RECEIVED



11:28 am, Sep 21, 2010

Alameda County
Environmental Health

September 15, 2010

Mr. Jerry Wickham Alameda County Health Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Re: Magnesium sulfate application pilot test report

76 Service Station No. 4186 1771 First Street Livermore, California

Dear Mr. Wickham,

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact me at (916) 558-7612.

Sincerely,

Bill Burgh

Bill Borgh

Site Manager – Risk Management and Remediation

Attachment

September 15, 2010

Mr. Jerry Wickham Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

RE: MAGNESIUM SULFATE APPLICATION PILOT TEST REPORT
76 Service Station No. 4186
1771 First Street
Livermore, California

Dear Mr. Wickham:

On behalf of ConocoPhillips Company (ConocoPhillips), Delta Consultants (Delta) is submitting this *Magnesium Sulfate Application Pilot Test Report* for 76 Station No. 4186 in Livermore, California. Approval for the work associated with the pilot test was granted in a Alameda County Environmental Health (ACEH) letter to ConocoPhillips dated May 4, 2010.

Please contact James Barnard at (916) 503-1279 if you have questions.

Sincerely,

DELTA CONSULTANTS

amos B. Barras

James B. Barnard Project Manager

Enclosure

cc: Mr. Bill Borgh – COP (electronic copy only)



MAGNESIUM SULFATE APPLICATION PILOT TEST REPORT

76 SERVICE STATION NO. 4186 1771 FIRST STREET LIVERMORE, CALIFORNIA

September 15, 2010

Prepared for

ConocoPhillips Company
76 Broadway
Sacramento, California

The material and data in this report were prepared under the supervision and direction of the undersigned.

Delta Consultants

Alan Buehler Staff Geologist

James B. Barnard, P.G.

Project Manager

California Registered Professional Geologist No. 7478

1.0 INTRODUCTION

On behalf of ConocoPhillips, Delta has prepared this report for the 76 Service Station No. 4186 (site) located at 1771 First Street, Livermore, California (**Figure 1**). Approval for this work was granted in a letter from ACEH to ConocoPhillips dated May 4, 2010 (**Appendix A**).

The purpose of this report is to provide a summary of the pilot testing activities for enhanced in-situ bioremediation and provide results of biodegradation parameter testing at the 76 service station property.

2.0 SITE BACKGROUND

2.1 PREVIOUS ENVIRONMENTAL WORK

The site is an active 76 service station, located on the southwest corner of First Street and N Street (**Figure 1**). Two 10,000 gallon gasoline underground storage tanks (USTs), four dispenser islands, and a station building are present at the site (**Figure 2**). The site is located in a generally commercial area.

<u>June 1996</u>: During dispenser piping replacement activities, six soil samples were collected beneath the dispensers and product piping. Total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were below the laboratory's indicated reporting limits in all of the samples.

<u>September 1997</u>: A soil gas survey was conducted at the site. Six soil gas probes were advanced and samples were collected at 3 and 15 feet below ground surface (bgs) in the vicinity of the USTs, dispenser islands, and product lines. TPHg was reported in the samples at concentrations ranging from 41 to 4,500 parts per billion (ppb), benzene was reported at concentrations up to 110 ppb, and methyl tert butyl ether (MTBE) was reported at concentrations up to 8,000 ppb. The highest concentrations were reported in the area of the USTs.

<u>June 1998</u>: Three groundwater monitoring wells (U-1 through U-3) were installed at the site to a depth of 34 feet bgs. TPHg, benzene, and MTBE were below laboratory reporting limits in soil samples collected from the well borings. The approximate well locations are shown in **Figure 2**.

<u>May 2000</u>: A site conceptual model (SCM) was completed for the site. The groundwater flow velocity was calculated to estimate plume travel time to the nearest down-gradient receptor. Groundwater velocity was calculated to be 46 feet per year. It was concluded that hydrocarbon impact to groundwater appears to fluctuate with the rise and fall of the groundwater surface beneath the site.

<u>February 2001</u>: Two additional monitoring wells (U-4 and (U-5) were installed. The monitoring wells were installed to depths of 45 feet bgs (U-4) and 47 feet bgs (U-5). TPHq, BTEX, and MTBE were below laboratory reporting limits in soil

September 15, 2010 Page 4

samples collected from the well boring. TPHg and benzene were below laboratory reporting limits in the initial groundwater samples collected from wells U-4 and U-5; however, MTBE was reported at concentrations of 38.2 and 55.4 micrograms per liter (ug/L) respectively. The approximate well locations are shown in **Figure 2**.

<u>December 2001</u>: Two additional monitoring wells (U-6 and U-7) and eight ozone injection sparge wells (SP-1 through SP-4, SP-5/5S, SP-6S, SP-7S, and SP-8/8S) were installed at the site. The monitoring wells were installed to 45 feet bgs. The sparge points in wells SP-1 through SP-4 were installed to a depth of 45 feet bgs. The sparge points in wells SP-6S and SP-7S were installed to a shallower depth of 25 feet bgs. The remaining two sparge wells each contained dualnested sparge points installed to 25 feet bgs (SP-5S and SP-8S) and 45 feet bgs (SP-5 and SP-8). An ozone microsparge system was then installed and began operation in December 2001. The system injected ozone into the 10 sparge points. Approximate locations are shown in **Figure 2**.

April 2006: Seven borings (B-1 through B-7) were advanced at the site. Three boreholes were advanced at each location. The initial borehole was advanced to record a Cone Penetrometer Test (CPT) log of subsurface lithology. The second borehole was advanced for the purpose of collecting soil samples for observation and laboratory analysis, and to collect discrete groundwater samples at depths of approximately 38 feet to 44 feet bgs. The third borehole was advanced to collect discrete groundwater samples at approximately 57 to 65 feet bgs. Three general stratigraphic zones were identified: an upper zone from 36 to 43 feet bgs, a middle clay zone from 43 to 55 feet bgs, and a lower zone from 55 to the maximum depth of 65.5 feet bgs explored. Soil samples from various depths were submitted for laboratory analysis. TPHg was reported in five upper zone, six clay zone, and three lower zone soil samples at concentrations of 700 milligrams per kilogram (mg/kg). MTBE was reported in three upper zone, three clay zone, and two lower zone samples at concentrations up to 0.29 mg/kg. Benzene was reported in three clay zone soil samples at concentrations up to 1.3 mg/kg. TPHg was reported in all of the 14 groundwater samples collected at concentrations up to 26,000 ug/L. Benzene was reported in five upper zone, and six lower zone groundwater samples at concentration up to 510 ug/L. MTBE was reported in four upper zone and six lower zone groundwater samples at concentrations up to 1,100 ug/L.

March 2007: Two additional on-site borings (B-8 and B-9) and one off-site boring (B-10) were advanced using a CPT rig. The borings were advanced to further evaluate the vertical extent of impacted groundwater to the base of the lowermost sand and gravel unit, to evaluate groundwater quality in the lowermost sand and gravel unit down-gradient of the site, and to evaluate the presence of a clay layer underlying the lowermost coarse-grained soils which may represent a regional aquitard. Four soil samples were collected for laboratory analysis from off-site boring B-10. MTBE was reported in two of the samples at concentrations up to 0.016 mg/kg; TPHg and benzene were below laboratory reporting limits in all of the soil samples collected for analysis. TPHg (200 ug/L), benzene (0.94 ug/L), and MTBE (7.1 ug/L) were reported in the groundwater samples collected at 79 to 83 feet bgs from boring B-8. TPHg,

BTEX, and fuel oxygenates were below laboratory reporting limits in the groundwater samples collected at 78 to 88 feet bgs from boring B-9. A low concentration of MTBE (0.73 ug/L) was reported in groundwater samples collected at 66 to 70 feet bgs from boring B-10, and a low concentration of toluene (1.4 ug/L) was reported in the groundwater sample collected between 83 to 87 feet bgs from boring B-10. Based on the results of the investigation, soil and groundwater in the area of off-site boring B-10 did not appear to be significantly impacted, groundwater within the lowermost sand and gravel unit in the area of boring B-8 was slightly impacted, and groundwater within the lowermost sand and gravel unit in the area of B-9 was not impacted.

March 2007: Oxygen injection testing was performed in the sparge wells to evaluate radius of influence and to evaluate the effectiveness of the existing system. As described in our Additional Subsurface Assessment Report, dated April 26, 2007, the testing suggested a ROI of between 10 to 15 feet around the wells on average, but perhaps greater in some area. This system has been inactive for the past year due to concerns about the injection of ozone causing oxidation of trivalent chromium [Cr (III)] into hexavalent chromium [Cr (VI)].

<u>September and October of 2008</u>: Delta installed eight more groundwater monitoring wells. Wells U-8 through U-11 were deemed Middle Zone Monitoring Wells, and installed to depths ranging from 45 to 50 feet bgs. The middle zone wells were constructed as 2-inch diameter wells with 10 foot screen intervals. Wells U-12 through U-15 were deemed Lower Zone Monitoring Wells, and installed to depths ranging from 71.5 to 75 feet bgs. The lower zone wells were constructed as 4 inch diameter wells with 10 foot screened intervals, and with 12 inch diameter steel conductor casing from surface to between 52 to 57 feet bgs.

Quarterly monitoring of the site wells has been performed since July 1998. Historically, the groundwater flow direction has varied from north to southwest. The depth to groundwater has varied from 21.62 to 46.31 feet bgs.

2.2 SENSITIVE RECEPTORS

<u>2006</u>: A survey entailing a visit to the DWR office in Sacramento was conducted to examine well log records and to identify domestic wells within the survey area. The DWR survey provided 53 potential receptors within one mile of the site; eleven municipal wells, five irrigation wells, two domestic wells, one domestic/irrigation well, and seventeen with an unknown well type. Seventeen additional potential receptors were identified although the specific addresses could not be verified.

2.3 SITE GEOLOGY AND HYDROGEOLOGY

The site is underlain by sand and gravel to a depth of approximately 20 feet bgs. This is underlain by a clay layer from approximately 20 to 35 feet bgs with a sandy layer from approximately 35 to 45 feet bgs. There is another clay layer from approximately 45 feet bgs to a maximum explored depth of 50 feet bgs.

Groundwater monitoring and sampling results from the fourth quarter 2009 indicate that the core of the petroleum hydrocarbon plume is located central to the site, in vicinity of the dispenser islands, with maximum concentrations of Benzene and MTBE located slightly south, primarily in the vicinity of the current UST pit. Fourth quarter 2009 laboratory analyses indicate that there is a favorable correlation between sulfate concentrations and contaminant concentrations (except at U-10) in the intermediate zone.

In addition, chromium VI concentrations are ND in the intermediate zone wells which are targeted for sulfate enhancement. The maximum TPHg concentration reported in groundwater is 8,800 parts per billion (ppb) reported in on site well U-9 (just south of First Street).

Historical groundwater analytical data from monitoring and sampling events is included as **Appendix B**.

3.0 MAGNESIUM SULFATE APPLICATION PILOT TEST

3.1 BIODEGRADATION PARAMETER TESTING

As part of the scheduled fourth quarter 2009 monitoring and sampling event, groundwater samples were collected and analyzed for additional biodegradation parameters, including, but not limited to, sulfate (SO_4), magnesium, manganese, nitrate (NO_3), field pH, field temperature, post-purge dissolved oxygen (DO), post purge oxygen reducing potential (ORP) and hexavalent chromium (chrome VI). These parameters are among those indicative of anaerobic biodegradation potential. In addition, hexavalent chromium was measured as part of baseline sampling to determine background concentrations of this potential byproduct of advanced oxidation injection.

Analytical results indicate nitrate concentrations in groundwater samples collected during the fourth quarter 2009 sampling event were below laboratory indicated reporting limits in impacted wells (U-7, U-8, U-9, U-10, and U-11), and above reporting limits in non-impacted wells. Nitrate concentrations in wells U-4, and U-5 are likely representative of background concentrations at the site, as these wells are middle zone monitoring wells with little or non-detect impact. The relative absence of nitrate in the remaining wells likely indicates nitrates have been depleted as an electron acceptor for biodegradation.

A review of DO and ORP levels indicate that, generally, higher DO and ORP values were measured in wells with lower petroleum hydrocarbon concentrations while lower DO and ORP values were measured in wells with higher petroleum hydrocarbon concentrations.

These reported biodegradation parameters indicate bio-remediation has occurred at the site reducing nitrate concentrations to at or near reporting limits and reducing sulfate concentrations to below background concentrations in wells containing petroleum hydrocarbons. The lower DO concentrations and ORP measurements in wells containing higher petroleum hydrocarbons indicate the site is at or approaching an anaerobic condition.

3.2 PILOT TEST

Delta conducted an enhanced biodegradation pilot test on the eastern portion of the site. This pilot test involved the introduction of a sulfate compound into groundwater monitoring well U-11 in order to replenish the electron acceptors in the northeast portion of the property.

Delta has recently been awarded a patent for the application of sulfate with respect to accelerating the cleanup of soil and groundwater. With microbes and dissolved iron (ferric iron) present, the introduction of magnesium sulfate solution (MgSO₄) into hydrocarbon-impacted groundwater yields the following reaction:

Petroleum Hydrocarbon + MgSO₄ + Dissolved Iron \rightarrow Iron Sulfide + H₂O + MgCO₃ + CO₂

There are three groundwater zones at this site: a shallow zone with wells U-1 through U-3 screened between 13 to 34 feet bgs, a middle zone with wells U-4 through U-11 screened variably between 35 to 47 feet bgs, and a deeper zone between with wells U-12 through U-15 screened variably between 62 to 75 feet bgs. Only the middle groundwater zone is being target during this pilot test, as both the shallow and deeper zones appear to be lesser or non-impacted.

Prior to the application of the magnesium sulfate, Delta collected grab groundwater samples from monitoring wells U-8, U-10, and U-11, and from sparge points SP-2, SP-5, and SP-8. Samples collected from the monitoring wells were analyzed for sulfate and magnesium, as well as for TPHg by EPA Method 8015M, and BTEX and MTBE by EPA method 8260B. Due to issues that arose during collection of samples from the sparge points, samples from these wells were not analyzed for TPHd, sulfate, or magnesium, with the exception of SP-8 which was analyzed for sulfate.

In addition to the groundwater samples, prior to the application of the magnesium sulfate, monitoring wells U-8, U-10, and U-11 were monitored for parameters including depth to water (DTW), pH, Oxygen Reducing Potential (ORP), Dissolved Oxygen (DO), temperature (temp), and electrical conductivity (EC). These parameters were used to monitor the dispersion of the magnesium sulfate prior to application. All groundwater samples collected during the pilot test were non-purge grab groundwater samples.

Due to the small ¾ inch casing size of the sparge points, these wells (SP-2, SP-5, and SP-8) could not be monitored for parameters except for DTW.

The above mentioned parameters (DTW, pH, ORP, DO, temp, and EC) were also monitored during the application of the magnesium sulfate solution. These parameters were monitored in monitoring wells U-8 and U-10 at approximately 30-minute intervals. These parameters were used to monitor the dispersion of magnesium sulfate during application. Sparge points SP-2, SP-5, and SP-8 were not monitored during application for the same reason as stated above. Application well U-11 was not monitored during application.

On May 28, 2010, 110 gallons of 29% magnesium sulfate solution (13% sulfate) were introduced into monitoring well U-11. The target application rate was approximately 1 gallon per minute.

Only minor fluctuations in field monitored parameters were observed during application. DTW measurements from U-11 following application could not be gathered as the increased conductivity in this well caused temporary malfunction of sounding equipment. The magnesium sulfate application field parameter measurements are included as **Table 1**.

Following the completion of the application of magnesium sulfate, the above mentioned parameters (DTW, pH, ORP, DO, temp, and EC) were measured in monitoring wells U-8, U-10, and U-11. In addition, groundwater samples were collected from monitoring wells U-8, U-10, and U-11 and analyzed for sulfate and magnesium. Samples were also collected from sparge points SP-2, SP-5, and SP-8, though due to sampling issues that arose during sample collection, samples were analyzed only for sulfate.

During week 2 of the pilot test, nine days after the application of the magnesium sulfate, groundwater samples were collected from monitoring wells U-8, U-10, and U-11, and sparge points SP-2, SP-5, and SP-8, and analyzed for sulfate and magnesium.

No activities were performed during week 3 of the pilot test to allow for laboratory analysis of Week 2 groundwater samples and to allow for additional dispersion of the applied magnesium sulfate solution within the groundwater formation.

Since sulfate levels from the week 2 sampling activities were above the target range of 450 to 500 mg/L in the application well, an additional application of magnesium sulfate was not performed during week 4 activities. During week 4, groundwater samples were collected from monitoring wells U-8, U-10, and U-11, and sparge points SP-2, SP-5, and SP-8, and analyzed for sulfate and magnesium.

As sulfate levels during week 4 were above the target range of 450 to 500 mg/L in the application well, no activities were performed during weeks 5 and 6.

During week 7, as sulfate levels from week 4 were above target range, no additional application of sulfate was performed. During week 7, groundwater samples were collected from monitoring wells U-8, U-10, and U-11, and sparge points SP-2, SP-5, and SP-8 and analyzed for sulfate, as well as TPHg by EPA Method 8015M, and BTEX and MTBE by EPA method 8260B. Samples collected from the monitoring wells were additionally analyzed for TPHd by EPA method 8015 and magnesium.

No activities were performed during week 8 to allow time for laboratory analysis of week 7 samples.

During week 9, the final week of the pilot test, no additional sulfate application was performed as week 7 sulfate levels were above the target range. During week 9, groundwater samples were collected from monitoring wells U-8, U-10, and U-11, and sparge points SP-2, SP-5, and SP-8 and analyzed for sulfate, as well as TPHg by EPA Method 8015M, BTEX and MTBE by EPA method 8260B, and chrome VI by EPA method 7199. Samples collected from the monitoring wells were additionally analyzed for TPHd by EPA method 8015 and magnesium.

3.3 LABORATORY ANALYTIC RESULTS

Sulfate concentrations in U-11 increased from 62 mg/L immediately prior to application to 160,000 mg/L immediately following application.

Most of the surrounding wells reported increases in sulfate concentrations. Down gradient well U-8 and the cross gradient well U-10 reported increased sulfate concentrations after application at least double the levels those prior to application. Up gradient well SP-8 reported increase in sulfate concentrations. Due to issues that arose with sample collection, samples collected from sparge points SP-2 and SP-5 were not analyzed for sulfate prior to application, so pre and post application comparison cannot be made.

Samples collected during week 2 reported a decrease in sulfate concentrations in U-11 from 160,000 mg/L immediately following application to 6,000 mg/L during week two. This indicates both dispersion and bacterial consumption of the sulfate. Sulfate concentrations reported in sampled surrounding wells U-10, U-8, and SP-5 were slightly lower than concentrations reported immediately following application. Sulfate concentrations in wells SP-2, and SP-8 showed increases from postapplication to week 2.

Samples collected during week 4 continued to report an increase in sulfate concentrations in U-11 from 6,000 mg/L during week 2 to 6,800 mg/L during week 4. The reported sulfate concentrations in all of the sampled surrounding wells reported decreases from week 2 to week 4.

Samples collected during week 7 reported decrease in sulfate concentrations in U-11 from 6,800 mg/L during week 4 to 1,800 mg/L during week 7. Surrounding wells showed decreases in sulfate concentrations as well.

TPHg concentrations in U-11 increased from 6,400 μ g/L prior to application to 6,800 μ g/L during week 7. TPHg concentrations in the surrounding wells with pre-application TPHg concentrations above 1000 μ g/L (U-8, U-10, and SP-8) increased from pre-application to week 7. Surrounding wells with pre-application TPHg concentrations lower than 1000 μ g/L (SP-5 and SP-8) decreased from pre-application to week 7.

Samples collected during week 9 reported an increase in sulfate concentrations in U-11 to 2,700 mg/L from 1,800 mg/L during week 7. The reported sulfate concentrations in the sampled surrounding wells decreased from concentrations reported during week 4.

TPHg concentrations in U-11 decreased from 6,800 μ g/L during week 7 to 5,500 μ g/L during week 9. In surrounding well U-10, SP-5, and SP-8, TPHg concentrations increased from week 7 to week 9. The remaining wells showed decreases in TPHg concentrations during this time.

Wells SP-2 and U-10 showed increases in TPHg concentrations from preapplication to week 9. The remaining wells, U-11, U-8, SP-5, and SP-5, showed overall decreases in TPHg concentrations over the course of the pilot test. BTEX concentrations stayed roughly static or decreased over the course of the pilot test. MTBE concentrations stayed roughly static or increased slightly over the course of the pilot test.

