65.0 to 67.5	50/2	13	91	19	72	CH		65		
	67.5 to 68.0										
	68.0 to 70.0										
	70.0 to 72.5	50/5	19								
	72.5 to 75.0										
	75.0 to 77.5		40	95	21	74	CH		81		
	77.5 to 80.0										
	80.0 to 82.5	50	17								
	82.5 to 85.0										
	85.0 to 87.5	50/6	20								
	87.5 to 90.0										
	90.0 to 95.0										
	95.0 to 97.5	50/6	14	66	23	43					
B-2	0.0 to 5.0		22	57	14	43					
	5.0 to 7.0		28								
	7.0 to 10.0										
	10.0 to 12.5	16	28								
	12.5 to 15.0										

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

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B-2	15.0 to 17.0		49	163	38	125	CH		98		
	17.0 to 20.0										
	20.0 to 22.5	27	32								
	22.5 to 25.0										
	25.0 to 27.5		23	112	29	83	CH		69		
	27.5 to 30.0										
	30.0 to 32.5	50/6	20	143	28	115	CH		99		
	32.5 to 35.0										
	35.0 to 37.5	50/6	11								
	37.5 to 40.0										
	40.0 to 42.5	50	22	116	32	84	CH		99		
	42.5 to 45.0										
	45.0 to 47.5	50/6	16	76	28	48	CH		99		
	47.5 to 50.0										
	50.0 to 52.5	50	10								
	52.5 to 55.0										
	55.0 to 57.5	50/6	11								
	57.5 to 60.0										
	60.0 to 62.5	49	18	72	22	50	CH		88		
	62.5 to 65.0										
	65.0 to 67.5										
	67.5 to 78.5										
B-3	0.0 to 2.0										
	2.0 to 4.5									1.25	PP
	4.5 to 7.0									2.00	PP
	7.0 to 9.5			91	26	65	CH		98	1.25	PP
	9.5 to 12.0									1.63	PP
	12.0 to 15.0									2.25	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 25.0									2.25	PP
	24.5 to 27.0									2.25	PP
	25.0 to 27.0									2.25	PP
	27.0 to 29.5			64	24	40	CH		100	2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 37.0									2.25	PP

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Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-3	37.0 to 39.5									2.25	PP
	39.5 to 42.0									2.25	PP
	42.0 to 43.5									2.25	PP
	43.5 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.5									2.25	PP
	59.5 to 60.0									2.25	PP
	60.0 to 64.5									2.25	PP
	64.5 to 67.0		14	32	15	17	CL	119	69	2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 71.5		12	63	22	41	CH	117	91	2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 93.0									2.25	PP
	93.0 to 95.5									2.25	PP
	95.5 to 98.0									2.25	PP
	98.0 to 99.0									2.25	PP
	99.0 to 101.5		16					107		2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 112.0									2.25	PP
	112.0 to 114.5		12	42	24	18	CL		99	2.25	PP
	114.5 to 117.0									2.25	PP
	117.0 to 119.5		17	55	28	27	CH	109	100	2.25	PP
	119.5 to 122.0									2.25	PP
	122.0 to 124.0		15					106		2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

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FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-3	124.0 to 126.5									2.25	PP
	126.5 to 129.0									2.25	PP
	129.0 to 131.5									2.25	PP
	131.5 to 134.0									2.25	PP
	134.0 to 135.0									2.25	PP
	135.0 to 137.5		14	42	19	23	CL	114	99	2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 147.0									2.25	PP
	147.0 to 149.5									2.25	PP
	149.5 to 152.0									2.25	PP
	152.0 to 154.0									2.25	PP
	154.0 to 156.5									2.25	PP
	156.5 to 159.0									2.25	PP
	159.0 to 160.0									2.25	PP
B-4	0.0 to 2.0									0.50	PP
	2.0 to 4.0									0.63	PP
	4.0 to 6.0									1.63	PP
	6.0 to 8.0									1.88	PP
	8.0 to 10.0									2.00	PP
	10.0 to 13.0		17	55	29	26	CH	106	97	2.25	PP
	13.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 24.0									2.25	PP
	24.0 to 27.0									2.25	PP
	27.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 36.0									2.25	PP
	36.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 46.0									2.25	PP
	46.0 to 49.0									2.25	PP
	49.0 to 52.0									2.25	PP
	52.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-4	60.0 to 62.0									2.25	PP
	62.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0		20	169	26	143	CH	95	90	2.25	PP
	70.0 to 72.0									2.25	PP
	72.0 to 75.0									2.25	PP
	75.0 to 78.0									2.25	PP
	78.0 to 81.0									2.25	PP
	81.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	94.0		15	45	24	21	CL	106	99		
	95.0 to 98.0		16	60	29	31	CH	105	100	2.25	PP
	98.0 to 101.0									2.25	PP
	101.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 109.0									2.25	PP
	109.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-5	0.0 to 3.0									0.50	PP
	3.0 to 5.0									0.50	PP
	5.0 to 7.0		27							0.50	PP
	7.0 to 10.0									2.25	PP
	10.0 to 12.0									2.25	PP
	12.0 to 14.0									2.25	PP
	14.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 20.0									2.25	PP
	20.0 to 23.0		19	74	25	49	CH		100	2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 30.0		12							2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 36.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-5	36.0 to 39.0									2.25	PP
	39.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 46.0		17							2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0		18	81	23	58	CH		99	2.25	PP
	50.0 to 52.0									2.25	PP
	52.0 to 54.0		17							2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 78.0		12							2.25	PP
	78.0 to 80.0									2.25	PP
	80.0 to 82.0		16	112	29	83	CH		98	2.25	PP
	82.0 to 85.0									2.25	PP
	85.0 to 88.0									2.25	PP
	88.0 to 91.0		22							2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 102.0									2.25	PP
	102.0 to 105.0									2.25	PP
	105.0 to 108.0									2.25	PP
	108.0 to 111.0									2.25	PP
	111.0 to 113.0		16	79	20	59	CH		98	2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 118.0									2.25	PP
	118.0 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 125.0									2.25	PP
	125.0 to 128.0									2.25	PP
	128.0 to 131.0									2.25	PP
	131.0 to 133.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-5	133.0 to 136.0									2.25	PP
	136.0 to 139.0									2.25	PP
	139.0 to 141.0									2.25	PP
	141.0 to 143.0									2.25	PP
	143.0 to 145.0									2.25	PP
	145.0 to 148.0									2.25	PP
	148.0 to 151.0									2.25	PP
	151.0 to 153.0									2.25	PP
	153.0 to 155.0									2.25	PP
	155.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-6	0.0 to 2.5									1.38	PP
	2.5 to 5.0									1.88	PP
	5.0 to 7.0			50	18	32	CH		69	2.25	PP
	7.0 to 9.5									2.25	PP
	9.5 to 12.0									2.25	PP
	12.0 to 14.0									2.25	PP
	14.0 to 16.5									2.25	PP
	16.5 to 19.0									2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 29.5			55	14	41	CH		62	2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 37.0									2.25	PP
	37.0 to 39.5									2.25	PP
	39.5 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.5			65	24	41	CH		100	2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 64.0									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-6	64.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 71.5									2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.5									2.25	PP
	76.5 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 99.5									2.25	PP
	99.5 to 102.0									2.25	PP
	102.0 to 104.5		16	35	19	16	CL	106	100	2.25	PP
	104.5 to 107.0									2.25	PP
	107.0 to 109.0									2.25	PP
	109.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
	121.0 to 123.5									2.25	PP
	123.5 to 126.0									2.25	PP
	126.0 to 127.0									2.25	PP
	127.0 to 129.5		22	42	29	13	ML	100	99	2.25	PP
	129.5 to 132.0									2.25	PP
	132.0 to 134.0		21	48	27	21	CL	97	98	2.25	PP
	134.0 to 136.5									2.25	PP
	136.5 to 139.0									2.25	PP
	139.0 to 141.0									2.25	PP
	141.0 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 147.0									2.25	PP
	147.0 to 149.0			184	40	144	CH		96	2.25	PP
	149.0 to 151.5									2.25	PP
	151.5 to 154.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-6	154.0 to 157.0									2.25	PP
	157.0 to 159.0									2.25	PP
	159.0 to 160.0									2.25	PP
B-7	0.0 to 3.0									0.13	PP
	3.0 to 5.0									0.13	PP
	5.0 to 7.0									0.25	PP
	7.0 to 10.0									1.75	PP
	10.0 to 13.0									1.75	PP
	13.0 to 15.0									1.88	PP
	15.0 to 17.0									2.25	PP
	17.0 to 20.0									2.25	PP
	20.0 to 23.0									2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 29.0									2.25	PP
	29.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP
	38.0 to 41.0									2.25	PP
	41.0 to 43.0									2.25	PP
	43.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 62.0									2.25	PP
	62.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 72.0									2.25	PP
	72.0 to 75.0									2.25	PP
	75.0 to 78.0									2.25	PP
	78.0 to 81.0									2.25	PP
	81.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 88.0		10	71	18	53	CH	116	96	2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-7	92.0 to 95.0									2.25	PP
	95.0 to 98.0									2.25	PP
	98.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 116.0									2.25	PP
	116.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 126.0		17	96	22	74	CH	108	98	2.25	PP
	126.0 to 129.0									2.25	PP
	129.0 to 132.0									2.25	PP
	132.0 to 134.0									2.25	PP
	134.0 to 136.0									2.25	PP
	136.0 to 147.0										
	147.0 to 150.0									2.25	PP
	150.0 to 152.0									2.25	PP
	152.0 to 155.0									2.25	PP
	155.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-8	0.0 to 2.0									0.75	PP
	2.0 to 4.0									0.75	PP
	4.0 to 7.0		21							1.00	PP
	7.0 to 10.0									2.00	PP
	10.0 to 13.0		20	67	24	43	CH		87	2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									2.25	PP
	19.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 27.0									2.25	PP
	27.0 to 30.0		21	76	27	49	CH		96	2.25	PP
	30.0 to 32.0									2.25	PP
	32.0 to 35.0		32							2.25	PP
	35.0 to 38.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-8	38.0 to 40.0		18							2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.0		22							2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 65.0		13							2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 72.0									2.25	PP
	72.0 to 76.0		15	102	26	76	CH		100	2.25	PP
	76.0 to 79.0									2.25	PP
	79.0 to 82.0									2.25	PP
	82.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 89.0		12	65	20	45	CH		96	2.25	PP
	89.0 to 91.0									2.25	PP
	91.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 107.0		13	68	23	45	CH		98	2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-9	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.38	PP
	5.0 to 7.5									1.38	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									1.88	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-9	17.5 to 20.0									1.50	PP
	20.0 to 22.5			51	23	28	CH		95	1.88	PP
	22.5 to 25.0									2.00	PP
	25.0 to 27.5									2.00	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0			44	19	25	CL		100	2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5										
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0										
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5			54	20	34	CH		98	2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-9	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
	120.0 to 122.5									2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.5 to 130.0									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 145.0			48	21	27	CL		100	2.25	PP
	145.0 to 147.5									2.25	PP
	147.5 to 150.0									2.25	PP
	150.0 to 152.5									2.25	PP
	152.5 to 155.0									2.25	PP
	155.0 to 157.5									2.25	PP
	157.5 to 160.0									2.25	PP
B-10	0.0 to 3.0									0.88	PP
	3.0 to 5.0									0.88	PP
	5.0 to 7.0									1.25	PP
	7.0 to 10.0									2.25	PP
	10.0 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 24.0									2.25	PP
	24.0 to 27.0									2.25	PP
	27.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 35.0									2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 45.0		11	33	21	12	CL	120	57	2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-10	55.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 66.0									2.25	PP
	66.0 to 68.0									2.25	PP
	68.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 76.0			44	26	18	CL		97	2.25	PP
	76.0 to 79.0									2.25	PP
	79.0 to 82.0									2.25	PP
	82.0 to 85.0									2.25	PP
	85.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 106.0									2.25	PP
	106.0 to 109.0									2.25	PP
	109.0 to 112.0									2.25	PP
	112.0 to 115.0		13	45	22	23	CL		100	2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-11	0.0 to 2.5									0.13	PP
	2.5 to 5.0									0.38	PP
	5.0 to 6.0									0.25	PP
	6.0 to 8.5									2.25	PP
	8.5 to 11.0									2.25	PP
	11.0 to 13.0									2.25	PP
	13.0 to 14.0									2.25	PP
	14.0 to 16.5									2.25	PP
	16.5 to 19.0									2.25	PP
	19.0 to 22.0									2.25	PP
	22.0 to 24.5									2.25	PP
	24.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 33.0									2.25	PP
	33.0 to 35.5									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-11	35.5 to 38.0			118	30	88	CH		80	2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 53.0									2.25	PP
	53.0 to 55.5									2.25	PP
	55.5 to 58.0									2.25	PP
	58.0 to 60.5		20	47	29	18	ML	88	97	2.25	PP
	60.5 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 67.0									2.25	PP
	67.0 to 69.5		24	46	30	16	ML		99	2.25	PP
	69.5 to 72.0									2.25	PP
	72.0 to 74.5		16	35	23	12	CL		100	2.25	PP
	74.5 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 82.0									1.00	PP
	82.0 to 84.5									1.25	PP
	84.5 to 87.0									1.25	PP
	87.0 to 89.5									2.25	PP
	89.5 to 92.0									2.25	PP
	92.0 to 94.5		14	45	25	20	CL	106	91	2.25	PP
	94.5 to 97.0									2.25	PP
	97.0 to 99.5									2.25	PP
	99.5 to 102.0		12	28	22	6	SC-SM		36	2.25	PP
	102.0 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 124.0									2.25	PP
	124.0 to 126.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-11	126.0 to 127.0									2.25	PP
	127.0 to 129.5		20	55	27	28	CH	103	99	2.25	PP
	129.5 to 132.0									2.25	PP
	132.0 to 134.0									2.25	PP
	134.0 to 136.5		17	56	26	30	CH		100	2.25	PP
	136.5 to 139.0									2.25	PP
	139.0 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 145.0									2.25	PP
	145.0 to 147.5									2.25	PP
	147.5 to 150.0									2.25	PP
	150.0 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-11A	0.0 to 6.0									0.50	PP
	6.0 to 16.0									1.50	PP
	16.0 to 24.0									2.25	PP
	24.0 to 31.0									2.25	PP
	31.0 to 38.0									2.25	PP
	38.0 to 46.0									2.25	PP
	46.0 to 60.0									2.25	PP
	60.0 to 66.0									2.25	PP
	66.0 to 86.0									2.25	PP
	86.0 to 104.0										
B-12	0.0 to 2.0									0.75	PP
	2.0 to 4.0									0.50	PP
	4.0 to 7.0									0.25	PP
	7.0 to 9.0									1.50	PP
	9.0 to 10.0									1.63	PP
	10.0 to 12.0									2.25	PP
	12.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 20.0		31							2.25	PP
	20.0 to 23.0									2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 29.0									2.25	PP
	29.0 to 30.0										

