Site Assessment Report Addendum

Cone Property aka Parrish Plantation--268 ± Acres East of U. S. Highway 301, South of S.R. 62 Parrish, Manatee County, Florida FDEP Project No. 298707/FDEP Site No. 266446

June 2009





June 18, 2009 Project No. 07-463-00684

TO: Florida Department of Environmental Protection

Southwest District

13051 North Telecom Parkway Temple Terrace, Florida 33637-0926

Attention: Mr. Robert Sellers, CHMM

Environmental Specialist II

SUBJECT: Site Assessment Report (SAR) Addendum

In Accordance with Chapter 62-780 F.A.C.

Cone Property aka Parrish Plantation LLC South of S.R. 62 and East of U.S. Highway 301

Parrish, Manatee County, Florida

FDEP Project No. 298707 FDEP Site No. 266446

Dear Mr. Sellers:

Land Assessment Services, Inc. (LAS), in response to Florida Department of Environmental Protection's (FDEP) letter dated January 29, 2009, has completed herein a *site assessment report addendum (SARA)* to its May 2008 SAR (or "report") for the above referenced site in accordance with 62-780.600 F.A.C.

LAS has included the Department's questions/remarks in this letter, and our responses. This addendum is meant to complement the SAR and it is assumed that the reader will have access to and refer to the SAR in reviewing the data presented herein. Accordingly, LAS has revised and added to the tables presented in the SAR where necessary, has generated new figures to depict new sampling locations and impacted areas, and has revised some of its previous figures to update sampling locations and add data. LAS has not revised the original SAR to include this data, but has used the Department's remarks as a general working outline, with our responses following each question/remark.

It is important to note that, where possible, and if within the budget established for this SARA by the client, LAS attempted to anticipate the Department's questions with regard to the new data gathered, and conducted further testing to confirm our results, or to provide further lateral and/or vertical delineation of the contamination detected. It is also important to note that this letter is constructed in such a manner as to briefly summarize the results, with the full detail to be found in the tables and/or figures.

ENVIRONMENTAL/CONTAMINATION ASSESSMENTS

It should be understood that the SAR and this addendum cover a broad area ($268 \pm acres$) and multiple locations (pasture and barn areas) where contaminants of concern have been detected. With regard to arsenic soil contamination present in the pasture section of the site, based on our results, it appears that this area in general has been impacted throughout, at depths extending to $8 \pm feet$, with no apparent "source". Accordingly, "iso-concentration" contour lines beyond a general outline of the contamination detected were not appropriate. Also, only one (1) localized area was subjected to "slug" testing (discussed in depth below) based on groundwater quality testing results.

The subject site was purchased by Parrish Plantation, LLC, with the intent of developing the property for mixed used, predominantly commercial/retail uses along U.S. Highway 301, and residential uses in the interior areas. Because of the site's dormant status at this time due to economic conditions, resources to conduct this study were limited, and were used where they could be most effective, i.e. in conducting additional sampling where necessary to provide the Department with more data, and to anticipate a possible Interim Source Removal action in the barn area. Consequently, LAS has done its best to satisfy the requirements of Chapter 62-780 F.A.C. and the January 29, 2009 review letter given these limitations.

Finally, the original SAR addressed arsenic soil contamination in the "pasture" and "grove" areas of the site in response to the perceived intent of the Department's July 8, 2007 letter, whereas the Department was in possession of a Limited Phase II environmental site assessment (ESA) dated July 30, 2004 (which was previously provided to you by others) indicating some soil organochlorine pesticide impacts in the barn area. LAS conducted an "initial screening" of the shallow soil of this area in 2007 (not in accordance with Chapter 62-780 F.A.C. requirements), the results from which were included in the Appendix of the SAR along with other bulk chemical testing data; however, these results were not discussed. This SARA addresses the contamination status of the west side of the barn area with regard to organochlorine pesticides and arsenic. It should be noted that no pesticide testing was conducted in the pasture or grove areas, and that samples collected from the barn area should have been labeled "SS" and not "SA".

Briefly, for this SARA, the following new soil, groundwater and surface water testing was conducted on the subject site:

- Installed six (6) shallow groundwater wells in the pasture area to delineate arsenic contamination around MW-6 (MW-6a and MW-6b), and to check for arsenic groundwater contamination at SA-35 (MW-7, MW-7a and MW-7b) and SA-40 (MW-8T) where arsenic was found at elevated levels in the soils in 2007.
- Installed three (3) shallow groundwater wells west of the barn to check for arsenic and pesticide impacts, primarily at soil sample locations SS-15 and SS-19, and to replace damaged TW-1 (installed for the limited Phase II ESA in 2004).
- Collected additional soil samples in accordance with Chap. 62-780 F.A.C. in the pasture area to check for arsenic impacts in areas just outside the "pasture" (SA-N, SA-S and SA-W), to confirm results at SA-22, SA-35 and SA-40, and to analyze for arsenic at one (1) of the perimeter well locations installed around MW-6 (MW-6A).

- Conducted Synthetic Precipitation Leaching Procedure (SPLP) tests on some of the new soil samples collected from the pasture, generally with the highest arsenic contents.
- Collected additional soil samples west of the barn in accordance with Chap. 62-780 F.A.C. to check for arsenic and pesticide (organochlorine) contamination, and conducted further shallow soil testing in an attempt to further delineate the contamination detected. Conducted Toxic Characteristic Leaching Procedure (TCLP) testing on selected samples to determine the "hazardous" characteristics of the toxaphene detected; and checked for BTEX and lead levels in the shallow soils at one (1) location. This BTEX/lead testing was for background data for a possible subsequent Interim Source Removal in the area.
- Conducted "slug" testing at two (2) wells in the SA-22/MW-6 area (MW-6 and MW-6a). Based on the apparent absence of shallow groundwater contamination above the state's groundwater cleanup target level (GWCTL)¹ in the barn area and at SA-35, slug testing was conducted at these locations. The monitoring well installed at SA-40 (MW-8T) was installed temporarily and late in the SARA process and removed after sampling.
- Collected surface water samples in two (2) man-made ponds, one (1) within the pasture (SW-1) and one (1) outside the pasture (SW-2).

The following are the Department's questions from the January 29, 2009 letter and our brief responses:

1. No reference is made in the Report regarding pesticides at the site. The laboratory data indicates that several pesticides including dieldrin and toxaphene are present at the site well above their respective Soil Cleanup Target Levels (SCTLs).

Due to inconsistent sampling nomenclature (soil samples in barn area should have been labeled "SS" instead of "SA"), data included in the SAR dated May 2008 was misleading. No pesticide tests were run in the grove area or the pasture area, nor were material pesticides suspected in these areas.

Toxaphene was detected in shallow soils (at 1 ± feet below land surface or BLS) at 1.7 milligrams per kilogram (mg/kg) at SS-15 in the barn area in 2004, which was reported in LAS' Limited Phase II ESA. Toxaphene was the only constituent tested using EPA Method 8081 to exceed the state's SCTL for direct residential exposure (0.9 mg/kg) at that time. Other compounds detected in July 2004, alpha-chlordane, gamma-Chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and Endosulfan II, were all well under their respective SCTLs.

LAS also checked for organophosphorus pesticides (EPA Method 8141) and chlorinated herbicides (EPA Method 8151) in the shallow soils of the barn area in July 2004 (at SS-15), and found no levels above method detection limits (all BDL).

¹ Per Chapter 62-777 Florida Administrative Code (F.A.C.)

This SARA includes and discusses additional soil testing results from the west side of the barn conducted in 2007 and 2009. Shallow soil was tested using EPA Method 8081 (organochlorine pesticides) and EPA Method 6061 (arsenic) only, based on the absence of other EPA Method 8141 and 8151 compounds in the 2004 testing results. See Appendix A for new soil sampling chemical testing results. For a summary of LAS shallow soil chemical testing results in the barn area, refer to Table 7 attached. For our sampling locations, refer to Figure 11.

Here are the contaminants of interest *detected* >SCTLs in the shallow soils west of the barn:

	Date Collected	Arsenic	Chlordane	4,4'-DDE	4,4'-DDT	Dieldrin	Toxaphene
Residential SCTL (mg/kg)		2.1	2.8	2.9	2.9	0.060	0.9
Commercial SCTL (mg/kg)		12	14	15	15	0.3	4.5
Leachability		SPLP	9.6	5.8	11	0.002	31
SS-15 1.0 ±	7/21/04						1.7
SS-15a O-0.5	3/9/09					0.068	4.6
0.5-2.0		3.9					10
SS-15b 0-0.5	4/8/09	4.4					10
0.5-2.0		2.4					
SS-16	2/9/07	NT					
SS-17	2/9/07	NT					
SS-18	2/9/07	NT					
SS-19 (a) 0-0.5	2/9/07	NT				0.84	74
(b) 0.5-2.0							1.1
SS-19a O-0.5	3/9/09						5.0
0.5-2.0		2.2					5.2
SS-19b 0-0.5	3/9/09	2.2					3.9
SS-19c 0-0.5	4/8/09	3.6					1.3
SS-19d 0-0.5	4/8/09						2.2
SS-20 (a) 0-0.5	2/9/07	NT					3
SS-20a 0-0.5	3/9/09	4.4			4.1		16
0.5-2.0							1
SS-20b 0-0.5*	4/8/09	2.8					4.5
0.5-2.0*							0.98

^{*}lab mislabeled "0 to 0.5" sample "0.5 to 2" and vice versa

See Figures 12-16 for graphic depictions of the contaminants detected above SCTLs (toxaphene, arsenic and dieldrin) with iso-concentration lines where appropriate.

2. Dieldrin is present at SA-19a (0.84 mg/kg) above the SCTL of 0.06 mg/kg (as of 2007).

See No. 1.

3. Toxaphene is present at SA-19a (74 mg/kg), SA-19b (1.1 mg/kg) and SA-20a (3 mg/kg) above the SCTL of .9 mg/kg (as of 2007).

See No. 1. Toxaphene was present greater than the residential SCTL at all sampling locations in the barn area (2004, 2007 and 2009) except SS-16, SS-17 and SS-18. It is important to note that these three (3) locations border the same concrete slab and argue against the pervasiveness of the contaminant across the area.

4. Toxaphene, dieldrin, 4,4'-DDE and 4,4'-DDT were detected in most of the soil samples taken at the site. Chlordane was also detected in several soil samples. Further assessment of the pesticide and arsenic impacted soils at the site is necessary.

Toxaphene, dieldrin, 4,4'-DDE and 4,4'-DDT, and chlordane were detected in the barn area in 2007; toxaphene in 2004. LAS conducted *further assessment* of pesticide and arsenic impacted soils in the barn area, and arsenic-impacted soils in the pasture area for this SARA. No further soil testing was conducted in the grove area based on previous negative results. As discussed previously, no pesticide testing was previously conducted in the grove area, or the pasture area. See Response No. 1.

5. Synthetic Precipitation Leaching Procedure (SPLP) testing did not include samples from the locations containing the highest concentrations of arsenic.

In 2007, some SPLP testing was conducted on samples collected from areas/zones in the pasture where no shallow groundwater testing was performed and arsenic values were "high" (SA-26C and SA-34C). At SS-22, MW-6 was installed, the results from which were a good indicator of actual leaching potential.

Nevertheless, during this addendum work, shallow soils were resampled at SS-22, SA-35 and SA-40 so that the results might be confirmed and SPLP tests could be run on the samples with the highest arsenic concentrations. SPLP testing was conducted on soil samples from MW-6/SA-22 (As--7.1 mg/kg), SA-35 (As—15 mg/kg) and SA-40 (As—15 mg/kg). Only the SPLP result for SA-40 (0.5' to 2' BLS) exceeded the GWCTL for As of 0.10 mg/l (0.018 mg/l). It is important to note that during this site assessment no arsenic levels were detected in excess of 29 mg/kg, the previous leachability benchmark for arsenic.

To further check for actual evidence of leaching in 2009, shallow groundwater wells MW-6a and MW-6b were installed around MW-6 (SA-22); MW-7, MW-7a and MW-7b were installed at and around SA-35; and MW-8T was temporarily hand-installed at SA-40. Results from this supplemental testing are summarized on Table 5. Samples from monitoring wells installed at SA-35 where the most significant arsenic levels were detected in the soils in 2007, did not have detectable arsenic levels. Arsenic groundwater testing at SA-22 was inconclusive/inconsistent in the MW-6 area. Arsenic groundwater contamination was detected above the GWCTL at MW-8T (SA-40) in the unfiltered sample only.

It has been our experience at similar sites that arsenic values have to be in the commercial/industrial SCTL range for significant/material/meaningful levels to result from SPLP testing. For this reason, no SPLP testing for arsenic leaching potential was conducted on samples collected in the area west of the barn, where arsenic levels did not exceed 4.4 mg/kg. Based on the soil and groundwater arsenic testing performed to-date, in our opinion, leaching potential and actual evidence of leaching has been fairly assessed in the study areas.

6. Groundwater assessment must be performed to meet the requirements outlined in Rule 62 780.600(3). F.A.C. The extent of arsenic contamination has not been delineated around MW-6. It should be noted that the concentration of arsenic in the soil at this location was 8.9 mg/kg, which is above the SCTL for arsenic and may be leaching into the groundwater.

See also Response No. 5. LAS installed monitoring wells MW-6a and MW-6b at perceived upgradient and down-gradient locations in proximity to previously installed MW-6. MW-6 was resampled and arsenic was not detected. The maximum arsenic concentration in shallow soil samples recollected from the MW-6/SS-22 location was 7.1 mg/kg, on which a SPLP was performed. The SPLP result was 0.0079 I mg/l, which did not indicate significant leaching. Arsenic levels were below the GWCTL at MW-6b; while unfiltered and filtered samples from MW-6a exceeded the GWCTL of 0.010 mg/l in samples collected on March 19, 2009 and April 8, 2009 (0.015 ± mg/l). However, the maximum arsenic soil level at MW-6a was 1.4 mg/kg, and no SPLP was run. From a forensic standpoint, based on our soil, groundwater and SPLP testing in the MW-6 area, it is difficult to establish a distinct pattern for the contamination encountered, and further delineation in the area did not appear justified based on the relatively minor levels of arsenic groundwater contamination detected. See Table 5 and Figure 10. See also Appendix A for new chemical testing results; Appendix B for well installation, development and boring logs; and Appendix C for groundwater sampling logs.

LAS also installed monitoring wells at SA-35 (MW-7, MW-7a and MW-7b) and one (1) temporary well at SA-40 (MW-8T), where high arsenic levels were detected in the soils in 2007 and 2009. Arsenic levels in the shallow groundwater in the area of SA-35 did not exceed detection limits and the SPLP result for the test conducted on the arsenic sample with the highest arsenic concentration (15 mg/kg) from SA-35 (in 2009) was well below the GWCTL. The arsenic level in the unfiltered groundwater sample from MW-8T was 0.014 mg/l, higher than the GWCTL of 0.010 mg/l; however, the filtered sample level was 0.0021 I², well below the GWCTL. The highest arsenic soil value at this location was 15 mg/kg, on which a SPLP was performed, yielding 0.018 mg/l, indicative of possible leaching. No further delineation of arsenic shallow groundwater contamination was conducted at the SA-40 location for this SARA.

Shallow groundwater west of the barn (TW-1) was tested in 2004 for arsenic, organochlorine pesticides (EPA Method 8081), organophosphorus pesticides (EPA Method 8141), and chlorinated herbicides (EPA Method 8151). Only arsenic was detected in the shallow groundwater at 0.0022 I $\mu g/l$, well under the GWCTL for arsenic of $0.010 \mu g/l$.

Three (1) additional wells were installed in the barn area in 2009, MW-1 to replace destroyed TW-1; MW-15 at SS-15; and MW-19 at SS-19. These monitoring wells were sampled in March 2009 and analyzed for total arsenic and organochlorine pesticides (EPA Method 8081). Organochlorine pesticides and arsenic levels fell far below GWCTLs, were not quantifiable by the laboratory, or were not detected above laboratory method detection limits. Organophosphorus pesticides and chlorinated herbicides were not analyzed based on previous negative results in 2004.

7. Updated groundwater quality iso-concentration contour maps must utilize the most recent supporting sample data from representative monitoring wells which were collected for laboratory analysis no more than 270 days prior to submittal of the SARA (Rule 62-780.600(5)a), F.A.C., and Rule 62-780.(8)(a)28, F.A.C.). Groundwater data included in the Report was more than 270 days old.

Acknowledged. All existing monitoring wells were resampled for this SARA. Surface water was also resampled at two (2) locations and tested for total arsenic (below GWCTL). New monitoring wells were installed and sampled in the pasture and barn areas. See Figure 10 for an

_

² Analyte detected below quantitation limits.

iso-concentration map for arsenic groundwater contamination in the MW-6/MW-6a area of the pasture (southeast). No other shallow groundwater contamination was detected (pesticides, herbicides, arsenic) above GWCTLs in the pasture, grove or barn areas, except at MW-8T in the western pasture, at 0.014 mg/l (unfiltered sample only), compared to the GWCTL of 0.010 mg/l.

8. Monitoring wells installed as part of site assessment, as well as all existing monitoring wells, and any additional wells installed as part of Site Rehabilitation, must be benchmarked to NAVD or NGVD, and updated well construction and groundwater elevations tables and illustrations included in the SARA (Rule 62-780.600(5)(j), F.A.C., and Rule 62-780.600(8)(a)7, F.A.C.).

Acknowledged. However, in the interest of allocating the client's limited funds to additional sampling points and chemical testing, LAS surveyed the wells installed on the property using "relative" benchmarks (client's original surveying firm no longer associated with this project). The data obtained to establish localized shallow groundwater flow direction is in our opinion credible and useful at this stage of the assessment. At a future date, these wells can be resurveyed and benchmarked to NAVD or NGVD. See revised Figure 8 for well construction details and revised Table 6 for relative groundwater elevations of most of the wells installed on-site.

9. Summary tables for well construction, groundwater level measurements from the top of casing, and groundwater elevation data must be included in the reports. These data must be maintained in tabulated format, referenced to NGVD or NAVD datum, and included in the SARA (Rule 62-780.600(3)(g), F.A.C., Rule 62-780.600(5)(i), F.A.C., and Rule 62-780.600(8)(a)8, F.A.C.).

See No. 8 for an explanation of the NGVD or NAVD datum requirement. Table 6 includes groundwater elevation and top of casing data. Figure 8 shows construction details for a typical permanent monitoring well installed on-site for the SAR and SARA. Appendix B includes well installation, development and boring logs. Appendix C includes groundwater sampling logs.

10. The results from slug tests on a minimum of three monitoring wells or from a pumping test, performed in each affected aquifer zone monitored to determine aquifer properties, and including a description of methods used, assumptions made, field data, and calculations must be included in the SARA, (Ch 62-780.600(3)(a)5, F.A.C., Rule 62- 780.600(3)(g), F.A.C., Rule 62 780.600(5)(q), F.A.C., Rule 62-780.600(8)(a)12, F.A.C.).

Two (2) slug tests were performed on wells in the area of SA-22 (MW-6 and MW-6a) where arsenic groundwater contamination was detected in excess of the GWCTL. A third slug test was not performed based on the absence of groundwater contamination in excess of GWCTLs at SA-35/MW-7 or in the barn area (both "NFA" conditions). The well temporarily installed at SA-40 (MW-8T) where arsenic groundwater contamination exceeded the GWCTL in the unfiltered sample was removed after sampling and was not present to run a subsequent slug test. Supporting data and calculations for LAS' slug testing are attached in Appendix D. See Response No. 11 below.

11. The result of a calculation of horizontal groundwater flow velocity (v) for the site, using the formula v=KI/n, where K is the average horizontal hydraulic conductivity, I is the average horizontal hydraulic gradient, and n is the estimated effective soil porosity must be included in the SARA, (Ch 62-780.600(3)(a)5, F.A.C., Rule 62-780.600(3)(g), F.A.C., Rule 62-780.600(5)(q), F.A.C., Rule 62-780.600(8)(a)13, F.A.C.).

The shallow groundwater flow direction across the MW-6 area (southeast corner of pasture) is toward the *northeast*, with an estimated average gradient over this area of approximately 0.0017 ft./ft. (distances between MW-6 and MW-6a used). With an estimated weighted average shallow aquifer horizontal permeability (i.e. hydraulic conductivity) of approximately 0.56 ft./day; an average gradient of approximately 0.0017 ft./ft.; and an estimated porosity of 25%; the shallow groundwater flow velocity in the study area is estimated to be about 1.1 to 1.5 ft./year. See Appendix D for supporting calculations.

12. The result of a calculation of vertical groundwater flow velocity (v) for the site, using the formula v = KI/n, where K is the average vertical hydraulic conductivity of a confining or semi confining zone, I is the average vertical hydraulic gradient, and n is the estimated effective soil porosity must be included in the SARA, (Ch 62-780.600(3)(a)5, F.A.C., Rule 62-780.600(3)(g), F.A.C., Rule 62-780.600(5)(q), F.A.C., Rule 62-780.600(8)(a)14, F.A.C.).

Not calculated for this SARA.

13. Updated lithologic logs and stratigraphic descriptions for each parcel must be included in the SARA (Rule 62-780.600(3)(g), F.A.C., and Rule 62-780.600(8)(a)16, F.A.C.). The descriptions must be site specific and not a generalized cross-section for Manatee County.

Boring logs associated with monitoring wells MW-4 in the grove and MW-3, MW-5 and MW-6 in the pasture were provided in the SAR on Page 8. LAS has also provided the soil profiles of for the three (3) study areas in Appendix E generated by Mortensen Engineering, Inc. (MEI) in 2004. B-21 was performed in the grove area; B-8, B-9, B-10 and B-12 were performed in the pasture area; and B-1 and B-3 were performed in the barn area. Additional boring logs for the new wells installed in the barn and pasture area are provided in Appendix B. LAS has also provided another "generalized" cross section of a geographical point in close proximity to the subject site (see Figure 17).

- 14. The SARA must have two or more cross sections which illustrate site specific stratigraphy and lithiology, and approximate concentrations of applicable contaminants at each parcel must be included in the SARA (Rule 62-780.600(3)(g), F.A.C., and Rule 62-780.600(8)(a)17, F.A.C.).
- See No. 13. See attached new and revised figures for depictions of contaminant concentrations at the various study areas (pasture, barn) and at different depths (barn area). No revised figure was provided for the grove area as MW-4 was resampled and arsenic continued to be below GWCTL (March 2009 arsenic result BDL).

- 15. Summary tables of soil sampling must be included in the SARA. Soil sampling field screening and laboratory analysis must be conducted as required under the Rule 62-780.600(5)(c), F.A.C. Soil sampling for metals and semi-volatile organic compounds must be at prescribed intervals of 0-0.5 ft BLS, 0.5-2 ft BLS, 2 ft BLS to soil-groundwater interface at all sampling locations (Rule 62-780.600(5)(c), F.A.C., Rule 62-780.600(5)(f), F.A.C., and Rule 62-780.600(8)(a)19, F.A.C.).
- Tables 2, 3, 4 and 7 include summaries of our soil sampling and chemical testing beginning in July 2004 and concluding in April 2009. LAS used the prescribed intervals stopping at depths perceived to be the "soil-groundwater interface" where applicable. Samples collected at SS-15b, SS-20b, SS-19c and SS-19d in the barn area, were not collected at depths lower than 2 \pm feet BLS based on previous results indicating no pesticide or arsenic impacts in excess of the SCTLs at the lower depths. At the SS-20a location in the area west of the barn, LAS collected soil samples to test for lead and BTEX compounds for waste characterization purposes. These results are included in Appendix A and did not exceed the SCTLs or levels considered "hazardous" per 40 CFR.

LAS also performed TCLP tests on toxaphene at SS-15a and SS-20a and the results (0.010 mg/l and 0.0086 mg/l, respectively) were not considered to be characteristic of a hazardous waste for disposal purposes (<0.5 mg/l via EPA Method 1311/8081A). Toxaphene was not detected in the groundwater samples collected from TW-1 (in 2004), MW-1, MW-15 or MW-19 installed in the barn area.

16. Iso-concentration contour maps that illustrate the horizontal and vertical extent of soil contamination in the unsaturated zone must be included in the SARA (Rule 62-780.600(8)(a)20, F.A.C.).

See Figures 7, 10, 13 and 14.

17. Generation and proper disposal of investigative derived waste (IDW) generated during site rehabilitation activities must be managed appropriately on the site pending laboratory analytical results, and disposed of accordingly. A discussion of IDW must be included in the SARA to include the type of IDW generated, treatment and/or disposal methods, and a copy of any applicable IDW paperwork (Rule 62-780.600(5)(1), F.A.C., and Rule 62-780.600(8)(a)22, F.A.C.).

LAS did not generate IDW during this project. Well development and purge water from the impacted wells was discharged directly to the same aquifer from which it came and was not drummed. No contaminated soils were excavated, drummed or stockpiled during this project.

18. A summary table that is updated any time additional piezometers, monitoring wells, or recovery wells are installed and that summarizes the well construction details (including the top-of-casing elevation referenced to NGVD of 1929 or NAVD of 1988, depth of the top of the screen below land surface, total depth and screen length, and ground surface elevation referenced to NGVD of 1929 or NAVD of 1988) of all monitoring wells (including storage tank compliance wells or other compliance wells required by permit), piezometers, and recovery wells must be included in the SARA (Rule 62-780.600(8)(a)8, F.A.C., and Rule 62-780.600(8)(a)23, F.A.C.).

See Table 6 for a summary of monitoring well details and Figure 8 for specific monitoring well construction details. See also Response No. 8.

19. One or more scaled site maps that show any areas excavated and all groundwater and surface water sampling locations, and that illustrates the degree and extent of groundwater and surface water contamination using sufficient iso-concentration lines to help identify source area(s) as well as the extent of the plume(s) must be submitted with the SARA. The updated groundwater quality iso-concentration contour maps must utilize the most recent supporting sample data from representative monitoring wells which were collected for laboratory analysis no more than 270 days prior to submittal of the SARA (Rule 62-780.600(5)(1), F.A.C., and Rule 62-780.(8)(a)28, F.A.C.).

See attached new and revised figures for scaled site maps, some with iso-concentration lines. All existing monitoring wells were resampled for this SARA except TW-1, which was found damaged and replaced by MW-1.

20. All applicable information required by subsection 62-780.300(2), F.A.C. (Quality Assurance requirements for data submitted) must be submitted in the SARA (Rule 62-780.600(8)(a)26, F.A.C.).

Acknowledged. See Appendix F.

Summary and Conclusions

LAS has completed supplemental testing as an addendum to the SAR it submitted in May 2008, and has provided where possible the additional information and documentation requested in the Department's letter dated January 29, 2009, in accordance with Chapter 62-780 F.A.C.

Based on previous data and the new information obtained as a result of completing the necessary tasks outlined in the Department's January 29, 2009 letter, and those additional tasks thought to be prudent based on data acquired during the completion of the addendum work, LAS presents the following brief summary and conclusions.

Grove Area

Shallow soil arsenic testing was performed in 2007 at five (5) locations in the grove area and the results did not exceed the residential SCTL. Arsenic checked in one (1) shallow groundwater monitoring well (MW-4) installed in the area was below the GWCTL in samples analyzed in March 2007 and March 2009. As discussed, our sampling nomenclature was misleading in the SAR relative to the grove area, as pesticide testing *did not* occur in this area, but west of the barn. Based on our shallow soil and shallow groundwater testing in the "grove" area, this part of the property appears free from material arsenic impacts and *should not* be subject to further assessment or institutional and engineering controls.

Pasture Area

Arsenic soil contamination has been found throughout the section of the site we have called the "pasture" area, which was observed by review of historical aerial photographs to not have been developed with citrus groves as was the balance of the Cone property (at least back to the early 1940s). Arsenic contamination was not confined to surficial layers of soil, but was also detected at levels in excess of the SCTL at depths to $8 \pm$ feet BLS. There was no established pattern or obvious source area for the arsenic contamination detected, although LAS focused more on testing around soil samples SA-22, SA-35 and SA-40, where higher levels were detected during initial screening in 2007. Minor arsenic groundwater contamination was detected at levels slightly above the existing GWCTL at MW-6 in 2007, MW-6a in 2009 and MW-8T in 2009, but not at MW-7, 7a and 7b where the highest arsenic levels were detected in soils in 2007 and 2009 (SA-35). However, at MW-6, arsenic contaminant levels were inconsistent (>GWCTL in 2007 compared to BDL in 2009). Our attempts to laterally delineate the arsenic contamination in the shallow groundwater were inconclusive at MW-6/MW-6a/MW-6b. The temporary well installed late in our SARA work at SA-40 was to obtain a complete data set there, with no intention to further delineate groundwater contamination if discovered above the GWCTL. SPLP testing was performed at various sampling points where elevated of levels were detected in the soils, but only one (1) of these tests (at SA-40 in April 2009 with a 15 mg/kg level in soil) resulted in a value that indicated possible leaching potential (0.018 mg/l). It also appears that significant migration of arsenic contamination from impacted zones is unlikely based on the low levels of arsenic obtained and LAS permeability testing.

Because of the ubiquitous nature of the arsenic found in the soils of the pasture area, and the impracticality of conducting additional lateral assessment in the section, LAS recommended in the SAR that the area be subject to institutional and engineering controls as a condition to NFA status. This addendum has further established/tightened the general lateral limits of the arsenic contamination (SA-N and SA-S were <SCTL), and previous soil testing throughout the 268 +/- acre property substantiates the applicability of only the pasture area as delineated, notwithstanding the status of the barn area (see below), for these proposed controls. Shallow groundwater testing appeared to establish a general pattern of the likely presence of minor arsenic contamination in the groundwater at locations where arsenic soil contamination was more concentrated, i.e. in pockets; but again, this evidence was inclusive and unpredictable, and further investigation for or delineation of isolated pockets of groundwater contamination was impractical at this stage given the likelihood of instituting I/ECs.

In summary, based on the information presented in the SAR, further confirmed and/or complemented by the sampling/chemical testing performed for this SARA, the establishment of institutional and engineering controls applicable to the "pasture" area only and NFA With Controls Without a Risk Assessment remains appropriate.

Barn Area

The Department's January 29, 2009 letter referenced toxaphene and dieldrin soil contamination in excess of the SCTL that had not been discussed in the SAR; this contamination was detected west of the barn in 2004 and/or 2007. The source of this contamination appears to have been general organochlorine pesticide and arsenical product mixing on and around a concrete slab over time. LAS performed soil testing around the slab and detected toxaphene and dieldrin (and 4,4'-DDT at one location only—SS-20a at 0-0.5') above the SCTL down to $2 \pm \text{feet BLS}$. LAS also detected arsenic in soils down to 2 +/- feet in the general area. No organophosphorus pesticides, chlorinated herbicides, gasoline constituents or lead were detected above residential SCTLs in the shallow soils tested from the west side of the barn. No evidence of significant leaching was encountered in the shallow groundwater sampled, as no shallow groundwater contamination above the applicable GWCTLs was detected in the area for arsenic, organochlorine and organophosphorus pesticides or chlorinated herbicides. Only dieldrin showed the potential for leaching compared to leachability levels per Chapter 62-777 F.A.C. However, dieldrin was not consistently detected at levels in excess of the SCTL at SS-15/15a and SS-19/19a during two (2) sampling events, and 4,4'-DDT was not consistently detected at levels in excess of the SCTL at SS-20/20a on two (2) sampling occasions. It would be expected if these contaminants were present in material concentrations, for the levels to be similar to those obtained for arsenic and toxaphene in the area from 2004 to 2009. SPLP testing was not run on the samples with arsenic contamination as the levels detected were not high enough based on our experience to warrant such testing.

In summary, toxaphene at levels higher than the commercial/industrial SCTL is present in surficial soils west of the barn down to 2 +/- feet BLS, but more so in the surface soils down to 0.5' BLS. Yet it is important to note that toxaphene was not in excess of the SCTL in SS-16 through SS-18. Arsenic is present in the same general area to 2 +/- feet BLS, at levels slightly higher than the residential SCTL, but substantially lower than the commercial/industrial SCTL. Neither of these contaminants present material leaching threats based on past and present leachability levels in Chapter 62-777 F.A.C., and actual shallow groundwater testing results. Based on TCLP testing on soils contaminated with toxaphene, complemented by testing for BTEX and lead, "hazardous waste" characteristic limits were not exceeded. Based on this data, it would appear appropriate during a subsequent Interim Source Removal action to strip shallow soils around the concrete pad 1 to 2 +/- feet BLS for off-site removal as a "non-hazardous" material, and the area refilled with clean soil after confirmatory sampling/chemical testing is performed.

Closing

Based on our understanding of Chapter 62-780 F.A.C., and the results presented in the SAR and the SARA, **No Further Action with Controls Without a Risk Assessment (Level II)** is appropriate for the "pasture" and "barn" areas of the site,³ and **NFA without Controls** may be attainable in the "barn" area if a ISR is properly performed with confirmatory soil testing. As noted, the "grove" area should be *dropped from future assessment*.

³ Soil Option IIB, Leachability Option IIB, Groundwater Option (pasture only; barn NFA) Option IID.

Other areas of the $268 \pm$ acre tract do not appear impacted by arsenic, providing the "foreign" soil piles in the northeast corner of the site containing arsenic are properly removed from the site or deposited in the "pasture" area for later disposition under 2 feet of clean materials or in non-residential areas, i.e. road beds.

If you have any questions regarding the attached document (two originals), please contact us.

Sincerely,

LAND ASSESSMENT SERVICES, INC.

Richard C. Reynolds Vice President Richard A. Mortensen, P.E. President/FL Reg. P.E. 34604

463/00684b.doc

Attachments:

Tables: 1 (rev.), 2-3, 4 (rev.), 5 (rev.), 6 (rev.), 7 (new)

Figures: 7 (rev.), 8 (rev.), 10 (rev.), 11-17 (new)

Appendices:

Appendix A-New Chemical Testing Results

Appendix B-Well Installation, Development and Boring Logs

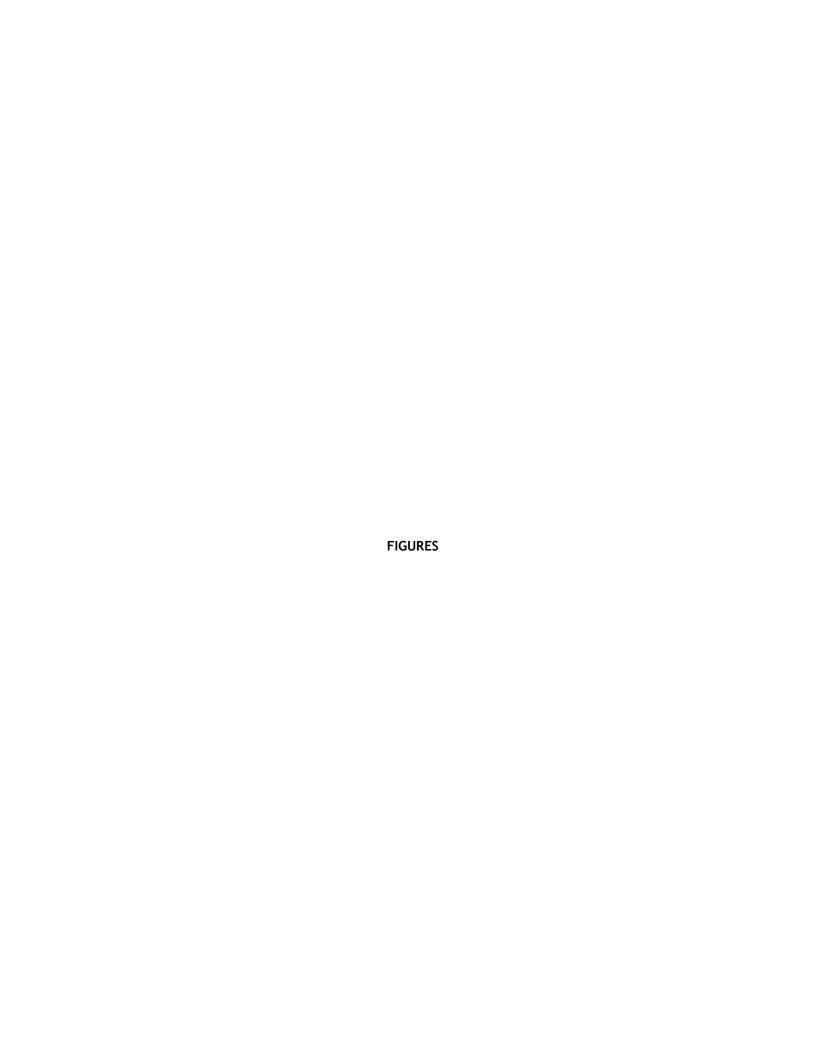
Appendix C—Groundwater Sampling Logs (Also contains Surface Water Log)

Appendix D-Slug Testing Data

Appendix E—Previous Preliminary Soil Study Data and Soil Profiles

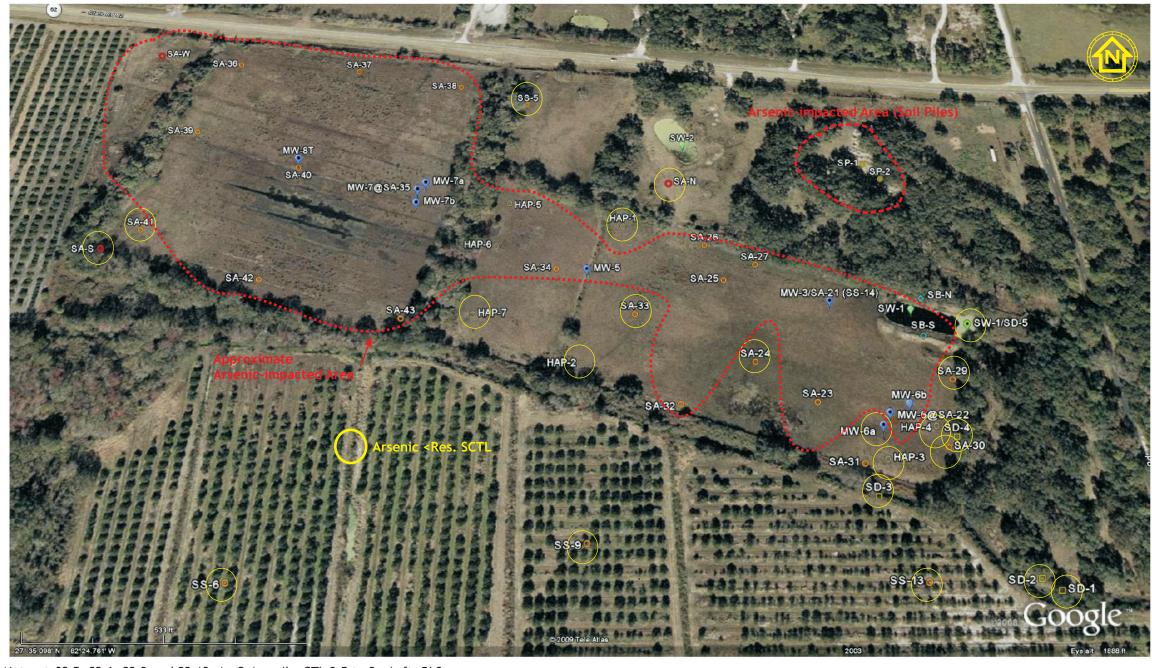
Appendix F-Calibration/Maintenance Log

cc: Parrish Plantation LLC



Sample/ Depth (ft.)	05	.5-2	4	6	8
SS-14	NT			6.6	6.9
SA-21			3.9	3.9	
SA-22	2.9	3.3	8.9	5.6	5.3
SA-23				2.4	
SA-25				4	3
SA-26			5.2		
SA-27			3		3.1
SA-28			3.8	3.9	
SA-31				2.6	
SA-32			2.8		
SA-34		3.7	3.7	2.4	
SA-35	23	17	7	4.5	
SA-36	3.7		2.6	2.3	
SA-37	3.1		3		
SA-38			2.9	10	
SA-39	7.3	2.2	3		
SA-40	5.6	7.1	6.5	3.5	
SA-42	4.3		9.7		
SA-43			5.3	4.8	
SA not shown	or Blar	nk=≤2.1	CTL		
NT=not tested					

Sample/ Depth (ft.)	05	.5-2	4
HAP-5	3.9	2.6	
HAP-6	6.5	6.3	
SB-N	NT	8.1	
SB-S	NT	9.8	
SP-1	NT	3.6	
SP-2	NT	4.2	
	2009		
SA-N	0.34 I	<0.20	0.63
SA-S	1.7	0.56	
SA-W	2.2	0.59	
MW-6A	0.69	1.4	
SS-22	1.5	1.4	7.1
SS-35	15	14	
SS-40	4.7	15	
NT=not tested			

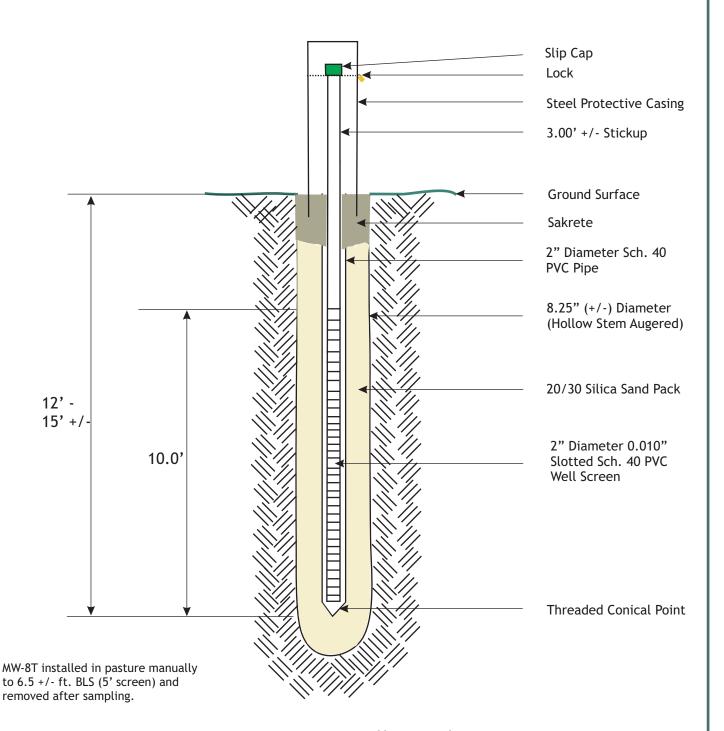


Note: @ SS-5, SS-6, SS-9, and SS-13, As<2.1 mg/kg CTL 0.5 to 8 +/- ft. BLS.





Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 7 (Rev.)



Monitoring Well Detail MW-3 through MW-7 MW-1, MW-15, MW-19 MW-6a, MW-6b, MW-7a, MW-7b



Site Assessment Report Addendum
Cone Property--268 +/- Acres

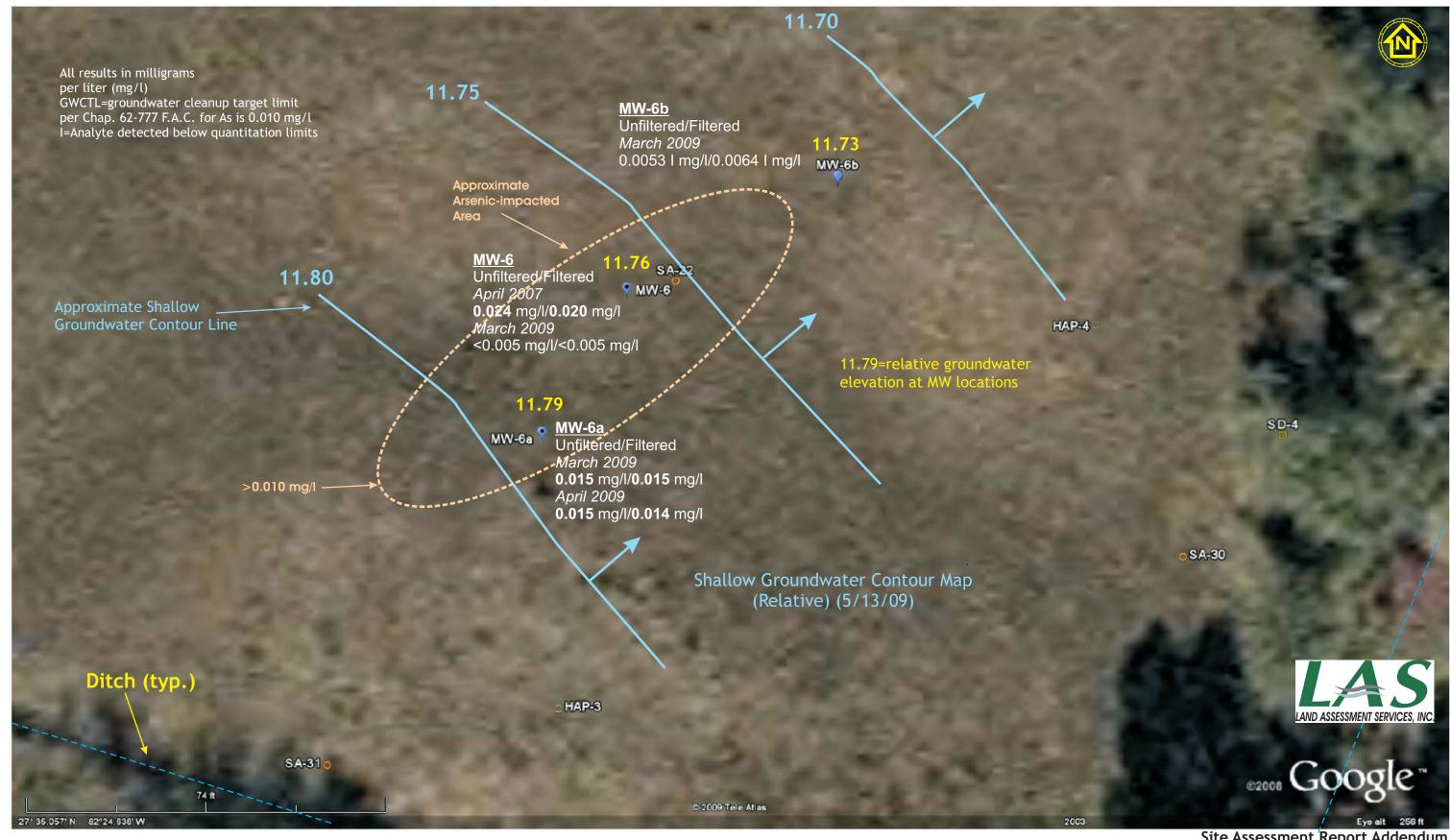
South of S.R. 62, East of U.S. Highway 301 Parrish, Manatee County, Florida June 2009 Scale: NTS

Figure 8 (Rev.)



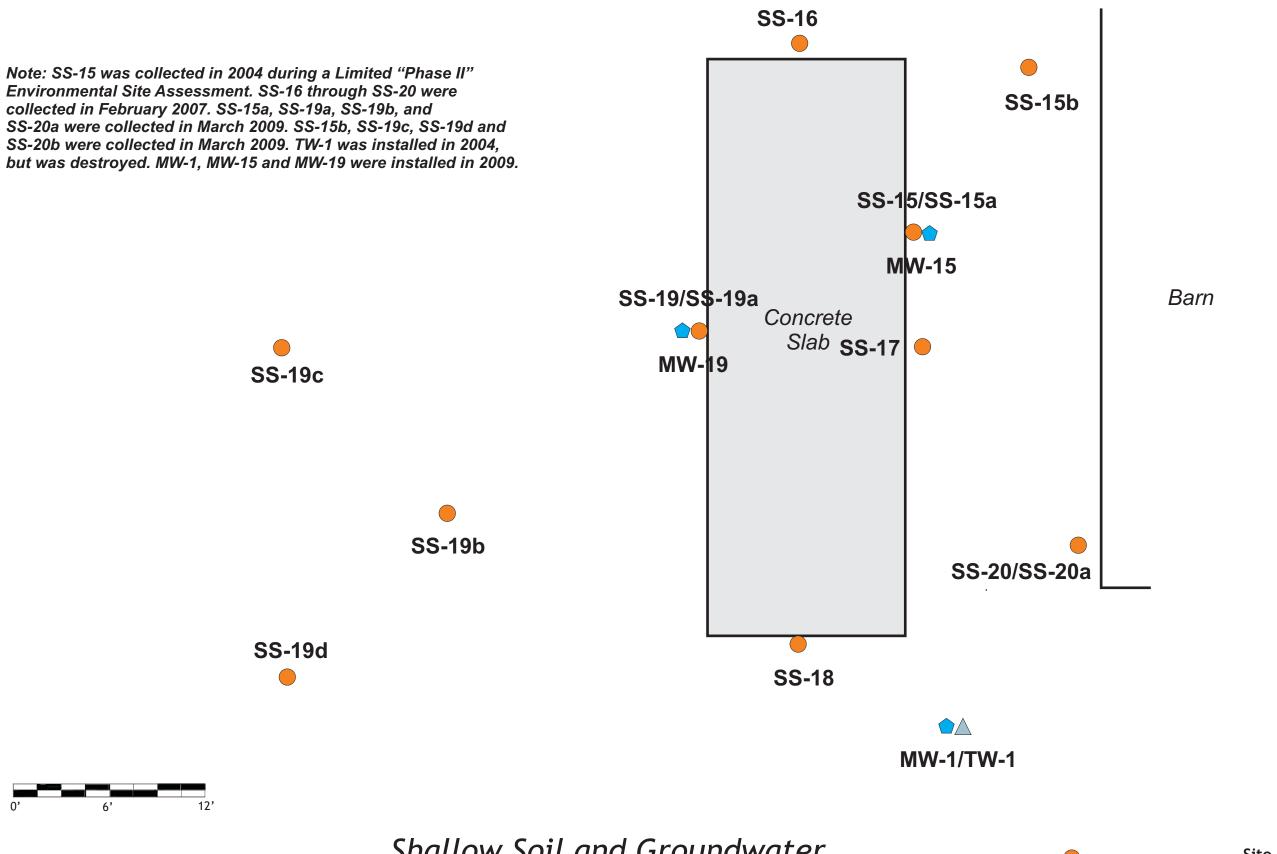
Arsenic Concentrations in Shallow Groundwater Samples at MW-3 and MW-5

Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 9 (Rev.)