Hexavalent Chromium was below laboratory indicated reporting limits in all wells sampled during week 9.

Pilot test analytical results are presented in **Table 2**. Field parameter measurements are included in **Table 1**. Certified laboratory analytical reports are included as **Appendix C**.

3.5 DISCUSSION

The application of magnesium sulfate caused an initial increase in TPHg and BTEX concentrations in application well U-11, as well as several of the other surrounding wells. It is not unusual to see an increase shortly after a magnesium sulfate solution application. Explanations include that the sulfate stimulates biological activity and that activity opens up some of the pore

spaces resulting in more contaminant mass exposed to groundwater and/or generates a surfactant effect that allows greater mass transfer and consequently higher concentrations.

Also, it should be noted that groundwater elevation increased approximately 1.5 feet from pre-application levels during the course of the pilot test. The sparge wells showed significantly less of an increase in groundwater level, as the gas diffusers do not allow water to flow as freely in and out as does the screen on a monitoring well.

Petroleum hydrocarbon concentration data reported an overall reduction in both TPHg, and to a lesser extent BTEX, in application well U-11, with a corresponding reduction in sulfate concentrations. This indicates that the sulfate is being consumed and additional biodegradation of the TPHg is occurring.

All of the monitoring wells (U-8, U-10, and U-11), and one of the sparge wells (SP-2) reported increases in TPHg concentrations immediately following the application. However, all of the wells reported overall decreases in TPHg concentrations over the course of the pilot test, with the exception of SP-2, which showed increased TPHg concentrations, and U-8 which showed minor increase in TPHg concentration, over the course of the pilot test. The application of magnesium sulfate caused an initial increase in TPHg and BTEX concentrations in the application well U-11. It is not unusual to see an increase shortly after a magnesium sulfate solution application. Explanations include that the sulfate stimulates biological activity and that activity opens up some of the pore spaces resulting in more contaminant mass exposed to groundwater and/or generates a surfactant effect that allows greater mass transfer and consequently higher concentrations.

Sulfate concentrations increased initially in U-11 following application, but reported an overall decreasing trend for the remainder of the pilot test. The decreasing sulfate and gasoline concentration trends (despite initial gasoline concentration spikes) is an indication that applied sulfate is being consumed by microbial action as part of the biodegradation process and that degradation is occurring.

Currently, TPHg concentrations have shown an increase compared to concentrations prior to the application. However, sulfate levels have generally dropped compared to prior to the application, which indicates that the sulfate is being consumed in the subsurface. The application well showed increased concentrations initially, followed by declining concentrations. As this well (U-11) received the highest concentrations of sulfate during the application, this indicates that the sulfate is working in enhancing biodegradation of the contaminants. The surrounding wells, having not received sulfate concentrations as high, have not yet past the initial increase toward declining concentrations. Sparge Points SP-5 and SP-8, having the

lowest initial contamination, did not show an initial spike in concentrations. Wells with lower pre-application concentrations did not show the same initial spike as did the wells with higher pre-application concentrations.

3.6 CONCLUSIONS and RECOMMENDATIONS

Several conclusions can be drawn from this data, including that bio-activity appears to be increased and that there were no adverse side effects of the application. However, certain conclusions cannot be made yet including radius of influence of the application and a definitive prediction of how well the technology will work at this site.

Delta believes that the applied sulfate is being sufficiently utilized. In the application well, the sulfate concentration has decreased from 160,000 ppm to 2,700 ppm in only 8 weeks. Utilization as opposed to dispersion is demonstrated by the lack of significant sulfate concentration increases in most of the surrounding wells. The increases in TPH concentrations noted could be due to several factors including normal variability such as seasonal fluctuations, flushing of capillary fringe due to the mass of material applied during the application, or a surfactant effect associated with the increased bio-activity.

Delta believes that there are still adequate residual sulfates in the application well to support continued bio-degradation. **Delta recommends continued biodegradation parameter analysis during semi-annual monitoring and sampling (M&S)**, with which, as the sulfate continues to work in the subsurface, decreases in the application well and surrounding wells will become more apparent.

Historical groundwater monitoring and sampling analytical results are included as **Appendix B**.

5.0 <u>LIMITATONS</u>

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

Consultant: **DELTA CONSULTANTS**

Magnesium Sulfate Application Pilot Test Report Former 76 Service Station No. 4186 1771 First St, Livermore, CA

September 15, 2010 Page 13

FIGURES

Figure 1 – Site Locator Map

Figure 2 – Site Map with Current Site Configuration and Monitoring Wells

TABLES

Table 1 – Pilot Test Field Parameter Measurements

Table 2 – Pilot Test Analytical Results

APPENDICES

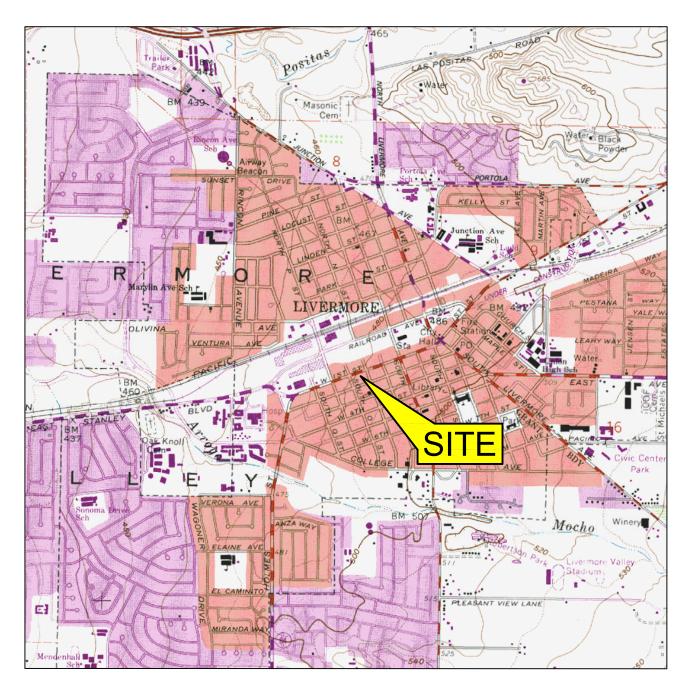
Appendix A – ACEH Letter dated May 4, 2010

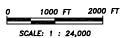
Appendix B – Historical Groundwater Monitoring and Sampling

Analytical Results

Appendix C – Certified Laboratory Analytical Reports









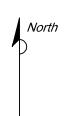
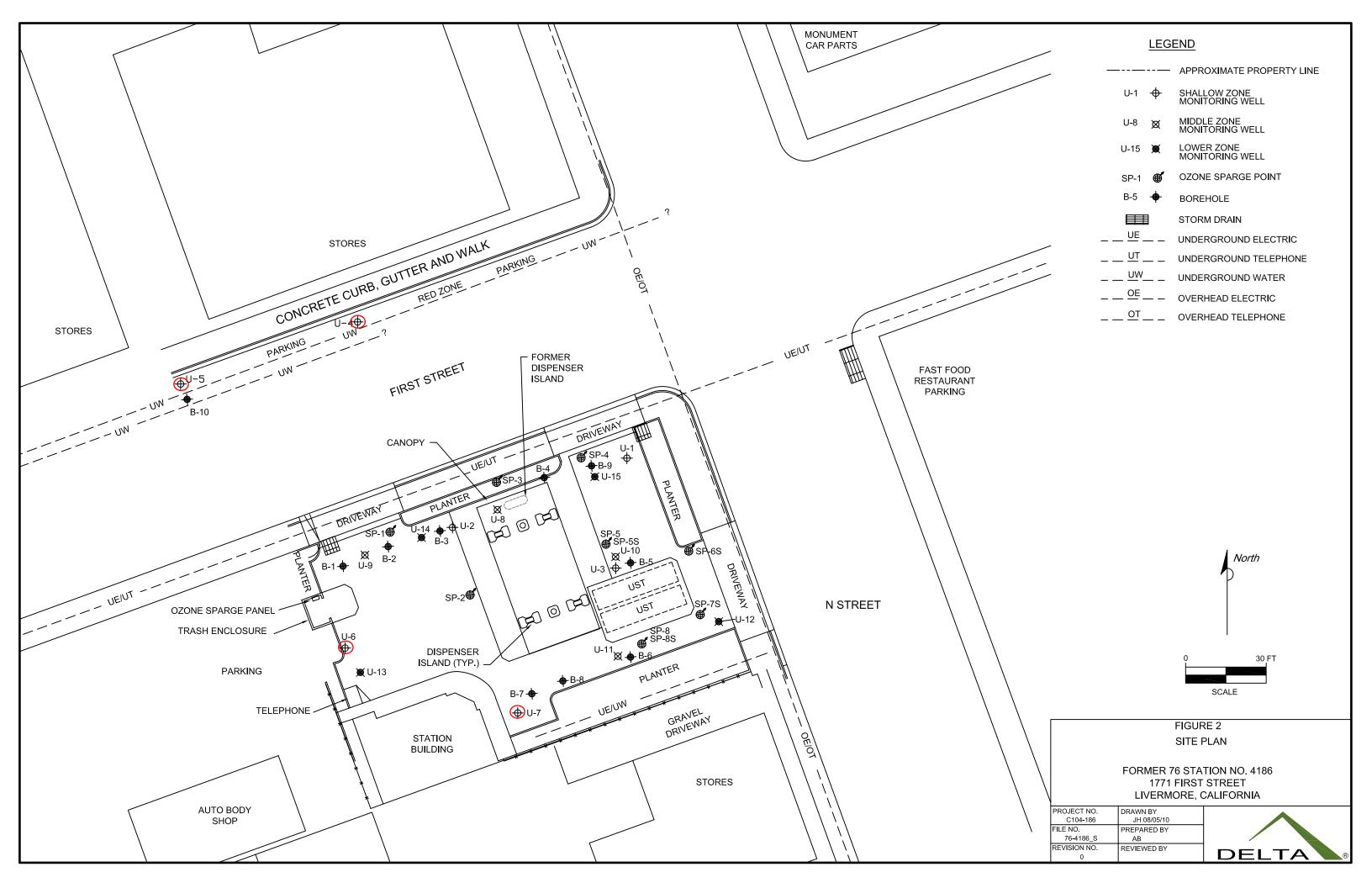


FIGURE 1 SITE LOCATION MAP

76 STATION NO. 4186 1771 FIRST STREET LIVERMORE, CA

PROJECT NO.	DRAWN BY
C104-186	MC 12/28/05
FILE NO.	PREPARED BY
Site Locator 4186	MC
REVISION NO.	REVIEWED BY
l 1	1





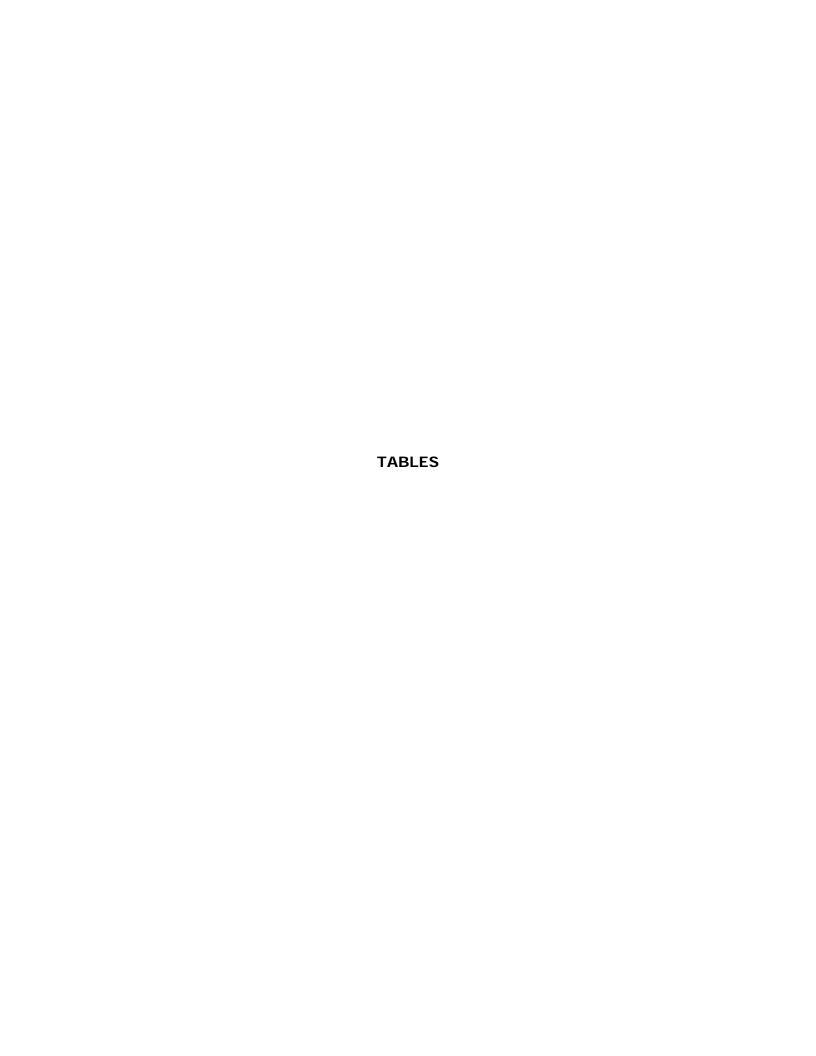


TABLE 1 MAGNESIUM SULFATE PILOT TEST FIELD MONITORING PARAMETERS

76 Service Station No. 4186 1771 First Street Livermore, California

Date of Application: May 28, 2010

	Pre Application Parameters												
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp						
		(ft)	(mS/cm^3	(mg/L)	(mV)	(pH units)	(°C)						
U-11	8:30a	32.45	2.419	1.20	-177.7	6.84	19.57						
U-8	9:44a	34.02	1.614	54.00	5.3	7.43	20.12						
U-10	9:23a	34.15	1.793	1.40	-162.1	7.32	19.82						
SP-2*	12:17p	32.18											
SP-5*	12:00p	33.00											
SP-8*	11:30a	33.10											

	30 Min Parameters												
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp						
U-8	2:08p	33.20	1.587	3.81	-170.3	7.13	19.96						
U-10	2:10p	33.13	1.801	1.34	13.2	6.98	20.51						
SP-2*													
SP-5*													
SP-8*													

	60 Min Parameters												
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp						
U-8	2:42p	32.35	1.624	2.09	-171.9	7.06	20.56						
U-10	2:37p	33.15	1.782	5.16	-58.0	7.28	20.78						
SP-2*													
SP-5*													
SP-8*													

	90 Min Parameters													
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp							
U-8	3:30p	32.30	1.607	1.96	-164.0	7.23	19.90							
U-10	3:11p	33.12	1.787	2.03	-21.5	7.27	20.69							
SP-2*	3:21p	32.65												
SP-5*	3:18p	29.96												
SP-8*	3:26p	33.00												

TABLE 1 MAGNESIUM SULFATE PILOT TEST FIELD MONITORING PARAMETERS

76 Service Station No. 4186 1771 First Street Livermore, California

TABLE 1 FIELD MONITORING PARAMETERS

	120 Min Parameters												
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp						
U-8	4:08p	32.29	1.622	1.29	-92.5	6.77	20.44						
U-10	4:00p	33.07	1.808	3.56	-64.5	7.17	20.61						
SP-2*	4:05p	32.10											
SP-5*	3:58p	32.95											
SP-8*	3:54p	32.64											

	150 Min Parameters												
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp						
U-8	4:43p	32.28	1.609	1.70	-127.0	6.91	20.38						
U-10	4:38p	33.07	1.784	1.45	-81.8	7.32	20.49						
SP-2*	4:48p	32.10											
SP-5*	4:36p	32.95											
SP-8*	4:30p	32.64											

	Post Application Parameters												
Well	Time	DTW	Specific Conductivity	DO	ORP	рН	Temp						
U-11	5:00p	~25**	71.310	7.60	67.3	7.49	19.38						
U-8	5:56p	32.27	1.634	2.90	-82.2	6.92	20.36						
U-10	5:33p	33.01	1.813	1.78	66.3	7.36	20.74						
SP-2*	6:14p	32.00											
SP-5*	5:42p	32.98											
SP-8*	5:18p	32.97											

ft = feet mS/cm^3 = milliSiemens per cubic centmeter mg/L = milligrams per liter mV = millivolts

[°]C = degrees celsius DTW = Depth to Water

^{*} narrow diameter of wells prohibited measuring of biodegradation parameters

^{**} malfunction of water level meter prohibited accurate DTW reading

TABLE 2 MAGNESIUM SULFATE PILOT TEST ANALYTICAL RESULTS 76 Service Station No. 4186 1771 First Street Livermore, California

Sample ID	Date	Description	Sulfate	Magnesium	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Chrome VI
			(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
U-11-pre	5/28/2010	Prior to application	62	86	6400	300	<5.0	<5.0	<5.0	<10	3700	
U-11-post	5/28/2010	Immediately following application	160000	7800								
U-11-wk2	6/7/2010	1 week following application	6000	1200								
U-11-wk4	6/24/2010	3 week following application	6800	1200								
U-11-wk7	7/13/2010	6 weeks following application	1800	680	6800	340	3.1	1	6.4	2.6	4800	
U-11-wk9	7/26/2010	8 weeks following application	2700	820	5500	340	2.9	<0.50	3.6	1.6	4200	<0.20
SP-2-pre	5/28/2010	Prior to application			4300		40	4	9.1	6.3	370	
SP-2-post	5/28/2010	Immediately following application	38									
SP-2-wk2	6/7/2010	1 week following application	330	170								
SP-2-wk4	6/24/2010	3 week following application	120	130								
SP-2-wk7	7/13/2010	6 weeks following application	58		5600		38	1.8	6	4.4	500	
SP-2-wk9	7/26/2010	8 weeks following application	50		5200		28	1.5	5.2	4.3	620	<0.20
U-10-pre	5/28/2010	Prior to application	100	40	1300	87	1.6	<0.50	0.87	<1.0	130	
U-10-post	5/28/2010	Immediately following application	76	110								
U-10-wk2	6/7/2010	1 week following application	60	88								
U-10-wk4	6/24/2010	3 week following application	48	110								
U-10-wk7	7/13/2010	6 weeks following application	42	100	3500	170	51	2.9	37	4.6	190	
U-10-wk9	7/26/2010	8 weeks following application	25	95	4800	150	26	1.5	12	12	130	<0.20
U-8-pre	5/28/2010	Prior to application	2.7	80	1100	860	2.1	<0.50	3.3	8.3	<0.50	
U-8-post	5/28/2010	Immediately following application	8.7	81								
U-8-wk2	6/7/2010	1 week following application	6.7	87						-		
U-8-wk4	6/24/2010	3 week following application	120	120								
U-8-wk7	7/13/2010	6 weeks following application	7.6	90	1400	370	6.5	<0.50	2.6	3.9	<0.50	
U-8-wk9	7/26/2010	8 weeks following application	9.2	100	1200	430	3	0.5	1.9	1.3	<0.50	<0.20
SP-5-pre	5/28/2010	Prior to application			880		1.1	<0.50	<0.50	<1.0	2.4	
SP-5-post	5/28/2010	Immediately following application	66									
SP-5-wk2	6/7/2010	1 week following application	29	82								
SP-5-wk4	6/24/2010	3 week following application	12	84								
SP-5-wk7	7/13/2010	6 weeks following application	16		110		<0.50	<0.50	<0.50	<1.0	3.6	
SP-5-wk9	7/26/2010	8 weeks following application	16		510		<0.50	<0.50	<0.50	<1.0	3.8	<0.20
SP-8-pre	5/28/2010	Prior to application	4		800		2.4	0.94	<0.50	4.2	44	
SP-8-post	5/28/2010	Immediately following application	120									
SP-8-wk2	6/7/2010	1 week following application	310	140								
SP-8-wk4	6/24/2010	3 week following application	96	10								
SP-8-wk7	7/13/2010	6 weeks following application	33		190		29	<0.50	3.9	1.3	47	
SP-8-wk9	7/26/2010	8 weeks following application	27		420		9.4	<0.50	3.1	1.5	30	<0.20

TPHg = Total Petroleum Hydrocarbons as Gasoline TPHd = Total Petroleum Hydrocarbons as Diesel

APPENDIX A

ACEH Letter Dated May 4, 2010

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

May 4, 2010

Terry Grayson (Sent via E-mail to: <u>Terry.L.Grayson@contractor.conocophillips.com</u>)
ConocoPhillips
76 Broadway
Sacramento, CA 95818

Thomas and Celine Vadakkekunnel 4481 Peacock Court Dublin, CA 94568

Subject: Fuel Leak Case No. RO0000436 and Geotracker Global ID T0600101777, Unocal #4186, 1771 First Street, Livermore, CA 94550 – Conditional Work Plan Approval

Dear Mr. Grayson and Mr. and Ms. Vadakkekunnel:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, "Magnesium Sulfate Pilot Application Work Plan," dated March 15, 2010 (Work Plan). The Work Plan, which was prepared on your behalf by Delta Consultants, presents plans to conduct a pilot test of magnesium sulfate injection using existing monitoring well U-11.