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-12	30.0 to 33.0									2.25	PP
	33.0 to 34.0									2.25	PP
	34.0 to 35.0										
	35.0 to 37.0									2.25	PP
	37.0 to 39.0		37							2.25	PP
	39.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 56.0									2.25	PP
	56.0 to 58.0		28	78	24	54	CH	85	81	2.25	PP
	58.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 66.0		15							2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 72.0									2.25	PP
	72.0 to 74.0									2.25	PP
	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 82.0										
	82.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 87.0									2.25	PP
	87.0 to 90.0		18					103	47	2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0		9	100	26	74	CH	102	99	2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 116.0									2.25	PP
	116.0 to 117.0									2.25	PP
	117.0 to 120.0		14							2.25	PP
	120.0 to 121.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-12	121.0 to 123.0									2.25	PP
	123.0 to 126.0		36							2.25	PP
	126.0 to 129.0									2.25	PP
	129.0 to 131.0									2.25	PP
	131.0 to 134.0									2.25	PP
	134.0 to 137.0									2.25	PP
	137.0 to 140.0		16	78	22	56	CH	103	93	2.25	PP
	140.0 to 142.0									2.25	PP
	142.0 to 145.0									2.25	PP
	145.0 to 146.0									2.25	PP
	146.0 to 149.0									2.25	PP
	149.0 to 151.0									2.25	PP
	151.0 to 154.0									2.25	PP
	154.0 to 156.0									2.25	PP
	156.0 to 158.0		13							2.25	PP
	158.0 to 160.0									2.25	PP
B-13	0.0 to 2.5									0.13	PP
	2.5 to 5.0									0.13	PP
	5.0 to 7.5									0.25	PP
	7.5 to 10.0									0.50	PP
	10.0 to 12.5									1.25	PP
	12.5 to 15.0									0.38	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.5									2.25	PP
	19.5 to 22.0									2.25	PP
	22.0 to 25.5									2.25	PP
	25.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0			56	23	33	CH		99	2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.5									2.25	PP
	44.5 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-13	54.5 to 57.0									2.25	PP
	57.0 to 59.5									2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 68.0									2.25	PP
	68.0 to 69.0									2.25	PP
	69.0 to 71.5									2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.0									2.25	PP
	76.0 to 77.0									2.25	PP
	77.0 to 80.0			60	17	43	CH		71	0.63	PP
	80.0 to 82.5									0.75	PP
	82.5 to 85.0									0.75	PP
	85.0 to 86.0									0.88	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.0			84	23	61	CH		99	2.25	PP
	98.0 to 100.5									2.25	PP
	100.5 to 103.0									2.25	PP
	103.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.5									2.25	PP
	110.5 to 113.0									2.25	PP
	113.0 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0			79	23	56	CH		100	2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0									2.25	PP
	138.0 to 140.5									2.25	PP
	140.5 to 143.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-13	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 149.0									2.25	PP
	149.0 to 151.5									2.25	PP
	151.0								99		
	151.5 to 154.0			87	26	61	CH		99	2.25	PP
	154.0 to 159.0									2.25	PP
	159.0 to 160.0									2.25	PP
B-14	0.0 to 2.0									0.13	PP
	2.0 to 4.0									0.13	PP
	4.0 to 6.0									0.25	PP
	6.0 to 8.0									0.38	PP
	8.0 to 10.0									0.38	PP
	10.0 to 13.0									0.50	PP
	13.0 to 15.0		19							2.25	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									2.25	PP
	19.0 to 20.0									2.25	PP
	20.0 to 22.0									2.25	PP
	22.0 to 24.0		14							2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 30.0									2.25	PP
	30.0 to 32.0			59	16	43	CH		76	2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 36.0									2.25	PP
	36.0 to 38.0		17							2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0			49	17	32	CL		98	2.25	PP
	43.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 52.0									2.25	PP
	52.0 to 54.0			37	17	20	CL		89	2.25	PP
	54.0 to 56.0									2.25	PP
	56.0 to 58.0		9							2.25	PP
	58.0 to 60.0									2.25	PP
	60.0 to 62.0			38	13	25	CL		75	2.25	PP
	62.0 to 64.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-14	64.0 to 66.0		12							2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 84.0		22							2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 88.0									2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 94.0		17							2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 98.0									2.25	PP
	98.0 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 109.0		14							2.25	PP
	109.0 to 111.0									2.25	PP
	111.0 to 113.0									2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 116.0									2.25	PP
	116.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
	120.0 to 123.0									2.25	PP
	123.0 to 125.0		21							2.25	PP
	125.0 to 127.0									2.25	PP
	127.0 to 129.0									2.25	PP
	129.0 to 132.0									2.25	PP
	132.0 to 134.0		12							2.25	PP
	134.0 to 137.0									2.25	PP
	137.0 to 139.0									2.25	PP
	139.0 to 142.0									2.25	PP
	142.0 to 145.0		22							2.25	PP
	145.0 to 148.0									2.25	PP
	148.0 to 151.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-14	151.0 to 153.0									2.25	PP
	153.0 to 155.0									2.25	PP
	155.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-15	0.0 to 3.0									0.13	PP
	3.0 to 5.0									2.25	PP
	5.0 to 7.0									2.25	PP
	7.0 to 9.0									2.25	PP
	9.0 to 12.0									2.25	PP
	12.0 to 15.0									2.25	PP
	15.0 to 18.0		28							2.25	PP
	18.0 to 20.0									2.25	PP
	20.0 to 22.0									2.25	PP
	22.0 to 24.0									2.25	PP
	24.0 to 26.0		26							2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 29.0									2.25	PP
	29.0 to 31.0									2.25	PP
	31.0 to 33.0									2.25	PP
	33.0 to 35.0									2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 43.0		35							2.25	PP
	43.0 to 46.0			166	30	136	CH		100	2.25	PP
	46.0 to 49.0		28							2.25	PP
	49.0 to 52.0									2.25	PP
	52.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 63.0		12							2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 76.0									2.25	PP
	76.0 to 79.0		15							2.25	PP
	79.0 to 82.0									2.25	PP
	82.0 to 85.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-15	85.0 to 88.0			34	14	20	CL		52	2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0			47	14	33	CL		55	2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 99.0		10							2.25	PP
	99.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0			75	16	59	CH		67	2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 117.0		16							2.25	PP
	117.0 to 119.0									2.25	PP
	119.0 to 120.0									2.25	PP
B-16	0.0 to 2.0									0.13	PP
	2.0 to 5.0									0.13	PP
	5.0 to 7.0		23	39	17	22	CL	101	54	0.38	PP
	7.0 to 9.0									1.38	PP
	9.0 to 12.0		22							1.63	PP
	12.0 to 14.0		33							2.25	PP
	14.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 24.0									2.25	PP
	24.0 to 27.0									2.25	PP
	27.0 to 29.0									2.25	PP
	29.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0		22							2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 49.0		31							2.25	PP
	49.0 to 51.0									2.25	PP
	51.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-16	55.0 to 57.0									2.25	PP
	57.0 to 59.0		33	131	34	97	CH	86	89	2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0		22							2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 87.0		15	114	22	92	CH	112	98	2.25	PP
	87.0 to 88.0			82	26	56				2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 101.0									2.25	PP
	101.0 to 102.0									2.25	PP
	102.0 to 104.0		13							2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 119.0									2.25	PP
	119.0 to 122.0		13	42	19	23	CL	120	71	2.25	PP
	122.0 to 123.0									2.25	PP
	123.0 to 124.0									2.25	PP
	124.0 to 126.0									2.25	PP
	126.0 to 128.0									2.25	PP
	128.0 to 131.0									2.25	PP
	131.0 to 134.0									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-16	134.0 to 136.0									2.25	PP
	136.0 to 138.0									2.25	PP
	138.0 to 140.0									2.25	PP
	140.0 to 141.0									2.25	PP
	141.0 to 144.0									2.25	PP
	144.0 to 146.0									2.25	PP
	146.0 to 148.0									2.25	PP
	148.0 to 149.0									2.25	PP
	149.0 to 151.0									2.25	PP
	151.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-17	0.0 to 4.0									0.13	PP
	4.0 to 8.0									0.25	PP
	8.0 to 12.0									0.50	PP
	12.0 to 15.0			34	13	21	SC		49	0.50	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									0.13	PP
	19.0 to 21.0		15							2.25	PP
	21.0 to 22.0									2.25	PP
	22.0 to 24.0			29	13	16	SC		49	0.13	PP
	24.0 to 26.0									2.25	PP
	26.0 to 27.0									2.00	PP
	27.0 to 29.0									2.25	PP
	29.0 to 31.0									2.25	PP
	31.0 to 33.0		17							2.25	PP
	33.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0		7							2.25	PP
	53.0 to 56.0			54	24	30	CH		93	2.25	PP
	56.0 to 57.0									2.25	PP
	57.0 to 59.0		16							2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 63.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-17	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 69.0		16							2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0			49	20	29	CL		86	2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 83.0									2.25	PP
	83.0 to 84.0									2.25	PP
	84.0 to 86.0		6							2.25	PP
	86.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 101.0									2.25	PP
	101.0 to 103.0		10							2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 107.0		13							2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 116.0									2.25	PP
	116.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-18	0.0 to 3.0									1.00	PP
	3.0 to 5.0									1.13	PP
	5.0 to 7.0		18	53	21	32	CH		70	1.00	PP
	7.0 to 10.0									0.13	PP
	10.0 to 13.0									0.13	PP
	13.0 to 16.0									1.88	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									0.00	PP
	23.0 to 26.0									2.25	PP
	26.0 to 29.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-18	29.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 48.0									2.25	PP
	48.0 to 51.0									2.25	PP
	51.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 70.0		24	138	42	96	CH		97	2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 78.0									2.25	PP
	78.0 to 80.0									2.25	PP
	80.0 to 82.0									2.25	PP
	82.0 to 85.0									2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 108.0		14	50	25	25	CH	109	100	2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
	120.0 to 124.0									2.25	PP
	124.0 to 127.0									2.25	PP
	127.0 to 130.0									2.25	PP
	130.0 to 132.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-18	132.0 to 135.0									2.25	PP
	135.0 to 138.0									2.25	PP
	138.0 to 141.0									2.25	PP
	141.0 to 144.0									2.25	PP
	144.0 to 147.0									2.25	PP
	147.0 to 150.0		25	53	24	29	CH		99	2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-19	0.0 to 2.5									0.13	PP
	2.5 to 6.0									0.38	PP
	6.0 to 7.0									1.88	PP
	7.0 to 9.0									2.25	PP
	9.0 to 10.0									2.25	PP
	10.0 to 12.5			32	20	12	CL		52	2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 19.0									2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 36.5		14	54	21	33	CH		95	2.25	PP
	36.5 to 39.0									2.25	PP
	39.0 to 41.5									2.25	PP
	41.5 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 47.0									2.25	PP
	47.0 to 49.5			75	18	57	CH		60	2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 61.5		19	57	24	33	CH	110	96	2.25	PP
	61.5 to 64.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-19	64.0 to 67.0									2.25	PP
	67.0 to 69.5									2.25	PP
	69.5 to 72.0									2.25	PP
	72.0 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 84.0		13	75	20	55	CH	139	86	2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 87.0									2.25	PP
	87.0 to 89.5									2.25	PP
	89.5 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.5									2.25	PP
	96.5 to 99.0									2.25	PP
	99.0 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 116.0									2.25	PP
	116.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
	120.0 to 123.0									2.25	PP
	123.0 to 126.0									2.25	PP
	126.0 to 128.0									2.25	PP
	128.0 to 130.0									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.0									2.25	PP
	137.0 to 140.0									2.25	PP
	140.0 to 142.0									2.25	PP
	142.0 to 144.0									2.25	PP
	144.0 to 160.0									2.25	PP
	146.0 to 148.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-19	148.0 to 150.0									2.25	PP
	150.0 to 152.0									2.25	PP
	152.0 to 154.0									2.25	PP
	154.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-20	0.0 to 3.0									0.38	PP
	3.0 to 5.0									0.50	PP
	5.0 to 7.0									0.50	PP
	7.0 to 10.0									2.25	PP
	10.0 to 13.0		15	39	24	15	CL		99	2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 35.0									2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 52.0									2.25	PP
	52.0 to 54.0									2.25	PP
	54.0 to 58.0									2.25	PP
	58.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 66.0									2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 74.0		12	44	23	21	CL	116	93	2.25	PP
	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 82.0									2.25	PP
	82.0 to 84.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-20	84.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 106.0									2.25	PP
	106.0 to 109.0		18	67	24	43	CH		100	2.25	PP
	109.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-21	0.0 to 3.0									0.50	PP
	3.0 to 5.0									1.25	PP
	5.0 to 7.0									1.00	PP
	7.0 to 9.0									1.25	PP
	9.0 to 11.0									1.25	PP
	11.0 to 14.0									1.75	PP
	14.0 to 16.0									1.75	PP
	16.0 to 18.0									2.00	PP
	18.0 to 21.0		24	78	32	46	CH	98	96	2.25	PP
	21.0 to 25.0									2.00	PP
	25.0 to 28.0									2.25	PP
	28.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 59.0		11	60	17	43	CH		94	2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 74.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-21	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 124.0									2.25	PP
	124.0 to 127.0		16	53	22	31	CH		100	2.25	PP
	127.0 to 130.0									2.25	PP
	130.0 to 132.0									2.25	PP
	132.0 to 134.0									2.25	PP
	134.0 to 137.0									2.25	PP
	137.0 to 140.0									2.25	PP
	140.0 to 143.0									2.25	PP
	143.0 to 145.0									2.25	PP
	145.0 to 150.0									2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-22	0.0 to 3.0									1.00	PP
	3.0 to 6.0									1.25	PP
	6.0 to 7.0									1.25	PP
	7.0 to 10.0									0.50	PP
	10.0 to 14.0									1.25	PP
	14.0 to 16.0									1.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0		19	53	34	19	MH	99	96	2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-22	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 31.0									2.25	PP
	31.0 to 33.0									2.25	PP
	33.0 to 36.0									2.25	PP
	36.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 56.0									2.25	PP
	56.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 88.0									2.25	PP
	88.0 to 91.0		18	65	35	30	MH	100	98	2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 101.0									2.25	PP
	101.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 114.0									2.25	PP
	114.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-23	0.0 to 3.0									0.63	PP
	3.0 to 5.0									0.88	PP
	5.0 to 8.0									1.00	PP
	8.0 to 11.0									2.25	PP
	11.0 to 13.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-23	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 31.0									2.25	PP
	31.0 to 33.0									2.25	PP
	33.0 to 36.0		22	58	21	37	CH	104	100	2.25	PP
	36.0 to 39.0									2.25	PP
	39.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0		19	48	29	19	ML	99	100	2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 96.0									2.25	PP
	96.0 to 98.0									2.25	PP
	98.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-23	115.0 to 118.0		12	49	25	24	CL		100	2.25	PP
	118.0 to 120.0									2.25	PP
B-24	0.0 to 3.0									0.13	PP
	3.0 to 7.0									0.38	PP
	7.0 to 10.0									0.63	PP
	10.0 to 14.0									0.63	PP
	14.0 to 16.0									0.50	PP
	16.0 to 18.0									2.25	PP
	18.0 to 22.0									2.25	PP
	22.0 to 26.0									2.25	PP
	26.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 37.0		19	36	23	13	CL		96	2.25	PP
	37.0 to 41.0									2.25	PP
	41.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 51.0									2.25	PP
	51.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 61.0									2.25	PP
	61.0 to 65.0									2.25	PP
	65.0 to 69.0		19	52	24	28	CH		98	2.25	PP
	69.0 to 73.0									2.25	PP
	73.0 to 77.0									2.25	PP
	77.0 to 81.0									2.25	PP
	81.0 to 84.0									2.25	PP
	84.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 106.0										
	106.0 to 109.0									2.25	PP
	109.0 to 112.0		11	45	21	24	CL		94	2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
	120.0 to 124.0									2.25	PP
	124.0 to 128.0									2.25	PP
	128.0 to 131.0									2.25	PP
	131.0 to 135.0									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-24	135.0 to 139.0									2.25	PP
	139.0 to 143.0									2.25	PP
	143.0 to 147.0									2.25	PP
	147.0 to 150.0		9	57	19	38	CH		95	2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-25	0.0 to 3.0									1.38	PP
	3.0 to 5.0									1.88	PP
	5.0 to 7.0									2.25	PP
	7.0 to 10.0									2.25	PP
	10.0 to 14.0									2.25	PP
	14.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 30.0									2.25	PP
	30.0 to 33.0		18	55	25	30	CH	105	99	2.25	PP
	33.0 to 35.0		14	39	19	20	CL		93	2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0		14	52	26	26	CH		100	2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 70.0									2.25	PP
	70.0 to 74.0									2.25	PP
	74.0 to 78.0									2.25	PP
	78.0 to 81.0									2.25	PP
	81.0 to 85.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-25	85.0 to 88.0									2.25	PP
	88.0 to 90.0		13	67	24	43	CH		99	2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-26	0.0 to 3.0									0.13	PP
	3.0 to 7.0									0.38	PP
	7.0 to 10.0									1.25	PP
	10.0 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 20.0		13	45	20	25	CL		81	2.25	PP
	20.0 to 22.0									2.25	PP
	22.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 32.0									2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 38.0									2.25	PP
	38.0 to 41.0									2.25	PP
	41.0 to 43.0									2.25	PP
	43.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 56.0									2.25	PP
	56.0 to 60.0									2.25	PP
	60.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 74.0									2.25	PP
	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-26	80.0 to 83.0									2.25	PP
	83.0 to 85.0		12	52	22	30	CH		85	2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 89.0									2.25	PP
	89.0 to 92.0									2.25	PP
	92.0 to 95.0		11	76	21	55	CH		99	2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 114.0									2.25	PP
	114.0 to 117.0									2.25	PP
	117.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 124.0									2.25	PP
	124.0 to 127.0									2.25	PP
	127.0 to 130.0									2.25	PP
	130.0 to 133.0									2.25	PP
	133.0 to 135.0									2.25	PP
	135.0 to 138.0									2.25	PP
	138.0 to 141.0									2.25	PP
	141.0 to 145.0		12	69	24	45	CH		100	2.25	PP
	145.0 to 149.0									2.25	PP
	149.0 to 153.0									2.25	PP
	153.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-27	0.0 to 3.0									0.38	PP
	3.0 to 7.0									0.38	PP
	7.0 to 10.0									1.50	PP
	10.0 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 25.0									2.25	PP
	25.0 to 29.0									2.25	PP
	29.0 to 32.0		10	39	19	20	CL		98	2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-27	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 64.0									2.25	PP
	64.0 to 66.0									2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 73.0									2.25	PP
	73.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 83.0									2.25	PP
	83.0 to 87.0									2.25	PP
	87.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 113.0		10	46	22	24				2.25	PP
	113.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-101	0.0 to 10.0										
	10.0 to 25.0										
	25.0 to 27.0									2.25	PP
	27.0 to 29.0									2.25	PP
	29.0 to 30.0										
	30.0 to 34.0									2.25	PP
	34.0 to 55.0										
	55.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 68.0									2.25	PP
	68.0 to 85.0										
	85.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 95.0										

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-101	95.0 to 115.0										
	115.0 to 118.0										
	118.0 to 120.0										
	120.0 to 146.0										
	146.0 to 151.0										
B-102	0.0 to 18.0										
	18.0 to 21.0										
	21.0 to 23.0									0.88	PP
	23.0 to 25.0									2.25	PP
	25.0 to 50.0										
	50.0 to 54.0									2.25	PP
	54.0 to 58.0									2.25	PP
	58.0 to 59.0										
	59.0 to 60.0										
	60.0 to 62.0										
	62.0 to 64.0									2.25	PP
	64.0 to 66.0									2.25	PP
	66.0 to 68.0									2.25	PP
	68.0 to 70.0									2.25	PP
	70.0 to 82.0										
	82.0 to 86.0										
	86.0 to 88.0										
	88.0 to 90.0										
	90.0 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 112.0										
	112.0 to 114.0									2.25	PP
	114.0 to 117.0										
	117.0 to 120.0										
	120.0 to 122.0									2.25	PP
	122.0 to 140.0										
	140.0 to 142.0									2.25	PP
	142.0 to 146.0									2.25	PP
	146.0 to 150.0										
	150.0 to 160.0										
B-103	0.0 to 2.5									0.63	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5			41	16	25	CL		64	1.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-103	7.5 to 10.0									0.88	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									1.63	PP
	45.0 to 47.5			45	18	27	CL		91	2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 64.0									2.25	PP
	64.0 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 74.5									2.25	PP
	74.5 to 75.5									2.25	PP
	75.5 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5			84	22	62	CH		92	2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0										

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-103	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-104	0.0 to 2.5									1.25	PP
	2.5 to 5.0									0.88	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0			69	31	38	CH		98	2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0			49	22	27	CL		92	2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-104	77.5 to 81.3									2.25	PP
	81.3 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.0			34	18	16	CL		53	2.25	PP
	91.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-105	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.50	PP
	5.0 to 7.5									2.25	PP
	7.5 to 10.0									1.88	PP
	10.0 to 12.5			60	29	31	CH		92	2.00	PP
	12.5 to 15.0									1.75	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.13	PP
	32.5 to 35.0									2.25	PP
	35.0 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5			77	25	52	CH		65	2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-105	53.5 to 56.0									2.25	PP
	56.0 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0									2.25	PP
	81.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0			59	21	38	CH		54	2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 116.0										
	116.0 to 117.0										
	117.0 to 118.0									2.25	PP
	118.0 to 119.5									2.25	PP
	119.5 to 122.0									2.25	PP
	122.0 to 124.5									2.25	PP
	124.5 to 126.0									2.25	PP
	126.0 to 128.5									2.25	PP
	128.5 to 131.0									2.25	PP
	131.0 to 133.5			45	23	22	CL		87	2.25	PP
	133.5 to 136.0									2.25	PP
	136.0 to 138.5									2.25	PP
	138.5 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 146.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-105	146.0 to 148.5									2.25	PP
	148.5 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-106	0.0 to 20.0										
	20.0 to 22.0									2.25	PP
	22.0 to 24.0									2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 28.0										
	28.0 to 40.0										
	40.0 to 42.0									2.25	PP
	42.0 to 44.0										
	44.0 to 46.0										
	46.0 to 70.0										
	70.0 to 72.0										
	72.0 to 74.0										
	74.0 to 76.0										
	76.0 to 78.0										
	78.0 to 88.0										
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 98.0									2.25	PP
	98.0 to 100.0										
	100.0 to 112.0										
	112.0 to 113.0									2.25	PP
	113.0 to 114.0										
	114.0 to 116.0									2.25	PP
	116.0 to 118.0										
	118.0 to 120.0										
B-107	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.38	PP
	5.0 to 7.5									1.38	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									1.88	PP
	12.5 to 15.0									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-107	15.0 to 17.5			40	21	19	CL		88	2.25	PP
	17.5 to 20.0									1.50	PP
	20.0 to 22.5									1.88	PP
	22.5 to 25.0									2.00	PP
	25.0 to 27.5									2.00	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0			54	18	36	CH		99	2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 74.0									2.25	PP
	74.0 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5			51	26	25	CH		98	2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 103.0									2.25	PP
	103.0 to 105.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-107	105.5 to 107.0									2.25	PP
	107.0 to 109.0									2.25	PP
	109.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.5									2.25	PP
	116.5 to 119.0									2.25	PP
	119.0 to 121.5									2.25	PP
	121.5 to 124.0									2.25	PP
	124.0 to 126.5									2.25	PP
	126.5 to 128.0			68	34	34	MH		95	2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 132.0									2.25	PP
	132.0 to 134.5									2.25	PP
	134.5 to 137.0									2.25	PP
	137.0 to 139.5									2.25	PP
	139.5 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 147.0									2.25	PP
	147.0 to 149.5									2.25	PP
	149.5 to 152.0									2.25	PP
	152.0 to 154.5									2.25	PP
	154.5 to 157.0									2.25	PP
	157.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-108	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.38	PP
	5.0 to 7.5									1.38	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									1.88	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0			49	19	30	CL		100	1.50	PP
	20.0 to 22.5									1.88	PP
	22.5 to 25.0									2.00	PP
	25.0 to 26.0									2.00	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 32.5									2.25	PP
	32.5 to 36.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-108	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 52.0									2.25	PP
	52.0 to 53.0									2.25	PP
	53.0 to 55.5									2.25	PP
	55.5 to 58.0			53	19	34	CH		100	2.25	PP
	58.0 to 60.5									2.25	PP
	60.5 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 68.0									2.25	PP
	68.0 to 70.5									2.25	PP
	70.5 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 80.5									2.25	PP
	80.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 90.5									2.25	PP
	90.5 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 96.5			59	24	35	CH		100	2.25	PP
	96.5 to 99.0									2.25	PP
	99.0 to 101.5									2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 106.5									2.25	PP
	106.5 to 109.0									2.25	PP
	109.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.5									2.25	PP
	116.5 to 119.0									2.25	PP
	119.0 to 120.0									2.25	PP
B-109	0.0 to 2.5									1.00	PP
	2.5 to 5.0									1.00	PP
	5.0 to 7.5									2.00	PP
	7.5 to 10.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-109	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5			92	30	62	CH		99	2.25	PP
	22.5 to 25.0									1.00	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 51.5									2.25	PP
	51.5 to 54.0									2.25	PP
	54.0 to 56.0									2.25	PP
	56.0 to 58.5			25	15	10	SC		40	2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0			63	19	44	CH		100	2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-109	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0			49	22	27	CL		98	2.25	PP
	138.0 to 140.5									2.25	PP
	140.5 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 150.5									2.25	PP
	150.5 to 153.0									2.25	PP
	153.0 to 155.5									2.25	PP
	155.5 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-109A	0.0 to 6.0									0.50	PP
	6.0 to 16.0									2.25	PP
	16.0 to 24.0									2.25	PP
	24.0 to 36.0									2.25	PP
	36.0 to 56.0									2.25	PP
	56.0 to 76.0									2.25	PP
	76.0 to 85.0									2.25	PP
B-110	0.0 to 2.5									0.75	PP
	2.5 to 5.0									1.00	PP
	5.0 to 7.5									1.00	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-110	22.5 to 25.0		17	63	21	42	CH		59	2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0		14			NP	SM		48	2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 98.0									2.25	PP
	98.0 to 100.5									2.25	PP
	100.5 to 103.0		15	60	26	34	CH		100	2.25	PP
	103.0 to 105.5									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-110	117.5 to 120.0									2.25	PP
B-111	0.0 to 2.5									0.50	PP
	2.5 to 5.0									0.75	PP
	5.0 to 7.5									0.75	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.00	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 26.5								100	2.25	PP
	26.5 to 28.5		14	50	23	27				2.25	PP
	28.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	58.5			59	23	36					
	60.0 to 62.5									2.25	PP
	62.5 to 65.0		18	62	26	36	CH		99	2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-111	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 104.0		9	40	17	23	CL		84	2.25	PP
	104.0 to 105.5									2.25	PP
	105.5 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.5									2.25	PP
	116.5 to 118.5									2.25	PP
	118.5 to 120.0									2.25	PP
B-112	0.0 to 1.0										
	1.0 to 2.0									1.25	PP
	2.0 to 6.0										
	6.0 to 8.5									2.25	PP
	8.5 to 11.0									2.25	PP
	11.0 to 13.5									2.25	PP
	13.5 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 27.5									2.25	PP
	27.5 to 29.0									2.25	PP
	29.0 to 30.5									2.25	PP
	30.5 to 32.0									2.25	PP
	31.5 to 34.0									2.25	PP
	34.0 to 35.0									2.25	PP
	35.0 to 36.0									2.25	PP
	36.0 to 38.2									2.25	PP
	38.2 to 39.0									2.25	PP
	39.0 to 41.0									2.25	PP
	41.0 to 42.0									2.25	PP
	42.0 to 44.5									2.25	PP
	44.5 to 47.0									2.25	PP
	47.0 to 47.5										

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-112	47.5 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0		13						100	2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0									2.25	PP
	81.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5		19	90	25	65	CH		99	2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 109.5									2.25	PP
	109.5 to 110.5									2.25	PP
	110.5 to 113.0									2.25	PP
	113.0 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 124.0									2.25	PP
	124.0 to 126.5									2.25	PP
	126.5 to 129.0									2.25	PP
	129.0 to 131.5		11	55	22	33	CH		92	2.25	PP
	131.5 to 134.0									2.25	PP
	134.0 to 136.5									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-112	136.5 to 139.0									2.25	PP
	139.0 to 141.5									2.25	PP
	141.5 to 142.0										
	142.0 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 149.5									2.25	PP
	149.5 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.0 to 160.0									2.25	PP
B-113	0.0 to 2.5									0.50	PP
	2.5 to 5.0									0.50	PP
	5.0 to 7.5									1.75	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									0.50	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5		8	40	17	23	CL		95	2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 51.5									2.25	PP
	51.5 to 54.0									2.25	PP
	54.0 to 56.5									2.25	PP
	56.5 to 59.0									2.25	PP
	59.0 to 61.5									2.25	PP
	61.5 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-113	65.0 to 67.5									2.25	PP
	67.5 to 70.0		8	44	17	27	CL		90	2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.0									2.25	PP
	82.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 104.0									2.25	PP
	104.0 to 105.5									2.25	PP
	105.5 to 107.5		17	57	24	33	CH		69	2.25	PP
	107.5 to 108.5									2.25	PP
	108.5 to 110.0									2.25	PP
	110.0 to 111.0									1.75	PP
	111.0 to 113.5									1.63	PP
	113.5 to 116.0									1.75	PP
	116.0 to 119.0									2.25	PP
	119.0 to 120.0									2.25	PP
	120.0 to 122.5									2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.5 to 130.0									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 139.0									2.25	PP
	139.0 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 145.0									2.25	PP
	145.0 to 147.5									2.25	PP
	147.5 to 150.0									2.25	PP
	150.0 to 152.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-113	152.5 to 155.0									2.25	PP
	155.0 to 157.5									2.25	PP
	157.5 to 158.3									2.25	PP
	158.3 to 160.0									2.25	PP
B-114	0.0 to 1.0									0.88	PP
	1.0 to 3.5									0.38	PP
	3.5 to 6.0									0.50	PP
	6.0 to 7.0									0.88	PP
	7.0 to 9.5									1.00	PP
	9.5 to 12.0										
	12.0 to 14.5										
	14.5 to 17.0									2.25	PP
	17.0 to 19.5									2.25	PP
	19.5 to 22.0									2.25	PP
	22.0 to 24.5									2.25	PP
	24.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0		11	40	19	21	CL		89	2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 35.5									2.25	PP
	35.5 to 38.0									2.25	PP
	37.0 to 37.8									2.25	PP
	38.0 to 40.5									2.25	PP
	40.5 to 42.0									2.25	PP
	42.0 to 43.0									2.25	PP
	43.0 to 45.5									2.25	PP
	45.5 to 46.0										
	46.0 to 46.8									2.25	PP
	46.8 to 47.0										
	47.0 to 49.0									2.25	PP
	49.0 to 50.5									2.25	PP
	50.5 to 53.0									2.25	PP
	53.0 to 54.0									2.25	PP
	54.0 to 56.0									2.25	PP
	56.0 to 57.0									2.25	PP
	57.0 to 59.5		13	48	21	27	CL		100	2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 64.5									2.25	PP
	64.5 to 65.5									2.25	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-114	65.5 to 68.0									2.25	PP
	68.0 to 70.5									2.25	PP
	70.5 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 79.0										
	79.0 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0		10	45	17	28	CL		88	2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP
	113.5 to 116.0									2.25	PP
	116.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-114A	0.0 to 6.0									0.75	PP
	6.0 to 15.0									2.25	PP
	15.0 to 20.0									2.25	PP
B-115	0.0 to 2.5									1.00	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-115	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5		15	54	24	30	CH		99	2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5		18	90	29	61	CH		100	2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 94.0									2.25	PP
	94.0 to 102.0									2.25	PP
	102.0 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-116	0.0 to 2.5									1.38	PP
	2.5 to 5.0									1.13	PP
	5.0 to 7.5									1.50	PP
	7.5 to 8.5									2.25	PP
	8.5 to 11.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-116	11.0 to 12.2									2.25	PP
	12.2 to 13.5									2.25	PP
	13.5 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.3									2.25	PP
	26.3 to 28.8									2.25	PP
	28.8 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0			47	19	28	CL		93	2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 42.0									2.25	PP
	42.0 to 43.0									2.25	PP
	43.0 to 45.5									2.25	PP
	45.5 to 48.0									2.25	PP
	48.0 to 50.5									2.25	PP
	50.5 to 53.0									2.25	PP
	53.0 to 54.0									2.25	PP
	54.0 to 56.5									2.25	PP
	56.5 to 59.0									2.25	PP
	59.0 to 61.5									2.25	PP
	61.5 to 64.0									2.25	PP
	64.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 71.5			44	20	24	CL		99	2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.5									2.25	PP
	76.5 to 78.0									2.25	PP
	78.0 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 96.5									2.25	PP
	96.5 to 99.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-116	99.0 to 101.5									2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 106.5									2.25	PP
	106.5 to 111.0			48	18	30	CL		98	2.25	PP
	111.0 to 112.0									2.25	PP
	112.0 to 114.5									2.25	PP
	114.5 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0									2.25	PP
	138.0 to 140.5									2.25	PP
	140.5 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0			54	23	31	CH		100	2.25	PP
	148.0 to 150.5									2.25	PP
	150.5 to 160.0									2.25	PP
B-117	0.0 to 2.5		5			NP	SM		33		
	2.5 to 5.0									1.50	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0									1.13	PP
	10.0 to 12.5									0.63	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5		15	55	25	30	CH		99	2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-117	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5		11	99	23	76	CH		97	2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-118	0.0 to 2.5									0.88	PP
	2.5 to 5.0		11	49	18	31	CL		63	0.38	PP
	5.0 to 7.5									1.00	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 15.2										
	15.2 to 16.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-118	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5		12	54	24	30	CH		98	2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0									2.25	PP
	81.0 to 83.5		10	52	22	30	CH		90	2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-118	113.5 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
	120.0 to 122.5		6	81	20	61	CH		83	2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.6 to 130.1									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 144.0									2.25	PP
	144.0 to 146.5									2.25	PP
	146.5 to 149.0									2.25	PP
	149.0 to 151.5									2.25	PP
	151.5 to 154.0									2.25	PP
	154.0 to 156.5									2.25	PP
	156.5 to 159.0									2.25	PP
	159.0 to 160.0		12	65	24	41	CH		97	2.25	PP
B-119	0.0 to 2.5									1.25	PP
	2.5 to 5.0									0.88	PP
	5.0 to 7.2			46	16	30	CL		62	1.38	PP
	7.2 to 8.0									1.50	PP
	8.0 to 10.5									2.25	PP
	10.5 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 42.5			57	20	37	CH		62	2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-119	42.5 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0			48	20	28	CL		86	2.25	PP
	81.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 107.0									2.25	PP
	107.0 to 109.5									2.25	PP
	109.5 to 112.0									2.25	PP
	112.0 to 114.5									2.25	PP
	114.5 to 117.0									2.25	PP
	117.0 to 119.5			60	20	40	CH		100	2.25	PP
	119.5 to 122.0									2.25	PP
	122.0 to 124.5									2.25	PP
	124.5 to 127.0									2.25	PP
	127.0 to 129.5									2.25	PP
	129.5 to 132.0									2.25	PP
	132.0 to 134.5									2.25	PP
	134.5 to 137.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-119	137.0 to 139.5									2.25	PP
	139.5 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 148.0									2.25	PP
	148.0 to 149.5									2.25	PP
	149.5 to 152.0									2.25	PP
	152.0 to 154.5									2.25	PP
	154.5 to 156.0									2.25	PP
	156.0 to 159.0										
	159.0 to 160.0									2.25	PP
B-120	0.0 to 2.5									1.63	PP
	2.5 to 5.5									1.25	PP
	5.5 to 7.5									1.75	PP
	7.5 to 11.0										
	11.0 to 12.0								87		
	12.0 to 13.5									2.00	PP
	13.5 to 14.5									2.25	PP
	14.5 to 17.0			51	19	32				2.25	PP
	17.0 to 19.5									2.25	PP
	19.5 to 22.0									2.25	PP
	22.0 to 24.5									2.25	PP
	24.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 37.0									2.25	PP
	37.0 to 39.5									2.25	PP
	39.5 to 42.0									2.25	PP
	42.0 to 44.5									2.25	PP
	44.5 to 47.0									2.25	PP
	47.0 to 49.5			40	15	25	CL		73	2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.5									2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 64.5									2.25	PP
	64.5 to 67.0									2.25	PP
	67.0 to 69.5									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-120	69.5 to 72.0									2.25	PP
	72.0 to 74.5									2.25	PP
	74.5 to 77.0									2.25	PP
	77.0 to 79.5									2.25	PP
	79.5 to 82.0									2.25	PP
	82.0 to 84.5									2.25	PP
	84.5 to 87.0									2.25	PP
	87.0 to 89.5			57	23	34	CH		99	2.25	PP
	89.5 to 92.0									2.25	PP
	92.0 to 94.5									2.25	PP
	94.5 to 97.0									2.25	PP
	97.0 to 99.5									2.25	PP
	99.5 to 102.0									2.25	PP
	102.0 to 104.5									2.25	PP
	104.5 to 107.0									2.25	PP
	107.0 to 109.5									2.25	PP
	109.5 to 112.0									2.25	PP
	112.0 to 114.5									2.25	PP
	114.5 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-121	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0									2.00	PP
	10.0 to 12.5			50	19	31	CH		96	2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									1.75	PP
	25.0 to 28.0									2.25	PP
	28.0 to 29.5									2.25	PP
	29.5 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-121	47.5 to 50.0									2.25	PP
	50.0 to 52.5			51	25	26	CH		88	2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	59.0 to 60.5									2.25	PP
	60.5 to 63.0									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 72.0									2.25	PP
	72.0 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0			70	20	50	CH		93	2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-122	0.0 to 2.5									1.38	PP
	2.5 to 5.0									1.50	PP
	5.0 to 7.5									2.00	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0			44	20	24	CL		95	2.25	PP
	15.0 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-122	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 30.5									2.25	PP
	30.5 to 31.5									2.25	PP
	31.5 to 34.0									2.25	PP
	34.0 to 36.5									2.25	PP
	36.5 to 39.0									2.25	PP
	39.0 to 41.5									2.25	PP
	41.5 to 44.0									2.25	PP
	44.0 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0			45	19	26	CL		98	2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 88.5								66	2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5			54	23	31				2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 109.0									2.25	PP
	109.0 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP

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CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-122	113.5 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 126.0									2.25	PP
	126.0 to 128.5			49	21	28	CL		95	2.25	PP
	128.5 to 131.0									2.25	PP
	131.0 to 133.5									2.25	PP
	133.5 to 136.0									2.25	PP
	136.0 to 138.5									2.25	PP
	138.5 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 146.0									2.25	PP
	146.0 to 148.5									2.25	PP
	148.5 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-123	0.0 to 2.5										
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.38	PP
	7.5 to 9.5									1.63	PP
	9.5 to 10.5										
	10.5 to 13.0									2.25	PP
	13.0 to 15.0			47	24	23	CL		83	2.25	PP
	15.0 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP

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CU = Consolidated Undrained Triaxial

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-123	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5			65	27	38	CH		94	2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.2									2.25	PP
	72.2 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 80.5									2.25	PP
	80.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 90.5			27	13	14	CL		54	2.25	PP
	90.5 to 93.0									2.25	PP
	93.0 to 95.5									2.25	PP
	95.5 to 98.0									2.25	PP
	98.0 to 100.5									2.25	PP
	100.5 to 103.0									2.25	PP
	103.0 to 105.5									2.25	PP
	105.5 to 108.0									2.25	PP
	108.0 to 110.5									2.25	PP
	110.5 to 113.0									2.25	PP
	113.0 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5			40	16	24	SC		49	2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0									2.25	PP
	138.0 to 140.5									2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-123	140.5 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 150.5									2.25	PP
	150.5 to 153.0									2.25	PP
	153.0 to 155.5									2.25	PP
	155.5 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-124	0.0 to 5.0										
	5.0 to 7.5									2.25	PP
	7.5 to 8.5									0.75	PP
	8.5 to 11.0									0.63	PP
	11.0 to 13.5									2.25	PP
	13.5 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5			33	15	18	CL		93	2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0			81	31	50	CH		99	2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-124	73.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5			109	23	86	CH		99	2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 101.5									2.25	PP
	101.5 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.5 to 130.0									2.25	PP
	130.0 to 132.5			68	25	43	CH		96	2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 145.0									2.25	PP
	145.0 to 147.0									2.25	PP
	147.0 to 149.0									2.25	PP
	149.0 to 150.0									2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 154.0									2.25	PP
	154.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-125	0.0 to 2.5									1.38	PP

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-125	2.5 to 5.0									1.25	PP
	5.0 to 7.5									2.25	PP
	7.5 to 10.5									2.25	PP
	10.5 to 11.5									2.25	PP
	11.5 to 14.0									2.25	PP
	14.0 to 16.5									2.25	PP
	16.5 to 19.0			39	18	21	CL		96	2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 26.5									2.25	PP
	26.5 to 29.0									2.25	PP
	29.0 to 31.5									2.25	PP
	31.5 to 34.0									2.25	PP
	34.0 to 36.5									2.25	PP
	36.5 to 39.0									2.25	PP
	39.0 to 41.5									2.25	PP
	41.5 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0			40	18	22	CL		87	2.25	PP
	57.0 to 58.0									1.75	PP
	58.0 to 60.5									1.75	PP
	60.5 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 68.0									2.25	PP
	68.0 to 70.5									2.25	PP
	70.5 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 77.0									2.25	PP
	77.0 to 79.5									2.25	PP
	79.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 90.5									2.25	PP
	90.5 to 93.0									2.25	PP
	93.0 to 95.5			47	19	28	CL		98	2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

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PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-125	95.5 to 97.0									2.25	PP
	97.0 to 98.0									2.25	PP
	98.0 to 100.5									2.25	PP
	100.5 to 103.0									2.25	PP
	103.0 to 104.0									2.25	PP
	104.0 to 105.0									2.25	PP
	105.0 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP
	113.5 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
B-126	0.0 to 2.5									1.13	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.25	PP
	7.5 to 9.0									2.25	PP
	9.0 to 11.5									2.25	PP
	11.5 to 14.0									2.25	PP
	14.0 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5			50	23	27	CH		98	2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 29.0									2.25	PP
	29.0 to 31.5									2.25	PP
	31.5 to 33.0									2.25	PP
	33.0 to 35.5									2.25	PP
	35.5 to 38.0									2.25	PP
	38.0 to 40.5									2.25	PP
	40.5 to 43.0									2.25	PP
	43.0 to 45.5									2.25	PP
	45.5 to 48.0									2.25	PP
	48.0 to 50.5									2.25	PP
	50.5 to 53.0									2.25	PP
	53.0 to 55.5									2.25	PP
	55.5 to 58.0									2.25	PP
	58.0 to 60.5			59	24	35	CH		100	2.25	PP

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RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-126	60.5 to 63.0									2.25	PP
	63.0 to 64.0									2.25	PP
	64.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 71.5									2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.5									2.25	PP
	76.5 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 96.5									2.25	PP
	96.5 to 99.0			78	28	50	CH		100	2.25	PP
	99.0 to 101.5									2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
	120.0 to 121.0									2.25	PP
	121.0 to 123.5									2.25	PP
	123.5 to 126.0									2.25	PP
	126.0 to 128.5									2.25	PP
	128.5 to 131.0									2.25	PP
	131.0 to 133.5			65	27	38	CH		97	2.25	PP
	133.5 to 136.0									2.25	PP
	136.0 to 138.5									2.25	PP
	138.5 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 146.0									2.25	PP
	146.0 to 148.5									2.25	PP
	148.5 to 151.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-126	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
DB-1	0.0 to 6.0									0.38	PP
	6.0 to 16.0									0.75	PP
	16.0 to 24.0									2.25	PP
	24.0 to 29.0									2.25	PP
	29.0 to 36.0									2.25	PP
	36.0 to 45.0									2.25	PP
	45.0 to 56.0									2.25	PP
	56.0 to 66.0									2.25	PP
	66.0 to 73.0									2.25	PP
	73.0 to 84.0									2.25	PP
	84.0 to 86.0										
	86.0 to 90.0									2.25	PP
	90.0 to 100.0									2.25	PP
	100.0 to 106.0									2.25	PP
	106.0 to 116.0									2.25	PP
	116.0 to 126.0									2.25	PP
	126.0 to 133.0									2.25	PP
	133.0 to 136.0									2.25	PP
	136.0 to 146.0									2.25	PP
	146.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 166.0									2.25	PP
	166.0 to 176.0									2.25	PP
	176.0 to 186.0									2.25	PP
	186.0 to 196.0									2.25	PP
	196.0 to 206.0									2.25	PP
	206.0 to 216.0									2.25	PP
	216.0 to 226.0									2.25	PP
	226.0 to 236.0									2.25	PP
	236.0 to 246.0									2.25	PP
	246.0 to 253.0									2.25	PP
	253.0 to 260.0										
	260.0 to 276.0									2.25	PP
	276.0 to 278.0										
	278.0 to 296.0									2.25	PP

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

RESULTS OF SOIL SAMPLE ANALYSES

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
DB-1	296.0 to 316.0									2.25	PP
	316.0 to 336.0									2.25	PP
	336.0 to 356.0									2.25	PP
	356.0 to 366.0										
	366.0 to 386.0									2.25	PP
	386.0 to 389.0										
	389.0 to 400.0									2.25	PP
	400.0 to 413.0									2.25	PP
	413.0 to 426.0										
	426.0 to 456.0									2.25	PP
	456.0 to 466.0									2.25	PP
	466.0 to 476.0									2.25	PP
	476.0 to 480.0									2.25	PP
	480.0 to 486.0										
	486.0 to 502.0									2.25	PP
TP-1	3.0			46	18	28	CL		65		
	6.0			25	19	6	SC-SM		27		
	9.5			69	37	32	MH		99		
	11.5			55	32	23	MH		100		
	12.0			60	31	29	MH		99		
TP-2	13.0			64	29	35	CH		98		
	20.0			57	24	33	CH		96		
	22.0			51	29	22	MH		95		
	22.1			63	23	40	CH		99		

PP = Pocket Penetrometer TV = Torvane UC = Unconfined Compression FV = Field Vane UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NO. ASF13-140-00

APPENDIX B

SUMMARY OF RESULTS AND HYDRAULIC CONDUCTIVITY TEST RESULTS

Figures B-1 through B-19

SUMMARY OF RESULTS

Test Pit	Depth (feet)	Stratum	Orientation	ASTM Classification	Liquid Limit	Plasticity Index	Passing -200 (%)	Mean Hydraulic Conductivity (cm/sec)
TP-1	3	I	Horizontal	FAT CLAY (CH), red-brown with calc nods	46	28	64.5	9.55E-07
TP-1	6	I	Horizontal	LEAN CLAY with SAND (CL)	25	6	26.9	2.01E-06
TP-1	9.5	II	Horizontal	FAT CLAY (CH)	69	32	98.6	4.78E-07
TP-1	11.5	II	Horizontal	FAT CLAY (CH)	55	23	99.7	3.78E-07
TP-1	12	III	Horizontal	FAT CLAY (CH)	60	29	99.3	4.50E-07
TP-2	13	III	Horizontal	FAT CLAY (CH)	64	35	97.9	7.97E-07
TP-2	20	IV	Horizontal	FAT CLAY (CH), gray	57	33	96.4	8.30E-07
TP-2	22	IV	Vertical	FAT CLAY (CH), gray	51	22	95.4	1.23E-07
TP-2	22	IV	Horizontal	FAT CLAY (CH), gray	63	40	98.8	5.54E-09

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 2
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.69
[ ] Measured [X] Assumed

Sample
Boring No: TP-1 Tube: [X] Field Extruded [ ] Remolded [ ] Vertical
Sample No: 1 Spoon: [ ] Remolded [X] Horizontal
Depth (ft): 3-4
[ ] Constant Effort
Tamper Weight (lbf):
Tamper Force (lbf):
Blows/Tamps per Layer:
No. of Layers:
Drop in Inches:

Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [ ] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}	Initial Soil Measurements (inches)			
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)	Height		Diameter	
Container No.	C	A22		--	H_1	5.542	D_1	2.818
Mass Moist Soil + Container (g)	334.42	111.07		1247.00	H_2	5.541	D_2	2.812
Mass Dry Soil + Container (g)	304.73	95.67		999.96	H_3	5.541	D_3	2.816
Mass Container (g)	208.08	39.35		155.77	H_4	5.542	D_4	2.815
WATER CONTENT (%)	30.72	27.34		29.26	Average Height		Average Diameter	
Avg. Initial Water Content, W4 (%)	29.03	Final W_{at}:	[ ] Slice ; [X] Whole Spec.		(in)	5.542	(in)	2.815
[ ] See attached data sheet(s) for additional water contents					(cm)	14.075	(cm)	7.151

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	1082.10	1247.00
Mass Dry Soil + Tare (g)	844.19	999.96
Mass Tare (g)	0.00	155.77
Mass Moist Soil, M_i or M_f (g)	1082.10	1091.23

Summary of Initial Soil Properties			
Initial Area (cm^2)	40.160	Initial Dry Unit Weight (pcf)	93.23
Initial Total Volume (cm^3)	565.265	Initial Moist Unit Weight (pcf)	119.51
Initial Mass Moist Soil (g)	1082.10	Initial Void Ratio	0.80
Mass Dry Soil (g)	844.19	Initial Degree of Saturation (%)	94.51
Initial Moisture Content (%)	28.18	Pore Volume (cm^3)	251.73

Mean Hydraulic Conductivity, cm/sec

9.55E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	8.362	14.075	0	40.160
After Saturation Phase	8.305	14.053	-0.3	40.203
After Consolidation Phase	8.280	14.043	-4.2	39.932
End of Test	8.268	14.038	-0.2	39.931

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
8	9.11	13.59	1.03	0.34	334.54	95.70	23.83	1.07E-06
					320.14		22.80	
9	9.10	13.59	1.04	0.36	335.25	95.79	23.88	1.05E-06
					321.15		22.88	
10	9.04	13.52	0.88	0.39	334.44	96.29	23.82	9.22E-07
					322.04		22.94	
11	8.87	13.32	1.00	0.41	332.34	96.87	23.67	7.76E-07
					321.94		22.93	

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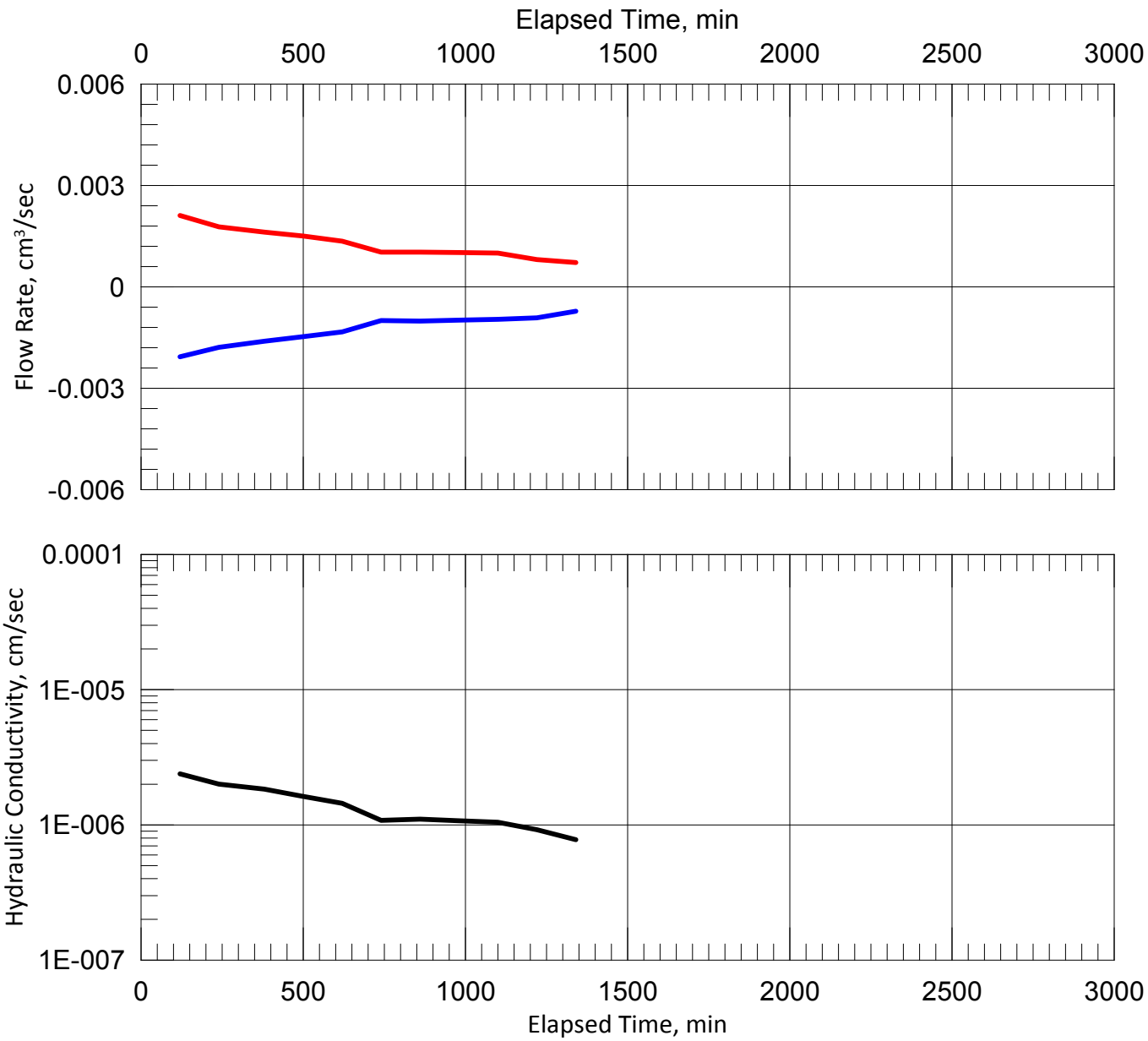
Summary of End-of-Test Soil Properties			
Final Area (cm^2)	39.931	Final Dry Unit Weight (pcf)	94.01
Final Total Volume (cm^3)	560.565	Final Moist Unit Weight (pcf)	121.53
Final Mass Moist Soil (g)	1091.23	Final Void Ratio	0.79
Mass Dry Soil (g)	844.19	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	29.26	Final Pore Volume (cm^3)	247.03

Figure B-2

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-1

DEPTH: 3 to 4 feet

ORIENTATION: Horizontal

% PASSING -200: 64.5%

ATTERBERG LIMITS: LL = 46; PL = 18; PI = 28

HYDRAULIC CONDUCTIVITY: 9.55E-07 cm/sec

MATERIAL DESCRIPTION: Sandy Lean Clay (CL), red-brown with calcarous nodules

FIGURE B-3

RABA KISTNER
TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 4
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.78
[ ] Measured [X] Assumed

Sample
Boring No: TP-1 Tube: [X] Field Extruded [ ] Remolded [ ] Vertical
Sample No: 3 Spoon: [ ] Remolded [X] Horizontal
Depth (ft): 6-7
[ ] Constant Effort Tamper Weight (lbf): Tamper Force (lbf):
Blows/Tamps per Layer: No. of Layers: Drop in Inches:

Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [X] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)
Container No.	A43	A53	A54	--
Mass Moist Soil + Container (g)	155.15	199.97	182.09	624.84
Mass Dry Soil + Container (g)	135.48	175.08	159.69	551.36
Mass Container (g)	38.92	39.25	38.79	201.36
WATER CONTENT (%)	20.37	18.32	18.53	20.99
Avg. Initial Water Content, W4 (%)	19.07	Final W_{at}:	[ ] Slice ; [X]	Whole Spec.