Arsenic Concentrations in Shallow Groundwater Samples at SA-22/MW-6 and Groundwater Contour

Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 10 (Rev.)



Shallow Soil and Groundwater Testing Locations--Barn Area



LAND ASSESSMENT SERVICES, INC.

Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 11

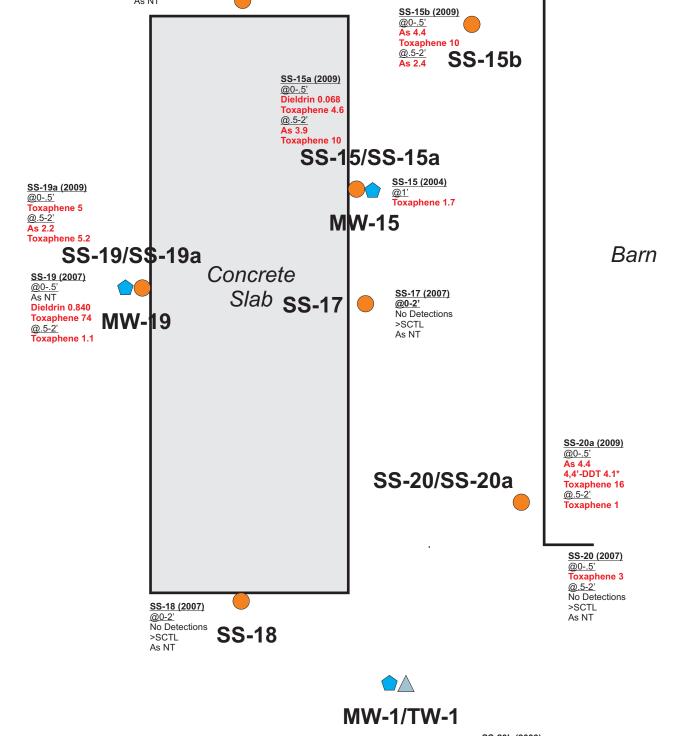
Note: SS-15 was collected in 2004 at 1' +/- BLS. Samples collected from SS-15a, SS-19a, SS-19b. and SS-20a in March 2009 were at the intervals prescribed in Chap. 62-780 F.A.C. Samples collected at SS-16 through SS-20 in February 2007 were for initial "screening" purposes at depths of 0-0.5' and 0.5-2' BLS. Samples collected at SS-15b, SS-19c, SS-19d and SS-20b in April 2009 were at depths of 0-0.5' and 0.5-2' BLS based on the absence of significant contamination (>SCTL) in the lower level samples collected in the barn area in March 2009. Arsenic was not tested in 2007 based on the 2004 As level detected (<res. SCTL). EPA Method 8141 (organophosphorus pesticides) and EPA Method 8151 (chlorinated herbicides) were used in analyzing SS-15 in 2004 and no analytes were above laboratory method detection limits. Thereafter, only EPA Method 6010 (As) and EPA Method 8081 were used.

All results in milligrams per kilogram (mg/kg) SCTL=direct exposure--residential soil cleanup target limit per Chap. 62-777 F.A.C. NT=no tested









@0-2' No Detections SS-16



Organochlorine Pesticide and Arsenic* Concentrations in Soil Samples Above SCTL--Barn Area

FDEP Project No. 298707 FDEP Site No. 266446 LAS Project No. 07-463-00684 (*4,4'-DDT >SCTL at SS-20a 0-0.5' only)

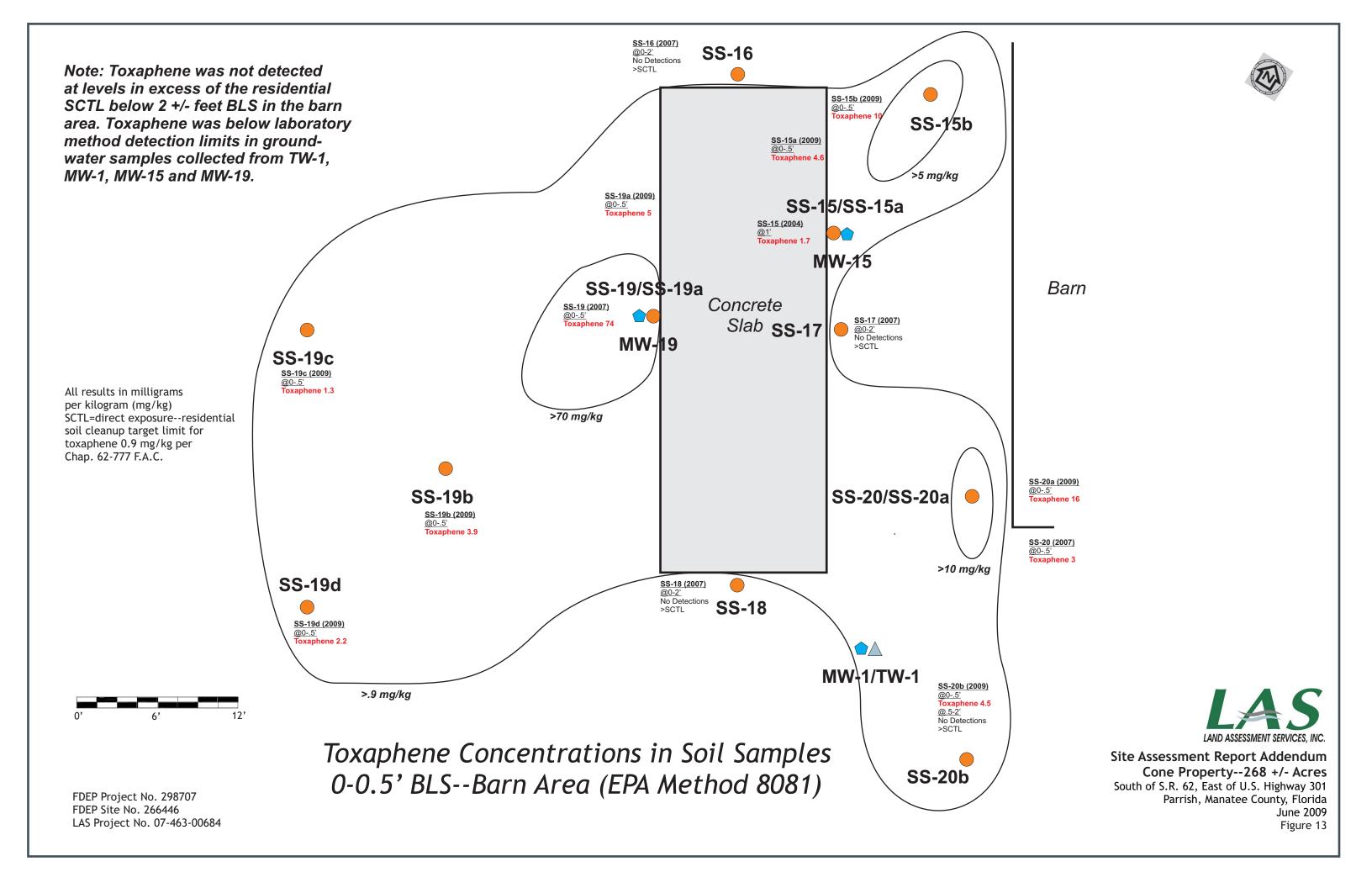


SS-20b



Figure 12

Site Assessment Report Addendum Cone Property--268 +/- Acres South of S.R. 62, East of U.S. Highway 301 Parrish, Manatee County, Florida June 2009





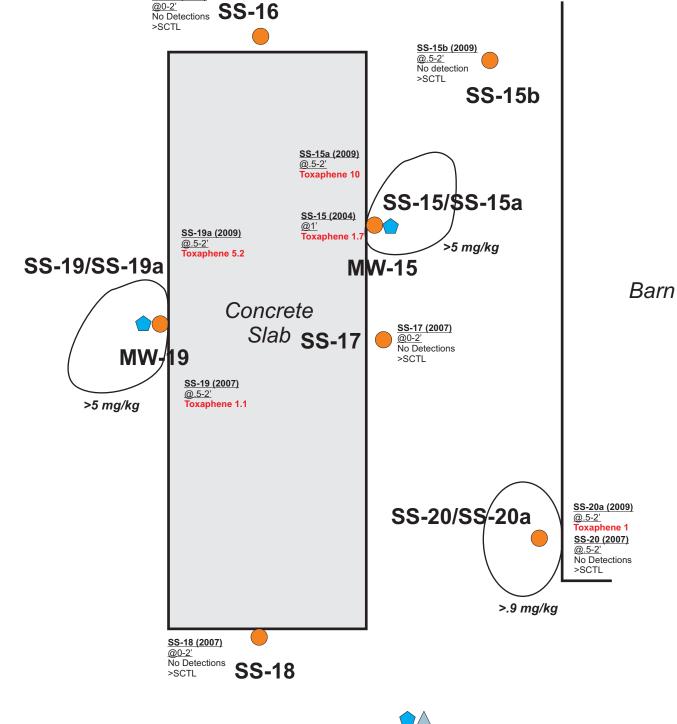
Note: Toxaphene was not detected at levels in excess of the residential SCTL below 2 +/- feet BLS in the barn area. Toxaphene was below laboratory method detection limits in groundwater samples collected from TW-1, MW-1, MW-15 and MW-19.



All results in milligrams per kilogram (mg/kg) SCTL=direct exposure--residential soil cleanup target limit for toxaphene 0.9 mg/kg per Chap. 62-777 F.A.C.











Toxaphene Concentrations in Soil Samples 0.5-2' BLS--Barn Area (EPA Method 8081)





Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 14

FDEP Project No. 298707 FDEP Site No. 266446 LAS Project No. 07-463-00684 Note: SS-15 was collected in 2004 at 1' +/- BLS.
Arsenic was not analyzed in 2007 based on the 2004 As level detected (<res. SCTL). Samples collected from SS-15a, SS-19a, SS-19b, and SS-20a in March 2009 were at the intervals prescribed in Chap. 62-780 F.A.C. No arsenic was detected >SCTL at depths lower than 2' in the March 2009 samples. Samples collected at SS-15b, SS-19c, SS-19d and SS-20b in April 2009 were at depths of 0-0.5' and 0.5-2' BLS based on the absence of significant contamination (>SCTL) in the lower level samples collected in the barn area in March 2009.

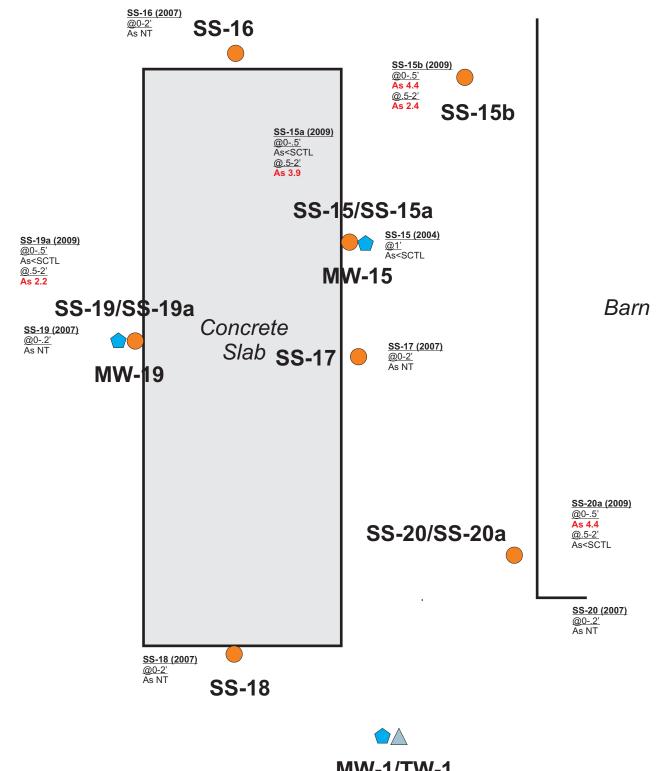
All results in milligrams per kilogram (mg/kg) SCTL=direct exposure--residential soil cleanup target limit for arsenic is 2.1 mg/kg per Chap. 62-777 F.A.C.











MW-1/TW-1

SS-20b (2009)
@0-.5'
As 2.8

SS-20b

@.5-2' As<SCTL LAS

0b

Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 15

Arsenic Concentrations in Soil Samples Barn Area (EPA Method 6010)

FDEP Project No. 298707 FDEP Site No. 266446 LAS Project No. 07-463-00684 Note: SS-15 was collected in 2004 at 1' +/- BLS. Samples collected from SS-15a, SS-19a, SS-19b, and SS-20a in March 2009 were at the intervals prescribed in Chap. 62-780 F.A.C. Samples collected at SS-16 through SS-20 in February 2007 were for initial "screening" purposes at depths of 0-0.5' and 0.5-2' BLS. Samples collected at SS-15b, SS-19c, SS-19d and SS-20b in April 2009 were at depths of 0-0.5' and 0.5-2' BLS based on the absence of significant contamination (>SCTL) in the lower level samples collected in the barn area in March 2009.

All results in milligrams per kilogram (mg/kg) SCTL=direct exposure--residential soil cleanup target limit for dieldrin is 0.060 mg/kg per Chap. 62-777 F.A.C.

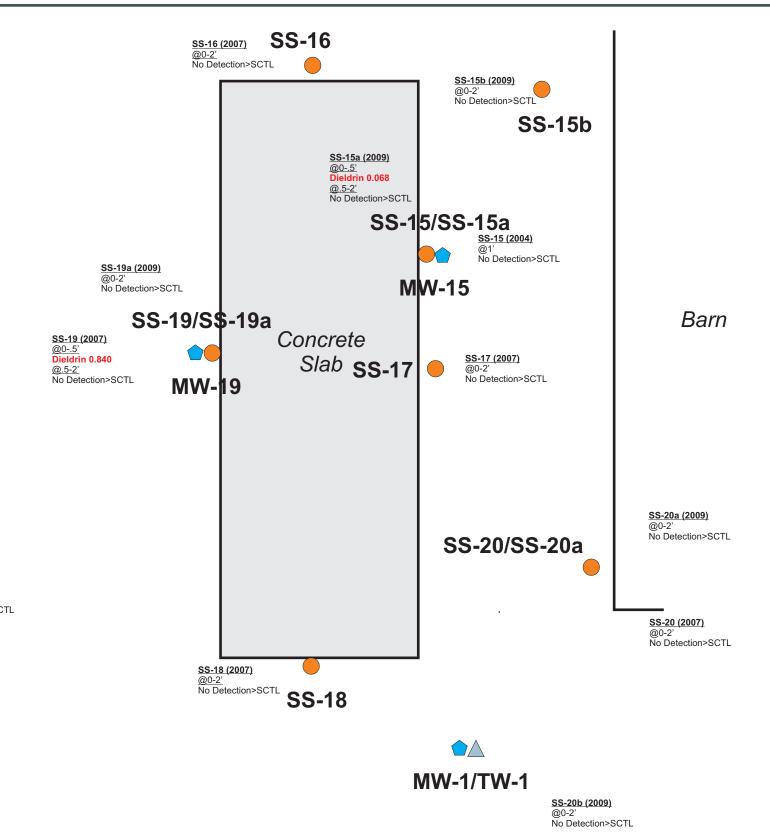




SS-19d <u>SS-19d (2009)</u> @0-2' No Detection>SCTL



FDEP Project No. 298707 FDEP Site No. 266446 LAS Project No. 07-463-00684









Site Assessment Report Addendum
Cone Property--268 +/- Acres
South of S.R. 62, East of U.S. Highway 301
Parrish, Manatee County, Florida
June 2009
Figure 16

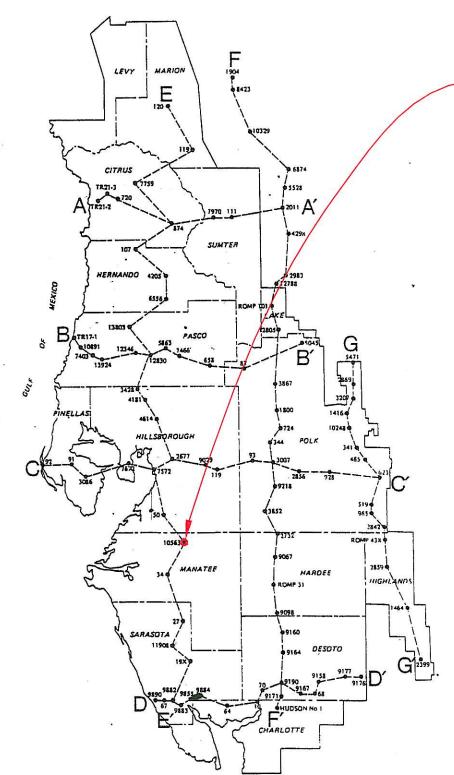


Figure 3. Location Map of Geologic Sections



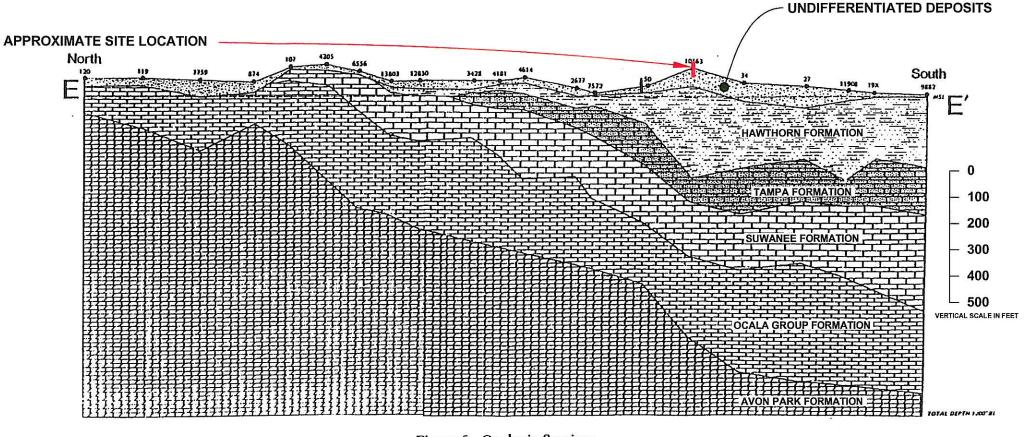


Figure 5. Geologic Sections



GEOLOGICAL CROSS SECTION

REFERENCE:

Hydrogeology of the Southwest Florida Water Management District, March 1985 Regional Analysis Section Technical Report 85-01.



SITE ASSESSMENT

REPORT ADDENDUM
CONE PROPERTY (268 +/- ACRES)
PARRISH, MANATEE COUNTY, FLORIDA

DATE: JUN 09 F

PROJ. NO: 07-463-00684 FIGURE 17

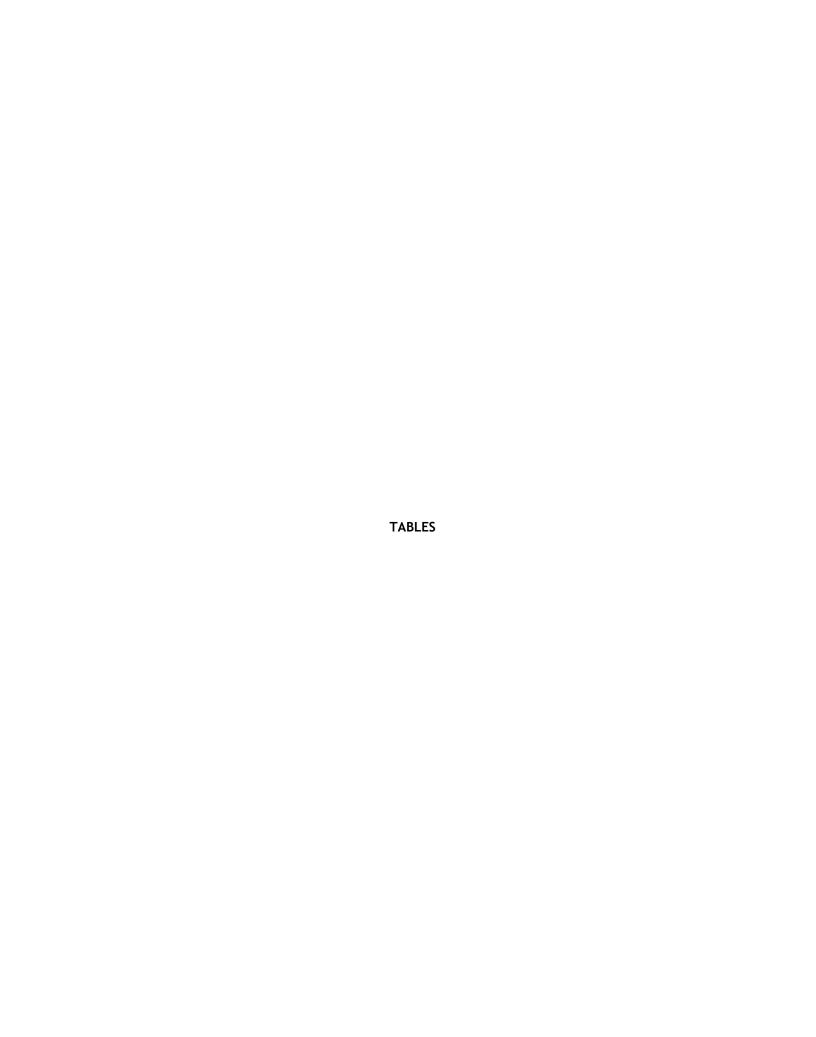


TABLE 1: GPS COORDINATES ARSENIC SAMPLING LOCATIONS

Facility Name: Cone Property FDEP Project No. 298707
Project No. 07-463-00684 FDEP Site No.: 266446

Sample	Latitude (N)	Longitude (W)	Sample	Latitude (N)	Longitude (W)	Sample	Latitude (N)	Longitude (W)
ID No.			ID No.			ID No.		
HAP-1	27 35.145	82 24.742	SA-20	27 34.899	82 24.710	MW-1	25 35 6.2	82 25 27.3
HAP-2	27 35.084	82 24.760	SA-22	27 35.062	82 24.638	MW-6a	25 35 3.4	82 24 38.6
HAP-3	27 35.042	82 24.625	SA-23	27 35.069	82 24.667	MW-6b	27 35 3.9	82 24 37.9
HAP-4	27 35.060	82 24.622	SA-24	27 35.085	82 24.690	MW-7	27 35 9.5	82 24 50.0
HAP-5	27 35.156	82 24.792	SA-25	27 35.120	82 24.700	MW-7a	27 35 9.7	82 24 49.8
HAP-6	27 35.136	82 24.797	SA-26	27 35.136	82 24.707	MW-7b	27 35 9.1	82 24 50.0
HAP-7	27 35.102	82 24.806	SA-27	27 35.127	82 24.686	MW-8T	27 35.174	82 24.889
SD-1	27 35.003	82 24.589	SA-28	27 35.115	82 24.640	MW-15/SS-15,a	27 35 6.4	82 25 27.3
SD-2	27 35.016	82 24.609	SA-29	27 35.078	82 24.612	MW-19/SS-19,a	27 35 6.5	82 25 27.6
SD-3	27 35.038	82 24.657	SA-30	27 35.052	82 24.619	SS-16		·
SD-4	27 35.056	82 24.615	SA-31	27 35.046	82 24.652	SS-17		
SD-5/SW-1	27 35.097	82 24.602	SA-32	27 35.068	82 24.721	SS-18		
SB-N	27 35.112	82 24.618	SA-33	27 35.105	82 24.738	SS-20		
SB-S	27 35.096	82 24.620	SA-34	27 35.125	82 24.771	SS-19b		
SP-1	27 35.176	82 24.632	SA-35	27 35.156	82 24.832	SS-19c		
SP-2	27 35.168	82 24.624	SA-36	27 35.231	82 24.926	SS-19d		
MW-3/SA-21	27 35.107	82 24.657	SA-37	27 35.227	82 24.868	SS-15b		
MW-4/SA-16	27 34.876	82 24.734	SA-38	27 35.218	82 24.818	SS-20b		
MW-5	27 35.121	82 24.758	SA-39	27 35.193	82 24.939	TW-1	27 35.103	82 25.459
MW-6	27 35.060	82 24.637	SA-40	27 35.174	82 24.889	SA-N	27 35.166	82 24.721
SA-17	27 34.899	82 24.765	SA-41	27 35.143	82 24.953	SA-S	27 35.134	82 24.968
SA-18	27 34.856	82 24.765	SA-42	27 35.120	82 24.897	SA-W	27 35.236	82 24.966
SA-19	27 34.859	82 24.709	SA-43	27 35.103	82 24.835			

blank=not recorded or not correct per Google and field measurements

	Sample						
Depth (ft.)	Designation	Soil CTL	SS-1	SS-2	SS-3	SS-4	SS-5
Location			NW Cone	WC Cone	SW Cone	NC Cone	NE Cone
Date Collected			7/21/04	7/21/04	7/21/04	7/21/04	7/21/04
0-2	а	2.1	0.77	0.16 l	0.24 I	0.13 U	0.14 U
2-4	b	2.1	1.3	0.6	0.46 I	0.20 I	0.15 U
4-6	C	2.1	0.7	0.93	1.3	0.46	0.20 I
6-8	d	2.1	0.47 I	0.56	1.4	0.89	1.4
	Sample						
Depth (ft.)	Designation	Soil CTL	SS-6	SS-7	SS-8	SS-9	SS-10
Location			Cone	Hysmith	Hysmith	SE Cone	Grove
Date Collected			7/21/04	7/21/04	7/21/04	7/21/04	7/21/04
0-2	а	2.1	0.13 U	0.15 U	0.13 U	0.13 U	2.4
2-4	b	2.1	0.15 U	0.12 U	0.14 U	0.14 U	0.12 U
4-6	С	2.1	0.18 l	0.15 U	0.14 U	0.23 I	0.12 U
6-8	d	2.1	0.53	0.33 I	0.57	0.48	0.25 I
	Sample						
Depth (ft.)	Designation	Soil CTL	SS-11	SS-12	SS-13	SS-14	
Location			Parrish	Parrish	EC Cone	E Pasture	
Date Collected			7/21/04	7/21/04	7/21/04	7/21/04	
0-2	а	2.1	0.13 U	0.14 U	0.12 U	0.69	
2-4	b	2.1	0.13 U	0.42 I	0.13 U	0.15 U	
4-6	С	2.1	0.21 I	0.26 I	0.13 U	6.6	
6-8	d	2.1	0.43	0.19 I	0.35 I	6.9	

I=detected but not quantifiable. U=below laboratory detection limits. Blank=not tested

Bold=above state residential soil cleanup target level. Milligrams per kilogram (mg/kg)

Sampling methodology different than 2008 SA approach. Composited two (2) soil samples collected from each layer.

LAS Project No. 07-463-00684 FDEP Project No. 298707

FDEP Project No. 298707 FDEP Site No.: 266446

Depth (ft.)	Sample Designation	Soil CTL	SA-10*	SA-16	SA-17	SA-18	SA-19	SA-20		
Location		30 3 . 2	Grove	Grove	Grove	Grove	Grove	Grove		
ate Collected			7/27/04	2/14/07	2/14/07	2/14/07	2/14/07	2/14/07		
05	a	2.1	1721701	0.24 U	0.21 U	0.22 U	0.25 U	0.23 U		
.5-2	b	2.1	2.4	0.25 U	0.23 U	0.23 U	0.27 U	0.25 U		
4	C	2.1	0.12 U	0.25 U	0.24 U	0.27 U	0.39	0.26 U		
6	d	2.1	0.12 U	0.24 U	0.27 U	0.24 U	0.34 l	0.26 U		
8	е	2.1	0.25 l	0.25 U	0.35 I	0.25 U	0.58	0.25 U		
detected but r	ot quantifiable. L	J=below laborato	ry detection lim	nits. Bold =abo	ve state reside	ential soil clear	nup target leve	l. Milligrams p	er kilogram (m	ig/kg)
lank=not teste							-			
		than SA approac	ch in 2008. Co	mposited two	(2) soil sample	s collected fro	m each layer.			
				<u> </u>			•			

TABLE 4: SOIL ARSENIC CHEMICAL TESTING Cone Property--Pasture

			_	I	1	T	1 041	One No 20
Depth (ft.)	Sample Designation	Soil CTL	SS-14	SA-21	SA-22	SA-23	SA-24	SA-25
Location			East Pasture					
Date Collected			7/21/2004**	2/14/07	2/14/07	2/14/07	2/14/07	2/14/07
05	а	2.1		0.77	2.9	1.6	0.51	1.5
.5-2	b	2.1	0.69	1.9	3.3	0.85	2.1	1.1
4	C	2.1	0.15 U	3.9	8.9	2.1	2	7.1
6	d	2.1	6.6	3.9	5.6	2.4	1.6	4
8	e	2.1	6.9	1.5	5.3	1.6	1.4	3
	Sample							_
Depth (ft.)	Designation	Soil CTL	SA-26	SA-26C	SA-27	SA-28	SA-29	SA-30
Location	-		East Pasture	*SPLP	East Pasture	East Pasture	East Pasture	East Pasture
Date Collected			3/22/07	3/22/07	3/22/07	3/22/07	3/22/07	3/22/07
05	а	2.1	0.74		0.57	1.1	1.1	0.64
.5-2	b	2.1	0.77		0.6	0.41 l	0.93	0.86
4	С	2.1	5.2*	0.0022 I	3	3.8	0.77	1.6
6	d	2.1	1.7		1.6	3.9	1.6	1.6
8	e	2.1	1		3.1	2.1	1.8	1.6
	Sample							
Depth (ft.)	Designation	Soil CTL	SA-31	SA-32	SA-33	SA-34	SA-34C	SA-35
Location	-		East Pasture	East Pasture	East Pasture	East Pasture	*SPLP	West Pasture
Date Collected			3/22/07	3/22/07	3/22/07	3/22/07	3/22/07	4/6/07
05	а	2.1	0.56	0.63	1.3	1.8		23
.5-2	b	2.1	1	0.69	0.78	3.7		17
4	С	2.1	1	2.8	1.6	3.7*	0.0048 I	7
6	d	2.1	2.6	1.3	1.2	2.4		4.5
8	е	2.1	1.5	1.3	1.3	1.9		1.5
Depth (ft.)	Sample Designation	Soil CTL	SA-36	SA-37	SA-38	SA-39	SA-40	SA-41
Location			West Pasture					
Date Collected			5/18/07	5/18/07	5/18/07	5/18/07	5/18/07	5/18/07
05	а	2.1	3.7	3.1	1.3	7.3	5.6	0.73
.5-2	b	2.1	0.54	0.48	0.44	2.2	7.1	.22 U
4	С	2.1	2.6	3	2.9	3	6.5	1.1
6	d	2.1	2.3	1.2	10	1.5	3.5	1
8	е	2.1	0.81	1.2	2.1	0.92	1	0.74
	Sample							
Depth (ft.)	Designation	Soil CTL	SA-42	SA-43	SB-N	SB-S	SP-1	SP-2
Location	-		West Pasture	West Pasture	Berm	Berm	Soil Pile	Soil Pile
Date Collected			5/18/07	5/18/07	4/6/07	4/6/07	3/22/07	3/22/07
05	а	2.1	4.3	1				
.5-2	b	2.1	1.8	0.22 U	8.1	9.8	3.6	4.2
4	С	2.1	9.7	5.3				
6	d	2.1	1.8	4.8				
8	е	2.1	2	0.89				
			_	0.00				

I=detected but not quantifiable. U=below laboratory detection limits. Blank=not tested.

Bold=above state residential soil cleanup target level. Milligrams per kilogram (mg/kg) except SPLP, milligrams per liter (mg/l)

^{*}SPLP run on SA-26C and SA-34C, 0.0022 I and 0.0048 I milligrams per liter (mg/I), respectively. CTL=0.010 mg/I

^{**}Sampling methodology different than SA approach in 2007/2009. Composited two (2) soil samples collected from each layer.

	Sample		1				
Depth (ft.)	Designation	Soil CTL	SD-1	SD-2	SD-3	SD-4	SD-5
Location			Ditch	Ditch	Ditch	Ditch	Ditch
Date Collected			3/22/07	3/22/07	3/22/07	3/22/07	3/22/07
05	а	2.1	0.30 U	0.9	0.6	0.44 l	2.1
 	0 1						
Depth (ft.)	Sample Designation	Soil CTL	HAP-1	HAP-2	HAP-3	HAP-4	HAP-5
Location	Designation	3011 011	East Pasture				
Date Collected		0.1	3/22/07	3/22/07	3/22/07	3/22/07	4/6/07
05	a	2.1	1.7	1	0.52	1.1	3.9
.5-2	b	2.1	1.4	0.65	1	0.85	2.6
	Sample						
Depth (ft.)	Designation	Soil CTL	HAP-6	HAP-7			
Location	2 00.ga	30 3.2	East Pasture	East Pasture			
Date Collected			4/6/07	4/6/07			
05	а	2.1	6.5	1.4			
.5-2	b	2.1	6.3	0.83			
4	С	2.1					
6	d	2.1					
8	е	2.1					

I=detected but not quantifiable. U=below laboratory detection limits. Blank=not tested **Bold**=above state residential soil cleanup target level. Milligrams per kilogram (mg/kg)

Page ii Rev. June 2009

							FDEF	Site 110 20
Depth (ft.)	Sample Designation	Soil CTL	SA-N	SA-S	SA-W			
Location	Designation	3011 0 T L	N of Pasture	S of Pasture	W of Pasture			
Date Collected			3/10/09	3/10/09	3/10/09			
05	•	2.1	0.34 I	1.7	2.2			
.5-2	a	2.1	<0.20	0.56	0.59			
.5-2	b	2.1	0.63	Wet	0.59 Wet			
	С		Wet					
6	d	2.1		Wet	Wet			
8	е	2.1	Wet	Wet	Wet			
Depth (ft.)	Sample Designation	Soil CTL	SA-22	SA-22	SA-22			
	Designation	SOILCIL						
Location			East Pasture	East Pasture	*SPLP			
Date Collected			2/14/07	3/10/09	3/10/09			
05	a	2.1	2.9	1.5				
.5-2	b	2.1	3.3	1.4				
4	С	2.1	8.9	7.1*	0.0079 I			
6	d	2.1	5.6	Wet				
8	е	2.1	5.3	Wet				
	Sample							
Depth (ft.)	Designation	Soil CTL	SA-35	SS-35	SA-35			
Location			West Pasture	West Pasture	*SPLP			
Date Collected			4/6/07	3/10/09	3/10/09			
05	а	2.1	23	15*	0.0044 I			
.5-2	b	2.1	17	14				
4	С	2.1	7	Wet				
6	р	2.1	4.5	Wet				
8	е	2.1	1.5	Wet				
Depth (ft.)	Sample Designation	Soil CTL	SA-40	SA-40	SA-40			
Location			West Pasture	West Pasture	*SPLP			
Date Collected			5/18/07	3/10/09	3/10/09			
05	а	2.1	5.6	4.7				
.5-2	b	2.1	7.1	15*	0.018			
4	С	2.1	6.5	Wet				
6	d	2.1	3.5	Wet				
8	е	2.1	1	Wet				
	Sample							
Depth (ft.)	Designation	Soil CTL			MW-6A			
Location	-				East Pasture			
Date Collected					4/8/09			
05	а	2.1			0.69			
.5-2	b	2.1			1.4			
4	C	2.1			Wet			
6	d	2.1			Wet			
8	e	2.1			Wet			
	<u> </u>							
			1	1	1	1		

I=detected but not quantifiable. U=below laboratory detection limits. Blank=not tested.

Bold=above state residential soil cleanup target level. Milligrams per kilogram (mg/kg) except SPLP, milligrams per liter (mg/l)

^{*}SPLP run on SA-35 and SA-40, 0.0044 I and 0.018 milligrams per liter (mg/l), respectively. CTL=0.010 mg/l

TABLE 5: SHALLOW GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY

Facility Name: Cone Property Project No. 07-463-00684

FDEP Project No. 298707 FDEP Site No.: 266446

	Sample		Ars	enic	Max. As			4,4'-DDD	4,4'-DDT	Endosulfan I		
Location	Date	SA No.	Unfiltered	Filtered	in Soil	SPLP (mg/l)						
GWCTL			0.010	0.010				0.10	0.10	42 (Total)		
MW-4	3/1/07	SA-16	0.0035 I	0.0041 l	BDL							
MW-4	3/11/2009	SA-16	<0.0050	<0.0050								
MW-3	3/1/07	SA-21	0.0076 I	0.0056 I	3.9 mg/kg							
MW-3	3/11/2009	SA-21	<0.0050	<0.0050								
MW-5	4/6/07	SA-34	0.0082 I	0.0070 I	3.7 mg/kg	0.0048 I						
MW-5	3/19/2009	SA-34	<0.0050	<0.0050								
MW-6	4/6/07	SA-22	0.024	0.020	8.9 mg/kg							
MW-6	3/19/2009	SA-22	<0.0050	<0.0050	7.1 mg/kg	0.0079 I						
MW-6a	3/19/2009	N/A	0.015	0.015								
MW-6a	4/8/09	MW-6a	0.014	0.015	1.4 mg/kg							
MW-6b	3/19/2009	N/A	0.0053 I	0.0064 I								
MW-7	3/19/2009	SA-35	<0.0050	<0.0050	15 mg/kg	0.0044 I						
MW-7a	3/19/2009	N/A	<0.0050	<0.0050								
MW-7b	3/19/2009	N/A	<0.0050	<0.0050								
MW-8T	4/8/2009	SA-40	0.014	0.0098 I	15 mg/kg	0.018						
TW-1*	7/21/2004	N/A	0.0022 I					0.017 U	0.013 U	0.014 U		
MW-1	3/11/2009	N/A	<0.0050					0.0071 l	0.0250	<0.00067		
MW-15	3/11/2009	SS-15	<0.0050					<0.0018	< 0.0035	0.0022 I		
MW-19	3/11/2009	SS-19	<0.0050					<0.0018	<0.0035	<0.00067		
SW-1	3/22/07	N/A	0.0063 I									
SW-1	3/19/2009	N/A	0.0060 I									
SW-2	3/19/2009	N/A	<0.0050									
Parameters	s tested:											
MW-3 thru MW-8T and SW-1 and SW-2 Arsenic Only; MW-1, MW-15, MW-19, As and EPA 8081; *TW-1 As and EPA 8081; not shown EPA 8141and 8151 results (all parameters BDL) GWCTL: Groundwater Cleanup Target Level per Chap. 62-777 Florida Administrative Code (F.A.C) Bold=exceeds GWCTL Blank=not tested												
All results n	nilligrams ne	er liter (ma/l	or parts per millio	on) U=below lah	oratory detection	n limits I=analyte d	etected below au	antitation limits				

TABLE 6: GROUNDWATER ELEVATION SUMMARY

Facility Name: Cone Property

Project No. 07-463-00684

FDEP Project No. 298707

FDEP Site No.: 266446

WELL NO.		MW-3		MW-5		MW-6		MW-6a		MW-6b		MW-4
DIAMETER		2"		2"		2"		2"		2"		2"
WELL DEPTH		12.35'		12.42'		12.04'		15'		15'		12.35'
SCREEN INTERVAL		10'		10'		10'		10'		10'		10'
TOC ELEVATION		18.82'		17.65'		18.45'		18.66'		18.3'		NS
DATE	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW
4/6/2007	14.90	3.92	13.80	3.85	15.17	3.28						
3/11/2009	12.30	6.52										7.59
3/19/2009			11.57	6.08	12.42	6.03	12.57	6.09	12.80	5.50		
5/13/2009	11.17	7.65	10.73	6.92	11.76	6.69	11.79	6.87	11.73	6.57		8.08
WELL NO.		MW-7		MW-7a		MW-7b		MW-8T				
DIAMETER		2"		2"		2"		2"				
WELL DEPTH (ft.)		15'		15'		15'		6.5'				
SCREEN INTERVAL		10'		10'		10'		5'				
TOC ELEVATION		16.36'		16.58'		17.79'		NS				
DATE	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW				
3/19/2009	12.26	4.10	11.50	5.08	11.76	6.03						
4/8/2009								5.45				
5/13/2009	10.92	5.44	9.91	6.67	9.99	7.80						
WELL NO.		MW-1		MW-15		MW-19						
DIAMETER		2"		2"		2"						
WELL DEPTH (ft.)		15'		15'		15'						
SCREEN INTERVAL		10'		10'		10'						
TOC ELEVATION		23.04'		22.71'		22.27'						
DATE	ELEV	DTW	ELEV	DTW	ELEV	DTW						
3/11/2009	10.53	12.51	10.24	12.47	10.59	11.68						
5/13/2009	9.75	13.29	9.75	12.96	9.82	12.45			NS=not	surveyed		

Cone Property--Barn

LAS Project No. 07-463-00684 FDEP Project No. 298707 FDEP Site No.: 266446

														•		J 200 11 0
	Parameter>>	Arsenic	alpha- BHC	beta- BHC	alpha- Chlordane	gamma- Chlordance	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan II	Endosulfan Sulfate	Heptachlor	Heptachlor Expoxide	Toxaphene
	Res SCTL>>	2.1	0.1	0.5	N/A	N/A	2.8	4.2	2.9	2.9	0.06	450 (Total)	450 (Total)	0.2	0.1	0.9
	C/I SCTL>>	12	0.6	2.4	N/A	N/A	14	22	15	15	0.3	7600	7600	1	0.5	4.5
	Leachability	SPLP	0.003	0.001	N/A	N/A	9.6	5.8	18	11	0.002	3.8	3.8	23	0.6	31
Sample																
Designation>>	SS-15 Date															
Location: Barn	Collected															
Depth (ft.)	7/21/2004															
.5-2		1.7			0.0063	0.021		0.012	0.11	0.15		0.041				1.7
.5-2		1.7			0.0003	0.021		0.012	0.11	0.13		0.041				1.7
Sample	SS-15a															
Designation>>	Date															
Location: Barn	Collected															
Depth (ft.)	3/9/2009															
05		1.9			0.0025	0.018		0.066	0.45	0.25	0.068	0.10				4.6
.5-2		3.9			0.0025	0.018 0.038 I		0.066	0.45	0.25	0.000	0.10	0.065 I			10*
.5-2		1.5				0.00021 I		0.00055 I	0.23	0.0032	0.0036	0.19	0.0031			0.13
6		0.92				0.00054 I		0.0017 I	0.0057	0.0032	0.0000		0.0013 I			0.17
8		0.58				0.00028 I		0.0048	0.00040 I							0.26
Sample Designation>>	SS-15b															
Location: Barn	Date Collected															
Depth (ft.)	4/8/2009															
05		4.4						0.13 I	0.087 I	0.073 I						10
.5-2		2.4						0.0097 I	0.011 I	0.012 I	0.014 I	0.013 I	0.00089 I			0.75
								1								

In mg/kg. Blank=not detected.l=analyte detected below quantitation limits. *TCLP for Toxaphene SS-15b at 0.5-2.0' 0.010 mg/l

LAS Project No. 07-463-00684 FDEP Project No. 298707

FDEP Site No.: 266446

															DEF SILE IN	J.: 200-1-10
	Parameter>>	Arsenic	alpha- BHC	beta- BHC	alpha- Chlordane	gamma- Chlordance	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan II	Endosulfan Sulfate	Heptachlor	Heptachlor Expoxide	Toxaphene
	Res SCTL>>	2.1	0.1	0.5	N/A	N/A	2.8	4.2	2.9	2.9	0.06	450 (Total)	450 (Total)	0.2	0.1	0.9
	C/I SCTL>>	12	0.6	2.4	N/A	N/A	14	22	15	15	0.3	7600	7600	1	0.5	4.5
	Leachability	SPLP	0.003	0.001	N/A	N/A	9.6	5.8	18	11	0.002	3.8	3.8	23	0.6	31
Sample																
Designation>>	SS-16															
Location: Barn	Date Collected															
Depth (ft.)	2/9/2007															
05 (a)		NT					0.0360		0.0012 I							0.18
.5-2 (b)		NT							0.0019							0.14
Sample Designation>>	SS-17															
Location: Barn	Date Collected															
Depth (ft.)	2/9/2007															
05 (a)		NT					0.0390		0.018	0.010						0.28
.5-2 (b)		NT							0.0021	0.00049 I	0.0092					0.28
Sample																
Designation>>	SS-18															
Location: Barn	Date Collected															
Depth (ft.)	2/9/2007															
05 (a)		NT					0.0320		0.0034	0.0023	0.0380					0.30
																0.30
.5-2 (b)		NT					0.019		0.0037	0.0021	0.00058 I					

In mg/kg. Blank=not detected. NT=not tested. I=analyte detected below quantitation limits.

LAS Project No. 07-463-00684 FDEP Project No. 298707

FDEP Site No.: 266446

														1	DEP SILE NO	J 200440
	Parameter>>	Arsenic	alpha- BHC	beta- BHC	alpha- Chlordane	gamma- Chlordance	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan II	Endosulfan Sulfate	Heptachlor	Heptachlor Expoxide	Toxaphene
	Res SCTL>>	2.1	0.1	0.5	N/A	N/A	2.8	4.2	2.9	2.9	0.06	450 (Total)	450 (Total)	0.2	0.1	0.9
	C/I SCTL>>	12	0.6	2.4	N/A	N/A	14	22	15	15	0.3	7600	7600	1	0.5	4.5
	Leachability	SPLP	0.003	0.001	N/A	N/A	9.6	5.8	18	11	0.002	3.8	3.8	23	0.6	31
Sample Designation>>	SS-19															
Location: Barn	Date Collected															
Depth (ft.)	2/9/2007															
05 (a)		NT							0.750	2.8 L	0.840					74 L
.5-2 (b)*		NT	0.0013 I				0.047									1.1
Sample Designation>>	SS-20															
Location: Barn	Date Collected															
Depth (ft.)	2/9/2007															
05 (a)		NT					0.740			0.650	0.053				0.0240	3
.5-2 (b)		NT					0.260		0.0660	0.13	0.0035			0.0054		0.59
i .					1											1

In mg/kg. Blank=not detected. NT=not tested. L=value above quantitation range. *SA-19 (b) 0.5'-2.0' gamma-BHC (Lindane) 0.0015 I 2/9/07 (SCTL res. 0.7, comm./ind. 2.5, leach. 0.009) I=analyte detected below quantitation limits.

LAS Project No. 07-463-00684 FDEP Project No. 298707

FDEP Site No.: 266446

														-	DEP SILE IN	
	Parameter>>	Arsenic	alpha- BHC	beta- BHC	alpha- Chlordane	gamma- Chlordance	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan II	Endosulfan Sulfate	Heptachlor	Heptachlor Expoxide	Toxaphene
	Res SCTL>>	2.1	0.1	0.5	N/A	N/A	2.8	4.2	2.9	2.9	0.06	450 (Total)	450 (Total)	0.2	0.1	0.9
	C/I SCTL>>	12	0.6	2.4	N/A	N/A	14	22	15	15	0.3	7600	7600	1	0.5	4.5
	Leachability	SPLP	0.003	0.001	N/A	N/A	9.6	5.8	18	11	0.002	3.8	3.8	23	0.6	31
Sample																
Designation>>	SS-19a Date															
Location: Barn	Collected															
Depth (ft.)	3/9/2009															
05		1.2				0.0032		0.0068	0.16	0.12	0.012	0.022				5
.5-2		2.2				0.026		0.060 I	0.20	0.18		0.23				5.2
4		0.55							0.00042 I	0.00035 I	0.00024 I	0.00020 I				
6		0.80								0.00024 I						
8		0.67								0.00040 I						
Sample Designation>>	SS-19b															
Location: Barn	Date Collected															
Depth (ft.)	3/9/2009															
1 ()																
05		2.2			0.0040	0.034		0.074 I	0.32	0.13						3.9
.5-2		0.92				0.0026		0.0020	0.019	0.0095	0.0082					0.48
4		0.47						0.00025 I	0.0015 I	0.00077 I		0.00020 I				0.060
6		0.64						0.00029 I	0.0016 I	0.00063 I						0.048
Hard Pan																
Sample Designation>>	SS-19c															
Location: Barn	Date Collected															
Depth (ft.)	4/8/2009															
05		3.6				0.010 I		0.020 I	0.087	0.042	0.011 I	0.027				1.3
.5-2		0.97							0.0016 I	0.0021						0.021
.0 2		0.07							0.00101	0.0021						0.021
								 	 							

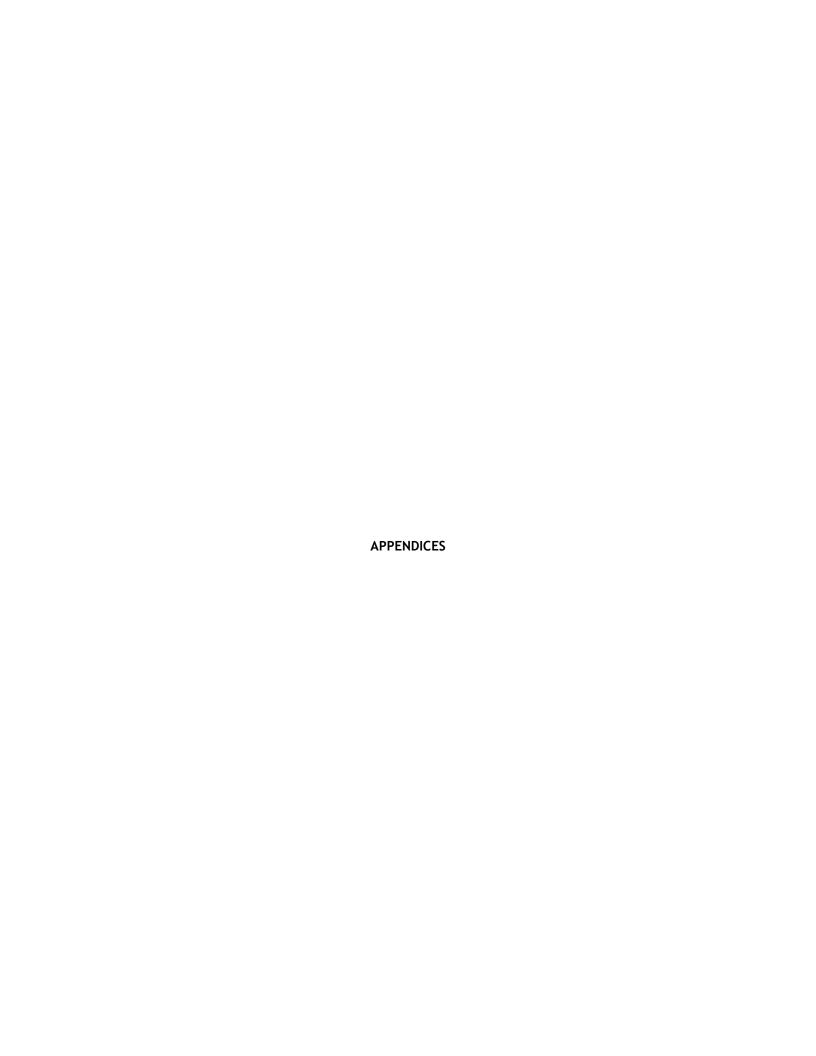
In mg/kg. Blank=not detected. I=analyte detected below quantitation limits.