The scope of work is conditionally approved and may be implemented provided that the technical comment below is incorporated during the proposed activities. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comment below is proposed. We request that you address the following technical comment, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

Laboratory Analyses. In addition to the proposed laboratory analyses of groundwater samples
collected prior to and following the introduction of magnesium sulfate in well U-11, we request that
you include analysis for TBA using EPA Method 8260B. A review of historical groundwater
monitoring data indicates that although some decreases in concentrations have been observed for
TPHg, BTEX, and MTBE, TBA concentrations have remained elevated. The recalcitrance of TBA is
a concern for this site.

Terry Grayson Thomas and Celine Vadakkekunnel RO0000436 May 4, 2010 Page 2

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **August 10, 2010** Semi-Annual Monitoring Report Second Quarter 2010 (To include summary report, remedial performance summary, and quarterly monitoring report in one document
- September 24, 2010 Pilot Test Report

If you have any questions, please call me at 510-567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297 Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Danielle Stefani, Livermore Pleasanton Fire Department, 3560 Nevada St, Pleasanton, CA 94566 (Sent via E-mail to: dstefani@lpfire.org)

Cheryl Dizon (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (Sent via E-mail to: cdizon@zone7water.com)

James Barnard, Delta Environmental, 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670 (Sent via E-mail to: <u>JBarnard@deltaenv.com</u>)

Donna Drogos, ACEH (Sent via E-mail to: <u>donna.drogos@acgov.org</u>)
Jerry Wickham, ACEH

Geotracker, File

Attachment 1 Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

ISSUE DATE: July 5, 2005

REVISION DATE: March 27, 2009

PREVIOUS REVISIONS: December 16, 2005,

October 31, 2005

SECTION: Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF)
 with no password protection. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- Do not password protect the document. Once indexed and inserted into the correct electronic case file, the
 document will be secured in compliance with the County's current security standards and a password.
 Documents with password protection will not be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in Excel format.
 These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org

Oı

- ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
- b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B Historical Groundwater Monitoring and Sampling Analytical Results

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness		Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	
				Elevation	1	8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	
U-1			(Scre	en Interva	ıl in feet: 14	.0-34.0)								
7/13/199	98 478.2	7 23.28	0.00	454.99		ND		ND	ND	ND	ND	ND		
10/7/199	98 478.2	7 26.43	0.00	451.84	-3.15	ND		ND	ND	ND	ND	ND		
1/15/199	99 478.2	7 30.42	0.00	447.85	-3.99	ND		ND	ND	ND	1.1	7.3		
4/14/199	99 478.2	7 24.21	0.00	454.06	6.21	ND		ND	ND	ND	ND	160		
7/19/199	99 478.2	7 27.10	0.00	451.17	-2.89	ND		ND	ND	ND	ND	92		
10/12/19	99 478.2	7 29.40	0.00	448.87	-2.30	ND		ND	ND	ND	ND	37		
1/24/200	00 478.2	7 27.90	0.00	450.37	1.50	ND		ND	ND	ND	ND	28		
4/10/200	00 478.2	7 26.16	0.00	452.11	1.74	ND		ND	0.930	ND	ND	ND		
7/17/200	00 478.2	7 28.04	0.00	450.23	-1.88	ND		ND	ND	ND	ND	160		
10/2/200	00 478.2	7 28.41	0.00	449.86	-0.37	ND		ND	ND	ND	ND	120		
1/8/200	1 478.2	7 28.68	0.00	449.59	-0.27	ND		ND	ND	ND	ND	103		
4/3/200	1 478.2	7 25.74	0.00	452.53	2.94	ND		ND	ND	ND	ND	55.1		
7/2/200	1 478.2	7 30.67	0.00	447.60	-4.93	ND		ND	ND	ND	ND	ND		
10/8/200	01 478.2	7 33.13	0.00	445.14	-2.46	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
1/3/200	2 478.2	7 27.67	0.00	450.60	5.46	160		ND<0.50	0.51	ND<0.50	0.69	31		
4/5/200	2 478.2	7 29.40	0.00	448.87	-1.73	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	60		
7/2/200	2 478.2	7 31.17	0.00	447.10	-1.77		1100	ND<0.50	1.7	0.73	130		35	
10/1/200	02 478.2	7 33.00	0.00	445.27	-1.83		120	ND<0.50	ND<0.50	ND<0.50	8.8		28	
12/30/20	02 478.2	7 22.03	0.00	456.24	10.97		ND<50	ND<0.50	ND<0.50	ND<0.50	1.2		90	
5/2/200	3 478.2	7 24.13	0.00	454.14	-2.10		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		50	
7/1/200	3 478.2	7 25.35	0.00	452.92	-1.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
10/3/200	03 478.2	7 27.24	0.00	451.03	-1.89		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	

CTRC

Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS July 1998 Through June 2010 **76 Station 4186**

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness	water Elevation	Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	
						8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
	ontinued													
1/8/200	04 478.27	22.67	0.00	455.60	4.57		54	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.5	
4/15/20	004 478.27	25.33	0.00	452.94	-2.66		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
7/15/20	004 478.27	26.47	0.00	451.80	-1.14		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/8/20	004 478.27	31.17	0.00	447.10	-4.70		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
3/23/20	005 478.27	22.47	0.00	455.80	8.70		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/28/20	005 478.27	25.37	0.00	452.90	-2.90		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
9/23/20	005 478.27	29.15	0.00	449.12	-3.78		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/30/20	005 478.27	23.69	0.00	454.58	5.46		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
3/24/20	006 478.27	22.54	0.00	455.73	1.15		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.6	
6/26/20	006 478.27	24.99	0.00	453.28	-2.45		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
9/26/20	006 478.27	30.19	0.00	448.08	-5.20		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
11/21/20	006 478.27	28.27	0.00	450.00	1.92		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
3/26/20	007 478.27	26.92	0.00	451.35	1.35		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
6/27/20	007 478.27	30.78	0.00	447.49	-3.86		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
9/23/20	007 478.27	33.17	0.00	445.10	-2.39									Not enough water to sample
12/20/20	007 478.27													Dry well
3/17/20	008 478.27	31.20	0.00	447.07			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/12/20	008 478.27													Dry well
9/3/200	08 478.27													Dry
12/3/20	008 480.29													Dry
2/18/20	009 480.29													Dry
6/11/20	009 480.29													Dry
12/9/20	009 480.29													Dry
4186								Page 2	2 of 15					OTRC

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G 8015	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	
U-1 co	ontinued 10 480.29	31.35	0.00	448.94	1		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
U-2			(Scre	en Interva	al in feet: 13	.0-34.0)								
7/13/19	98 477.44	23.52	0.00	453.92	2	1200		130	12	62	180	1100		
10/7/19	98 477.44	25.31	0.00	452.13	3 -1.79	ND		ND	ND	ND	ND	160		
1/15/19	99 477.44	30.22	0.00	447.22	2 -4.91	ND		ND	ND	ND	ND	280		
4/14/19	99 477.44	24.50	0.00	452.94	5.72	ND		ND	ND	ND	ND	460		
7/19/19	99 477.44	28.54	0.00	448.90	-4.04	ND		ND	ND	ND	ND	220		
10/12/19	999 477.44	30.48	0.00	446.96	5 -1.94	ND		ND	ND	ND	ND	160		
1/24/20	00 477.44	24.52	0.00	452.92	2 5.96	ND		ND	ND	ND	ND	150		
4/10/20	00 477.44	23.68	0.00	453.76	5 0.84	ND		ND	ND	ND	ND	177		
7/17/20	00 477.44	28.35	0.00	449.09	-4.67	ND		ND	ND	ND	ND	62.7		
10/2/20	00 477.44	28.72	0.00	448.72	2 -0.37	ND		ND	ND	ND	ND	52		
1/8/200	01 477.44	29.11	0.00	448.33	3 -0.39	ND		ND	ND	ND	ND	57.3		
4/3/200	01 477.44	25.95	0.00	451.49	3.16	ND		ND	ND	ND	ND	30.2		
7/2/200	01 477.44	29.01	0.00	448.43	3 -3.06	ND		ND	ND	ND	ND	16		
10/8/20	01 477.44	30.94	0.00	446.50	-1.93	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	82		
1/3/200	02 477.44	27.33	0.00	450.11	3.61	260		7.7	11	1.7	15	42		
4/5/200	02 477.44	30.02	0.00	447.42	2 -2.69	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	25		
7/2/200	02 477.44	31.23	0.00	446.21	1 -1.21		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
10/1/20	02 477.44	32.00	0.00	445.44	4 -0.77		ND<50	ND<0.50	0.62	ND<0.50	ND<1.0		ND<2.0	
12/30/20	002 477.44	22.32	0.00	455.12	9.68		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
5/2/200	03 477.44	25.92	0.00	451.52	2 -3.60		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
7/1/200	03 477.44	24.99	0.00	452.45	5 0.93		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
								Daga	2 of 15					

Page 3 of 15

4186

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date Sampled El		Depth to Water	LPH Thickness	Ground- water	Change in Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	Comments
				Elevation		8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$								
U-2 cont	inued													
10/3/2003	477.44	25.31	0.00	452.13	-0.32		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
1/8/2004	477.44	21.94	0.00	455.50	3.37		ND<50	ND<0.50	ND<0.50	0.51	ND<1.0		ND<2.0	
4/15/2004	477.44	25.20	0.00	452.24	-3.26		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
7/15/2004	477.44	24.45	0.00	452.99	0.75		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/8/2004	477.44	29.89	0.00	447.55	-5.44		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
3/23/2005	477.44	22.00	0.00	455.44	7.89		ND<50	ND<0.50	ND<0.50	ND<0.50	1.1		ND<0.50	
6/28/2005	477.44	25.30	0.00	452.14	-3.30		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
9/23/2005	477.44	28.25	0.00	449.19	-2.95		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/30/2005	477.44	24.33	0.00	453.11	3.92		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
3/24/2006	477.44	22.34	0.00	455.10	1.99		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/26/2006	477.44	23.15	0.00	454.29	-0.81		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
9/26/2006	477.44	28.52	0.00	448.92	-5.37		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
11/21/2006	477.44	25.85	0.00	451.59	2.67		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
3/26/2007	477.44	25.62	0.00	451.82	0.23		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
6/27/2007	477.44	28.37	0.00	449.07	-2.75		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
9/23/2007	477.44	31.40	0.00	446.04	-3.03		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
12/20/2007	477.44													Dry well
3/17/2008	477.44	30.45	0.00	446.99			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/12/2008	477.44													Dry well
9/3/2008	477.44													Dry
12/3/2008	479.45													Dry
2/18/2009	479.45													Dry
6/11/2009	479.45													Dry
								D 4						

4186

Page 4 of 15

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date Sampled			Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPH-G	D	T. 1	Ethyl-	Total	MTBE	MTBE	Comments
	(f	eet)	(feet)	(feet)	(feet)	(feet)	8015 (μg/l)	(GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	benzene (µg/l)	Xylenes (μg/l)	(8021B) (µg/l)	(8260B) (μg/l)	
	`		(ICCI)	(Icci)	(Teet)	(Icct)	(μ _B /1)	(46/1)	(μβ/1)	(46/1)	(48/1)	(μβ/1)	(46/1)	(48/1)	
U-2 c 12/9/20		uea 479.45													Dry
6/15/20	010	479.45	30.78	0.00	448.67			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
II-3	U-3 (Screen Interval in feet: 14.0-34.0)														
7/13/19	998	478.46	23.82	`	454.64		70000		3100	5500	2700	16000	7500		
10/7/19	998	478.46	25.64	0.00	452.82	-1.82	54000		5000	1100	3100	14000	6100		
1/15/19	999	478.46	30.92	0.00	447.54	-5.28	41000		3100	ND	1800	3800	15000		
4/14/19	999	478.46	24.48	0.00	453.98	6.44	33000		86	290	2200	7800	39000		
7/19/19	999	478.46	28.46	0.00	450.00	-3.98	48000		3900	2500	3600	14000	12000	16000	
10/12/1	999	478.46	30.39	0.00	448.07	-1.93	35000		4200	ND	2300	1800	22000	8300	
1/24/20	000	478.46	23.43	0.00	455.03	6.96	13000		260	ND	770	3200	53000	42000	
4/10/20	000	478.46	23.31	0.00	455.15	0.12	35200		1070	241	2820	8850	35600	40900	
7/17/20	000	478.46	27.53	0.00	450.93	-4.22	29000		3570	525	3180	5660	22500	21000	
10/2/20	000	478.46	28.19	0.00	450.27	-0.66	11000		2100	31	2000	780	25000	28000	
1/8/20	001	478.46	29.85	0.00	448.61	-1.66	33600		3060	427	3040	4190	24700	30900	
4/3/20	001	478.46	24.98	0.00	453.48	4.87	5390		660	10.8	304	356	15200	19300	
7/2/20	001	478.46	31.35	0.00	447.11	-6.37	13000		1200	58	1300	930	25000	26000	
10/8/20	001	478.46	32.69	0.00	445.77	-1.34	6100		500	ND<10	570	130	23000	22000	
1/3/20	002	478.46	23.73	0.00	454.73	8.96	9900		700	130	24	1000	14000	12000	
4/5/20	002	477.44	28.27	0.00	449.17	-5.56	9800		1100	180	220	1400	16000	30000	
7/2/20	002	478.46	29.71	0.00	448.75	-0.42		ND<25000	ND<250	ND<250	ND<250	ND<500	12000	12000	
10/1/20	002	478.46	31.18	0.00	447.28	-1.47		ND<25000	ND<250	ND<250	ND<250	ND<500	12000	12000	
12/30/2	2002	478.46	21.62	0.00	456.84	9.56		23000	330	170	870	4900	18000	18000	
5/2/20	003	478.46	23.11	0.00	455.35	-1.49		19000	280	ND<50	880	1500	15000	15000	

CTRC

Page 5 of 15

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness	water Elevation	Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	
					L	8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
U-3 c	ontinued													
7/1/200	03 478.46	5 24.89	0.00	453.57	-1.78		19000	120	ND<100	180	880	22000	22000	
10/3/20	03 478.46	5 26.59	0.00	451.87	-1.70		20000	170	ND<50	250	730		16000	
1/8/200	04 478.46	5 21.92	0.00	456.54	4.67		17000	250	ND<100	770	1500		9700	
4/15/20	04 478.46	5 23.59	0.00	454.87	-1.67		4600	ND<25	ND<25	36	100		3700	
7/15/20	04 478.46	5 24.80	0.00	453.66	-1.21		2700	ND<25	ND<25	ND<25	ND<50		3400	
12/8/20	04 478.46	5 29.13	0.00	449.33	-4.33		12000	ND<50	ND<50	250	140		13000	
3/23/20	05 478.46	5 21.64	0.00	456.82	7.49		21000	94	ND<50	630	1200		6200	
6/28/20	05 478.46	5 24.57	0.00	453.89	-2.93		6600	24	0.64	150	70		4700	
9/23/20	05 478.46	5 27.64	0.00	450.82	-3.07		6000	31	ND<25	150	ND<50		8900	
12/30/20	005 478.46	5 23.96	0.00	454.50	3.68		390	ND<0.50	ND<0.50	ND<0.50	ND<1.0		840	
3/24/20	06 478.46	5 22.52	0.00	455.94	1.44		2700	28	ND<5.0	57	120		690	
6/26/20	06 478.46	5 23.89	0.00	454.57	-1.37		2000	51	0.77	84	45		560	
9/26/20	06 478.46	5 28.08	0.00	450.38	-4.19		1200	20	ND<2.5	5.2	2.8		170	
11/21/20	006 478.46	5 27.23	0.00	451.23	0.85		1500	22	ND<5.0	5.8	ND<5.0		180	
3/26/20	07 478.46	5 25.27	0.00	453.19	1.96		3900	65	0.61	50	160		95	
6/27/20	07 478.46	5 27.51	0.00	450.95	-2.24		1400	29	ND<0.50	5.6	2.3		170	
9/23/20	07 478.46	31.70	0.00	446.76	-4.19		1600	16	0.61	2.7	3.7		88	
12/20/20	007 478.46	5												Dry well
3/17/20	08 478.46	5 28.84	0.00	449.62	<u></u>		1400	17	ND<1.0	2.3	ND<2.0		150	
6/12/20	08 478.46	31.23	0.00	447.23	-2.39		770	4.1	ND<1.0	ND<1.0	ND<2.0		27	
9/3/200	08 478.46	ó												Dry
12/3/20		3												Dry
2/18/20		3												Dry
								_						

Page 6 of 15

4186

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to			Change in									Comments
Sampled	Elevatio	n Water	Thickness	s water Elevation	Elevation	TPH-G	TPH-G	_		Ethyl-	Total	MTBE	MTBE	
	(6)	(C)	(6)			8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
U-3 c 6/11/20	ontinued 009 480	48												Dry
12/9/20	009 480	48 31.7	0.00	448.75	5		1100	4.2	ND<0.50	2.1	2.9		62	
6/15/20	010 480	48 29.9	0.00	450.57	1.82		810	5.5	ND<1.0	ND<1.0	ND<2.0		48	
U-4			(Scr	een Interva	al in feet: 35	(.0-45.0)								
4/3/200	01 476	93 31.6				ND		ND	ND	ND	ND	37.8	38.2	
7/2/200	01 476	93 37.9	0.00	438.97	-6.33	ND		ND	ND	ND	ND	ND	5.3	
10/8/20	001 476	93 44.2	4 0.00	432.69	-6.28									Not enough water to sample
1/3/200	02 476	93 36.1	5 0.00	440.78	8.09	100		ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	8.5	
4/5/200	02 476	93 37.6	0.00	439.29	-1.49	ND<50		0.50	ND<0.50	ND<0.50	ND<0.50	4.1		
7/2/200	02 476	93 36.8	5 0.00	440.08	0.79		67	ND<0.50	ND<0.50	ND<0.50	ND<1.0		12	
10/1/20	002 476	93 38.5	0.00	438.39	-1.69		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		9.8	
12/30/20	002 476	93 32.6	0.00	444.29	5.90		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		25	
5/2/200	03 476	93 31.4	.0 0.00	445.53	3 1.24		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.1	
7/1/20	03 476	93 33.6	0.00	443.33	3 -2.20		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.1	
10/3/20	003 476	93 37.6	0.00	439.30	-4.03		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		9.1	
1/8/20	04 476	93 29.2	0.00	447.70	8.40		ND<50	0.55	ND<0.50	1.6	3.7		2.5	
4/15/20	004 476	93 29.8	0.00	447.13	-0.57		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.2	
7/15/20	004 476	93 35.0	0.00	441.88	-5.25		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.1	
12/8/20	004 476	93 35.1	0.00	441.83	-0.05		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.0	
3/23/20	005 476	93 25.3	0.00	451.55	9.72		ND<50	ND<0.50	ND<0.50	1.3	1.2		0.65	
6/28/20	005 476	93 28.6	0.00	448.26	-3.29		34J	ND<0.50	0.15J	ND<0.50	ND<1.0		0.23J	
9/23/20	005 476	93 32.2	5 0.00	444.68	-3.58		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		11	
12/30/20	005 476	93 31.0	0.00	445.91	1.23		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		17	
4186								Page 7	7 of 15					ATDO