[ ] See attached data sheet(s) for additional water contents

Initial Soil Measurements (inches)			
Height		Diameter	
H_1	4.281	D_1	1.910
H_2	4.301	D_2	1.926
H_3	4.300	D_3	1.915
H_4	4.296	D_4	1.910
Average Height		Average Diameter	
(in)	4.295	(in)	1.915
(cm)	10.908	(cm)	4.865

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	422.70	624.84
Mass Dry Soil + Tare (g)	350.00	551.36
Mass Tare (g)	0.00	201.36
Mass Moist Soil, M_i or M_f (g)	422.70	423.48

Summary of Initial Soil Properties			
Initial Area (cm^2)	18.587	Initial Dry Unit Weight (pcf)	107.77
Initial Total Volume (cm^3)	202.747	Initial Moist Unit Weight (pcf)	130.15
Initial Mass Moist Soil (g)	422.70	Initial Void Ratio	0.61
Mass Dry Soil (g)	350.00	Initial Degree of Saturation (%)	94.69
Initial Moisture Content (%)	20.77	Pore Volume (cm^3)	76.78

Mean Hydraulic Conductivity, cm/sec

2.01E-06

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	6.974	10.908	--	18.587
After Saturation Phase	6.961	10.903	-1.2	18.486
After Consolidation Phase	6.957	10.901	-1.3	18.369
End of Test	6.957	10.901	-0.8	18.296

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
36	7.89	12.79	0.92	3.59	365.07	98.74	33.49	2.03E-06
					360.47		33.07	
37	7.90	12.83	1.00	3.63	367.18	98.75	33.68	2.02E-06
					362.58		33.26	
38	7.91	12.82	0.92	3.66	365.77	98.74	33.55	2.03E-06
					361.17		33.13	
39	7.89	12.82	0.92	3.69	367.18	98.69	33.68	1.98E-06
					362.38		33.24	

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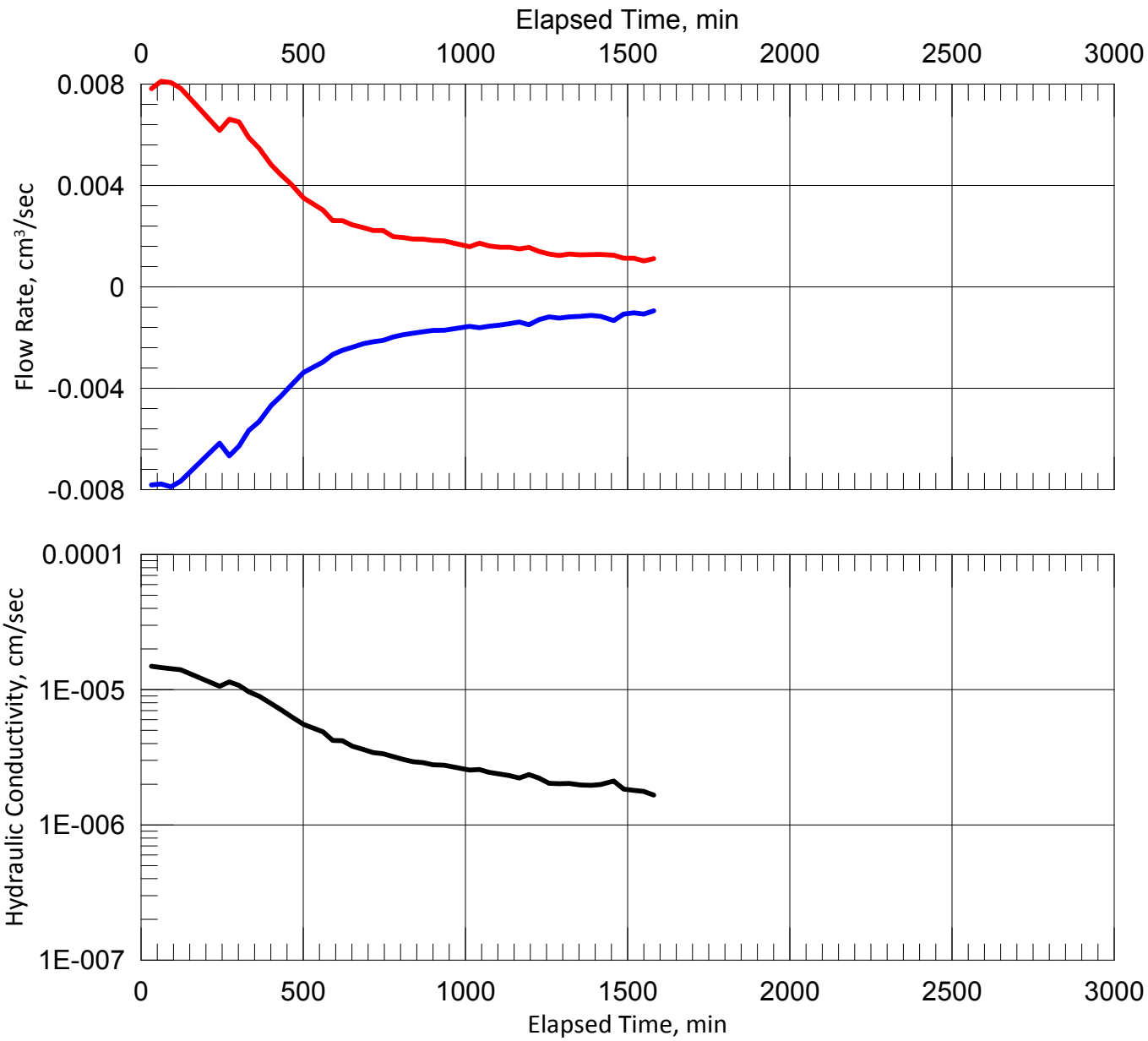
Summary of End-of-Test Soil Properties			
Final Area (cm^2)	18.296	Final Dry Unit Weight (pcf)	109.55
Final Total Volume (cm^3)	199.447	Final Moist Unit Weight (pcf)	132.55
Final Mass Moist Soil (g)	423.48	Final Void Ratio	0.58
Mass Dry Soil (g)	350.00	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	20.99	Final Pore Volume (cm^3)	73.48

Figure B-4

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-1

DEPTH: 6 to 7 feet

ORIENTATION: Horizontal

MATERIAL DESCRIPTION: Lean Clay with SAND (CL)

% PASSING -200: 26.9%

ATTERBERG LIMITS: LL = 25; PL = 19; PI = 6

HYDRAULIC CONDUCTIVITY: 2.01E-06 cm/sec

FIGURE B-5

RABA KISTNER
TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 3
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.78
[ ] Measured [X] Assumed

Sample
Boring No: TP-1 Tube: [X] Field Extruded [ ] Remolded [ ] Vertical
Sample No: 10 Spoon: [ ] Remolded [X] Horizontal
Depth (ft): 9.5 - 10
[ ] Constant Effort
Tamper Weight (lbf): Tamper Force (lbf):
Blows/Tamps per Layer: No. of Layers: Drop in Inches:

Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [ ] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}	Initial Soil Measurements (inches)			
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)	Height		Diameter	
Container No.	M13	M17	M7	--	H_1	2.880	D_1	1.454
Mass Moist Soil + Container (g)	147.80	148.85	142.80	356.08	H_2	2.879	D_2	1.455
Mass Dry Soil + Container (g)	123.40	123.60	119.12	317.70	H_3	2.879	D_3	1.454
Mass Container (g)	39.09	38.86	39.15	205.14	H_4	2.880	D_4	1.455
WATER CONTENT (%)	28.94	29.80	29.61	34.10	Average Height		Average Diameter	
Avg. Initial Water Content, W4 (%)	29.45	Final W_{at}:	[ ] Slice ; [X] Whole Spec.		(in)	2.880	(in)	1.455
[ ] See attached data sheet(s) for additional water contents					(cm)	7.314	(cm)	3.694

Soil Masses	Initial	Final
Container No.	-	
Mass Moist Soil + Tare (g)	147.00	356.08
Mass Dry Soil + Tare (g)	112.56	317.70
Mass Tare (g)	0.00	205.14
Mass Moist Soil, M_i or M_f (g)	147.00	150.94

Summary of Initial Soil Properties			
Initial Area (cm^2)	10.720	Initial Dry Unit Weight (pcf)	89.62
Initial Total Volume (cm^3)	78.404	Initial Moist Unit Weight (pcf)	117.05
Initial Mass Moist Soil (g)	147.00	Initial Void Ratio	0.94
Mass Dry Soil (g)	112.56	Initial Degree of Saturation (%)	90.69
Initial Moisture Content (%)	30.60	Pore Volume (cm^3)	37.97

Mean Hydraulic Conductivity, cm/sec

4.78E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	5.610	7.314	0	10.720
After Saturation Phase	5.601	7.310	-4.5	10.109
After Consolidation Phase	5.585	7.304	-3.3	9.666
End of Test	5.439	7.247	8.2	10.875

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
29	6.41	11.82	0.90	3.03	399.92	99.05	55.15	5.07E-07
					396.12		54.62	
30	6.24	11.66	0.86	3.07	400.63	99.03	55.25	4.72E-07
					396.73		54.71	
31	6.21	11.64	0.89	3.11	401.33	99.15	55.35	4.52E-07
					397.93		54.88	
32	6.08	11.51	0.89	3.16	401.43	99.10	55.37	4.79E-07
					397.83		54.88	

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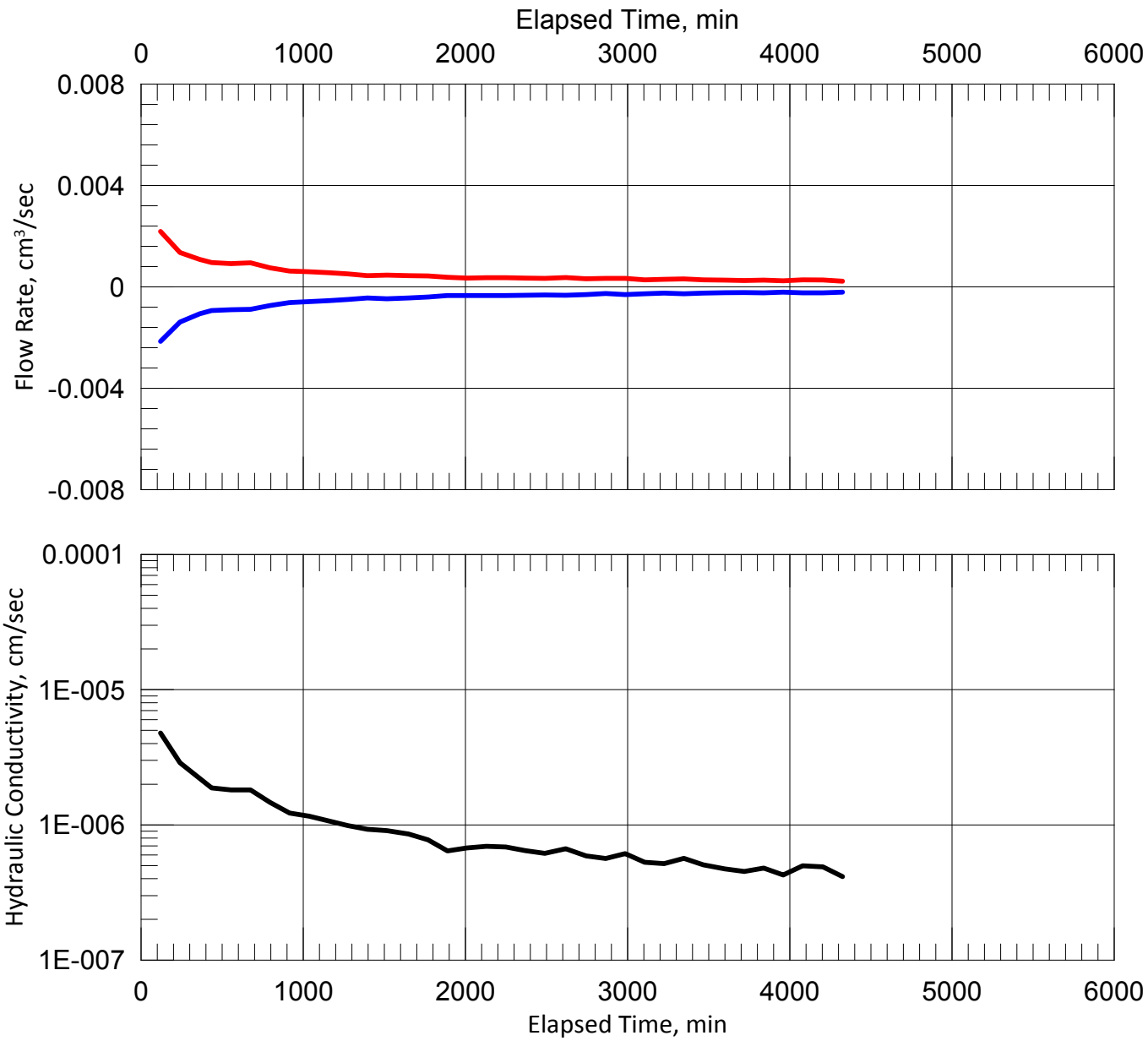
TBPE Firm Registration No. F-3257

Summary of End-of-Test Soil Properties			
Final Area (cm^2)	10.875	Final Dry Unit Weight (pcf)	89.16
Final Total Volume (cm^3)	78.808	Final Moist Unit Weight (pcf)	119.57
Final Mass Moist Soil (g)	150.94	Final Void Ratio	0.95
Mass Dry Soil (g)	112.56	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	34.10	Final Pore Volume (cm^3)	38.38

Figure B-6

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-1
DEPTH: 9.5 to 10 feet
ORIENTATION: Horizontal
MATERIAL DESCRIPTION: Fat Clay (CH)

% PASSING -200: 98.6%
ATTERBERG LIMITS: LL = 69; PL = 37; PI = 32
HYDRAULIC CONDUCTIVITY: 4.78E-07 cm/sec

FIGURE B- 7

RABA KISTNER
TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 8
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.84
[ ] Measured [X] Assumed

Sample
Boring No: TP-1 Tube: [X] Field Extruded Spoon: [ ] Constant Effort Blows/Tamps per Layer:
Sample No: 11 [ ] Remolded [ ] Remolded Tamper Weight (lbf): No. of Layers:
Depth (ft): 11.5 - 12 [ ] Vertical [X] Horizontal Tamper Force (lbf): Drop in Inches:
Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [X] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)
Container No.	A43	911	M11	--
Mass Moist Soil + Container (g)	82.17	105.32	116.43	641.26
Mass Dry Soil + Container (g)	73.96	92.29	101.17	546.35
Mass Container (g)	38.92	39.14	39.19	202.83
WATER CONTENT (%)	23.43	24.52	24.62	27.63
Avg. Initial Water Content, W4 (%)	24.19	Final W_{at}:	[ ] Slice ;	[X] Whole Spec.
[ ] See attached data sheet(s) for additional water contents				

Initial Soil Measurements (inches)			
Height		Diameter	
H_1	4.081	D_1	2.062
H_2	4.076	D_2	2.011
H_3	4.079	D_3	2.045
H_4	4.077	D_4	2.020
Average Height		Average Diameter	
(in)	4.078	(in)	2.035
(cm)	10.359	(cm)	5.168

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	431.71	641.26
Mass Dry Soil + Tare (g)	343.52	546.35
Mass Tare (g)	0.00	202.83
Mass Moist Soil, M_i or M_f (g)	431.71	438.43

Summary of Initial Soil Properties			
Initial Area (cm^2)	20.974	Initial Dry Unit Weight (pcf)	98.71
Initial Total Volume (cm^3)	217.260	Initial Moist Unit Weight (pcf)	124.05
Initial Mass Moist Soil (g)	431.71	Initial Void Ratio	0.80
Mass Dry Soil (g)	343.52	Initial Degree of Saturation (%)	91.46
Initial Moisture Content (%)	25.67	Pore Volume (cm^3)	96.42

Mean Hydraulic Conductivity, cm/sec

3.78E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	6.786	10.359	0	20.974
After Saturation Phase	6.788	10.360	-2.4	20.740
After Consolidation Phase	6.785	10.358	-2.5	20.501
End of Test	6.785	10.358	0.2	20.521

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
18	7.48	12.58	0.84	1.56	379.13	98.79	36.60	3.89E-07
					374.53		36.16	
19	7.50	12.52	0.86	1.58	373.51	98.90	36.06	3.87E-07
					369.41		35.66	
20	7.45	12.55	0.90	1.60	379.13	98.94	36.60	3.72E-07
					375.13		36.22	
21	7.48	12.58	0.95	1.63	379.13	98.97	36.60	3.62E-07
					375.23		36.22	

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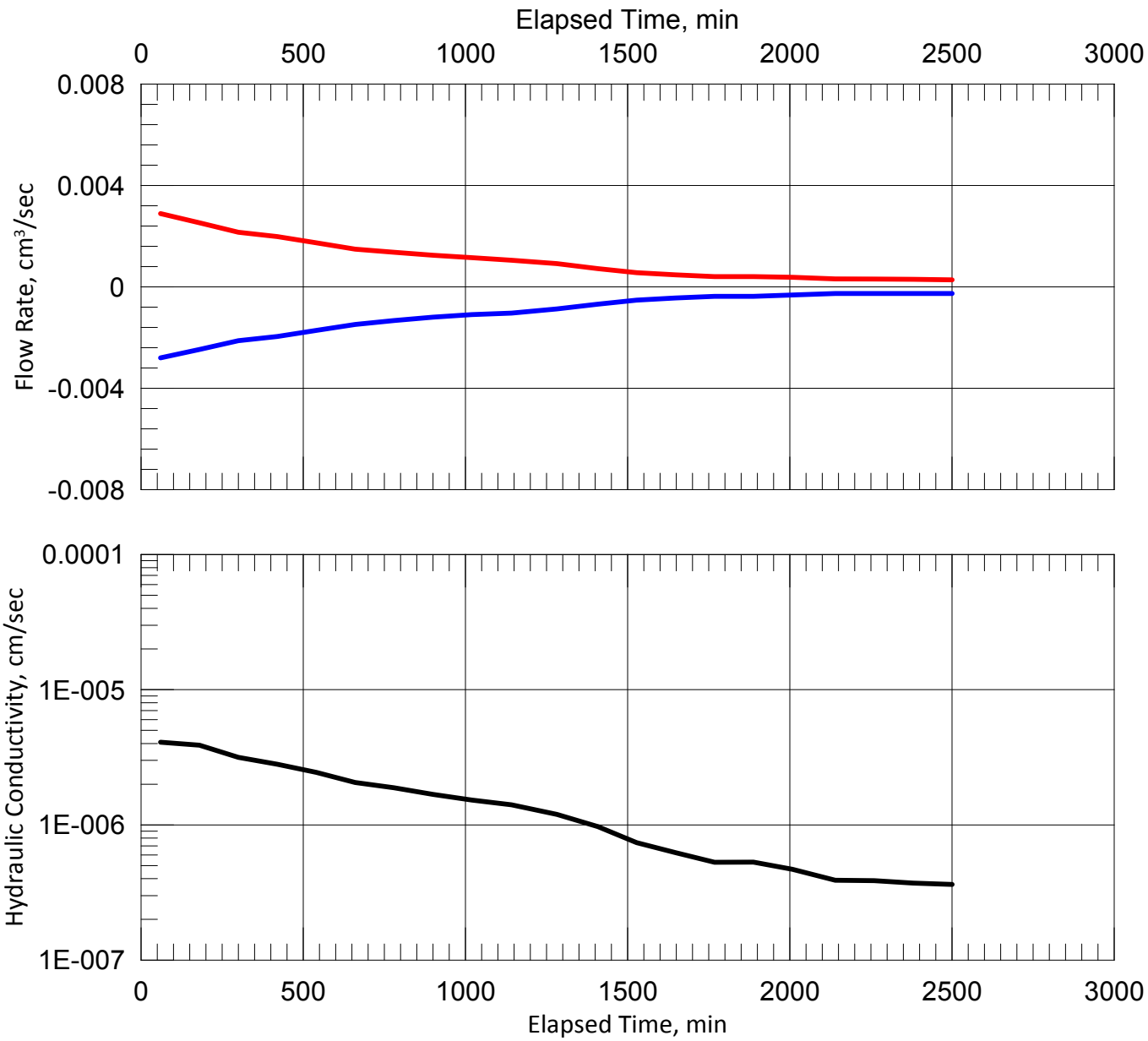
Summary of End-of-Test Soil Properties			
Final Area (cm^2)	20.521	Final Dry Unit Weight (pcf)	100.89
Final Total Volume (cm^3)	212.560	Final Moist Unit Weight (pcf)	128.76
Final Mass Moist Soil (g)	438.43	Final Void Ratio	0.76
Mass Dry Soil (g)	343.52	Final Degree of Saturation (%)	103.47
Final Moisture Content (%)	27.63	Final Pore Volume (cm^3)	91.72

Figure B-8

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-1
DEPTH: 11.5 to 12 feet
ORIENTATION: Horizontal
MATERIAL DESCRIPTION: Fat Clay (CH)

% PASSING -200: 99.7%
ATTERBERG LIMITS: LL = 55; PL = 32; PI = 23
HYDRAULIC CONDUCTIVITY: 3.78E-07 cm/sec

FIGURE B-9

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TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 7
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.86
[ ] Measured [X] Assumed

Sample
Boring No: TP-1 Tube: [X] Field Extruded [ ] Remolded [ ] Vertical
Sample No: 16 Spoon: [ ] Remolded [X] Horizontal
Depth (ft): 12-14
[ ] Constant Effort Tamper Weight (lbf): Tamper Force (lbf):
Blows/Tamps per Layer: No. of Layers: Drop in Inches:

Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [X] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}	Initial Soil Measurements (inches)			
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)	Height		Diameter	
Container No.	A01	A08	A03	--	H_1	4.071	D_1	1.982
Mass Moist Soil + Container (g)	143.10	155.76	144.19	633.75	H_2	4.060	D_2	1.968
Mass Dry Soil + Container (g)	122.73	133.05	123.54	544.14	H_3	4.050	D_3	2.001
Mass Container (g)	39.33	39.16	38.75	205.14	H_4	4.092	D_4	2.000
WATER CONTENT (%)	24.42	24.19	24.35	26.43	Average Height		Average Diameter	
Avg. Initial Water Content, W4 (%)	24.32	Final W_{at}:	[ ] Slice ;	[X] Whole Spec.	(in)	4.068	(in)	1.988
[ ] See attached data sheet(s) for additional water contents					(cm)	10.333	(cm)	5.049

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	421.72	633.75
Mass Dry Soil + Tare (g)	339.00	544.14
Mass Tare (g)	0.00	205.14
Mass Moist Soil, M_i or M_f (g)	421.72	428.61

Summary of Initial Soil Properties			
Initial Area (cm^2)	20.021	Initial Dry Unit Weight (pcf)	102.30
Initial Total Volume (cm^3)	206.882	Initial Moist Unit Weight (pcf)	127.26
Initial Mass Moist Soil (g)	421.72	Initial Void Ratio	0.74
Mass Dry Soil (g)	339.00	Initial Degree of Saturation (%)	93.67
Initial Moisture Content (%)	24.40	Pore Volume (cm^3)	88.30

Mean Hydraulic Conductivity, cm/sec

4.50E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	6.806	10.333	0	20.021
After Saturation Phase	6.803	10.332	-1.6	19.868
After Consolidation Phase	6.798	10.330	-2.0	19.678
End of Test	6.991	10.406	4.9	20.006

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
8	11.02	16.45	0.93	0.45	402.33	98.61	38.73	5.09E-07
					396.73		38.19	
9	11.02	16.33	1.09	0.47	393.89	98.83	37.90	4.34E-07
					389.29		37.46	
10	11.01	16.31	1.09	0.50	393.19	98.78	37.82	4.54E-07
					388.39		37.36	
11	11.02	16.34	0.87	0.52	394.60	98.91	37.95	4.05E-07
					390.30		37.53	

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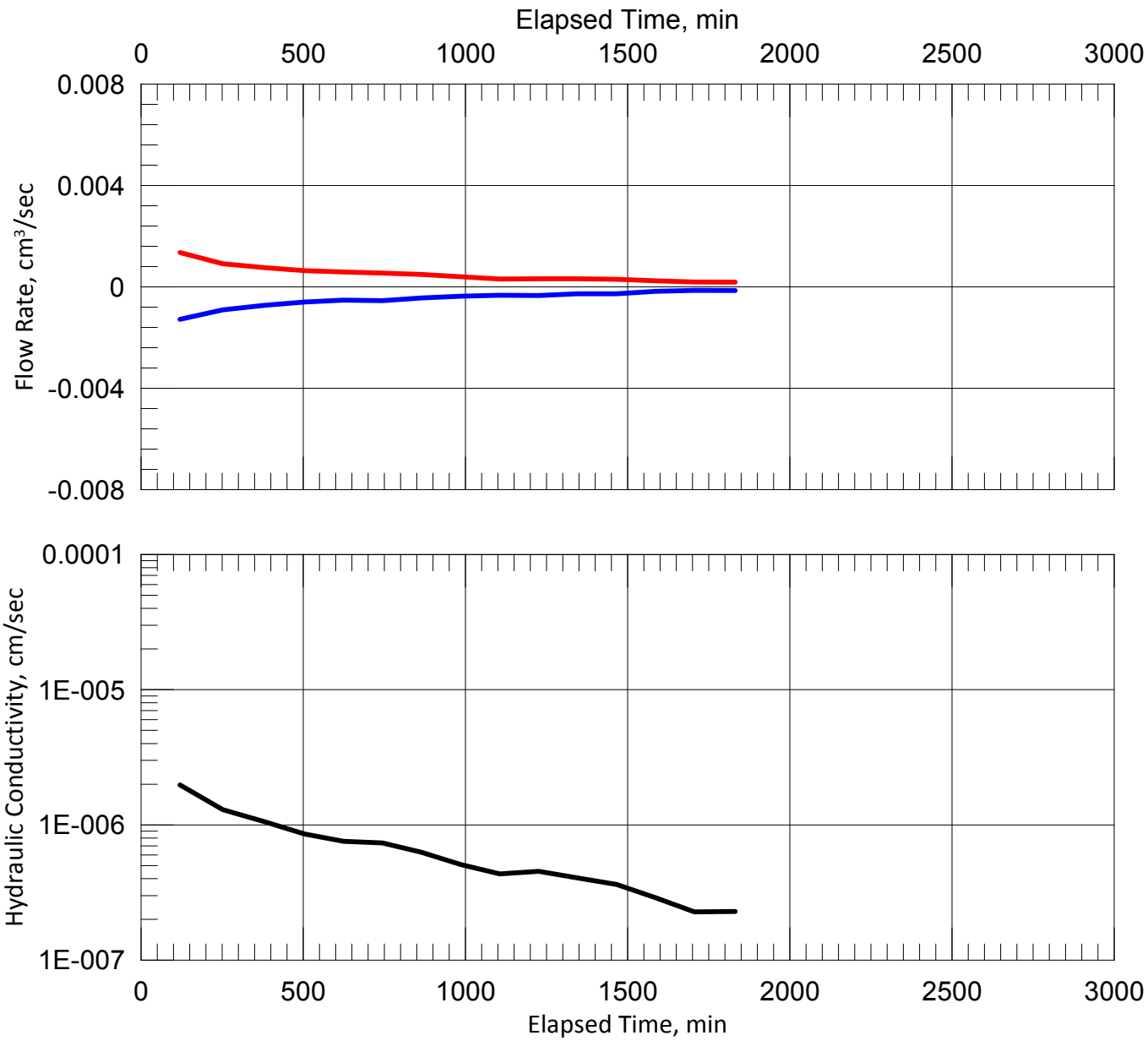
Summary of End-of-Test Soil Properties			
Final Area (cm^2)	20.006	Final Dry Unit Weight (pcf)	101.65
Final Total Volume (cm^3)	208.187	Final Moist Unit Weight (pcf)	128.52
Final Mass Moist Soil (g)	428.61	Final Void Ratio	0.76
Mass Dry Soil (g)	339.00	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	26.43	Final Pore Volume (cm^3)	89.61