LAS Project No. 07-463-00684 FDEP Project No. 298707 FDEP Site No.: 266446

															DEP SILE IN	J 200 11 0
	Parameter>>	Arsenic	alpha- BHC	beta- BHC	alpha- Chlordane	gamma- Chlordance	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan II	Endosulfan Sulfate	Heptachlor	Heptachlor Expoxide	Toxaphene
	Res SCTL>>	2.1	0.1	0.5	N/A	N/A	2.8	4.2	2.9	2.9	0.06	450 (Total)	450 (Total)	0.2	0.1	0.9
	C/I SCTL>>	12	0.6	2.4	N/A	N/A	14	22	15	15	0.3	7600	7600	1	0.5	4.5
	Leachability	SPLP	0.003	0.001	N/A	N/A	9.6	5.8	18	11	0.002	3.8	3.8	23	0.6	31
Sample																
Designation>>	SS-19d Date															
Location: Barn	Collected															
Depth (ft.)	4/8/2009															
05		1.4			0.0068 I	0.034 I		0.034 I	0.12	0.10	0.051	0.052				2.2
						0.0341		0.0341	0.12			0.032			0.00444	+
.5-2		0.79			0.0012 I					0.0015 I	0.0018				0.0011 I	0.019
Sample																
Designation>>	SS-20a															
Location: Barn	Date Collected															
Depth (ft.)	3/9/2009															
05*		4.4		0.0032	0.12 l	0.34		0.20	2.3	4.1		0.11		0.0018 I	0.054 l	16**
.5-2		1.7	0.0023	0.00079 I	0.0099	0.037	0.3	0.012	0.096	0.18		0.011		0.00059 I	0.0024	1
4		0.58	0.0020	0.000701	0.00055 I	0.0054	0.0	0.0038	0.012	0.013		0.011		0.00000	0.00019 I	0.45
6		0.75		0.00020 I	0.00071 I	0.0078		0.0055	0.026	0.039					0.00085 I	0.76
Hard Pan						0.000.0		0.000		0.000						
Sample																
Designation>>	SS-20b															
Location: Barn	Date Collected															
Depth (ft.)	4/8/2009															
05		2.8				0.024 I		0.13	0.34	0.30						4.5
.5-2		0.64	1		0.017	0.0241		5.10	0.085	0.05	0.012				0.0029	0.98

^{*}at SS-20a 0.5 +/-' BTEX and PB in soil tested. Benzene 0.014 mg/kg, toluene at 0.0074 I and PB at 16. All under SCTL.

In mg/kg. Blank=not detected. I=analyte detected below quantitation limits.**TCLP for Toxaphene SS-15b at 0.5' 0.0086 mg/l





April 02, 2009

Mr. Rick Reynolds Land Assessment Services, Inc. 6408 W. Linebaugh Avenue Suite 104 Tampa, FL 33625

1 allipa, FL 33023

RE: Cone Property/Parrish Site Order No.: F09030348

Dear Mr. Rick Reynolds:

Pace Analytical Services, Inc received 18 samples on 3/10/2009 10:20:00 AM for the analyses presented in the following report. The results included in this report relate only to the samples received.

Analyses are performed with method-required calibration and QA/QC samples, whenever applicable. Method performance, which is based on the calibration and QA/QC data, establishes the validity and certainty of the reported sample results. These data are provided along with the sample results.

Thank you for this opportunity to let Pace Analytical Services, Inc. (Florida) be of service to you. NELAP certification #E83079. If you have any questions regarding this report, please feel free to call me, Joe Vondrick, at (386) 672-5668, extension 4809 or (386) 676-4809.

Sincerely,

Project Manager

Pace Analytical Services, Inc.

P.O. Box 468

Ormond Beach, FL 32175-0468

The test results in this report meet the requirements of the 2003 NELAC standards unless otherwise noted.

The following acronyms may be utilized within this report:

%REC Percent Recovery

A Absent

ABLK Analytical Method Blank CG Confluent Growth

CGB Confluent Growth Without Coliforms
CGC Confluent Growth With Coliforms

DUP Sample Duplicate
dw Dry Weight
kg Kilograms
L Liter

LCS Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)

MBLK Preparation Method Blank

MDL Laboratory Method Detection Limit

mg Milligrams Milliliter

MS Matrix Spike (may also be appended with an abbreviation indicating spiking level)

MSD Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)

P Present

PQL Practical Quantitation Limit

QCS Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some a

RL Reporting Limit

RPD Relative Percent Difference

SPK Spike

SUB Indicates subcontracted analytical results

TIC Tentatively Identified Compound

TNTC Too Numerous To Count

ug Micrograms

Case Narrative

CLIENT: Land Assessment Services, Inc.

Project: Cone Property/Parrish Site

Lab Order: F09030348

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. Additional request for TCLP pesticides (toxaphene only) for 2 samples; F09030348-002 -SS-15a (0.5"-2.0') & F09030348-006 - SS-20a (0.5")

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report.

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report. Samples required dilution for method 8081 due to the abundance of target compounds in the matrix, which resulted in elevated reporting limits for other target compounds. Toxaphene results may be biased high due to the presence of DDT and its breakdown products.

Date: 02-Apr-09

Land Assessment Services, Inc. Client Sample ID: SS-15A 0.5-2.0 **CLIENT:**

F09030348 Lab Order: Collection Date: 3/9/2009 10:30:00 AM

Project: Cone Property/Parrish Site **Sample Description:**

Lab ID: F09030348-002 Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Pre	epDate: 3/11	/2009 7:37:00 A		Analyst: TPI	
Arsenic	3.9		0.19	0.39	mg/Kg-dry	1	03/12/09 20:26	59999
8081/1311: PESTICIDES, TCLP		SW1311/808	81 Pre	epDate: 3/31	/2009 2:10:00 P		Analyst: CL	
Toxaphene	0.010		0.0037	0.0050	mg/L	1	03/31/09 23:12	60476
Surr: Decachlorobiphenyl	92.1		0	70-130	%REC	1	03/31/09 23:12	60476
Surr: Tetrachloro-m-xylene	75.4		0	70-130	%REC	1	03/31/09 23:12	60476
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Pre	epDate: 3/12	/2009 8:30:00 A		Analyst: CL	
Aldrin	BDL		0.000062	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
alpha-BHC	BDL		0.000073	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
beta-BHC	BDL		0.000082	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
delta-BHC	BDL		0.000092	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
gamma-BHC	BDL		0.00016	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
alpha-Chlordane	BDL		0.000039	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
gamma-Chlordane	0.038	1	0.0036	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
Chlordane	BDL		0.017	0.018	mg/Kg-dry	1	03/13/09 03:39	60022
4,4'-DDD	0.15		0.0069	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
4,4'-DDE	0.25		0.0032	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
4,4'-DDT	0.32		0.0051	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
Dieldrin	BDL		0.0021	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
Endosulfan I	BDL		0.000027	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Endosulfan II	0.19		0.0030	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
Endosulfan sulfate	0.065	1	0.0023	0.090	mg/Kg-dry	50	03/13/09 19:58	60022
Endrin	BDL		0.000055	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Endrin aldehyde	BDL		0.000070	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Endrin ketone	BDL		0.000085	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Heptachlor	BDL		0.000041	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Heptachlor epoxide	BDL		0.00012	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Methoxychlor	BDL		0.0011	0.0018	mg/Kg-dry	1	03/13/09 03:39	60022
Toxaphene	10		0.39	0.90	mg/Kg-dry	50	03/13/09 19:58	60022
Surr: Decachlorobiphenyl	94.2		0	15-160	%REC	1	03/13/09 03:39	60022
Surr: Tetrachloro-m-xylene	87.7		0	15-160	%REC	1	03/13/09 03:39	60022
SOLIDS, PERCENT		SM2540G	Pre	epDate:			Analyst: MDE	
Percent Solid	94.3		0.100	0.100	%	1	03/11/09	R77052

Analyte detected below quantitation limits Data Qualifier

Code Key:

Date: 02-Apr-09

CLIENT: Land Assessment Services, Inc. Client Sample ID: SS-20A 0.5

Lab Order: F09030348 **Collection Date:** 3/9/2009 11:30:00 AM

Project: Cone Property/Parrish Site Sample Description:

Lab ID: F09030348-006 **Matrix:** Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW60	10 Prep	Date: 3/11	/2009 7:37:00 A		Analyst: TPI	
Arsenic	4.4		0.21	0.42	mg/Kg-dry	1	03/12/09 20:51	59999
8081/1311: PESTICIDES, TCLP		SW1311/8	8081 Prep	Date: 3/31	/2009 2:10:00 P		Analyst: CL	
Toxaphene	0.0086		0.0037	0.0050	mg/L	1	04/01/09 00:04	60476
Surr: Decachlorobiphenyl	109		0	70-130	%REC	1	04/01/09 00:04	60476
Surr: Tetrachloro-m-xylene	95.3		0	70-130	%REC	1	04/01/09 00:04	60476
8081: PESTICIDES, ORGANOCHLORINE		SW808	31 Prep	Date: 3/12	/2009 8:30:00 A		Analyst: CL	
Aldrin	BDL		0.000066	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
alpha-BHC	BDL		0.000079	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
beta-BHC	0.0032		0.000088	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
delta-BHC	BDL		0.00010	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
gamma-BHC	BDL		0.00017	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
alpha-Chlordane	0.12	1	0.0085	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
gamma-Chlordane	0.34	1	0.016	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
Chlordane	BDL		3.6	3.9	mg/Kg-dry	200	03/13/09 19:07	60022
4,4'-DDD	0.20	1	0.030	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
4,4'-DDE	2.3		0.014	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
4,4'-DDT	4.1		0.022	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
Dieldrin	BDL		0.0092	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
Endosulfan I	BDL		0.000029	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Endosulfan II	0.11	1	0.013	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
Endosulfan sulfate	BDL		0.000049	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Endrin	BDL		0.000060	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Endrin aldehyde	BDL		0.000076	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Endrin ketone	BDL		0.000092	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Heptachlor	0.0018	1	0.000045	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Heptachlor epoxide	0.054	1	0.025	0.39	mg/Kg-dry	200	03/13/09 19:07	60022
Methoxychlor	BDL		0.0012	0.0019	mg/Kg-dry	1	03/13/09 02:48	60022
Toxaphene	16		1.7	3.9	mg/Kg-dry	200	03/13/09 19:07	60022
Surr: Decachlorobiphenyl	109		0	15-160	%REC	1	03/13/09 02:48	60022
Surr: Tetrachloro-m-xylene	77.6		0	15-160	%REC	1	03/13/09 02:48	60022
SOLIDS, PERCENT		SM254	0G Prep	Date:			Analyst: MDE	
Percent Solid	85.9		0.100	0.100	%	1	03/11/09	R77052

Data I Analyte detected below quantitation limits Qualifier

Code Key:

QC Summary

F09030348

	Method	Batch ID	Method Blank		LC	* CS/LCSD o	r DUP			MS/MS	D	
					% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Percent Moisture	SM2540G	R77052					1.14	10		1		
	SM2540G	R77052					0.141	10				
	SM2540G	R77052					0.893	10				
	SM2540G	R77052					6.45	10				
Percent Solid	SM2540G	R77052					0.017	10				
	SM2540G	R77052					0.125	10				
	SM2540G	R77052					11.2	10				
	SM2540G	R77052					0.108	10				
Chlordane	SW1311/80 81	60476	0.00080 U m	ng/L								
Endrin	SW1311/80 81	60476	0.00016 U m	ng/L	94.3	70-130			95.5/95.7	70-130	0.228	40
gamma-BHC	SW1311/80 81	60476	0.000060 m U	ng/L	90.9	70-130			90/91.4	70-130	1.6	40
Heptachlor	SW1311/80 81	60476	0.000060 m U	ng/L	93.5	70-130			92.2/93.1	70-130	0.889	40
Heptachlor epoxide	SW1311/80 81	60476	0.000060 m U	ng/L	95	70-130			95/96.3	70-130	1.37	40
Methoxychlor	SW1311/80 81	60476	0.000080 m U	ng/L	103	70-130			106/107	70-130	0.563	40
Toxaphene	SW1311/80 81	60476	0.0037 U m	ng/L							<u> </u>	
Arsenic	SW6010	59999	0.20 U mg	g/Kg	105	80-120			106/106	75-125	6.87	20
Arsenic	SW6010	60000	0.20 U mg	g/Kg	106	80-120			102/105	75-125	0.197	20

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

QC Summary

F09030348

	Method	Batch ID	Method Blank	LCS/LCSD or DUP					MS/MS	D		
					% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Aldrin	SW8081	60022	0.058 U μ	ıg/Kg	91.1	30-131			83.5/83.1	30-131	0.492	40
alpha-BHC	SW8081	60022		ıg/Kg								
beta-BHC	SW8081	60022	0.077 U μ	ıg/Kg								
delta-BHC	SW8081	60022	0.087 U μ	ıg/Kg								
gamma-BHC	SW8081	60022	0.15 U μ	ıg/Kg	85.4	45-133			80.8/80.1	45-133	0.78	40
alpha-Chlordane	SW8081	60022	0.037 U μ	ıg/Kg								
gamma-Chlordane	SW8081	60022	0.068 U μ	ıg/Kg								
Chlordane	SW8081	60022	16 U µ	ıg/Kg								
4,4'-DDD	SW8081	60022	0.13 U μ	ıg/Kg								
4,4'-DDE	SW8081	60022	0.061 U μ	ıg/Kg								
4,4'-DDT	SW8081	60022	0.096 U μ	ıg/Kg	99.7	41-162			133/131	41-162	1.04	40
Dieldrin	SW8081	60022	0.040 U μ	ıg/Kg	93.8	50-145			101/98.6	50-145	1.8	40
Endosulfan I	SW8081	60022	0.025 U μ	ıg/Kg								
Endosulfan II	SW8081	60022	0.057 U μ	ıg/Kg								
Endosulfan sulfate	SW8081	60022	0.043 U μ	ıg/Kg								
Endrin	SW8081	60022	0.052 U μ	ıg/Kg	95.7	50-201			90.4/87.3	50-201	3.51	40
Endrin aldehyde	SW8081	60022	0.066 U μ	ıg/Kg								
Endrin ketone	SW8081	60022	0.080 U μ	ıg/Kg								
Heptachlor	SW8081	60022	0.039 U μ	ıg/Kg	90.9	35-182			85.8/85.2	35-182	0.774	40
Heptachlor epoxide	SW8081	60022	0.11 U μ	ıg/Kg								
Methoxychlor	SW8081	60022	1.0 U μ	ıg/Kg								
Toxaphene	SW8081	60022	7.3 U µ	ıg/Kg								

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

Joe Vondrick - Cone (Parrish Plantation) Site--TCLP Tests and New Kit Order

From: "Rick Reynolds" <las@landassessmentservices.com> **To:** "Joe Vondrick" <Joe.Vondrick@pacelabs.com>

Date: 3/26/2009 2:25 PM

Subject: Cone (Parrish Plantation) Site--TCLP Tests and New Kit Order

Joe,

We need to run TCLP tests for toxaphene on the samples previously collected from:

Barn Area (Pace Lab Order F09030348-002)

SS-15a 0.5"-2.0' SS-20a 0.5"

Thanks.

Call if you have questions.

Rick Reynolds



Richard C. Reynolds, Vice President
Land Assessment Services, Inc. (affiliate of Mortensen Engineering, Inc. www.meitampa.com)
6408 W. Linebaugh Avenue
Suite 104
Tampa, Florida 33625
813-908-2233
813-908-2588 (fax)
813-335-5811 (cell)
www.landassessmentservices.com

This email has been scanned by the MessageLabs Email Security System. For more information please visit http://www.messagelabs.com/email

March 27, 2009

Mr. Rick Reynolds Land Assessment Services, Inc. 6408 W. Linebaugh Avenue Suite 104

Tampa, FL 33625

RE: Cone Property GW/SW Order No.: F09030842

Dear Mr. Rick Reynolds:

Pace Analytical Services, Inc received 9 samples on 3/20/2009 12:05:00 PM for the analyses presented in the following report. The results included in this report relate only to the samples received.

Analyses are performed with method-required calibration and QA/QC samples, whenever applicable. Method performance, which is based on the calibration and QA/QC data, establishes the validity and certainty of the reported sample results. These data are provided along with the sample results.

Thank you for this opportunity to let Pace Analytical Services, Inc. (Florida) be of service to you. NELAP certification #E83079. If you have any questions regarding this report, please feel free to call me, Joe Vondrick, at (386) 672-5668, extension 4809 or (386) 676-4809.

Sincerely,

Project Manager

Pace Analytical Services, Inc.

P.O. Box 468

Ormond Beach, FL 32175-0468

The test results in this report meet the requirements of the 2003 NELAC standards unless otherwise noted.

The following acronyms may be utilized within this report:

%REC Percent Recovery

A Absent

ABLK Analytical Method Blank CG Confluent Growth

CGB Confluent Growth Without Coliforms
CGC Confluent Growth With Coliforms

DUP Sample Duplicate
dw Dry Weight
kg Kilograms
L Liter

LCS Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)

MBLK Preparation Method Blank

MDL Laboratory Method Detection Limit

mg Milligrams ml Milliliter

MS Matrix Spike (may also be appended with an abbreviation indicating spiking level)

MSD Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)

P Present

PQL Practical Quantitation Limit

QCS Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some a

RL Reporting Limit

RPD Relative Percent Difference

SPK Spike

SUB Indicates subcontracted analytical results

TIC Tentatively Identified Compound

TNTC Too Numerous To Count

ug Micrograms

Case Narrative

CLIENT: Land Assessment Services, Inc.

Project: Cone Property GW/SW

Lab Order: F09030842

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. All sample containers received for this report were collected by either the client or an agent of the client. All analytical results are provide on an "as received" basis since dissolved metals fractions were filtered in the field.

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report.

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report.

CLIENT: Land Assessment Services, Inc. Lab Order: F09030842

Project: Cone Property GW/SW

Lab ID: F09030842-001 **Collection Date:** 3/19/2009 10:47:00 AM

Date: 27-Mar-09

Client Sample ID: MW-6B Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDate	: 3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.3	1	5.0	10 μg/L	1	03/23/09 18:29	60303
ICP METALS (DISSOLVED)		SW6010	PrepDate	: 3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	6.4	1	5.0	10 μg/L	1	03/23/09 18:40	60303

Lab ID: F09030842-002 **Collection Date:** 3/19/2009 11:17:00 AM

Client Sample ID: MW 6 Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDate	: 3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 18:44	60303
ICP METALS (DISSOLVED)		SW6010	PrepDate	3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 18:48	60303

Lab ID: F09030842-003 **Collection Date:** 3/19/2009 12:12:00 PM

Client Sample ID: MW 6A Sample Description: Matrix: Groundwater

Analyses	Result Qual	MDL PQL Units	DF Date Analyzed	Batch ID
ICP METALS	SW6010	PrepDate: 3/23/2009 9:10:00	A Analyst: TPI	
Arsenic	15	5.0 10 μg/L	1 03/23/09 18:51	60303
ICP METALS (DISSOLVED)	SW6010	PrepDate: 3/23/2009 9:10:00	A Analyst: TPI	
Arsenic	15	5.0 10 μg/L	1 03/23/09 18:55	60303

Data Qualifier Code Key:

Date: 27-Mar-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09030842

Project: Cone Property GW/SW

Client Sample ID: MW 5 Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDate	3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 18:59	60303
ICP METALS (DISSOLVED)		SW6010	PrepDate	3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:03	60303

Lab ID: F09030842-005 **Collection Date:** 3/19/2009 3:50:00 PM

Client Sample ID: MW 7 Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDate	: 3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:06	60303
ICP METALS (DISSOLVED)		SW6010	PrepDate	3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:10	60303

Client Sample ID: MW 7A Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDate	3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:14	60303
ICP METALS (DISSOLVED)		SW6010	PrepDate	3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:25	60303

Data Qualifier Code Key:

Date: 27-Mar-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09030842

Project: Cone Property GW/SW

Lab ID: F09030842-007 **Collection Date:** 3/19/2009 2:35:00 PM

Client Sample ID: MW 7B Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDate	: 3/23/2009 9:10:00 A		Analyst: TPI	_
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:29	60303
ICP METALS (DISSOLVED)		SW6010	PrepDate	: 3/23/2009 9:10:00 A		Analyst: TPI	
Arsenic	5.0	U	5.0	10 μg/L	1	03/23/09 19:32	60303

Lab ID: F09030842-008 **Collection Date:** 3/19/2009 2:46:00 PM

Client Sample ID: SW-1 Sample Description: Matrix: Surface Water

MDL PQL Units **Analyses** Result Qual DF **Date Analyzed Batch ID ICP METALS** SW6010 PrepDate: 3/23/2009 9:10:00 A Analyst: TPI 1 03/23/09 19:36 Arsenic 6.0 5.0 10 μg/L 60303

Lab ID: F09030842-009 **Collection Date:** 3/19/2009 2:52:00 PM

Client Sample ID: SW-2 Sample Description: Matrix: Surface Water

Analyses Result Qual **MDL PQL** Units DF **Date Analyzed Batch ID** PrepDate: 3/23/2009 9:10:00 A **ICP METALS** SW6010 Analyst: TPI 1 03/23/09 19:40 Arsenic 5.0 U 5.0 10 μg/L 60303

Data Qualifier Code Key:

QC Review Summary

F09030842

Batch ID: 60303												
<u>Precision</u> <u>Accuracy</u>												
SW6010	SW6010 % RPD Limit % REC Low High MB Units											
Arsenic	2.26	20										
Arsenic	2.26	20	108	80	120							
Arsenic	2.26	20	108	80	120	5.0 U	μg/L					

Batch ID: 60303												
	<u>Precision</u> <u>Accuracy</u>											
SW6010	% RPD	Limit	% REC	Low	High	MB	Units					
Arsenic	2.26	20	108	80	120	5.0 U	μg/L					

Date: 03/27/2009



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

www.pacelabs.com													2	1)	٦(18	U	12						_						
Section A		Section I	В						:	Secti	on C	mation:	'	<u> </u>	Δ	A I I	AS	(•					Pa	ige:		1	of	/	
Required Client Information:		Required	Projec	at Infor	rmation:				_			mation:		<u> </u>	<u> </u>	יעו	, , ,			_								1.0	ΩA	0.4.1
Company: Land Assessment S	services	Report To:							ľ	Attent	ion:																	12	24	<u>941</u>
Required Client Information: Company: Land ASSESSMORT S Address: 6408 W. Line buysh Tanga, FL Email To:	Auc #104	Сору То:							ď	Comp	any Na	ime:								REC	SULA	TOR	YAC	ENC	. Y					
Tanos FL									7	Addre	SS:									_	NPD	E\$	Γ	GRO	UND	WAT	ER [DRIN	(ING W	ATER
Email To:		Purchase	Order	No.:				_		Pace C Refere										_	UST		Γ	RCR/	4		Γ	OTHE	R	
Phone: 908 2233 Fax139	093588	Project Na	me:						1	Pace F Manag	roject									Sit	e Loc	ation				Т				
Requested Due Date/TAT:		Project Nu	mber:	:							Profile #:	:		_						1	ST	ATE:	_			_				
																Г	R	eque	sted	Ana	lysis	Filte	red (Y/N)		广		***************************************		
Section D	Matrix C	odes	<u> </u>													AN A	П	Ť	T				П	T	\Box	1				
Required Client Information	MATRIX /	CODE	to left	C=COMP)		COLI	LECTED		_		<u> </u>	Prese	rvati	ves	_	Σ		4	\bot	Н	_	_	Н	-	$\downarrow \downarrow \mid$	₽-				
	Drinking Wate Water	WT	codes to left)	2	COME	OSITE	СОМРО	OSITE	Į.							1		_						İ						
	Waste Water Product	WW P	valid	(G=GRAB	STA		END/G	RAB	COLLECTION								(Pasti's	Un Filtord								Residual Chlorine (Y/N)				
SAMPLE ID	Soil/Solid Oil	SL OL	8	9=9)						SE		11	11		1	st 1	1		1	l í	Ì		<u> </u>		1	ē				
(A-Z, 0-9 / ,-)	Wipe Air	WP AR TS	CODE						AP AT	CONTAINERS	ъ В					Test	I ' ' '	ı, F						-		퉏				
Sample IDs MUST BE UNIQUE	Tissue Other	OT	ξ 8	Ĭ.					Ē	NO	e Ze			ج اج	وا ا⊈			3				İ				a C				
#			MATRIX	SAMPLE TYPE					SAMPLE	٦ C	pres (HNO ₃	팅	2S ₂ C	<u> </u>	#Analysis	\square	\neg								sidu				
			-	_	DATE	TIME	DATE		δ	# 9-	5 =		, s	S S	ੈਂ ਹੈ	¥	71	47	$oldsymbol{\perp}$	Ш			Ц		ot	뼵	Pace	е Ргојес	t No./	Lab I.D.
1 MW 6B			WT				3-1901		\Box	<u>ス</u>	Ш	2	Ш		\perp	1 1	Ц	1	$oldsymbol{\perp}$			┸	Ш		$oldsymbol{\perp}$	Ц				
2 MW 6			WT		3-11-01	11 15	3-14-01	1117	\dashv	<u>2</u>		2	Ш			1	4	4	\perp		_	┸	Ц	\bot	$oldsymbol{\perp}$	Ш				
3 MW 6A			W	_	3/1-09	1210	3-19-04			<u>2</u>	Ш	2	Ш		\bot		4	4	_	Ш		_	Ш		$\perp \!\!\! \perp \!\!\! \mid$	\sqcup				
4 /9W 5			47	1_	3-19.	13 05	-	1308		3	Ц.	2	Ш		4	1	4	Ц.	_	Ш		<u> </u>	\perp		\bot	Н				
5 MW 7			W		3-/9.09	1348	11	1350	_}	<u>ء</u>		2	11	\sqcup	4	1	Ш	11	\perp	\sqcup	\perp	\perp	Ш		1	\sqcup				
• Mh 74			NT			14/0		1412	\dashv	<u>ر</u>	$\vdash \vdash$	3	\sqcup	+	+	1	4	#	+	\vdash	+	+	\square	-	+	₩				
1 MW7B			ut.			14 33		25/1	\dashv	<u>ح</u>	├-	2	+	-	4-	∤	4	4	+	Н	+	+	\vdash	-	+	₩				
8 3W-1 9 SW-2			LT			1446		+	\dashv	<u> </u>	+	 ! 	+	+	+	1 1	┝┽	-	+	H	-	+	\vdash		╁┙	₩				·
			nt	\vdash		17 52	4 1 -	╅	\dashv		╁╌┼	+	+	+	+	1	\vdash	4	+-	\vdash	-	+	╁	+-	+	╁┼				<u>.</u>
10			-	╁	 			+	\dashv		╁	++	+	+	╁	1	┝╌┼	╬	+	\vdash	+	+-	$\vdash \vdash$		+	╁┼				
11 12			<u> </u>	╁			1	+			H	++	Н	+	+	1	$\vdash \vdash$	+	+	\vdash	+	╁╌	\vdash		╫	H				
ADDITIONAL COMMEN	TS	T	REI	INOL	IISHED BY	/ AFFILIAT	DON	DATE	\dashv	т	IME	┿┈	ш	ACCI	EPTE	D BY	/ AFF	ILIATI	ON	┧	DA	TE	+	IME	┰	ш	SAMI	PLE CON	DITIONS	
7.55110100000000000000000000000000000000		1-	~									+									3-4		┞		+-	\neg			1	
		30	لاح	<u></u>	Cox	m M-~'e	73	3-4-0	_		<u>نوه ک</u>	+ ,	<u> </u>	<u> </u>		\leq	>			\dashv) - (- (500		\dashv		├		
		1/20	2/4	<u>}</u>				3/9-8	99		55	1	14	12	7/2	$\mathcal{L}_{\mathcal{L}}$	0				37	9.0	1	3 5 5	<u>۲</u>			ļ	\perp	
·		'	\mathcal{Z}	<u>. </u>	$\mathcal{D}Q$	2_		3-20-0	9	0	94			<u>U</u>	مل	_					3/Zo	h	10	200	16	2.1				
														كسس					-			,			1.	.2	Y			K
			_			SAMPL	ER NAME	AND SIGNAT	TURE	:													•		1	٥		, je		fact
		ORI	GIN	IAL			PRINT Na	me of SAMPI	LER:		Er	-16	6.	111	,										7 .s	.⊑	Received on Ice (Y/N)	Custody saled Cooler	<u> </u>	mples Inta (Y/N)
							SIGNATU	RE of SAMPL	LER:	_	4	1					DA	TE Sig	ned	3	-/	9-	04	,	7 /	Temp	Rece	Seale	^	igmei ()

March 18, 2009

Mr. Rick Reynolds Land Assessment Services, Inc. 6408 W. Linebaugh Avenue Suite 104

Tampa, FL 33625

RE: Cone Property Soil 2nd set Order No.: F09030446

Dear Mr. Rick Reynolds:

Pace Analytical Services, Inc received 14 samples on 3/11/2009 1:10:00 PM for the analyses presented in the following report. The results included in this report relate only to the samples received.

Analyses are performed with method-required calibration and QA/QC samples, whenever applicable. Method performance, which is based on the calibration and QA/QC data, establishes the validity and certainty of the reported sample results. These data are provided along with the sample results.

Thank you for this opportunity to let Pace Analytical Services, Inc. (Florida) be of service to you. NELAP certification #E83079. If you have any questions regarding this report, please feel free to call me, Joe Vondrick, at (386) 672-5668, extension 4809 or (386) 676-4809.

Sincerely,

Project Manager

Pace Analytical Services, Inc.

P.O. Box 468

Ormond Beach, FL 32175-0468

The test results in this report meet the requirements of the 2003 NELAC standards unless otherwise noted.

The following acronyms may be utilized within this report:

%REC Percent Recovery

A Absent

ABLK Analytical Method Blank CG Confluent Growth

CGB Confluent Growth Without Coliforms
CGC Confluent Growth With Coliforms

DUP Sample Duplicate
dw Dry Weight
kg Kilograms
L Liter

LCS Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)

MBLK Preparation Method Blank

MDL Laboratory Method Detection Limit

mg Milligrams ml Milliliter

MS Matrix Spike (may also be appended with an abbreviation indicating spiking level)

MSD Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)

P Present

PQL Practical Quantitation Limit

QCS Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some a

RL Reporting Limit

RPD Relative Percent Difference

SPK Spike

SUB Indicates subcontracted analytical results

TIC Tentatively Identified Compound

TNTC Too Numerous To Count

ug Micrograms

Case Narrative

CLIENT: Land Assessment Services, Inc.

Project: Cone Property Soil 2nd set

Lab Order: F09030446

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. All sample containers received for this report were collected by either the client or an agent of the client.

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report.

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report.

CLIENT: Land Assessment Services, Inc. Lab Order: F09030446

Project: Cone Property Soil 2nd set

Lab ID: F09030446-001 Collection Date: 3/10/2009 11:00:00 AM

Date: 19-Mar-09

Client Sample ID: SA-22 0.5 Sample Description: Matrix: Soil

Analyses Result Qual **MDL POL** Units DF **Date Analyzed Batch ID ICP METALS** SW6010 PrepDate: 3/12/2009 7:59:00 A Analyst: TPI 1.5 0.28 mg/Kg-dry 1 03/12/09 21:55 60035 Arsenic 0.56 PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE 1 03/13/09 Percent Solid 68.2 0.100 0.100 % R77121

Lab ID: F09030446-002 **Collection Date:** 3/10/2009 11:00:00 AM

Client Sample ID: SA-22 0.5-2.0 Sample Description: Matrix: Soil

Analyses Result Qual **MDL PQL** Units DF **Date Analyzed Batch ID** PrepDate: 3/12/2009 7:59:00 A **ICP METALS** SW6010 Analyst: TPI 1 03/12/09 21:59 Arsenic 1.4 0.26 mg/Kg-dry 60035 PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE Percent Solid 0.100 0.100 % 1 03/13/09 77.7 R77121

Lab ID: F09030446-003 **Collection Date:** 3/10/2009 11:00:00 AM

Client Sample ID: SA-22 4.0' Sample Description: Matrix: Soil

Analyses	Result Qual	MDL PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS	SW6010	PrepDate: 3/1	2/2009 7:59:00 A	A	Analyst: TPI	
Arsenic	7.1	0.23 0.47	mg/Kg-dry	1 0	03/12/09 22:03	60035
SOLIDS, PERCENT	SM2540G	PrepDate:		A	Analyst: MDE	
Percent Solid	80.0	0.100 0.100	%	1 0	03/13/09	R77121

Data Qualifier Code Key: I Analyte detected below quantitation limits

CLIENT: Land Assessment Services, Inc. Lab Order: F09030446

Project: Cone Property Soil 2nd set

Lab ID: F09030446-004 **Collection Date:** 3/10/2009 11:20:00 AM

Date: 19-Mar-09

Client Sample ID: SA-N 0.5 Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prep[Date: 3/12/	2009 7:59:00 A		Analyst: TPI	
Arsenic	0.34	1	0.20	0.40	mg/Kg-dry	1	03/12/09 22:06	60035
SOLIDS, PERCENT		SM2540G	Prep[Date:			Analyst: MDE	
Percent Solid	96.3		0.100	0.100	%	1	03/13/09	R77121

Lab ID: F09030446-005 **Collection Date:** 3/10/2009 11:20:00 AM

Client Sample ID: SA-N 0.5-2.0 Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	oate: 3/12/	2009 7:59:00 A		Analyst: TPI	
Arsenic	BDL		0.20	0.41	mg/Kg-dry	1	03/12/09 22:10	60035
SOLIDS, PERCENT		SM2540G	PrepD	oate:			Analyst: MDE	
Percent Solid	97.8		0.100	0.100	%	1	03/13/09	R77121

Lab ID: F09030446-006 **Collection Date:** 3/10/2009 11:20:00 AM

Client Sample ID: SA-N 4.0' Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	ate: 3/12 /	2009 7:59:00 A		Analyst: TPI	
Arsenic	0.63		0.24	0.48	mg/Kg-dry	1	03/12/09 22:21	60035
SOLIDS, PERCENT		SM2540G	PrepDa	ate:			Analyst: MDE	
Percent Solid	85.1		0.100	0.100	%	1	03/13/09	R77121

Data Qualifier Code Key: I Analyte detected below quantitation limits

8 East Tower Cr., Ormond Beach, FL 32174

Analytical Report

CLIENT: Land Assessment Services, Inc. Lab Order: F09030446

Project: Cone Property Soil 2nd set

Lab ID: F09030446-007 **Collection Date:** 3/10/2009 12:00:00 PM

Date: 19-Mar-09

Client Sample ID: SA-35 0.5 Sample Description: Matrix: Soil

Analyses Result Qual **MDL POL** Units DF **Date Analyzed Batch ID ICP METALS** SW6010 PrepDate: 3/12/2009 7:59:00 A Analyst: TPI 15 0.52 mg/Kg-dry 1 03/12/09 22:25 60035 Arsenic PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE 1 03/13/09 Percent Solid 39.5 0.100 0.100 % R77121

Client Sample ID: SA-35 0.5-2.0 Sample Description: Matrix: Soil

Analyses Result Qual **MDL PQL** Units DF **Date Analyzed Batch ID** PrepDate: 3/12/2009 7:59:00 A **ICP METALS** SW6010 Analyst: TPI 1 03/12/09 22:30 Arsenic 14 0.39 mg/Kg-dry 60035 PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE Percent Solid 0.100 0.100 % 1 03/13/09 54.1 R77121

Lab ID: F09030446-009 Collection Date: 3/10/2009 12:30:00 PM

Client Sample ID: SA-40 0.5 Sample Description: Matrix: Soil

Analyses	Result Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS	SW6010	PrepDate	: 3/12/2009 7:59:00 A	١	Analyst: TPI	
Arsenic	4.7	0.41	0.83 mg/Kg-dry	1	03/12/09 22:35	60035
SOLIDS, PERCENT	SM2540G	PrepDate	:		Analyst: MDE	
Percent Solid	47.3	0.100	0.100 %	1	03/13/09	R77121

Data Qualifier Code Key: I Analyte detected below quantitation limits

CLIENT: Land Assessment Services, Inc. Lab Order: F09030446

Project: Cone Property Soil 2nd set

Date: 19-Mar-09

Client Sample ID: SA-35 0.5-2.0 Sample Description: Matrix: Soil

Analyses Result Qual **MDL POL** Units DF **Date Analyzed Batch ID ICP METALS** SW6010 PrepDate: 3/12/2009 7:59:00 A Analyst: TPI 15 0.50 0.99 mg/Kg-dry 1 03/12/09 22:39 60035 Arsenic PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE 1 03/13/09 Percent Solid 42.4 0.100 0.100 % R77121

Lab ID: F09030446-011 **Collection Date:** 3/10/2009 1:00:00 PM

Client Sample ID: SA-S 0.5 Sample Description: Matrix: Soil

Analyses Result Qual **MDL PQL** Units DF **Date Analyzed Batch ID** PrepDate: 3/12/2009 7:59:00 A **ICP METALS** SW6010 Analyst: TPI 1 03/12/09 22:43 Arsenic 1.7 0.29 mg/Kg-dry 60035 PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE Percent Solid 72.2 0.100 0.100 % 1 03/13/09 R77121

Lab ID: F09030446-012 **Collection Date:** 3/10/2009 1:00:00 PM

Client Sample ID: SA-S 0.5-2.0 Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	ate: 3/12/	2009 7:59:00 A		Analyst: TPI	
Arsenic	0.56		0.22	0.44	mg/Kg-dry	1	03/12/09 22:47	60035
SOLIDS, PERCENT		SM2540G	PrepD	ate:			Analyst: MDE	
Percent Solid	85.9		0.100	0.100	%	1	03/13/09	R77121

Data Qualifier Code Key: I Analyte detected below quantitation limits

Date: 19-Mar-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09030446

Project: Cone Property Soil 2nd set

Lab ID: F09030446-013 **Collection Date:** 3/10/2009 1:30:00 PM

Client Sample ID: SA-W 0.5 Sample Description: Matrix: Soil

Analyses Result Qual **MDL PQL** Units DF **Date Analyzed Batch ID ICP METALS** SW6010 PrepDate: 3/12/2009 7:59:00 A Analyst: TPI 2.2 0.25 0.50 mg/Kg-dry 1 03/12/09 22:50 60035 Arsenic PrepDate: **SOLIDS, PERCENT** SM2540G Analyst: MDE Percent Solid 0.100 1 03/13/09 73.5 0.100 % R77121

Lab ID: F09030446-014 **Collection Date:** 3/10/2009 1:30:00 PM

Client Sample ID: SA-W 0.5-2.0 Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	ate: 3/12/	2009 7:59:00 A		Analyst: TPI	
Arsenic	0.59		0.23	0.47	mg/Kg-dry	1	03/12/09 11:42	60035
SOLIDS, PERCENT		SM2540G	PrepD	ate:			Analyst: MDE	
Percent Solid	82.2		0.100	0.100	%	1	03/13/09	R77121

Date: 03/19/2009

QC Summary

F09030446

	Method	Batch ID	Method Blank	LC	* S/LCSD o	r DUP			MS/MS	D	
				% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Percent Solid	SM2540G SM2540G SM2540G	R77121 R77121 R77121				1.15 0.492 0.516	10 10 10				
Arsenic	SW6010	60035	0.20 U mg/Kg	107	80-120			107/107	75-125	1.23	20

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

www.pacelabs.com													<i>-</i>	\mathcal{O}	40:	<i>50</i> 2	44	9		Г	_					\neg	
Section A Required Client Information:	Section E								LA		455		Page: of														
Company: Land Assessment Services Address: 6408 W.L. Lebrugh Are Schold Tampa, FL 33625 Email To: Lus e land assessmentsenite. Phone: [Fig. 100]	Report To:		t information.				_	Invoice Information: Attention:									7 122494								16		
Address:	Copy To:						c	Company Name:									REGULATORY AGENCY										
Tang El 23625							A	Address:									「 NPDES										
Email To:	Purchase Order No.:							Pace Quote									UST FRCRA FOTHER										
Phone: Fex:	Project Name:							Reference: Pace Project									Site Location										
Phone: (8/3)408-2233 (8/3)908-3588 Requested Due Date/TAT:	Project Nu	mber					_	lanage ace Pr									Site		1			į	!				
	i rojectita							STATE:						_1_			,										
		_					_							- T	Reque	ested /	ed Analysis Filtered (Y/N)										
Section D Matrix C Required Client Information MATRIX /		<u>§</u>	<u>ê</u>	COLLI	ECTED	- 1	- [l		Prese	rvativ	es		Ž		1 1											
Drinking Wate	r DW	valid codes to left)	COMP				z I	ŀ	T	T	TT	Ť		+	11	+		++	†	+	\dagger	17					
Water Waste Water	WT WW	id coc			COMPO END/GI	SITE	COLLECTION		-	1 1	}}		\ 	1	11							5				1	
Product Soil/Solid	P SL	(see val	G=GRAB	K.	Literon			,		H			-	•				.			Į	S S				l	
SAMPLE ID Oil Wipe	OL WP		9				AT O	# OF CONTAINERS						est					1	11	ı	Residual Chlorine				l	
(A-Z, 0-9 / ,-) Air Sample IDs MUST BE UNIQUE Tissue	AR TS	CODE	H H	ļ	,		TEMP/	¥.	8	} }		-			1 1				1	1 1	-	웆				- 1	
Other	ОТ	×	드					S	ξ			힐		١	n						-	la E					
TEW #		MATRIX	SAMPLE TYPE	Ì]	SAMPLE	띩	Unpreserved H ₂ SO ₄	ر آي	팅	Na ₂ S ₂ O ₃ Methanol	ē	Analysis	て	1 1	1	1 1	1	1 1	1	ŝid				1	
		-		TIME	DATE	TIME		_		를 달	Ž.	ŽΣ	ŏ.									8	Pac	Project	No./ Lab I	.D.	
1 SA-22 0.5, 0.5-20		દ્ર	3-10-01	11:00			1	-	3	Ш	Ш	\perp	Ш		3	44		$\bot \bot$		11	_	\perp					
2 SA-N 0.5, 0.5-2.0,		SZ	2-10-01	11:20					3		\coprod	\perp			3			$\perp \perp$	1	$\perp \perp$	\perp	\perp					
3 SA-35 0.5, 6.5-2.		54	3-10-01	12:00					2		Ц		Ш	2	2							$\perp \downarrow$					
4 SA-40 0.5, 0.5-2.		52	34008	12:30					2	Ш			Ш	L	<u> </u>				<u>L</u>					<u>-</u>			
5 SA-S 0.5, 0.5-2.0		SL	310.09				1	2	2			L		Ė	2						1						
6 SA-W 0.5 , 0.5-2.	o	ત્ર	3-18-09	1330		_		2	2					Ĺ	ર												
7				Ī							Ш																
8														L										_			
9																						Ш					
10							\perp				\prod		\square		\Box			$\Pi \Gamma$			T	П					
11								1			\prod																
12																						\prod					
ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION DATE						TIME ACCEPTED BY / AFFILIATION						DATE TIME			TIME	E		SAMPLE CONDITIONS								
3000 EMPT CON				PT1 N141-915 3-4-09			;	16	 ധ		En	//	2	_			3-401		T	1600		7				$\neg \neg$	
					3-10-09		_					Z	O.			31009		_									
•	100						+	11 19/1/								11.5	_	3/0		> /				-			
<u> </u>	+-						7								\dashv		+		-	'- +	. N	 					
<u> </u>		_		SAMPLE	R NAME A	ND SIGNATI	URE			L	,								<u> </u>		+			1 10	<u>\{\bar{6}{\chi}\}</u>		
	ORIG	iM/	۱L	ļ		ne of SAMPLI									<u></u>						\dashv	Temp in °C	Received on Ice (Y/N)	Custody sealed Cooler (Y/N)	Samples Intact		
SIGNATURE of SAMPLER:							ER:	DATE Stand											_	- Le L			Rece Ice	Sealer	lample Sample	-	

June 03, 2009

Mr. Rick Reynolds Land Assessment Services, Inc. 6408 W. Linebaugh Avenue Suite 104 Tampa, FL 33625

RE: Cone Property/Parrish Site Order No.: F09040465

Dear Mr. Rick Reynolds:

Pace Analytical Services, Inc received 13 samples on 4/9/2009 11:00:00 AM for the analyses presented in the following report. The results included in this report relate only to the samples received.

Analyses are performed with method-required calibration and QA/QC samples, whenever applicable. Method performance, which is based on the calibration and QA/QC data, establishes the validity and certainty of the reported sample results. These data are provided along with the sample results.

Thank you for this opportunity to let Pace Analytical Services, Inc. (Florida) be of service to you. NELAP certification #E83079. If you have any questions regarding this report, please feel free to call me, Joe Vondrick, at (386) 672-5668, extension 4809 or (386) 676-4809.

Sincerely,

Project Manager

Pace Analytical Services, Inc.

P.O. Box 468

Ormond Beach, FL 32175-0468

The test results in this report meet the requirements of the 2003 NELAC standards unless otherwise noted.

The following acronyms may be utilized within this report:

%REC Percent Recovery

A Absent

ABLK Analytical Method Blank CG Confluent Growth

CGB Confluent Growth Without Coliforms
CGC Confluent Growth With Coliforms

DUP Sample Duplicate
dw Dry Weight
kg Kilograms
L Liter

LCS Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)

MBLK Preparation Method Blank

MDL Laboratory Method Detection Limit

mg Milligrams ml Milliliter

MS Matrix Spike (may also be appended with an abbreviation indicating spiking level)

MSD Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)

P Present

PQL Practical Quantitation Limit

QCS Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some a

RL Reporting Limit

RPD Relative Percent Difference

SPK Spike

SUB Indicates subcontracted analytical results

TIC Tentatively Identified Compound

TNTC Too Numerous To Count

ug Micrograms

Case Narrative

CLIENT: Land Assessment Services, Inc.

Project: Cone Property/Parrish Site

Lab Order: F09040465

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. All sample containers received for this report were collected by either the client or an agent of the client. All analytical results were provide on an "as received" basis since dissolved metals fractions were filtered in the field, except for soil samples where analytical results were provided on a dry weight basis. Some confusion was encountered during check-in processing of the number of samples and parameters requested on the original COC.

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report. Recommended holding time for pesticide extraction is 14 days from collection, which had passed upon notification. Samples required a dilution for method 8081 due to matrix interference or abundance of target compounds in the matrix, which resulted in elevated reporting limits for other target compounds. For these samples, the surrogate data outside method guidance criteria were due to matrix interference, as identified on the report.

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report. The MS/MSD data outside accepted recovery limits were due to possible sample matrix effects of the selected batch QC sample, however, the associated LCS data were within guidance criteria for the method. Toxaphene UQL std removed, however sample data within curve.