CTRC

Page 7 of 15

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness	water Elevation	Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	
				Elevation	_	8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)								
U-4 c	ontinued													
3/24/20	06 476.93	26.51	0.00	450.42	4.51		ND<50	ND<0.50	ND<0.50	ND<0.50	4.4		21	
6/26/20	06 476.93	27.98	0.00	448.95	-1.47		63	ND<0.50	ND<0.50	0.56	ND<1.0		11	
9/26/20	06 476.93	33.72	0.00	443.21	-5.74		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		13	
11/21/20	006 476.93	33.43	0.00	443.50	0.29		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
3/26/20	07 476.93	30.52	0.00	446.41	2.91		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
6/27/20	07 476.93	38.20	0.00	438.73	-7.68		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		0.78	
9/23/20	07 476.93	3												Car parked over well
12/20/20	007 476.93	3												Dry well
3/17/20	08 476.93	34.18	0.00	442.75			71	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.9	
6/12/20	08 476.93	39.50	0.00	437.43	-5.32		71	ND<0.50	ND<0.50	ND<0.50	ND<1.0		7.5	
9/3/200	08 476.93	3												Dry
12/3/20	08 478.95	·												Dry
2/18/20	09 478.95	·												Dry
6/11/20	09 478.95	·												Dry
12/9/20	09 478.95	40.98	0.00	437.97			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.3	
6/15/20	10 478.95	33.90	0.00	445.05	7.08		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
U-5			(Scre	en Interva	ıl in feet: 37.	0-47.0)								
4/3/200	01 476.51	31.75		444.76		ND		ND	0.728	ND	0.993	54.8	55.4	
7/2/200	01 476.51	38.68	0.00	437.83	-6.93	ND		ND	ND	ND	ND	88	94	
10/8/20	01 476.51	46.31	0.00	430.20	-7.63	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	37	54	
1/3/200		36.55	0.00	439.96		ND<50		ND<0.50	0.59	ND<0.50	0.91	51	53	
4/5/200	02 476.51	37.83	0.00	438.68	-1.28	ND<50		ND<0.50	ND<0.50		ND<0.50	37		
7/2/200		36.92	0.00	439.59			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		43	
4400								Page S	R of 15					

CTRC

Page 8 of 15

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date Sampled 1		Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G 8015	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	
U-5 con														
10/1/200	2 476.51													Truck parked over well
12/30/200	02 476.51													Car parked over well
5/2/2003	3 476.51	31.55	0.00	444.96			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		18	
7/1/2003	3 476.51	33.83	0.00	442.68	-2.28		73	ND<0.50	ND<0.50	ND<0.50	ND<1.0		46	
10/3/200	3 476.51	37.72	0.00	438.79	-3.89		58	ND<0.50	ND<0.50	ND<0.50	ND<1.0		44	
1/8/2004	4 476.51	29.21	0.00	447.30	8.51		ND<50	ND<0.50	ND<0.50	1.1	2.7		17	
4/15/200	476.51	30.05	0.00	446.46	-0.84		57	ND<0.50	ND<0.50	ND<0.50	ND<1.0		37	
7/15/200	476.51	35.15	0.00	441.36	-5.10		60	ND<0.50	ND<0.50	ND<0.50	ND<1.0		27	
12/8/200	476.51	35.33	0.00	441.18	-0.18		62	ND<0.50	ND<0.50	ND<0.50	ND<1.0		39	
3/23/200	5 476.51	25.45	0.00	451.06	9.88		ND<50	ND<0.50	ND<0.50	0.51	ND<1.0		4.5	
6/28/200	5 476.51	28.90	0.00	447.61	-3.45		73	ND<0.50	ND<0.50	ND<0.50	ND<1.0		40	
9/23/200	5 476.51	33.01	0.00	443.50	-4.11		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		53	
12/30/200	05 476.51	30.96	0.00	445.55	2.05		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		72	
3/24/200	6 476.51	22.42	0.00	454.09	8.54		2400	13	ND<5.0	48	58		54	
6/26/200	6 476.51	29.31	0.00	447.20	-6.89		72	ND<0.50	ND<0.50	ND<0.50	ND<1.0		82	
9/26/200	6 476.51	34.35	0.00	442.16	-5.04		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		51	
11/21/200	06 476.51	32.43	0.00	444.08	1.92		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		25	
3/26/200	7 476.51	31.20	0.00	445.31	1.23		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		29	
6/27/200	7 476.51	38.62	0.00	437.89	-7.42		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		30	
9/23/200	7 476.51													Car parked over well
12/20/200	07 476.51													Dry well
3/17/200	8 476.51	34.28	0.00	442.23			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		25	
6/12/200	8 476.51	39.90	0.00	436.61	-5.62		55	ND<0.50	ND<0.50	ND<0.50	ND<1.0		28	
									of 15					

Page 9 of 15

4186

Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS July 1998 Through June 2010 **76 Station 4186**

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness	water Elevation	Elevation	TPH-G 8015	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(µg/l)	
U-5 co	ntinued													
9/3/200	8 476.51													Dry
12/3/200	08 478.52													Dry
2/18/200	09 478.52													Dry
6/11/200	09 478.52													Dry
12/9/200	09 478.52	41.35	0.00	437.17			83	ND<0.50	ND<0.50	ND<0.50	ND<1.0		41	
6/15/201	10 478.52	33.83	0.00	444.69	7.52		50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		76	
U-6			(Scre	en Interva	l in feet: 35-	-45)								
1/3/200	2 478.38	33.99	0.00	444.39		5000		36	ND<25	260	450	ND<250	ND<10	
4/5/200	2 478.38	36.18	0.00	442.20	-2.19	1300		16	ND<5.0	54	ND<5.0	ND<25		
7/2/200	2 478.38	36.33	0.00	442.05	-0.15		1100	1.4	ND<0.50	16	ND<1.0		0.94	
10/1/200	02 478.38	37.70	0.00	440.68	-1.37		2000	5.4	ND<0.50	62	ND<1.0		2.6	
12/30/20	02 478.38	31.63	0.00	446.75	6.07		130	ND<0.50	ND<0.50	2.3	ND<1.0		ND<2.0	
5/2/200	3 478.38	31.49	0.00	446.89	0.14		150	ND<0.50	ND<0.50	1.8	1.7		82	
7/1/200	3 478.38	32.88	0.00	445.50	-1.39		190	1.8	ND<0.50	9.4	8.7		36	
10/3/200	03 478.38	36.54	0.00	441.84	-3.66		ND<10000	140	ND<100	940	560		ND<400	
1/8/200	4 478.38	30.45	0.00	447.93	6.09		3500	29	32	90	89		27	
4/15/200	04 478.38	29.48	0.00	448.90	0.97		2400	19	ND<2.5	91	53		16	
7/15/200	04 478.38	34.30	0.00	444.08	-4.82		8500	150	5.7	970	560		24	
12/8/200	04 478.38	34.80	0.00	443.58	-0.50		2700	16	ND<2.5	28	ND<5.0		10	
3/23/200	05 478.38	25.08	0.00	453.30	9.72		960	2.7	ND<0.50	9.6	4.8		2.5	
6/28/200	05 478.38	28.75	0.00	449.63	-3.67		12000	120	4.9	930	780		21	
9/23/200	05 478.38	32.38	0.00	446.00	-3.63		5200	78	ND<25	540	230		34	
12/30/20	05 478.38	30.43	0.00	447.95	1.95		2400	15	0.67	99	12		3.5	
4186								Page 1	0 of 15					@TPC

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness	water Elevation	Elevation	TPH-G	TPH-G	_		Ethyl-	Total	MTBE	MTBE	
		(0)				8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
	ontinued		0.00											
3/24/20				452.44			4300	52	ND<5.0	440	160		11	
6/26/20			0.00	450.31			5300	59	ND<5.0	520	300		ND<5.0	
9/26/20		8 33.31	0.00	445.07	-5.24		7400	78	ND<5.0	490	160		6.4	
11/21/20	006 478.3	8 31.65	0.00	446.73	1.66		1500	5.5	ND<0.50	37	2.4		1.4	
3/26/20	007 478.3	8 29.25	0.00	449.13	2.40		480	ND<0.50	ND<0.50	ND<0.50	ND<0.50		0.50	
6/27/20	007 478.3	8 35.09	0.00	443.29	-5.84		110	1.2	ND<0.50	1.3	ND<0.50		0.86	
9/23/20	007 478.3	8												Dry well
12/20/20	007 478.3	8												Dry well
3/17/20	008 478.3	8 33.82	0.00	444.56	·		580	1.5	ND<0.50	3.2	ND<1.0		ND<0.50	
6/12/20	008 478.3	8 38.16	0.00	440.22	-4.34		2100	11	0.79	27	2.3		1.1	
9/3/200	08 478.3	8												Dry
12/3/20	008 480.4	0												Dry
2/18/20	009 480.4	0												Dry
6/11/20	009 480.4	0												Dry
12/9/20	009 480.4	0												Dry
6/15/20	10 480.4	0 33.37	0.00	447.03			1900	35	2.7	50	7.1		14	
U-7			(Scre	en Interva	ıl in feet: 35-	-45)								
1/3/200	02 478.7	4 32.43		446.31		3100		93	ND<10	35	73	140	130	
4/5/200	02 478.7	4 34.06	0.00	444.68	-1.63	630		22	0.53	2.6	ND<0.50	45		
7/2/200	02 478.7	4 35.28	0.00	443.46	-1.22		1100	21	ND<0.50	6.9	ND<1.0		60	
10/1/20	002 478.7	4 37.70	0.00	441.04	-2.42		1700	11	ND<0.50	3.1	ND<1.0		25	
12/30/20	002 478.7	4 31.93	0.00	446.81	5.77		4600	41	5.3	32	13		34	
5/2/200			0.00	446.93			3000	17	2.7	14	5.1		42	
4106								Page 1						

Page 11 of 15

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	Comments
Sumpreu	210 (411011	11001	111101111000	Elevation		8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(µg/l)	
U-7 c	ontinued													
7/1/20		33.47	0.00	445.27	-1.66		2300	11	0.53	8.0	1.5		35	
10/3/20	003 478.74	35.84	0.00	442.90	-2.37		6500	30	ND<5.0	41	ND<10		53	
1/8/20	04 478.74	30.35	0.00	448.39	5.49		1600	4.0	ND<1.0	4.2	8.7		56	
4/15/20	004 478.74	29.03	0.00	449.71	1.32		3600	22	1.3	64	40		57	
7/15/20	004 478.74	33.52	0.00	445.22	-4.49		4700	15	1.2	59	57		50	
12/8/20	004 478.74	34.68	0.00	444.06	5 -1.16		5800	26	1.9	63	27		52	
3/23/20	005 478.74	24.49	0.00	454.25	5 10.19		5600	18	1.3	42	14		39	
6/28/20	005 478.74	28.83	0.00	449.91	-4.34		5400	16	1.1	35	10		45	
9/23/20	005 478.74	32.35	0.00	446.39	-3.52		2400	13	1.3	31	6.9		46	
12/30/2	005 478.74	30.18	0.00	448.56	2.17		2500	11	1.1	28	4.3		35	
3/24/20	006 478.74	25.06	0.00	453.68	5.12		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		32	
6/26/20	006 478.74	28.30	0.00	450.44	-3.24		2500	11	1.1	45	15		55	
9/26/20	006 478.74	33.47	0.00	445.27	-5.17		2300	7.8	0.84	17	2.1		61	
11/21/2	006 478.74	31.66	0.00	447.08	3 1.81		3000	15	1.1	26	2.2		69	
3/26/20	007 478.74	29.82	0.00	448.92	1.84		2200	1.2	ND<0.50	ND<0.50	ND<0.50		70	
6/27/20	007 478.74	36.59	0.00	442.15	-6.77		590	5.8	ND<0.50	3.3	0.94		100	
9/23/20	007 478.74	44.05	0.00	434.69	-7.46									Not enough water to sample
12/20/2	007 478.74	1												Dry well
3/17/20	008 478.74	33.83	0.00	444.91			1200	1.9	ND<0.50	0.82	ND<1.0		27	
6/12/20	008 478.74	38.56	0.00	440.18	-4.73		1200	1.9	ND<0.50	1.1	ND<1.0		40	
9/3/20	08 478.74	1												Dry
12/3/20	008 480.78	3												Dry
2/18/20	009 480.78	3												Dry
1106								Page 1	2 of 15					

Page 12 of 15

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to	LPH		Change in									Comments
Sampled	Elevation	Water	Thickness	water Elevation	Elevation	TPH-G	TPH-G	_		Ethyl-	Total	MTBE	MTBE	
	(0)	(0)	(0)			8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
U-7 co														
6/11/200		38.80		441.98			1100	2.4	0.80	3.2	ND<1.0		8.2	
12/9/200	09 480.78	37.08		443.70	1.72		1200	2.8	0.72	5.3	1.5		8.1	
6/15/201	10 480.78	33.84	0.00	446.94	3.24		1700	4.3	1.7	24	1.2		26	
-8			(Scre	en Interva	l in feet: 35	-45)								
12/3/200	08 480.43													Dry
2/18/200	09 480.43													Dry
6/11/200	09 480.43													Dry
12/9/200	09 480.43	38.22	0.00	442.21			7200	42	ND<2.5	50	250		ND<2.5	
6/15/201	10 480.43	32.91	0.00	447.52	5.31		2000	22	1.3	12	4.2		ND<1.0	
-9			(Scre	en Interva	l in feet: 35	-45)								
12/3/200	08 479.39													Dry
2/18/200	09 479.39													Dry
6/11/200	09 479.39													Dry
12/9/200	09 479.39	40.70	0.00	438.69			8800	51	ND<0.50	300	74		23	
6/15/201	10 479.39	33.64	0.00	445.75	7.06		2000	10	2.1	61	18		4.9	
J -10			(Scre	en Interva	l in feet: 37-	-47)								
12/3/200	08 480.51													Dry
2/18/200	09 480.51													Dry
6/11/200	09 480.51	44.30	0.00	436.21			1400	15	1.1	12	12		88	
12/9/200	09 480.51	41.45	0.00	439.06	2.85		4300	280	71	180	900		320	
6/15/201	10 480.51	34.42	0.00	446.09	7.03		12000	550	70	780	1400		530	
11			(Cara	on Intours	l in foot: 35	45)								

U-11 (Screen Interval in feet: 35-45)

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date Sampled			Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G 8015	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(fe	eet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	
U-11	conti	nued													
12/3/2	800	480.34													Dry
2/18/2	009	480.34													Dry
6/11/2	009	480.34	43.18	0.00	437.16			1200	0.93	ND<0.50	ND<0.50	ND<1.0		2500	
12/9/2	009	480.34	39.62	0.00	440.72	3.56		1300	ND<2.5	ND<2.5	ND<2.5	ND<5.0		2100	
6/15/2	010	480.34	32.41	0.00	447.93	7.21		2800	ND<12	ND<12	21	ND<25		3600	
U-12				(Scree	en Interva	l in feet: 63-	73)								
12/3/2	800	480.75	50.08	0.00	430.67			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
2/18/2	009	480.75	46.10	0.00	434.65	3.98		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/11/2	009	480.75	45.85	0.00	434.90	0.25		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/9/2	009	480.75	40.74	0.00	440.01	5.11		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/15/2	010	480.75	33.53	0.00	447.22	7.21		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
U-13				(Scree	en Interva	l in feet: 62-	72)								
12/3/2	800	480.31	50.74	0.00	429.57			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.85	
2/18/2	009	480.31	45.87	0.00	434.44	4.87		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.87	
6/11/2	009	480.31	46.60	0.00	433.71	-0.73		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.81	
12/9/2	009	480.31	41.28	0.00	439.03	5.32		ND<50	ND<0.50	1.1	ND<0.50	ND<1.0		ND<0.50	
6/15/2	010	480.31	34.14	0.00	446.17	7.14		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
U-14				(Scree	en Interva	l in feet: 65-	75)								
12/3/2	800	479.38	49.90	0.00	429.48			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.4	
2/18/2	009	479.38	46.65	0.00	432.73	3.25		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/11/2	009	479.38	45.75	0.00	433.63	0.90		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/9/2	009	479.38	40.60	0.00	438.78	5.15		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through June 2010
76 Station 4186

Date	TOC	Depth to	LPH	Ground-	Change in									Comments
Sampled	Elevation	Water	Thickness	water	Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	
				Elevation		8015	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	
U-14	continued													
6/15/20	10 479.3	8 33.40	0.00	445.98	7.20		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
U-15			(Scree	en Interva	l in feet: 61-	· 71)								
12/3/20	08 479.99	9 49.58	0.00	430.41			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
2/18/20	09 479.99	9 45.58	0.00	434.41	4.00		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.2	
6/11/20	09 479.99	9 45.45	0.00	434.54	0.13		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.6	
12/9/20	09 479.99	9 40.38	0.00	439.61	5.07		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
6/15/20	10 479.99	9 33.22	0.00	446.77	7.16		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.75	



Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date			Ethylene-									
Sampled		Ethanol	dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$							
U-1												
10/2/2000	ND											
7/1/2003		ND<500000										
10/3/2003		ND<500										
1/8/2004		ND<500										
4/15/2004		ND<50										
7/15/2004		ND<50										
12/8/2004		ND<50										
3/23/2005		ND<50										
6/28/2005		ND<1000										
9/23/2005		ND<1000										
12/30/2005		ND<250										
3/24/2006		ND<250										
6/26/2006		ND<250										
9/26/2006		ND<250										
11/21/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/26/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<100		ND<50	
U-2												
10/2/2000	ND											
7/1/2003		ND<500000										
10/3/2003		ND<500										
1/8/2004		ND<500										
4/15/2004		ND<50										
4400						Page 1 of 9						

Page 1 of 9

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled		Ethanol	Ethylene- dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$
U-2 contin	ued											
7/15/2004		ND<50										
12/8/2004		ND<50										
3/23/2005		730										
6/28/2005		ND<1000										
9/23/2005		ND<1000										
12/30/2005		ND<250										
3/24/2006		ND<250										
6/26/2006		ND<250										
9/26/2006		ND<250										
11/21/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/26/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
9/23/2007	69	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100		58		2000
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<100		ND<50	
U-3												
10/2/2000	63000											
1/8/2001	49300	ND	ND	ND	ND	ND	ND					
4/3/2001	22200	ND	ND	ND	ND	ND	ND					
7/2/2001	27000	ND	ND	ND	ND	ND	ND					
10/8/2001	33000	ND<140000000	ND<290	ND<290	ND<290	ND<290	ND<290					
1/3/2002	17000	ND<50000000	ND<100	ND<100	ND<100	ND<100	ND<100					
4/5/2002	66000	ND<25000000	ND<100	ND<100	ND<100	ND<100	ND<100					
7/2/2002	47000	ND<13000000	ND<250	ND<250	ND<500	ND<250	ND<250					
10/1/2002	ND<50000	ND<250000000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000					

Table 2 a ADDITIONAL HISTORIC ANALYTICAL RESULTS **76 Station 4186**

Date Sampled		Ethanol	Ethylene- dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$
U-3 conti	nued											
12/30/2002	23000	ND<100000000	ND<400	ND<400	ND<400	ND<400	ND<400					
5/2/2003	25000	ND<50000000	ND<200	ND<200	ND<200	ND<200	ND<200					
7/1/2003	32000	ND<100000000	ND<400	ND<400	ND<400	ND<400	ND<400					
10/3/2003	39000	ND<50000	ND<200	ND<200	ND<2.0	ND<200	ND<200					
1/8/2004	ND<20000	ND<100000	ND<400	ND<400	ND<400	ND<400	ND<400					
4/15/2004	18000	ND<2500	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5					
7/15/2004	15000	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25					
12/8/2004	34000	ND<5000	ND<50	ND<50	ND<100	ND<50	ND<50					
3/23/2005		ND<5000										
6/28/2005		ND<1000										
9/23/2005		ND<50000										
12/30/2005	2000	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.58					
3/24/2006		ND<2500										
6/26/2006	18000	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
9/26/2006		ND<1200										
11/21/2006	33000	ND<2500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0					
3/26/2007	13000	ND<250	ND<0.50	0.95	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	20000	ND<250	ND<0.50	0.79	ND<0.50	ND<0.50	ND<0.50					
9/23/2007	19000	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	15000	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<100	ND<100	95	ND<50	1700
6/12/2008	21000	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<100		210		2800
12/9/2009	8800	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/15/2010	11000	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<100	ND<100	92	ND<50	1600
J -4												
4/3/2001	ND	ND	ND	ND	ND	ND	ND					
186						Page 3 of 9						-00