Figure B-10

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-1
DEPTH: 12 to 14 feet
ORIENTATION: Horizontal
MATERIAL DESCRIPTION: Fat Clay (CH)

% PASSING -200: 99.3%
ATTERBERG LIMITS: LL = 60; PL = 31; PI = 29
HYDRAULIC CONDUCTIVITY: 4.50E-07 cm/sec

FIGURE B-11

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TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 1
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.80
[ ] Measured [X] Assumed

Sample
Boring No: TP-2 Tube: Spoon: [ ] Constant Effort Blows/Tamps per Layer:
Sample No: 3 [X] Field Extruded Tamper Weight (lbf): No. of Layers:
Depth (ft): 13-14 [ ] Remolded [ ] Remolded Tamper Force (lbf): Drop in Inches:
[ ] Vertical [X] Horizontal
Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [ ] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)
Container No.	A03	A53	EL1	--
Mass Moist Soil + Container (g)	129.99	151.77	360.83	354.06
Mass Dry Soil + Container (g)	110.92	128.15	331.31	316.65
Mass Container (g)	38.76	39.26	214.89	204.74
WATER CONTENT (%)	26.43	26.57	25.36	33.43
Avg. Initial Water Content, W4 (%)	26.12	Final W_{at}:	[ ] Slice ; [X]	Whole Spec.
[ ] See attached data sheet(s) for additional water contents				

Initial Soil Measurements (inches)			
Height		Diameter	
H_1	2.938	D_1	1.459
H_2	2.951	D_2	1.446
H_3	2.946	D_3	1.446
H_4	2.970	D_4	1.463
Average Height		Average Diameter	
(in)	2.951	(in)	1.454
(cm)	7.496	(cm)	3.692

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	142.48	354.06
Mass Dry Soil + Tare (g)	111.91	316.65
Mass Tare (g)	0.00	204.74
Mass Moist Soil, M_i or M_f (g)	142.48	149.32

Summary of Initial Soil Properties			
Initial Area (cm^2)	10.705	Initial Dry Unit Weight (pcf)	87.06
Initial Total Volume (cm^3)	80.247	Initial Moist Unit Weight (pcf)	110.84
Initial Mass Moist Soil (g)	142.48	Initial Void Ratio	1.01
Mass Dry Soil (g)	111.91	Initial Degree of Saturation (%)	75.84
Initial Moisture Content (%)	27.32	Pore Volume (cm^3)	40.31

Mean Hydraulic Conductivity, cm/sec

7.97E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	5.666	7.496	0	10.705
After Saturation Phase	5.657	7.493	-1.2	10.550
After Consolidation Phase	5.650	7.490	-1.6	10.340
End of Test	5.650	7.490	-0.1	10.327

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
15	11.33	14.35	0.83	0.90	231.21	98.57	30.87	7.23E-07
					227.91		30.43	
16	10.71	14.67	0.92	0.96	297.29	98.45	39.69	7.84E-07
					292.69		39.08	
17	10.75	14.68	0.92	1.02	295.18	98.37	39.41	8.26E-07
					290.38		38.77	
18	10.81	14.69	0.96	1.08	291.76	98.32	38.95	8.53E-07
					286.86		38.30	

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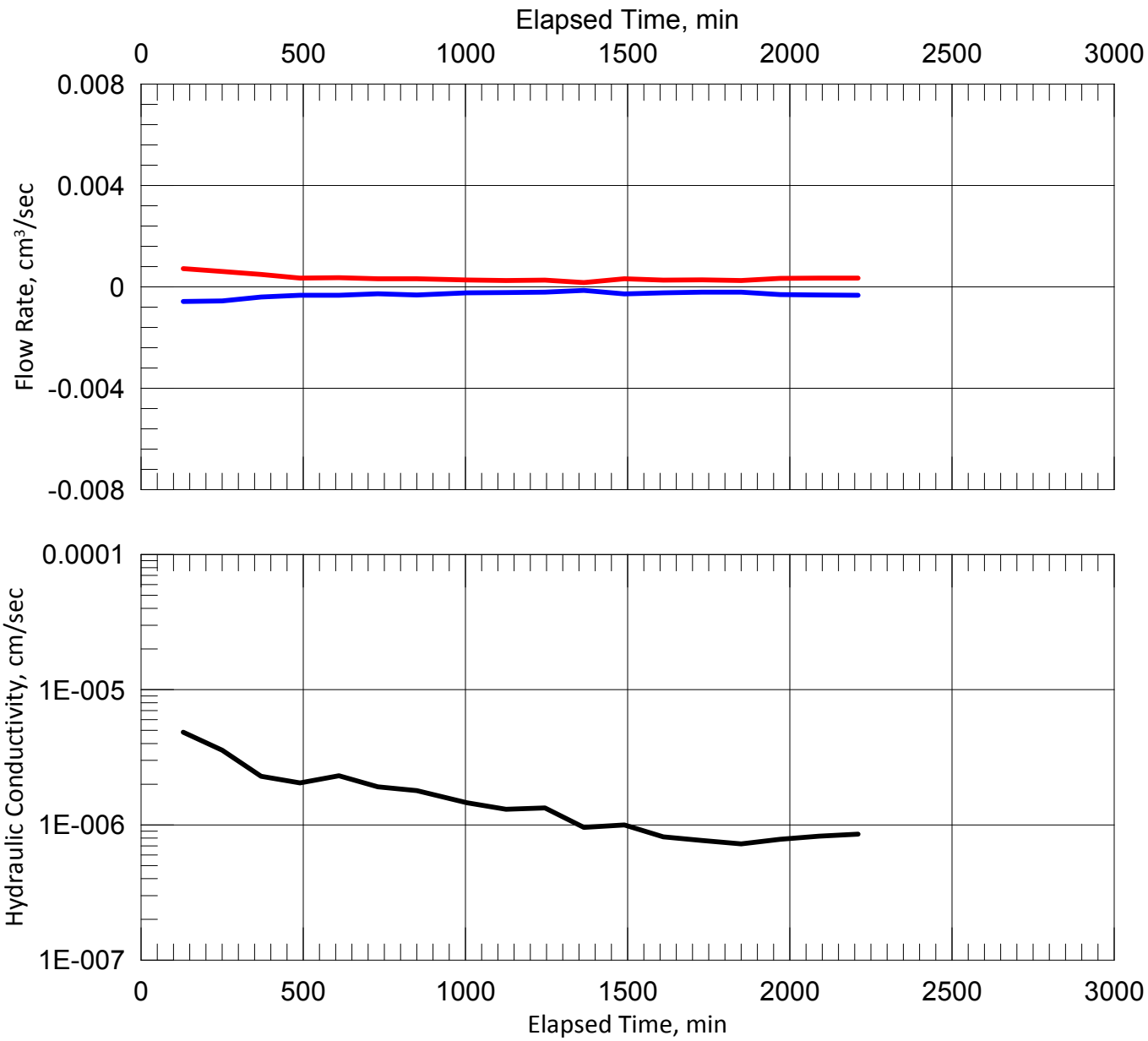
TBPE Firm Registration No. F-3257

Summary of End-of-Test Soil Properties			
Final Area (cm^2)	10.327	Final Dry Unit Weight (pcf)	90.32
Final Total Volume (cm^3)	77.347	Final Moist Unit Weight (pcf)	120.52
Final Mass Moist Soil (g)	149.32	Final Void Ratio	0.94
Mass Dry Soil (g)	111.91	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	33.43	Final Pore Volume (cm^3)	37.41

Figure B-12

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-2
DEPTH: 13 to 14 feet
ORIENTATION: Horizontal
MATERIAL DESCRIPTION: Fat Clay (CH)

% PASSING -200: 97.9%
ATTERBERG LIMITS: LL = 64; PL = 29; PI = 35
HYDRAULIC CONDUCTIVITY: 7.97E-07 cm/sec

FIGURE B-13

RABA KISTNER
TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 8
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.87
[ ] Measured [X] Assumed

Sample
Boring No: TP-2 Tube: Spoon: [ ] Constant Effort Blows/Tamps per Layer:
Sample No: 6 [X] Field Extruded Tamper Weight (lbf): No. of Layers:
Depth (ft): 20-21 [ ] Remolded [ ] Remolded Tamper Force (lbf): Drop in Inches:
[ ] Vertical [X] Horizontal
Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [X] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}	Initial Soil Measurements (inches)			
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)	Height		Diameter	
Container No.	A42		A54	--	H_1	2.677	D_1	1.960
Mass Moist Soil + Container (g)	150.09		122.75	502.46	H_2	2.684	D_2	1.963
Mass Dry Soil + Container (g)	136.70		112.95	459.22	H_3	2.690	D_3	1.970
Mass Container (g)	39.37		38.80	200.63	H_4	2.694	D_4	1.984
WATER CONTENT (%)	13.76		13.22	16.72	Average Height		Average Diameter	
Avg. Initial Water Content, W4 (%)	13.49	Final W_{at}:	[ ] Slice ; [X] Whole Spec.		(in)	2.686	(in)	1.969
[ ] See attached data sheet(s) for additional water contents					(cm)	6.823	(cm)	5.002

Soil Masses	Initial	Final
Container No.	-	CC1
Mass Moist Soil + Tare (g)	294.78	502.46
Mass Dry Soil + Tare (g)	258.59	459.22
Mass Tare (g)	0.00	200.63
Mass Moist Soil, M_i or M_f (g)	294.78	301.83

Summary of Initial Soil Properties			
Initial Area (cm^2)	19.650	Initial Dry Unit Weight (pcf)	120.41
Initial Total Volume (cm^3)	134.072	Initial Moist Unit Weight (pcf)	137.26
Initial Mass Moist Soil (g)	294.78	Initial Void Ratio	0.49
Mass Dry Soil (g)	258.59	Initial Degree of Saturation (%)	82.55
Initial Moisture Content (%)	14.00	Pore Volume (cm^3)	43.84

Mean Hydraulic Conductivity, cm/sec

8.30E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	5.174	6.823	0	19.650
After Saturation Phase	5.176	6.824	0.0	19.648
After Consolidation Phase	5.175	6.823	-0.5	19.575
End of Test	5.175	6.823	-0.1	19.561

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
13	6.82	11.64	1.06	0.87	348.45	98.05	51.07	9.56E-07
					341.65		50.07	
14	6.67	11.57	1.07	1.01	362.17	96.58	53.08	8.44E-07
					349.77		51.26	
15	7.20	12.02	0.98	1.14	356.25	96.88	52.21	7.67E-07
					345.15		50.58	
16	7.21	12.20	1.05	1.27	368.50	96.93	54.00	7.54E-07
					357.20		52.35	

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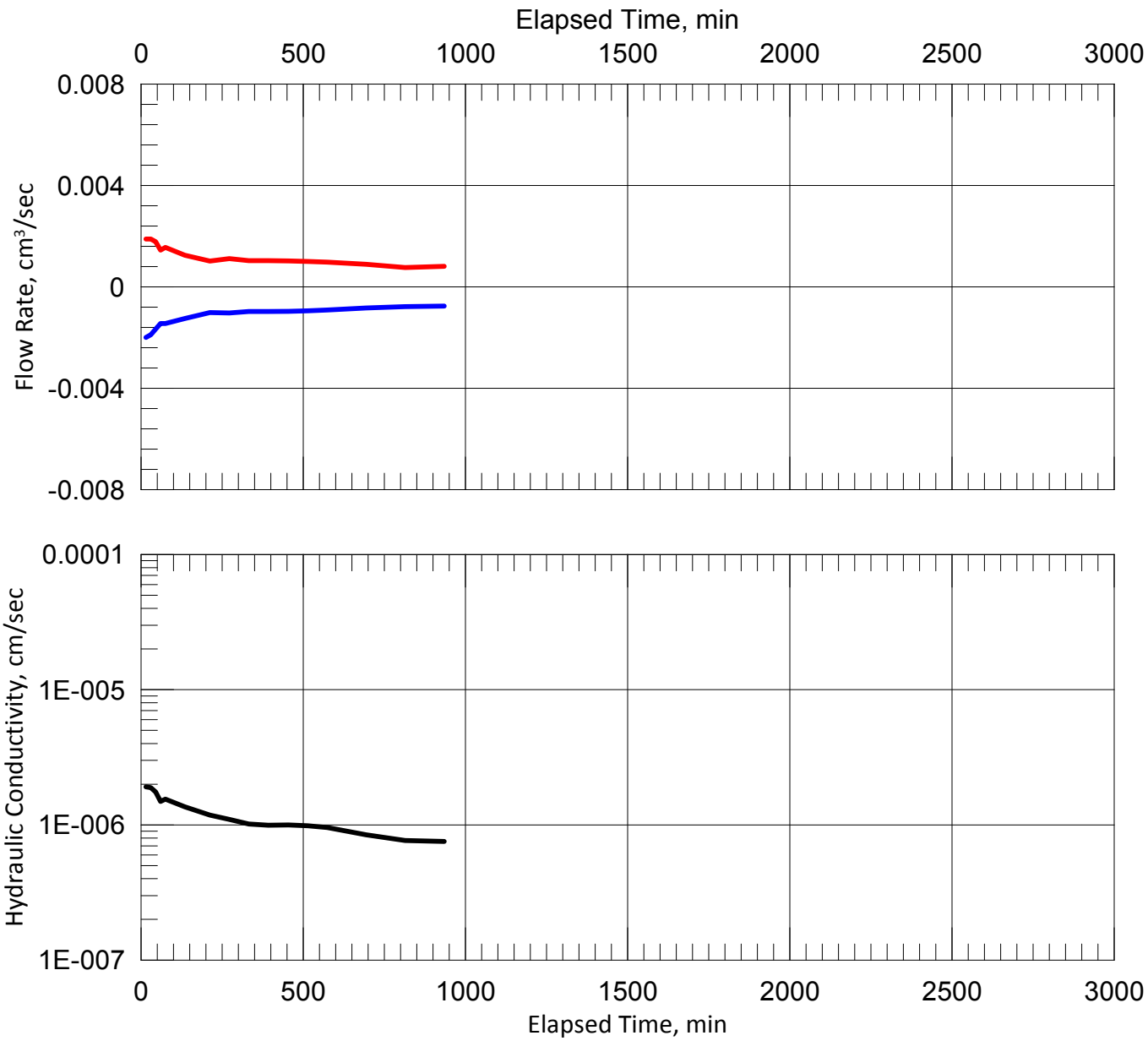
TBPE Firm Registration No. F-3257

Summary of End-of-Test Soil Properties			
Final Area (cm^2)	19.561	Final Dry Unit Weight (pcf)	120.95
Final Total Volume (cm^3)	133.472	Final Moist Unit Weight (pcf)	141.17
Final Mass Moist Soil (g)	301.83	Final Void Ratio	0.48
Mass Dry Soil (g)	258.59	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	16.72	Final Pore Volume (cm^3)	43.24

Figure B-14

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-2
DEPTH: 20 to 21 feet
ORIENTATION: Horizontal
MATERIAL DESCRIPTION: Fat Clay (CH), gray

% PASSING -200: 96.4%
ATTERBERG LIMITS: LL = 57; PL = 24; PI = 33
HYDRAULIC CONDUCTIVITY: 8.30E-07 cm/sec

FIGURE B-15

RABA KISTNER
TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas
R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 1
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.75
[ ] Measured [X] Assumed

Sample
Boring No: TP-2 Tube: Spoon: [ ] Constant Effort Blows/Tamps per Layer:
Sample No: 9-V [X] Field Extruded Tamper Weight (lbf): No. of Layers:
Depth (ft): 22-24 [ ] Remolded [ ] Remolded Tamper Force (lbf): Drop in Inches:
[X] Vertical [ ] Horizontal
Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [X] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)
Container No.	A29	A15	M17	--
Mass Moist Soil + Container (g)	131.03	166.36	162.57	400.00
Mass Dry Soil + Container (g)	117.17	147.06	143.88	340.00
Mass Container (g)	39.11	39.02	38.85	0.00
WATER CONTENT (%)	17.76	17.86	17.79	17.65
Avg. Initial Water Content, W4 (%)	17.80	Final W_{at}:	[ ] Slice ; [X] Whole Spec.	
[ ] See attached data sheet(s) for additional water contents				

Initial Soil Measurements (inches)			
Height		Diameter	
H_1	4.121	D_1	1.881
H_2	4.118	D_2	1.876
H_3	4.119	D_3	1.862
H_4	4.120	D_4	1.840
Average Height		Average Diameter	
(in)	4.120	(in)	1.865
(cm)	10.464	(cm)	4.736

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	402.32	400.00
Mass Dry Soil + Tare (g)	341.53	340.00
Mass Tare (g)	0.00	0.00
Mass Moist Soil, M_i or M_f (g)	402.32	400.00

Summary of Initial Soil Properties			
Initial Area (cm^2)	17.620	Initial Dry Unit Weight (pcf)	115.64
Initial Total Volume (cm^3)	184.364	Initial Moist Unit Weight (pcf)	136.23
Initial Mass Moist Soil (g)	402.32	Initial Void Ratio	0.48
Mass Dry Soil (g)	341.53	Initial Degree of Saturation (%)	101.02
Initial Moisture Content (%)	17.80	Pore Volume (cm^3)	60.18

Mean Hydraulic Conductivity, cm/sec

1.23E-07

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	6.846	10.464	0	17.620
After Saturation Phase	6.851	10.465	-20.8	15.629
After Consolidation Phase	6.854	10.467	-1.8	15.455
End of Test	6.854	10.467	1.6	15.608

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
43	5.55	10.09	0.88	3.41	338.66	96.72	32.36	1.30E-07
					327.56		31.30	
44	5.57	10.19	0.85	3.49	344.29	97.91	32.89	1.32E-07
					337.09		32.21	
45	5.64	10.22	1.00	3.62	341.57	97.07	32.63	1.15E-07
					331.57		31.68	
46	5.67	10.26	0.90	3.73	342.28	97.11	32.70	1.14E-07
					332.38		31.76	

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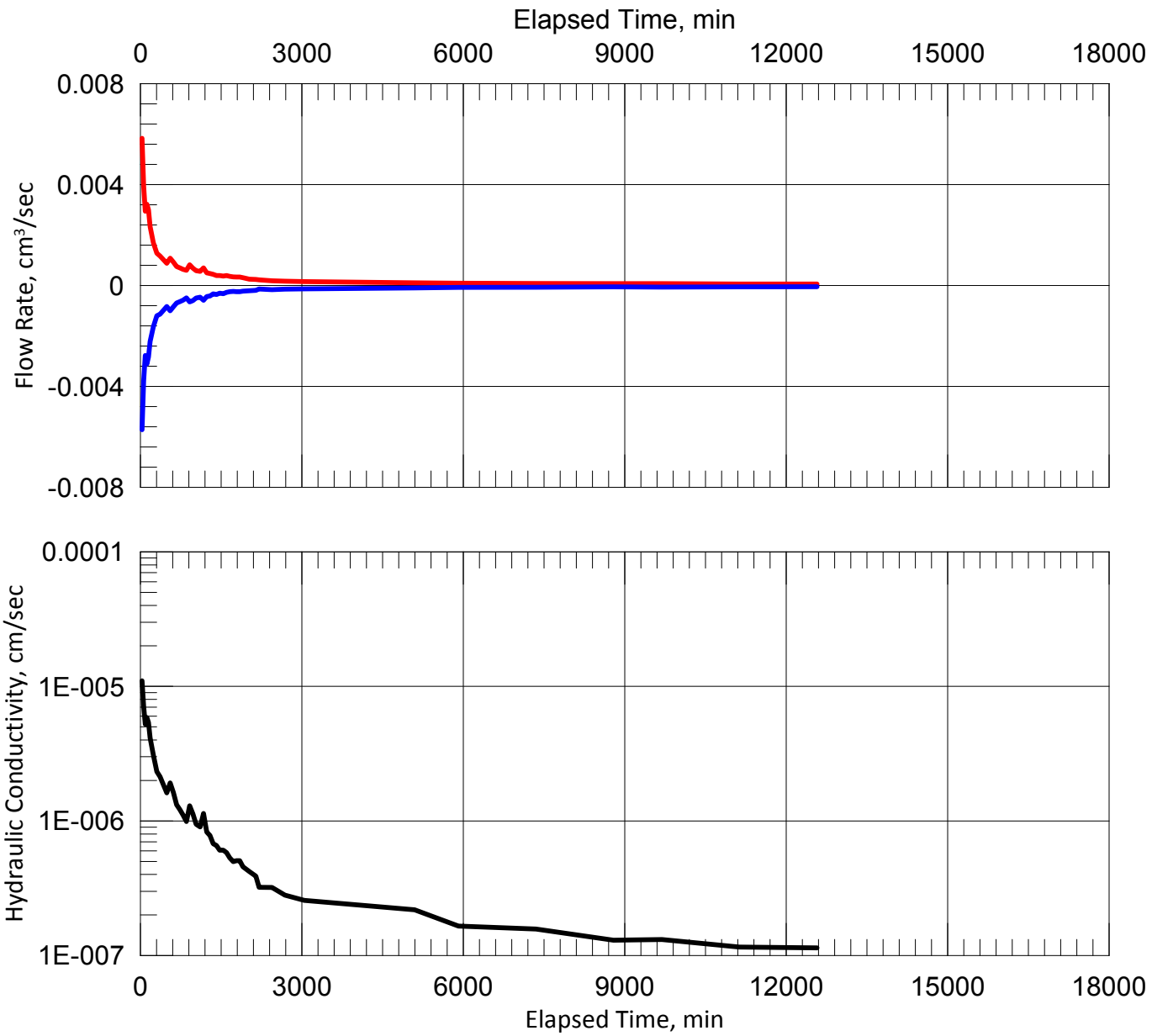
Summary of End-of-Test Soil Properties			
Final Area (cm^2)	15.608	Final Dry Unit Weight (pcf)	129.93
Final Total Volume (cm^3)	163.364	Final Moist Unit Weight (pcf)	152.86
Final Mass Moist Soil (g)	400.00	Final Void Ratio	0.32
Mass Dry Soil (g)	340.00	Final Degree of Saturation (%)	151.00
Final Moisture Content (%)	17.65	Final Pore Volume (cm^3)	39.73

Figure B-16

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-2
DEPTH: 22 to 24 feet
ORIENTATION: Vertical
MATERIAL DESCRIPTION: Fat Clay (CH), gray

% PASSING -200: 95.4%
ATTERBERG LIMITS: LL = 51; PL = 29; PI = 22
HYDRAULIC CONDUCTIVITY: 1.23E-07 cm/sec

FIGURE B-17

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HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Project: Rancho Viejo
Location: Webb County, Texas R-K Project #: ASF09-192-03