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-001 **Collection Date:** 4/8/2009 10:25:00 AM

Client Sample ID: MW-6A Sample Description: Matrix: Groundwater

Analyses Result Qual **MDL PQL** Units DF **Date Analyzed Batch ID ICP METALS** SW6010 PrepDate: 4/10/2009 8:53:00 A Analyst: TPI 0.014 0.0050 0.010 1 04/11/09 03:10 60760 Arsenic mg/L PrepDate: 4/10/2009 8:53:00 A **ICP METALS (DISSOLVED)** SW6010 Analyst: TPI 1 04/11/09 03:06 Arsenic 0.015 0.0050 0.010 mg/L 60760

Lab ID: F09040465-002 **Collection Date:** 4/8/2009 1:47:00 PM

Client Sample ID: MW-8T Sample Description: Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	Pate: 4/10/2009 8:53:00 A		Analyst: TPI	
Arsenic	0.014		0.0050	0.010 mg/L	1	04/11/09 03:17	60760
ICP METALS (DISSOLVED)		SW6010	PrepD	Date: 4/10/2009 8:53:00 A		Analyst: TPI	
Arsenic	0.0098	1	0.0050	0.010 mg/L	1	04/11/09 03:13	60760

Lab ID: F09040465-003 Collection Date: 4/8/2009 10:00:00 AM

Client Sample ID: MW-6A 0.5-2.0 Sample Description: Matrix: Soil

Analyses	Result Qual	MDL	PQL Units	DF	Date Analyzed	Batch ID
ICP METALS	SW6010	PrepDa	ite: 4/14/2009 7:41:00 A		Analyst: TPI	
Arsenic	1.4	0.25	0.49 mg/Kg-dry	1	04/16/09 03:13	60834
SOLIDS, PERCENT	SM2540G	PrepDa	ite:		Analyst: MDE	
Percent Solid	81.5	0.100	0.100 %	1	04/10/09	R77995

Data Qualifier Code Key:

BDL Not Detected Above the MDL

S Spike Recovery outside accepted recovery limits

I Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-004 **Collection Date:** 4/8/2009 12:10:00 PM

Client Sample ID: SS 20A Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prepl	Date: 4/14	/2009 7:41:00 A		Analyst: TPI	
Lead	16		0.24	0.48	mg/Kg-dry	1	04/16/09 03:16	60834
8260: VOLATILE ORGANIC COMPOU	JNDS	SW8260	Prepl	Date: 4/15	/2009 8:00:00 A		Analyst: ALA	
Benzene	0.014		0.0054	0.011	mg/Kg-dry	1	04/15/09 13:20	60935
Ethylbenzene	BDL		0.0060	0.011	mg/Kg-dry	1	04/15/09 13:20	60935
Toluene	0.0074	I	0.0057	0.011	mg/Kg-dry	1	04/15/09 13:20	60935
Xylenes, Total	BDL		0.011	0.032	mg/Kg-dry	1	04/15/09 13:20	60935
Surr: 4-Bromofluorobenzene	66.2		0	55-148	%REC	1	04/15/09 13:20	60935
Surr: Dibromofluoromethane	105		0	82-115	%REC	1	04/15/09 13:20	60935
Surr: Toluene-d8	88.7		0	84-117	%REC	1	04/15/09 13:20	60935
Surr: 1,2-Dichloroethane-d4	112		0	80-131	%REC	1	04/15/09 13:20	60935
SOLIDS, PERCENT		SM2540G	Prepl	Date:			Analyst: MDE	
Percent Solid	80.6		0.100	0.100	%	1	04/10/09	R77995

Data Qualifier Code Key:

BDL Not Detected Above the MDL

S Spike Recovery outside accepted recovery limits

I Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-005 **Collection Date:** 4/8/2009 12:20:00 PM

Client Sample ID: SS 20B 0-0.5' Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Pre	pDate: 4/14	/2009 7:41:00 A		Analyst: TPI	
Arsenic	0.64		0.22	0.44	mg/Kg-dry	1	04/16/09 03:21	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Pre	pDate: 5/27	/2009 9:30:00 A		Analyst: JKR	
Aldrin	BDL	(0.000063	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
alpha-BHC	BDL		0.000075	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
beta-BHC	BDL		0.000083	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
delta-BHC	BDL		0.000094	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
gamma-BHC	BDL		0.00016	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
alpha-Chlordane	0.017		0.000040	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
gamma-Chlordane	0.029		0.00073	0.018	mg/Kg-dry	10	05/30/09 13:53	61900
Chlordane	BDL		0.017	0.018	mg/Kg-dry	1	05/30/09 14:44	61900
4,4'-DDD	BDL		0.00014	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
4,4'-DDE	0.085		0.00066	0.018	mg/Kg-dry	10	05/30/09 13:53	61900
4,4'-DDT	0.049		0.0010	0.018	mg/Kg-dry	10	05/30/09 13:53	61900
Dieldrin	0.012		0.000043	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Endosulfan I	BDL		0.000027	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Endosulfan II	BDL		0.000062	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Endosulfan sulfate	BDL		0.000046	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Endrin	BDL		0.000056	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Endrin aldehyde	BDL		0.000071	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Endrin ketone	BDL		0.000086	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Heptachlor	BDL		0.000042	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Heptachlor epoxide	0.0029		0.00012	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Methoxychlor	BDL		0.0011	0.0018	mg/Kg-dry	1	05/30/09 14:44	61900
Toxaphene	0.98		0.079	0.18	mg/Kg-dry	10	05/30/09 13:53	61900
Surr: Decachlorobiphenyl	98.2		0	70-130	%REC	1	05/30/09 14:44	61900
Surr: Tetrachloro-m-xylene	85.6		0	70-130	%REC	1	05/30/09 14:44	61900
SOLIDS, PERCENT		SM2540G	Pre	pDate:			Analyst: MDE	
Percent Solid	91.9		0.100	0.100	%	1	04/10/09	R77995

Data Qualifier

Code Key:

I Analyte detected below quantitation limits

BDL Not Detected Above the MDL

Date: 03-Jun-09

Land Assessment Services, Inc. **Lab Order:** F09040465 **CLIENT:**

Project: Cone Property/Parrish Site

> **Lab ID:** F09040465-006 **Collection Date:** 4/8/2009 12:30:00 PM

Client Sample ID: SS 19D 0.5-2.0' **Sample Description:** Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prep	Date: 4/14	/2009 7:41:00 A		Analyst: TPI	
Arsenic	0.79		0.19	0.39	mg/Kg-dry	1	04/16/09 03:26	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prep	Date: 5/8/2	2009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.000063	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
alpha-BHC	BDL		0.000074	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
beta-BHC	BDL		0.000083	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
delta-BHC	BDL		0.000094	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
gamma-BHC	BDL		0.00016	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
alpha-Chlordane	0.0012	1	0.000040	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
gamma-Chlordane	BDL		0.000073	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Chlordane	BDL		0.017	0.018	mg/Kg-dry	1	05/11/09 22:18	61469
4,4'-DDD	BDL		0.00014	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
4,4'-DDE	BDL		0.000066	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
4,4'-DDT	0.0015	1	0.00010	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Dieldrin	0.0018		0.000043	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Endosulfan I	BDL		0.000027	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Endosulfan II	BDL		0.000061	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Endosulfan sulfate	BDL		0.000046	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Endrin	BDL		0.000056	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Endrin aldehyde	BDL		0.000071	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Endrin ketone	BDL		0.000086	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Heptachlor	BDL		0.000042	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Heptachlor epoxide	0.0011	I	0.00012	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Methoxychlor	BDL		0.0011	0.0018	mg/Kg-dry	1	05/11/09 22:18	61469
Toxaphene	0.019		0.0079	0.018	mg/Kg-dry	1	05/13/09 15:32	61469
Surr: Decachlorobiphenyl	81.6		0	70-130	%REC	1	05/11/09 22:18	61469
Surr: Tetrachloro-m-xylene	75.7		0	70-130	%REC	1	05/11/09 22:18	61469
SOLIDS, PERCENT		SM25400	Prep	Date:			Analyst: MDE	
Percent Solid	92.4		0.100	0.100	%	1	04/10/09	R77995

Data

BDL Not Detected Above the MDL

Qualifier Code Key: Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

Date: 03-Jun-09

Land Assessment Services, Inc. **Lab Order:** F09040465 **CLIENT:**

Project: Cone Property/Parrish Site

> **Lab ID:** F09040465-007 **Collection Date:** 4/8/2009 12:35:00 PM

Client Sample ID: SS 19C 0.5-2.0' **Sample Description:** Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Pre	pDate: 4/14	/2009 7:41:00 A		Analyst: TPI	
Arsenic	0.97		0.20	0.40	mg/Kg-dry	1	04/16/09 03:29	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Pre	pDate: 5/8/2	2009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.000061	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
alpha-BHC	BDL		0.000073	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
beta-BHC	BDL		0.000081	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
delta-BHC	BDL		0.000092	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
gamma-BHC	BDL		0.00016	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
alpha-Chlordane	BDL		0.000039	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
gamma-Chlordane	BDL		0.000072	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Chlordane	BDL		0.017	0.018	mg/Kg-dry	1	05/11/09 22:52	61469
4,4'-DDD	BDL		0.00014	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
4,4'-DDE	0.0016	I	0.000064	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
4,4'-DDT	0.0021		0.00010	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Dieldrin	BDL		0.000042	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Endosulfan I	BDL		0.000026	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Endosulfan II	BDL		0.000060	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Endosulfan sulfate	BDL		0.000045	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Endrin	BDL		0.000055	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Endrin aldehyde	BDL		0.000070	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Endrin ketone	BDL		0.000085	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Heptachlor	BDL		0.000041	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Heptachlor epoxide	BDL		0.00012	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Methoxychlor	BDL		0.0011	0.0018	mg/Kg-dry	1	05/11/09 22:52	61469
Toxaphene	0.021		0.0078	0.018	mg/Kg-dry	1	05/13/09 15:49	61469
Surr: Decachlorobiphenyl	87.4		0	70-130	%REC	1	05/11/09 22:52	61469
Surr: Tetrachloro-m-xylene	76.9		0	70-130	%REC	1	05/11/09 22:52	61469
SOLIDS, PERCENT		SM2540G	Pre	pDate:			Analyst: MDE	
Percent Solid	94.3		0.100	0.100	%	1	04/10/09	R77995

Data

BDL Not Detected Above the MDL

Qualifier Code Key: Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-008 **Collection Date:** 4/8/2009 12:40:00 PM

Client Sample ID: SS 15B 0-0.5' Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	oate: 4/14/	/2009 7:41:00 A		Analyst: TPI	
Arsenic	4.4		0.23	0.47	mg/Kg-dry	1	04/16/09 03:33	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	PrepD	oate: 5/8/2	2009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.0067	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
alpha-BHC	BDL		0.0080	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
beta-BHC	BDL		0.0089	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
delta-BHC	BDL		0.010	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
gamma-BHC	BDL		0.017	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
alpha-Chlordane	BDL		0.0043	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
gamma-Chlordane	BDL		0.0079	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Chlordane	BDL		1.8	2.0	mg/Kg-dry	100	05/12/09 01:42	61469
4,4'-DDD	0.13	1	0.015	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
4,4'-DDE	0.087	1	0.0070	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
4,4'-DDT	0.073	1	0.011	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Dieldrin	BDL		0.0046	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Endosulfan I	BDL		0.0029	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Endosulfan II	BDL		0.0066	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Endosulfan sulfate	BDL		0.0050	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Endrin	BDL		0.0060	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Endrin aldehyde	BDL		0.0076	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Endrin ketone	BDL		0.0092	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Heptachlor	BDL		0.0045	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Heptachlor epoxide	BDL		0.013	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Methoxychlor	BDL		0.12	0.20	mg/Kg-dry	100	05/12/09 01:42	61469
Toxaphene	10		0.85	2.0	mg/Kg-dry	100	05/13/09 16:23	61469
Surr: Decachlorobiphenyl	0	S	0	70-130	%REC	100	05/12/09 01:42	61469
Surr: Tetrachloro-m-xylene	109		0	70-130	%REC	100	05/12/09 01:42	61469
SOLIDS, PERCENT		SM2540G	PrepD	oate:			Analyst: MDE	
Percent Solid	86.6		0.100	0.100	%	1	04/10/09	R77995

Data Qualifi

BDL Not Detected Above the MDL

Qualifier Code Key: S Spike Recovery outside accepted recovery limits

I Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-009 **Collection Date:** 4/8/2009 10:00:00 AM

Client Sample ID: MW-6A 0-0.5' Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	ate: 4/14/	2009 7:41:00 A		Analyst: TPI	
Arsenic	0.69		0.27	0.53	mg/Kg-dry	1	04/16/09 03:38	60834
SOLIDS, PERCENT		SM2540G	PrepD	ate:			Analyst: MDE	
Percent Solid	76.7		0.100	0.100	%	1	04/15/09	R78130

Data Qualifier Code Key:

I Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-010 **Collection Date:** 4/8/2009 12:20:00 PM

Client Sample ID: SS-20B 0.5-2.0' Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prepl	Date: 4/14	/2009 7:41:00 A		Analyst: TPI	
Arsenic	2.8		0.23	0.45	mg/Kg-dry	1	04/16/09 03:42	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prepl	Date: 5/8/2	:009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.0031	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
alpha-BHC	BDL		0.0037	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
beta-BHC	BDL		0.0041	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
delta-BHC	BDL		0.0047	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
gamma-BHC	BDL		0.0079	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
alpha-Chlordane	BDL		0.0020	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
gamma-Chlordane	0.024	1	0.0036	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Chlordane	BDL		0.85	0.91	mg/Kg-dry	50	05/12/09 01:59	61469
4,4'-DDD	0.13		0.0070	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
4,4'-DDE	0.34		0.0033	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
4,4'-DDT	0.30		0.0051	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Dieldrin	BDL		0.0021	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Endosulfan I	BDL		0.0013	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Endosulfan II	BDL		0.0030	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Endosulfan sulfate	BDL		0.0023	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Endrin	BDL		0.0028	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Endrin aldehyde	BDL		0.0035	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Endrin ketone	BDL		0.0043	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Heptachlor	BDL		0.0021	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Heptachlor epoxide	BDL		0.0059	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Methoxychlor	BDL		0.056	0.091	mg/Kg-dry	50	05/12/09 01:59	61469
Toxaphene	4.5		0.39	0.91	mg/Kg-dry	50	05/13/09 16:40	61469
Surr: Decachlorobiphenyl	0	S	0	70-130	%REC	50	05/12/09 01:59	61469
Surr: Tetrachloro-m-xylene	84.5		0	70-130	%REC	50	05/12/09 01:59	61469
SOLIDS, PERCENT		SM2540G	Prepl	Date:			Analyst: MDE	
Percent Solid	91.6		0.100	0.100	%	1	04/15/09	R78130

Data Qualifier

Code Key:

I Analyte detected below quantitation limits

BDL Not Detected Above the MDL

Date: 03-Jun-09

Land Assessment Services, Inc. **Lab Order:** F09040465 **CLIENT:**

Cone Property/Parrish Site **Project:**

> **Lab ID:** F09040465-011 **Collection Date:** 4/8/2009 12:30:00 PM

Client Sample ID: SS-19D 0-0.5' **Sample Description:** Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prepl	Date: 4/14	/2009 7:41:00 A		Analyst: TPI	
Arsenic	1.4		0.24	0.47	mg/Kg-dry	1	04/16/09 03:54	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prepl	Date: 5/8/2	2009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.0016	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
alpha-BHC	BDL		0.0019	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
beta-BHC	BDL		0.0021	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
delta-BHC	BDL		0.0024	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
gamma-BHC	BDL		0.0041	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
alpha-Chlordane	0.0068	1	0.0010	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
gamma-Chlordane	0.034	1	0.0019	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Chlordane	BDL		0.44	0.47	mg/Kg-dry	25	05/12/09 02:16	61469
4,4'-DDD	0.034	1	0.0036	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
4,4'-DDE	0.12		0.0017	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
4,4'-DDT	0.10		0.0026	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Dieldrin	0.051		0.0011	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Endosulfan I	BDL		0.00069	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Endosulfan II	0.052		0.0016	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Endosulfan sulfate	BDL		0.0012	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Endrin	BDL		0.0014	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Endrin aldehyde	BDL		0.0018	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Endrin ketone	BDL		0.0022	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Heptachlor	BDL		0.0011	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Heptachlor epoxide	BDL		0.0031	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Methoxychlor	BDL		0.029	0.047	mg/Kg-dry	25	05/12/09 02:16	61469
Toxaphene	2.2		0.20	0.47	mg/Kg-dry	25	05/13/09 16:57	61469
Surr: Decachlorobiphenyl	0	S	0	70-130	%REC	25	05/12/09 02:16	61469
Surr: Tetrachloro-m-xylene	67.8	S	0	70-130	%REC	25	05/12/09 02:16	61469
SOLIDS, PERCENT		SM2540G	Prepl	Date:			Analyst: MDE	
Percent Solid	89.7		0.100	0.100	%	1	04/15/09	R78130

Data

BDL Not Detected Above the MDL

Qualifier Code Key: Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Lab Order: F09040465 Land Assessment Services, Inc.

Cone Property/Parrish Site **Project:**

> **Lab ID:** F09040465-012 **Collection Date:** 4/8/2009 12:35:00 PM

Client Sample ID: SS-19C 0-0.5' **Sample Description:** Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prep	Date: 4/14	/2009 7:41:00 A		Analyst: TPI	
Arsenic	3.6		0.26	0.53	mg/Kg-dry	1	04/16/09 03:59	60834
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prep	Date: 5/8/2	2009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.00075	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
alpha-BHC	BDL		0.00089	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
beta-BHC	BDL		0.00099	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
delta-BHC	BDL		0.0011	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
gamma-BHC	BDL		0.0019	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
alpha-Chlordane	BDL		0.00048	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
gamma-Chlordane	0.010	1	0.00087	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Chlordane	BDL		0.20	0.22	mg/Kg-dry	10	05/12/09 02:33	61469
4,4'-DDD	0.020	1	0.0017	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
4,4'-DDE	0.087		0.00078	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
4,4'-DDT	0.042		0.0012	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Dieldrin	0.011	1	0.00051	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Endosulfan I	BDL		0.00032	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Endosulfan II	0.027		0.00073	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Endosulfan sulfate	BDL		0.00055	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Endrin	BDL		0.00067	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Endrin aldehyde	BDL		0.00085	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Endrin ketone	BDL		0.0010	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Heptachlor	BDL		0.00050	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Heptachlor epoxide	BDL		0.0014	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Methoxychlor	BDL		0.014	0.022	mg/Kg-dry	10	05/12/09 02:33	61469
Toxaphene	1.3		0.094	0.22	mg/Kg-dry	10	05/13/09 18:40	61469
Surr: Decachlorobiphenyl	51.9	S	0	70-130	%REC	10	05/12/09 02:33	61469
Surr: Tetrachloro-m-xylene	72.3		0	70-130	%REC	10	05/12/09 02:33	61469
SOLIDS, PERCENT		SM2540G	Prep	Date:			Analyst: MDE	
Percent Solid	76.5		0.100	0.100	%	1	04/15/09	R78130

Data Qualifier

BDL Not Detected Above the MDL Code Key:

Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

Date: 03-Jun-09

CLIENT: Land Assessment Services, Inc. Lab Order: F09040465

Project: Cone Property/Parrish Site

Lab ID: F09040465-013 **Collection Date:** 4/8/2009 12:40:00 PM

Client Sample ID: SS-15B 0.5-2.0 Sample Description: Matrix: Soil

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	PrepDa	ite: 4/14	1/2009 7:41:00 A		Analyst: TPI	
Arsenic	2.4		0.22	0.43	mg/Kg-dry	1	04/16/09 04:04	60834
8081: PESTICIDES, ORGANOCHLORINE	į	SW8081	PrepDa	ite: 5/8/ 2	2009 8:30:00 AM		Analyst: JKR	
Aldrin	BDL		0.00067	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
alpha-BHC	BDL		0.00080	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
beta-BHC	BDL		0.00089	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
delta-BHC	BDL		0.0010	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
gamma-BHC	BDL		0.0017	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
alpha-Chlordane	BDL		0.00043	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
gamma-Chlordane	BDL		0.00079	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Chlordane	BDL		0.18	0.20	mg/Kg-dry	10	05/12/09 02:51	61469
4,4'-DDD	0.0097	1	0.0015	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
4,4'-DDE	0.011	1	0.00071	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
4,4'-DDT	0.012	1	0.0011	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Dieldrin	0.014	1	0.00046	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Endosulfan I	BDL		0.00029	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Endosulfan II	0.013	1	0.00066	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Endosulfan sulfate	0.00089	1	0.00050	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Endrin	BDL		0.00060	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Endrin aldehyde	BDL		0.00077	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Endrin ketone	BDL		0.00093	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Heptachlor	BDL		0.00045	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Heptachlor epoxide	BDL		0.0013	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Methoxychlor	BDL		0.012	0.020	mg/Kg-dry	10	05/12/09 02:51	61469
Toxaphene	0.75		0.085	0.20	mg/Kg-dry	10	05/13/09 18:57	61469
Surr: Decachlorobiphenyl	52.3	S	0	70-130	%REC	10	05/12/09 02:51	61469
Surr: Tetrachloro-m-xylene	72.7		0	70-130	%REC	10	05/12/09 02:51	61469
SOLIDS, PERCENT		SM2540G	PrepDa	ite:			Analyst: MDE	
Percent Solid	84.8		0.100	0.100	%	1	04/15/09	R78130

Data Qualifier

BDL Not Detected Above the MDL

Code Key:

S Spike Recovery outside accepted recovery limits

I Analyte detected below quantitation limits

	Method	Batch ID	Method Blank	LC	* S/LCSD of	r DUP			MS/MS	D	
				% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Percent Solid	SM2540G SM2540G SM2540G	R77995 R77995 R77995				0.774 4.18 3.74	10 10 10				
Percent Solid	SM2540G SM2540G SM2540G	R78130 R78130 R78130				0.588 1.54 0.257	10 10 10				
Arsenic	SW6010 SW6010 SW6010 SW6010	60760 60760 60760 60760	5.0 U µg/L 5.0 U µg/L 5.0 U µg/L 5.0 U µg/L	105 105 105 105	80-120 80-120 80-120 80-120			106/106 106/106 106/106	75-125 75-125 75-125	0.377 0.377 0.377	20 20 20
Arsenic Lead	SW6010 SW6010	60834 60834	0.20 U mg/Kg 0.20 U mg/Kg	108 111	80-120 80-120			104/103 107/106	75-125 75-125	1.26 1.3	20 20

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

	Method	Batch ID	Method Blank	L	* CS/LCSD or	r DUP			MS/MSI)	
				% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Aldrin	SW8081	61469	0.058 U μg	Kg 93.3	62.4-93.5			90.8/87.4	62.4-93.5	1.53	40
alpha-BHC	SW8081	61469	0.069 U μg.	Kg 85.2	55.1-97.5			86.2/81.9	55.1-97.5		
beta-BHC	SW8081	61469	0.077 U μg	Kg 92.6	39.8- 126.6			93.1/89.4	39.8- 126.6		
delta-BHC	SW8081	61469	0.087 U μg.	Kg 88.5	25.8- 124.1			86.1/82.6	25.8- 124.1		
gamma-BHC	SW8081	61469	0.15 U μg	Kg 92.3	62.1-98.2			92/88.4	62.1-98.2	1.76	40
alpha-Chlordane	SW8081	61469	0.037 U μg.	Kg 90.8	52.6- 107.6			107/95	52.6- 107.6		
gamma-Chlordane	SW8081	61469	0.068 U μg.	Kg 88.8	63.8- 109.8			92.7/90.2	63.8- 109.8		l
Chlordane	SW8081	61469	16 U μg.	'Kg							
4,4'-DDD	SW8081	61469	0.13 U μg.	Kg 94.1	63.6- 112.1			94.6/93.8	63.6- 112.1		
4,4'-DDE	SW8081	61469	0.061 U μg.	Kg 95.6	62.7- 109.2			101/102	62.7- 109.2		
4,4'-DDT	SW8081	61469	0.096 U μg	Kg 92.7	70-130			97.5/96.4	70-130	1.14	40
Dieldrin	SW8081	61469	0.040 U μg	Kg 92.7	23.6- 137.7			93.5/87.4	23.6- 137.7	4.39	40
Endosulfan I	SW8081	61469	0.025 U μg.	Kg 89.9	40.5- 129.3			87.3/84	40.5- 129.3		
Endosulfan II	SW8081	61469	0.057 U μg	Kg 88.2	23.7-147			95.1/91.4	23.7-147		
Endosulfan sulfate	SW8081	61469	0.043 U μg	Kg 87.5	23.2- 146.6			84.5/80.5	23.2- 146.6		l
Endrin	SW8081	61469	0.052 U μg	Kg 91.5	26.8- 137.5			92.4/91.3	26.8- 137.5	1.06	40
Endrin aldehyde	SW8081	61469	0.066 U μg.	Kg 92.2	24.4- 152.7			93.2/90.8	24.4- 152.7]
Endrin ketone	SW8081	61469	0.080 U μg	Kg 92.8	24.6- 152.8			90.2/88.1	24.6- 152.8		1

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

	Method	Batch ID	Metho Blani		LC	* CS/LCSD or	r DUP			MS/MSI)	
					% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Heptachlor	SW8081	61469	0.039 U	μg/Kg	90.4	58.5- 102.6			88.7/85.2	58.5- 102.6	1.75	40
Heptachlor epoxide	SW8081	61469	0.11 U	μg/Kg	89.5	47.1- 120.8			87.3/84.5	47.1- 120.8		I
Methoxychlor	SW8081	61469	1.0 U	μg/Kg	94.1	23.5-166			94.4/90.8	23.5-166		
Toxaphene	SW8081	61469	7.3 U	μg/Kg								
Aldrin	SW8081	61900	0.058 U	μg/Kg	82.2	62.4-93.5			83.8/89.3	62.4-93.5	6.3	40
alpha-BHC	SW8081	61900	0.069 U	μg/Kg	79.9	55.1-97.5			77/82.8	55.1-97.5		
beta-BHC	SW8081	61900	0.077 U	μg/Kg	90.5	39.8- 126.6			86.2/92.9	39.8- 126.6		
delta-BHC	SW8081	61900	0.087 U	μg/Kg	81.5	25.8- 124.1			76/81.6	25.8- 124.1		
gamma-BHC	SW8081	61900	0.15 U	μg/Kg	80.5	62.1-98.2			79.8/84.9	62.1-98.2	6.15	40
alpha-Chlordane	SW8081	61900	0.037 U	μg/Kg	93	52.6- 107.6			67.7/83.1	52.6- 107.6		
gamma-Chlordane	SW8081	61900	0.068 U	μg/Kg	93.2	63.8- 109.8			191	63.8- 109.8		
Chlordane	SW8081	61900	16 U	μg/Kg								
4,4'-DDD	SW8081	61900	0.13 U	μg/Kg	93.9	63.6- 112.1			163/184	63.6- 112.1		
4,4'-DDE	SW8081	61900	0.061 U	μg/Kg	91.9	62.7- 109.2			436	62.7- 109.2		
4,4'-DDT	SW8081	61900	0.096 U	μg/Kg	92.5	70-130			244	70-130		
Dieldrin	SW8081	61900	0.040 U	μg/Kg	90.2	23.6- 137.7			120/136	23.6- 137.7	8.28	40
Endosulfan I	SW8081	61900	0.025 U	μg/Kg	92	40.5- 129.3			97.6/103	40.5- 129.3		
Endosulfan II	SW8081	61900	0.057 U	μg/Kg	94.1	23.7-147			201/220	23.7-147		
Endosulfan sulfate	SW8081	61900	0.043 U	μg/Kg	93.8	23.2- 146.6			131/145	23.2- 146.6		

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

	Method	Batch ID	Method Blank		LC	* S/LCSD or	r DUP			MS/MSI	D	
					% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Endrin	SW8081	61900	0.052 U μ	g/Kg	87.8	26.8- 137.5			154/117	26.8- 137.5	27.3	40
Endrin aldehyde	SW8081	61900	0.066 U μί	g/Kg	98.6	24.4- 152.7			228/274	24.4- 152.7		
Endrin ketone	SW8081	61900	0.080 U μί	g/Kg	91.4	24.6- 152.8			121/132	24.6- 152.8		
Heptachlor	SW8081	61900	0.039 U μί	g/Kg	88.3	58.5- 102.6			85.4/90.8	58.5- 102.6	6.14	40
Heptachlor epoxide	SW8081	61900	0.11 U μ	g/Kg	92.5	47.1- 120.8			93.3/109	47.1- 120.8		
Methoxychlor	SW8081	61900	1.0 U μ	g/Kg	97.6	23.5-166			342/405	23.5-166		
Benzene	SW8260	60935	2.6 U μ	g/Kg								
Ethylbenzene	SW8260	60935	2.8 U μ	g/Kg	112/107	65-130	4.04	40				
Toluene	SW8260	60935	2.7 U μ	g/Kg	104/101	71-130	3.15	40				
Xylenes, Total	SW8260	60935	5.1 U μ	g/Kg								

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

•		
	Pace	Analytical*
]	WWW.manishs.com

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client I	information:	Section 6			_						on C													Page	:	\perp	of .		
Company:	-	Required F		a Infor	mation:				_	Invoic Alteni	e Infon	mation;												1			1	22	7371
	nd Assessment som	<u>, </u>							_																				1311
640	8 W. Lhebugh Avo 2 33625	Сору Та:									any Ne	vne:					_			REG	ULAI	ORY	AGE	HCY					
TOMPS /	72 33625									Addre	49:									Γ	NPDE	S i	- G	ROUN	ID W	ATER [_ (RINKING	WATER
Email Tof.		Purchase (Order	No.:						Pace C	uote									Γ	UST	f	- R	CRA		ŗ	- (THER _	
Phone: 905 913 905 Requested Due	الادد Fax:	Project Nar	ma:							Pace P Manag	roject				•					Site	Loca	tion				1			
Requested Due	Date/TAT:	Project Nur	mber:						\dashv		TORIO #:								⊣		STA	1							
<u> </u>		<u> </u>				•	_								-	_	Re	عمين	and /	lneh		,	id (Y/	10	1	1			
Section D	Matrix C	odes	-			,						_	_	_		7		ı b	1. 1	1/	Τ.	T	Ť	ΪΤ	1				
Required Cite	t Information <u>MATRIX /</u>	CODE	(Net of antico Sillery east)	C=COMP)		COLL	ECTED		H			Prese	rvati	/0.5		N /.	וש	<u>Ψ</u> ν	M	<u> </u>	┸	И		Ш.					
	Orinking Water Water	WT	#	8					⋛			11			Н	ľ	- .					H,	3	1			1	1	
l I	Waste Water Product	WW P	ž	3	\$7/	POSITE ART	END/G	RAB	COLLECTION			+				ŀ	퀽.	3	9			1	3		ź		-	j	
94	SolvSolid MPLE ID SolvSolid	SL Où	3	(G=GRAB		,		· · · · · · · · · · · · · · · · · · ·		ស្ល	1	11	}		Ш	-	3 :		3	8	,	9	3		Z		- }		
"	(A-Z, 0-9 / ,-) Air	OL WP AR				ŀ			¥	豈		11		-	Ш	3	<u> </u>]/		2			X	11	į		- 1	\sim	5 6
Sample II	N MUST BE UNIQUE Tissue Other	AR TS OT	SODE	٤					蓋	ξ	9	\mathbf{H}			╢	#	4	10	13	. ا	12	9	3 3	11	ฮ็		le	1/5	のか
=	\ \frac{\sqrt{\sq}}\sqrt{\sq}}}}}}}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	Ŭ. I	×	٦		1			اوا	8	88			ଦ୍ଧୀ ହ		Š.	٦,	7	19	30	7/5		7		3]	ο,	('
TEM .			MATRIX	SAMPLE TYPE	DATE	TIME			SAME	# OF CONTAINERS	Unpreserved H.SO.	έş	夏	Methods.	Ę	Analy	4	\$\frac{1}{2}	\simeq	ઢ	10	15	21		Residuel Chlorine (Y/N)	_	L		
	W-6A			J		1020	DATE Z	TIME	H	ž	<u> </u>	╫	╬	+	H	1	7	}`		7	+	H	+	╁	+"	1=	_	O)OCT NO	J Lab I.D.
	W-87	-	4	Z	Tes	19247	100	1347	╁┤	Î	٦	╁┼	╫	+	╁┤	ŀ	#	+	Н	╌	╁┈	╁┼	+	H		-2			
3 A1	V- 64		5		18-01	0	1809	131/	Н		5	++-	╂╉	+	╁┤		* '	+,	 	+	+	H	+	╁	╫	 		9	-3
4 55	20/		5	Ħ	11.6.01	12/0	48.01		Н	3		++	┧	╅	Н	lł	+	╌┼┸	╀┤	7	+	${}$	+-	╂╼╂	+	-4			
1 55	208		2	H	460	020	10-1		╁╌┨		2	++	╫	+	Н	1	+	╫	Н	~~	4•	1	7	╂╌╂	╁	+-7		-5	-10
, 35	140		7	2	809		 	 	Н	<u> </u>	วิ	+ +	╂┪	+	+	.	+	╁	Н	╅	╁	-	$i\vdash$	╀╌╂	╁	┼	$\overline{}$		
7 55	191		Ź		_	235	†	 	Н	-	2	++	╁	-+-	Н	lł	+	┿	Н	+	┿	1	-	╁┼	┿	╂		-11 -12	-le -7
. 55	153		<u>sz</u>	2	V.Co	1240	 	 			ے	++	++	+	Н	ŀ	\dashv	╁	╁┼	┰	╅	 / '	+	H	╅	╅┈		- (x	
9	1,12	f	_	-	1.4.1	1270	 			<u>-</u>		╁┼	╂┤	+	Н	ŀ	+	+	\vdash	+	+	 ┸┼	4	+	╁	┼	+	~ X	~13
10			_	┤┤		 	 	 	H		\vdash	╁┼	╫	+	╂╌┨	ŀ	十	+	\vdash	╁	+	H	+-	┤ ┤	╁	╁—	\dashv		
11	-			Н		 		<u> </u>	Н		╁	╁┼	╁┪	+	Н	ŀŀ	╅	╅┈	 	+	+	H	╁	╂╌╂	╀	╁	-		
12			-	\vdash		1	<u> </u>	 	╁		\vdash	++	╁	+	H		-+	+	┥	+	+	\vdash	+	╁┼	+	╁──-			
	ADDITIONAL COMMENTS		86		MANEO RY	/ AFFILIATI	004	DATE	╎┤┤			╁┷		ACCE			AFF	MULO	<u></u>	╅	DATI		TIME	-			<u> </u>	CONDITIO	
		+	$\overline{}$	_					-			+						7		٠				-				CONTO	
	F. M. Contraction	Z	2	X.	י ע	ACA	-	27-24	·09		500	ا ر	7	<u>./.</u>	<u> </u>	-			۸		7	-	16	_		↓	┵		
		121	٠/د	<u> 2</u>				4.8-	1 4	<u>H</u>	40	1776	W)	<u>Ų</u>	₽	الا	X	<u> 200</u>	يل	1	18	9	44	D					
•		Don	SO	بز	Ŋ	ans	ماه	490	7	09	w		سيسا	> <i>[</i> _	Æ	1	11	a) T2	191	9	///		7.7		T		
		U				,														丁		1		_		 	\top		
<u> </u>						SAMPLE	R NAME A	MD SIGNA	TURE	:		'					_					!_		-	ب	8 _	+	<u> </u>	intact
		OHIC	NIÉ	AL			PRINT Ner	ne of SAMP	LER:													_		\dashv	. <u>.</u>	S gg	<u>\$</u>	CYN)	poles into
							SIGNATUI	RE of BAMP	LER:							П		E Sign				_		\exists	Temp in	Received or Ice (Y/N)	8	See S	75 E
*Impo	turn Note: By signing this form you are accept	ing Pace's NE	T 30 c	day pay	meni terme	and agreeing	to late charge	s of 1.5% per	month	for en)	involce	a not più	Lwihin	30 day	ys.	_	1			_					F-ALL	1		15-May-2	

March 19, 2009

Mr. Rick Reynolds Land Assessment Services, Inc. 6408 W. Linebaugh Avenue Suite 104 Tampa, FL 33625

RE: Cone Property GW Order No.: F09030494

Dear Mr. Rick Reynolds:

Pace Analytical Services, Inc received 5 samples on 3/12/2009 11:45:00 AM for the analyses presented in the following report. The results included in this report relate only to the samples received.

Analyses are performed with method-required calibration and QA/QC samples, whenever applicable. Method performance, which is based on the calibration and QA/QC data, establishes the validity and certainty of the reported sample results. These data are provided along with the sample results.

Thank you for this opportunity to let Pace Analytical Services, Inc. (Florida) be of service to you. NELAP certification #E83079. If you have any questions regarding this report, please feel free to call me, Joe Vondrick, at (386) 672-5668, extension 4809 or (386) 676-4809.

Sincerely,

Project Manager

Pace Analytical Services, Inc.

P.O. Box 468

Ormond Beach, FL 32175-0468

The test results in this report meet the requirements of the 2003 NELAC standards unless otherwise noted.

The following acronyms may be utilized within this report:

%REC Percent Recovery

A Absent

ABLK Analytical Method Blank CG Confluent Growth

CGB Confluent Growth Without Coliforms
CGC Confluent Growth With Coliforms

DUP Sample Duplicate
dw Dry Weight
kg Kilograms
L Liter

LCS Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)

MBLK Preparation Method Blank

MDL Laboratory Method Detection Limit

mg Milligrams Milliliter

MS Matrix Spike (may also be appended with an abbreviation indicating spiking level)

MSD Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)

P Present

PQL Practical Quantitation Limit

QCS Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some a

RL Reporting Limit

RPD Relative Percent Difference

SPK Spike

SUB Indicates subcontracted analytical results

TIC Tentatively Identified Compound

TNTC Too Numerous To Count

ug Micrograms

Case Narrative

CLIENT: Land Assessment Services, Inc.

Project: Cone Property GW

Lab Order: F09030494

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. All sample containers received for this report were collected by either the client or an agent of the client.

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report.

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report.

Date: 19-Mar-09

CLIENT: Land Assessment Services, Inc. Client Sample ID: MW-19

Project: Cone Property GW Sample Description:

Lab ID: F09030494-001 Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prep	Date: 3/16	/2009 8:48:00 A		Analyst: TPI	
Arsenic	BDL		0.0050	0.010	mg/L	1	03/17/09 18:37	60097
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prep	Date: 3/13	/2009 10:20:00		Analyst: CL	
Aldrin	BDL		0.00048	0.0096	μg/L	1	03/14/09 20:47	60083
alpha-BHC	BDL		0.00029	0.0096	μg/L	1	03/14/09 20:47	60083
beta-BHC	BDL		0.00048	0.0096	μg/L	1	03/14/09 20:47	60083
delta-BHC	BDL		0.00038	0.0096	μg/L	1	03/14/09 20:47	60083
gamma-BHC	BDL		0.00019	0.0096	μg/L	1	03/14/09 20:47	60083
alpha-Chlordane	BDL		0.0012	0.0096	μg/L	1	03/14/09 20:47	60083
gamma-Chlordane	BDL		0.0015	0.0096	μg/L	1	03/14/09 20:47	60083
Chlordane	BDL		0.077	0.48	μg/L	1	03/14/09 20:47	60083
4,4'-DDD	BDL		0.0018	0.0096	μg/L	1	03/14/09 20:47	60083
4,4'-DDE	BDL		0.00086	0.0096	μg/L	1	03/14/09 20:47	60083
4,4'-DDT	BDL		0.0035	0.0096	μg/L	1	03/14/09 20:47	60083
Dieldrin	BDL		0.00048	0.0096	μg/L	1	03/14/09 20:47	60083
Endosulfan I	BDL		0.00067	0.0096	μg/L	1	03/14/09 20:47	60083
Endosulfan II	BDL		0.00067	0.0096	μg/L	1	03/14/09 20:47	60083
Endosulfan sulfate	BDL		0.00058	0.0096	μg/L	1	03/14/09 20:47	60083
Endrin	BDL		0.0016	0.0096	μg/L	1	03/14/09 20:47	60083
Endrin aldehyde	BDL		0.0068	0.0096	μg/L	1	03/14/09 20:47	60083
Endrin ketone	BDL		0.0011	0.0096	μg/L	1	03/14/09 20:47	60083
Heptachlor	BDL		0.0014	0.0096	μg/L	1	03/14/09 20:47	60083
Heptachlor epoxide	BDL		0.00038	0.0096	μg/L	1	03/14/09 20:47	60083
Methoxychlor	BDL		0.0067	0.0096	μg/L	1	03/14/09 20:47	60083
Toxaphene	BDL		0.27	0.48	μg/L	1	03/14/09 20:47	60083
Surr: Decachlorobiphenyl	79.0		0	20-155	%REC	1	03/14/09 20:47	60083
Surr: Tetrachloro-m-xylene	84.9		0	20-155	%REC	1	03/14/09 20:47	60083

Data Qualifier Code Key: Analyte detected below quantitation limits

Date: 19-Mar-09

CLIENT: Land Assessment Services, Inc. Client Sample ID: MW-1

Lab Order: F09030494 **Collection Date:** 3/11/2009 11:56:00 AM

Project: Cone Property GW Sample Description:

Lab ID: F09030494-002 Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prep	Date: 3/16	/2009 8:48:00 A		Analyst: TPI	
Arsenic	BDL		0.0050	0.010	mg/L	1	03/17/09 18:40	60097
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prep	Date: 3/13	/2009 10:20:00		Analyst: CL	
Aldrin	BDL		0.00048	0.0095	μg/L	1	03/14/09 21:04	60083
alpha-BHC	BDL		0.00029	0.0095	μg/L	1	03/14/09 21:04	60083
beta-BHC	BDL		0.00048	0.0095	μg/L	1	03/14/09 21:04	60083
delta-BHC	BDL		0.00038	0.0095	μg/L	1	03/14/09 21:04	60083
gamma-BHC	BDL		0.00019	0.0095	μg/L	1	03/14/09 21:04	60083
alpha-Chlordane	BDL		0.0012	0.0095	μg/L	1	03/14/09 21:04	60083
gamma-Chlordane	BDL		0.0015	0.0095	μg/L	1	03/14/09 21:04	60083
Chlordane	BDL		0.076	0.48	μg/L	1	03/14/09 21:04	60083
4,4'-DDD	0.0071	1	0.0018	0.0095	μg/L	1	03/14/09 21:04	60083
4,4'-DDE	BDL		0.00086	0.0095	μg/L	1	03/14/09 21:04	60083
4,4'-DDT	0.025		0.0034	0.0095	μg/L	1	03/14/09 21:04	60083
Dieldrin	BDL		0.00048	0.0095	μg/L	1	03/14/09 21:04	60083
Endosulfan I	BDL		0.00067	0.0095	μg/L	1	03/14/09 21:04	60083
Endosulfan II	BDL		0.00067	0.0095	μg/L	1	03/14/09 21:04	60083
Endosulfan sulfate	BDL		0.00057	0.0095	μg/L	1	03/14/09 21:04	60083
Endrin	BDL		0.0016	0.0095	μg/L	1	03/14/09 21:04	60083
Endrin aldehyde	BDL		0.0068	0.0095	μg/L	1	03/14/09 21:04	60083
Endrin ketone	BDL		0.0010	0.0095	μg/L	1	03/14/09 21:04	60083
Heptachlor	BDL		0.0014	0.0095	μg/L	1	03/14/09 21:04	60083
Heptachlor epoxide	BDL		0.00038	0.0095	μg/L	1	03/14/09 21:04	60083
Methoxychlor	BDL		0.0067	0.0095	μg/L	1	03/14/09 21:04	60083
Toxaphene	BDL		0.27	0.48	μg/L	1	03/14/09 21:04	60083
Surr: Decachlorobiphenyl	90.1		0	20-155	%REC	1	03/14/09 21:04	60083
Surr: Tetrachloro-m-xylene	85.8		0	20-155	%REC	1	03/14/09 21:04	60083

Data Qualifier Code Key: Analyte detected below quantitation limits

Date: 19-Mar-09

CLIENT: Land Assessment Services, Inc. Client Sample ID: MW-15

Project: Cone Property GW Sample Description:

Lab ID: F09030494-003 Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS		SW6010	Prep	Date: 3/16	/2009 8:48:00 A		Analyst: TPI	
Arsenic	BDL		0.0050	0.010	mg/L	1	03/17/09 18:44	60097
8081: PESTICIDES, ORGANOCHLORINE		SW8081	Prep	Date: 3/13	/2009 10:20:00		Analyst: CL	
Aldrin	BDL		0.00048	0.0096	μg/L	1	03/14/09 21:21	60083
alpha-BHC	BDL		0.00029	0.0096	μg/L	1	03/14/09 21:21	60083
beta-BHC	BDL		0.00048	0.0096	μg/L	1	03/14/09 21:21	60083
delta-BHC	BDL		0.00038	0.0096	μg/L	1	03/14/09 21:21	60083
gamma-BHC	BDL		0.00019	0.0096	μg/L	1	03/14/09 21:21	60083
alpha-Chlordane	BDL		0.0012	0.0096	μg/L	1	03/14/09 21:21	60083
gamma-Chlordane	BDL		0.0015	0.0096	μg/L	1	03/14/09 21:21	60083
Chlordane	BDL		0.077	0.48	μg/L	1	03/14/09 21:21	60083
4,4'-DDD	BDL		0.0018	0.0096	μg/L	1	03/14/09 21:21	60083
4,4'-DDE	BDL		0.00086	0.0096	μg/L	1	03/14/09 21:21	60083
4,4'-DDT	BDL		0.0035	0.0096	μg/L	1	03/14/09 21:21	60083
Dieldrin	BDL		0.00048	0.0096	μg/L	1	03/14/09 21:21	60083
Endosulfan I	0.0022	1	0.00067	0.0096	μg/L	1	03/14/09 21:21	60083
Endosulfan II	BDL		0.00067	0.0096	μg/L	1	03/14/09 21:21	60083
Endosulfan sulfate	BDL		0.00058	0.0096	μg/L	1	03/14/09 21:21	60083
Endrin	BDL		0.0016	0.0096	μg/L	1	03/14/09 21:21	60083
Endrin aldehyde	BDL		0.0068	0.0096	μg/L	1	03/14/09 21:21	60083
Endrin ketone	BDL		0.0011	0.0096	μg/L	1	03/14/09 21:21	60083
Heptachlor	BDL		0.0014	0.0096	μg/L	1	03/14/09 21:21	60083
Heptachlor epoxide	BDL		0.00038	0.0096	μg/L	1	03/14/09 21:21	60083
Methoxychlor	BDL		0.0067	0.0096	μg/L	1	03/14/09 21:21	60083
Toxaphene	BDL		0.27	0.48	μg/L	1	03/14/09 21:21	60083
Surr: Decachlorobiphenyl	96.3		0	20-155	%REC	1	03/14/09 21:21	60083
Surr: Tetrachloro-m-xylene	89.1		0	20-155	%REC	1	03/14/09 21:21	60083

Data Qualifier Code Key: Analyte detected below quantitation limits

Date: 19-Mar-09

CLIENT: Land Assessment Services, Inc. Client Sample ID: MW-4

Lab Order: F09030494 **Collection Date:** 3/11/2009 2:08:00 PM

Project: Cone Property GW Sample Description:

Lab ID: F09030494-004 Matrix: Groundwater

Analyses	Result	Qual	MDL	PQL Units	DF Date Analyzed	Batch ID
ICP METALS		SW6010	PrepD	ate: 3/17/2009 8:05:00 A	Analyst: TPI	
Arsenic	BDL		0.0050	0.010 mg/L	1 03/17/09 21:22	60106
ICP METALS (DISSOLVED)		SW6010	PrepD	ate: 3/16/2009 8:48:00 A	Analyst: TPI	
Arsenic	BDL		0.0050	0.010 mg/L	1 03/17/09 18:48	60097

Client Sample ID: MW-3

Date: 19-Mar-09

CLIENT: Land Assessment Services, Inc.

Lab Order: F09030494 **Collection Date:** 3/11/2009 2:42:00 PM

Project: Cone Property GW Sample Description:

Lab ID: F09030494-005 Matrix: Groundwater

Analyses	Result Qual	MDL PQL Units	DF Date Analyzed	Batch ID
ICP METALS	SW601	0 PrepDate: 3/17/2009 8:05:00 A	Analyst: TPI	
Arsenic	BDL	0.0050 0.010 mg/L	1 03/17/09 21:26	60106
ICP METALS (DISSOLVED)	SW601	0 PrepDate: 3/16/2009 8:48:00 A	Analyst: TPI	
Arsenic	BDL	0.0050 0.010 mg/L	1 03/17/09 18:51	60097

Date: 03/19/2009

QC Summary

	Method	Batch ID	Metho Blank		LC	* S/LCSD o	r DUP			MS/MS	D	
					% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit
Arsenic	SW6010 SW6010 SW6010 SW6010	60097 60097 60097 60097	5.0 U 5.0 U	μg/L μg/L μg/L μg/L	108 108 108 108	80-120 80-120 80-120 80-120			109/108 109/108 109/108	75-125 75-125 75-125	1.08 1.08 1.08	20 20 20
Arsenic	SW6010	60106	5.0 U	μg/L	108	80-120			109/109	75-125	0	20

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL

	Method	Batch ID	Metho Blank		LC	* S/LCSD of	r DUP		MS/MSD				
					% Recovery	Control Limits	RPD	RPD Limit	% Recovery	Control Limits	RPD	RPD Limit	
Aldrin	SW8081	60083	0.00050 U	μg/L	90.8	10-125			94.8/95.4	10-125	0.472	40	
alpha-BHC	SW8081	60083	0.00030 U	μg/L									
beta-BHC	SW8081	60083	0.00050 U	μg/L									
delta-BHC	SW8081	60083	0.00040 U	μg/L									
gamma-BHC	SW8081	60083	0.00020 U	μg/L	91.6	10-144			91.2/90.5	10-144	0.82	40	
alpha-Chlordane	SW8081	60083	0.0013 U	μg/L									
gamma-Chlordane	SW8081	60083	0.0016 U	μg/L									
Chlordane	SW8081	60083	0.080 U	μg/L									
4,4'-DDD	SW8081	60083	0.0019 U	μg/L									
4,4'-DDE	SW8081	60083	0.00090 U	μg/L									
4,4'-DDT	SW8081	60083	0.0036 U	μg/L	97.5	10-183			98/97.8	10-183	0.37	40	
Dieldrin	SW8081	60083	0.00050 U	μg/L	97.1	10-141			96.2/96	10-141	0.24	40	
Endosulfan I	SW8081	60083	0.00070 U	μg/L									
Endosulfan II	SW8081	60083	0.00070 U	μg/L									
Endosulfan sulfate	SW8081	60083	0.00060 U	μg/L									
Endrin	SW8081	60083	0.0017 U	μg/L	94.9	10-182			93.8/94.4	10-182	0.584	40	
Endrin aldehyde	SW8081	60083	0.0071 U	μg/L									
Endrin ketone	SW8081	60083	0.0011 U	μg/L									
Heptachlor	SW8081	60083	0.0015 U	μg/L	91.9	10-179			94.6/95.6	10-179	0.963	40	
Heptachlor epoxide	SW8081	60083	0.00040 U	μg/L									
Methoxychlor	SW8081	60083	0.0070 U	μg/L									
Toxaphene	SW8081	60083	0.28 U	μg/L									

^{*} An LCSD is performed if required by the method or if there is insufficient sample volume available to perform batch matrix spikes.