Page 3 of 9

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date			Ethylene-									
Sampled		Ethanol	dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	$(\mu g/l)$											
U-4 conti	nued											
7/2/2001	ND											
1/3/2002	ND<20	ND<500000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0					
7/1/2003		ND<500000										
10/3/2003		ND<500										
1/8/2004		ND<500										
4/15/2004		ND<50										
7/15/2004		ND<50										
12/8/2004		ND<50										
3/23/2005		ND<50										
6/28/2005		ND<1000										
9/23/2005		ND<1000										
12/30/2005		ND<250										
3/24/2006		ND<250										
6/26/2006		ND<250										
9/26/2006		ND<250										
11/21/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/26/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	2000
6/12/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	2500
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	2200
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	1200
U-5												
4/3/2001	ND											
7/2/2001	ND											

Page 4 of 9

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled		Ethanol	Ethylene- dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
•	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)
U-5 conti												
10/8/2001	ND<100	ND<1000000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0					
1/3/2002	ND<20	ND<500000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0					
7/1/2003		ND<500										
10/3/2003		ND<500										
1/8/2004		ND<500										
4/15/2004		ND<50										
7/15/2004		ND<50										
12/8/2004		ND<50										
3/23/2005		ND<50										
6/28/2005		ND<1000										
9/23/2005		ND<1000										
12/30/2005		ND<250										
3/24/2006		ND<2500										
6/26/2006		ND<250										
9/26/2006		ND<250										
11/21/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/26/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	1300
6/12/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	830
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	1300
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	460
U-6												
1/3/2002	ND<200	ND<5000000	ND<10	ND<10	ND<10	ND<10	ND<10					
7/1/2003		ND<500000										

Page 5 of 9

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date			Ethylene-									
Sampled		Ethanol	dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	$(\mu g/l)$	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$
U-6 conti	nued											
10/3/2003		ND<100000										
1/8/2004		ND<5000										
4/15/2004		ND<250										
7/15/2004		ND<250										
12/8/2004		ND<250										
3/23/2005		ND<50										
6/28/2005		ND<1000										
9/23/2005		ND<50000										
12/30/2005		ND<250										
3/24/2006		ND<2500										
6/26/2006		ND<2500										
9/26/2006		ND<2500										
11/21/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/26/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	520
6/12/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	910
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	690
U-7												
1/3/2002	30	ND<500000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0					
7/1/2003		ND<500000										
10/3/2003		ND<5000										
1/8/2004		ND<1000										
4/15/2004		ND<100										
7/15/2004		ND<100										

Page 6 of 9

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date			Ethylene-									
Sampled		Ethanol	dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)
U-7 conti	nued											
12/8/2004		ND<100										
3/23/2005		ND<100										
6/28/2005		ND<1000										
9/23/2005		ND<1000										
12/30/2005		ND<250										
3/24/2006		ND<250										
6/26/2006		ND<250										
9/26/2006		ND<250										
11/21/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/26/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
6/27/2007	14	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50					
3/17/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	670
6/12/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	520
6/11/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	380
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	390
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	340
U-8												
12/9/2009	ND<50	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<100	ND<100	ND<50	ND<50	650
6/15/2010	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<100	ND<100	ND<50	ND<50	390
U-9												
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	96
6/15/2010	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<100	ND<100	ND<50	ND<50	510
U-10	00	ND 250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND 400		ND .70	
6/11/2009	98	ND<250	MD<0.50	10.00	ND<0.50	0.50V	0.50 אמא		ND<100		ND<50	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date			Ethylene-									
Sampled		Ethanol	dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
U-10 cont												
12/9/2009	1100	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	150
6/15/2010	2400	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<100	ND<100	ND<50	ND<50	290
U-11												
6/11/2009	6800	ND<250	ND<0.50	1.8	ND<0.50	ND<0.50	ND<0.50					
12/9/2009	10000	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<100	ND<100	ND<50	ND<50	170
6/15/2010	6600	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12	ND<100	ND<100	51	ND<50	560
U-12												
12/3/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	330
2/18/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	370
6/11/2009	15	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	400
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	360
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	350
U-13												
12/3/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	140
2/18/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	120
6/11/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	120
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	15
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	13
** 4.4												
U-14 12/3/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	340
2/18/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	350
6/11/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	340
12/9/2009	ND<10 ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100 ND<100	ND<100	ND<50	ND<50	310
6/15/2010	ND<10 ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100 ND<100	ND<100 ND<100	ND<50	ND<50	260
0/13/2010	MP<10	1111/230	1.2 (0.50	1.2 (0.50	1.2 10.50	1.2 (0.50	1.2 (0.00	MD<100	MD<100	MD<20	いりくりひ	200

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date			Ethylene-									
Sampled		Ethanol	dibromide	1,2-DCA				Antimony	Antimony	Arsenic	Arsenic	Barium
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	(total)	(dissolved)	(total)	(dissolved)	(total)
	$(\mu g/l)$	(µg/l)										
U-15												
12/3/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	320
2/18/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	140
6/11/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	52
12/9/2009	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	96
6/15/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	ND<100	ND<50	ND<50	28



Page 9 of 9

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled	Barium (dissolved) (µg/l)	Beryllium (total) (μg/l)	Beryllium (dissolved) (µg/l)	Cadmium (total) (µg/l)	Cadmium (dissolved) (µg/l)	Calcium (mg/l)	Chromium VI (µg/l)	Chromium (total) (µg/l)	Chromium (dissolved) (µg/l)	Cobalt (total) (µg/l)	Cobalt (dissolved) (µg/l)	Copper (dissolved) (µg/l)
U-1												
3/17/2008							ND<2.0					
6/15/2010	430		ND<10		ND<10	73	ND<2.0		ND<10		ND<50	ND<10
U-2												
3/17/2008		ND<10		ND<10			ND<2.0	540		150		
6/15/2010	300		ND<10		ND<10	57	ND<2.0		ND<10		ND<50	ND<10
U-3												
3/17/2008	410	ND<10	ND<10	ND<10	ND<10	59	ND<2.0	450	ND<10	140	ND<50	ND<10
6/12/2008		ND<10		ND<10				980		350		
6/15/2010	410	ND<10	ND<10	ND<10	ND<10	56	ND<2.0	420	ND<10	130	ND<50	ND<10
U-4												
3/17/2008	470	ND<10	ND<10	ND<10	ND<10	68	ND<2.0	410	ND<10	140	ND<50	ND<10
6/12/2008	52	ND<10	ND<10	ND<10	ND<10	2.4	ND<2.0	610	ND<10	180	ND<50	ND<10
12/9/2009	500	ND<10	ND<10	ND<10	ND<10	62	ND<2.0	610	ND<10	200	ND<50	ND<10
6/15/2010	420	ND<10	ND<10	ND<10	ND<10	69	30	270	29	80	ND<50	ND<10
U-5												
3/17/2008	390	ND<10	ND<10	ND<10	ND<10	67	ND<2.0	110		ND<50	ND<50	ND<10
6/12/2008	370	ND<10	ND<10	ND<10	ND<10	66	ND<2.0	86	ND<10	ND<50	ND<50	ND<10
12/9/2009	410	ND<10	ND<10	ND<10	ND<10	62	ND<2.0	180	ND<10	50	ND<50	ND<10
6/15/2010	390	ND<10	ND<10	ND<10	ND<10	59	ND<2.0	ND<10	ND<10	ND<50	ND<50	ND<10
U-6												
3/17/2008	330	ND<10	ND<10	ND<10	ND<10	73	ND<2.0	34	ND<10	ND<50	ND<50	ND<10
6/12/2008	600	ND<10	ND<10	ND<10	ND<10	69	ND<2.0	ND<10	ND<10	ND<50	ND<50	ND<10
6/15/2010	500	ND<10	ND<10	ND<10	ND<10	79	ND<2.0	37	ND<10	ND<50	ND<50	ND<10



Page 1 of 3

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date												
Sampled	Barium	Beryllium	Beryllium	Cadmium	Cadmium		Chromium	Chromium	Chromium	Cobalt	Cobalt	Copper
	(dissolved)	(total)	(dissolved)	(total)	(dissolved)	Calcium	VI	(total)	(dissolved)	(total)	(dissolved)	(dissolved)
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
U-7												
3/17/2008	510	ND<10	ND<10	ND<10	ND<10	68	ND<2.0	28	ND<10	ND<50	ND<50	ND<10
6/12/2008	490	ND<10	ND<10	ND<10	ND<10	60	ND<2.0	10	ND<10	ND<50	ND<50	ND<10
6/11/2009	340	ND<10	ND<10	ND<10	ND<10	31	ND<2.0	ND<10	ND<10	ND<50	ND<50	ND<10
12/9/2009	280	ND<10	ND<10	ND<10	ND<10	37	ND<2.0	27	ND<10	ND<50	ND<50	ND<10
6/15/2010	300	ND<10	ND<10	ND<10	ND<10	40	ND<2.0	ND<10	ND<10	ND<50	ND<50	ND<10
U-8												
12/9/2009	200	ND<10	ND<10	ND<10	ND<10	53	ND<2.0	ND<10	ND<10	78	ND<50	ND<10
6/15/2010	320	ND<10	ND<10	ND<10	ND<10	47	ND<2.0	27	ND<10	ND<50	ND<50	ND<10
U-9												
12/9/2009	64	ND<10	ND<10	ND<10	ND<10	69	ND<2.0	18	ND<10	ND<50	ND<50	ND<10
6/15/2010	270	ND<10	ND<10	ND<10	ND<10	50	ND<2.0	79	ND<10	ND<50	ND<50	ND<10
U-10												
6/11/2009	50		ND<10		ND<10	40	ND<2.0		ND<10		ND<50	ND<10
12/9/2009	59	ND<10	ND<10	ND<10	ND<10	47	ND<2.0	34	ND<10	ND<50	ND<50	ND<10
6/15/2010	250	ND<10	ND<10	ND<10	ND<10	50	ND<2.0	23	ND<10	ND<50	ND<50	ND<10
U-11												
12/9/2009	89	ND<10	ND<10	ND<10	ND<10	61	ND<2.0	31	ND<10	ND<50	ND<50	ND<10
6/15/2010	30	ND<10	ND<10	ND<10	ND<10	230	ND<2.0	54	ND<10	50	ND<50	ND<10
U-12												
12/3/2008	330	ND<10	ND<10	ND<10	ND<10	51	2.7	11	ND<10	ND<50	ND<50	ND<10
2/18/2009	330	ND<10	ND<10	ND<10	ND<10	50	2.7	ND<10	ND<10	ND<50	ND<50	ND<10
6/11/2009	320	ND<10	ND<10	ND<10	ND<10	47	ND<2.0	21	ND<10	ND<50	ND<50	ND<10
12/9/2009	330	ND<10	ND<10	ND<10	ND<10	47	2.3	ND<10	ND<10	ND<50	ND<50	ND<10
6/15/2010	320	ND<10	ND<10	ND<10	ND<10	48	2.2	ND<10	ND<10	ND<50	ND<50	ND<10

Page 2 of 3

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Beryllium (total) (μg/l) ND<10 ND<10 ND<10 ND<10 ND<10 ND<10	Beryllium (dissolved) (μg/l) ND<10 ND<10 ND<10 ND<10 ND<10	Cadmium (total) (μg/l) ND<10 ND<10 ND<10 ND<10 ND<10 ND<10	Cadmium (dissolved) (μg/l) ND<10 ND<10 ND<10 ND<10 ND<10	Calcium (mg/l) 24 22 24 3.9 1.8	Chromium VI (μg/l) 85 88 82 67	Chromium (total) (μg/l) 93 88 84 74	Chromium (dissolved) (µg/l) 86 88 78 70	Cobalt (total) (μg/l) ND<50 ND<50 ND<50 ND<50	Cobalt (dissolved) (μg/l) ND<50 ND<50 ND<50	Copper (dissolved) (μg/l) ND<10 ND<10 ND<10
(μg/l) ND<10 ND<10 ND<10 ND<10	(μg/l) ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10 ND<10	(μg/l) ND<10 ND<10 ND<10 ND<10	(mg/l) 24 22 24 3.9	(μg/l) 85 88 82 67	93 88 84	(μg/l) 86 88 78	(μg/l) ND<50 ND<50 ND<50	(μg/l) ND<50 ND<50	(μg/l) ND<10 ND<10
ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10	24 22 24 3.9	85 88 82 67	93 88 84	86 88 78	ND<50 ND<50 ND<50	ND<50 ND<50	ND<10 ND<10
ND<10 ND<10 ND<10	ND<10 ND<10 ND<10	ND<10 ND<10 ND<10	ND<10 ND<10 ND<10	22 24 3.9	88 82 67	88 84	88 78	ND<50 ND<50	ND<50	ND<10
ND<10 ND<10 ND<10	ND<10 ND<10 ND<10	ND<10 ND<10 ND<10	ND<10 ND<10 ND<10	22 24 3.9	88 82 67	88 84	88 78	ND<50 ND<50	ND<50	ND<10
ND<10 ND<10	ND<10 ND<10	ND<10 ND<10	ND<10 ND<10	24 3.9	82 67	84	78	ND<50		
ND<10	ND<10	ND<10	ND<10	3.9	67				ND<50	ND<10
						74	70	ND<50		
ND<10	ND<10	ND<10	ND<10	1 8				110 < 30	ND<50	ND<10
				1.0	48	50	48	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	47	3.0	ND<10	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	46	3.4	ND<10	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	45	2.9	16	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	42	2.9	ND<10	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	36	3.9	ND<10	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	47	3.7	ND<10	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	14	10	11	ND<10	ND<50	ND<50	ND<10
ND<10	ND<10	ND<10	ND<10	4.6	9.0	12	ND<10	ND<50	ND<50	ND<10
	ND<10	ND<10	ND<10	13	17	20	17	ND<50	ND<50	ND<10
ND<10			NID <10	3.8	22	25	21	ND<50	ND<50	ND<10
	ND<10 ND<10	ND<10 ND<10 ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10 14 ND<10	ND<10 ND<10 ND<10 ND<10 14 10 ND<10	ND<10 ND<10 ND<10 ND<10 14 10 11 ND<10	ND<10 ND<10 ND<10 ND<10 14 10 11 ND<10 ND<10	ND<10 ND<10 ND<10 ND<10 14 10 11 ND<10 ND<50 ND<10	ND<10 ND<10 ND<10 ND<10 14 10 11 ND<10 ND<50 ND<50 ND<10



Page 3 of 3

Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled	Copper (total) (µg/l)	Lead (dissolved) (mg/l)	Lead (total) (µg/l)	Magnesium (dissolved) (mg/l)	Manganese (dissolved) (μg/l)	Mercury (total) (μg/l)	Mercury (dissolved) (μg/l)	Molyb- denum (total) (µg/l)	Molyb- denum (dissolved) (μg/l)	Nickel (total) (µg/l)	Nickel (dissolved) (µg/l)	Potassium (mg/l)
U-1 6/15/2010		ND<50		100	11		ND<0.20		ND<50		ND<10	2.9
U-2 3/17/2008 6/15/2010	330	 ND<50	71 	 85	 ND<10	1.7 	 ND<0.20	ND<50	 ND<50	1500	 ND<10	 2.2
U-3 3/17/2008	240	ND<50	65	94	2600	0.84	ND<0.20	ND<50	ND<50	1200	ND<10	1.6
6/12/2008 6/15/2010	590 230	 ND<50	160 67	 91	2300	2.4 ND<0.20	 ND<0.20	81 ND<50	 ND<50	2800 1200	 ND<10	 1.6
U-4 3/17/2008	250	ND<50	ND<50	88	2000	ND<0.20	ND<0.20	ND<50	ND<50	1300	ND<10	2.3
6/12/2008 12/9/2009	360 300	ND<50 ND<50	53 59	7.7 91	720 ND<10	2.5 ND<0.20	ND<0.20 ND<0.20	ND<50 ND<50	ND<50 ND<50	2100 2000	ND<10 ND<10	ND<1.0 2.7
6/15/2010 U-5	110	ND<50	ND<50	87	ND<10	0.63	ND<0.20	ND<50	ND<50	770	ND<10	2.8
3/17/2008 6/12/2008	72 53	ND<50 ND<50	ND<50 ND<50	89 73	76 36	0.55 0.26	ND<0.20 ND<0.20	ND<50 ND<50	ND<50 ND<50	360 290	ND<10 ND<10	2.4 1.9
12/9/2009 6/15/2010	110 ND<10	ND<50 ND<50	ND<50 ND<50	79 78	1000 660	ND<0.20 ND<0.20	ND<0.20 ND<0.20	ND<50 ND<50	ND<50 ND<50	540 30	ND<10 ND<10	2.4 2.2
U-6 3/17/2008 6/12/2008	17 ND<10	ND<50 ND<50	ND<50 ND<50	120 110	4300 3800	ND<0.20 0.60	ND<0.20 ND<0.20	ND<50 ND<50	ND<50 ND<50	91 47	ND<10 ND<10	1.0 1.3
6/15/2010	25	ND<50	ND<50	140	3900	ND<0.20	ND<0.20	ND<50	ND<50	100	ND<10	1.4

U-7



Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled	Copper	Lead	Lead	Magnesium	Manganese	Mercury	Mercury	Molyb- denum	Molyb- denum	Nickel	Nickel	
•	(total)	(dissolved)	(total)	(dissolved)	(dissolved)	(total)	(dissolved)	(total)	(dissolved)	(total)	(dissolved)	Potassium
	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)
U-7 conti	nued											
3/17/2008	16	ND<50	ND<50	110	2300	ND<0.20	ND<0.20	ND<50	ND<50	79	ND<10	2.4
6/12/2008	ND<10	ND<50	ND<50	92	2400	ND<0.20	ND<0.20	ND<50	ND<50	38	ND<10	2.4
6/11/2009	ND<10	ND<0.05	ND<50	50	1100	ND<0.20	ND<0.20	ND<50	ND<50	25	ND<10	2.6
12/9/2009	14	ND<50	ND<50	64	1800	ND<0.20	ND<0.20	ND<50	ND<50	74	ND<10	2.1
6/15/2010	ND<10	ND<50	ND<50	68	1900	ND<0.20	ND<0.20	ND<50	ND<50	12	ND<10	1.8
U-8												
12/9/2009	130	ND<50	ND<50	91	4000	ND<0.20	ND<0.20	ND<50	ND<50	690	ND<10	2.8
6/15/2010	11	ND<50	ND<50	83	2600	ND<0.20	ND<0.20	ND<50	ND<50	57	ND<10	1.8
U-9												
12/9/2009	15	ND<50	ND<50	120	3800	ND<0.20	ND<0.20	ND<50	ND<50	35	ND<10	8.5
6/15/2010	40	ND<50	ND<50	96	2500	ND<0.20	ND<0.20	ND<50	ND<50	230	ND<10	3.2
U-10												
6/11/2009		ND<0.05		87	780		ND<0.20		ND<50		ND<10	30
12/9/2009	17	ND<50	ND<50	110	1400	ND<0.20	ND<0.20	ND<50	ND<50	110	ND<10	29
6/15/2010	19	ND<50	ND<50	110	2200	ND<0.20	ND<0.20	ND<50	ND<50	68	ND<10	7.5
U-11												
12/9/2009	22	ND<50	ND<50	110	2500	ND<0.20	ND<0.20	ND<50	ND<50	83	ND<10	4.3
6/15/2010	33	ND<50	ND<50	1800	20000	ND<0.20	ND<0.20	ND<50	ND<50	230	93	4.1
TI 10												
U-12 12/3/2008	12	ND<50	ND<50	73	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	24	ND<10	2.6
2/18/2009	ND<10	ND<50	ND<50	71	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	12	ND<10	2.3
6/11/2009	ND<10	ND<0.05	ND<50	70	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	62	ND<10	2.2
12/9/2009	ND<10	ND<50	ND<50	70	26	ND<0.20	ND<0.20	ND<50	ND<50	10	ND<10	2.7
6/15/2010	ND<10	ND<50	ND<50	69	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	10	ND<10	2.4