Test Type ASTM D5084
[ ] Method A; [ ] Method B; [X] Method C; Cell No. 2
[ ] Method D; [ ] Method E; Permeant Liquid Used: Deaired Water

Specific Gravity: 2.70
[ ] Measured [X] Assumed

Sample
Boring No: TP-2 Tube: Spoon: [ ] Constant Effort Blows/Tamps per Layer:
Sample No: 9 [X] Field Extruded Tamper Weight (lbf): No. of Layers:
Depth (ft): 22-24 [ ] Remolded [ ] Remolded Tamper Force (lbf): Drop in Inches:
[ ] Vertical [X] Horizontal
Method of trimming periphery: [ ] "Casagrande" Lathe ; [ ] Cutting Shoe ; [X] Wire Saw; [ ] Other
Method of trimming ends: [X] Wire Saw & Sharp (knife) Straight Edge; [ ] Wire Saw & Straight Edge; [ ] Wire Saw

Water Content (W)	Initial - Trimming Location			Final, W_{at}	Initial Soil Measurements (inches)			
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)	Height		Diameter	
Container No.	EG1	A42	M13	--	H_1	5.556	D_1	2.885
Mass Moist Soil + Container (g)	315.90	104.92	84.83	1623.50	H_2	5.486	D_2	2.905
Mass Dry Soil + Container (g)	301.42	95.80	78.79	1404.40	H_3	5.522	D_3	3.320
Mass Container (g)	208.90	39.38	39.10	159.00	H_4	5.568	D_4	3.333
WATER CONTENT (%)	15.65	16.16	15.22	17.59	Average Height		Average Diameter	
Avg. Initial Water Content, W4 (%)	15.68	Final W_{at}:	[ ] Slice ;	[X] Whole Spec.	(in)	5.533	(in)	3.111
[ ] See attached data sheet(s) for additional water contents					(cm)	14.054	(cm)	7.901

Soil Masses	Initial	Final
Container No.	-	-
Mass Moist Soil + Tare (g)	1451.10	1623.50
Mass Dry Soil + Tare (g)	1245.40	1404.40
Mass Tare (g)	0.00	159.00
Mass Moist Soil, M_i or M_f (g)	1451.10	1464.50

Summary of Initial Soil Properties			
Initial Area (cm^2)	49.033	Initial Dry Unit Weight (pcf)	112.82
Initial Total Volume (cm^3)	689.099	Initial Moist Unit Weight (pcf)	131.46
Initial Mass Moist Soil (g)	1451.10	Initial Void Ratio	0.49
Mass Dry Soil (g)	1245.40	Initial Degree of Saturation (%)	90.22
Initial Moisture Content (%)	16.52	Pore Volume (cm^3)	227.99

Mean Hydraulic Conductivity, cm/sec

5.54E-09

	Piston Height (in)	Sample Length (cm)	Observed Δ Volume (cm^3)	Sample Area (cm^2)
Initial	8.386	14.054	0	49.033
After Saturation Phase	8.385	14.053	-4.0	48.750
After Consolidation Phase	8.381	14.052	-3.3	48.520
End of Test	8.382	14.052	-1.6	48.405

Trial	Eff. Consol Pressure Top (psi)	Eff. Consol Pressure Bottom (psi)	Outflow: Inflow Ratio	Outflow (pore volumes)	Head Loss (cm)	% of Initial Head Loss	Hydraulic Gradient	Hydraulic Conductivity (cm/sec)
12	6.16	11.35	0.86	0.05	385.26	99.66	27.42	5.46E-09
					383.96		27.32	
13	6.08	11.38	0.86	0.05	392.99	99.67	27.97	5.45E-09
					391.69		27.87	
14	6.01	11.34	0.92	0.06	395.20	99.37	28.12	5.56E-09
					392.70		27.95	
15	5.98	11.34	0.90	0.06	397.31	99.52	28.27	5.68E-09
					395.41		28.14	

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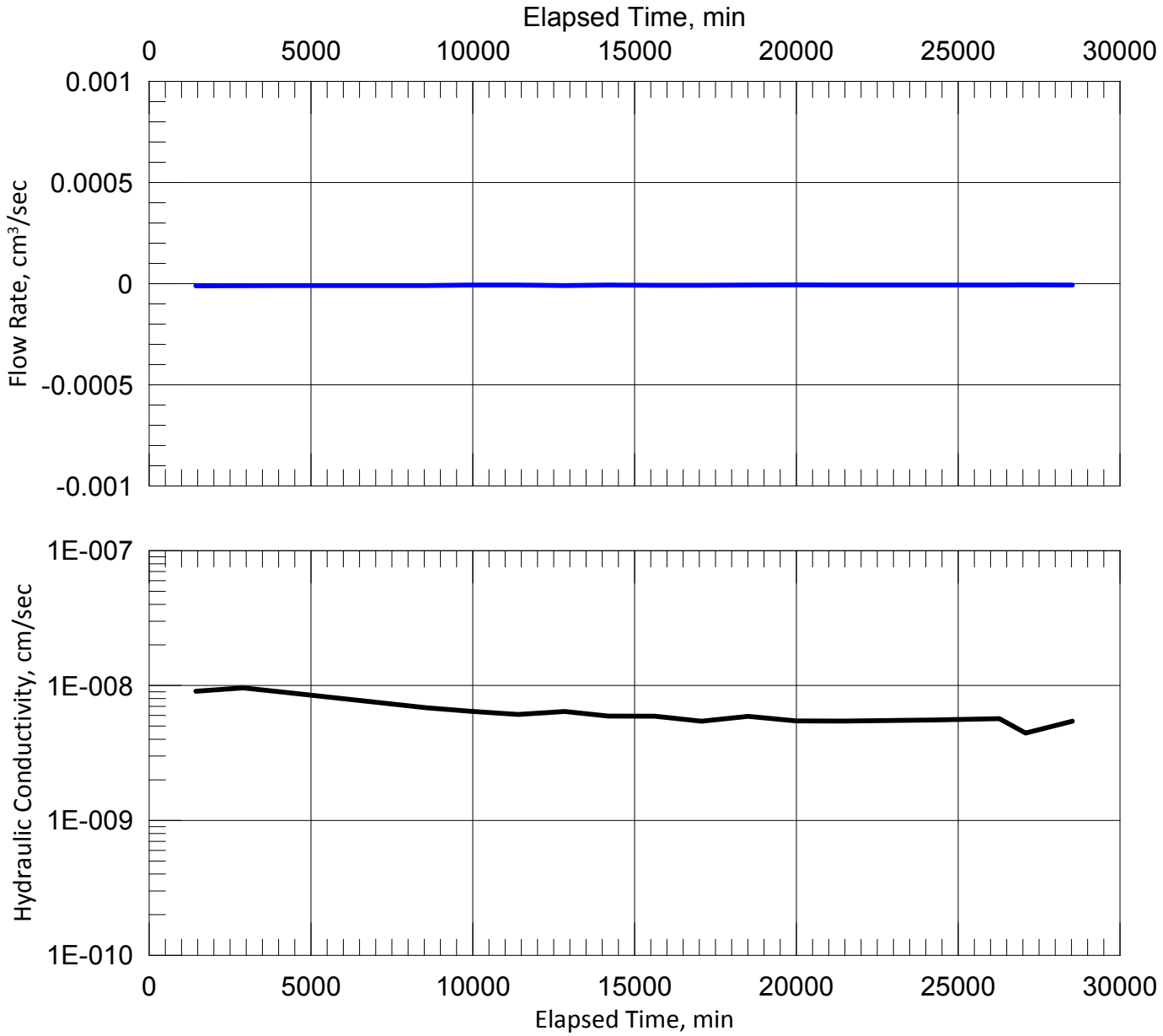
Summary of End-of-Test Soil Properties			
Final Area (cm^2)	48.405	Final Dry Unit Weight (pcf)	114.30
Final Total Volume (cm^3)	680.199	Final Moist Unit Weight (pcf)	134.41
Final Mass Moist Soil (g)	1464.50	Final Void Ratio	0.48
Mass Dry Soil (g)	1245.40	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	17.59	Final Pore Volume (cm^3)	219.09

Figure B-18

PROJECT ASF09-192-03



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER

DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-2

DEPTH: 22 to 24 feet

ORIENTATION: Horizontal

MATERIAL DESCRIPTION: Fat Clay (CH), gray, hard

% PASSING -200: 98.8%

ATTERBERG LIMITS: LL = 63; PL = 23; PI = 40

HYDRAULIC CONDUCTIVITY: 5.54E-09 cm/sec

FIGURE B-19

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HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY
RANCHO VIEJO WASTE MANGEMENT, LLC
LAREDO, WEBB COUNTY, TEXAS

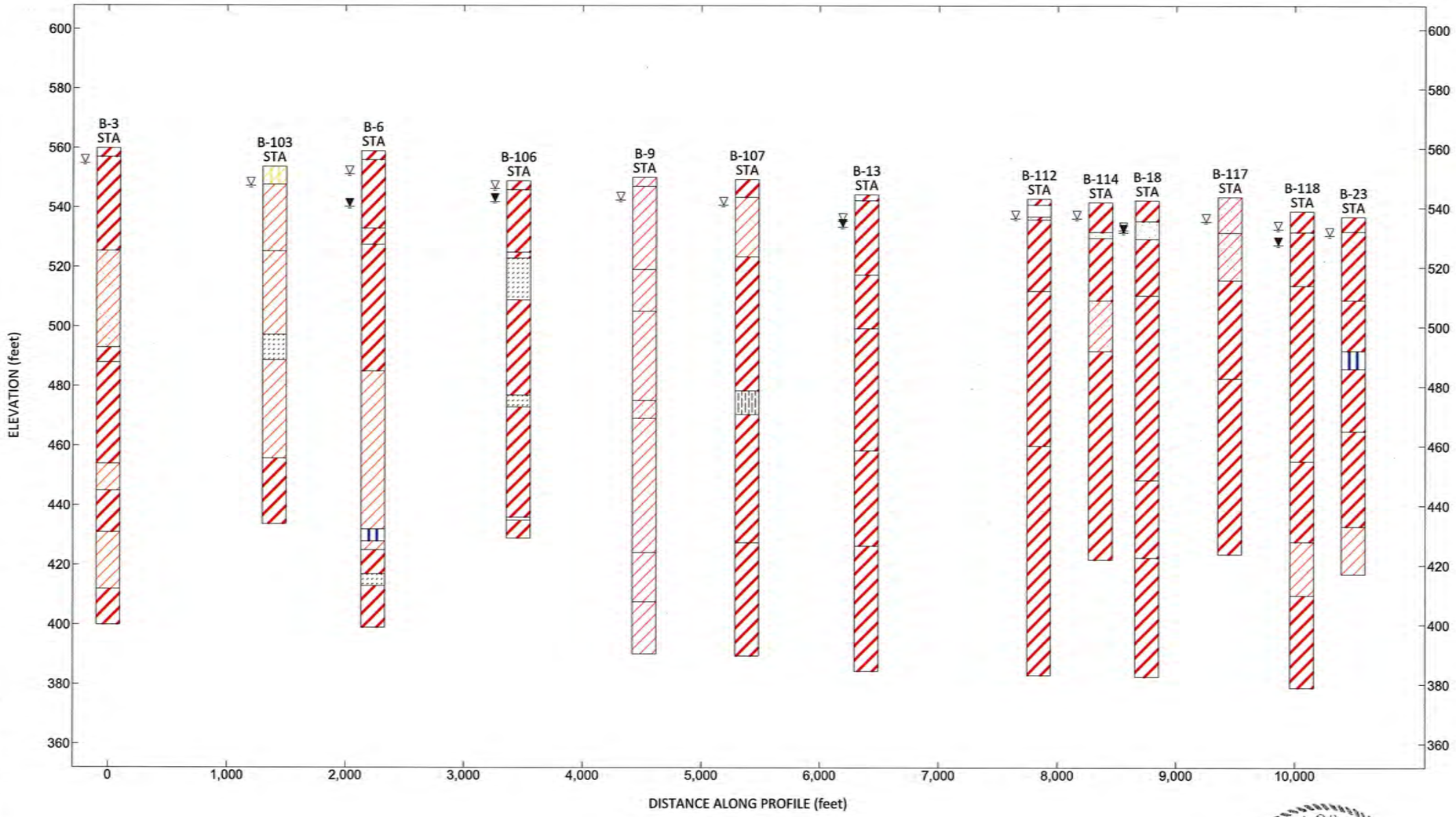
APPENDIX C

◀ North

South ▶

A-A

A-A'



Lithology Graphics

- FAT CLAY (CH)
- SANDY LEAN CLAY (CL)
- LEAN CLAY (CL)
- SANDY FAT CLAY (CH)
- SILT (ML)
- SANDSTONE
- POORLY GRADED SAND (SP)
- SANDY SILTY CLAY (CL-ML)
- SILTSTONE

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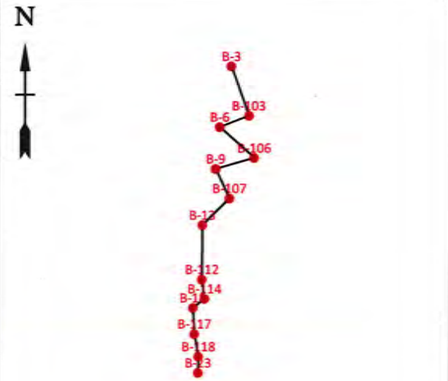
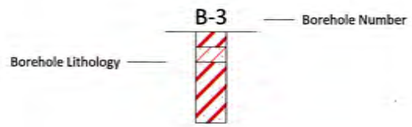


Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

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Generalized Subsurface Fence Diagram Along A-A

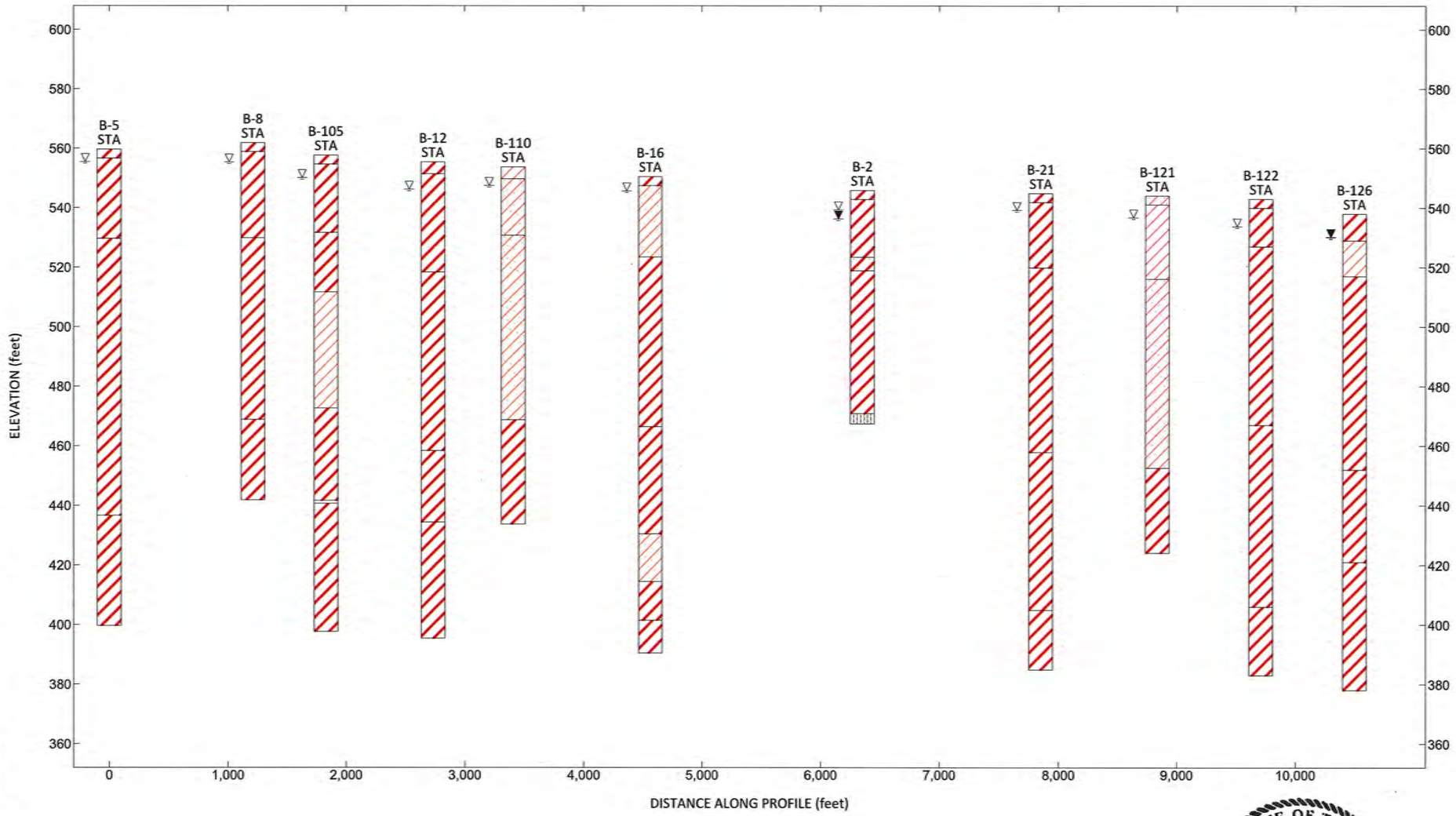
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-1

◀ North

South ▶

B-B

B-B'



Lithology Graphics

- FAT CLAY (CH)
- SANDY FAT CLAY (CH)
- SILTSTONE
- SANDY LEAN CLAY (CL)
- LEAN CLAY (CL)

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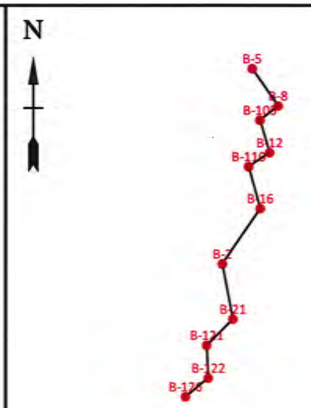
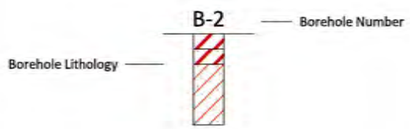


Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

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Generalized Subsurface Fence Diagram Along B-B

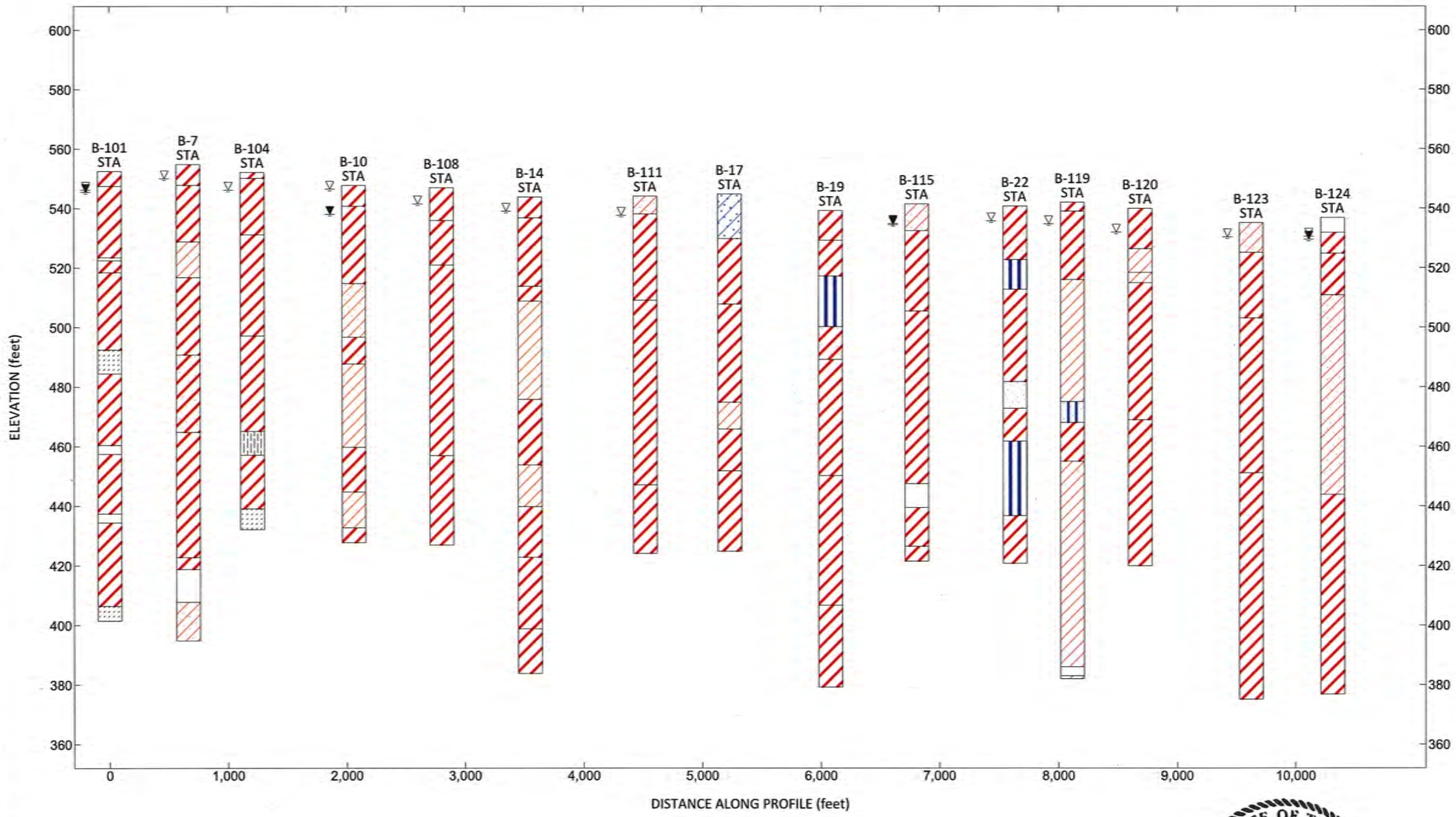
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-2

◄ North

South ►

C-C

C-C'



Lithology Graphics

- FAT CLAY (CH)
- LEAN CLAY (CL)
- SANDY FAT CLAY (CH)
- SANDY LEAN CLAY (CL)
- CLAYEY SAND
- ELASTIC SILT
- POORLY GRADED SAND (SP)
- SANDSTONE
- SILTSTONE
- SANDY SILT (ML)

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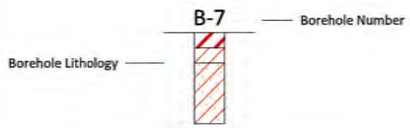
Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

0 1000

Horizontal Scale (ft)

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Generalized Subsurface Fence Diagram Along C-C