I Analyte detected below quantitation limits

U Not Detected Above the MDL



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

F09030494 LANASS

	tion A	6		Section									on C										•	>	Pag	je:	/	of		İ
	ulred Client In pany: / /	LC Land 45	ressinent	Required Report To		untor	mation:						e Inforr	mation	:							1						100	140	40
		5 Servi	Çe)		•		_					Attent																122	49	42.
موم		1. Liheburgh	Aug 104	Copy To:								Comp	any Na	me:								REG	ULATOR	Y AC	ENC		are assisted	AZANGA TUGU T METAK YALAG	a en si casa. La comoca Ven	an alexandr
	ampa,	FL 3362	5								1	Addre	88:									T	NPDES	Γ	GROU	ND WAT	ER 🦵	DRINKI	NG WA	rer
Ema	il To: lan	dassessmentse	over con	Purchase	Order	No.:						Pace C Refere											UST	Γ	RCRA		Г	OTHER		
P39	ne: 3 <i>1908</i> -		108.3588	Project Na	me:						T	Pace F Manag	roject									Site	Location				in the		100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Req	uested Due (Project Nu	mber:								Profile #:	-									STATE:	_				No. of		A* +
—			u												-			1 4 4 4	ay R	Reque	sted	<u>I</u> Analy	sis Filte	red (Y/N)			Parks.		. :
	Section D	"	Matrix C	odes	-	~					T							N.	Ī, ,	VΪ	T	П	TT	П	Ţ	П		1.44		
	Required Clier	t Information	MATRIX /	CODE	100 100 100 100 100 100 100 100 100 100	OMP		COLLI	ECTED		ı		,	Pres	ervat	ives		Σ	۳	1		1-1-	<u> </u>		\perp			rudik T		
			Drinking Wate Water	WT	(see valid codes to laft)	C=COMP)	COMP	ORITE	СОМРО	serre	2					11			ĺ											
l			Waste Water Product	WW P	valid	(G=GRAB	STA	RT	END/G	RAB	COLLECTION							\ ; ;) \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						ΙÍ	ĺ	(N/K)				
	SA	MPLE ID	Soil/Solid Oil	SL OL	\$96 \$96	G=G		1		, 	3	RS			İ	1 1	-		1							C				
		A-Z, 0-9 / ,-)	Wipe Air	WP AR TS	CODE						7. 4	# OF CONTAINERS	الحا					Test 4				11	11			Residual Chlorine				
	Sample IL	S MUST BE UNIQUE	Tissue Other	OT	8	SAMPLE TYPE					E S)NT,	Š		ŀ	6	핗	9		╽┞						흐				
ITEM #					MATRIX	PE					1	FC	e o	ြို	ᅵᆽ	S ₂ 0	티	Ę	45	١	200					jdne				
Ξ					¥	SAR	DATE	TIME	DATE:	TIME	Š.	#	Unpreserved H ₂ SO,	볼	밁	Ę	Methanol	3	1	4	ĕ					a Se	Pace	e Project	No./ La	ıb I.D.
1	17W-	19			νŢ		3-11	1040	3-1/	1045	T,	3	コ	Π		П		4.3	1	,	2									
2	MW-	1			WT		3-11	1150	3-11	1156		3	a	\prod	Τ.	\Box			T		<u> </u>		1-1-	П						
3	MW-	15			wT		3-11	1230	3-11	1237			a	11					1	ĺ	2				1					
4	MW-	4			ut		3-11	1400	3-//	1408	1	ヹ		2		П			1	7			\top	П					•	• • •
5	MW-3	3			Ĭ		3-11	1440	3-11	1442		کر ک		2				55. A-15.	I	1										
6																		1 (A)												
7																		Ale No												
8														Ш		Ш	\perp		L											
9											_			Ш		Ш			<u></u>											
10						Ш		1			4	` .		\coprod		Ш	\perp		L	Ш	\bot		$\perp \perp$			\Box				
11						Ш					4			\coprod	\perp	Ш	\perp		L	Щ	\perp	Ш	$\bot \bot$	Ш		\Box				
12				1 .				Village Conferen		The second of the second	5 4 5	- X.3 F 120										Щ								
	,	DDITIONAL COMMEN	កទ		REL	INQU	ISHED BY	/ AFFILIATI		DATE		्रा	ME			ACC	EPTE	D BY	/ AF	FILIAT	ION		DATE	Т	IME		SAM	PLE COND	TIONS	
				f	ჯ⁄ i	X		CONTA	nom.	3-4-0	_	16	نِه	18	· '	A	2					و ا	3401	160	00					
					2		2			3-11-0	, [3 7		A	N	عند	~~	to	M4	(10		lula		3 7					••
				† ****************	· ·	Q	6.)	00		3-12-d	, †	-	-w	C				ر سرچ		<u> </u>	<u> </u>		7. /	_	45	31		 	†	
				+		عرب	~\ <u>~</u>			21604	\dashv	<u> </u>		+3		4	5	7				- 7	vi pg	1//	71	2/	-	-	 	
<u> </u>								CAMPIE	B NAME A	ND SIGNATU		200		TATE OF	E (294)(2)	NACTOR	Skild ((31,145).	4.000	(page V	V4.5-1	Taran da	AARAN	<u> </u>					<u> </u>	#
				ORIG	alN	41		PARTICIPATE PROPERTY	200-200-200000	(disselled in policies of)	450					11,46				(Marie	2)\e2jia	i je koji Grajići Videolovija		an Pig		ပ္ 5. 1	Received on Ice	Custody Sealed Cooler (Y/N)		Intaci
				J						ne of SAMPLE									l p	ATE EL	anod					Temp in °		See College		وَيُّ
									SIGNATUI	RE of SAMPLE	R:									ATE SI						F Q	& =	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Sal



APPENDIX B - WELL INSTALLATION, DEVELOPMENT AND BORING LOGS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA											
Well Number: Site Name: PARRISH ,	FDEP Facility I.D. Number: Well Install Date(s):										
MW- CONE PROPERTY PLANTATION	3-10-09										
Well Location and Type (check appropriate boxes): Well Purpose: Perched Moni	toring Well Install Method:										
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	r-Table) Monitoring How STEM										
	or Deep Monitoring										
Above Grade (AG) Flush-to-Grade Remediation of	or Other (describe)										
IF AG, list feet of riser above land surface:											
Borehole Depth Well Depth Borehole Diameter Manhole Diameter	Well Pad Size:										
(feet): 15 (inches): 8 (inches):	2 feet by 2 feet										
Riser Diameter and Material: Riser/Screen K Flush-Threaded	Riser Length: 5 feet										
2-INCH PVC Connections: Other (describe)	from O feet to 5 feet										
Screen Diameter and Material: Screen Slot Size:	Screen Length: 10 feet										
2-INCH PVC 0.010 - INCH from 5 feet to 15 feet											
1st Surface Casing Material: 1st Surface Casing L.D. (inches): 1st Surface Casing Length: feet											
also check: Permanent Temporary	from 0 feet to feet										
2 nd Surface Casing Material: 2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length:feet										
also check: Permanent Temporary	from 0 feet tofcet										
3 rd Surface Casing Material: 3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length:feet										
also check: Permanent Temporary	from 0 feet to feet										
Filter Pack Material and Size: Prepacked Filter Around Screen (check one):	Filter Pack Length: [1] feet										
20/30 SILICA SAND TYES X NO	from 4 feet to 15 feet.										
Filter Pack Seal Material and	Filter Pack Seal Length: feet										
Size: 30/65 SAND	from 3 feet to 4 feet										
Surface Scal Material:	Surface Seal Length: 6-5 feet										
CONCRETE	from O feet to 0.5 feet										
WELL DEVELOPMEN	ГДАТА										
Well Development Date: Well Development Method (check one):	Surge/Pump Pump Compressed Air										
2_11_09 [Other (describe)											
Development Pump Type (check): Centrifugal Peristaltic Depth to	Groundwater (before developing in feet):										
Submersible Cother (describe)	12.51 T.O.P.										
Pumping Rate (gallons per minute): Maximum Drawdown of Groundwat	er During Well Purged Dry (check one): Yes No										
1. (a Development (feet): 1.5											
I militing condition (officers offs).	ment Duration Development Water Drummed (check one): Yes No										
Continuous Intermittent Removed (gallons): 35 (minutes	ppearance (color and odor) At End of Development:										
Water Appearance (color and color)											
MILKY NONE	CLEAR / NONE										
WELL CONSTRUCTION OR DEVE	LOPMENT REMARKS										
Lo+,											
Luny.											
, and the second											

BORING LOG

								2014 - April -				elot_	Cont.
Boring	/Well N	umber				Permit N	Number: 🗸	782510/200	00 0-0	FDEP Facilit	y Ident	ificatio	n Number:
	MA	V-1								e-manuata-co	estilistica.		_
Site Na	ime: Co	NE	PROPE	ety/	ĺ	Borehol		te: 3-10-09	Borehole Start		00	Γ A	
PARR	USH F	DUAN	TATIO	N				te: 3-10 - 09	End 7		30	l A	and Asserted
IDALT	nmental					Geologi	st's Name	:		Environment ERIC			s Name:
Drillin	a Comp	MEN	T SERI	ICES	Paveme	nt Thick	ness (incl	nes): Borehole Dian	neter (inches):			Depth (1	feet):
moen	g Comp	ally.	ING IT		i a venire			8	(4)			5	
Drillin	g Metho	od(s):	100,11	Apparent	Borehol	e DTW (in feet	Measured Well DTV	And a second of the second	OVA (list mo	odel an		100 m 100 m
H	SA			from so	l moistu	re conten	it):	water recharges in	well): 2.				FID T PID
Dispos	sition of	Drill C	Cuttings [c	check me	ethod(s)]:	ΓD	rum 🔀 Spread	☐ Backfill	Stock	pile	Γ	Other
(descri	ibe if oti	ier or r	nultiple it	ems are	checked	l):					استوابيانا	31	
Boreho	ole Com	pletion	(check o	ne):	X	Well	┌ Grou	at F Bentonite	☐ Backfi	II F	ther (c	lescribe)
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	(include grain size ba	e Description sed on USCS, odd ther remarks)	ors, staining,	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							1	DRK. BRN.	F-SA.		So	D	
							2		AND THE PROPERTY OF THE PROPER		58-500		
							3	BRN. F.	SA.				
							4					WESTERSON	
							5					CT PERSONNELLE SERVICE	
							6					Accessor of the Control of the Contr	
							_ 7	Andrew Control					
							8	LGT. Bei	V :F.SA.		The second secon	1	
							9				STATUTAL PROPERTY OF THE STATE	M	-
							10						
							11	N	<i>y</i> `			W	
A	1			1	1		12				V		

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

	0
Page 2 of	2

											e 2 of	
	z/Well N			FDEP F	acility I	dentifica	ation Num		orchole S	Start D	ate: 3	-10 - 09
	MM							PARRISH PLANTATION	I	end Da		10-09
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, sta and other remarks)		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
De							13 14	LGT. BRN. F.SA.		Spism	S	
1		-					15					
							16	T.O.B. @ 15.	0'			
							18					
							20					
							21					
							22					
							2					
								7				
								28				
								30				•

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

DEP Form#	62-522.900(3)
Form Title M	ONITOR WELL COMPLETION REPORT
Effective Dat	e
DEP Applica	tion No
	(Filled in by DEP)

Florida Department of Environmental Protection Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITOR WELL COMPLETION REPORT

DATE: 3-10-09
INSTALLATION NAME: CONE PROPERTY PARISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: WELL NAME: MW-I
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE: N 27° 35' 6.2" W 82° 25' 27.3"
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HOLLOW STEM AUGERS
INSTALLED BY: MORTENSEN ENGINEERING, INC. (MEI)
TOTAL DEPTH: 15 FEET DEPTH OF SCREEN: 5-15 FEET (bls)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: .010 - INCH SCREEN TYPE: PVC
CASING DIAMETER: 2-INCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL):
GROUND SURFACE ELEVATION (MSL): +9.30
COMPLETION DATE: 3-10-09
DESCRIBE WELL DEVELOPMENT: USING ELECTRIC SUBMERSIBLE PUMP, PUMPED 35 GALLONS
IN 22 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL):
DATE AND TIME MEASURED:
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: CARY RICHARDSON MEI (813) 908 - 5555 (name, company, phone number)
manie, company, priorie number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface

WELL CONSTRUCTION AND DEVELOPMENT LOG

		WI	ELL C	CONSTRUC	TION I	JATA					
	Site Name	e:	1 PA	RRISH		FDEP Facility	I.D. Numbe		ell Install D		
MW-6A	ONE P	DOPERTY		PLANTATIO	N				3-10		
Well Location and Type (check at			Well Pur	rpose: Pero					tall Metho		
	Right-of-V	₩ay				-Table) Monit	OW ST AUGER				
Off-Site Private Property					Intermediate of Deep Monitoring						
	Flush-ta-C			i Ren	nediation or	ediation or Other (describe)					
FAG, list feet of riser above land sur		BFEET	<u> </u>	1 							
Borehole Depth Well De				Manhole Diamo	Charles and Charle	Well Pad Size	: 2feet	has de	2 feet		
feet): 5 (feet):				(inches):				by	legt		
Riser Diameter and Material:	100000000000000000000000000000000000000		100 miles	-Threaded		Riser Length:	-	feet	-		
2-INCH PVC		nnections:	Othe	r_(describe)			om O		<u> </u>	feet	
Screen Diameter and Material:	(10)	William Company	Contract Con	Slat Size:		Screen Length	1: <u>10</u>				
2-INCH PVC			0.0	NI-010	CH	fr	om <u>5</u>	feet to	<u>. 15</u>	feet	
1st Surface Casing Material:			1st Surf	ace Casing I.D. ((inches):	I st Surface Ca	sing Length	ı: <u> </u>	feet		
also check: Permanent	Гт	emporary				l Gr	om <u>0</u>	feet to	o	feet	
2 nd Surface Casing Material:			2 nd Sur	face Casing I.D.	(inches):	2 nd Surface C	asing Lengt	h:	feet		
also check: Permanent	Гτ	emporary			X 10 sta	fr	om 0	feet t	.0	feet	
			3rd Sur	face Casing I.D.	(inches):	3 rd Surface C	asing Lengt	h:	feet		
3rd Surface Casing Material: also check: Permanent	Гт	emporary		1465 000	(om 0	feet t	to	feet	
			ound Scr	een (check one):	:	Filter Pack L	ength:		// feet		
20/30 SILICA SAND	T Y		X			- 3	rom 4		- Interest of the second	feet .	
Filter Pack Seal Material and	1		- / \			Filter Pack S			/ feet		
May approximate contraction and approximate and a second s		Conit	~				rom 3		100		
30/05 31	LICA	Shirt	<u>)</u>			Surface Seal			0.5 feet		
Surface Scal Material:	100					W1 104 104 80 104 104 104	rom O	10	A CONTRACTOR OF THE PERSON OF		
U	ONCK	ZETE					TOILI			Z	
Local-photological and the second sec		MARKET TO SERVICE STATE OF THE									
A TOTAL DE LA COSTA A	N0000	1	WELL	DEVELO	PMENT	DATA					
Well Development Date: 3-17-09)		velopmer .her (desc				41520-33	Pump	S -580	apressed Air	
Development Pump Type (che		Centrifug	ml 「	Peristaltic	Depth to G	iroundwater (b			ect):		
Submersible Other (de		7/				6.16					
Pumping Rate (gallons per mi	nute):			Drawdown of G		D DESCRIPTION OF COMME	Well Purge	d Dry (ch			
0.6	2000 - 2000 - 1100 - 10	D	evelopm	ent (fect):	11.2		☐ Yes		⋉ No		
Pumping Condition (check or	1e):	Total Develo	pment V	√ater		ent Duration	Developme				
Continuous Intermi		Removed (ga		7.5	(minutes):		(check one		Yes	▼ No	
Water Appearance (color and	odor) A	t Start of De	velopmo	nt:	Water App	pearance (colo			f Developn	nent:	
DRK. BRN.	1	ONE				BRN.	Noi	VE			
214. 1244.		OCCUPATION TO STATE OF THE PARTY OF THE PART				13011-13-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1					
-	TE/ET	T CONS	TOIL	CTION OR	DEVEL	OPMENT	REMA	RKS	Harris Carpes -		
	WEL	L CUNG	INU	JIION OIL	DUTEL	/OX III					
Lot											
Lung.			*			•					

BORING LOG

											Pag	elof_	
Boring	/Well N	lumber				Permit 1	Number:	1	***	FDEP Facilit	y Ident	tificatio	on Number:
		22	-LeA					508/2009-					
Site N	aine:					Borehol	le Start Da	ate: 3-10-09	Borehole Start	Γime: 10:00)	IX A	м Грм
الک			1 PLAN	MATIO	N		End Da	ite: 3-10-09	End T	Time: 11:00	_	X A	
Enviro	nmenta					Geolog	ist's Name	e:		Environment			's Name:
AS	SESSM		SERVI	ICES	Davema	nt Thic	cness (incl	hes): Borehole Dian	neter (inches)	ERIC		Depth (feet):
MOST	g Comp	any:	C. Thu		raveme	III THICK	- 711699 (1110)	nes): Borenoie Dian	. 27 22	1501	15		1001).
Drillin	g Meth	od(s):	G, INC	Apparen	t Borchol	le DTW ((in feet	Measured Well DTV		OVA (list mo		d check	NEW WILLIAM TO THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN C
H	SA			from so	oil moistu	re conter		water recharges in				The second	FID FID
Dispo	sition of	Drill (Cuttings [c	check m	ethod(s)]:	ΓD	rum 🔀 Spread	☐ Backfill	☐ Stock	pile	Г	Other
(descr	ibe if ot	her or i	multiple it	tems are	checked	<i>l):</i>							
Boreh	ole Com	pletion	n (check o	ine):	X	Well	┌ Gro	ut	☐ Backfil	п Го	ther (d	lescribe	e)
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	(include grain size ba	e Description sed on USCS, odd ther remarks)	ors, staining,	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
В -							1	BLACK SA	MUCK MUCK	ANIC	PT	D	
THE RESIDENCE OF THE PROPERTY							2 3 4 5	GRY-BRN TO SL.	. SILTY CUAYEY F	FSA-	1 SM-SC	1 M 1	
							6 7	1,000	F.SA.	GRAINS	SP-SM	W	
							9 10					1	~
V							12		•				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

	Page 2 of
Boring/Well Number: MW-CeA	FDEP Facility Identification Number: Site Name: PARKISH Borchole Start Date: 3-10-09 End Date: 3-10-09
S S S	Unfiltered OVA Very Correct OVA Unfiltered OVA Unifiltered OVA Very Correct OVA Unifiltered OVA Very Correct OVA Lab Soil an Groundwate Samples (liss samples content temporary screen interval)
DC	GRY-BEN. SL. CLAYEY SM S F. SA - SC V

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

DEP Form # 62-522	2.900(3)
Form Title MONITO	R WELL COMPLETION REPORT
Effective Date	
DEP Application No	
	(Filled in by DEP)

MONITOR WELL COMPLETION REPORT

DATE: 3-10-09
INSTALLATION NAME: CONE PROPERTY PARRISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW- 6A WELL NAME: MW- 6A
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE: N 27° 35' 3.4" W 82° 24' 38.6
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HOLLOW STEM AUGERS
INSTALLED BY: MORTENSEN ENGINEERING, INC
TOTAL DEPTH: 15 FEET DEPTH OF SCREEN: 5-15 FEET (bls)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: ,010 - INCH SCREEN TYPE: PVC
CASING DIAMETER: 2-INCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL): + 8.66
GROUND SURFACE ELEVATION (MSL): + 5.87
COMPLETION DATE: 3-10-09
DESCRIBE WELL DEVELOPMENT: USING SUBMERSIBLE PUMP, PUMPED 7.5 GALLONS IN 13 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL): +2.57
DATE AND TIME MEASURED: 3-19-09 1125
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: CARY RICHARDSON ME I (813) 908 - 5555
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

W	ELL CONSTRUCTION	ON DATA						
Well Number: Site Name:	/ PARRISH	FDEP Facility I.D. Number						
MW-6B CONE PROPERT			3-16-09 Well Install Method:					
Well Location and Type (check appropriate boxes):								
Con-Site Right-of-Way	417.5	ow (Water-Table) Monitoring House STEM AUGER						
☐ Off-Site Private Property X Above Grade (AG) ☐ Flush-to-Grade		ate or Deep Monitoring on or Other (describe)	Surface Casing Install Method:					
if AG, list feet of riser above land surface: 2.83 FEET	t Dellinemen	is it of creater (describe)						
Borehole Depth Well Depth Borehole D	iameter Manhole Diameter	Well Pad Size:						
(feet): 15 (feet): 5 (inches):	8 (inches):	2 feet	by 2 feet					
Riser Diameter and Material: Riser/Screen	K Flush-Threaded	Riser Length: 5	feet					
\$2 (900) (100) 100 (100) 1	Other (describe)	from O	feet to <u>5</u> feet					
Screen Diameter and Material:	Screen Slat Size:	Screen Length: 10						
2-INCH PVC	0.010 - INCH		feet to 15 feet					
I st Surface Casing Material:	I st Surface Casing I.D. (inche	s): It Surface Casing Length	:fcet					
also check: Permanent Temporary		from 0	feet tofeet					
2 nd Surface Casing Material:	2 nd Surface Casing I.D. (inch	es): 2 nd Surface Casing Length	h:feet					
also check: Permanent Temporary	****	from 0	feet tofcct					
3 rd Surface Casing Material:	3rd Surface Casing I.D. (inch	cs): 3 rd Surface Casing Length	3 rd Surface Casing Length:fect					
also check: Permanent Temporary	na enganasa	from 0	feet tofeet					
	ound Screen (check one):	Filter Pack Length:	// feet					
20/30 SILICA SAND TYES	IX No	from 4	feet to <u>15</u> feet .					
Filter Pack Seal Material and		Filter Pack Seal Length:						
Size: 30/65 SILICA SAND		from 3	from 3 feet to 4 feet					
Surface Scal Material:		Surface Seal Length:	O.S. feet					
CONCRETE	• •	from <u>O</u>	feet to 0.5 feet					
								
	WELL DEVELOPME	ENT DATA						
The second secon	velopment Method (check one) her (describe)		Pump Compressed Air					
	al Peristaltic Depth	to Groundwater (before develo						
Submersible Other (describe)		5.69	T.O.P.					
t durbing trace (ganons per tinetato).	aximum Drawdown of Ground		I Dry (check one): No					
	——————————————————————————————————————							
Pumping Condition (check one): Total Develo			nt Water Drummed :					
Continuous / International Control of Contro								
Water Appearance (color and odor) At Start of Development: Water Appearance (color and odor) At End of Development:								
MILKY BRN / NO	MILKY BRN / NONE CLEAR / NONE							
WELL CONS	TRUCTION OR DE	ELOPMENT REMA	RKS					
Lo+,								
Long.	81	•						

					Page I of	
Boring/Well Number:		Permit Number:	1	FDEP Facilit	ty Identificati	on Number:
MW-6B		782508				
Site Name: / PARCE	ISH		Date: 3-16-09 Bo	orehole Start Time: 10:0	OXA	лм Грм
COIVE	NOTATION	End D	ate: 3-16-09	End Time: 11:0	O 🔀 A	АМ ГРМ
Environmental Contractor:		Geologist's Nan	ie:	Contraction of the Contraction o	tal Techniciar	's Name:
LAND ASSESSMENT SE	WICES, INC		CHARDSON	the state of the s	GRAY	
Drilling Company:	Pavem	ent Thickness (in	ches): Borehole Diamet	er (inches):	ehole Depth ((feet):
MORTENSEN ENGINE	RING	1 DTW C. F	8 1W # DTW	S + S OVA (list m	odel and chec	le tumo):
Drilling Method(s):	Apparent Boreh from soil mois	ole DTW (in feet ture content):	Measured Well DTW (in water recharges in we	to the second of		FID PID
				Backfill Stock		Other
Disposition of Drill Cutting		,,	Juni M Spread	Dackini i Stock	rhue I	Other
(describe if other or multip					N 1000 W	
Borehole Completion (chec	k one):	Well ☐ Gro	out Bentonite	☐ Backfill ☐ C	Other (describ	e)
Sa Sa	g				_ Z	Lab Soil and
oer s mpl mpl (i) (i) Sam		Depth (feet) Net OVA	Sample I	Description	oistu JSC:	Groundwater Samples (list
er six inche nple Recov (inches) ample Dep nterval (fee	red	epth (fee	(include grain size based	on USCS, odors, staining,	re C S Sy	sample number
Sample Recovery (inches) Sample Depth Interval (feet) Sample Type	Filtered OVA Unfiltered OVA	(feet)	and othe	r remarks)	Moisture Content USCS Symbol	and depth or
es) 'ery th th	A A				100,000	temporary screen interval)
NC			DRK. BRN. ORGA	NIC LADEN	SM. PAD	
DC		_ 1		FSAND	4	0
					5	
		_ 2	DRK. BEN.	SILTY	Sm.SC V	
			70 51	CLAYEY	8	
		3	, Sc.		V	
				F.SA.	-	
			-		M	
			GRY. F.SA	9	\$	
		5				
			DRK. BRN.	SL. SI. TO SI.	3 W	
		6		F.SA.		
		- '				
		8				
			GRY. SIL	TY FSA-		
		9		OSPHATE GRAINS	V	
		- '	A Price	SELLING COMINS		-
		10				
		11	GRY SANI	DY CHAY	SC S	
			w/ phos			
		12	44 Pilos	A LIENTE		

														2
Borin	g/Well N			FDEP F	acility I	dentific	ation Num	ber: S	ite Name: NE PROPERTY	PARRISH				-16-09 -16-09
Sample Type	-	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)		Sample I grain size based	Description on USCS, odors, remarks)		USCS Symbol	Moisture Con	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC V							13 14	(GRY SAN' W/ PHOSE	DY CURY PHATE		Sc	S	
								7	T.0.	B. e 15.	0			

DEP Form # 62-5	22.900(3)
Form Title MONIT	OR WELL COMPLETION REPORT
Effective Date	30.50 W
DEP Application N	lo
10900	(Filled in by DEP)

MONITOR WELL COMPLETION REPORT

DATE: 3-16-09
INSTALLATION NAME: CONE PROPERTY PARRISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW- GB WELL NAME: MW- GB
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE: N27° 35' 3.9" W82° 24' 37.9"
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HOLLOW STEM AUGER
INSTALLED BY: MORTEN SEN ENGINEERING, INC.
TOTAL DEPTH: 15 FEET DEPTH OF SCREEN: 5-15 FEET (bls)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: 010 - INCH SCREEN TYPE: PVC
CASING DIAMETER: 2-INCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL): +8.30
GROUND SURFACE ELEVATION (MSL): + 5.47
COMPLETION DATE: 3-16-09
DESCRIBE WELL DEVELOPMENT: PUMPED 35 GALLONS IN 25 MINUTES, USING SUBMERSIBLE PUMP
POST DEVELOPMENT WATER LEVER ELEVATION (MSL): +2.80
DATE AND TIME MEASURED: 3-19-09 1010
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: CARY RICHARDSON ME I (813) 908-5555
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

		W	ELL C	CONSTRUC	TION	DATA					
Well Number:	Site	Vame:	1 PA	HZIZISH	111	FDEP Facility	I.D. Numbe	er.	Well Install	201 111100001100	
MW-7	CON	E PROPERTY		PLANTATI	ON					e-09	
Well Location and Type	(check approp	riate boxes):	Well Purpose: Perched Monitor						Well Install Method: HOLLOW STEM		
Con-Site	Right	-of-Way		K Shal	low (Water	-Table) Moni	toring	Ho			
Off-Site Private Pr		*				Deep Monito		Cure	AUGE		
Above Grade (AG)	Flush	-to-Grade		☐ Rem	ediation or	Other (describ	oc)	Suria	ice Casing in	stall Method:	
If AG, list feet of riser abov	e land surface		W	= ==							
Borehole Depth	rehole Depth Well Depth Borehole Diarnet					Well Pad Size		122			
(feet): 15	(feet): 15	(inches):	8	(inches): -			2_feet		2 feet		
Riser Diameter and Mat	erial:		Flush	-Threaded		Riser Length:	_5_	feet			
2-INCH PVC		Connections:	Othe	r_(describe)		fr	om O	fee	et to <u>5</u>	feet	
Screen Diameter and Ma			Screen	Slot Size:		Screen Lengt	h: <u>10</u>	fcet			
2-INCH PV			0.0	10 - INC	H		rom <u>5</u>			feet	
1st Surface Casing Mate	rial:		1st Surf	ace Casing I.D. (inches):	1 st Surface C	asing Length	ι:	feet		
also check: Perm	nament [Temporary				fi	rom 0	fee	et to	feet	
2 nd Surface Casing Mate	crial:		2 nd Sur	face Casing I.D.	(inches):	2 nd Surface C	Casing Lengt	h:	feet		
also check: Perm		Temporary		_		f	rom 0	om 0 feet tofeet			
3 rd Surface Casing Mate	erial:		3rd Surface Casing I.D. (inches):			3 rd Surface Casing Length:feet					
also check: Per		Temporary				from 0 feet tofeet					
Filter Pack Material and	d Size: Pre	packed Filter Are	ound Scr	een (check one):		Filter Pack Length: feet					
20/30 SIUCA SA	du	Yes	₹ No			from 4 feet to 15 feet .					
Filter Pack Seal Materi	ial and				Filter Pack	Seal Length:		fee	t		
A Constant		SAND				from 3 feet to 4 feet					
Surface Scal Material:		31142				Surface Seal Length: 0.5 feet					
Surrace Seat Materials	CONCR	ETE				A security of the second secon	from O				
L											
		`	WELL	DEVELO	MENT	DATA	- Company		8	···	
Well Development Da			elopmen her (desc			100	•	Pump		mpressed Air	
Development Pump T		Centrifug	al [Peristaltic 1	Depth to G	roundwater (b					
Submersible (V-7	4	20	12 11 12 12 12 12 12 12 12 12 12 12 12 1		
Pumping Rate (gallon	ns per minute			Drawdown of Grent (feet):	roundwater		Well Purged	1 Dry	(check one):	0	
Pumping Condition (Total Develo	pment W	/ater	Developmo	ent Duration	Developme	nt Wa	ter Drummed		
	Intermittent	A Name and the same		(minutes):	11	(check one)	:	☐ Yes	₩ No		
						earance (colo				ment:	
MIKY NONE CLEAR / NONE											
										DAY-	
	W	ELL CONS	TRUC	CTION OR	DEVEL	OPMENT	REMA	RKS			
La+,											
Long.			*								
))*)					

	<u> </u>		Page 1 of Z
Boring/Well Number:	Permit Number:	FDEP Facil	ity Identification Number:
MW-7	782508	2009 - 3518	
Site Name: / PARRISH	Borehole Start D	te: 3-16-08 Borehole Start Time: 12:0	ОО ГАМ РРМ
PROPERTY PLANTATION	End Da	te: 3-1(e-08 End Time: 1:0	О ГАМ 🔀 РМ
Environmental Contractor:	Geologist's Name	Environme	ntal Technician's Name:
LAND ASSESSMENT SERVICES			GRAY
Drilling Company:	Pavement Thickness (inc	hes): Borehole Diameter (inches): Bo	orehole Depth (feet):
MORTENSEN ENGINEERING		Manuscal Wall DTW/in Seat after OVA (list to	nodel and check type):
1 - 4	nt Borehole DTW (in feet oil moisture content):	Measured Well DTW (in feet after water recharges in well): 3.7	nodel and check type): FID FID PID
Disposition of Drill Cuttings [check m			
The Strik order and successful property and the strike of	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	rum / Spread Backini Stor	white i Offici
(describe if other or multiple items are	The state of the s		0.1 (1 11)
Borehole Completion (check one):	₩ell	it Bentonite Backfill	Other (describe)
Unfiltered OVA SPT Blows (per six inches) Sample Recovery (inches) Sample Depth Interval (feet) Sample Type	Depth (feet) Net OVA Filtered OVA	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol USCS Symbol USCS Symbol USCS Symbol USCS Symbol USCS Symbol USCS Symbol USCS Symples (list sample number and depth or temporary screen interval)
DC	1	BLACK ORGANIC LADEN SAND	D D
	_ 2	DRY. BRN. SL. CHAYEY	SW. St
	3		
		(2)1 (1) 7	5 W
	_ 5	GRY. SILTY TO	
		SL. CONVEY F.SA.	2
		FIJH.	
	8		
	10	BUE-GEN SANDY CHAY	S
	_ 11	W/ PHOSPHATE GEAINS	1

							BC	RING LOG			
									Pag	e 2 of_	2
Borin	g/Well N			FDEP F	CONE						16-09 16-09
Sample Type	E C	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Con	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC V							13 14 15	BLGRN. SANDY CVAY W/ PHOSPHATE GRAINS	Sc V	0->	
							1618192021232425262727	7			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

30

DEP Form # 62-52	2.900(3)
Form Title MONITO	OR WELL COMPLETION REPORT
Effective Date	
DEP Application No	D
	(Filled in by DEP)

MONITOR WELL COMPLETION REPORT

DATE: 3-16-09
INSTALLATION NAME: CONE PROPERTY / PARRISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW-7 WELL NAME: MW-7
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE: N27° 35' 9.5" W 82° 24' 50.0"
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HOLLOW STEM AUGERS
INSTALLED BY: MORTENSEN ENGINEERING, INC.
TOTAL DEPTH: 5 FEET DEPTH OF SCREEN: 5 - 15 FEET (bls)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: .010 - INCH SCREEN TYPE: PVC
CASING DIAMETER: 2-INCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL): + 6.36
GROUND SURFACE ELEVATION (MSL): + 3.79
COMPLETION DATE: 3-16-09
DESCRIBE WELL DEVELOPMENT: USING SUBMETESTIBLE PUMP, PUMPED 25 GALLONS IN 11 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL): +2.2 (c
DATE AND TIME MEASURED: 3-19-09 1323
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: CARY RICHARDSON MET (813) 908-5555

NOTE: PLEASE ATTACH BORING LOG.

W	ELL CONSTRU	CTION I	DATA			
Well Number: Site Name:	1 PARRISH		FDEP Facility I.D. Numb			
MW-7A CONE PROPER		MORTAN		3-17-09		
Well Location and Type (check appropriate boxes):		rched Monito		Well Install Method:		
Con-Site Right-of-Way		nallow (Water-Table) Monitoring House STEN				
Off-Site Private Property		ntermediate or Deep Monitoring AUGER				
Above Grade (AG) Flush-to-Grade	. FRe	Surface Casing Install Me				
If AG, list feet of riser above land surface: 2.4 FEET						
Borehole Depth Well Depth Borehole (feet): 15 (feet): 15 (inches):	Diameter Manhole Diam	neter —	Well Pad Size: 2 feet	by <u>2</u> feet		
Riser Diameter and Material: Riser/Screen	Flush-Threaded		Riser Length: 5	feet		
2-INCH PVC Connections:	Other (describe)		from 💍	feet to <u>5</u> feet		
Screen Diameter and Material:	Screen Slot Size:		Screen Length: 10	fcet		
2-INCH PVC	.010 - INCH		from <u>5</u>	feet to 15 feet		
1 st Surface Casing Material:	I st Surface Casing I.D.	(inches):	1st Surface Casing Length	n:feet		
also check: Permanent Temporary			from 0	feet tofeet		
2 nd Surface Casing Material:	2 nd Surface Casing I.D.	(inches):	2 nd Surface Casing Lengt	h:fect		
also check: Permanent Temporary			from 0	feet tofeet		
3 rd Surface Casing Material:	3rd Surface Casing I.D.	(inches):	3rd Surface Casing Lengt	h:feet		
also check: Permanent Temporary			from 0	feet tofeet		
Filter Pack Material and Size: Prepacked Filter Ar	:	Filter Pack Length: feet				
20/30 SILICA SAND TYes	₩ No		from 4	feet to <u>15</u> feet .		
Filter Pack Seal Material and		Filter Pack Seal Length:				
Size: 30/65 SILICA :	SAND		from <u>3</u>			
Surface Seal Material:			Surface Seal Length:	<u>0.5</u> feet		
CONCRETE			from 0	fect to <u>0.5</u> feet		
				POINT TO THE CONTRACT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE P		
	WELL DEVELOR		DATA			
	elopment Method (check her (describe)	cone):	☐ Surge/Pump	Pump Compressed Air		
		Donath to Car	oundwater (before develo	ning in feat):		
Submersible Other (describe)			4.92 T.C).P.		
Pumping Rate (gallons per minute): M	aximum Drawdown of G	roundwater	During Well Purged			
2.0 De	evelopment (feet):	2.2	T.O.P. Yes	₩ No		
Pumping Condition (check one): Total Develo	Account some surveyor are on a contract of	Developmer	warmen and the first the first transfer of the second section of the section of the	nt Water Drummed		
Continuous Intermittent Removed (ga		(minutes):	HO (check one):	An state of the st		
Water Appearance (color and odor) At Start of Dev		Water Appe	ater Appearance (color and odor) At End of Development:			
CLOUDY BRN NON	=		CLEAR / 1	VONE		
WELL CONS	TRUCTION OR I	DEVELO	PMENT REMAR	RKS		
Lo+,		Statement of the statem		All Marine Control of the Control of		
Long.	•					
			9 8 9			

										Pag	e l of	2
Boring/Well N	umber:				Permit 1	Number:	j		FDEP Facili	ty Ident	tificatio	on Number:
MV	V-	7A				508	2009-3518					
Site Name:	1P	ARRIS	Н		Borehol	le Start Da	ate: 3-17-09	Borehole Start	Time: O:C	00	X A	1
PROPERT	1	PLAN	TATIO	N			te: 3-17-09	End '	Гіте: : С		X A	1992
Environmental	Contra	ctor:				ist's Nam			Environmen			's Name:
LAND ASSESSI	MENT	- SERV	lices	D		Cness (inc	hes): Borehole Dian	actor (inchas):	ERIC	ehole I		fact):
Drilling Compa	any.		1	Paveme	ent Tinck	mess (me	nes). Borenote Dian	A (mones).	1001	13	- S	icet).
Drilling Metho	and the second			Borehol	le DTW (in feet	Measured Well DTV	V (in feet after	OVA (list m			k type):
HSA			from soi	il moistu	re conten	ıt): 4	water recharges in	well): 4.9				FID T PID
Disposition of	Drill C	uttings [c	heck me	thod(s)]:	ΓD	rum 💢 Spread	☐ Backfill	☐ Stock	kp ile	Γ	Other
(describe if oth	ier or m	ultiple ite	ems are	checked	t):						200	
Borehole Com	pletion	(check or	ne):	X	Well	☐ Gro	ıt	☐ Backfi	11	ther (c	lescribe	e)
		—-г						CALL SEQUENCE OF THE SECOND SE				¥ 1 6 N 1
S	San	ਉ	Un	H		ם				U,	Moisture Content	Lab Soil and Groundwater
Sample Depth Interval (feet) Sample Type	Sample Recovery	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net	Depth (feet)		e Description		USCS Symbol	stur	Samples (list
e De al (f	ple Reco	Blov	red (ю р	Net OVA	ı (fee	(include grain size ba and o	sed on USCS, od ther remarks)	ors, staining,	Sym	, C	sample number and depth or
pth eet)	over	vs hes)	OVA	VA	-	Ť				bol	nten	temporary screen
	۷						DRK. BRN.			2		interval)
DC						1		IIC LADEN	SA.	N.A	D	ì
									-	_		
						_ 2	Dek Ben.	F.SA.		CM. 40		
						3				7	M	
						_ 3	BRN. GIL	TY TO SI			8 0 0	
	İ					4		CLAY				
									F.SA.	-	-	
						5		19				
						W-02					W	
						6						
						_ 7	BRN. F	SA				
	1							7				
						8						
						9						
						10						
						11					S	
 						Section.		V				
1 1		- 1			I	12				1	1	l

			Page 2 of 2
Boring/Well Number: MW - 7A	FDEP Facility Identification Nur		Start Date: 3-17-09 End Date: 3-17-09
SPT Blows (per six inches) Sample Recovery (inches) Sample Depth Interval (feet) Sample Type	Depth (feet) Net OVA Filtered OVA Unfiltered OVA	Sample Description (Include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol USCS Symbol USCS Symbol USCS Symbol USCS Symbol USCS Symbol INTERPORTATION Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC V	13 14 15	GRY-GRY SANDY CUAY	sc s
		T.o.B. e 15.0	

DEP Form # 62-52	2.900(3)
Form Title MONITO	OR WELL COMPLETION REPORT
Effective Date	8
DEP Application No	0
0.02	(Filled in by DEP)

MONITOR WELL COMPLETION REPORT

DATE: 3-17-09
INSTALLATION NAME: CONE PROPERTY PARRISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW-7A WELL NAME: MW-7A
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE: N 27° 35′ 9.7″ W 82° 24′ 49.8″
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HOCLEW STEM AUGER
INSTALLED BY: MORTENSEN ENGINEERING, INC.
TOTAL DEPTH: 15 FEET DEPTH OF SCREEN: 5-15 FEET (bls)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: . O 10 - /NCH SCREEN TYPE: PVC
CASING DIAMETER: 2- INCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL): + 6.58
GROUND SURFACE ELEVATION (MSL): + 4.14
COMPLETION DATE: 3-17-09
DESCRIBE WELL DEVELOPMENT: USING SUPMERSIBLE PUMP, PUMPEO 80 GALLONS IN 40 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL): +1.50
DATE AND TIME MEASURED: 3-19-09
REMARKS: (soils information, stratigraphy, etc.):
INCIMATING. (Soils information, stratigraphly, 6to.).
REPORT PREPARED BY: CARY RICHARDSON MEI (813) 908 - 5555
(name, company, phone number)

W	ELL CONSTRUC	TION D	ATA			
Well Number: Site Name:	1 PARRISH	F	DEP Facility I.D.	Number:	Well Install Date(s):	
MW-78 CONE PROPERT		MON			3-17-09	
Well Location and Type (check appropriate boxes):		hed Monitor	ring	W	ell Install Method:	
Con-Site Right-of-Way			Fable) Monitoring	2	LOLLOW STEM	
Off-Site Private Property		or Deep Monitoring AUGER				
X Above Grade (AG) Flush-to-Grade			Other (describe)	St	rface Casing Install Method:	
If AG, list feet of riser above land surface: 3.5 FEET						
The second secon	iameter Manhole Diame	eter V	Vell Pad Size:		_	
(feet): 5 (feet): 5 (inches):	8 (inches):	-			/ <u>2</u> feet	
IC	Flush-Threaded	R	liser Length:	5 fee		
2-INCH PVC Connections:	Other (describe)		from	0_	feet to <u>5</u> feet	
Screen Diameter and Material:	Screen Slot Size:	1000	creen Length:	10 fee		
2-INCH PVC	.010 -INC	H	from	5	feet to 15 feet	
1st Surface Casing Material:	Ist Surface Casing I.D. (in	inches):	1 Surface Casing	Length:	feet	
also check: Permanent Temporary	606C3646888704855250]	from	0	feet tofeet	
2 nd Surface Casing Material:	2 nd Surface Casing I.D. (i	(inches): 2	2 nd Surface Casing	Length:	feet	
also check: Permanent Temporary			from	0	feet tofeet	
3 rd Surface Casing Material:	3 rd Surface Casing I.D. (i	inches): 3	3 rd Surface Casing	Length:	feet	
also check: Permanent Temporary			from	0	feet tofeet	
Filter Pack Material and Size: Prepacked Filter Are	F	Filter Pack Length: feet				
20/30 SIUCA SAND TYes		from	4	feet to 15 feet .		
Filter Pack Seal Material and	F	Filter Pack Scal L	ength:	feet		
Size: 30/65 SAND		from	3			
Surface Scal Material:	9	Surface Seal Leng	ŗth:	0.5 fcet		
CONCRET	E		from	0	feet to <u>0-5</u> feet	
Y	VELL DEVELOP	MENT D)ATA			
Well Development Date: Well Deve	elopment Method (check o	one): [Surge/Pump	N Pu	mp Compressed Air	
	er (describe)		3922 50			
	l Peristallic De	epth to Grou	indwater (before		- The state of the	
Submersible Other (describe)					T.O.P.	
	ximum Drawdown of Grovelopment (fect):			Purged Dr Yes	y (check one): No	
			<u> </u>			
Pumping Condition (check one): Total Develop		evelopment		E-03	/ater Drummed	
Continuous K Intermittent Removed (gal		minutes):		k one):	T Yes No	
Water Appearance (color and odor) At Start of Deve		Vater Appear	rance (color and c	odor) At E	nd of Development:	
MILKY BRN. / NONE		SUGH	HTLY CLEAN	2 /	NONE	
WELL CONST	RUCTION OR D	EVELO	PMENT RE	MARK	S	
Lo.t.					THE RESERVE THE PROPERTY OF THE PARTY OF THE	
Long.	Ŷ		12			
1			in .			