Page 2 of 3

Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled	Copper (total) (µg/l)	Lead (dissolved) (mg/l)	Lead (total) (µg/l)	Magnesium (dissolved) (mg/l)	Manganese (dissolved) (μg/l)	Mercury (total) (μg/l)	Mercury (dissolved) (μg/l)	Molyb- denum (total) (µg/l)	Molyb- denum (dissolved) (μg/l)	Nickel (total) (µg/l)	Nickel (dissolved) (µg/l)	Potassium (mg/l)
U-13												
12/3/2008	21	ND<50	ND<50	53	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	8.3
2/18/2009	ND<10	ND<50	ND<50	52	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	14
6/11/2009	ND<10	ND<0.05	ND<50	53	12	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	13
12/9/2009	ND<10	ND<50	ND<50	45	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	88
6/15/2010	ND<10	ND<50	ND<50	47	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	71
U-14												
12/3/2008	26	ND<50	ND<50	67	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	15	ND<10	2.6
2/18/2009	ND<10	ND<50	ND<50	66	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	2.5
6/11/2009	ND<10	ND<0.05	ND<50	64	17	ND<0.20	ND<0.20	ND<50	ND<50	40	ND<10	2.5
12/9/2009	ND<10	ND<50	ND<50	53	27	ND<0.20	ND<0.20	ND<50	ND<50	10	ND<10	3.1
6/15/2010	ND<10	ND<50	ND<50	44	21	ND<0.20	ND<0.20	ND<50	ND<50	13	ND<10	3.9
U-15												
12/3/2008	12	ND<50	ND<50	69	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	3.7
2/18/2009	ND<10	ND<50	ND<50	62	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	39
6/11/2009	ND<10	ND<0.05	ND<50	62	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	ND<10	ND<10	36
12/9/2009	ND<10	ND<50	ND<50	70	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	11	ND<10	41
6/15/2010	ND<10	ND<50	ND<50	65	ND<10	ND<0.20	ND<0.20	ND<50	ND<50	17	10	52



Page 3 of 3

Table 2 d
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date Sampled	Selenium	Selenium	Silver	Silver		Thallium	Thallium	Vanadium	Vanadium	Zinc	Zinc	
	(total)	(dissolved)	(total)	(dissolved)	Sodium	(total)	(dissolved)	(total)	(dissolved)	(dissolved)	(total)	Chloride
	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(mg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)
U-1												
6/15/2010		ND<100		ND<10	61		ND<100		ND<10	ND<10		58
U-2												
3/17/2008	ND<100		ND<10			ND<100		240			590	
6/15/2010		ND<100		ND<10	66		ND<100		ND<10	ND<10		28
U-3												
3/17/2008	ND<100	ND<100	ND<10	ND<10	41	ND<100	ND<100	190	ND<10	ND<10	360	14
6/12/2008	ND<100		ND<10			ND<100		410			970	
6/15/2010	ND<100	ND<100	ND<10	ND<10	36	ND<100	ND<100	170	ND<10	ND<10	360	9.9
U-4												
3/17/2008	ND<100	ND<100	ND<10	ND<10	35	ND<100	ND<100	190	ND<10	ND<10	340	37
6/12/2008	ND<100	ND<100	ND<10	ND<10	9.0	ND<100	ND<100	260	ND<10	ND<10	420	38
12/9/2009	ND<100	ND<100	ND<10	ND<10	35	ND<100	ND<100	230	ND<10	ND<10	400	35
6/15/2010	ND<100	ND<100	ND<10	ND<10	65	ND<100	ND<100	96	ND<10	ND<10	190	44
U-5												
3/17/2008	ND<100	ND<100	ND<10	ND<10	49	ND<100	ND<100	60	ND<100	ND<10	120	32
6/12/2008	ND<100	ND<100	ND<10	ND<10	26	ND<100	ND<100	44	ND<10	ND<10	87	31
12/9/2009	ND<100	ND<100	ND<10	ND<10	32	ND<100	ND<100	93	ND<10	ND<10	180	43
6/15/2010	ND<100	ND<100	ND<10	ND<10	42	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	61
U-6												
3/17/2008	ND<100	ND<100	ND<10	ND<10	90	ND<100	ND<100	15	ND<10	ND<10	79	160
6/12/2008	ND<100	ND<100	ND<10	ND<10	76	ND<100	ND<100	ND<10	ND<10	11	ND<50	190
6/15/2010	ND<100	ND<100	ND<10	ND<10	96	ND<100	ND<100	14	ND<10	ND<10	72	170

U-7

Table 2 d
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date												
Sampled	Selenium	Selenium	Silver	Silver	C 1	Thallium	Thallium	Vanadium	Vanadium	Zinc	Zinc	C1.1 1
	(total)	(dissolved)	(total)	(dissolved)	Sodium	(total)	(dissolved)	(total)	(dissolved)	(dissolved)	(total)	Chloride
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(mg/l)
U-7 con												
3/17/2008		ND<100	ND<10	ND<10	68	ND<100	ND<100	12	ND<10	ND<10	51	91
6/12/2008		ND<100	ND<10	ND<10	59	ND<100	ND<100	ND<10	ND<10	11	ND<50	120
6/11/2009	ND<100	ND<100	ND<10	ND<10	62	ND<100	ND<100	ND<10	ND<10	26	ND<50	110
12/9/2009	ND<100	ND<100	ND<10	ND<10	64	ND<100	ND<100	13	ND<10	ND<10	ND<50	110
6/15/2010	ND<100	ND<100	ND<10	ND<10	66	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	110
U-8												
12/9/2009	ND<100	ND<100	ND<10	ND<10	58	ND<100	ND<100	96	ND<10	ND<10	180	59
6/15/2010	ND<100	ND<100	ND<10	ND<10	50	ND<100	ND<100	10	ND<10	ND<10	ND<50	59
U-9												
12/9/2009	ND<100	ND<100	ND<10	ND<10	84	ND<100	ND<100	ND<10	ND<10	ND<10	55	100
6/15/2010	ND<100	ND<100	ND<10	ND<10	61	ND<100	ND<100	31	ND<10	ND<10	94	70
U-10												
6/11/2009		ND<100		ND<10	170		ND<100		ND<10	24		110
12/9/2009	ND<100	ND<100	ND<10	ND<10	130	ND<100	ND<100	16	ND<10	ND<10	ND<50	47
6/15/2010	ND<100	ND<100	ND<10	ND<10	67	ND<100	ND<100	ND<10	ND<10	30	ND<50	46
U-11												
12/9/2009	ND<100	ND<100	ND<10	ND<10	67	ND<100	ND<100	19	ND<10	ND<10	ND<50	70
6/15/2010	ND<100	ND<100	ND<10	ND<10	120	ND<100	ND<100	29	ND<10	10	62	60
U-12												
12/3/2008	ND<100	ND<100	ND<10	ND<10	49	ND<100	ND<100	ND<10	ND<10	26	ND<50	85
2/18/2009	ND<100	ND<100	ND<10	ND<10	48	ND<100	ND<100	ND<10	ND<10	13	ND<50	86
6/11/2009	ND<100	ND<100	ND<10	ND<10	50	ND<100	ND<100	ND<10	ND<10	30	ND<50	91
12/9/2009	ND<100	ND<100	ND<10	ND<10	51	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	83
6/15/2010	ND<100	ND<100	ND<10	ND<10	50	ND<100	ND<100	ND<10	ND<10	18	ND<50	85

Page 2 of 3

Table 2 d
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 4186

Date												
Sampled	Selenium	Selenium	Silver	Silver		Thallium	Thallium	Vanadium	Vanadium	Zinc	Zinc	
	(total)	(dissolved)	(total)	(dissolved)	Sodium	(total)	(dissolved)	(total)	(dissolved)	(dissolved)	(total)	Chloride
	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(mg/l)	$(\mu g/l)$	(mg/l)					
U-13												
12/3/2008	ND<100	ND<100	ND<10	ND<10	59	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	95
2/18/2009	ND<100	ND<100	ND<10	ND<10	65	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	96
6/11/2009	ND<100	ND<100	ND<10	ND<10	66	ND<100	ND<100	ND<10	ND<10	29	ND<50	100
12/9/2009	ND<100	ND<100	ND<10	ND<10	110	ND<100	ND<10	ND<10	ND<10	ND<10	ND<50	82
6/15/2010	ND<100	ND<100	ND<10	ND<10	110	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	80
U-14												
12/3/2008	ND<100	ND<100	ND<10	ND<10	48	ND<100	ND<100	ND<10	ND<10	43	69	85
2/18/2009	ND<100	ND<100	ND<10	ND<10	47	ND<100	ND<100	ND<10	ND<10	24	53	84
6/11/2009	ND<100	ND<100	ND<10	ND<10	47	ND<100	ND<100	ND<10	ND<10	34	ND<50	86
12/9/2009	ND<100	ND<100	ND<10	ND<10	41	ND<100	ND<100	ND<10	ND<10	21	64	66
6/15/2010	ND<100	ND<100	ND<10	ND<10	35	ND<100	ND<100	ND<10	ND<10	19	57	55
U-15												
12/3/2008	ND<100	ND<100	ND<10	ND<10	48	ND<100	ND<100	ND<10	ND<10	36	54	87
2/18/2009	ND<100	ND<100	ND<10	ND<10	78	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	86
6/11/2009	ND<100	ND<100	ND<10	ND<10	76	ND<100	ND<100	ND<10	ND<10	24	ND<50	92
12/9/2009	ND<100	ND<100	ND<10	ND<10	80	ND<100	ND<100	ND<10	ND<10	ND<10	52	85
6/15/2010	ND<100	ND<100	ND<10	ND<10	95	ND<100	ND<100	ND<10	ND<10	ND<10	ND<50	84



Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS **76 Station 4186**

Date		Nitrogen						Post-purge	Pre-purge		
Sampled		as			Field Con-	Field	Field	Dissolved	Dissolved	Pre-purge	Post-purge
	Fluoride	Nitrate	Sulfate	TDS	ductivity	pН	Temp.	Oxygen	Oxygen	ORP	ORP
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µS/cm)	(pH unit)	(deg. C)	(mg/l)	(mg/l)	(mV)	(mV)
U-1											
12/30/2002								0.60			91
5/2/2003								0.50			90
7/1/2003								0.60			110
10/3/2003								3.79			329
1/8/2004								12.36			184
4/15/2004								10.56			213
7/15/2004								6.62			251
12/8/2004								2.66			68
3/23/2005								3.12			091
6/28/2005								8.84			153
9/23/2005								2.26			187
12/30/2005								7.74			159
3/24/2006								4.02	3.88	036	016
6/26/2006								7.05	5.50	008	007
9/26/2006								4.24	4.66	203	200
11/21/2006								4.24	4.56	1.97	2.00
3/26/2007								6.58	6.98	107	102
6/27/2007								4.98	4.85	20	34
3/17/2008								3.12	2.43	151	153
6/15/2010	0.15	17	40	740	1295	6.62	19.5	1.36			221
U-2											
10/1/2002								1.40			
12/30/2002								2.80			120
5/2/2003								150.00			120
7/1/2003								1.20			110
4186						Page 1 of 9					@TRC

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date Sampled	Fluoride (mg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	TDS (mg/l)	Field Conductivity	Field pH (pH unit)	Field Temp. (deg. C)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)	Post-purge ORP (mV)	
U-2 cont		(1115/1)	(IIIg/1)	(IIIg/1)	(μ5/επ)	(pri unit)	(deg. c)	(111g/1)	(IIIg/1)	(111 *)	(111 7)	
10/3/2003	inuea 							5.61			321	
1/8/2004								12.11			- 6	
4/15/2004								11.39			259	
7/15/2004								7.46			238	
12/8/2004								3.57			132	
3/23/2005								4.57			024	
6/28/2005								8.08			230	
9/23/2005								5.47			188	
12/30/2005								8.33			177	
3/24/2006								4.80	6.20	-004	002	
6/26/2006								6.20	4.51	040	046	
9/26/2006								3.70	3.49	-31	-17	
11/21/2006								3.70	3.45	-29	-20	
3/26/2007								10.05	10.31	90	95	
6/27/2007								3.87	4.21	-63	-41	
9/23/2007										-133	-48	
3/17/2008				600				3.31	3.13	154	153	
6/12/2008									8.32	177		
6/15/2010	0.16	16	74	680	1108	6.54	19.5	3.00			202	
U-3												
10/1/2002								0.50			- 47	
12/30/2002								0.20			106	
5/2/2003								0.50			85	
7/1/2003								0.50			90	
10/3/2003								3.80			- 27	

Page 2 of 9

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date		Nitrogen						Post-purge	Pre-purge			
Sampled		as			Field Con-	Field	Field	Dissolved	Dissolved	Pre-purge	Post-purge	
	Fluoride	Nitrate	Sulfate	TDS	ductivity	pН	Temp.	Oxygen	Oxygen	ORP	ORP	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µS/cm)	(pH unit)	(deg. C)	(mg/l)	(mg/l)	(mV)	(mV)	
U-3 cont	inued											
1/8/2004								12.82			133	
4/15/2004								3.11			24	
7/15/2004								1.90			53	
12/8/2004								1.30			-81	
3/23/2005								0.52			-087	
6/28/2005								1.47			-151	
9/23/2005								1.40			-80	
12/30/2005								1.45			-068	
3/24/2006								1.53	0.79	003	009	
6/26/2006								2.19	3.56	015	017	
9/26/2006								1.06	1.10	-72	-95	
11/21/2006								1.04	1.10	-83	-96	
3/26/2007								7.08	6.99	78	68	
6/27/2007								4.89	4.79	-79	-82	
9/23/2007										-114	-88	
3/17/2008	0.073	ND<0.44	ND<1.0	530				2.88	1.96	-5	-33	
6/12/2008								0.11	1.30	-17	-40	
12/9/2009					781	6.95	16.7					
6/15/2010	0.15	ND<0.44	ND<1.0	630	1019	6.52	19.6	0.94			7	
U-4												
10/1/2002								1.00			83	
12/30/2002								0.40			126	
5/2/2003								0.70			120	
7/1/2003								0.60			130	
10/3/2003								2.06			3.05	

Page 3 of 9

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date Sampled		Nitrogen as			Field Con-	Field	Field	Post-purge Dissolved	Pre-purge Dissolved	Pre-purge	Post-purge	
r	Fluoride	Nitrate	Sulfate	TDS	ductivity	рН	Temp.	Oxygen	Oxygen	ORP	ORP	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µS/cm)	(pH unit)	(deg. C)	(mg/l)	(mg/l)	(mV)	(mV)	
U-4 conti	inued		-						-			
1/8/2004								11.90			76	
4/15/2004								3.30			116	
7/15/2004								2.50			32	
12/8/2004								2.09			47	
3/23/2005								0.04			021	
6/28/2005								2.24			120	
9/23/2005								3.01			176	
12/30/2005								1.96			175	
3/24/2006								1.17	1.48	015	014	
6/26/2006								2.55	1.31	031	034	
9/26/2006								1.38	1.23	-54	-7	
11/21/2006								1.38	1.13	-60	-10	
3/26/2007								7.09	7.28	14	25	
6/27/2007								2.82	2.62	82	73	
3/17/2008	0.12	0.61	29	540				2.47	2.71	153	150	
6/12/2008	0.14	ND<0.44	30	610				1.26	4.00	185	188	
12/9/2009	0.096	0.59	37	590	927	7.55	15.5	1.82			-84	
6/15/2010	0.18	24	37	630	1057	7.71	20.2	1.02			54	
U-5												
5/2/2003								0.60			120	
7/1/2003								0.90			145	
10/3/2003								2.21			3.13	
1/8/2004								11.27			104	
4/15/2004								3.35			65	
7/15/2004								2.87			66	

Page 4 of 9

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date Sampled		Nitrogen			Field Con-	Field	Field	Post-purge Dissolved	Pre-purge Dissolved	Duo mungo	Doct munco	
Sumpled	Fluoride	as Nitrate	Sulfate	TDS	ductivity	pH	Temp.	Oxygen	Oxygen	Pre-purge ORP	Post-purge ORP	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(μS/cm)	(pH unit)	(deg. C)	(mg/l)	(mg/l)	(mV)	(mV)	
U-5 conti		(1118/1)	(1115/1)	(1118/17)	(µS/CIII)	(pri unit)	(405. 0)	(111g/1)	(1118/1)	(11117)	(111)	
12/8/2004	mueu 							1.67			102	
3/23/2005								0.75			131	
6/28/2005								2.29			103	
9/23/2005								2.05			172	
12/30/2005								1.39			171	
3/24/2006								0.97	0.97	011	013	
6/26/2006								7.18	7.23	091	084	
9/26/2006								1.19	0.80	44	44	
11/21/2006								1.12	0.79	41	47	
3/26/2007								3.20	3.60	31	52	
6/27/2007								2.01	1.67	66	58	
3/17/2008	0.086	3.8	31	530				2.91	1.98	151	156	
6/12/2008	0.070	1.8	26	550				1.89	1.22	172	171	
12/9/2009	0.17	ND<0.44	30	530	792	7.40	18.2	1.12			-101	
6/15/2010	0.13	3.3	36	550	1087	7.59	21.4	0.25			67	
U-6												
10/1/2002								0.90				
12/30/2002								0.20			88	
5/2/2003								0.90			145	
7/1/2003								0.70			120	
10/3/2003								2.26			12	
1/8/2004								11.95			- 37	
4/15/2004								3.47			- 20	
7/15/2004								3.25			- 43	
12/8/2004								0.94			-91	

Page 5 of 9

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date Sampled	Fluoride (mg/l)	Nitrogen as Nitrate (mg/l)	Sulfate (mg/l)	TDS (mg/l)	Field Conductivity	Field pH (pH unit)	Field Temp. (deg. C)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)	Post-purge ORP (mV)	
U-6 cont	inued											
3/23/2005								0.55			-077	
6/28/2005								0.86			-129	
9/23/2005								1.97			-82	
12/30/2005								1.01			-66	
3/24/2006								0.79	1.25	011	009	
6/26/2006								1.23	5.48	015	027	
9/26/2006								6.97	7.05	-67	-69	
11/21/2006								0.83	1.05	-65	-69	
3/26/2007								6.40	6.26	15	9	
6/27/2007								3.51	3.20	-64	-54	
3/17/2008	0.066	ND<0.44	51	860				1.19	1.87	101	26	
6/12/2008	0.11	0.45	27	860				1.10	2.08	-20	-26	
6/15/2010	0.17	ND<0.44	13	960	1830	6.57	19.3	1.04			-55	
U-7												
10/1/2002								1.80			- 60	
12/30/2002								0.10			121	
5/2/2003								0.40			105	
7/1/2003								0.50			95	
10/3/2003								2.91			- 21	
1/8/2004								11.85			- 51	
4/15/2004								4.68			- 16	
7/15/2004								2.55			- 52	
12/8/2004								1.20			-88	
3/23/2005								0.21			-088	
6/28/2005								1.32			-160	

Page 6 of 9

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date		Nitrogen						Post-purge	Pre-purge			
Sampled		as			Field Con-	Field	Field	Dissolved	Dissolved	Pre-purge	Post-purge	
	Fluoride	Nitrate	Sulfate	TDS	ductivity	pН	Temp.	Oxygen	Oxygen	ORP	ORP	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µS/cm)	(pH unit)	(deg. C)	(mg/l)	(mg/l)	(mV)	(mV)	
U-7 cont i	inued 							2.25			108	
12/30/2005								1.12			105	
3/24/2006								1.09	0.99	008	009	
6/26/2006								1.46	1.27	025	032	
9/26/2006								0.78	1.02	-47	-63	
11/21/2006								0.88	0.98	-43	-59	
3/26/2007								5.85	6.00	14	8	
6/27/2007								2.98	2.60	-90	-102	
3/17/2008	0.077	ND<0.44	7.0	640				3.06	2.86	137	120	
6/12/2008	0.15	19	13	700				0.98	2.27	9	-11	
6/11/2009	ND<0.050	ND<0.44	30	490								
12/9/2009	0.12	ND<0.44	13	510	772	7.27	17.0	0.94			23	
6/15/2010	0.15	ND<0.44	12	540	1080	7.76	22.4	0.15			17	
U-8												
12/9/2009	0.19	ND<0.44	4.1	630	972	7.87	16.6	2.06			-78	
6/15/2010	0.19	0.59	16	600	2757	7.09	21.2	0.51			-32	
U-9												
12/9/2009	0.30	ND<0.44	ND<1.0	860	1203	6.94	13.5	1.29			-10	
6/15/2010	0.20	ND<0.44	12	630	1196	6.82	19.4	2.45			-89	
U-10												
6/11/2009	0.49	ND<0.44	190	970								
12/9/2009	0.33	ND<0.44	76	880	1009	7.04	17.9	0.94			-77	
6/15/2010	0.16	ND<0.44	8.2	700	1188	7.18	21.4	0.48			-66	