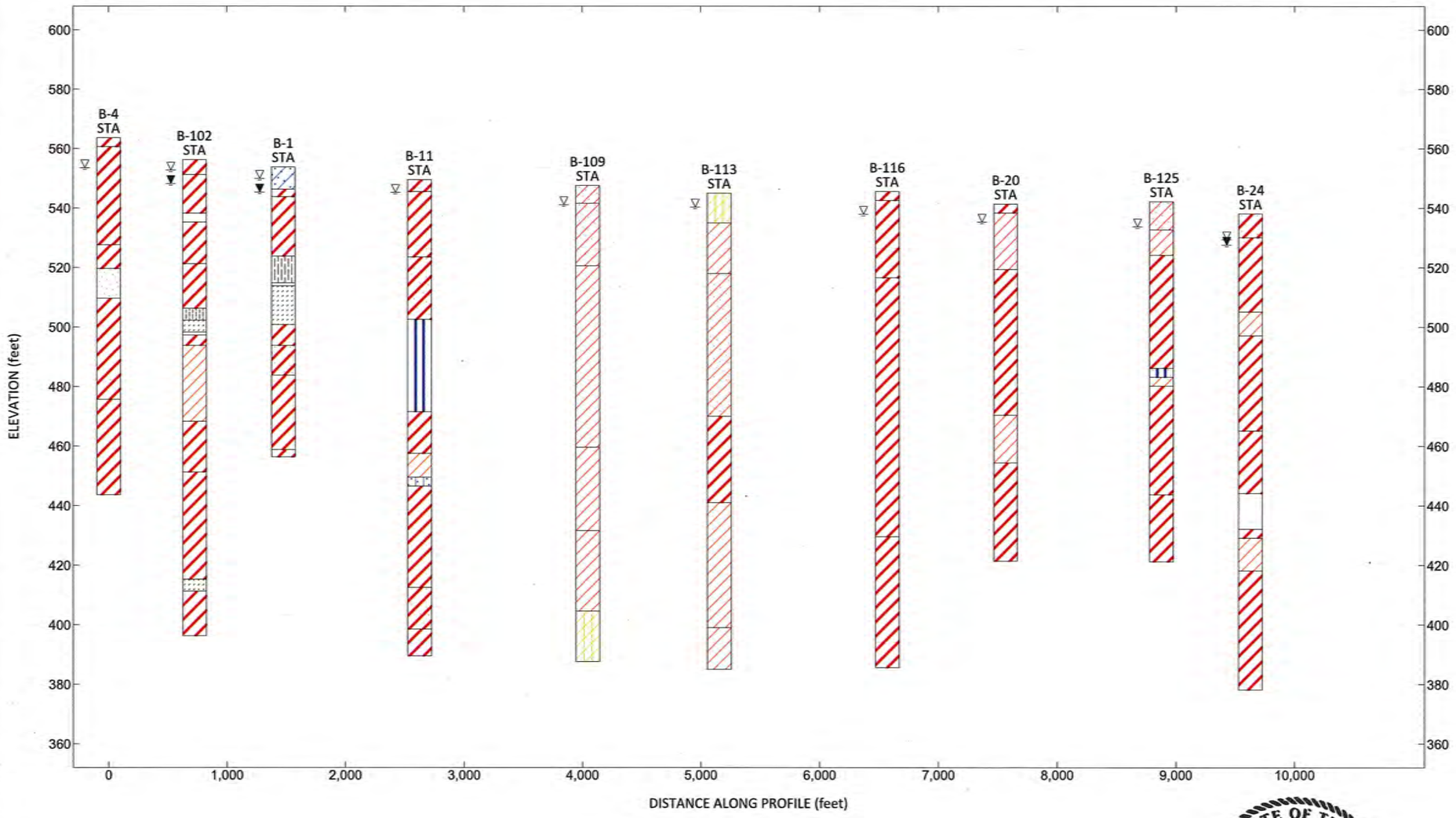
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-3

◀ North

South ▶

D-D

D-D'



Lithology Graphics

- CLAYEY SAND
- FAT CLAY (CH)
- SILTSTONE
- CLAYSHALE
- SANDSTONE
- SANDY FAT CLAY (CH)
- POORLY GRADED SAND (SP)
- SILT (ML)
- LEAN CLAY (CL)
- SILTY SAND (SM)
- SANDY LEAN CLAY (CL)
- SANDY SILTY CLAY (CL-ML)
- SANDY SILT (ML)

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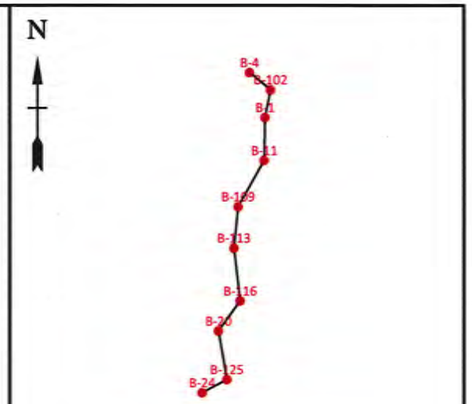
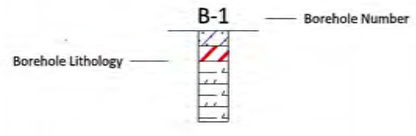


Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

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Generalized Subsurface Fence Diagram Along D-D

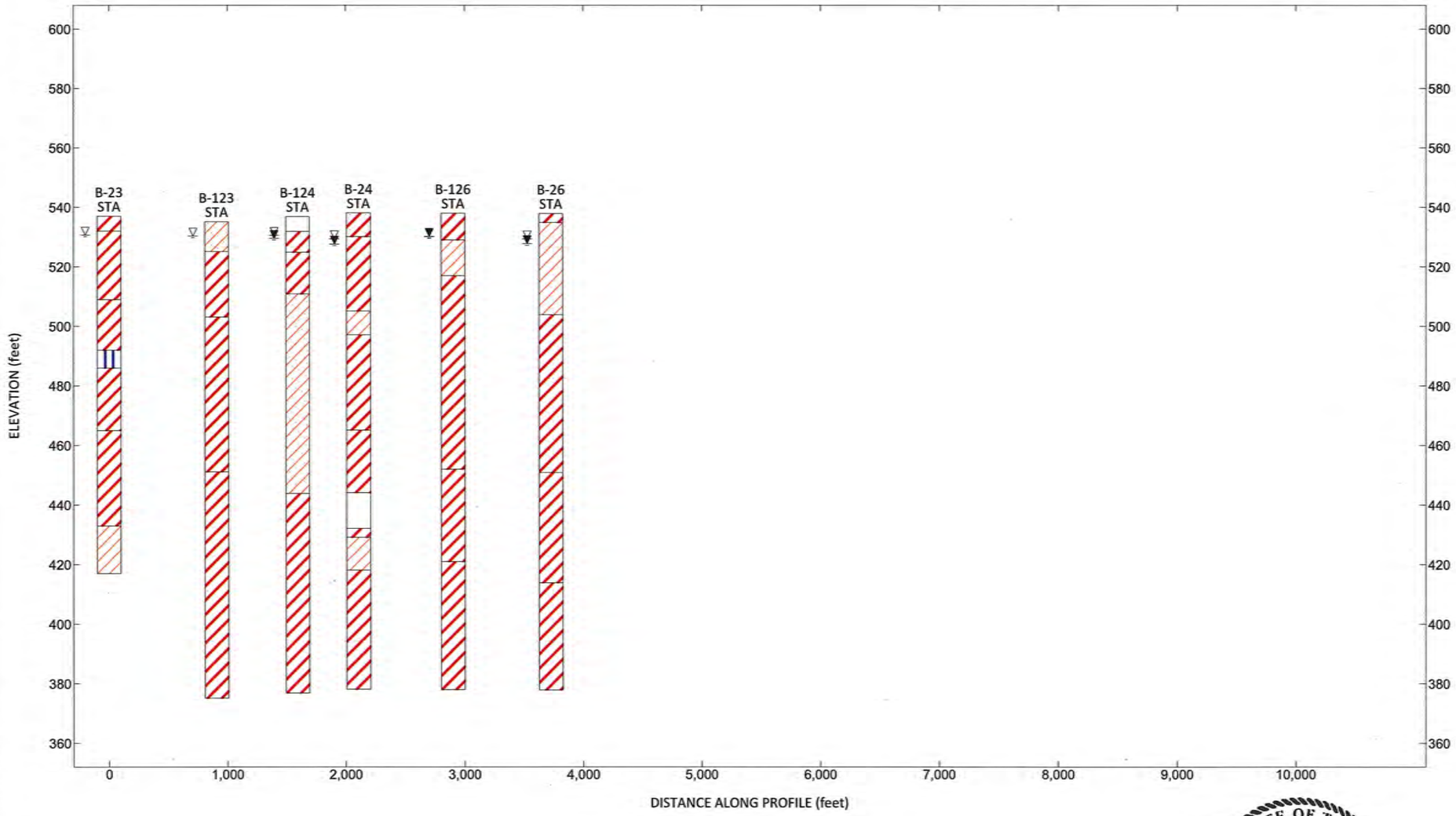
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-4

◀ Northwest

Southeast ▶

E-E

E-E'



Lithology Graphics

- FAT CLAY (CH)
- SILT (ML)
- LEAN CLAY (CL)
- SANDY FAT CLAY (CH)
- SANDY LEAN CLAY (CL)

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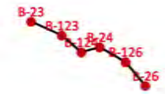

Site Map Scale 1 inch equals 4,035 feet

Legend:

Water Level Reading at time of drilling.

Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

0 1000

Horizontal Scale (ft)

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Generalized Subsurface Fence Diagram Along E-E

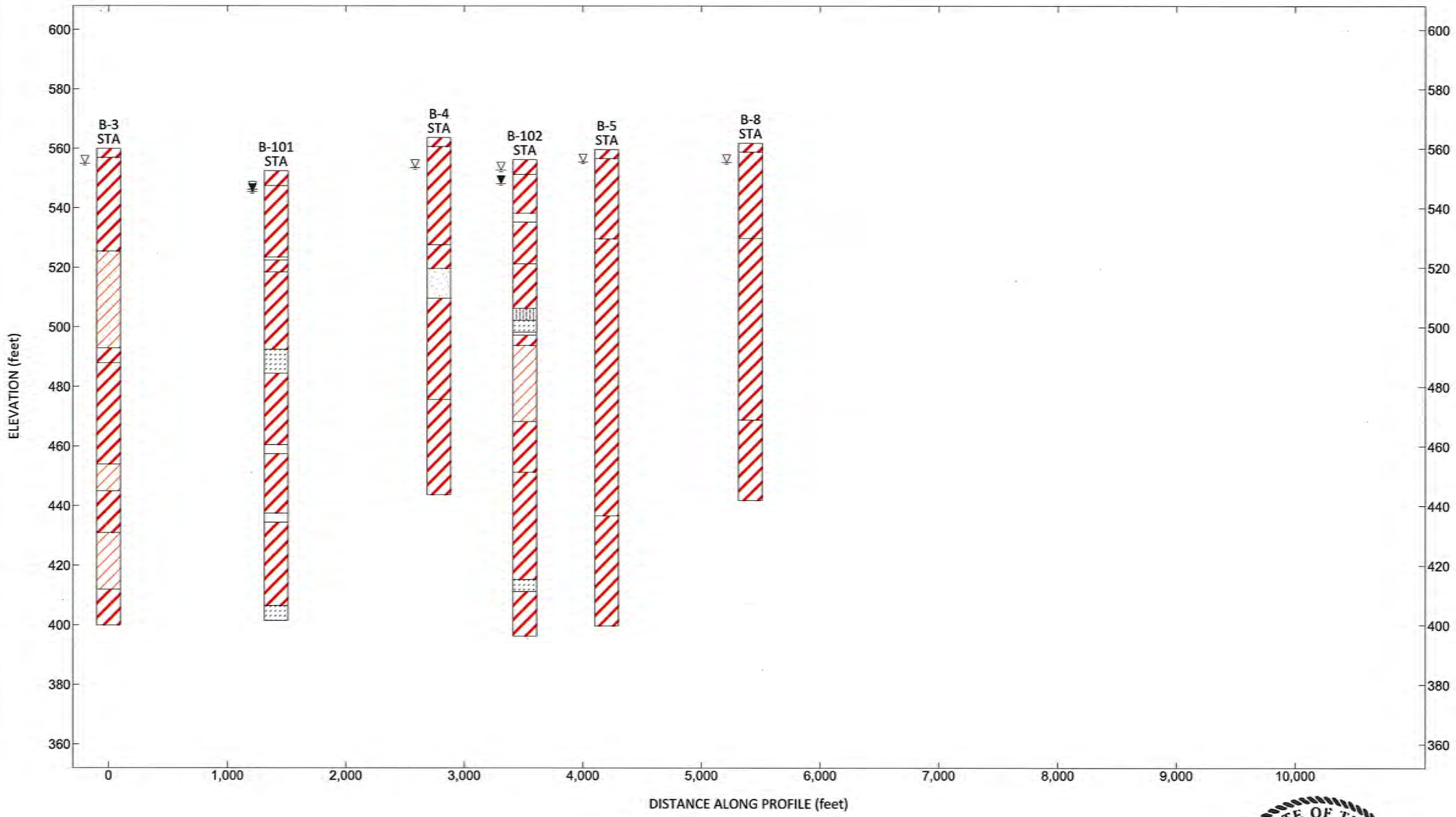
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-5

◀ Northwest

Southeast ▶

F-F

F-F'



Lithology Graphics

- FAT CLAY (CH)
- SANDY LEAN CLAY (CL)
- LEAN CLAY (CL)
- POORLY GRADED SAND (SP)
- SANDSTONE
- SILTSTONE

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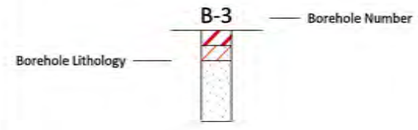
Site Map Scale 1 inch equals 4,035 feet

Legend:



Water Level Reading at time of drilling.

Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

0 1000

Horizontal Scale (ft)

RABA KISTNER

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Generalized Subsurface Fence Diagram Along F-F

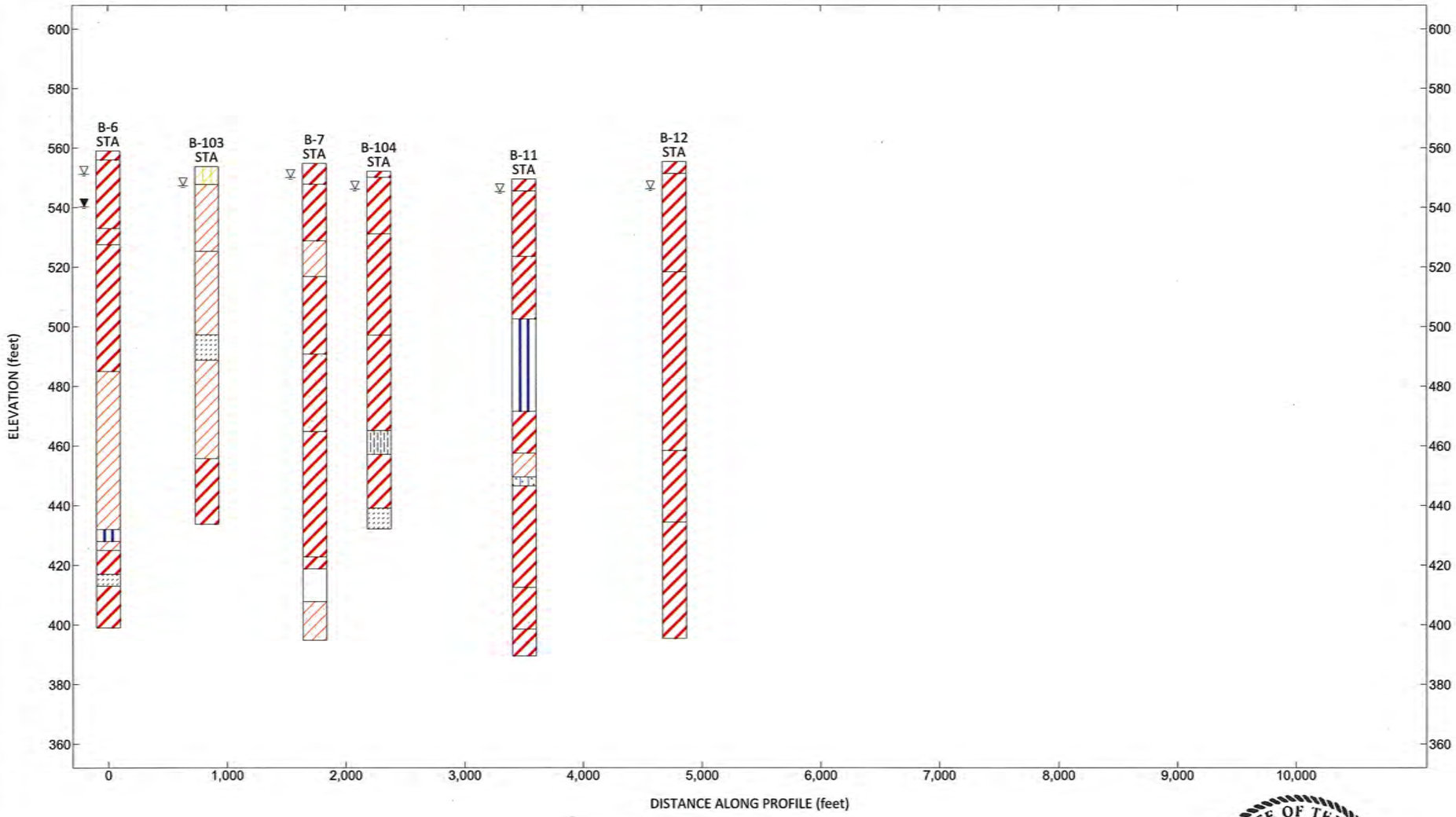
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-6

◀ Northwest

Southeast ▶

G-G

G-G'



Lithology Graphics

- FAT CLAY (CH)
- SANDY FAT CLAY (CH)
- LEAN CLAY (CL)
- SILT (ML)
- SANDSTONE
- SANDY LEAN CLAY (CL)
- SILTY SAND (SM)
- SANDY SILTY CLAY (CL-ML)
- SILTSTONE

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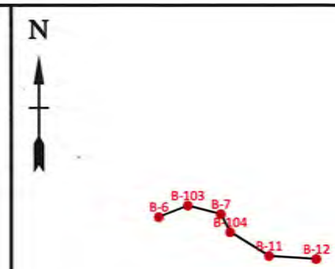
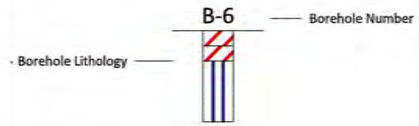


Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

0 1000

Horizontal Scale (ft)

RABA KISTNER

Pescadito Environmental Resource Center - Type I MSW
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Generalized Subsurface Fence Diagram Along G-G

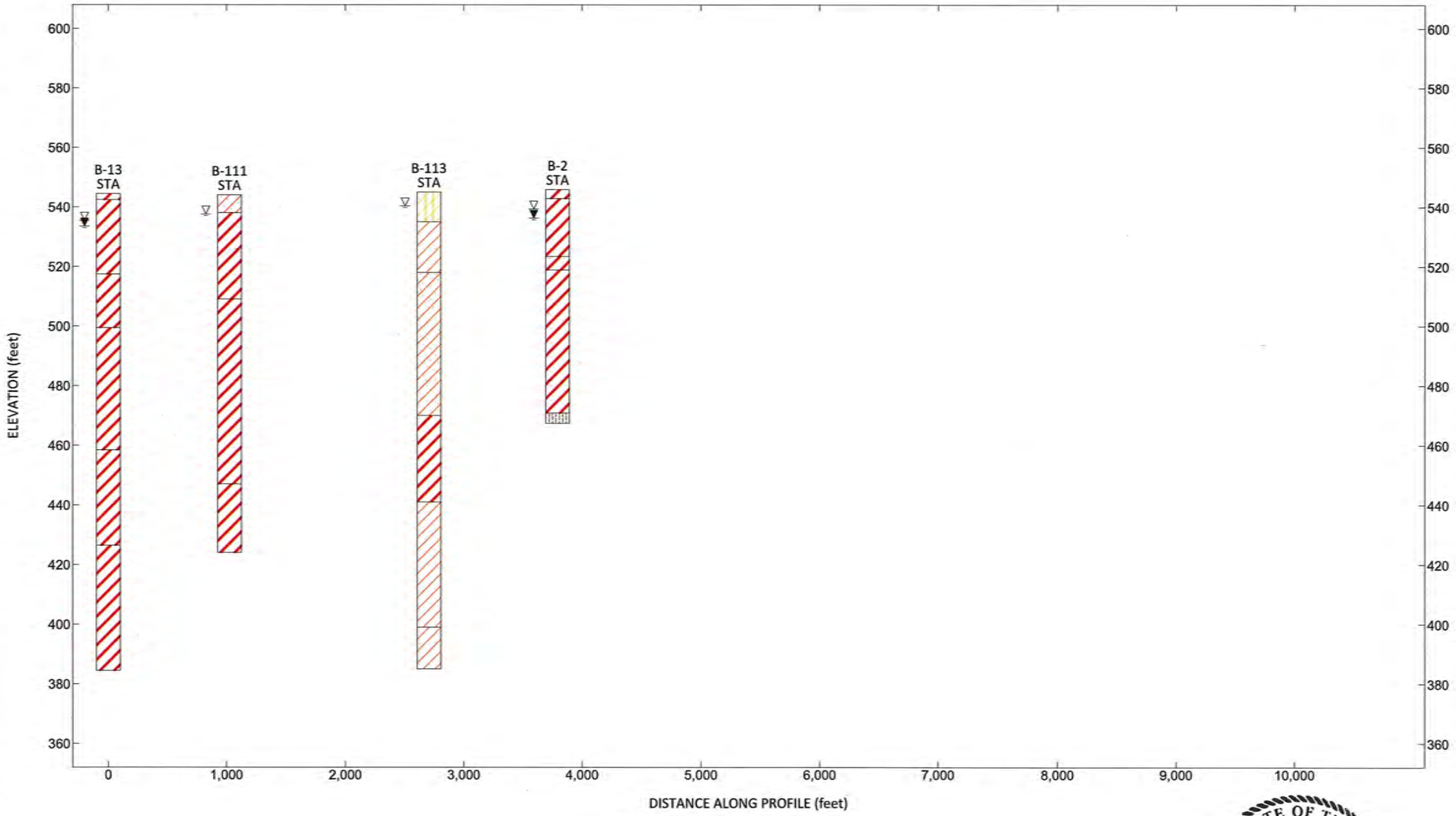
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-7

◀ Northwest

Southeast ▶

H-H

H-H'



Lithology Graphics

- FAT CLAY (CH)
- SANDY FAT CLAY (CH)
- SILTSTONE
- SANDY LEAN CLAY (CL)
- SANDY SILTY CLAY (CL-ML)
- LEAN CLAY (CL)

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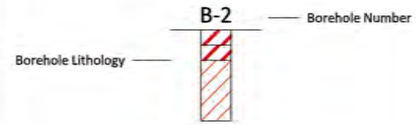
2/25/2015

N

Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

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Generalized Subsurface Fence Diagram Along H-H

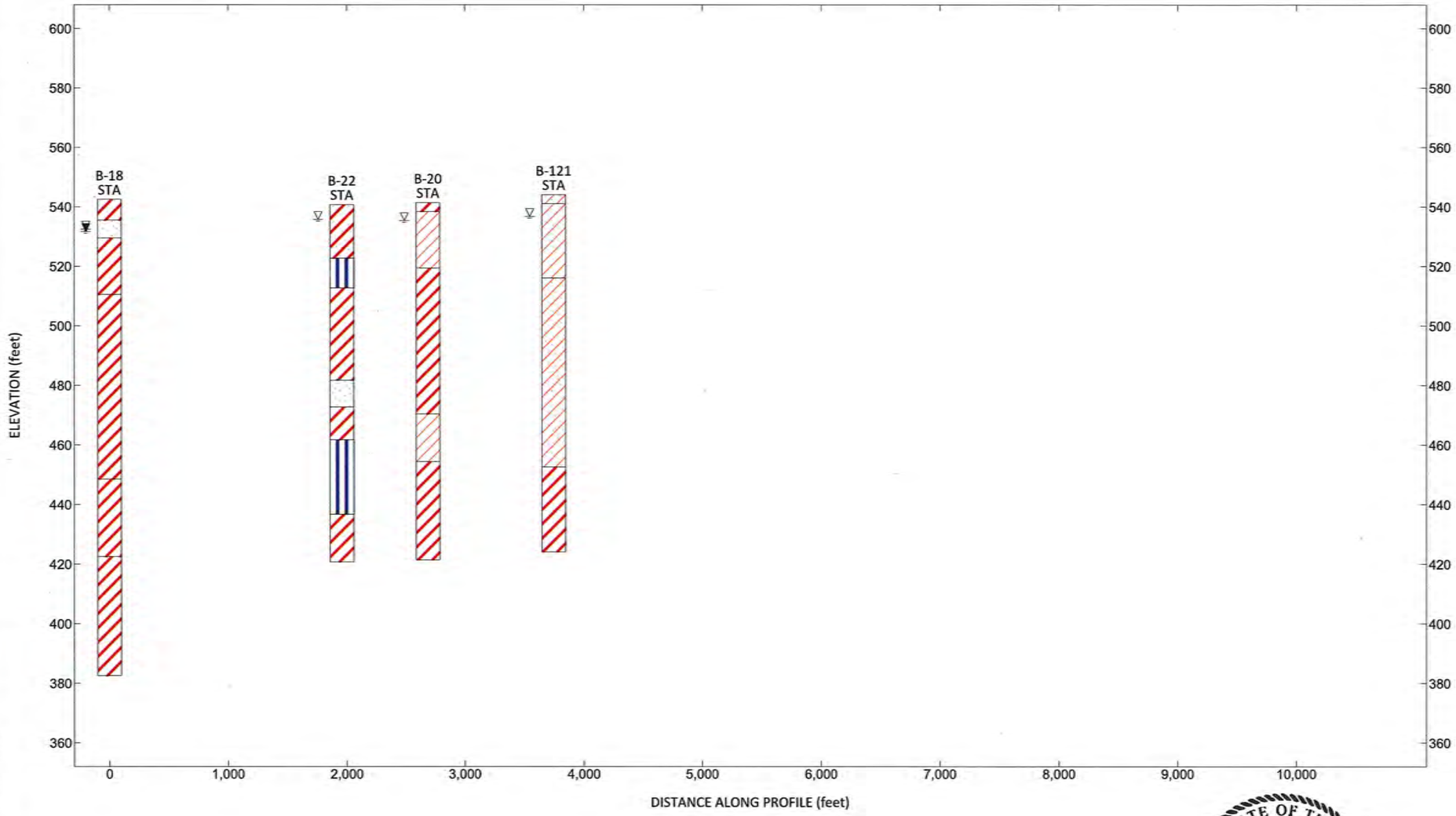
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-8