Page 1 of FDEP Facility Identification Number: Boring/Well Number: Permit Number: 782.508 Borehole Start Date: 3-17-09 Borehole Start Time: 17:00 Site Name: PARRISH Γ AM CONE X PM End Date: 3-17 - 09 End Time: 1:00 PLANTATION Environmental Technician's Name: Geologist's Name: Environmental Contractor: GRAY ERIC GRAY LAND ASSESSMENT SERVICES ERIC Borehole Depth (feet): Borehole Diameter (inches): Pavement Thickness (inches): Drilling Company: MORTENSEN ENGINEERING 15 Drilling Method(s): Apparent Borehole DTW (in feet OVA (list model and check type): Measured Well DTW (in feet after HSA water recharges in well): ☐ FID ☐ PID from soil moisture content): 5 ☐ Backfill Stockpile ☐ Other Disposition of Drill Cuttings [check method(s)]: ☐ Drum X Spread (describe if other or multiple items are checked): ☐ Backfill | Well ☐ Grout ☐ Bentonite Cther (describe) Borehole Completion (check one): Lab Soil and Moisture Content Sample Recovery (inches) SPT Blows (per six inches) Sample Depth Interval (feet) Unfiltered OVA USCS Symbol Groundwater Filtered OVA Sample Type Depth (feet) Net OVA Sample Description Samples (list (include grain size based on USCS, odors, staining, sample number and other remarks) and depth or temporary screen interval) DRK BRN - BLACK DC 1 SANDY ORGANIC MUCK 2 DRK. BRN. SL. 3 5 6 7 BRN. F.SA. 8 9 GRN. CLA 10 11 12

Page 2 of Borchole Start Date: 3-17-09 FDEP Facility Identification Number: Boring/Well Number: Site Name PARRISH MW-7B PLANTATION End Date: 3 - 17 - 09 CONE Lab Soil and Sample Recovery (inches) SPT Blows (per six inches) Sample Depth Interval (feet) Unfiltered OVA Filtered OVA USCS Symbol Groundwater Depth (feet) Sample Type Net OVA Sample Description Samples (list (Include grain size based on USCS, odors, staining, sample number and other remarks) and depth or temporary screen interval) GRN. SANDY DC SC 13 14 CH GRN CLAY 15 16 T.o.B. e 15.0 17 18 19 20 21 22 23 24 25 26 27 28 29 30

DEP Form # 62-522.900(3)
Form Title MONITOR WELL COMPLETION REPORT
Effective Date
DEP Application No
(Filled in by DEP)

MONITOR WELL COMPLETION REPORT

DATE: 3-17-09
INSTALLATION NAME: CONE PROPERTY PARRISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW-7B WELL NAME: MW-7B
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE: N27° 35' 9.1" W 82° 24' 50.0"
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HOWOW STEM AUGERS
INSTALLED BY: MORTENSEN ENGINEERING, INC
TOTAL DEPTH: 15 FEET DEPTH OF SCREEN: 5-15 FEET (bls)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: 010-INCH SCREEN TYPE: PVC
CASING DIAMETER: 2- /NCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL): + 7.79
GROUND SURFACE ELEVATION (MSL): + 4.28
COMPLETION DATE: 3-17-09
DESCRIBE WELL DEVELOPMENT: USING SUBMERSIBLE PLIMP, PUMPED 25 GALLONS IN 40 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL): +1.76
DATE AND TIME MEASURED: 3-19-09 1413
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: CARY RICHARDSON MEI (813) 908-5555
(name, company, phone number)

WE	LL CONSTRUC	CTION	DATA		•	
Well Number: Site Name: CONE PROPERTY	/ PARRISH PLANTIFF	TON	FDEP Facility	I.D. Numbe		Install Date(s):
	Vell Purpose: Per	ched Monito	oring -Table) Monit	oring	Well Insta	l Method:
Off-Site Private Property Above Grade (AG) Flush-to-Grade			Deep Monitor Other (describe			ISING Install Method:
If AG, list feet of riser above land surface: 3.0	i Kei	nediación oi	Other (describe	-)		
Borehole Depth Well Depth Borehole Dia	ameter Manhole Diam	eter	Well Pad Size	2	E.co	
(feet): 6.5 (feet): 6.5 (inches): 4	<u> </u>			feet	- by	feet
	Flush-Threaded Other (describe)		Riser Length:	1.5 f	feet feet to	1.5 feet
4 7 7 7 7 7 7	Screen Slot Size:		Screen Length			
Screen Diameter and Material: 2-INCH PVC	.010 - IN	-	· · · · · · · · · · · · · · · · · · ·	om <u>1.5</u>		<u>6.5</u> fect
	1st Surface Casing I.D.	(inches):	1st Surface Ca	sing Length	:	feet
also check: Permanent Temporary			fre	om <u>0</u>	feet to	feet
2 nd Surface Casing Material:	2 nd Surface Casing I.D.	(inches):	2 nd Surface C	asing Length	n:	feet
also check: Permanent Temporary			1	om 0	feet to	feet
3 rd Surface Casing Material:	3rd Surface Casing I.D.	(inches):	3 rd Surface C	350	1:	feet
also check: Permanent Temporary			fr	om 0	feet to	fect
Filter Pack Material and Size: Prepacked Filter Arou	ind Screen (check one):		Filter Pack L	ength:	و	feet
20/30 SLLICA SAND TYES	X No			om <u>0.5</u>	feet to	<u>6.5</u> feet .
Filter Pack Seal Material and			Filter Pack S	eal Length:	<u> </u>	feet
Size: NONE				om	feet to	fcct
Surface Scal Material: NONE / TEMPOR		Surface Seal	Length: om	feet to	feet feet	
Land of the seco						
W	ELL DEVELO	PMENT	DATA			
CREATING CONTROL	lopment Method (check	cone):	Surge/Pu	np 🗶	Pump	Compressed Air
10-01	er (describe)	Depth to Cr	roundwater (be	fore develor	ning in feet):
Development Pump Type (check): Centrifugal Submersible Other (describe)	Peristaltic		.45 T.		5	
t dispite the (Sanotte ber mittee)	cimum Drawdown of G	roundwater	During	Well Purged Yes	Dry (check	cone): No
Pumping Condition (check one): Total Development Continuous Intermittent Removed (gallet	ment Water		ent Duration	Developmen (check one):		ummed Yes K No
Water Appearance (color and odor) At Start of Deve			earance (color	and odor) A		
LGT. BEN / NONE	поринени.		ear In			
Company of the Compan						
WELL CONST	RUCTION OR	DEVEL	OPMENT	REMAI	RKS	Control of the Contro
Lot,	7					
Long.	6		•			

			Pag	ge 1 of
Boring/Well Number:	Permit Number:		FDEP Facility Iden	tification Number:
MW-8T	N/	4		
Site Name:	Borehole Start Date:	1-8-09 Borehole Start	Гіте:	Гам Грм
CONE PARRISH PROPERTY PLANTATION	End Date: L	-8 - 09 End T	Time:	Гам ГРМ
Environmental Contractor:	Geologist's Name:		Environmental Tec	hnician's Name:
LAND ASSESSMENT SEQUICES	ERIC GRAN		ERIC GRA	
Drilling Company: Pave	ment Thickness (inches):	Borehole Diameter (inches):		Depth (feet):
MORTENSEN ENGINEER ING	chole DTW (in feet	Account Wall DTW (in fact often	OVA (list model ar	od check type):
and the second s	isture content): 2 BLS	Measured Well DTW (in feet after water recharges in well): 2.45	OVA (list illodel al	FID F PID
Disposition of Drill Cuttings [check method		Spread Backfill	☐ Stockpile	C Other
) opicad backing	1 Blockpile) Other
(describe if other or multiple items are chec	A Transport of the second	En En	1	
	Well Grout	Bentonite Backfil	l Cother (describe)
70	-			
Unfiltered OVA SPT Blows (per six inches) Sample Recovery (inches) Sample Depth Interval (feet)	De l	G 1 D ' 1'	USC	Mosi Groundwater Samples (list sample number and depth or temporary screen
PT Blow r six inch ple Reco (inches) mple Dej terval (fe	Depth (feet	Sample Description clude grain size based on USCS, odo	ors, staining,	Samples (list
SPT Blows (per six inches) ample Recover (inches) Sample Depth Interval (feet) Sample Type	Depth (feet)	and other remarks)	ors, staining,	and depth or
VA VA very very			2	temporary screen interval)
DC				
	1			
	3			
	4			
22.0			1	
	5			
	6			
		Inchesion.		
	7			
	8	T.O.B. e		
	- °			
	9	6.5 F	EET	
				-
	10			
	12			

DEP Form # 62-522,9000	3)
Form Title MONITOR WE	LL COMPLETION REPORT
Effective Date	
DEP Application No	
(Fille	ed in by DEP)

MONITOR WELL COMPLETION REPORT

DATE: 4-8-09
INSTALLATION NAME: CONE PROPERTY PARKISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW-8T WELL NAME: MW-8T
DESIGNATION: Background Immediate Compliance
LATITUDE/LONGITUDE:
AQUIFER MONITORED: SHALLOW
INSTALLATION METHOD: HAND AUGER
INSTALLED BY: MORTENSEN ENGINEERING, INC.
TOTAL DEPTH: 6.5 FEET DEPTH OF SCREEN: 1.5 TO 6.5 FEET (bls)
SCREEN LENGTH: 5 FEET SCREEN SLOT SIZE: 010-INCH SCREEN TYPE: PVC
CASING DIAMETER: 2-INCH CASING TYPE: PVC
LENGTH OF CASING: 1.5 FEET FILTER PACK MATERIAL: 20/30
TOP OF CASING ELEVATION (MSL):
GROUND SURFACE ELEVATION (MSL):
COMPLETION DATE: 4-8-09
DESCRIBE WELL DEVELOPMENT: USING PERISTALTIC PUMP, PUMPED IGALON IN 14 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL):
DATE AND TIME MEASURED:
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: CARY RICHARDSON MEI (813) 908 - 5555 (name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

WELL CONSTRUCTION DATA								
Well Number: Site Name:	/PARRISH	CONTRACTOR OF THE PARTY OF THE	DEP Facility	I.D. Numbe	and the second second	nstall Date(s):		
MW-15 CONE PROPERT	ry/ Puant					9-09		
		hed Monitor			Well Install	Method: / STEM		
Con-Site Right-of-Way			Table) Monito			GER		
Off-Site Private Property Above Grade (AG) Flush-to-Grade	The state of the s		Deep Monitori Other (describe			ing Install Method:		
***************************************	i Kein	rediation of t	Other (deserior	·		<u> </u>		
If AG, list feet of riser above land surface: Borehole Depth Well Depth Borehole D	iameter Manhole Diame	eter V	Well Pad Size:					
The Application of the Control of th	8 (inches):		_2	feet		feet		
	Flush-Threaded	F	Riser Length:	<u>5</u>	feet			
2-INCH PVC Connections:	Other (describe)		fro	m O	feet to	5 feet		
Screen Diameter and Material:	Screen Slot Size:		Screen Length	: 10	feet			
2-INCH PVC	0.010 - INC	H	fro	m <u>5</u>	feet to	<u>15</u> feet		
1" Surface Casing Material:	1st Surface Casing I.D. (inches):	1st Surface Ca	sing Length	:	feet		
also check: Permanent Temporary			fro	om 0	feet to	fcet		
2 nd Surface Casing Material:	2 nd Surface Casing I.D.	(inches):	2 nd Surface Ca	sing Length	1:	feet		
also check: Permanent Temporary			fro	om 0	feet to	fcet		
3 rd Surface Casing Material:	3 rd Surface Casing I.D.	(inches):	3 rd Surface Ca	sing Length	1:	fect		
also check: Permanent Temporary	STEEL STEEL STEELS STEELS STEELS STEELS STEELS STEELS STEELS STEELS STEELS STEELS	İ	fre	om 0	feet to	fect		
Filter Pack Material and Size: Prepacked Filter Arc	ound Screen (check one):		Filter Pack Lo	ength:	11	feet		
20/30 SILICA TYES	₩ No		fre	om <u>4</u>	feet to	<u>15</u> feet .		
Filter Pack Seal Material and			Filter Pack So	eal Length:		feet		
Size: 30/65 SILICA SANI	3		from 3 feet to 4 feet					
Surface Scal Material:			Surface Seal	Length:	0.5	feet		
CONCRETE	NAME OF TAXABLE PARTY.		fr	om 🔼	feet to	0.5 feet		
V	VELL DEVELOP	MENT	DATA					
Well Development Date: Well Dev	elopment Method (check	one):	Surge/Pur	пр 💢	Pump [Compressed Air		
3-11-09	her (describe)							
Development Pump Type (check): Centrifug	al Peristaltic	STREET, MADE OF THE	oundwater (be	Company of the last	- C	:		
Submersible Other (describe)			12.47	<u>T. C</u>				
it dispited state (Same in the same in the	aximum Drawdown of Grevelopment (feet):	roundwater l 4.0	During	Well Purged	Dry (check	one): No		
Pumping Condition (check one): Total Develop	oment Water	Developmen			nt Water Dru			
Continuous Intermittent Removed (ga	llons): 30	(minutes):	10	(check one):		Yes X No		
Water Appearance (color and odor) At Start of Dev	relapment:	Water Appe	earance (color			velopment:		
MILKY WHT. / NONE			CLEAR	IN	ONE			
WELL CONS	TRUCTION OR I	DEVELO	OPMENT	REMAI	RKS			
Lo+,								
Long.								
			•					

			Page 2 of 2
Boring/Well Number: MW - 5	FDEP Facility Identification Nu		Start Date: 3-9-09 End Date: 3-9-09
SPT Blows (per six inches) Sample Recovery (inches) Sample Depth Interval (feet) Sample Type	Depth (feet) Net OVA Filtered OVA Unfiltered OVA	Sample Description (Include grain size based on USCS, odors, staining, and other remarks)	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC V	13 14 15	W/ PHOSPHATE	8-15-15c
		T.O.B. @ 15.0	

												e l of	
Boring	/Well N						Number:	1	Scots Made Study Co.	FDEP Facilit	y Ideni	tificatio	on Number:
	Ì	MM	-15			782	2510	2009-351					
Site Na		HORIS	- 14			Borehol	e Start Da	ate: 3-9-09	Borehole Start	Fime: /:	00	ГА	м 🔀 РМ
CONE	- / Pr		LAN	MATIO	N		End Da	ite: 3-9-09	End 7	and the second s		17 2000	м 🔀 РМ
	nmenta	Contra	actor:				st's Name			Environment	-		's Name:
LANT	SESSI	MENT	SEEN	JICES				CHARDSON		ERIC			
Drillin	g Comp	anv:	NUNCE		Paveme	nt Thick	tness (incl	hes): Borehole Diam	neter (inches):	Bor	ehole I /	Depth (feet):
	g Metho			Apparent from so		e DTW (re conten	1 1	Measured Well DTW water recharges in		OVA (list me	odel an		k type): FID F PID
Dispos	ition of	Drill C	Cuttings [c	heck me	ethod(s)]:	ΓD	rum X Spread	☐ Backfill	☐ Stock	pile	Γ	Other
(descri	ibe if otl	ner or n	nultiple it	ems are	checked	<i>l):</i>							
	2010 C 1010		(check o		又		┌ Gro	ut	☐ Backfil	п Го	ther (c	lescribe	e)
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	(include grain size bas	e Description sed on USCS, odd ther remarks)	ors, staining,	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							·	DRK. BE	Ν.		SP-SM	D	inter vary
1							_ 1	F. S	A		S		
	8						2				5	- Control of the Cont	
									Account to	Minimum Minimum	CONTRACT OF THE PERSON NAMED IN	ALCOHOL: N	
							3	CRY-B	en.		ALL LANGE		
									5A ·				
							4	Ρ.,)H•				
							5	The second second		-	The state of the state of		
							6	LGT. BR	N. F.SA			V	
											D. C. C. C. C. C. C. C. C. C. C. C. C. C.		
							_ 7					M	
							8	BRN. F	.SA.			1	
and the second s		-0					9				ALIE .	V	
		9					10			agging and a second		-	
							11	LGT	CRY F.S PHOSPH GRAIN	SA. HATE	The state of the s	W	
V							12		GRAI	NS	V		

DEP Form# 62-522.900(3)
Form Title MONITOR WELL COMPLETION REPORT
Effective Date
DEP Application No
(Filled in by DEP)

MONITOR WELL COMPLETION REPORT

NOTE: PLEASE ATTACH BORING LOG.

WELL CONSTRUCTION DATA									
	Vame: E PROPERT	y / I	PLANTA	- A	FDEP Facility	I.D. Numbe	00000 778 000	ell Install Da	The state of the s
Well Location and Type (check approp	riate boxes): -of-Way -to-Grade	Well Purpose: R Perched Monito			-Table) Monit r Deep Monito	Table) Monitoring Deep Monitoring		ell Install Method: HOLLOW STEM AUGER Irface Casing Install Method:	
If AG, list feet of riser above land surface							<u> </u>		
Borehole Depth Well Depth (feet): 15		_	Manhole Diam (inches):	eter	Well Pad Size	:: 2feet	by _	2 feet	
Riser Diameter and Material:		₹ Flush	-T hreaded		Riser Length:	5	feet		
2-INCH PVC	Connections:	,	r_(describe)			om O	feet t	<u>5 fe</u>	et
Screen Diameter and Material:		Committee (1977)	Slat Size:	150 <u>1</u> 0	Screen Lengt	The same of the sa		1 /200	1
2-INCH PVC		0.0	10 - INC	H	fir	om <u>5</u>	feet t	to <u>15</u> fo	ect
1 st Surface Casing Material:		l st Surf	ace Casing I.D.	(inches):	1st Surface C		-	feet	
also check: Permanent [Тетрогагу				fi	om 0	feet t	tof	cet
2 nd Surface Casing Material:		2 nd Sur	face Casing I.D.	(inches):	2 nd Surface C	1991 1991		feet	1
also check: Permanent [Temporary					rom 0	feet		cet
3rd Surface Casing Material:		3 rd Sur	face Casing I.D.	(inches):	3 rd Surface C	5450		feet	ŀ
	Temporary					rom 0	<u> </u>		ect
	packed Filter Ar		een (check one)	•	Filter Pack Length: feet				
20/30 SILICA SAND	Yes	K	No			rom <u>4</u>		to <u>15</u>	feet .
Filter Pack Seal Material and					Filter Pack Seal Length: feet				
Size: 30/65 S	ILICA SI	DVA			from 3 feet to 4 feet				
Surface Scal Material:					Surface Seal Length: 0.5 feet from 0 feet to 0.5 feet				
CONCRE	TE					rom	1001	110 013	ICCI
		TITOT T	DETECT OF	DAZORNET	DATA				
			DEVELO				20		
Well Development Date:	Total Control of the	elopmer her (desc							ressed Air
Development Pump Type (check):	Centrifug	al [Peristaltic	Depth to G	iroundwater (b				
Submersible Other (describ					11.68	Well Purged	Dry (ch		-
Pumping Rate (gallons per minute 2.5			Drawdown of Coent (feet):	5.22	r During	☐ Yes		™ No	
Pumping Condition (check one): Continuous Intermittent	Total Develo Removed (ga		Vater 25	Developm (minutes):	ent Duration	Developme (check one)		r Drummed Yes	⋉ No
	Water Appearance (color and odor) At Start of Development: Water Appearance (color and odor) At End of Development:								ent:
	CITAL MAINTE								
W	ELL CONS	TRUC	CTION OR	DEVEL	OPMENT	REMA	RKS		
Lati				and the second					
Long.		**			*				

					200 00-20			- M			1 42	e i of	- Common - C
Boring	/Well N	umber	:		Control of the Contro	Permit 1	Number:	782510 /		FDEP Facilit	y Iden	tificatio	on Number:
M	N-1	9						/2000	1-3519	ACCURATE TO SAFETOR			
Site N	ame: Co	NE F	POPER	ry/		Boreho	le Start Da	nte: 3-9-09	Borehole Start			K A	
PAR	RISH	PLA	NTAN	NO			End Da	te: 3-9-09	End 7	Гіте: 11 : 3	0	X A	м ГРМ
Enviro	nmental	Contr	actor:				ist's Name	A. Carrier and Car		Environment			's Name:
LANT	ASS	ESSM	ENT S	BRUICE	s Tuc.			1. RICHARDSI		ERIC (
Drillin	g Comp	any:			Paveme	nt Thicl	kness (incl	nes): Borehole Dian	neter (inches):	Bor		Depth (feet):
			INEERI	Apparen	. Douglas	N/A		Measured Well DTW	l (in fact often	OVA (list me	odel en		k tuna):
	g Metho	1000	1		il moistu			water recharges in		OVA (list liit	odei ai		FID FID
2 - B - 1 - 1			AVOICE .				л. <u>С</u> D		Backfill	☐ Stock	rnila		Other
Anna			Cuttings [ע נ	rum 🗷 Spread	1 Dackilli	1 3100	cpne	1	Other
(descr	ibe if otl	ier or i	nultiple i	tems are									
Boreh	ole Com	pletion	(check o	ne):	X	Well	Grou	ıt	☐ Backfi	ıı Fo	ther (lescrib	e)
						The state of the s							
		Š	_	1								М	Lab Soil and
San	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Z	Dej	Sample	e Description		USCS Symbol	Moisture Content	Groundwater
Sample Type	iple	ole Reco	SPT Blows er six inch	tere	ered	Net OVA	Depth (feet)	(include grain size bas		ors, staining,	SS	ıre (Samples (list sample number
Туј	Dep (fe	es)	low	ОР	Ον	VA	feet	and of	ther remarks)		mb	Con	and depth or
pe	e i	very	s es)	VA	A						인	tent	temporary screen interval)
DC	N/A	N/A	NA	NA	NA	NA		DOV BOX	V. F. SAN	N	10	D	intervary
	14114	Mic				10.00	1	DAK DK	4. 1. 5.	-	SP-SM	7	
								Products measured out	Management, Editions No. of Miles	-	5		
							2	GRY BR	N E		3		
								GKY OK	SAN	In	1		
							3		SAI	• to	e street		
	é.					ĺ							
							4	CARCOLLEGE, MARRIED AND	CONTRACT OF STREET				-
								LOT DON	IEC				
							5	LG1. BK	N.F. SAN	ID			
	1												
							6						
												1	
							_ 7		-	-		• • •	
							8	BRN. F.S	A·			W	
- Land							_ 。						
							9					Den La Car	
												W	-
							10		-	Charles - Charles -		1	
								ICT GO	Y. F.SA.				
A STATE OF THE STA				1			11			Oute	V		
V								AN L HOS	SPHATE GR	CHINS		V	
,	I	ı	I	1	ı	I	12	l			1	E	1

					90.00				
							Pa	ge 2 of	2
Boring/Well Number:		FDEP F	acility I	dentifica	ation Num				-9-09
MW-19						PARRISH PLANTATION	End D	1	-9-09
Sample Recovery (inches) Sample Depth Interval (feet) Sample Type	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (Include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC N/A N/A	NA	NA	NA	NA		LGT. GRY F. SA.	SP-	S	
					— ¹³	W/ PHOSPHATE GRAINS	SM	1	
					14	voj i nosi ini z	1	V	
 	-	_	-		15		_	-	
					16				
					17	T.O.B. @ 15.0'			
					18				
					19				
					20				
					21				
					22				
					23				*
					24				
					25	5			
					20	5			
					2	7			
					_ 2	8			
						9			
					3	30	2 2		PG - D-II Garriaga

DEP Form # 62-5	22.900(3)
Form Title MONIT	OR WELL COMPLETION REPORT
Effective Date	
DEP Application N	10
	(Elled in hy DED)

MONITOR WELL COMPLETION REPORT

DATE: 3-9-09
INSTALLATION NAME: CONE PROPERTY PARRISH PLANTATION
DEP PERMIT NUMBER: GMS NUMBER:
WELL NUMBER: MW-19 WELL NAME: MW-19
DESIGNATION: Background Immediate Compliance LATITUDE/LONGITUDE: N 27° 35′ 6.4″ W 82° 25′ 27.4″
LATITUDE/LONGITUDE: N 27° 35' 6.4" W 82° 25' 27.4"
AQUIFER MONITORED: SHALLOW GROUNDWATER
INSTALLATION METHOD: HOLLOW STEM AUGERS
INSTALLED BY: MORTENSEN ENGINEERING, INC.
TOTAL DEPTH: 15 FEET DEPTH OF SCREEN: 5-15 FEET (bis)
SCREEN LENGTH: 10 FEET SCREEN SLOT SIZE: 010 - INCH SCREEN TYPE: PVC
CASING DIAMETER: 2-INCH CASING TYPE: PVC
LENGTH OF CASING: 5 FEET FILTER PACK MATERIAL: 20/30 SILICA SAND
TOP OF CASING ELEVATION (MSL):
GROUND SURFACE ELEVATION (MSL): + 9.15
COMPLETION DATE: 3-9-09
DESCRIBE WELL DEVELOPMENT: USING SUBMEZSIBLE PUMP, PUMPED 25 GALLONS, IN 10 MINUTES
POST DEVELOPMENT WATER LEVER ELEVATION (MSL):
DATE AND TIME MEASURED:
REMARKS: (soils information, stratigraphy, etc.):
REPORT PREPARED BY: (ARY RICHARD SON ME 1 (813) 908-5555
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

PROJECT NAME: (One Property PROJECT LOCATION: Parish	DRILLED BY: START DATE: 3-10-09. LOGGED BY: E 6 END DATE: AUGER LOG
BORING NO. <u>SA-22</u> 11:0:	BOKING NO.
O P S OFFSET E.O.P STA. NO	0 P S OFFSET E.O.P STA. NO
FSA FSA	DGRY SLISI FSA 10 3LTGRY/LIBN SLIST FSA
3.0 (4) PK BN SLI +0SI FSA	3) BN SLTSIFSA
5 DKEN to BN CL FSA to	4.0 (1) DK BN SLI +, SI + SA
TOB 5.5	TOB 4.25 duzto
Puz to Y a 3.2'	
10	10
15 AT TIME OF DRILLING MW.	15
DELAYED HRS.	AT TIME OF DRILLING □ DELAYED HRS.
GROUND ELEVATION AT STAKE: OFFSET DISTANCE AND DIRECTION FROM STAKE:	GROUND ELEVATION AT STAKE: OFFSET DISTANCE AND DIRECTION FROM STAKE:
CHANGE IN GROUND ELEVATION:	CHANGE IN GROUND ELEVATION:

MEI PROJECT NO.:	Test Control of the C				RAFI
PROJECT NAME: Cohe Pro		DRILLED BY:		START DATE: 3-10-09	The state of the s
PROJECT LOCATION: Parich		LOGGED BY:/	16	END DATE:	AUGER LOG
	-35 1200		BORING	NO. SA-40	1930
O_P_S_OFFSET E.O.P		o P	S OFFSET	E.O.P STA	. NO
0.5 (10) DK BN SA				KBN ORG MU	
3 BN SLIS	I I-SA	1.0	4		~
			(3) B	V+ PK BN SLIST	FS4
		2.0			
3.0			10	3 2.0	
DOK BU O	RG FSA		Du	e to Damp	200
4.0					32./
5 TOB 4	.0'	5			
- Due to					
Soil					
20.1					
			_		
	1				
10		10			
				\widetilde{k}	
			_		
			-		
15		15			
<u>목</u> AT TIME	OF DRILLING			AT TIME OF DRILLII	
GROUND ELEVATION AT STAKE:	HKS.			DELAYED AT STAKE:	
OFFSET DISTANCE AND DIRECTIO				ID DIRECTION FROM ST	
CHANGE IN GROUND ELEVATION:	:	CHANGE	IN GROUND	ELEVATION:	

MEI PROJECT NO.: PROJECT NAME: Loke Pro perty PROJECT LOCATION: Parish	DRILLED BY: START DATE: 3-/0-09 LOGGED BY: E (F END DATE:
BORING NO. SA-S 100 O PS OFFSET E.O.P. STA. NO. DK EN SA ORG MUCK O DKGRY SLL ORG FSA BN SLISI FSA	BORING NO. SA-W 130 OPS OFFSET E.O.P. STA. NO. OS 10 DK BN SA OR & MUCK I.O DK BN SLI to OBG FSA 3 BN SLI ST FSA 2.0
TOB 2.0' Dre to domp soil	TOB 2.0' 5. Due to domp Soil
10	
□ AT TIME OF DRILLING □ DELAYED HRS. GROUND ELEVATION AT STAKE: OFFSET DISTANCE AND DIRECTION FROM STAKE:	AT TIME OF DRILLING AT TIME OF DRILLING DELAYED HRS. GROUND ELEVATION AT STAKE: OFFSET DISTANCE AND DIRECTION FROM STAKE:
CHANGE IN GROUND ELEVATION:	CHANGE IN GROUND ELEVATION:

MEI PROJECT NO.: PROJECT NAME: Cohe Property PROJECT LOCATION: Perrish	DRILLED BY: START DATE: 3-9-09 LOGGED BY: END DATE: AUGER LOG
BORING NO. SS-J5A 3 GRY IBN SLISIFSA (FM) 3.5 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.8 BORING NO. SS-J5A 3.5 3.7 BORING NO. SS-J5A 3.5 3.7 BOLLY BN SLISIFSA TOBS 3.7 TOBS 3.7 BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING NO. SS-J5A BORING	708 60 Pocto Hord pan
CHANGE IN GROUND ELEVATION:	CHANGE IN GROUND ELEVATION:
BORING NO. SS. 19A 3 GRYION SLIST FSA 3 BN SLIST FSA 3 LT BN SLI SI FSA	0 PS BORING NO. SS. 1913 (3) GRY/ISN SITSTESA 1-5 (3) BN SLT ST FSA 3-1 (2) LT BN SLT ST FSA
TOBON VAR. COM SLIT +7 SI FSA TOBS.O' MW-19 = 8,5 ATTIME OF DRILLING T.O.B. DELAYED HRS.	BDBN vor cem SII to SI TOB DO AT TIME OF DRILLING T.O.B DELAYED HRS.

MEI PROJEC	T NO.:	
PROJECT NA	ME: CONE PROPERTY	DRILLED BY: CCES START DATE:
PROJECT LOCATION:		LOGGED BY: BJ END DATE:
1.00	BORING NO. MW-6A	BORING NO. MW-
0 P S	OFFSET E.O.P STA. NO	0_P_S_ OFFSET E.O.P STA. NO
	10 MUCK	DK BRN SL.SI. FSA BBRN SL.SI. F.SA
2.5	SGRYBANGILTY TO CLAYEY SA.	- DEN SCSI. F.SA)
5	3) GRY SL. SI. F.SA	2) LHT BRN SL SI. F.SA
10		10.
13.0	6	
15	V TASTO	15 AT VEGY BOTTOM OF AUGUR
≖_	AT TIME OF DRILLING	₹AT TIME OF DRILLING
GROUND E	DELAYED HRS. ELEVATION AT STAKE: STANCE AND DIRECTION FROM STAKE:	GROUND ELEVATION AT STAKE: OFFSET DISTANCE AND DIRECTION FROM STAKE:
CHANGE II	N GROUND ELEVATION:	CHANGE IN GROUND ELEVATION:

PRO	JECT	r nai	NO.:	DRILLED BY:	START DATE: 3-16-08 MORTENSEN ENGINEERING, INC. AUGER LOG END DATE:	
			BORING NO. MW-7		BORING NOMW- 6B	
٥	Р	S	OFFSET E.O.P STA. NO	0_P_S	OFFSET E.O.P STA. NO	
			(10) MUCK CREAMIC LADEN SI. SAND	1.0		
1.5 2.5			SILTY FISH,		3 DEN BEN SELETY TO SC. CAYTEY FISTA	
			(5) DEV. BEN. SL. CURYET TO SILTY FSA.			
4.0 5.			(3) GRY SILTY FISH. TO SL CUMPRY	5.	3 GRY SLSI TOSI. F.SA.	
			<u>V</u> -we	5	(4) DEKLBEN, SL. SI. TO SI. FISTS.	
				According Chapter	Y- e 4.0'	
			1	7,5	3 SIUTY FISH.	
10.			BUE CEN SUMMERY CLARY	10	W/ ABUND. PHOSPH. GRAINS / PEBBLES	
10.			W PHOSPHATE GRAINS	1. "	(b) -7	
					SHOW	
		~			PERBUES PERBUES	
15			T.O.P.	15		
			3071 AT TIME OF DRILLING		6.3 T. OP AT TIME OF DRILLING	
☐ DELAYED HRS. GROUND ELEVATION AT STAKE:			DELAYED HRS. ELEVATION AT STAKE:			
			ISTANCE AND DIRECTION FROM STAKE:	President and discount of the second	DISTANCE AND DIRECTION FROM STAKE:	
_ c	HAN	GE I	N GROUND ELEVATION:	CHANGE	IN GROUND ELEVATION:	

MEI PROJECT NO.:	AAF			
PROJECT NAME: Cone Property	DRILLED BY: ESCER START DATE: 3-17-09			
PROJECT LOCATION: Parish	LOGGED BY: END DATE:			
BORING NO. MW-7A	BORING NO. MW 7B			
O_P_S_OFFSET E.O.P STA. NO				
(ID) DK BN ORG FSA	0			
to SA Muck	- (10) DK BN ORG FSA TO SA MUCK			
1.5				
(4) DK BN SLI TO SI FSA	20			
2.5 WI Trace of ORGanics	EDN BN 10 BN SI to SEX			
5) BN SI to SLICL FSA	CZ PSA			
5.	5			
5:2				
3 BNSLI YDSIFSX				
	7.0 TO SI FSA			
	(3) 13/10 522 11 54			
	900 V			
	O GRN CL			
10	10			
	11 -			
	6 GRN EL FSA to			
2.0				
G GRN SA CL	CL W/Trace of			
	1410			
15 103 15.0	DGRN Coll Clay			
AT TIME OF DRILLING	15			
□ DELAYED HRS.	= AT TIME OF DRILLING □ DELAYED HRS.			
GROUND ELEVATION AT STAKE:	GROUND ELEVATION AT STAKE: TOB 15-0			
OFFSET DISTANCE AND DIRECTION FROM STAKE: 30 S OF MW-7 OFFSET DISTANCE AND DIRECTION FROM STAKE:				
CHANGE IN GROUND ELEVATION: + / CHANGE IN GROUND ELEVATION: +)				

PERSONAL PROPERTY OF THE PROPE					
MEI PROJECT NO.:					
PROJECT NAME:	DRILLED BY:	START DATE:	MORTENSEN ENGINEERING, INC		
PROJECT LOCATION:	LOGGED BY:	END DATE:	AUGER LOG		
BORING NO. MW-19		BORING NO. MW-15			
O P S OFFSET E.O.P. STA. NO.		OFFSET E.O.P S			
	┑ ゚ ┌┌ ╸				
			İ		
1.5		4-inch			
1.5		PVC			
H = 0.0		WELL			
├					
		27° 35′ 3	.3"		
4.0		PVC WELL 27° 35′ 3 82° 25′ 2	9.7"		
5 (2)7	_ 5	82 25 2			
 					
H					
(3)	4 H				
* MOIST @ AROUND B.D'	7 %				
Ø.D'					
10	10				
2 W/ PHOSPHATE GRAINS		.C			
THE OWNAS		* 1 *			
^					
		- Lagran	D.		
		(5) w/ Agur	DH.		
			1 00000		
15 AT TIME OF DRILLING	_ _ 15 <u> _</u>	AT TIME OF DR	ILLING		
□ DELAYED HRS.		AT TIME OF DR			
GROUND ELEVATION AT STAKE:		ELEVATION AT STAKE:			
OFFSET DISTANCE AND DIRECTION FROM STAKE:	OFFSET D	ISTANCE AND DIRECTION FRO	M STAKE:		
CHANGE IN GROUND ELEVATION:	CHANGE	N GROUND ELEVATION:	-8-		

27° 35′ 6.4″ 87° 25′ 27.4″

27° 35' 6.4" 62° 25' 27.2" KADRAWASPIS-SHEET IS new 10-11-07-dwg, Model



PROJECT		DATE
CLIENT	USED AS BENCH LUNG	PROJECT NO
BY	For (UA	
	T.O.P. ELEVATION	GREUND ELEVATION
MW-le -	(8.45)	5.17
MW-CA -	8.46	S. 87 (N. SIDE OF PROTECT. CASING)
MW-LeB -	8. SO	5.47 (SW CORNER OF PROTECT. CASIN
MW-5 -	7.65 (USED AS BENCHMARK) FOR MW-7	3.80
MW-7 (LOW-DITCH LIKE FEATURE	6.36 (USED AS BENCH MARK TOOK 17A+	3.79 (E. SIDE OF PROTECT?
MW-7A -	6.58	4.14
MW-78 —	BBB 7.79	4.28
mw-3 -	8.82	4.90

APPENDIX C - GROUNDWATER SAMPLING LOGS

APPENDIX C - GROUNDWATER SAMPLING LOGS

DEP-SOP-001/01

FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Me 1	ropert	7			SITE LOCATION:	Pary	ch			9	
WELL NO:	Mu.	1'		SAMPLE	E ID:				DATE: 3-	11-09		
						GING DA		T	o P			
WELL DIAMETER (in	nches):	TUBING J DIAMETER (i	nches):	DEPTH:	REEN INTE	13 feet	TO WATE	EPTH /2.5/	PURGE PUMP OR BAILER:	ESP		
WELL VOLUM only fill out if a		1 WELL VOLU		L WELL DEF	TH - STA	2.5/	TO WATER)	X WELL CAP			nolls	
		RGE: 1 EQUIP	MENT VOL.	= PUMP VOL	UME + (TUE	BING CAPAC	ITY X	TUBING LENGT	TH) + FLOW CEL		gallons	
(only fill out if a	арріїсавіе)		-	ga	llons + ((70)	ns/foot X		et) +	gallons =	gallons	
INITIAL PUMF DEPTH IN WE		16	FINAL PUMF DEPTH IN W	/ELL (feet):	16	PURGII	NG II	7 PURGING ENDED		TOTAL VOLUM PURGED (galio		
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or (15/cm)	DISSOLVED OXYGEN (officle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
1140	14	60	,24	12.52	5.54	22.40	493	0,91	280	C/Orde bett	Nome	
1149	340	2.0		12.75	3.20	23.33	491	6,97	36	Clear	1	
1144	.7	2.7	.24	12.50	5.17	22,32	488	1.30	16	clear	Whene	
1146	16	3.3	.24	13.82	5.12	22.34	487	1,49	13		l	
					-				-	+		
									-		- 4	
WELL CAPAC	ITY (Gallons	Per Foot): 0.75 ACITY (Gal./Ft.):	5" = 0.02; 1 1/8" = 0.00	" = 0.04;	1.25" = 0.06	; 2" = 0.16	; 3" = 0.3; ; E/46" =	7; 4" = 0.65; 0.004; 3/8" =	5" = 1.02; 6" 0.006; 1/2" =	= 1.47; 12" =	5.88 0.016	
					SAMP	LING DA		0.004, 376 -	0.000, 172 =	0.010, 5/6 -	- 0.010	
Er.c 6	, ²⁰	FILIATION: -A 5	374	MPLER(S) S	IGNATURES			SAMPLING INITIATED AT:	11 50	SAMPLING ENDED AT:	101	
PUMP OR TUE	BING	16	SAI	MPLE PUMP		800		TUBING	Dr	ENDED AT:	136	
DEPTH IN WE FIELD DECON		1: Y N	FIE	DW RATE (m LD-FILTERE	D: Y N	The state of the s	ER SIZE:	MATERIAL COI	DE: PE DUPLICATE:	Y N		
	SAMPLE C	ONTAINER	Filtr	ation Equipn	r second of second	PLE PRESER	DVATION.		INTENDED	<u> </u>	MOUNO	
SAMPLE ID	SPECIFI #	MATERIAL	VOLUME	PRESERV	ATIVE	TOTAL VC	DL T	FINAL	ANALYSIS AND	OR EQI	MPLING JIPMENT CODE	
CODE	CONTAINER	RS CODE P	250nL	HNO		DED IN FIEL	D (mL)	pH	" AWARD CARE	ESC	11-W-9850-W20	
	2	AG	12	17700					AS 8081	ESP		
						y says						
											300 100	
												
REMARKS:	REMARKS:											
MATERIAL CO		AG = Amber Gl		Clear Glass;	PE = Pol	yethylene;	PP = Polypro	opylene; S = Si	licone; T = Teflo	on; O = Other	(Specify)	
SAMPLING/PU EQUIPMENT C	ODES: RI	PP = After Peris PPP = Reverse I not constitut	Flow Peristalti		SM = Stray	= Bladder Pur v Method (Tu	bing Gravity [ersible Pump; Vacuum Trap;	PP = Peristaltic O = Other (Sp		

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

NAME:	one f	raperty				SITE LOCATION:	Pari	sh			
	MW-			SAMPL	E ID:	200111011			DATE: 3	-11-09	,
				. 1	PUR	GING D	ATA			11 01	
WELL DIAMETER	(inches):	TUBING DIAMETER (3/8	WELL S	CREEN INTE		STATIC D	EPTH 6,52	PURGE PUMP	TYPE , P	
WELL VOL	UME PURGE:	1 WELL VOLU	JME = (TOTA	L WELL DE	feet to	feet ATIC DEPTH	TO WATER)	R (feet): X WELL CA	I OD DAILED.	_//	
only fill out	п аррисавіе)		= (1	4.9	feet -	51	feet)	× 0.16			
EQUIPMEN	IT VOLUME PI	URGE: 1 EQUII	PMENT VOL.	= PUMP VO	LUME + (TUE	BING CAPAC	ITY X		TH) + FLOW CEL		gallons
			:	= g	allons + (gallo	ons/foot X	f	eet) +	gallons ≃	gallons
	MP OR TUBING WELL (feet):	G	FINAL PUME DEPTH IN V		IG	PURGI INITIAT	NG /4	18 PURGIN		TOTAL VOL PURGED (g	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP.	COND. (µmhos/cm oruS/cm)	DISSOLVED OXYGEN circle mg/L o % saturation	TURBIDITY r (NTUs)	COLOR (describe	ODOR
1425	1.4	1,4	,24	7.78	5,62	19.13	430	.64	190	clordy	1340
427	135	1,75	.24	8,42	5.56	19,15	429	.87	160	17	17
429	,75	2.5	.18	8.42	5.61	19.24	428	,92	100		77
1433	.50	3.0	.16	8.42	3.53	1936	428	2.43	95		1
1435	.35	3,35	.16	8.42	19.28	427	2.3/	75			
1437 ,25 3.60 ,16 8.41 5.47 14.36 427 2.28 55											
						<u> </u>				-	
											-
WELL CAPA	ACITY (Gallons	Per Foot): 0.79 ACITY (Gal./Ft.)	5" = 0.02; 1	" = 0.04;	1.25" = 0.06	2" = 0.16	i; 3" = 0.37	7; 4" = 0.65;			" = 5.88
				6.	SAMP	LING DA		0.004; 3/8" =	= 0.006; 1/2" =	0.010; 5/8	" = 0.016
2 1000	Y (PRINT) / AF		SAI	MPLER(S) S	GIGNATURES	:		SAMPLING	111110	SAMPLING	111115
PUMP OR T		AS	801	MPLE PUMP	-			INITIATED AT:	1990	ENDED AT:	1442
DEPTH IN W	VELL (feet):		FLC	W RATE (n	nL per minute		_	TUBING MATERIAL CO	DE: PE	S	
FIELD DECC	OITANIMATIO			LD-FILTERE ation Equipr		FILT	ER SIZE:	μm	DUPLICATE:	Y	N
		ONTAINER ICATION		31000	SAMI	PLE PRESER	RVATION		INTENDED		SAMPLING
SAMPLE ID CODE	# CONTAINER	MATERIAL RS CODE	VOLUME	PRESER'		TOTAL VO		FINAL	ANALYSIS AND/ METHOD	OR E	QUIPMENT CODE
	2	P	258nz	HN		DED IN THE	D (IIIL)	- pri	AS	1	550
									/ \		,-/

EMARKO											
REMARKS:											
TATERIAL C	ODES:	AG = Amber Gl	ace. CG = C	lear Glass;	DE - mat	oth days	DD - F '				
AMPLING/P	URGING A	PP = After Peris FPP = Reverse I	taltic Pump:	B = Baile		Bladder Pur	PP = Polypro	= Electric Subm		PP = Perista	
		not constitut		rump;	SIVI = Straw	Method (Tub	ing Gravity D	rain); VT =	Vacuum Trap;	O = Other (Specify)

constitute all of the information required by Chapter 62-160, F.A.C.

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE NAME: (CONE	Proper	ty			SITE LOCATION:	Par	ish			
WELL NO:	MW-	4	de la companya de la	SAMPL	E ID:				DATE: 3	11-09	
					PUR	GING DA	ATA		·		
DIAMETER	(inches): UME PURGE:	TUBING J DIAMETER (inches):	DEPTH:	CREEN INTE	feet	TOWATE	EPTH 7.59 R (feet): X WELL CAP	UD BVII CD.	TYPE PP	
only fill out	if applicable) T VOLUME PU		= (/)	5.3	feet - 7	59	foot)	x 0.16		= 1.24	gallons
(only fill out	if applicable)		=		allons + (ns/foot X		eet) +	c volume gallons =	gallons
INITIAL PUN DEPTH IN V	MP OR TUBING VELL (feet):	10'	FINAL PUMP DEPTH IN W		10'	PURGII INITIAT	NG 13 ED AT:	ENDED		TOTAL VOLUM PURGED (gall	ME ons): 5
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1327	0.3	0.5	112	9.8		20.55		0,66	110	LT BN	None
1338	.75	1,25	,12	8.8	4,97	20.76		0.70	350	BN	None
1340	,20	1,43	,12	8.8	4,98	20.77	390	0.83	330		
1347	1.05	2.5	,/2	8.6	4,87	20.74	389	1.21	180	BN	14)
353	1,25	3,75	,/2	8.8	4,82	20.72	391	1.08	110	LTBN	
WELL CAPA	CITY (Gallons I	Per Foot): 0.7 8	5" = 0.02; 1	" = 0.04;	1.25" = 0.06	2" = 0.16	; 3" = 0.37	7; 4" = 0.65;	5" = 1.02; 6"	= 1.47; 12" =	= 5.88
TUBING INS	IDE DÍA. CAPA	(CITY (Gal./Ft.):	1/8" = 0,000	6; 3/16"		1/4" ≈ 0.0026 LING DA		0.004; 3/8" =	0.006; 1/2" =		= 0.016
Eric	Y (PRINT) / AFI	FILIATION:		MPLER(S) S	IGNATURES		117	SAMPLING INITIATED AT:	1400	SAMPLING ENDED AT:	400
PUMP OR TI	JBING /	10'	SAM	IPLE PUMP		600		TUBING		ENDED AT.	100
DEPTH IN W		- W M		W RATE (m .D-FILTERE	L per minute D: Y N		ER SIZE:	MATERIAL COI			
- IELD DEGO	SAMPLE CO			ition Equipn				µIII	DUPLICATE:	Y N	
011151515	SPECIFIC	CATION				PLE PRESER			INTENDED		MPLING
SAMPLE ID CODE	# CONTAINER	MATERIAL S CODE	VOLUME	PRESER\ USE		TOTAL VO DED IN FIELI		FINAL pH	ANALYSIS AND/ METHOD		JIPMENT CODE
	2	P	250mL	HNO					AS	ES	P
			0.0000000000000000000000000000000000000	WA AROUNT I							
					10						
									73631		
									****		-
REMARKS:											
											direct title
MATERIAL C	ODES:	AG = Amber Gla	ass; CG = C	lear Glass;	PE = Poly	ethylene;	PP = Polypro	pylene; S = Si	icone; T = Teflo	n; O = Other	(Specify)
AMPLING/P		P = After Perisi PP = Reverse F	low Peristaltic	B = Baile Pump;		Bladder Pum Method (Tub	np; ESP bing Gravity D	= Electric Subm rain); VT =		PP = Peristaltic	Pump

IOTES: 1. The above do not constitute all of the Information required by Chapter 62-160, F.A.C.

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE NAME: C	one F	copert	4	3-1-1-1-1		SITE LOCATION:	Paris	λ			
WELL NO:	MW-	5		SAMPLE		LOG/THOM.	-1		DATE: 3	19-01	· ·
					PUR	GING DA	ATA	195. (Sec. 1965)		11.01	
DIAMETER	えい (inches):	DIAMETER (3 5//6 nches):	DEPTH	REEN INTE	15 foot	I TO MAKE	D /footh	PURGE PUMP OR BAILER:	TYPE PP	
only fill out i	if applicable)		= (. WELL DEF	TH ~ STA feet ~	TIC DEPTH	TO WATER)	X WELL CA	PACITY gallons/foot	= 1.9	gallons
EQUIPMEN (only fill out i	T VOLUME PUR if applicable)	RGE: 1 EQUIF	MENT VOL. =	PUMP VOL	UME + (TUE	BING CAPACI	TY X	TUBING LENG	TH) + FLOW CEI	-L VOLUME	gallons
INITIAL DUA	AP OR TUBING		CIMAL DUBAR		llons + (ns/foot X		eet) +	gallons =	gallons
DEPTH IN V		10	FINAL PUMP DEPTH IN W	ELL (feet):	j	PURGIN	ED AT: /Q_		AT:	TOTAL VOLUM PURGED (gaile	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm orus/cm)	DISSOLVED OXYGEN (glīcle mg/L o % saturation)	TURBIDITY r (NTUs)	COLOR (describe)	ODOR (describe)
1259	1.6	1.6	,20	6,76	, , ,	9036	255	0.35	5.2	Clar	Nos-
101	,3	2- <u>2</u> 25	120	6.70	5,82		262	0.38	3,4	+	(
103	, 3	2.5	120	6.70	5.76	20.31	263	6.38	3-0		
										-	
WELL CAPA	CITY (Gallons F IDE DIA, CAPA	er Foot): 0.75	5" = 0.02; 1	" = 0.04;	1.25" = 0.06	2" = 0.16	3" = 0.3	7; 4" = 0.65;	5" = 1.02; 6'	' = 1.47; 12" =	= 5.88
					SAMP	LING DA		0.004; 3/8" =	= 0.006; 1/2" =	: 0.010; 5/8" =	= 0.016
	Y (PRINT) / AFF		I .	MPLER(S) SI		:		SAMPLING INITIATED AT:	12 AT	SAMPLING ENDED AT: /	1228
PUMP OR TU DEPTH IN W	JBING /	<i>L</i> /13	SAN	PLE PUMP		77)	TUBING		ENDED AT: /	300
	NTAMINATION:	YN	FIEL	D-FILTERE	D: Y N): / S C	ER SIZE:	MATERIAL CO μm	DE: PE DUPLICATE:	$\frac{1}{\sqrt{\lambda}}$	
	SAMPLE CO SPECIFIC		FIRE	ation Equipm	20.	PLE PRESER	VATION	<u> </u>	INTENDED		MPLING
SAMPLE ID CODE	# CONTAINERS	MATERIAL	VOLUME	PRESERV USE	ATIVE	TOTAL VO	ι Τ	FINAL	ANALYSIS AND METHOD	OOR EQU	UIPMENT CODE
	2	PE	JEONL	HNO		DED IN FIELI	י (וווג)	pH	AS		
										d .	
											
***		-				···					
							_				90.
REMARKS:											
MATERIAL C	ODES: A	G = Amber Gl	ess: CG ≈ C	lear Glass;	PE = Poly	vethylene:	DD = Dolum	onvlene: S - S	ilicone; T = Tefi	on: 0 = 04	(Cnosis)
SAMPLING/P EQUIPMENT	URGING AP	P = After Perisi PP = Reverse F	taltic Pump;	B = Baile	r; BP=	Bladder Pun Method (Tub		= Electric Subm		PP = Peristaltion	c Pump
	e above do n								vacuum Hap,	O = Other (Sp	recity)

IOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE NAME:	Ohe	Propert	.,			SITE LOCATION:	Pa.	ch			
WELL NO:	MW-	6	<i></i>	SAMPLE	700 C C C C C C C C C C C C C C C C C C	LOCATION.		21	DATE: 3	19-09	
L	1 (00				PUR	GING DA	TA				
	2''	TUBING	3/8 nches):	WELL SO	CREEN INTE	RVAL	STATIC D	EPTH 6,03	PURGE PUMP '	TYPE &	7
DIAMETER (i	ME PURGE:	1 WELL VOLU	ncnes): IME = (TOTAL	WELL DEF	TH - STA	Teet	TO WATER)	R (feet): X WELL CAF	OR BAILER: ACITY	F3/	
only fill out if	applicable)		1.0	,		^				2	gallons
EQUIPMENT (only fill out if	VOLUME PU	RGE: 1 EQUIP	MENT VOL. =	PUMP VOL	UME + (TUE	BING CAPACI	TY X	TUBING LENG	∠ gallons/foot TH) + FLOW CEL	L VOLUME	ganono
			=		allons + (ns/foot X		eet) + 2+C		gallons
DEPTH IN W		15	FINAL PUMP DEPTH IN W	ELL (feet):	ر دا و	PURGIN INITIATI	IG /05 ED AT:	ENDED	AT:	TOTAL VOLUM PURGED (galle	ns):3./
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP.	COND. (µmhos/cm or µ8/cm)	DISSOLVED OXYGEN (circle mg/b o % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1105	2.1	2.1	,20	6.38	636	20.52	3/2	0.50		Clear	none
1107	.4	2,5	120	6.39	5.99	21.37	309	0.36	14		
1109	12	2.7	,20	6.38		20,42	308				
11 11	_,4	3,1	100	6-38	5,88	20,46	310	0.31	9.7		
										-	
											
WELL CAPAC TUBING INSI	OTY (Gallons DE DIA, CAPA	Per Foot): 0.79 ACITY (Gal./Ft.)	5" = 0.02; 1 1/8" = 0.000	" = 0.04; 6: 3/16"	1.25" = 0.06 = 0.0014	2" = 0.16	3" = 0.37	7; 4" = 0.65; 0.004; 3/8" =	5" = 1.02; 6"		= 5.88 = 0.016
					SAMP	LING DA		0.004, 270	0,000, 112 =	0.010, 576	- 0.016
EAR G			SAN	MPLER(S) S	IGNATURES	5 :		SAMPLING	1/15	SAMPLING ENDED AT:	11/7
PUMP OR TU	BING	#3	SAN	IPLE PUMP		(0	a 1	INITIATED AT: TUBING	25		1117
DEPTH IN WE		. V N	FLO FIEL	W RATE (m .D-FILTERE	L per minute D: Y N): 6 00 FILTE	ER SIZE:	MATERIAL CO		/	
TILLD DLGON	SAMPLE CO		Filtra	ation Equipn					DUPLICATE:	Y N	
SAMPLE ID	SPECIFI #	CATION MATERIAL	VOLUME	PRESERV		PLE PRESER TOTAL VO	A-SERVANDOS ANTON	FINAL	INTENDED ANALYSIS AND	OR EQ	MPLING JIPMENT
CODE	CONTAINER	S CODE	VOLUME	USE	D AD	DED IN FIEL		pH	METHOD		CODE
	2	PE	250MZ	1/MO					AS		
					-					*	
		-					-				
									<u> </u>		
		and the second									
REMARKS:				-							
MATERIAL CO		AG = Amber Gl	ass; CG = C	lear Glass;	PE = Poly	yethylene;	PP = Polypro	opylene; S = S	licone; T = Teflo	on; O = Other	(Specify)
SAMPLING/PU EQUIPMENT C	ODES: RF	PP = After Peris PP = Reverse	Flow Peristaltic		SM = Stray	= Bladder Pun v Method (Tub	ing Gravity D	P = Electric Subm Prain); VT =	ersible Pump; Vacuum Trap;	PP = Peristalti O = Other (Sp	
OTES: 1. The	above do	not constitut	e all of the i	nformatio	n required	by Chante	r 62-160 E	A.C.			