U-11

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date Sampled		Nitrogen as			Field Con-	Field	Field	Post-purge Dissolved	Pre-purge Dissolved	Pre-purge	Post-purge	
	Fluoride (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	TDS (mg/l)	ductivity (μS/cm)	pH (pH unit)	Temp. (deg. C)	Oxygen (mg/l)	Oxygen (mg/l)	ORP (mV)	ORP (mV)	
U-11 con	tinued											
12/9/2009	0.26	ND<0.44	4.9	700	896	7.47	17.3	1.39			91	
6/15/2010	0.67	ND<4.4	7600	11000	5791	6.81	20.9	0.65			63	
U-12												
12/3/2008	0.14	28	59	630				2.85	2.71	66	26	
2/18/2009	0.086	29	61	610	1007	7.82	18.2	2.74	2.65	145	121	
6/11/2009	0.13	29	61	610								
12/9/2009	0.20	26	57	550	813	7.75	17.1	2.51			62	
6/15/2010	0.19	26	56	580	979.4	7.41	21.4	2.53			65	
U-13												
12/3/2008	0.16	26	65	610				1.70	2.21	62	58	
2/18/2009	0.20	26	69	510	1022	7.75	18.0	1.49	1.52	171	110	
6/11/2009	0.14	25	71	550								
12/9/2009	0.15	22	59	600	820	7.61	16.6	1.65			-52	
6/15/2010	0.091	25	54	620	996.2	7.46	20.2	1.75			37	
U-14												
12/3/2008	0.14	25	55	660				2.63	2.96	91	59	
2/18/2009	0.13	25	57	560	950.4	7.70	18.4	2.25	2.55	106	113	
6/11/2009	0.11	25	56	600								
12/9/2009	0.084	26	44	460	776	7.90	17.9	1.66			-22	
6/15/2010	0.10	25	38	400	971.6	7.53	18.9	1.67			-26	
U-15												
12/3/2008	0.13	21	52	670				2.21	2.55	108	118	
2/18/2009	0.12	23	54	570	962.4	7.66	17.4	1.98	1.95	109	104	
6/11/2009	0.12	22	55	560								

Page 8 of 9

Table 2 e ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 4186

Date		Nitrogen						Post-purge	Pre-purge			
Sampled		as			Field Con-	Field	Field	Dissolved	Dissolved	Pre-purge	Post-purge	
	Fluoride	Nitrate	Sulfate	TDS	ductivity	pН	Temp.	Oxygen	Oxygen	ORP	ORP	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	$(\mu S/cm)$	(pH unit)	(deg. C)	(mg/l)	(mg/l)	(mV)	(mV)	
U-15 con	ntinued											
12/9/2009	0.17	18	52	560	831	7.85	15.1	1.98			-84	
6/15/2010	0.15	21	56	590	985.7	7.68	20.8	2.09			40	



Page 9 of 9

APPENDIX C

Certified Laboratory Analytical Reports



Date of Report: 06/16/2010

Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

RE: 4186 BC Work Order: 1007537 Invoice ID: B081942

Enclosed are the results of analyses for samples received by the laboratory on 6/1/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Molly Meyers

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



Table of Contents

Sample Information	
Chain of Custody and Cooler Receipt form	4
Laboratory / Client Sample Cross Reference	8
Sample Results	
1007537-01 - U-11-pre	
Volatile Organic Analysis (EPA Method 8260)	11
Purgeable Aromatics and Total Petroleum Hydrocarbons	12
Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	14
1007537-02 - U-8-pre	
Volatile Organic Analysis (EPA Method 8260)	15
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	
1007537-03 - U-10-pre	
Volatile Organic Analysis (EPA Method 8260)	19
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	
1007537-04 - SP-2-pre	
Volatile Organic Analysis (EPA Method 8260)	23
Purgeable Aromatics and Total Petroleum Hydrocarbons	
1007537-05 - SP-5-pre	
Volatile Organic Analysis (EPA Method 8260)	25
Purgeable Aromatics and Total Petroleum Hydrocarbons	
1007537-06 - SP-8-pre	
Volatile Organic Analysis (EPA Method 8260)	27
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	
1007537-07 - U-11-post	20
Water Analysis (General Chemistry)	30
1007537-08 - U-8-post	
Water Analysis (General Chemistry)	31
1007537-09 - U-10-post	
Water Analysis (General Chemistry)	32
1007537-10 - SP-2-post	
Water Analysis (General Chemistry)	33
1007537-11 - SP-5-post	
Water Analysis (General Chemistry)	3/1
1007537-12 - SP-8-post	
Water Analysis (General Chemistry)	35
Quality Control Reports	
Volatile Organic Analysis (EPA Method 8260)	
	26
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	38
Purgeable Aromatics and Total Petroleum Hydrocarbons	20
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	41
Total Petroleum Hydrocarbons	40
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	44



Table of Contents

	Water Analysis (General Chemistry)	
	Method Blank Analysis	45
	Laboratory Control Sample	
	Precision and Accuracy	
Notes	·	
	Notes and Definitions	48

Page 4 of 48

W
Ω

Chain of Custody and Cooler Receipt Form for 1007537 Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Page 1 of 4

ConocoPhillips	Chain	Of	Custody	Record

BC Lai	boratories, Inc.							Co	nocc	Ph	ար	s (Jha	ın ()† C	us	ito	dy	Rε	CO	rd							/
		Conoc	oPhillips	Site Ma	anager:				Shelby								É						I Norma	ber	1			
4100	0 Atlas Court	INVOIC	E REMIT	TANCE	ADDRE	ESS:			_								- 1		- ALA	010,074					1			
Bakers	sfield, CA 93308	1									Dee						-					-			_ D/	ATE:		_
(661) 327-491	11 (661) 327-1918 fax				Attn: Dee Hutchinson 3611 South Harbor, Suite 200 Santa Ana, CA, 92704							mber	PAGE: of _															
SAMPLING COMPANY:		Valid Value (0	Dt			CONGCOPH	LLIPS SITE	NUMBE	я		-						_		_	Tax	DRAL IS	0 MO.1						
Delta Consultants						SS# 418	6															7002	20					
ADDRESS:						SITE ADDRE	SS (Street a	ed City)	:										_					LANAGER	i:			
	Road #110, Rancho Cordov	, CA 9567	0			1771 1st	St. Live	rmore	. CA											Tor	on G	rayso						
SHOUREL CONTACT [He	refragy or PDF Report toj: James Barn	ard				ERF DELIVE			-					-								нужо						
TELEPHONE:	FAR	E-MAIL:				1			em@west:							916.4	10) 503-12	976		E-MA Text		anned.	Boontra	- Eliteration	USE OF			Water to
(916) 503-1279	(916) 638-8385	barnardg	deltaenv.i	com		Jan Wag	oner (De	elta)								- 10-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			gior.	02120	ashilip	3,007	1	1-	107	153	7
SAMPLER HAME(E) (PHIS)	:	CONSULTAN	T PROJECT N	UMBER															_		_			1	O	<u> </u>	-01	
	lan Buehler		C1041	86205		1									REQL	JEST	ED A	NALY	(SES									
TURNAROUND TIME ((CALENDAR DAYS):						T		_	$\overline{}$	_	Т	_	_	_		$\overline{}$	_	_	_	_	_	_	_	1	_		
14 DAYS 7 0A	NS 🗌 72 HOURS 🗌 48 HOURS [24 HOURS	us 🔲 us	S THAN 24 H	OURS	l	1				1								1	1								
						1									- 1		- 1				1				1 1			
SPECIAL INSTRUCT	IONS OR NOTES:	CHECK	80X F 800	IS MEETICE	ala -	-		1 1		lε			1									1			1 1		FIELD NOT	TES:
	TOTAL OIL HOTES.	0.201		NA NEEDEL	· 🖸	l		[1 8	1		1													C	ontainer/Prese	trvative
**8 day turnar	round time					1		#		1 8		1							1		1				1 1		or PID Readi	
o any tanta	ourid time.					1		5		l g	1		1	1 1				1				1	1		1 1		or Laboratory	Notes
						문	2	ă	훒	1 10	1	1	1	1 1					1	1								
						ТРН	-TPHd	E	- Sulfate	- Total magnesium	1			1 1		- 1					1	1		1				
140 Sample Id	e only required if different from lentification/Field Point					l s	l ż	i ii		ė	1	ı	į .						1									
own gample in	Name*		PLING	MATRIX	NO. OF CONT.	8015M	8015M	8260B · BTEX, MTBE	300.0	60108		1	-	1 1		- 1			1		1				1 1	TEMPERA	ATURE ON REC	EIPT C*
W.F	ivalile	DATE	TIME			- 00	-	1 00	6	ě	-	_		\perp		_	\perp	_	_	_	\perp	\perp	\perp					
- 1	U-11-pre	5/28/10	9:15a	H2O	9	×	×	X	×	x		1		1 1	- 1	- 1			1								rious Preser	
2						×	х	x		٠.	+	_	_	+		-		+	+	+	┼─	+	\vdash	-	-		Not Field Filt rious Preser	
-11	U-8-pre	5/28/10	10:05a	H2O	9		<u> </u>	1	Х	×]]		1 1		Not Field Filt	
b	U-10-pre	5/28/10	9:38a	H2O	9	×	x	l x	x	×				П		\neg	\top	7	\top		\Box					Var	rious Preser	vatives
		4120110	0.000	- nao			-	\vdash		+	-	-	-	+	-	-	-	+-	+	-	⊢		\vdash		\vdash		Not Field Filt	
7/	SP-2-pre	5/28/10	12:15p	H2O	4	х		X			1			1 1				1	1	l		1 '	1 1	1 1	1 1		rious Presen Not Field Filb	
6	SP-5-pre	F/20144	4-45-			х		х						\Box		\neg			\top				\Box		$\overline{}$		rious Presen	
	ar-o-pre	5/28/10	1:15p	H2O	- 6		-	-		-	-			\vdash	_	-	_	\perp	_	╙	_	Ш'					Not Field Filt	ered
92	SP-8-pre	6/28/10	12:44p	H2O	7	×		X	×										-				to Street St	a l				
										1			5	Charles	75	7	c	Jial	V	110	rig:	24	\vdash	-	-			
-					-			-		_			1	Ö.,	-		SE.	TX	\mathbb{Y}_{c}	0	2	13.	1	1				
8														1	34	41.	Ψ.	1	(150)		1	1	~	i i	\Box			
i,							_	\vdash		_	-	-	+	1-21	4	4	4	44	31.10	-0	J1	y-run.	3 -	1	-			
													L.	9		out t		-	-	-		-		,nå				
. St.	10															\neg			Т		-		\Box					
Retriguished by: (Sagrupher)	NS00			· ·	1900 March	.(),	lo			-	_		_				_	_	Date 1	-	7	, , ,		\dashv	Tirex		7	
to inquisite by (Signality)	·/~~			Sapered by	1500 SERVICE	Wice	10	₹_											16			10	,		_	120	d	
1/ml)	internal into			Supplied by	U		\sim	J											Dise	7	4				Tame;			

6-1-10 2130

Chai		
Chain of Custody and Cooler Receip	Environmental Testing Laboratory S	Laboratories,
<u>ĕ</u> .	S	

Receipt Form for 1007537 nce 1949

Page 2 of 4

Container/Preservative

or PID Readings or Laboratory Notes

ConocoPhillips Chain Of Custody Record

BC Laboratories, Inc.		Conocor minipo or
Do Laboratorica, ma.	ConocoPhillips Site Manager:	Terry Grayson
4100 Atlas Court Bakersfield, CA 93308	INVOICE REMITTANCE ADDRESS:	CONOCOPHILLIPS Attn: Dee Hutchins 3611 South Harbor
(661) 327-4911 (661) 327-1918 fax		Santa Ana, CA. 92

|barnard@deltaenv.com

SAMPLING

DATE TIME

051501-1-03

CONSMITANT PROJECT NUMBER

C104186205

CHECK BOX IF EDD IS NEEDED 2

NO. OF CONT.

MATRIX

SS# 4186

SITE ADDRESS (Street 444 GRy):

Jan Wagoner (Delta)

1771 1st St, Livermore, CA

COF CELIVERABLE TO JRP or Designees

ONOCOPHILLIPS	
ttn: Dee Hutchinson	ConocoPhilips Requisits
511 South Harbor, Suite 200	10000carrentality calls
anta Ana, CA. 92704	

	Conoso	Philips Requisit	ion I Line Numi	ber	PAGE:	of	
		T06097	00288				
		Terry Gr	ayson	MOER			
916-503-	1275		asan@contre sphilips.com	(C	0-07	537	

ConocoPhilips SAP Project Number

REQUESTED ANALYSES FIELD NOTES:

8260B - BTEX, MTBE SO15M - TPHg, TPHd 6010B - Total TEMPERATURE ON RECEIPT C* Various Preservatives

	The state of the s			D	, canonic		X								Cum	-1				i ime	1820
	stree by physical S			Received to	Kr.	00	ret	92	,						ore.	//	1	٥		Time	1200
1.								,								L,	L				
1																L					
53																					
	37 - Gran	5125115	о.оор	1,00																	
1	SP-8-post	5/28/10		H2O	1			х													
1	SP-5-post		5:53p	H2O	1			х													Various Preservatives Not Field Filtered
Q	SP-2-post	6/28/10	6:28p	H2O	1			х													Various Preservatives Not Field Filtered
9	U-10-post	5/28/10	5:41p	H2O	2			x	x					Ш			_	_			Not Field Filtered
5	U-8-post	5/28/10	6:03p	H2O	2			х	×							_	┺	_	_		Not Field Filtered Various Preservatives
24	U-11-post	5/28/10	5:10p	H2O	2			_^		_			_	-		+	+-	-	-		Various Preservatives

Delta Consultants

PROJECT CONTACT (Hardcopy or POF Report 9

TURNAROUND TIME (CALENDAR DAYS):

SPECIAL INSTRUCTIONS OR NOTES:

**8 day turnaround time.

Alan Buehler

11050 White Rock Road #110, Rancho Cordova, CA 95670

* Field Point name only required if different from Sample ID

Sample Identification/Field Point

Name*

(916) 638-8385

☐ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

ADDRESS:

TELEPHONE:

(916) 503-1279

SAMPLER NAME(S) (Print):





Chain of Custody and Cooler Receipt Form for 1007537 Page 3 of 4

LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page O 1 2 SHIPPING INFORMATION deral Express D UPS D Hand Delivery D General None D SHIPPING CONTAINER None D General None D Giber D General None D Giber D G	
SHIPPING INFORMATION deral Express SHIPPING INFORMATION deral Express UPSD Hand Delivery Distribution ShipPing Container Shipping Information Distribution Shipping Container Show Distribution Shipping Container Shipping Container Shipping Container Show Distribution Shipping Container Shipping Container Shipping Container Show Distribution Shipping Container	ADDRATORIES INC
SHIPPING INFORMATION Geral Express	ABORATORIES INC.
Sample received Description Descriptio	mission #: 0 0 0
SAMPLE CONTAINERS SAMPLE CONTAINERS SAMPLE CONTAINERS 1 2 3 5 5 7 4 10 10 10 10 10 10 10 10 10 10 10 10 10	THE PROPERTY OF MIRES OF
Samples received? Yes No All samples containers Intact? Yes No Description(s) match COC? Yes No Description(s) not Description(s) No Description(s) not No Description(s)	Thursday C
Samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No Date/Time yellow Yes Yes Yes N	
SAMPLE CONTAINERS SAMPLE NUMBERS	Intact? Yes No
YES NO Temperature: A	7
SAMPLE CONTAINERS 1	COC Received
SAMPLE CONTAINERS 1	
T GENERAL MINERALI GENERAL PHYSICAL T DE UNPRESERVED T DIORGANIC CHEMICAL METALS T DIORGANIC CHEMICAL METALS T DIORGANIC CHEMICAL METALS T CYANIDE T NITROGEN FORMS T TOTAL SULFIDE OS. NITRATE INITRITE PT TOTAL ORGANIC CARBON PT TOX PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL TRAVEL BLANK A0ml VOA VIAL TRAVE	
T GENERAL MINERAL GENERAL PRISEAR T PE UNPRESERVED T ENORGANIC CHEMICAL METALS T ENORGANIC CHEMICAL METALS T TONORGANIC CHEMICAL METALS T TOTAL SULFIDE TOTAL SULFIDE TOTAL SULFIDE TOTAL ORGANIC CARBON PT TOTAL ORGANIC CARBON PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS 40mil Voa Vial, Travel, blank 40mil Voa V	
T INORGANIC CHEMICAL METALS T CYANIDE T NITROGEN FORMS T TOTAL SULFIDE 103. NITRATE / NITRITE PT TOTAL ORGANIC CARBON PT TOX PT CHEMICAL OXYGEN DEMAND PAS PHENOLICS 40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL OT EPA 413.1, 4133, 418.1 PT TOOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 568/668/8180 OT EPA 515.1/8150 OT EPA 515.1/8150	GENERAL MINERAL/ GENERAL PHYSICA PE UNPRESERVED
T CYANIDE 'T NITROGEN FORMS PT TOTAL SULFIDE 10.0. NITRATE / NITRITE PT TOTAL ORGANIC CARBON PT TOX PT CHEMICAL OXYGEN DEMAND PTA PHENOLICS 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL OT EPA 413.1, 4132, 418.1 PT OOOR BACTERIOLOGICAL 40 ml VOA VIAL-504 OT EPA 508/6048180 OT EPA 515.1/8150 OT EPA 515.1/8150	DORGANIC CHEMICAL METALS
T NITROGEN FORMS T TOTAL SULFIDE 102 NITRATE / NITRITE PT TOTAL ORGANIC CARBON PT TOX PT CHEMICAL OXYGEN DEMAND PEA PHENOLICS 40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL OT EPA 413.1, 413.2, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508/604/9180 OT EPA 515.1/8150 OT EPA 515.1/8150	INORGANIC CHEMICAL METALS
T TOTAL SULFIDE 10. NITRATE / NITRITE PT TOTAL ORGANIC CARBON PT TOX PT CHEMICAL OXYGEN DEMAND PEA PHENOLICS 40mi VOA VIAL TRAVEL BLANK OT EPA 413.1, 4133, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 515.1/8150 OT EPA 515.1/8150	
OS. NITRATE / NITRITE OT TOTAL ORGANIC CARBON OT TOX PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS 40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL OT EPA 413.1, 413.2, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508/604/8180 OT EPA 515.1/8150 OT EPA 515.1/8150	NITROGEN FORMS
T TOTAL ORGANIC CARBON PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS 40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL OT EPA 413.1, 413.2, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508/604/8180 OT EPA 515.1/8150 OT EPA 525	
PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS 40mt VOA VIAL TRAVEL BLANK 40mt VOA VIAL OT EPA 413.1, 413.2, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mt VOA VIAL-504 OT EPA 508.664.69180 OT EPA 515.1/8150 OT EPA 525	
PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS 40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL OT EPA 413.1, 413.2, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508.604.0180 OT EPA 515.1/8150 OT EPA 525	TOTAL ORGANIC CARBON
PLA PHENOLICS 40mt VOA VIAL TRAVEL BLANK A Q A + Q A	
40mi VOA VIAL TRAVEL BLANK 40mi VOA VIAL OT EPA 413.1, 413.2, 418.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508.604.6080 OT EPA 515.1/6150 OT EPA 525	
### ### ### ### ### ### ### ### ### ##	
### ### ### ### ### ### ### ### ### ##	
PT ODOR RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508-604880 OT EPA 515.1/8150 OT EPA 525	
RADIOLOGICAL BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508-6048880 OT EPA 515-1/8150 OT EPA 515	
BACTERIOLOGICAL 40 mi VOA VIAL-504 OT EPA 508/0018180 OT EPA 515.1/8150 OT EPA 515.	
OT EPA 508/604/8880 OT EPA 515.1/8150 OT EPA 525	
QT EPA 515.1/8150 QT EPA 525	
QT EPA 515	QT EPA 508/604/8080
	QT EPA \$15.1/8150
OT EPA 525 TRAVEL BLANK	
	OT EPA 525 TRAVEL BLANK
300ml EPA 547	100ml EPA 547
100ml EPA 53 L.1	100ml EPA 531.1
QT EPA 548	QT EPA 548
QT EPA 549	QT EPA 549
QT EPA 632	QT EPA 632
QT EPA 8015M B 3	•
QT AMBER	
8 OZ. JAR	
J2 OZ. JAR	
SOIL SLEEVE	
PCB VIAL	
PLASTIC BAG	
FERROUS IRON	
Comments: Sample Numbering Completed By: Bare/Time: 6/2/10 1818 Hapocswysewan pocsiforms/samecz.wpg	ENCORE