◀ Northwest

Southeast ▶

I-I

I-I'



Lithology Graphics

- FAT CLAY (CH)
- POORLY GRADED SAND (SP)
- LEAN CLAY (CL)
- SANDY FAT CLAY (CH)
- ELASTIC SILT
- SANDY LEAN CLAY (CL)

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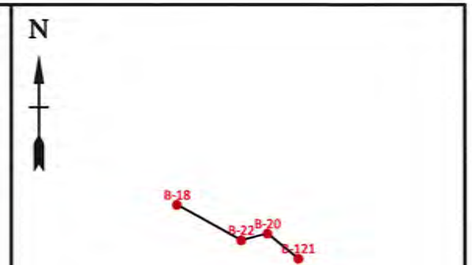
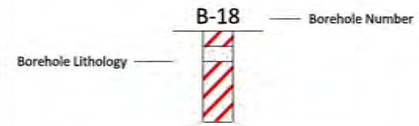


Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

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Generalized Subsurface Fence Diagram Along I-I

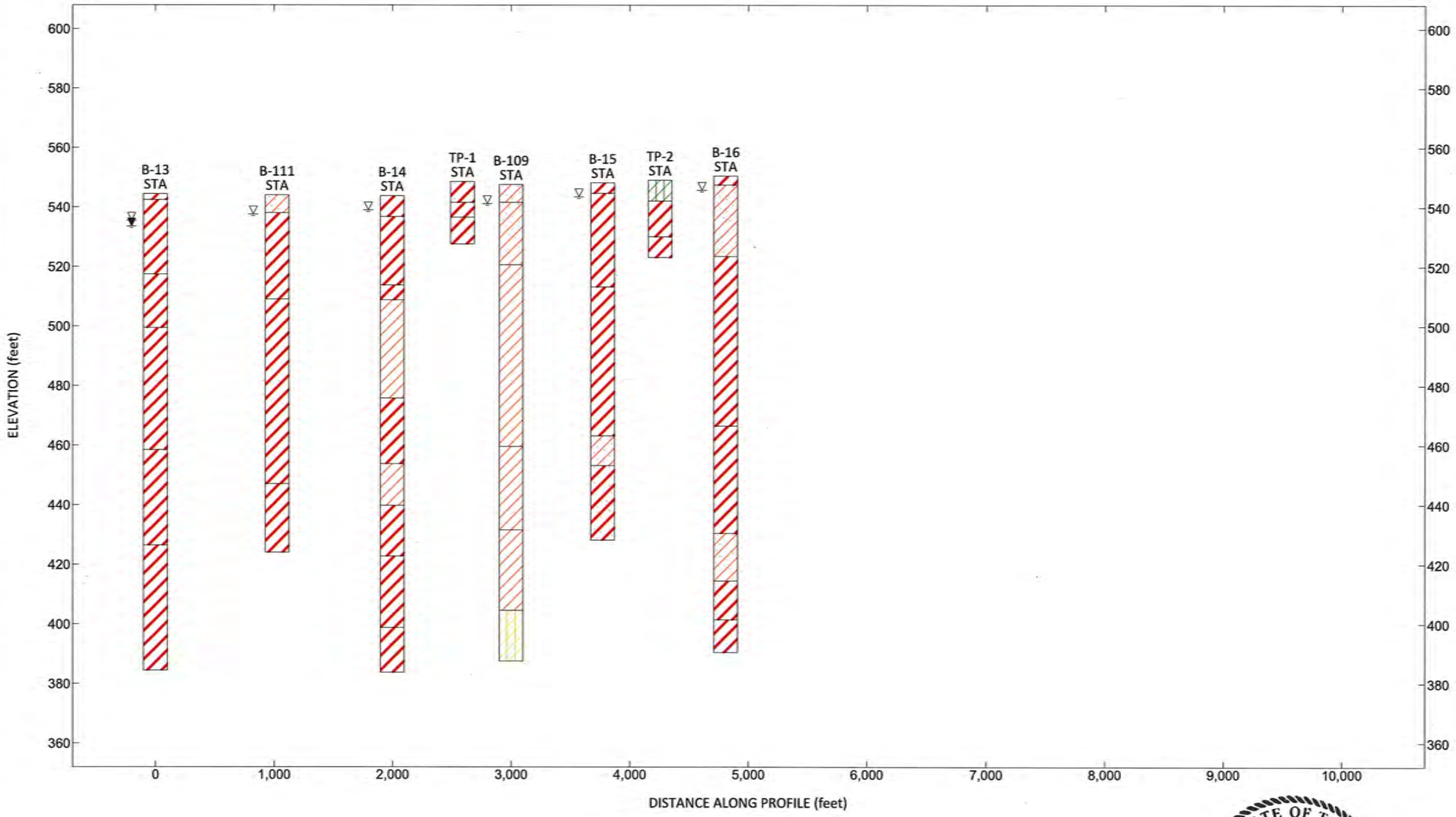
JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-9

◀ Northwest

Southeast ▶

J-J

J-J'



Lithology Graphics

- FAT CLAY (CH)
- LEAN CLAY (CL)
- SANDY LEAN CLAY (CL)
- SANDY FAT CLAY (CH)
- SANDY SILTY CLAY (CL-ML)
- SILTY CLAY (CL-ML)

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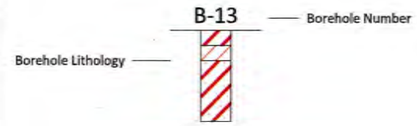
N

Site Map Scale 1 inch equals 4,035 feet

Legend:



- Water Level Reading at time of drilling.
- Water Level Reading after 24 hrs.

Horizontal Scale: 1 inch = 1000 feet
Vertical Scale: 1 inch = 40 feet

0 1000

Horizontal Scale (ft)

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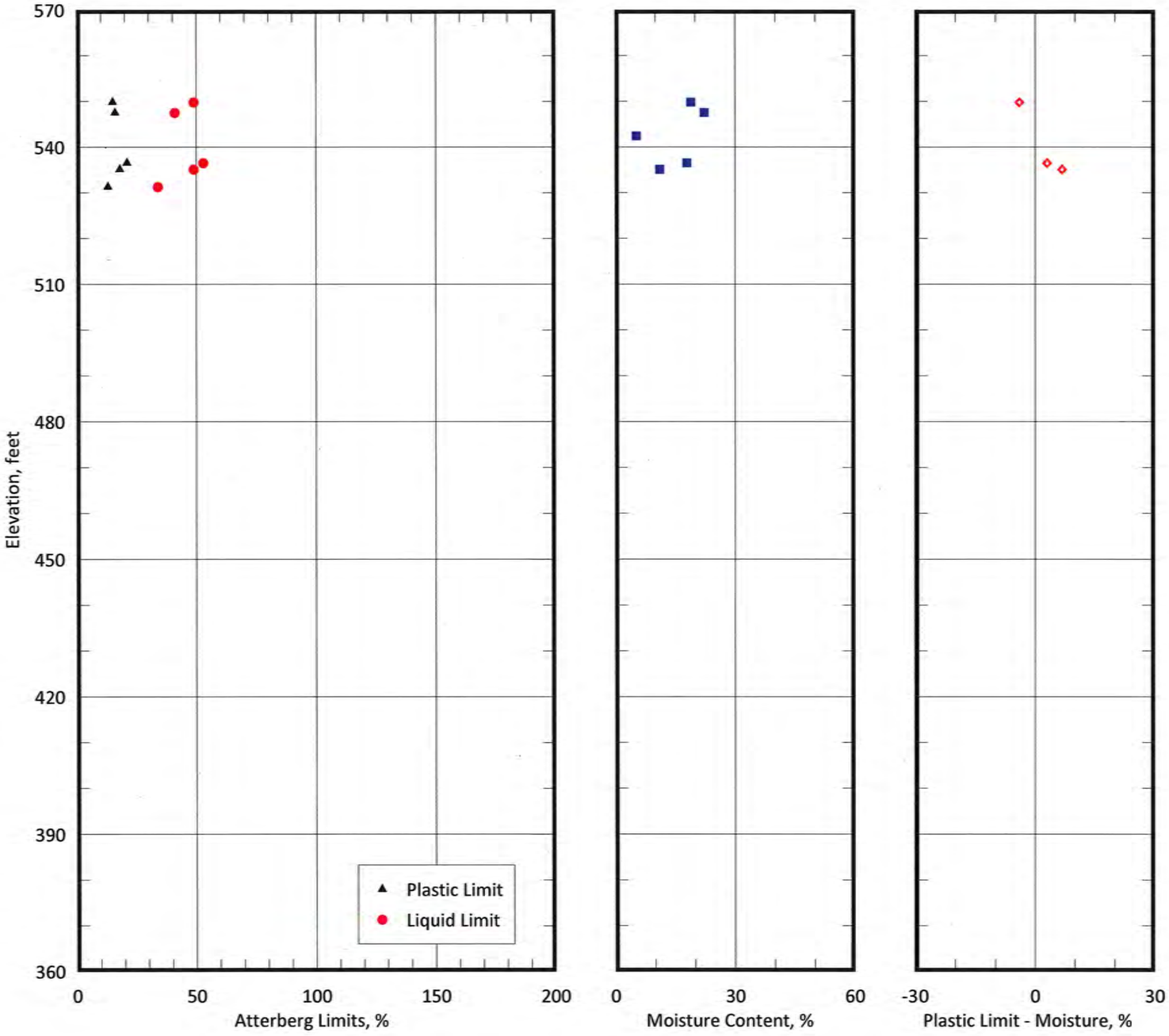
Generalized Subsurface Fence Diagram Along J-J

JOB NUMBER	FIGURE NUMBER
ASF13-140-00	FIGURE C-10

ENVIRO - VERSION 1 ASF13-140-00 PESCADITO JANUARY 2015.GPJ RKCI.GDT 1/21/15



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RABA KISTNER
TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

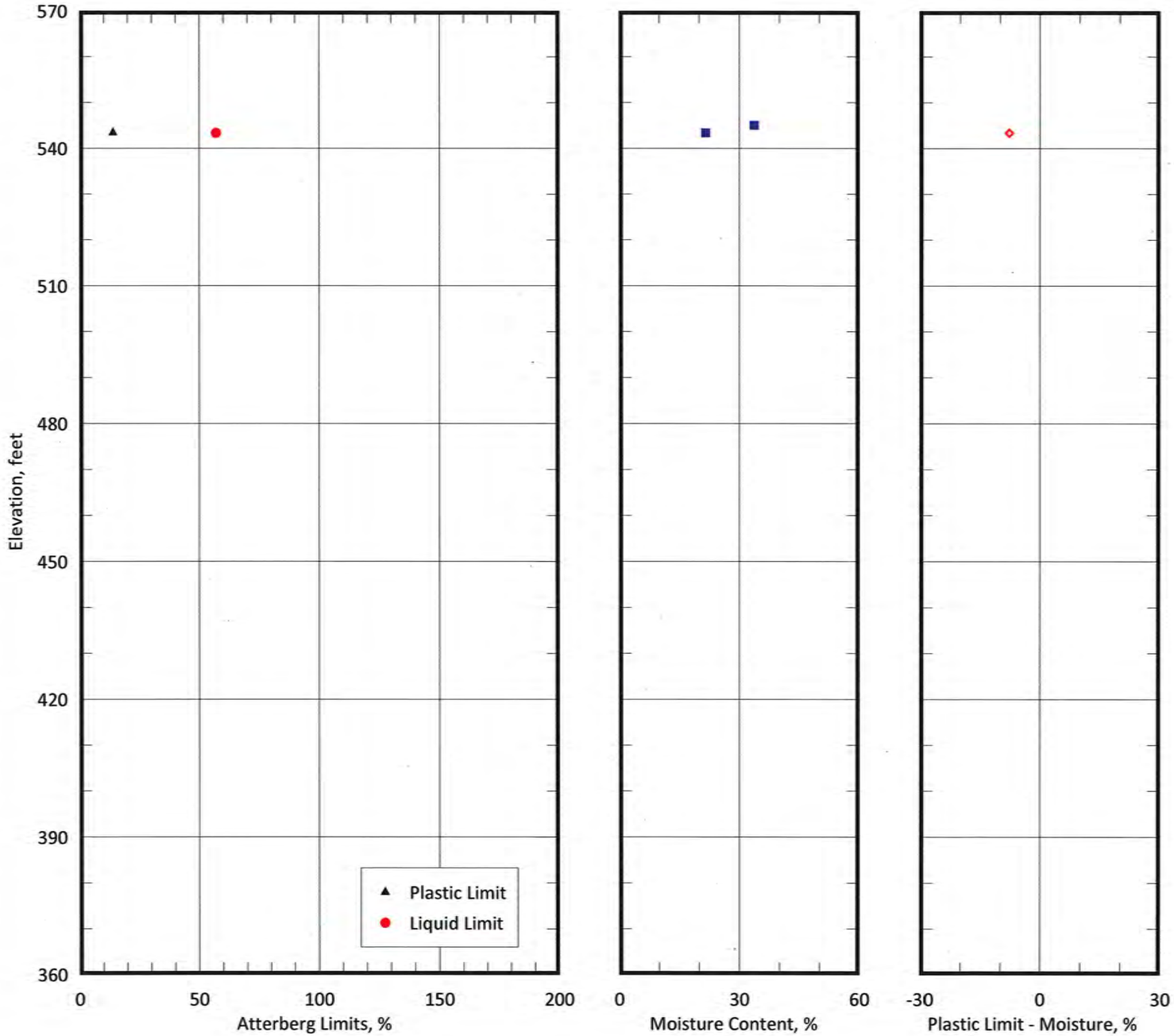
MEASURED SOIL PROPERTIES - STRATUM I

Pescadito Environmental Resource Center - New Type I MSW Landfill Facility - Rancho Viejo Waste Management, LLC
Laredo, Webb County, Texas - MSW Permit No. 2374

PROJECT NO.: AEA09-192-03
DRAWN BY: RLT
CHECKED BY: JAF
DATE: April 26, 2012

SCALE: NOT TO SCALE

FIGURE C-11



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116311
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TBPE Firm Registration No. F-3257

12821 West Golden Lane
San Antonio, Texas 78249
(210) 699-9090 TEL
(210) 699-6426 FAX
www.rkci.com

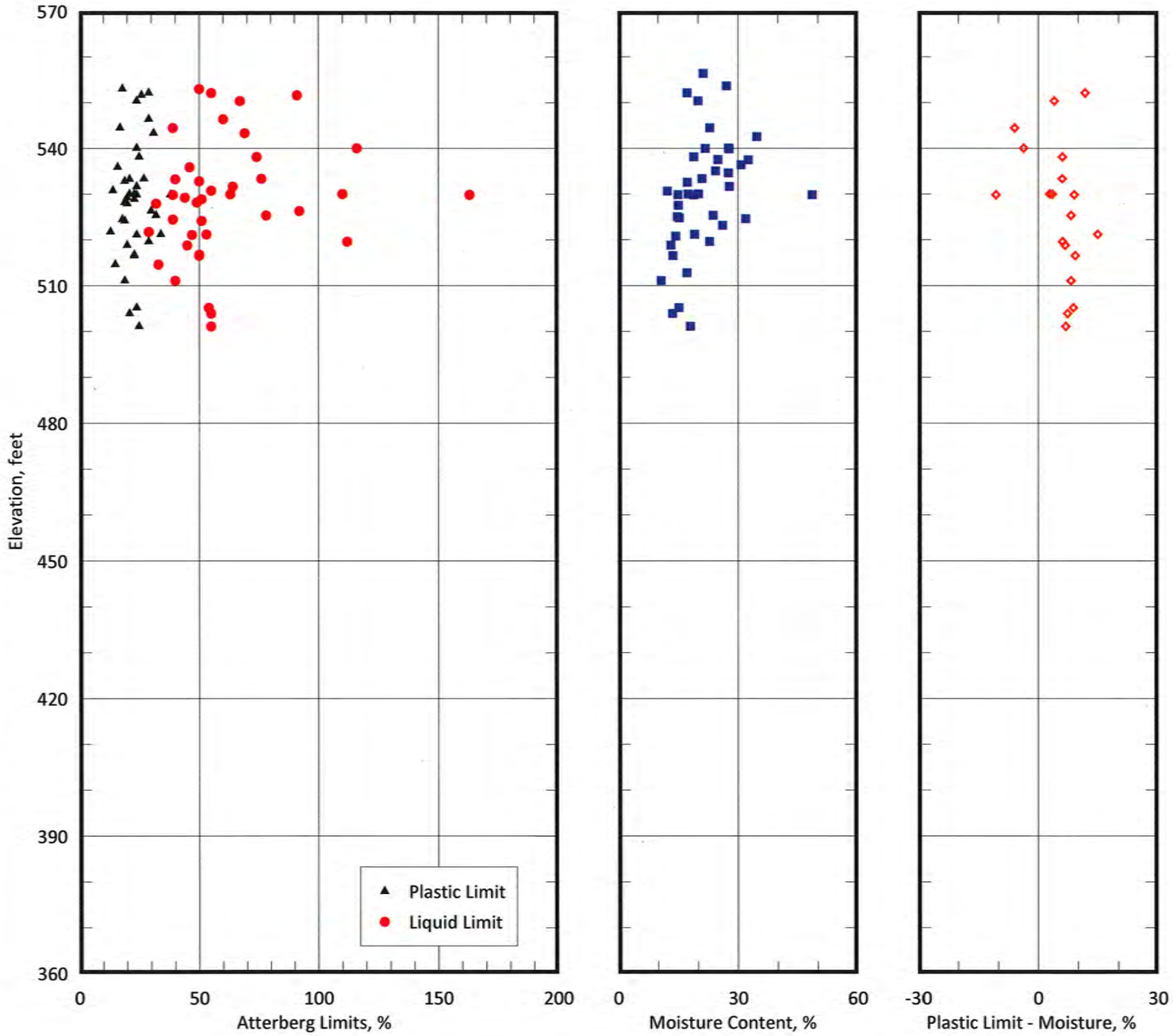
MEASURED SOIL PROPERTIES - STRATUM II

Pescadito Environmental Resource Center - New Type I MSW Landfill Facility - Rancho Viejo Waste Management, LLC
Laredo, Webb County, Texas - MSW Permit No. 2374

PROJECT NO.: AEA09-192-03
DRAWN BY: RLT
CHECKED BY: JAF
DATE: April 26, 2012

SCALE: NOT TO SCALE

FIGURE C-12



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TBPE Firm Registration No. F-3257

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San Antonio, Texas 78249
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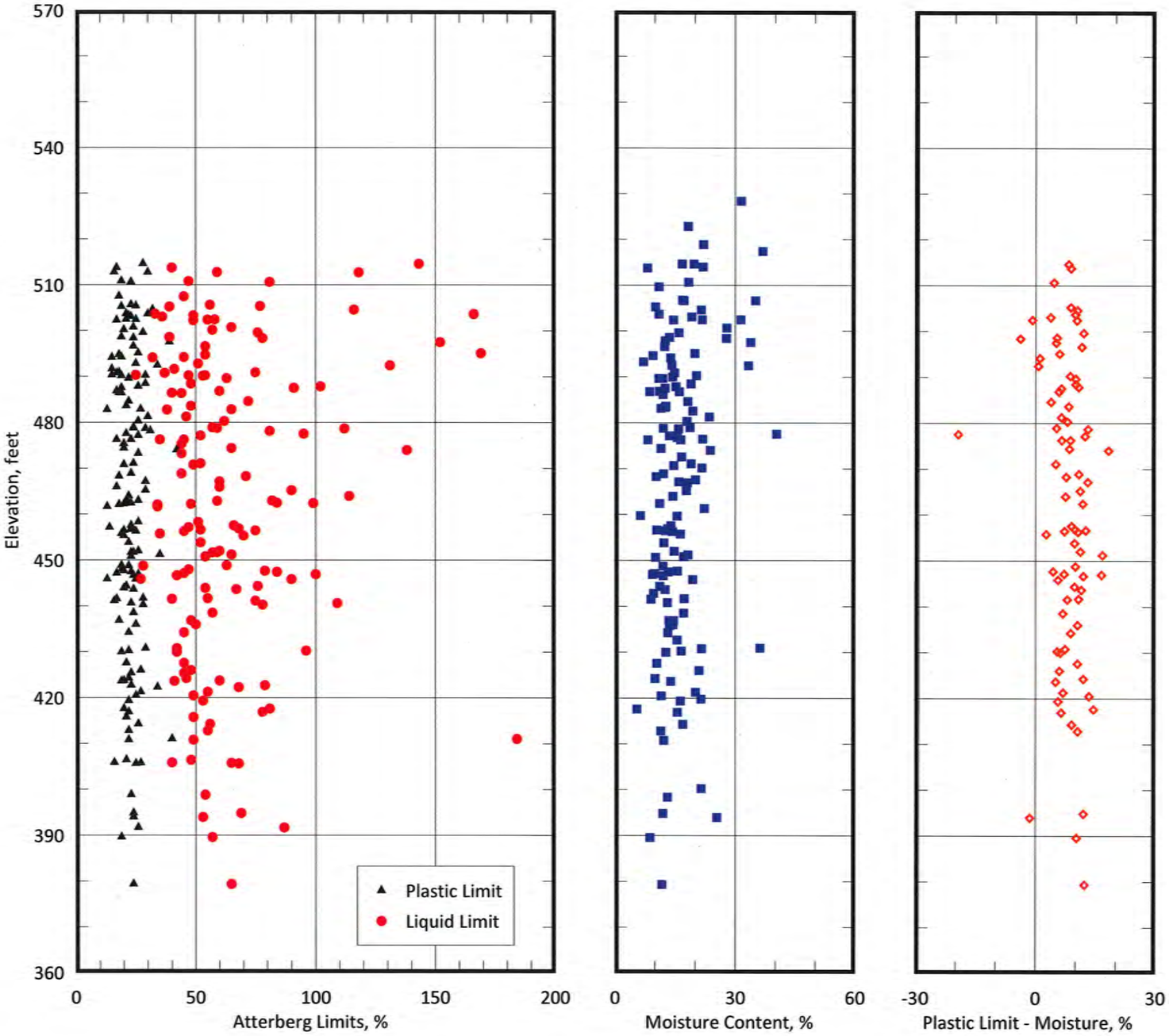
MEASURED SOIL PROPERTIES - STRATUM III

Pescadito Environmental Resource Center - New Type I MSW Landfill Facility - Rancho Viejo Waste Management, LLC
Laredo, Webb County, Texas - MSW Permit No. 2374

PROJECT NO.: AEA09-192-03
DRAWN BY: RLT
CHECKED BY: JAF
DATE: April 26, 2012

SCALE: NOT TO SCALE

FIGURE C-13



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(210) 699-6426 FAX
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MEASURED SOIL PROPERTIES - STRATUM IV

Pescadito Environmental Resource Center - New Type I MSW Landfill Facility - Rancho Viejo Waste Management, LLC
Laredo, Webb County, Texas - MSW Permit No. 2374

PROJECT NO.: AEA09-192-03
DRAWN BY: RLT
CHECKED BY: JAF
DATE: April 26, 2012

SCALE: NOT TO SCALE

FIGURE C-14