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

NAME: COAC Property WELL NO: MW 6 A SAMPLE ID: DATE: 3-19-04 PURGING DATA WELL SCREEN INTERVAL DEPTH: /5 feet to 5 feet WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER (feet)); OR BAILER: WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER (feet)); OR BAILER: EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME GOING fill out if applicable) TIME VOLUME PURGE: 1 EQUIPMENT VOLUME PUMP OR TUBING DEPTH IN WELL (feet); OF DEPTH IN WELL (feet); OF DEPTH IN WELL (feet); OF DEPTH IN WELL (feet); OF DEPTH IN WELL (feet); OF DEPTH IN WELL (feet); OF DEPTH IN WELL (feet); OF DEPTH IN WATER (feet); OF DE
PURGING DATA WELL Z TUBING 3/8 WELL SCREEN INTERVAL DEPTH C OF DIAMETER (inches): TO WATER (feet): TO WATER (feet): TO WATER (feet): TO WATER (feet): TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME = gallons + (gallons/foot X feet) + gallons = gallons INITIAL PUMP OR TUBING
WELL Z DIAMETER (inches): DIAMETER (inches): DEPTH: / 5 feet to 5 feet TO WATER (feet): OP OR BAILER: ESP OR BA
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable) = (S feet - (
Color Final Pump or Tubing Depth in Well (feet): O Depth in Well (feet) O O O O O O O O O
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons = gallons INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 10 PURGING INITIATED AT: 130 PURGING ENDED AT: 130 PURGED (gallons): 4 PURGED (gallons): 4 PURGED (gallons) (gpm) (feet) PURGED (gallons) (gpm) (feet) PURGED (gallons) (gpm) (feet) PURGED (gallons) (gpm) (feet) PURGED (gallons) (gpm) (feet) PURGED (gpm)
Control Cont
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): D
TIME VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME (gpm) VOLU
TIME VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME PURGED (gallons) VOLUME (gpm) V
1158 .25 3.50 118 7.40 5.44 20.61 468 423 50 1 1 1200 .1 3.6 .18 7.40 5.48 20.67 469 4.16 45
1158 . 25 3.50 , 14 7.40 5.44 20.61 468 423 50 1 1
7200 ,1 3,6 ,18 7,40 5,48 20,67 469 4,16 45
1204 14 4,0 ,18 7,40 5.64 20.69 467 4.01 45
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TOBING INSIDE DIA, CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
SAMPLING DATA SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURES:
Eriz Gray LAS 9. 2 SAMPLING INITIATED AT: 12/0 ENDED AT: 12/1
PUMP OR TUBING SAMPLE PUMP TUBING DUE C
FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N FILTER SIZE: µm DUBLICATE
SAMPLE CONTAINER SAMPLE PRESERVATION
SAMPLE ID # MATERIAL VOLUME PRESERVATIVE TOTAL VOL FINAL ANALYSIS AND/OR EQUIPMENT
CODE CONTAINERS CODE VOLUME USED ADDED IN FIELD (mL) PH METHOD CODE 2 PE 250nl HNO3 AS
- 12 DOME HINO - 43
REMARKS:
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump QUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify) OTES: 1. The above do not constitute all of the information required by Chapter CO 400. F. 1.0

of the Information required by Chapter 62-160, F.A.C.

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE NAME: /	ONE	Property	,			SITE LOCATION:	Par	sh			*
WELL NO:	MW-	6A		SAMPLE					DATE: 4	8-09	
					PUR	GING DA	ATA	781			
WELL DIAMETER	(inches):	TUBING DIAMETER (i	1/4" nches):	WELL SO	REEN INTE		STATIC D TO WATE	EPTH- 6.07 R (feet):	PURGE PUMP '	TYPE PP	
WELL VOL	UME PURGE: if applicable)	1 WELL VOLU	ME = (TOTA		TH - STA	TIC DEPTH	TO WATER)	X WELL CAP	ACITY	201	
1	IT VOLUME PU	RGE: 1 FOUR	= (/	PUMP VOI	feet -	RING CAPAC	feet)	X O./ C	gallons/foot H) + FLOW CEL	= J. 0 1	gallons
	if applicable)	TODI TAGO	=		llons + (ns/foot X		et) +	gallons =	gallons
	MP OR TUBING	12'	FINAL PUMP		12.				**************************************	TOTAL VOLUM	ИЕ 🦘 /
DEPTH IN V	WELL (feet):	CUMUL.	DEPTH IN W	ELL (feet): DEPTH		INITIAT	NG 10 C ED AT:	ENDED A	AT: 1016	PURGED (gall	ons):
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1007	1,1	1.1	,25	7.35	6.31	20.63		4.2	3.5	Clear	SU Hera
1010	,63	1.75	,22	7.53	6.31	20.68	346	3.6	2-4	$\perp \downarrow$	<i>⊢.</i> /
10 3	175	2.5	135	7.70	6.27	20.71	348	3.1	2.6		1
						1					
WELL CAP	ACITY (Gallons	Per Foot): 0.78	i" = 0.02: 1	" = 0.04:	1.25" = 0.06	2" = 0.16	· 3" = 0.3	7; 4" = 0,65;	5" = 1.02; 6"	= 1.47: 12":	= 5.88
TUBING INS	SIDE DÌA. CAPA	ACITY (Gal./Ft.)	1/8" = 0.000	06; 3/16"	= 0.0014;	1/4" = 0.0028	5; 5/16" =				= 0.016
	BY (PRINT) / AF		SAI	MPLER(S) SI			417	SAMPLING	(.15	SAMPLING	
PUMP OR T	ray Br	# JOhns		MPLE PUMP				INITIATED AT:	10:d0	ENDED AT:	1025
DEPTH IN V		15.	FLC	W RATE (m LD-FILTERE	L per minute			MATERIAL COL	DE: PE,	5	
FIELD DEC	MOITANIMATING	N: Y N		ation Equipm		fill	ER SIZE:	µm	DUPLICATE:	Y N	
SAMPLE ID	SPECIFI		T	PRESERV	0.000,00000	PLE PRESE		FINAL	INTENDED ANALYSIS AND		AMPLING UIPMENT
CODE	CONTAINER	RS CODE	VOLUME	USE		DED IN FIEL		pH	METHOD		CODE
		PE	250m2	#1103					AS CFIHA	red) 77	
	1	12	コンロルと	MyVVJ					MS (vatoti	eres) PP	
Yester 1900											
REMARKS:											
INDIVIDINA											- No.
MATERIAL (CODES:	AG = Amber G	ass; CG = (Clear Glass;	PE = Pol	yethylene;	PP = Polypr	opylene; S = Si	licone; T = Tefl	on; O = Othe	r (Specify)
SAMPLING/ EQUIPMENT		PP = After Peris FPP = Reverse		B = Baile c Pump;	77 (10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to 10 to	= Bladder Pu		P = Electric Subm Drain): VT =	ersible Pump; Vacuum Trap;	PP = Peristalt O = Other (S	
TEC. 4 T		not constitut		The state of the s		Newsconnection of the second section of the second			portion control of TPI		,

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE NAME:	The 1	Coperty GB				SITE LOCATION:	Par	ch			- ·
WELL NO:	MW-	6B		SAMPLE		LOGATION.	- Lar	2-1	DATE: 3	-17-09	*
		<u> </u>	·		PUR	GING DA	ATA			7/1-01	
DIAMETER (i	2" inches):	TUBING 5	inches):	DEPTH:	REEN INTE	T feet	STATIC D	EPTH 5.50	PURGE PUMP OR BAILER:	TYPE PP	
WELL VOLU only fill out if	ME PURGE: applicable)	1 WELL VOLU	JME = (TOTA	L WELL DEF	TH - STA	TIC DEPTH	O WATER)	X WELL CAI	PACITY		
EQUIPMENT	VOLUME PU	RGE: 1 EQUIP	= (/ PMENT VOL. :	85 PUMP VOI	feet - 写. UME + CTUE	50 T	feet)	X 0.001	gallons/foot TH) + FLOW CEL		gallons
(only fill out if	applicable)		=		ıllons + (ns/foot X		eet) +	gallons =	gallons
INITIAL PUMI DEPTH IN W	P OR TUBING ELL (feet):	15	FINAL PUMP DEPTH IN W		3	PURGIN	IG IO	PURGIN ENDED		TOTAL VOLUM PURGED (gallo	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP.	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L o % saturation)	TURBIDITY r (NTUs)		ODOR (describe)
1037	4,0	4.0	0.24	6.5	6.25	28.71	318	0.45	13	Clear	None
1079	. 25	4,25	0,24	6.5	6.23	20,53	3/9	0,40			
1043	,27	4,50	0,24	6.5	6.23	20,49	320	0.34			_(
1043 150 5.00 024 6.5 6.23 20.42 320 0.34 8.6											
WELL CAPAC	CITY (Gallons DE DIA, CAPA	Per Foot): 0.75 ACITY (Gal./Ft.):	5" = 0.02; 1 1/8" = 0.000	" = 0.04;	1.25" = 0.06;	2" = 0.16;	3" = 0.3	 7; 4" = 0.65; 0.004; 3/8" =		= 1.47; 12" =	
					SAMP	LING DA		0.004, 376 -	- 0.006, 1/2" =	0.010; 5/8" =	0.016
Eric G		A C	SAF	MPLER(S) SI	GNATURES			SAMPLING INITIATED AT:	1045	SAMPLING ENDED AT:	045
PUMP OR TUI DEPTH IN WE	BING	Д9	SAM	MPLE PUMP OW RATE (m	L par minuta	780)	TUBING	DI	CINDED AT.	
FIELD DECON		I: Y N	FIE	LD-FILTERE ation Equipm	D: Y N		R SIZE:	MATERIAL CO μm	DUPLICATE:	/ Y N	
	SAMPLE CO SPECIFIE					PLE PRESER	VATION		INTENDED		MPLING
SAMPLE ID CODE	# CONTAINER	MATERIAL S CODE	VOLUME	PRESERV USE		TOTAL VOI DED IN FIELD	5 38 3027	FINAL pH	ANALYSIS AND METHOD		JIPMENT CODE
	2	PE	250hl	HNO					AS	P.	P
· · · · · · · · · · · · · · · · · · ·									44-4-		
	 				- -						
DEMARKS			-								2
REMARKS:											
MATERIAL CO	DES:	AG = Amber Gla	ass; CG = C	lear Glass;	PE = Poly	ethylene;	PP = Polypro	ppylene; S = S	ilicone; T = Teflo	on; O = Other	(Specify)
SAMPLING/PU EQUIPMENT C	RGING AF	PP = After Perist PP = Reverse F	taltic Pump; Flow Peristaltic	B = Baile Pump;		Bladder Pum Method (Tub	p; ESF	= Electric Subm		PP = Peristaltic	Pump

IOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

DEP-SOP-001/01 FS 2200 Groundwater Sampling

Form FD 9000-24 **GROUNDWATER SAMPLING LOG**

SITE NAME:	(8hr	Prop	ert,			SITE LOCATION:	fa)	Pac-sh			
WELL NO:				SAMPL		LOCATION.		46-11	DATE: 3	19-09	
		-/			PUR	GING DA	TA		1-11-3	17-01	
WELL DIAMETER	Z · /	TUBING DIAMETER (CREEN INTE	RVAL	STATIC I	DEPTH 4.10	PURGE PUMP	TYPE OP	
WELL VOL	UME PURGE:	1 WELL VOLU	JME = (TOTA	L WELL DE	PTH - STA	15 feet TIC DEPTH	O WATER	R (feet): ' X WELL CA	OR BAILER: PACITY		
	if applicable)		= (18	feet –	4.10	feet)	x 01	gallons/foot	= 2.2	gallons
(only fill out	IT VOLUME PU if applicable)	RGE: 1 EQUIF	PMENT VOL.	= PUMP VOI	LUME + (TUE	SING CAPACI	TY X	TUBING LENG	TH) + FLOW CEL	L VOLUME	
3.1				178	allons + (gallo	ns/foot X		eet) + 	gallons =	gallons
	MP OR TUBING WELL (feet):	8'	FINAL PUMP DEPTH IN W	OR TUBING ELL (feet):	g g'	PURGIN INITIATI	IG 均入 ED AT:	FURGIN ENDED	IG AT: 13,45	TOTAL VOLUI	ME 3.5
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP.	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/b o % saturation)	TURBIDITY r (NTUs)		ODOR (describe)
1336	1.5	1,5	.20	4.95	5,80	21.95	157	0.44	4,1	Clea	Nore
1341	1-0	2.5	120	4.95	5.36	21.47	158	0.43	1.4	1	1
1343	.5	3.0	,20	4.95	5,33	21.96	157	0,39	0.9		
1345	0.5	3.5	,20	4.95	5.27	21.97	157	0.39	1,1		
							*				
					·						
											<u> </u>
										-	
	i										
WELL CAPA	ACITY (Gallons I	Per Foot): 0.78	5" = 0.02; 1 1/8" = 0.00	" = 0.04;	1.25" = 0.06; = 0.0014;	2" = 0.16	3" = 0.3	7; 4" = 0.65;	5" = 1.02; 6"	= 1.47; 12"	= 5.88
					SAMP	LING DA		= 0.004; 3/8 ^{··} =	= 0.006; 1/2" =	0.010; 5/8"	= 0.016
	Gray	FILIATION:	3		IGNATURES	:		SAMPLING	13 48	SAMPLING ENDED AT:	125
PUMP OR T	UBING /	2113		MPLE PUMP		0.1	27 (2844) (1)	INITIATED AT:	1) 70	ENDED AT:	1330
DEPTH IN W	VELL (feet): () 		W RATE (m LD-FILTERE	L per minute D: Y N		R SIZE:	MATERIAL CO		7	-
FIELD DECC	SAMPLE CO	es si seveni	Filtr	ation Equipn	nent Type:				DUPLICATE:	Y N	
SAMPLE ID	SPECIFIC #		Т	PRESERV		PLE PRESER		FINAL	INTENDED ANALYSIS AND		ampling Uipment
CODE	CONTAINER	S CODE	VOLUME	USE	D AD	DED IN FIELD		pH	METHOD		CODE
	2	PE	250mL	HN	03				AS		
	7	-	-							(40)	
											
											<u> </u>
	- THE STATE OF THE					*					5
REMARKS:		·									
ATERIAL C AMPLING/F	URGING AP	AG = Amber Gl P = After Peris PP = Reverse I	taltic Pump:	Clear Glass; B = Baile	PE = Poly er; BP =	Bladder Pun	PP = Polypr	P = Electric Subm		PP = Peristalti	
		not constitut			n required	Method (Tub	es den e	Jam); VI=	Vacuum Trap;	O = Other (S	pecity)

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

DEP-SOP-001/01 FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

NAME: /	MW-7+	+ CON	e Prap	249		SITE LOCATION:	Pari	54			
WELL NO:	Mu-	TA		SAMPLE	ID:				DATE: 3	19-09	,
					PUR	GING DA	ATA				
DIAMETER		TUBING 3 DIAMETER (I	nchés):	DEPTH:	REEN INTE	15 feet	TO WATE	EPTH 5.08	OR BAILER	TYPE PP	,
WELL VOL	UME PURGE: if applicable)	1 WELL VOLU	IME = (TOTA	r Merr Déb	TH - STA	TIC DEPTH	O WATER)	X WELL CA	PACITY		
	IT VOLUME PU	DCE: 1 EOUIE	= (feet - 5	.08	feet)	x O// (gallons/foot	= d.o	gallons
(only fill out	if applicable)	NOL. I LUGII	WILLIAI VOL.						TH) + FLOW CEL		
INITIAL PUR	MP OR TUBING		EINIAI DIIME	OR TUBING	lons + (·	ns/foot X		eet) +	gallons =	gallons
DEPTH IN V		S' CUMUL.	DEPTH IN W		8'	PURGIN	ED AT: 135		AT: 190 (TOTAL VOLU PURGED (gal	ME 3/
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L o % saturation)	TURBIDITY r (NTUs)	COLOR (describe)	ODOR (describe)
14 03	1,6	1,6	120	5.51	5,37		270	0,40	4,2	Clea	Woha
1405	,65	2.25	120	5,51	5.38	2053	275	0.76	2.9	1	
1407	150	2.75	120	5.51	5.46	2050	282	0.35	1.8	111	
									-		
		-					-				
											
										-	
									The processor of the second	-	
											-
WELL CAPA	ACITY (Gallons SIDE DIA, CAPA	Per Foot): 0.75	5" = 0.02; 1	" = 0.04; '	1.25" = 0.06;	2" = 0.16	3" = 0.3	7; 4" = 0.65; 0.004; 3/8" :			= 5.88
					SAMP	LING DA		0.004, 3/6	- 0.000, 1/2 ~	0.010, 5/8"	= 0.016
SAMPLED B	Y (PRINT) / AF	FILIATION:	SAI	MPLER(S) SI	GNATURES	:		SAMPLING	111/2	SAMPLING	1(1/)
PUMP OR T	UBING /	LAS		MPLE PUMP		643		INITIATED AT:	1910	ENDED AT:	14/2
DEPTH IN W		8		OW RATE (ml			R SIZE:	MATERIAL CC			
FIELD DEGC	SAMPLE CO			ation Equipm	ent Type:			µm	DUPLICATE:	Y N	
SAMPLE ID	SPECIFI #		_	PRESERV		TOTAL VO		FINAL	INTENDED ANALYSIS AND		AMPLING QUIPMENT
CODE	CONTAINER	S CODE	VOLUME	USE	D AD	DED IN FIELI		pH .	METHOD		CODE
	2	PE	250ML	HNO	3				H3	P	9
	-		-					-			
		-	<u> </u>						2		
								*			
		-				-					
			 								
REMARKS:			J.,								
MATERIAL C	ODES:	AG = Amber GI	ass; CG = 0	Clear Glass;	PE ≈ Poly	vethylene;	PP = Polypro	ppylene; S = S	ilicone; T = Teflo	on; O = Othe	er (Specify)
SAMPLING/F EQUIPMENT		PP = After Peris PP = Reverse		B = Baile c Pump;	r; BP = SM = Straw	Bladder Pun Method (Tub	ip; ESF	e = Electric Subnerain); VT =	nersible Pump; Vacuum Trap;	PP = Peristalt O = Other (S	
TES: 1 TI	he above do										1 11

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	(OLC	Page	ty			SITE LOCATION:	Paris	4				
WELL NO:		V ~		SAMPLE					DATE: 3	-19-01	5	
	~					GING DA						
WELL DIAMETER	(inches):	DIAMETER (5// (* nches):	DEPTH:	REEN INTE	/ T feet	TO WATE	EPTH (, 0 >	OR BALLER	TYPE PP		
WELL VOL	UME PURGE:	1 WELL VOLU		L WELL DEF	PTH - STA	TIC DEPTH	TO WATER)	X WELL CA	APACITY	10		
EQUIPMEN	NT VOLUME PU	RGE: 1 EQUIF	= (/ \} •MENT VOL. :	= PUMP VOL	feet – (S -0 3	feet)	x O/ (gallons/foot GTH) + FLOW CEI		gallons	
(only fill out	if applicable)				illons + (ns/foot X	, 00,110 22.1	feet) +	gallons =	gallons	
	MP OR TUBING WELL (feet):	8'	FINAL PUMP DEPTH IN W		8'	PURGINITIAT		PURG	ING DAT: 147 /	TOTAL VOLUI PURGED (gall	ME 3/	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP.	COND. (µmhos/cm or µS/cm)	DISSOLVE OXYGEN (circle mg/l) % saturation	D TURBIDITY or (NTUs)		ODOR (describe)	
州 25	1.6	116	,20	7.59	6.22	2024	612	0,75	8.7	Clea	None	
1427	0,5	2.1	120	7.59	6.30	20.27	C30	0,73	6.3			
1429	0.5	2,6	120	7.59	6.33	2023	646	0.74	6.1	+	- -	
17.31	0.5	3.1	,λ0	7.59	6-35	2097	654	0-72	5.3	l l	1	
		***************************************					02=====	3.0		_		
							ke manamana and					
WELLOAD	10171 (0.11											
TUBING IN:	ACITY (Gallons I SIDE DIA, CAPA	Per Foot): 0.76 (CITY (Gal./Ft.)	5" = 0.02; 1 : 1/8" = 0.000	1" = 0.04; 06; 3/16"	= 0.0014;	1/4" = 0.0026	5; 5/16" =	7; 4" = 0.65; : 0.004; 3/8"			= 5.88 = 0.016	
SAMPLED	BY (PRINT) / AFI	FILIATION:	SAI	MPLER(S) S	SAMP IGNATURES	LING DA	ATA					
Era 6	roa, LA		1	i se				SAMPLING INITIATED A	r: 1433	SAMPLING ENDED AT:	1435	
PUMP OR T DEPTH IN V		8	SAI FLO	MPLE PUMP	L per minute	. 800		TUBING MATERIAL C	ODE: PE	15		
FIELD DEC	ONTAMINATION	: Y N		LD-FILTERE ation Equipn	D. 1 11	FILTI	ER SIZE:	μm	DUPLICATE:	Y N		
	SAMPLE CO SPECIFIO					PLE PRESER	RVATION		INTENDED		AMPLING	
SAMPLE ID CODE		MATERIAL	VOLUME	PRESER\ USE	ATIVE AD	TOTAL VO	L D (ml.)	FINAL pH	ANALYSIS AND METHOD		UIPMENT CODE	
	2	PE	25042	HNO			2.((112)		AS			
						1000		-				
REMARKS:	REMARKS:											
MATERIAL	CODES:	AG = Amber Gl	ass; CG = (Clear Glass;	PE = Poly	/ethylene;	PP = Polypr	opylene; S =	Silicone; T = Tef	on; O = Othe	r (Specify)	
SAMPLING/ EQUIPMENT		PP = After Peris		B = Baile c Pump;		Bladder Pur Method (Tut			mersible Pump; = Vacuum Trap;	PP = Peristalt O = Other (S		
OTES: 1 T	he above do									- 50101 (0	F - 2.7)	

2. Stabilization Criteria for range of variation of Last three consecutive readings (see FS 2212, section 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME:	Cohe F	Property				SITE LOCATION:	Paris	4			
WELL NO:	4W-8	T		SAMPLE	E ID:				DATE: 4	8-09	· 6
r				·····		GING DA		TOP			
WELL DIAMETER	R (inches):	TUBING (I	nches):	WELL SO	REEN INTE	RVAL	STATIC D	EPTH R (feet): 5.47	PURGE PUMP TO BAILER:	TYPE PP	
WELL VOL	UME PURGE:	1 WELL VOLU	JME = (TOTA	L WELL DEF	PTH - STA	ATIC DEPTH	TO WATER)	X WELL CAP	ACITY	//	
	• •		= (9	.5	feet - 5.	,45	feet)			= 07	gallons
(only fill out	NT VOLUME PU if applicable)	JRGE: 1 EQUIF							TH) + FLOW CELI	L VOLUME	
unality bit					illons + (ns/foot X		eet) +	gallons =	gallons
	MP OR TUBING WELL (feet):	CUMUL.	DEPTH IN V	POR TUBINO VELL (feet): DEPTH	8.3	PURGIN	NG ED AT: 132	PURGIN ENDED	G AT: /739	TOTAL VOLUM PURGED (galle	
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	TO WATER (feet)	pH (standard units)	TEMP.	COND. (µmhos/cm or (S/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1330	0.15	0.15	,09	6.73	5.59	20.83	874	17.1	140	LTBN	None
13 33	0.35	0,50	,09	7.50	5.32	20.80	388	15,4	20	Little day	•
1337	0.35	0.85	.07	7.88	5.40	20.78	889	10.8	40	Alays	
1251	6,15	1.00	.09	8,13	5,36	20,79	882	9.7	24		/
						-					
									 		
-										 	
					WYS.				1		
WELL CAP TUBING IN:	ACITY (Gallons SIDE DIA, CAP	Per Foot): 0.78 ACITY (Gal./Ft.)	5" = 0.02; : 1/8" = 0.00	1" = 0.04; 06; 3/16":	1.25" = 0.06 = 0.0014:	2" = 0.16 1/4" = 0.0026	; 3" = 0.37 5: 5/16" =	7; 4" = 0.65; 0.004; 3/8" =	5" = 1.02; 6" 0.006; 1/2" =		5.88 = 0.016
					SAMP	LING DA			<u> </u>	0.010, 010	- 0.010
Eric 6	BY (PRINT) / AF	Bre#JOLL	I	MPLER(S) S	IGNATURES	S:		SAMPLING INITIATED AT:	1242	SAMPLING ENDED AT: /	347
PUMP OR 1	TUBING			MPLE PUMP		2 00%		TUBING	h+	ENDED AT: 7	017
DEPTH IN V	NELL (feet): ONTAMINATIO	8.5 N: Y N	FIE	MPLE PUMP DW RATE (m LD-FILTERE	L per minute D: Y N	FILTI	ER SIZE:	MATERIAL COI	. ,	<u>ر</u>	
- TILLE BLO		CONTAINER	Filt	ration Equipm					DUPLICATE:	Y N	- Annual Carlos
SAMPLE ID		ICATION MATERIAL	T VOLUME	PRESERV	102000	PLE PRESER		FINAL	INTENDED ANALYSIS AND	OR EQ	MPLING UIPMENT
CODE	CONTAINE	RS CODE	VOLUME	USE	D AL	DED IN FIEL	D (mL)	pН	METHOD		CODE
		PE	250ML	HNO	2				1 C	To The	
		12	aurac	77100		200 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			AS Contoh	nas pg	
4.4											
											
							- 11 - 12 - 12 - 12 - 12 - 12 - 12 - 12				
REMARKS:										····	
MATERIAL	CODES:	AG = Amber GI	ace: CG -	Clear Glass;	DE - Dat	vothulono	DD = Delve-	onulone: C = C'	lleaner T = T - C	0 0"	- (O16 t
SAMPLING/ EQUIPMEN	PURGING A	AG = Amber Gi APP = After Peris AFPP = Reverse	taltic Pump;	B = Baile	er; BP	yethylene; = Bladder Pur w Method (Tut		P = Electric Subm	licone; T = Teflo ersible Pump; Vacuum Trap;	PP = Peristalti	
		not constitut							vacuum map,	O = Other (S	Decilià)

: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE L	-One	Priper	ty	_		SITE LOCATION:	Par.	14				-
WELL NO:	MW.	15		SAMPLE		LOCATION.			DATE: 3	-1/-1	29	
					PUR	GING DA	ATA	***				
WELL DIAMETER (inches):	DIAMETER (3/8 inches):	DEPTH:	REEN INTE	13 foot	TOWATE	EPTH 12.4	OR BAILED	PTYPE	FS7	7
WELL VOLU only fill out if	ME PURGE:	1 WELL VOLU	JME = (TOTAL	L WELL DEF	TH - STA	TIC DEPTH	O WATER)	X WELL C	CAPACITY		2-1	
	20.50	555 1 351	= (/	8	feet - /	dell	70P feet)				1,0	gallons
(only fill out if	applicable)	RGE: 1 EQUIF						TUBING LE	NGTH) + FLOW CE	LL VOLL	IME	
INITIAL PLIM	P OR TUBING		FINAL PUMP		llons + (ns/foot X	177	feet) +	galle	ons =	gallons
DEPTH IN W		16	DEPTH IN W	ELL (feet):	16	PURGIN	IG /2.	ENDE	ED AT:	PURG	L VOLUM ED (gallo	1E ons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or nS/cm)	DISSOLVI OXYGEI (dircle mg/l % saturation	N TURBIDIT Lor (NTUs)	90 U	OLOR escribe)	ODOR (describe)
1219	1,0	1.0	,32	13.02	4.89	22.19	487	1.66	011	61	ear	None
1223	1, 25	2.25	,32	12.59	4,74	22.09	464	1,93				1
1252	150	2.75	,24	1251	4.72	22.64	461	2.08	7,1		1	1
												1.5
	7											
										_		
	4											
10/514 045												
WELL CAPAC TUBING INSI	ITY (Gallons I DE DIA. CAPA	Per Foot): 0.75 .CITY (Gal./Ft.):	6" = 0.02; 1' 1/8" = 0.000	" = 0.04; 6; 3/16" =	1.25" = 0.06; 0.0014;	2" = 0.16; 1/4" = 0.0026	3" = 0.37 ; 5/16" =	7; 4" = 0.65 0.004; 3/8		5" = 1.47; = 0.010;	12" = 5/8" =	
SAMPLED BY	(PRINT) / AFE	II IATION:	SAN	MPLER(S) SI		LING DA	TA					
Ersc	Gra	LAS	. 1	i A	on the one	•	į	SAMPLING INITIATED A	T: 1230	SAMP	LING DAT:	1237
PUMP OR TUI DEPTH IN WE	BING /		SAN	IPLE PUMP W RATE (mi		750	í i	TUBING MATERIAL C	, b 27			**************************************
FIELD DECON		: Y N	FIEL	D-FILTEREI	D: Y N		R SIZE:	µm	DUPLICATE:	Y	N	
	SAMPLE CO SPECIFIO			_qap		PLE PRESER	VATION		INTENDEL	, T	SAI	MPLING
SAMPLE ID CODE	# CONTAINERS	MATERIAL	VOLUME	PRESERV USEI		TOTAL VOI		FINAL	ANALYSIS ANI METHOD		EQU	IIPMENT CODE
		P	250m2	HNOZ		DED IN FIELD) (IIII-)	pH	AS		TSF	5
	2	AG	12						8081	-	ESP	ס
			1-1									
									•			
						·						
REMARKS:	-80					77.				L	<u> </u>	·
MATERIAL CO	DES: A	AG = Amber Gla	ass; CG = C	lear Glass;	PE = Poly	ethylene;	PP = Polypro	ppylene; S =	Silicone; T = Tef	flon; O	= Other ((Specify)
SAMPLING/PU EQUIPMENT C		P = After Perist PP = Reverse F	altic Pump;	B = Baile	; BP =	Bladder Pum Method (Tubi	p: ESP	= Electric Sub	omersible Pump;	PP = F	eristaltic	Pump
TES: 1. The	하시네서 사용하다				required	by Chapter	ng Gravity D	rain), VT	= Vacuum Trap;	0 = 0	Other (Spe	ecity)

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

GROUNDWATER SAMPLING LOG

SITE NAME:	Lone	Proper	-th	- 1 140 - 25		SITE LOCATION:	P	rish.			
WELL NO:		19		SAMPLE		LOGATION.			DATE:	11-09	
	7,00				PUR	GING DA	TA	T.	o P	11 01	
WELL DIAMETER	R (inches):	TUBING DIAMETER (inches):	WELL SO	REEN INTE	RVAL feet	STATIC D TO WATE	EPTH 11.68	PURGE PUMP OR BAILER:	TYPE ES /)
WELL VOI	LUME PURGE: t if applicable)	1 WELL VOL	IME = (TOTA	L WELL DEF	ATS - HT	TIC DEPTH T	O WATER)	X WELL CAP	ACITY	4	
	NT VOLUME PU	IRGE: 1 FOUR		18		68	feet)				gallons
(only fill out	t if applicable)	MOL. I EQUI	: III.		llons + (ns/foot X		TH) + FLOW CEL eet) +	gallons =	
	IMP OR TUBING	1.0	FINAL PUMF		3	PURGIN	15 miles	PURCIN	,T		gallons
DEPTH IN	WELL (feet):	CUMUL.	DEPTH IN W	/ELL (feet):	16	INITIATE	ED AT:	ENDED A	AT: 1038	PURGED (galic	ons):
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1030	1.1	1.1	,18	12,09	5.02	21.78	394	2.35	110	WHY	None
1032	,15	1,25	118	11,92	4.94	21.79	394	2.67	80	Almost	<u> </u>
1038	, 85	2.1	,18	11.80	4.98	21.77	391	2.88	40	Clen	<u> </u>
1038	, 30	2.6	,18	11,80	5.06	21,74	390	2.81	14	Clea	

-											
WELL CAP	ACITY (Gallons	Per Foot): 0.7	5" = 0.02; 1	" = 0.04;	1.25" = 0.06	2" = 0.16	3" = 0.37	7; 4" = 0.65;	5" = 1.02; 6"	= 1.47; 12" =	5.88
TUBING IN	SIDE DÌA, CAPA	ACITY (Gal./Ft.)	: 1/8" = 0.000	D6; 3/16":		1/4" = 0.0026 LING DA		0.004; 3/8" =	0.006; 1/2" =		0.016
400	BY (PRINT) / AF		SAI	MPLER(S) SI				SAMPLING	1 115	SAMPLING /	211-
Eric G	TUBING	AS	SAI	MPLE PUMP				INITIATED AT:		SAMPLING / ENDED AT: /	042
DEPTH IN V	NELL (feet):		FLC	OW RATE (m LD-FILTERE	L per minute): 300	R SIZE:	MATERIAL COL			
FIELD DEG	ONTAMINATION SAMPLE C			ation Equipm	ent Type:			\	DUPLICATE:	Y N	
SAMPLE ID	SPECIFI		VOLUME	PRESERV		PLE PRESER	2008-04-00 Ht Ht	FINAL	INTENDED ANALYSIS AND	OR EQU	MPLING JIPMENT
CODE	CONTAINER	S CODE	250LL	HN 03		DED IN FIELI	23	pH	METHOD		CODE
	2	AG	11	- π · υ · 3					AS 8081	ESF	
		/10	10		-				V	231	
									<u> </u>		
											-
REMARKS:								* 1			
MATERIAL (AG = Amber G		Clear Glass;	PE = Poly	ethylene;	PP = Polypro	opylene; S = Si	licone; T = Teflo	on; O = Other	(Specify)
SAMPLING/ EQUIPMENT	r codes: RF	PP = After Peris	Flow Peristalti		SM = Straw	Bladder Pun Method (Tub	ing Gravity D		ersible Pump; Vacuum Trap;	PP = Peristaltic	
OTES: 1. T	he above do									(2p	

^{2.} STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

FT 1100 Field Measurement of Hydrogen Ion Activity (pH) DEP-SOP-001/01

TURBIDITY

표

82078

400

90

6,3

M

5

NTC

Su

METER# SALINITY 480 ppt COND μS/cm 70 W 2 94 Form FD 9000-7: Field Parameter Data Sheet for Surface Water Property SAMPLERS: E G / CM R%SAT DO 301 59 5,9 % 5 156 mg/L 299 00 Q 22,25 WATER Celsius 19.5 10 SAMPLE 0.5 12,0 feet 89 TOTAL DEPTH 81903 0 ž feet 04/03/19 1452 9/11 hr:min TIME 71-0-19 Property yy/mm/dd DATE 73672 **PARAMETER** STORET CODE SURVEY/PROJECT: COAC UNIT Pord . NWE come of Mannade Ford STATION DESCRIPTION STATION NUMBER

SIS

1 L-78	PORD IN INT COND OF	04/03/19 1452	1452	0,1	5,0	22,25	0,515,9	2,9	135	, 6	9	× ×
											1	
	9											
												8
	ELT. D. CONDITIONS EOR STATION#	ATTIME	Ш									
CLOUD COVER (%):	/ER (%):		11	WIND DIRECTION:	NOI.				TIDAL STAGE:			
PREVIOUS RAINFALL:	SAINFALL:		MIN	D SPEED	WIND SPEED (MPH/KNOTS):	<u>rs):</u>			WAVE CONDITIONS:	TIONS:		
							1		Patraminop of oils to the monte	perimentad		

Note: This Sheet is used for recording Sample Data - Calibration information must also be documented

Revision Date: February 1, 2004

APPENDIX D - SLUG TESTING DATA

APPENDIX D - SLUG TESTING DATA

MW-6= T.OP. ELEV. = 8.66 MW-6= T.OP. ELEV. = 8.45



GRADIENT

Photeci	WAIL		2051
CLIENT	PRØJECT NO.		BASICE- CIC
BY	PAGE	_ o f_	BOOMENT

BY	Concern Concern Concern Concern Concern Concern Concern Concern Concern Concern Concern Concern Concern Concern	PAGE	OF
GRADIENT = H, - H ₂ D	Hz = REURT	IVE ELEVATION OF	(MW-6) WATER C POINT A (MW-6A) WATER @ POINT B
VELOCITY (V) = Ki	i = Hydrauuc	SHALLOW AQVIFER GRADIENT SOIL POROSITY	HYDRAULIC CONDUCTIVITY
HYDRAULC (MW-4A) (MW-6) GRADIENT = 2.54-2.45A 30ft	30-10	7	
MW-6A) V = (.430fe/ory) (.0017) = [003 ft/pay	> .003 fe	365 BAYS [1.1 ft
MW-6 (.65A/044) (.0017) -	[. 004 ft/asy]	> 004 fz x	Bles DANS - [1.5 ft]

S.U. -2.95

TOTAL

MORTENSEN ENGINEERING INC.

MW-le

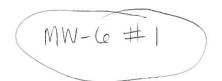
1316= 6.0

DEPTH La 15.00 PROJECT DATE_ 1249-1254 CLIENT ____ PROJECT NO. ____ PAGE / _____ OF ___ BY __ 1226 - 6,00 7.77 7.67 5 7.35 7.29 270 7.13 (5) 1300 1 7.09 10 6.92 7.00 15 330 (6) 3601 6.74 6.87 20 6.54 390 6.TeB 25 9/4201 6.42 4.56 30 6.44 35 6.34 8 min 4.28 6.37 40 9 mos 6.26 6.32 45 10 Majas 6.20 6.27 50 99 Paras 6.24 6-18 55 12 MIN 6,23 (D) (0) 6.16 17 MIN 6.13 6.18 VO 22 min 80 6.16 6.10 27 MIN 6 14 90 6.08 Le. 07 6.13 100 le.11 6.0Le 110 2)11201 le oble 600 4.03 6.08 150 6.04 3/1/8/0/1 6.06 6.04 6.05 210 1240 6.03 6.04 STUP

MW-LeA



PROJECT	-			***************************************	
CLIENT	1780			CT NO	
BY START	1205 - 1805:		PAGE_		OF
	8.98				
0 -				2 4 0000	
5 7	:00 AMB 8.86	270		6.65	
10 - 7	8.75	5 300		6.62	
15 - (8.15	330		4.60	
20 -	7.93	6 360		6.57	
25 - 4	17.74	390		6.55	
30 - 1	7,53	9/420		6.52	
35 -	7.40	(2)			
40 -	9.32	(8) 480		6.49	
45 -	7.24	9 540	-	6.46	
	7.19	(b) 600	-	6.43	
50-	3 7.12	(1) 460		6.41	
55 -		(2) 720	7	6.39	
- [60]	7.10				
70 -	7.00	17min			
90 -	6.95				
90 -	te 093	22 min	-		
100 -	6.90	27 mm	. (
110 -	œ.87	32 m			
. 1201	U.85		nJ -		
150 -	6.80	42 m	un –		
1801-	6.74				
210	le.72				
240/-	6.68				





Designation: D 5912 - 96 (Reapproved 2004)

Standard Test Method for (Analytical Procedure) Determining Hydraulic Conductivity of an Unconfined Aquifer by Overdamped Well Response to Instantaneous Change in Head (Slug)¹

This standard is issued under the fixed designation D 5912; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (e) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers the determination of hydraulic conductivity from the measurement of inertial force free (overdamped) response of a well-aquifer system to a sudden change in water level in a well. Inertial force free response of the water level in a well to a sudden change in water level is characterized by recovery to initial water level in an approximate exponential manner with negligible inertial effects.

1.2 The analytical procedure in this test method is used in conjunction with the field procedure in Test Method D 4044 for collection of test data.

1.3 Limitations-Slug tests are considered to provide an estimate of hydraulic conductivity. The determination of storage coefficient is not possible with this test method. Because the volume of aquifer material tested is small, the values obtained are representative of materials very near the open portion of the control well.

Note 1-Slug tests are usually considered to provide estimates of the lower limit of the actual hydraulic conductivity of an aquifer because the test results are so heavily influenced by well efficiency and borehole skin effects near the open portion of the well. The portion of the aquifer that is tested by the slug test is limited to an area near the open portion of the well where the aquifer materials may have been altered during well installation, and therefore may significantly effect the test results. In some cases the data may be misinterpreted and result in a higher estimate of hydraulic of conductivity. This is due to the reliance on early time data that is reflective of the hydraulic conductivity of the filter pack surrounding the well. This effect was discussed by Bouwer.2 In addition, because of the reliance on early time data, in aquifers with medium to high hydraulic conductivity, the early time portion of the curve that is useful for this data analyses is too short (for example, <10 s) for accurate measurement; therefore, the test results begin to greatly underestimate the true hydraulic conductivity. 304 3.2.4 D [L]—aquifer thickness.

1.4 The values stated in SI units are to be regarded as the standard.

1.5 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards: 3

D 653 Terminology Relating to Soil, Rock, and Contained

D 4043 Guide for Selection of Aquifer-Test Methods in Determining Hydraulic Properties by Well Techniques

D 4044 Test Method (Field Procedure) for Instantaneous Change in Head (Slug Test) for Determining Hydraulic Properties of Aquifers

D 4104 Test Method (Analytical Procedure) for Determining Transmissivity of Nonleaky Confined Aquifers by Overdamped Well Response to Instantaneous Change in Head (Slug Test)

3. Terminology

3.1 Definitions-For definitions of terms used in this test method, see Terminology D 653.

3.2 Symbols: Symbols and Dimensions:

3.2.1 A [nd]—coefficient that is a function of L/r_w and is determined graphically.

375 3.2.2 B [nd]—coefficient that is a function of L/r_w and is determined graphically.

3.2.3 C [nd]—coefficient that is a function of L/r_w and is determined graphically.

3.2.5 H [L]-distance between static water level and the base of open interval of the well.

104 3.2.6 L [L]—length of well open to aquifer.

1674-3.2.7 rc [L]-inside diameter of the portion of the well casing in which the water level changes.

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.21 on Ground Water and Vadose Zone Investigations.

Current edition approved Nov. 1, 2004. Published December 2004. Originally approved in 1996. Last previous edition approved in 1996 as D 5912-96e1

² Bouwer, H., and Rice, R. C., "A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells," Water Resources Research, Vol 12, No. 3, 1976, pp. 423-428.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

3.2.8 $R_e[L]$ —effective radius, determined empirically based on the geometry of the well, over which y is dissipated.

.33(\downarrow 3.2.9 $r_{\rm w}$ [L]—radial distance from well center to original undisturbed aquifer.

3.2.10 $t_f[T]$ —time at end point of straight-line portion of graph.

3.2.11 $t_0[T]$ —time at beginning of straight-line portion of graph.

3.2.12 y_f[L]—head difference at end point of straight-line portion of graph.

3:2.13 $y_0[L]$ —head difference at beginning of straight-line portion of graph.

4. Summary of Test Method

4.1 This test method describes the analytical procedure for analyzing data collected following an instantaneous change in head (slug) test in an overdamped well. The field procedures in conducting a slug test are given in Test Method D 4044. The analytical procedure consists of analyzing the recovery of water level in the well following the change in water level induced in the well.

4.2 Solution—The solution given by Bouwer and Rice² follows:

$$K = \frac{r_c^2 \ln(R_c/r_w)}{2L} \frac{1}{(t_f - t_0) \ln \frac{y_0}{y_f}}$$
 (1)

where:

if D > H

$$ln(R_e/r_w) = \left[\frac{1.1}{ln(H/r_w)} + A + B \ln[(D-H)/r_w] L/r_w^{-1}\right]$$
 (2)

if D = H

$$\ln R_{c} / r_{w} = \left[\frac{1.1}{\ln(H h r_{w})} + \frac{C}{L / r_{w}} \right]^{-1}$$
(3)

Note 2—Other analytical solutions are given by Hvorslev⁴ and Cooper et al;^{5,6} however, they may differ in their assumptions and applicability.

Note 3—Bouwer² provided discussion of various applications and observations of the procedure described in this test method.

Note 4—Test Method D 4104 describes the analytical solution following Cooper et al.5

Note 5—The use of the symbol K for the term hydraulic conductivity is the predominant usage in ground-water literature by hydrogeologists, whereas, the symbol k is commonly used for this term in soil and rock mechanics and soil science.

5. Significance and Use

5.1 Assumptions of Solution:

5.1.1 Drawdown (or mounding) of the water table around the well is negligible.

5.1.2 Flow above the water table can be ignored.

5.1.3 Head losses as the water enters or leaves the well are negligible.

5.1.4 The aquifer is homogeneous and isotropic.

5.2 Implications of Assumptions:

5.2.1 The mathematical equations applied ignore inertial effects and assume that the water level returns to the static level in an approximate exponential manner.

5.2.2 The geometric configuration of the well and aquifer are shown in Fig. 1, that is after Fig. 1 of Bouwer and Rice.²

5.2.3 For filter-packed wells, Eq 1 applies to cases in which the filter pack remains saturated. If some of the filter pack is dewatered during testing, r_c^{-2} should be replaced by the following:

$$r_c$$
 (corrected) = $[(1 - n)r_a^2 + nr_w^2]^{0.5}$ (4)

where:

n = short-term specific yield of the filter pack,

 r_a = uncorrected well casing radius, and

 r_{w} = borehole radius.

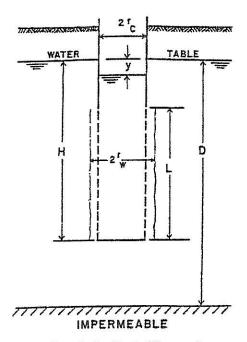
Note 6-Short term refers to the duration of the slug test.

6. Procedure

6.1 The overall procedure consists of conducting the slug test field procedure (see Test Method D 4044) and analysis of the field data that is addressed in this test method.

6.2 The water level data are corrected so that the difference between the original static water level and the water level during the test is known. This difference in water level at time "t" is denoted as " y_t ".

6.3 The dimensionless coefficients of A, B, and C are determined graphically based on their relationship with L/r_w . An example of the curves relating A, B, and C to L/r_w is given in Fig. 2, that is after Fig. 3 of Bouwer and Rice.²



Note 1—See Fig. 1 of Footnote 2.

FIG. 1 Geometry and Symbols of a Partially Penetrating, Partially Perforated Well in Unconfined Aquifer with Gravel Pack or Developed Zone Around Perforated Section

⁵ Cooper, H. H., Jr., Bredehoeft, J. D., and Papadopulos, I. S., "Response of a Finite-Diameter Well to an Instantaneous Change in Water," *Water Resources Research*, Vol 3, No. 1, 1967, pp. 263–269.

⁶ Bouwer, H., "The Bouwer-Rice Slug Test—An Update," Ground Water, Vol 27, No. 3, 1989, pp. 304–309.

⁴ Hvorslev, M. J., "Time Lag and Soil Permeability in Ground-Water Observations," Waterways Experiment Station, Corps of Engineers, U.S. Army, Bulletin No. 36, 1951

MW-LO #1



PROJECT	DATE
CLIENT	PROJECT NO
BY	PAGE OF
$K = \frac{c^2 \ln \left(\frac{R}{rw} \right)}{2L} \left(\frac{1}{t_f - t_o} \right) \ln \frac{y_o}{y_f}$	
WITERE D>H $\ln(\text{Re}/\text{rw}) = \frac{\text{Iol}}{\ln(\text{H/rw})} + A + B$	$ln\left(D-H\right)\left(L\right)^{-1}$
= 1.1 ln (9ft/.33fd) + 2.5 + (.375)) ln (30ft-9ft) (10 ft) -1 .33ft (-33ft)
	3) .033
(.333) + 2.5 + 1.557 ,033	3 = [4.39].033 = [.145]
$z = (.167 \text{ft})^2 (.145) (1.786) = 0.005$ $z = (.167 \text{ft})^2 (.145) (1.786) = 0.005$	FE/MIN X (00 MIN x 24 HR - 1721) THR 10AY DA

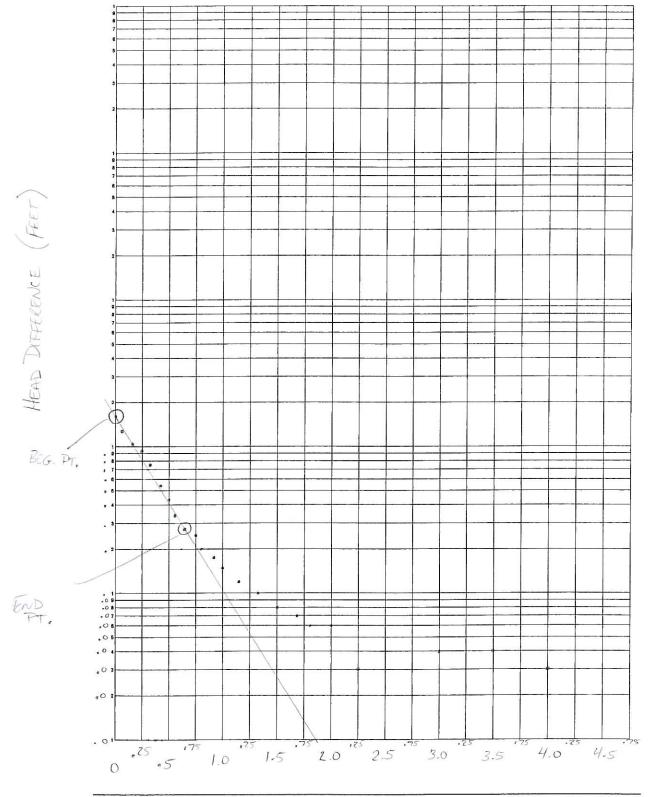
mw-6 #1



DATE DON'TELD PROJECT ____ PROJECT NO. ___ CLIENT ____ PAGE____ BY _____ D.TW-DTW BEFORE TEST (H) D. T. W. (T.O.P.) TIME 6.00 BEFORE TEST 0 BECAN BEG. PT. 1.67 7.67 0 5 7.29 1,29 10 7.09 1.09 6.92 15 .92 20 ,74 25 4.54 .54 30 6,42 .42 6.34 35 .34 le.28 END PT. 40 ,28) 45 le.26 .26 6.20 50 ,20 6.18 55 .18 60 6.16 elle 6.13 70 .13 80 6.10 110 90 .08 6.08 e07 100 6007 110 .06 6.06 120 .Ole 1,06 150 4.03 .03 6.04 .64 180 210 6.04 004 6.03 .03 240

Semi-Logarithmic Graph Paper

Horizontal axis: Vertical axis: Linear, 10 mm Logarithmic, 5 cycles



Copyright © 2007 Interactive Mathematics

http://www.intmath.com/

TIME MINUTES

MW-6 ±2 D 5912 - 96 (2004)

3.2.8 $R_e[L]$ —effective radius, determined empirically based on the geometry of the well, over which y is dissipated.

0.33 \leftarrow 3.2.9 $r_w[L]$ —radial distance from well center to original undisturbed aquifer.

3.2.10 $t_f[\Gamma]$ —time at end point of straight-line portion of graph.

Omiv 3.2.11 t_0 [T]—time at beginning of straight-line portion of graph.

32ft 3.2.12 $y_f[L]$ —head difference at end point of straight-line portion of graph.

1.77 (3.2.13 y₀[L]—head difference at beginning of straight-line portion of graph.

4. Summary of Test Method

4.1 This test method describes the analytical procedure for analyzing data collected following an instantaneous change in head (slug) test in an overdamped well. The field procedures in conducting a slug test are given in Test Method D 4044. The analytical procedure consists of analyzing the recovery of water level in the well following the change in water level induced in the well.

4.2 Solution—The solution given by Bouwer and Rice² follows:

$$K = \frac{r_c^2 \ln(R_c I r_w)}{4 2L} \frac{1}{(t_f - t_0) \ln \frac{y_0}{yf}}$$
(1)

where: if D > H

$$ln(R_c/r_w) = \left[\frac{1.1}{ln(H/r_w)} + A + B \ln[(D - H)/r_w]\right] L/r_w^{-1}$$
 (2)

if D = H

$$\ln R_c I r_w = \left[\frac{1.1}{\ln(H I r_w)} + \frac{C}{L I r_w} \right]^{-1}$$
 (3)

Note 2—Other analytical solutions are given by Hvorslev⁴ and Cooper et al;^{5,6} however, they may differ in their assumptions and applicability.

Note 3—Bouwer² provided discussion of various applications and observations of the procedure described in this test method.

Note 4—Test Method D 4104 describes the analytical solution following Cooper et al. 5

Note 5—The use of the symbol K for the term hydraulic conductivity is the predominant usage in ground-water literature by hydrogeologists, whereas, the symbol k is commonly used for this term in soil and rock mechanics and soil science.

5. Significance and Use

- 5.1 Assumptions of Solution:
- 5.1.1 Drawdown (or mounding) of the water table around the well is negligible.
 - 5.1.2 Flow above the water table can be ignored.
- 5.1.3 Head losses as the water enters or leaves the well are negligible.

- 5.1.4 The aquifer is homogeneous and isotropic.
- 5.2 Implications of Assumptions:
- 5.2.1 The mathematical equations applied ignore inertial effects and assume that the water level returns to the static level in an approximate exponential manner.

5.2.2 The geometric configuration of the well and aquifer are shown in Fig. 1, that is after Fig. 1 of Bouwer and Rice.²

5.2.3 For filter-packed wells, Eq 1 applies to cases in which the filter pack remains saturated. If some of the filter pack is dewatered during testing, r_c^2 should be replaced by the following:

$$r_c$$
 (corrected) = $[(1-n)r_a^2 + nr_w^2]^{0.5}$ (4)

where:

n = short-term specific yield of the filter pack,

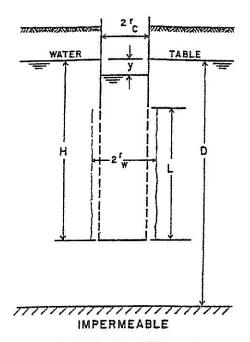
 r_u = uncorrected well easing radius, and

 r_{yy} = borehole radius.

Note 6-Short term refers to the duration of the slug test.

6. Procedure

- 6.1 The overall procedure consists of conducting the slug test field procedure (see Test Method D 4044) and analysis of the field data that is addressed in this test method.
- 6.2 The water level data are corrected so that the difference between the original static water level and the water level during the test is known. This difference in water level at time "t" is denoted as " y_t ".
- 6.3 The dimensionless coefficients of A, B, and C are determined graphically based on their relationship with L/r_w . An example of the curves relating A, B, and C to L/r_w is given in Fig. 2, that is after Fig. 3 of Bouwer and Rice.²



Note 1—See Fig. 1 of Footnote 2.

FIG. 1 Geometry and Symbols of a Partially Penetrating, Partially Perforated Well in Unconfined Aquifer with Gravel Pack or Developed Zone Around Perforated Section

⁴ Hyorslev, M. J., "Time Lag and Soil Permeability in Ground-Water Observations," Waterways Experiment Station, Corps of Engineers, U.S. Army, Bulletin No. 36, 1951

⁵ Cooper, H. H., Jr., Bredchoeft, J. D., and Papadopulos, I. S., "Response of a Finite-Diameter Well to an Instantaneous Change in Water," *Water Resources Research*, Vol 3, No. 1, 1967, pp. 263–269.

⁶ Bouwer, H., "The Bouwer-Rice Slug Test—An Update," Ground Water, Vol 27, No. 3, 1989, pp. 304–309.

 H_t is the drawdown at time $t = t'(L; \pi, m, \text{ or cm})$ t is the time since $H = H_0$ (T; day or s)

MW-Ce

The effective distance over which the induced head is dissipated, R_e , is the distance away from the well that the average value of K is being sured. However, there is no way to know what the value of R_e is for a given Bouwer (Bouwer & Rice 1976; Bouwer 1989) has presented a method of nating the dimensionless ratio $\ln(R_e/R)$ found in Equation 7–86.

SAME FOR MW-6A

If L_w is less than h, the saturated thickness of the aquifer, then

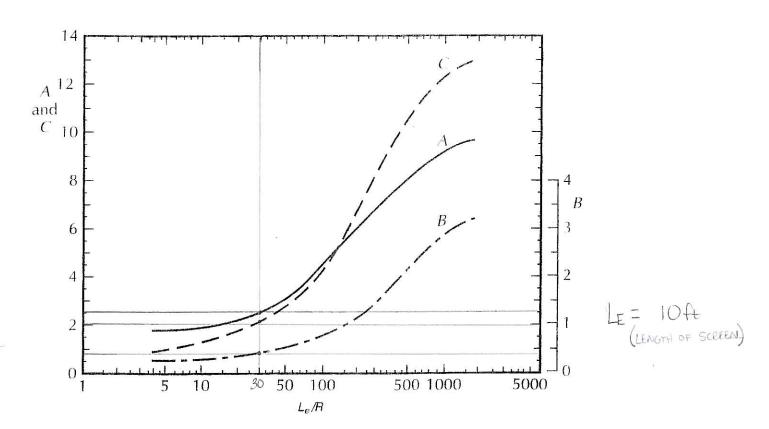
$$\ln \frac{R_e}{R} = \left[\frac{1.1}{\ln(L_w/R)} + \frac{A + B \ln[(h - L_w)/R]}{L_e/R} \right]^{-1}$$
 (7-87)

If L_w is equal to h, then

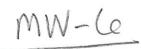
$$\ln \frac{R_e}{R} = \left[\frac{1.1}{\ln(L_w/R)} + \frac{C}{L_e/R} \right]^{-1}$$
 (7-88)

re A, B, and C are dimensionless numbers that can be found from Figure 7.25, re they are plotted as a function of L_e/R .

The value of H_t as a function of t is plotted on semilogarithmic paper, with n the logarithmic axis. The data pairs will fall on a straight line from small

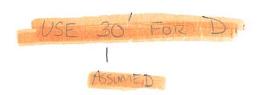


RE 7.25 Dimensionless parameters A, B, and C plotted as a function of L_e/R . These neters are used in the determination of $\ln(R_e/R)$ in Equations 7–87 and 7–88. Source: nan Bouwer, Ground Water 27 (1989): 304–309. Used with permission. © 1989,





Designation: D 5912 - 96 (Reapproved 2004)



Standard Test Method for (Analytical Procedure) Determining Hydraulic Conductivity of an Unconfined Aquifer by Overdamped Well Response to Instantaneous Change in Head (Slug)¹

This standard is issued under the fixed designation D 5912; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (e) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers the determination of hydraulic conductivity from the measurement of inertial force free (overdamped) response of a well-aquifer system to a sudden change in water level in a well. Inertial force free response of the water level in a well to a sudden change in water level is characterized by recovery to initial water level in an approximate exponential manner with negligible inertial effects.

1.2 The analytical procedure in this test method is used in conjunction with the field procedure in Test Method D 4044 for collection of test data.

1.3 Limitations-Slug tests are considered to provide an estimate of hydraulic conductivity. The determination of storage coefficient is not possible with this test method. Because the volume of aquifer material tested is small, the values obtained are representative of materials very near the open portion of the control well.

Note 1-Slug tests are usually considered to provide estimates of the lower limit of the actual hydraulic conductivity of an aquifer because the test results are so heavily influenced by well efficiency and borehole skin effects near the open portion of the well. The portion of the aquifer that is tested by the slug test is limited to an area near the open portion of the well where the aquifer materials may have been altered during well installation, and therefore may significantly effect the test results. In some cases the data may be misinterpreted and result in a higher estimate of hydraulic conductivity. This is due to the reliance on early time data that is reflective of the hydraulic conductivity of the filter pack surrounding the well. This effect was discussed by Bouwer.2 In addition, because of the reliance on early time data, in aquifers with medium to high hydraulic conductivity, the early time portion of the curve that is useful for this data analyses is too short (for example, <10 s) for accurate measurement; therefore, the test results begin to greatly underestimate the true hydraulic conductivity. 30 ft 3.2.4 D[L]-aquifer thickness.

1.4 The values stated in SI units are to be regarded as the standard.

1.5 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards: 3

D 653 Terminology Relating to Soil, Rock, and Contained

D 4043 Guide for Selection of Aquifer-Test Methods in Determining Hydraulic Properties by Well Techniques

D 4044 Test Method (Field Procedure) for Instantaneous Change in Head (Slug Test) for Determining Hydraulic Properties of Aquifers

D 4104 Test Method (Analytical Procedure) for Determining Transmissivity of Nonleaky Confined Aquifers by Overdamped Well Response to Instantaneous Change in Head (Slug Test)

3. Terminology

3.1 Definitions-For definitions of terms used in this test method, see Terminology D 653.

3.2 Symbols: Symbols and Dimensions:

3.2.1 A [nd]—coefficient that is a function of L/r_{ii} and is determined graphically.

3.2.2 B [nd]—coefficient that is a function of L/r_w and is determined graphically.

3.2.3 C [nd]—coefficient that is a function of L/r_w and is determined graphically.

3.2.5 H [L]—distance between static water level and the base of open interval of the well.

3.2.6 L[L]—length of well open to aquifer.

C.107 3.2.7 rc [L]—inside diameter of the portion of the well casing in which the water level changes.

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.21 on Ground Water and Vadose Zone Investigations.

Current edition approved Nov. 1, 2004. Published December 2004. Originally approved in 1996. Last previous edition approved in 1996 as D 5912-96e1

² Bouwer, H., and Rice, R. C., "A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells," Water Resources Research, Vol 12, No. 3, 1976, pp. 423-428.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.



<u>∇</u> = 6.00

PROJECT CONE PROPERTY CLIENT	PROJECT NO
BOUWER-RICE EQUATION	PAGEOF
$K = \frac{1}{c^2 \ln (Re/rw)} \frac{1}{\ln (H/rw)} \frac{1}{\ln (D-H)/rw} \frac{1}{\ln (Re/rw)} \frac{1}$	C = 2167 ft $L = 10 ft$ $L = 10 ft$ $L = 0 min$ $V = 1.77 ft$ $V = 32 ft$
$ \frac{1.1}{\ln(\frac{964}{.3364})} + 2.5 + .375 \ln(3064 - 964)/.3364 \left(\frac{1064}{.3364}\right) $	$ln(R_e/r_w) = .144$ $A = 2.5$ $B = .375$ $C = 2$
$\begin{bmatrix} 1.1 \\ 3.31 \end{bmatrix} + 2.5 + .375 (4.153) = 0.033 $	Re/rw)

#2

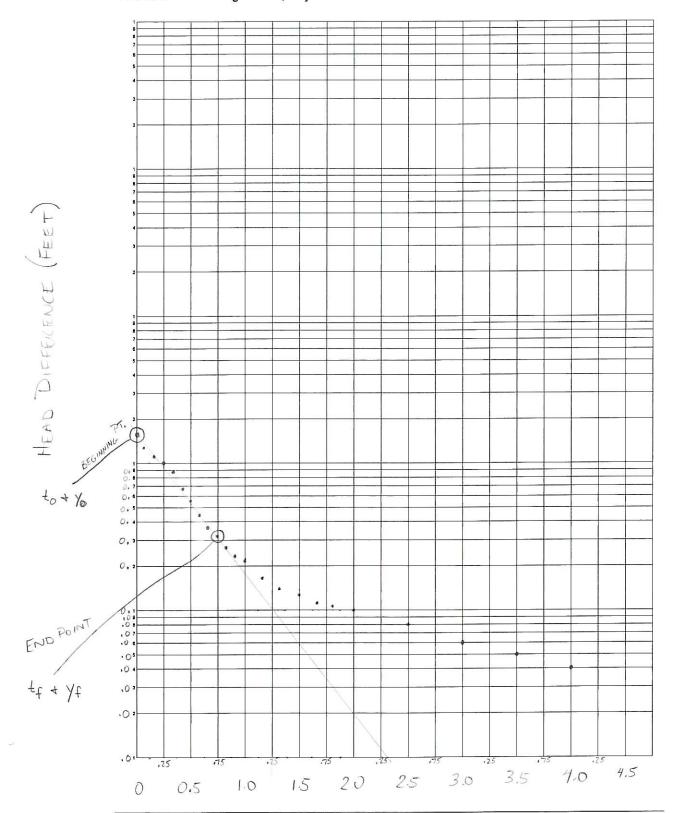


CLIENT		PROJECT NO	at
BY		PAGE	OF HEAD RATIO
		D.T.W D.T.W. BEFORE	(H/ \
TIME	DEPTH TO WATER (T.O.P.)	TEST (H)	(H/Ho)
BEFORE			
TEST BEGAN	(0.00	0	
0	7.77	1.77 (40)	1
5	7.35	1.35	.76
10	7.13	1.13	.64
15	7.00	1,00	.56
20	6.87	.87	.49
25	6.68	.68	. 38
30	6.56	.56	.32
35	6.44	.44	.25
40	6.37	,37	.21
45	6.32	032	-18
50	6.27	027	.15
55	6.24	124	.14
40	6.23	•23	.13
70	6.18	.18	,10
90 90 100	6.16	.16	.09
90	(e.14 (e.13 (e.11	.14	.08
100	6.13	.13	.07
110	(e.11	0/1	.06
120	(0.10	0.10	,00
150	(2,08	.08	.05
180	6.06	.060	.03
210	6.05	005	.03
240	604	.04	.02

Semi-Logarithmic Graph Paper

Horizontal axis: Vertical axis:

Linear, 10 mm Logarithmic, 5 cycles



Copyright © 2007 Interactive Mathematics

http://www.intmath.com/

MW-le (BOUWER-RICE)

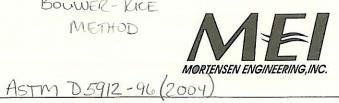
PROJECT _____



DATE _____

CLIENT	PROJECT NO	2
BY	PAGE OF	
$(=(.167ft)^2(.144)$		
$= \frac{(.167ft)(.147)}{2(10ft)(.75min - 0min)} \left(\frac{1.77ft}{.32ft} \right)$		
2(10ft) (.75min - Omin) .32ft/		
$(.029 ft^{\frac{1}{4}})(.144)$ I $(1n 5.531)$ =		
.75 MIN		
20 ft . 75 MIN		
<u> </u>		
$\frac{.004ft}{20}$ $\left(\frac{1.33}{MIN}\right)$ $\left(\frac{1.71}{1}\right) = .0002$	ft (1,33) (1,71) = 0000 mi	15ft
20 min / (1)	(IMIN) (1) MI	N
		$\rightarrow \downarrow \vdash$
	-0.	
	<u>5 ft</u>	
MIN X 1 HK X I DAY D	AY AY	

BOUWER-RICE METHOD



PROJECT	ASTM D5912-96 (2004)	DATE 5	4/09
CLIENT	-	PROJECT NO.	
BY		PAGE	of
$K = r_c^2 \ln(R_c)$ $2L$	(tf-to) In 40		
	WHERE D>H		
n(Re/rw) =	$\frac{1.1}{\ln(H/r_W)} + A + B \ln(D-H) \left(\frac{L}{r_W}\right)^{-1}$		
In (Re/rw) =	$ \begin{array}{c c} \hline 1.1 & + 2.5 + (.375) \ln \left(\frac{30 + - 9 + 1}{.33 + 1} \right) \\ \ln \left(\frac{9 + 1}{.33 + 1} \right) & \frac{33 + 1}{.33 + 1} \\ \end{array} $	Oft. 33ft)	
= [la	$\frac{1.1}{1(27.27)} + 2.5 + (.375) \ln \left(\frac{2184}{.3344}\right) (30.3)^{-1}$		
	1.1 + 2.5 + (.375) (4.153)] . 033 = [.	145 = In	(Re/rw)
K=(.16	$\frac{1}{764}$ $\frac{2}{2(1064)}$ $\frac{1}{2(1064)}$ $\frac{1}{3264}$ $\frac{75 \text{ min} - 0 \text{ min}}{2(1064)}$ $\frac{1}{3264}$		
			NEXT PAGE



		MORTENSEN ENGINEERIN	G,INC.	-1.10	2	
PROJECT			DATE _	5/4/0	9 of 2	
CLIENTBY			PAGE	2 2	OF 2	
O1			TAGE_		OF	
V = /	2					
$K = \left(\frac{.004}{20}\right)$	ft" 1.75					
20) [x / (.75	MIN				
	V					
(.0002	ft) (1	1.71 = .000	46 ft/MIN			
	1.75 MIN)					
					\neg	
	.00046tt,	× 60 MM x	24 12 = 1	· lole ft		
	MIM	1 HR	IDAY L	DAY		
					•	
						



Designation: D 5912 - 96 (Reapproved 2004)

Standard Test Method for (Analytical Procedure) Determining Hydraulic Conductivity of an Unconfined Aquifer by Overdamped Well Response to Instantaneous Change in Head (Slug)¹

This standard is issued under the fixed designation D 5912; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

- 1.1 This test method covers the determination of hydraulic conductivity from the measurement of inertial force free (overdamped) response of a well-aquifer system to a sudden change in water level in a well. Inertial force free response of the water level in a well to a sudden change in water level is characterized by recovery to initial water level in an approximate exponential manner with negligible inertial effects.
- 1.2 The analytical procedure in this test method is used in conjunction with the field procedure in Test Method D 4044 for collection of test data.
- 1.3 Limitations—Slug tests are considered to provide an estimate of hydraulic conductivity. The determination of storage coefficient is not possible with this test method. Because the volume of aquifer material tested is small, the values obtained are representative of materials very near the open portion of the control well.

Note 1—Slug tests are usually considered to provide estimates of the lower limit of the actual hydraulic conductivity of an aquifer because the test results are so heavily influenced by well efficiency and borehole skin effects near the open portion of the well. The portion of the aquifer that is tested by the slug test is limited to an area near the open portion of the well where the aquifer materials may have been altered during well installation, and therefore may significantly effect the test results. In some cases the data may be misinterpreted and result in a higher estimate of hydraulic conductivity. This is due to the reliance on early time data that is reflective of the hydraulic conductivity of the filter pack surrounding the well. This effect was discussed by Bouwer.² In addition, because of the reliance on early time data, in aquifers with medium to high hydraulic conductivity, the early time portion of the curve that is useful for this data analyses is too short (for example, <10 s) for accurate measurement; therefore, the test results begin to greatly underestimate the true hydraulic conductivity.

1.4 The values stated in SI units are to be regarded as the 11.8 standard.

1.5 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

MW-loA

2. Referenced Documents

2.1 ASTM Standards: 3

D 653 Terminology Relating to Soil, Rock, and Contained Fluids

D 4043 Guide for Selection of Aquifer-Test Methods in Determining Hydraulic Properties by Well Techniques

D 4044 Test Method (Field Procedure) for Instantaneous Change in Head (Slug Test) for Determining Hydraulic Properties of Aquifers

D 4104 Test Method (Analytical Procedure) for Determining Transmissivity of Nonleaky Confined Aquifers by Overdamped Well Response to Instantaneous Change in Head (Slug Test)

3. Terminology

- 3.1 *Definitions*—For definitions of terms used in this test method, see Terminology D 653.
 - 3.2 Symbols: Symbols and Dimensions:
- 3.2.1 A [nd]—coefficient that is a function of L/r_w and is determined graphically.
- 3.2.2 B [nd]—coefficient that is a function of L/r_w and is determined graphically.
- 3.2.3 C[nd]—coefficient that is a function of L/r_w and is determined graphically.
- 3.2.4 D [L]—aquifer thickness.
 - 3.2.5 H[L]—distance between static water level and the base of open interval of the well.
- 0.000 3.2.6 \hat{L} [L]—length of well open to aquifer.
- casing in which the water level changes.

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.21 on Ground Water and Vadose Zone Investigations.

Current edition approved Nov. 1, 2004. Published December 2004. Originally approved in 1996. Last previous edition approved in 1996 as D 5912-96c1.

² Bouwer, H., and Rice, R. C., "A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells," *Water Resources Research*, Vol 12, No. 3, 1976, pp. 423–428.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

D 5912 - 96 (2004)

3.2.8 $R_e[L]$ —effective radius, determined empirically based on the geometry of the well, over which y is dissipated.

 $0.33 \leftarrow 3.2.9 \ r_{\rm w}[L]$ —radial distance from well center to original undisturbed aquifer.

O.5 mil (3.2.10 $t_f[T]$ —time at end point of straight-line portion of graph.

 $0.25 \text{min}(3.2.11 \ t_0[T]$ —time at beginning of straight-line portion of graph.

[37fe 3.2.12 y_t[L]—head difference at end point of straight-line portion of graph.

3.2.13 y₀[L]—head difference at beginning of straight-line portion of graph.

4. Summary of Test Method

4.1 This test method describes the analytical procedure for analyzing data collected following an instantaneous change in head (slug) test in an overdamped well. The field procedures in conducting a slug test are given in Test Method D 4044. The analytical procedure consists of analyzing the recovery of water level in the well following the change in water level induced in the well.

4.2 Solution—The solution given by Bouwer and Rice² follows:

$$K = \frac{r_c^2 \ln(R_c l r_w)}{2L} \frac{1}{(t_f - t_0)} \ln \frac{y_0}{yf}$$
 (1)

where:

if D > H

$$ln(R_c I r_w) = \left[\frac{1.1}{ln(H I r_w)} + A + B \ln[(D - H) I r_w] L I r_w^{-1} \right]$$
 (2)

if D = H

$$\ln R_c I r_w = \left[\frac{1.1}{\ln(H/r_w)} + \frac{C}{L/r_w} \right]^{-1} \tag{3}$$

Note 2—Other analytical solutions are given by Hvorslev⁴ and Cooper et al,^{5.6} however, they may differ in their assumptions and applicability.

Note 3—Bouwer² provided discussion of various applications and observations of the procedure described in this test method.

Note 4—Test Method D 4104 describes the analytical solution following Cooper et al. 5

Note 5—The use of the symbol K for the term hydraulic conductivity is the predominant usage in ground-water literature by hydrogeologists, whereas, the symbol k is commonly used for this term in soil and rock mechanics and soil science.

5. Significance and Use

5.1 Assumptions of Solution:

5.1.1 Drawdown (or mounding) of the water table around the well is negligible.

5.1.2 Flow above the water table can be ignored.

5.1.3 Head losses as the water enters or leaves the well are negligible.

⁴ Hvorslev, M. J., "Time Lag and Soil Permeability in Ground-Water Observations," Waterways Experiment Station, Corps of Engineers, U.S. Army, Bulletin No. 36, 1951

⁵ Cooper, H. H., Jr., Bredehoeft, J. D., and Papadopulos, I. S., "Response of a Finite-Diameter Well to an Instantaneous Change in Water," *Water Resources Research*, Vol 3, No. 1, 1967, pp. 263–269.

⁶ Bouwer, H., "The Bouwer-Rice Slug Test—An Update," Ground Water, Vol 27, No. 3, 1989, pp. 304–309.

5.1.4 The aquifer is homogeneous and isotropic.

5.2 Implications of Assumptions:

5.2.1 The mathematical equations applied ignore inertial effects and assume that the water level returns to the static level in an approximate exponential manner.

5.2.2 The geometric configuration of the well and aquifer are shown in Fig. 1, that is after Fig. 1 of Bouwer and Rice.²

5.2.3 For filter-packed wells, Eq 1 applies to cases in which the filter pack remains saturated. If some of the filter pack is dewatered during testing, r_c^2 should be replaced by the following:

$$r_c$$
 (corrected) = $[(1 - n)r_a^2 + nr_w^2]^{0.5}$ (4)

where:

n = short-term specific yield of the filter pack,

 r_a = uncorrected well casing radius, and

 r_{yy} = borehole radius.

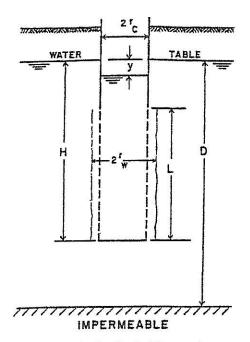
Note 6-Short term refers to the duration of the slug test.

6. Procedure

6.1 The overall procedure consists of conducting the slug test field procedure (see Test Method D 4044) and analysis of the field data that is addressed in this test method.

6.2 The water level data are corrected so that the difference between the original static water level and the water level during the test is known. This difference in water level at time "t" is denoted as " y_t ".

6.3 The dimensionless coefficients of A, B, and C are determined graphically based on their relationship with L/r_w . An example of the curves relating A, B, and C to L/r_w is given in Fig. 2, that is after Fig. 3 of Bouwer and Rice.²



Note 1—See Fig. 1 of Footnote 2.

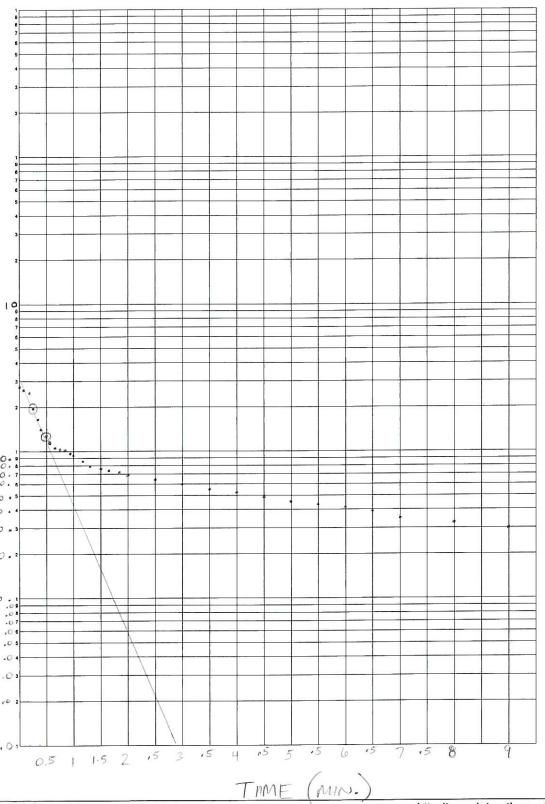
FIG. 1 Geometry and Symbols of a Partially Penetrating, Partially Perforated Well in Unconfined Aquifer with Gravel Pack or Developed Zone Around Perforated Section

Semi-Logarithmic Graph Paper

Horizontal axis:

Linear, 10 mm

Vertical axis: Logarithmic, 5 cycles



MW-LeA #1



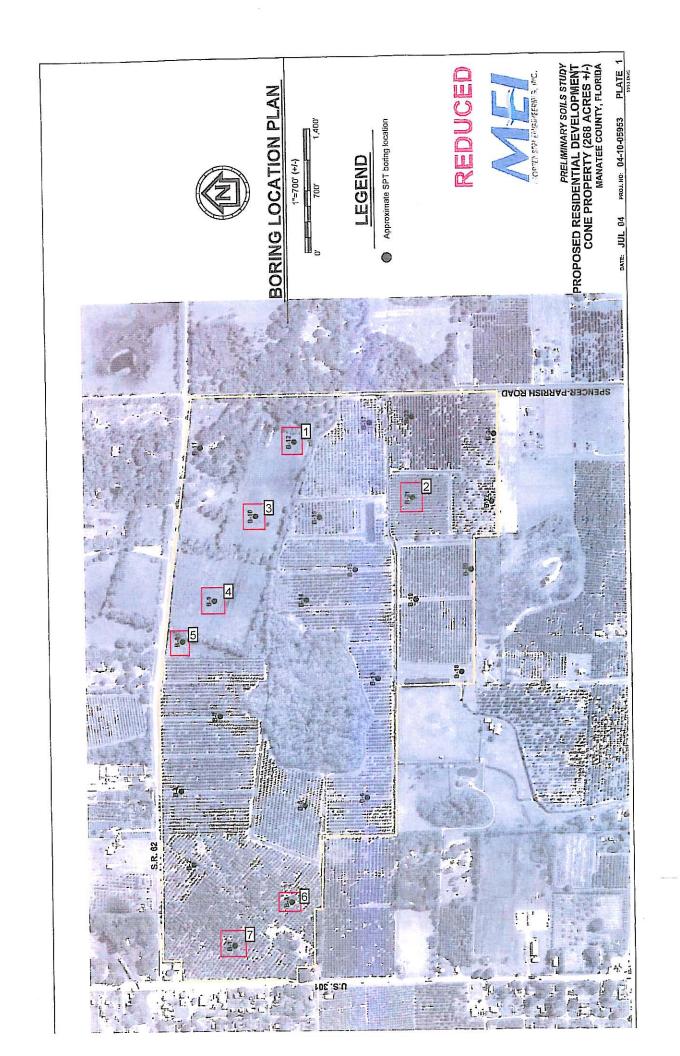
PROJECT __ DATE PROJECT NO. ____ CLIENT _____ PAGE OF HEAD RATIO BY ____ D.TW -D.T. W. (T.O.P.) IME DTW BEFORE (Ho)Ho) TEST (H) BEFORE 6.16 TEST BEGAN 2.82 (Ho) 0 8.98 1 5 8.86 .96 2.7 .92 10 2.75 2,59 8.15 1.99 .71 7.93 20 1.17 .63 25 1.58 7,74 .56 7.53 1.37 . 49 35 1.24 7.40 .44 40 7.32 .41 1.16 45 7.24 1.08 . 38 7.19 50 1.03 .37 7,12 55 0.96 .34 7.10 .33 0.94 60 0.84 70 7.00 .30 80 6.95 079 .28 .27 90 6.93 .77 6,90 .74 100 ·24 110 .71 6.87 e 25 120 .69 .24 6-85 150 6.80 064 .23 180 6.76 ,60 .21 4.72 210 .56 .20 240 6.68 .18 .52 6.65 .49 .17 270 300 6.62 .460 .16 330 6.60 .44 0/6 6.57 .41 .15 360 390 014 ,39 6.55 6.52 · 360 . 13 420 6.49 480 .33 .12 10.46 540 .30 0// Ce. 43 600 .10 .27 6.41 . 09 660 . 25 6.39 023 12 MN 720 008

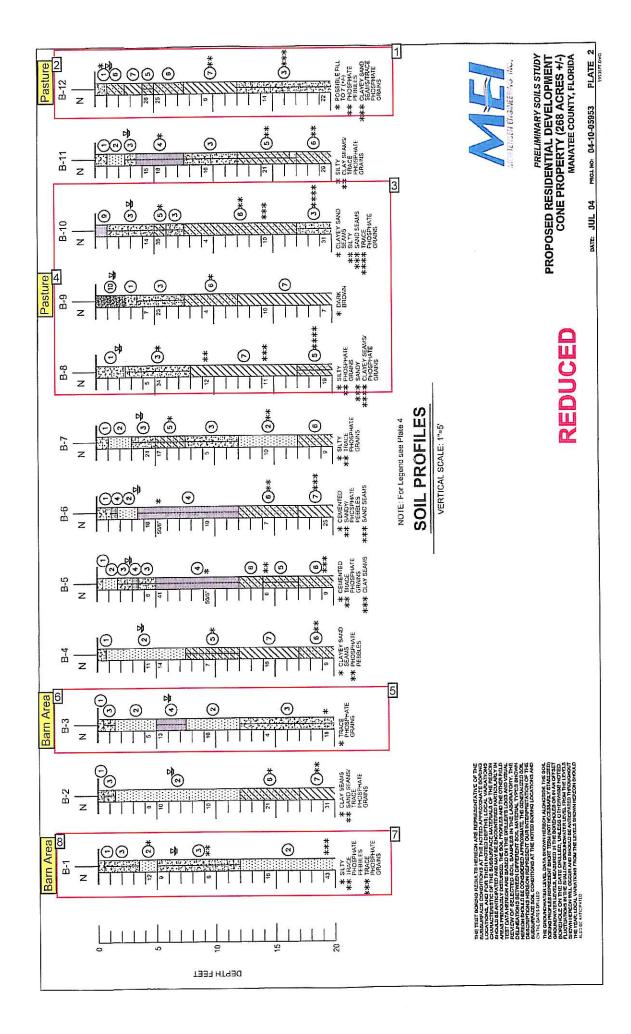


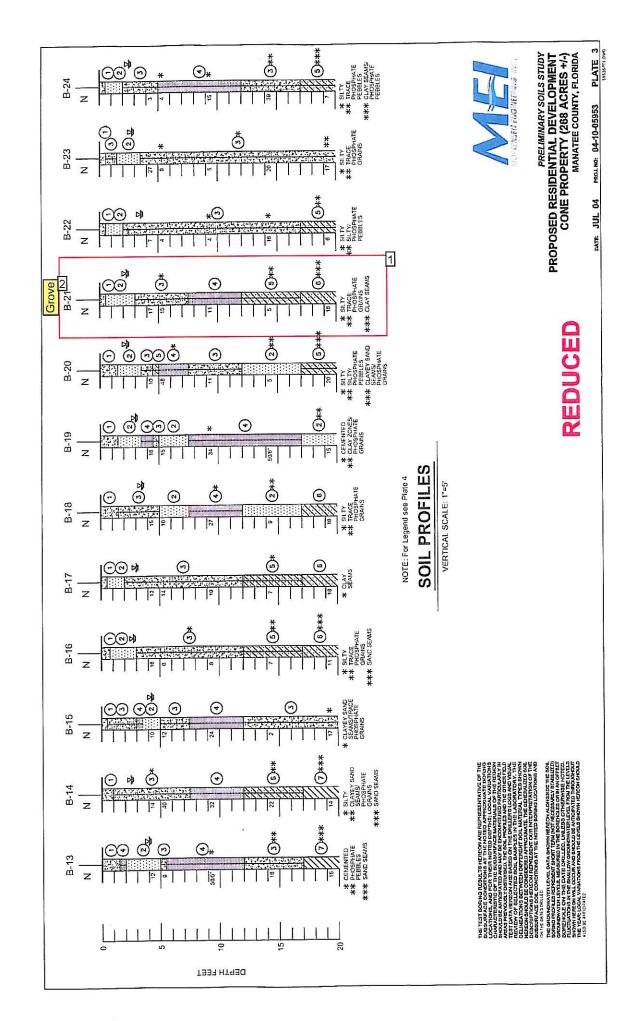
PROJECT NO	
10ft 33fy	
1	
142 -> (In(Re/Fw)
.004 ft (21 (0.373) 25 MIN (0.373)
[. 430ft/DA	1
	.004 ft



APPENDIX E - PREVIOUS PRELIMINARY SOIL STUDY DATA AND SOIL PROFILES







LEGEND

Gray to dark gray fine SAND to slightly silty fine SAND, trace organics (SP/SP-SM) White to light brown fine SAND to silty fine SAND (SP/SP-SM/SM) Brown or gray fine SAND to silty fine SAND (SP/SP-SM/SM) Dark brown to reddish brown slightly silty fine SAND (SP-SM) Gray or brown silty to slightly clayey fine SAND (SM/SM-SC) Gray or brown clayey SAND (SC) Gray or brown sandy CLAY (CL/CH) White to light gray weathered LIMESTONE Dark brown to black organic laden silty fine SAND (SM-PT) Dark brown to black sandy and organic MUCK (PT) 뫁 Groundwater level, July 2004 Unified Soil Classification group symbol as determined by SP

visual review

N

50/5"

SPT "N" value in blows/foot

Fifty blows for five inches



PRELIMINARY SOILS STUDY
PROPOSED RESIDENTIAL DEVELOPMENT
CONE PROPERTY (268 ACRES +/-)
MANATEE COUNTY, FLORIDA

DATE: JUL 04

PROJ. NO: 04-10-05953

PLATE 4

APPENDIX F - CALIBRATION/MAINTENANCE LOGS

to.3



DISSOLVED OXYGEN CALIBRATION / VERIFICATION LOG

Project/Site:	For Date of Last Tempe	ast Tempe	1 1	ature Verifica	ation see	Date:	te: in log book	ook	Meter#	
1	Initials	Date	Time	Probe Charge	Probe Gain	Reg mg/L	-Reg- Temp C	00 %	Saturation mg/L Standard (from chart)	Pass or Fail
	76	4-32-04	516			500	25.10	180.8	2 5	Q r
	77	400K-77	1225			800	5696	8.601	862	A d
	FG.	40-0(-17	1227			8.15	25.40	100,4	861.78	(g) Tr
	RG	3-5-5	212			1,9%	3500	92,2		Р
CAJ/rCy/ccct	D G	5-5-07	8-30			8.78	8.2020,62	(20.7		<u>(</u>
										σ π
										Ф
										ட
										ட
										С.
										Ф
			40							С П
										Ф
										<u>ц</u>

CAL – Calibrate ICV – Initial Calibration Verification CCV – Continuing Calibration Verification

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:



DISSOLVED OXYGEN CALIBRATION / VERIFICATION LOG

Pass or Fail U (1) LL (0 5) ப (a 0 ட mg/L Standard (from chart) Saturation 8,48 8.83 10.6 16.3 Meter # 98.0 180.0 100.3 105.5 126 OO % in log book 22.97 21.00 23.55 20,30 Temp C 25 Date: 12.8 8.65 848 80% 7.03 9.33 8.89 5/18 mg/L For Date of Last Temperature Verification see Probe Gain Charge Probe 733 3448 803 72c 807 101k Time 00 4.29.09 1-1-0d 331.09 30-1-17 1-6-07 4.7.09 3/2/8 3/2/09 1-1-0% 1605 Date Cong CMR Chris CANG Initials Temperature (Quarterly) (ટું CAL ICV(CCY CAL ICV CON CAL (CSCC) CAL ICV CCU CAL ICV (COV CAL ICV(CCV CAL ICV/CCV CAL ICVCCO CAL ICV CON CAL ICV(COV CAL ICV CCV CAL((CV)CCV CAL ICV CCV Project/Site: CAL ICV DEP SOP FT 1500

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:



DISSOLVED OXYGEN CALIBRATION / VERIFICATION LOG

		Pass or Fail	P (F)	P.	(d.)	Б П		(G)	J.	P (F)	(J)	<u>Ө</u>	Ø F	(G)	Б	E F
Meter#		Saturation mg/L Standard (from chart)	20	2,98	08/8	50	909	30%	8.77					90 2	N 00	2.3
	in log book	-Reg -Reg- % DO mg/L Temp C	9.59 25.57 121.7		8.91 21,92 100.8	3.48	0.07	920 30.06 101.3	186	J. 28	12.21	2.72	2.93	8.97 21.05 100.7	9.16 21.72 104.2	2.8631,71 100,8
	ation see	Probe Gain														
	emperature Verification see	Probe Charge														
	-	Time	ध्यम्।	1445	306	725	723)x2/	721	7.07	7:10	612		714	210	7:12
	For Date of Last	Date	10/14/10/	5 hhl salh1/01	80/1/10/	10/23/08	E (- 10/30/18	10130138	11/10872	80160	Q/25/05	1126109	1126108	2123109	311/08	3/11/04
		Initials	T C	1	F.G.	EG	EG	14		F(5	57	EG	F G	FG	PE	EG
Project/Site:	Temperature (Quarterly)	DEP SOP FT 1500	(2)/21/20	CAI (CO) (CO)		_	CAL ICV CCV		CAL ICV (CCV)	CAL ICV CCV	CALACY CCV	CAL ICV CCV	CA (CA)	CAL ICV CCV	CAI ICV (CCV)	CAL(ICVCCV)

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:



PH CALIBRATION / VERIFICATION LOG

		Fail	ഥ	ш	ட	ட	ட	ш.	ഥ	LL	L	щ	ட	ட	ш	ш
		Pass or Fail	(a)	Δ	₾	Ф	Ф	ட	۵	ம	СL	С	Ф	ட	C	<u>С</u>
#		ing	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	85	1	1	ì		1	1	1	1	1	1		Ĭ
Meter#		Reading SU	10.03				ı						Ì	22	98	
		Slope						t								
	in log book		1	I.	I,		1	1	1	1	ľ	I	-	1	l	Î
ii	in log	Bottle #												Ļ		
Date:		Lot #	10%-E													
		تا	20				l			I,	ļ			İ	1	
	ition see	Exp. Date	60/6													
	Verifica	Standard SU	0		I					1		1				
	rature	Star	10.0			-		Ţ	ļ		49	1		j		
	For Date of Last Temperature Verification see	Time	1450											1		
	te of La	e	S			-								İ		
	or Da	Date	4-7-09			1	1]					- 1	1	1	1
	Temperature (Quarterly)	Initials	COME													
	e (Qua		(3)	S	Ş	>	<u>ک</u>	>	>>	200	20	200	200	200	200	200
Project/Site:	eratur	SOP 00	CAL ICV(CCV)	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV
Projec	Temp	DEP SOP FT 1100	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL	CAL

CAL – Calibrate ICV – Initial Calibration Verification CCV – Continuing Calibration Verification Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:



PH CALIBRATION / VERIFICATION LOG

		Pass or Fail	(a)	ы е	ш (<u>()</u> ((<u>a</u>	Q Q	*	(A)	P F	F.	D D	(E)	П	(g) ((A)
Meter #		Reading SU	4.23	69.77	3.99	5	6.43	10.85	10,00/	603	14,0(232	2002	5.50	16.0	9.
)k	Slope														
ä	in log book	Bottle #														
Date:		Lot #	2801177	2708373	10 kg	2708373	2758375	3-901	106-E	2-1/0/	子?	2708373	278873	7701	Arhol	106-6
	tíon see	Exp. Date	12/09	2/09	0	700	2104	6016	6016	011/0	0///7	1109	1/09	0/17	410	60/6
	For Date of Last Temperature Verification see	Standard SU	0.3	200%	4.01	7.00	7,00	10,00	10,00	4.01	4.01	7,00		4.01	10.4	0.01
	st Tempera	Time	8/11	121	1124	127	002	215	5/2	228	732	BOS	SE 877.00	737	742	11/1/1
	r Date of La	Date	3-12-04	3-12-09	10-21-6	3-12-09	3-31-01	20-1-17	10-1.4	10-1-h	4-1-09		6-9-4	1-2-09	602H	11-101
		<u>s</u>	3	Come	Care	COME	かける	EG	FG	EG.	H.	£6	JA A		27	20
Project/Site:	Tomporating (Oitarterly)	DEP SOP FT 1100	CAL ICV(CCV)	CAL ICV(CC)	CAL ((C)) CCV	CAL (ICV)CCV	CAL ICV CCV	CAL ICV (CC)	CAL (CV CCV	CAL ICV CCV	CAL NOV CCV	CAL ICV CCC	CAI NOW CON	CAL ICV CO.	CAL (TCV) CENT	EAL Dev cov

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:



PH CALIBRATION / VERIFICATION LOG

Project/Site:						Date:	.i.		Meter#	
Temperature (Quarterly)		For Date of Last Temperature Verification see	ast Tempera	sture Verifica	tion see		in log book	ok_		
DEP SOP FT 1100	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Bottle #	Slope	Reading SU	Pass or Fail
CAL ICV CCV	FG	7-36-06	27.73	10.4	12108	2801177			3.46	Э
SAL (C) CCV	EG 3	1-26-09	7:37	10.7	12109	280117			4.0 (<u>(Д</u>) П
CAL ICV(CC)	200	2-25.02	715	10.00	50/01	10401			9.63	(H)
CAL ICA CCV	EG.	2-23-01	61.1	10.00	10/01	27 040cl			10.01	(g)
CAL ICV (COV	57	3-11-08	216	4.01	1209	280117		-	5.15	<u>a</u>
CAL (C) CCV	EG	3-11-04	230	10/4	13/08	2801177			10.7	ட
CAL ICV (COV)	CLME	3-12-09	H26	10.1	12/09	2501177			3.08	Ы
(CAL) ICV CCV	Chrie	3-12-69	936	10.4	->	→			7.0	<u>(</u>)
CAL (ICV)(EGM)	Come	3-12-09	942	7.00	7/09	2708373			6.73	П
(CAL)ICV CCV	Come	3-12-09	943	7.00	7	>			7.06	(F)
CAL (ICV) CCV	Chre	3-12-09	유	7,00	>	>			7.09	<u>П</u>
CAL ICV (CCV)	J. J.	3-12-09	120	10.4	12/04	24/1082			4.19	(a)
CAL ICV (CCV)	Comp	3-12-04	1033	7.00	2/09	2708373			12.0	В
CAL (ICV) CCV	Charle	3-12-09	2046	4.0	50/21	7711083			3.98	ш (
(B)	CIMIC	3-12-09		2002	1/0/	2708373			la.9	IL)
Perfom only in Calibrate Mode:	alibrate Mo		CAL - Calibrate	e						

Perform only in Run Mode: Perform only in Run Mode:



Acceptance

SPECIFIC CONDUCTANCE CALIBRATION / VERIFICATION LOG

1 ш ш Pass or Fail LL L 9 () (L) (0) 0 Д 山 Δ. Δ П Ω. Ω. Д umhos/cm Reading 2966 Meter # て の 力 500 Constant Cell in log book Bottle # Date: J-sar-L 185408E D-2-C 25-2 135408E 20x21 17.380E 1387038 2804387 135/03C Lot# 30/01 10/01 50/01 10/08 2017 2010, For Date of Last Temperature Verification see Exp. Date 10% umhos/cm Standard 3,000 3,000 8-25 Time 1.20 24 3-5-5 18-28-7 5-5-01 4-38-08 10-91-17 10-21-H Date Initials なら Temperature (Quarterly) ول الما CCAL/COV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV/CCV CAL ICV(CCV CAL ICV/CCV CAL ICV CCV CAL BOLCES CAL ICV (CV CAL (ICV) CCV CAL ICV(CC) POAL (Cox ccv CAL ICV (CC) Project/Site: DEP SOP FT 1200

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:

CAL - Calibrate

Acceptance ±5%



SPECIFIC CONDUCTANCE CALIBRATION / VERIFICATION LOG

Project/Site:						Date:		Meter#	
Temperature (Quarterly)		For Date of Last	-	emperature Verification see	tion see	n log book	book		
DEP SOP FT 1200	S	Date	Time	Standard umhos/cm	Exp. Date	Lot # Bottle #	# Cell Constant	Reading umhos/cm	Pass or Fail
(A) VOI 180	53	3-11-09	26,5	1413	6104	A 604132		620	<u>_</u>
CAL ACT CCV	EG	3-11-01	730	1413	3019	240045		710	(F)
CAL ICV (CCV)	CIME	3-12-09	915	1413	60/9	2806432		1860	Р
CAL ICV CCV	Car	19-21-8	929	1413	1000	28004132		1468	ш (<u>а</u>)
CAL ICV (CCV)	CME	60-21-8	931	84	60/1	7804387		88	ш. (<u>—</u>) (
CAL ICV CCV	CMR	3/12/09	80	500	10/01	3-005-711		516	<u>a</u>
CAI ICV CCV	EG	3131109	812	500	10/04	11745008		503	(<u>a</u>)
CAL ICV/CCV	6 H	PG 411109	417	178	7/104	2804382		101	P F
CANCO COS	77	411108	714	20	b0/17	280/387		8	(f)
CAI ICV COV		4/1/08	235	1413	6/0%	3806434		60	P (F)
CALLEN CCV	4	1/1108	738	81/71	5019	72h708t		5/1/	⊕
CAL ICV(CC)	FG.	416109		3,000	2010	17-300. E		2708	(C)
CAL ICV(CCV)	GIMPZ	4-7-09		3000	00/01	17-300-E		1082	<u>а</u>
CALTICY CCV	Colone	4-2-04	ius4	3000	De 01	17-300-E		2999	<u>(a)</u>

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:

MORTENSEN ENGINEERING, INC.

TURBIDITY CALIBRATION / VERIFICATION LOG

	Pass or Fail		(F)	Ē	ш Д	<u>п</u>	ē P	щ		- (<u></u> (Ø F	Р	Á L				
Werer #																		
	ok_ Dooding	NTU	1:01	1.04	1,04	1.08	۲) -	200		1,00	1.06	to 1	(g)	9	00,			
	in log book	Bottle #																
Date:		Lot #																
	ion see	Exp. Date			21													
	Temperature Verification see	Standard NTU	1,0	07	0'/	0.7	0 -	- -	0,1	1.0	0	07	(1)	2	0.7			
		Time	9138	9:57	54.6	7:35	64:21		0 15	1040	9:50	10 10	0 4		957	7		
	For Date of Last	Date	30-4-4	80-6-4			۸		10-7-08	10.36.08	11708	3-11-09	IN W	10-61.5	2-14.04			
		Initials	EG 1	ECL	ر ار	1	١	5 1	日で	[] []	ノノ	7.		7	ICT.			
Project/Site:	Temperature (Quarterly)	DEP SOP FT 1600		CAL ICV CCV	CAL ICV (CCV	CAL ICV(CCV	CAL ICV CGV	CAL ICV ÉCY	CAL ICV CON	CAL ICK(COV)		(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	CAL ICV (CC)	CAL ICV GET	CAL (CV CCV	CAL ICV CCV	CAL ICV CCV	CAL ICV CCV

Perfom only in Calibrate Mode: Perform only in Run Mode: Perform only in Run Mode:

CAL – Calibrate ICV – Initial Calibration Verification CCV – Continuing Calibration Verification

10 NTU 08/08
10 NTU 08/08