Chain of Custody and Cooler Receipt Form for 1007537 Page 4 of 4

IC LABORATORIES INC.	~ - :	SAMPLE	RECEIP'	FORM	Rev.	No. 12 (6/24/08	Page Z	01	
Submission #: 0-0753	<u> </u>									
	MATION and Déliv (Specify)			lo	e Chest D Box (SHIPPIN	None		fy)	
Refrigerant: Ice Ø Blue Ice □	None	□ Oth	ner⊟ 0	Comment	s:					
Custody Seals Ice Chest Intact? Yes No I	Containe	□ No □	None⊄							
All samples received? Yes ☑ No□ A	It samples	containers	intact? Ye	estí No c]	Description	on(s) mate	h COC? Ye	SE No	0
COC Received Em	nissivity: ().98 c A 4	ontainer:	<u>000</u> 1	hermomet 니, 8	er ID: <u>\ </u>	}	Date/Time Analyst In		2147
	L				SAMPLE 1	UMBERS		1	_	1
SAMPLE CONTAINERS	1.	2	3	4	5	- 6	7	8	3	10
OT GENERAL MINERAL/ GENERAL PHYSICAL		À-	· ·							
PT PE UNPRESERVED	A	A		-	-	-				1
OT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	-		2.1	1						
PT CYANIDE	-									
PT NITROGEN FORMS					1					
PT TOTAL SULFIDE		4		1						
202. NITRATE / NITRITE PT TOTAL ORGANIC CARBON										-
PT TOX										
PT CHEMICAL OXYGEN DEMAND									-	
PLA PHENOLICS										+
40ml VOA VIAL TRAVEL BLANK			-			-		-	-	1 .
40mi VOA VIAL		<u> </u>		1 1	 '	1 1		1	<u> </u>	
QT EPA 413.1, 413.2, 418.1		-	-	-				-		1
PT ODOR		-	+	-	-		-	-		
RADIOLOGICAL	 	-			1					
BACTERIOLOGICAL	1									
40 mt VOA VIAL: 504	T .		1							
QT EPA 508/608/8080										
QT EPA 515.1/8150 QT EPA 525			1.						-	-
QT EPA 525 TRAVEL BLANK										
100ml EPA 547									-	+
100ml EPA 531.1					-	-		-	-	-
QT EPA 548			-		-				-	-
QT EPA 549		-				-	-	-	-	-
QT EPA 633				+	-	-		+	+	
QT EPA 8015M	-		+			-	-		+	
OT AMBER		-	-			-	+		1	1
8 OZ. JAR		+		+	-	-	-	+		
32 OZ. JAR	-	+	+	-	+	+	1			
SOILSLEEVE		-	-		_					
PCB VIAL	_	_			1					
PLASTIC BAG	_	_								
FERROUS IRON										<u> </u>
ENCORÉ							section with the last		-	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information** 1007537-01 06/01/2010 21:20 **COC Number:** Receive Date: 4186 05/28/2010 09:15 **Project Number:** Sampling Date: Sampling Location: Sample Depth: Sampling Point: U-11-pre Water Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): U-11 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-02 COC Number: Receive Date: 06/01/2010 21:20 **Project Number:** Sampling Date: 05/28/2010 10:05 4186 Sampling Location: Sample Depth: U-8-pre Water Sampling Point: Sample Matrix: DECR Delivery Work Order: Sampled By: Global ID: T0609700288 Location ID (FieldPoint): U-8 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-03 **COC Number:** 06/01/2010 21:20 Receive Date: 05/28/2010 09:38 **Project Number:** 4186 Sampling Date: Sampling Location: Sample Depth: U-10-pre Water Sampling Point: Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): U-10 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-04 **COC Number:** Receive Date: 06/01/2010 21:20 **Project Number:** 4186 Sampling Date: 05/28/2010 12:15 Sampling Location: Sample Depth: SP-2-pre Water Sampling Point: Sample Matrix: **DECR** Delivery Work Order: Sampled By: Global ID: T0609700288 Location ID (FieldPoint): SP-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information** 1007537-05 06/01/2010 21:20 **COC Number:** Receive Date: 4186 05/28/2010 13:15 **Project Number:** Sampling Date: Sampling Location: Sample Depth: Sampling Point: SP-5-pre Water Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): SP-5 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-06 COC Number: Receive Date: 06/01/2010 21:20 **Project Number:** Sampling Date: 05/28/2010 12:44 4186 Sampling Location: Sample Depth: SP-8-pre Water Sampling Point: Sample Matrix: DECR Delivery Work Order: Sampled By: Global ID: T0609700288 Location ID (FieldPoint): SP-8 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-07 **COC Number:** 06/01/2010 21:20 Receive Date: 05/28/2010 05:10 **Project Number:** 4186 Sampling Date: Sampling Location: Sample Depth: Water Sampling Point: U-11-post Sample Matrix: DECR Sampled By: Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): U-11 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-08 **COC Number:** Receive Date: 06/01/2010 21:20 **Project Number:** 4186 Sampling Date: 05/28/2010 06:03 Sampling Location: Sample Depth: U-8-post Water Sampling Point: Sample Matrix: **DECR** Sampled By: Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): U-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information** 1007537-09 06/01/2010 21:20 COC Number: Receive Date: 4186 05/28/2010 05:41 **Project Number:** Sampling Date: Sampling Location: Sample Depth: Sampling Point: U-10-post Water Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): U-10 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-10 COC Number: Receive Date: 06/01/2010 21:20 **Project Number:** Sampling Date: 05/28/2010 06:28 4186 Sampling Location: Sample Depth: SP-2-post Water Sampling Point: Sample Matrix: DECR Delivery Work Order: Sampled By: Global ID: T0609700288 Location ID (FieldPoint): SP-2 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-11 **COC Number:** 06/01/2010 21:20 Receive Date: 05/28/2010 05:53 **Project Number:** 4186 Sampling Date: Sampling Location: Sample Depth: SP-5-post Water Sampling Point: Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): SP-5 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1007537-12 **COC Number:** Receive Date: 06/01/2010 21:20 **Project Number:** 4186 Sampling Date: 05/28/2010 05:30 Sampling Location: Sample Depth: SP-8-post Water Sampling Point: Sample Matrix: **DECR** Sampled By: Delivery Work Order: Global ID: T0609700288 Location ID (FieldPoint): SP-8 Matrix: W Sample QC Type (SACode): CS

Cooler ID:

MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1007537-01	Client Sampl	e Name:	4186, U-11-pre, 5/2	8/2010 9:15:00 <i>A</i>	AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	5.0	EPA-8260	ND	A01	1
Ethylbenzene		ND	ug/L	5.0	EPA-8260	ND	A01	1
Methyl t-butyl ether		3700	ug/L	25	EPA-8260	ND	A01	2
Toluene		ND	ug/L	5.0	EPA-8260	ND	A01	1
Total Xylenes		ND	ug/L	10	EPA-8260	ND	A01	1
1,2-Dichloroethane-d4	(Surrogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4	(Surrogate)	99.6	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate	e)	99.1	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate	:)	95.0	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	e (Surrogate)	95.4	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	e (Surrogate)	94.7	%	86 - 115 (LCL - UCL)	EPA-8260			2

			Run		QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8260	06/06/10	06/08/10 15:10	MGC	MS-V5	10	BTF0407		
2	EPA-8260	06/06/10	06/07/10 15:52	MGC	MS-V5	50	BTF0407		

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-01	Client Sampl	Client Sample Name: 4186, U-11-pre, 5/28/2010 9:15:00AM			M			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Gasoline Range Orga	nics (C4 - C12)	5400	ug/L	500	Luft	ND	A01,A91	1	
a,a,a-Trifluorotoluene (FID Surrogate)		89.9	%	70 - 130 (LCL - UCL)	Luft			1	

	Run					QC				
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	Luft	06/07/10	06/08/10 21:02	jjh	GC-V4	10	BTF0416			



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-01	Client Sampl	Client Sample Name: 4186, U-11-pre, 5/28/2010 9:15:00AM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Diesel Range Organic	cs (C12 - C24)	300	ug/L	50	Luft/TPHd	ND		1	
Tetracosane (Surroga	te)	77.9	%	28 - 139 (LCL - UCL)	Luft/TPHd			1	

	Run					QC				
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	Luft/TPHd	06/03/10	06/10/10 11:40	MWB	GC-5	1.020	BTF0715			



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-01	Client Sample	e Name:	4186, U-11-pr	re, 5/28/2010 9:15:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		95	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		52	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/09/10	06/10/10 12:04	JRG	PE-OP1	1	BTF0606	
2	EPA-300.0	06/10/10	06/10/10 11:54	LD1	IC1	1	BTF0837	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1007537-02	Client Sampl	e Name:	4186, U-8-pre, 5/28	/2010 10:05:00AN	М		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		2.1	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		3.3	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		8.3	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	97.6	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.0	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	110	%	86 - 115 (LCL - UCL)	EPA-8260			1

	Run					QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8260	06/06/10	06/07/10 15:23	MGC	MS-V5	1	BTF0407		

Delta Environmental Consultants, Inc.

Reported: 06/16/2010 16:12
11050 White Rock Rd, Suite 110

Project: 4186

Rancho Cordova, CA 95670 Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-02	Client Sampl	e Name:	4186, U-8-pre, 5/28	4186, U-8-pre, 5/28/2010 10:05:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Organics (C4 - C12)		1100	ug/L	50	Luft	ND		1	
a,a,a-Trifluorotoluene (FID Surrogate)		106	%	70 - 130 (LCL - UCL)	Luft			1	

	Run					QC				
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	Luft	06/07/10	06/08/10 17:54	jjh	GC-V4	1	BTF0416			



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-02	Client Sampl	Client Sample Name: 4186, U-8-pre, 5/28/20)10 10:05:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Diesel Range Organic	cs (C12 - C24)	650	ug/L	50	Luft/TPHd	ND		1		
Tetracosane (Surroga	te)	84.9	%	28 - 139 (LCL - UCL)	Luft/TPHd			1		

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	Luft/TPHd	06/03/10	06/10/10 11:54	MWB	GC-5	0.980	BTF0715



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	BCL Sample ID: 1007537-02 Client Sample Name:			4186, U-8-pre, 5/28/2010 10:05:00AM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		80	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		2.7	mg/L	1.0	EPA-300.0	ND		2	

			Run					
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/09/10	06/10/10 12:06	JRG	PE-OP1	1	BTF0606	
2	EPA-300.0	06/10/10	06/10/10 12:48	LD1	IC1	1	BTF0837	

Delta Environmental Consultants, Inc.

11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 **Reported:** 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1007537-03	Client Sampl	e Name:	4186, U-10-pre, 5/2	8/2010 9:38:00 <i>A</i>	AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		1.5	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		0.87	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		130	ug/L	5.0	EPA-8260	ND	A01	2
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	94.7	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4	(Surrogate)	108	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	95.4	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	96.7	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	(Surrogate)	99.9	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	93.7	%	86 - 115 (LCL - UCL)	EPA-8260			2

				QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260	06/06/10	06/07/10 14:55	MGC	MS-V5	1	BTF0407
2	EPA-8260	06/06/10	06/08/10 14:41	MGC	MS-V5	10	BTF0407

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-03	4186, U-10-pre, 5/2	4186, U-10-pre, 5/28/2010 9:38:00AM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Orga	nics (C4 - C12)	1300	ug/L	50	Luft	ND		1
a,a,a-Trifluorotoluene	(FID Surrogate)	107	%	70 - 130 (LCL - UCL)	Luft			1

	Run					QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	06/07/10	06/08/10 18:15	jjh	GC-V4	1	BTF0416	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-03	Client Sampl	e Name:	4186, U-10-pre, 5/2	4186, U-10-pre, 5/28/2010 9:38:00AM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#		
Diesel Range Organic	s (C12 - C24)	97	ug/L	50	Luft/TPHd	ND		1		
Tetracosane (Surroga	te)	81.9	%	28 - 139 (LCL - UCL)	Luft/TPHd			1		

	Run					QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	Luft/TPHd	06/03/10	06/10/10 12:08	MWB	GC-5	1.021	BTF0715		



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-03	4186, U-10-pre, 5/28/2010 9:38:00AM							
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		100	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		40	mg/L	1.0	EPA-300.0	ND		2	

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/08/10	06/09/10 18:15	JRG	PE-OP1	1	BTF0499	
2	EPA-300.0	06/10/10	06/10/10 13:01	LD1	IC1	1	BTF0837	

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1007537-04	Client Sampl	e Name:	4186, SP-2-pre, 5/2	8/2010 12:15:00	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		40	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		9.1	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		370	ug/L	25	EPA-8260	ND	A01	2
Toluene		4.0	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		6.3	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	112	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4	(Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate	e)	100	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate	:)	98.3	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	e (Surrogate)	99.8	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	e (Surrogate)	94.8	%	86 - 115 (LCL - UCL)	EPA-8260			2

			QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260	06/06/10	06/08/10 11:45	MGC	MS-V5	1	BTF0407
2	EPA-8260	06/06/10	06/07/10 16:21	MGC	MS-V5	50	BTF0407

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-04	Client Sampl	e Name:	4186, SP-2-pre, 5/2	8/2010 12:15:00P	М			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Orga	nics (C4 - C12)	4300	ug/L	500	Luft	ND	A01	1	
a,a,a-Trifluorotoluene	(FID Surrogate)	98.2	%	70 - 130 (LCL - UCL)	Luft			1	

	Run							
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	06/07/10	06/09/10 14:53	jjh	GC-V4	10	BTF0416	

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1007537-05	Client Sampl	e Name:	4186, SP-5-pre, 5/2	8/2010 1:15:00F	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		1.1	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		2.4	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Sui	rrogate)	111	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		96.9	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Su	ırrogate)	97.6	%	86 - 115 (LCL - UCL)	EPA-8260			1

		Run		QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	06/06/10	06/08/10 10:42	MGC	MS-V5	1	BTF0407	

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-05	Client Sampl	e Name:	4186, SP-5-pre, 5/2	4186, SP-5-pre, 5/28/2010 1:15:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#		
Gasoline Range Orga	nics (C4 - C12)	880	ug/L	50	Luft	ND		1		
a,a,a-Trifluorotoluene	(FID Surrogate)	101	%	70 - 130 (LCL - UCL)	Luft			1		

	Run				QC			
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	06/07/10	06/08/10 18:57	jjh	GC-V4	1	BTF0416	

MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1007537-06	Client Sampl	e Name:	4186, SP-8-pre, 5/2	8/2010 12:44:00	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		2.4	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		44	ug/L	0.50	EPA-8260	ND		1
Toluene		0.94	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		4.2	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	114	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.5	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run		QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	06/06/10	06/08/10 11:17	MGC	MS-V5	1	BTF0407	

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1007537-06	Client Sampl	e Name:	4186, SP-8-pre, 5/28/2010 12:44:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Orga	nics (C4 - C12)	900	ug/L	50	Luft	ND		1	
a,a,a-Trifluorotoluene	(FID Surrogate)	96.3	%	70 - 130 (LCL - UCL)	Luft			1	

	Run				QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	06/07/10	06/08/10 19:18	jjh	GC-V4	1	BTF0416	

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-06	Client Sample Name: 4186, SP-8-pre, 5/28/2010 12:44:00PM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Sulfate		4.0	mg/L	1.0	EPA-300.0	ND		1

	Run						QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID				
1	EPA-300.0	06/10/10	06/10/10 13:15	LD1	IC1	1	BTF0837				



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-07	Client Sample	e Name:	4186, U-11-po	ost, 5/28/2010 5:10:00A	М		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Magnesium		7800	mg/L	0.50	EPA-6010B	ND	A01	1
Sulfate		150000	mg/L	500	EPA-300.0	ND	A01	2

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/09/10	06/10/10 14:01	JRG	PE-OP1	10	BTF0606	
2	EPA-300.0	06/10/10	06/11/10 11:44	LD1	IC1	500	BTF0837	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID:	1007537-08	Client Sampl	e Name:	4186, U-8-pos	st, 5/28/2010 6:03:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		91	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		8.7	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/08/10	06/09/10 18:21	JRG	PE-OP1	1	BTF0499	
2	EPA-300.0	06/10/10	06/14/10 15:12	LD1	IC1	1	BTF0837	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-09	Client Sample	e Name:	4186, U-10-po	ost, 5/28/2010 5:41:00AN	1			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		110	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		75	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/09/10	06/10/10 14:19	JRG	PE-OP1	1	BTF0606	
2	EPA-300.0	06/10/10	06/10/10 14:22	LD1	IC1	1	BTF0837	

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-10	Client Sample	e Name:	4186, SP-2-p	ost, 5/28/2010 6:28:00A	M		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Sulfate		38	mg/L	1.0	EPA-300.0	ND		1

	Run						QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-300.0	06/10/10	06/10/10 14:36	LD1	IC1	1	BTF0837		

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1007537-11	Client Sample	e Name:	4186, SP-5-p	ost, 5/28/2010 5:53:00A	M		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Sulfate		55	mg/L	1.0	EPA-300.0	ND		1

Run						QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-300.0	06/10/10	06/10/10 14:49	LD1	IC1	1	BTF0837		

Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID:	1007537-12	Client Sample	e Name:	4186, SP-8-post, 5/28/2010 5:30:00AM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Sulfate	·	120	mg/L	1.0	EPA-300.0	ND	<u> </u>	1	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-300.0	06/10/10	06/10/10 15:03	LD1	IC1	1	BTF0837	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF0407						
Benzene	BTF0407-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTF0407-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTF0407-BLK1	ND	ug/L	0.50		
Toluene	BTF0407-BLK1	ND	ug/L	0.50		
Total Xylenes	BTF0407-BLK1	ND	ug/L	1.0		
1,2-Dichloroethane-d4 (Surrogate)	BTF0407-BLK1	104	%	76 - 114	(LCL - UCL)	
Toluene-d8 (Surrogate)	BTF0407-BLK1	99.8	%	88 - 110	(LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	BTF0407-BLK1	102	%	86 - 115	(LCL - UCL)	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

							Control Limits			
0	00.0	-	D 14	Spike	11.26.	Percent	DDD	Percent	DDD	Lab Osala
Constituent	QC Sample ID	Туре	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals
QC Batch ID: BTF0407										
Benzene	BTF0407-BS1	LCS	23.670	25.000	ug/L	94.7		70 - 130		
Toluene	BTF0407-BS1	LCS	22.750	25.000	ug/L	91.0		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTF0407-BS1	LCS	10.070	10.000	ug/L	101		76 - 114		
Toluene-d8 (Surrogate)	BTF0407-BS1	LCS	9.7300	10.000	ug/L	97.3		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTF0407-BS1	LCS	9.7600	10.000	ug/L	97.6		86 - 115		



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

							·		Control Limits		
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTF0407	Batch ID: BTF0407 Used client sample: N										
Benzene	MS	1007379-02	ND	25.100	25.000	ug/L		100		70 - 130	
	MSD	1007379-02	ND	25.960	25.000	ug/L	3.4	104	20	70 - 130	
Toluene	MS	1007379-02	ND	23.680	25.000	ug/L		94.7		70 - 130	
	MSD	1007379-02	ND	25.270	25.000	ug/L	6.5	101	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1007379-02	ND	10.390	10.000	ug/L		104		76 - 114	
	MSD	1007379-02	ND	10.610	10.000	ug/L		106		76 - 114	
Toluene-d8 (Surrogate)	MS	1007379-02	ND	9.6700	10.000	ug/L		96.7		88 - 110	
	MSD	1007379-02	ND	9.9600	10.000	ug/L		99.6		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1007379-02	ND	10.260	10.000	ug/L		103		86 - 115	
	MSD	1007379-02	ND	9.5600	10.000	ug/L		95.6		86 - 115	
	MSD MS	1007379-02 1007379-02	ND ND	9.9600 10.260	10.000	ug/L ug/L		99.6		88 - 110 86 - 115	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF0416						
Gasoline Range Organics (C4 - C12)	BTF0416-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF0416-BLK1	82.3	%	70 - 130	(LCL - UCL)	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

								Control L	imits.	
		_		Spike		Percent		Percent		
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals
QC Batch ID: BTF0416										
Gasoline Range Organics (C4 - C12)	BTF0416-BS1	LCS	1034.0	1000.0	ug/L	103		85 - 115		



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Туре	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTF0416	Used	client sample	: N								
Gasoline Range Organics (C4 - C12)	MS	1005654-91	ND	1046.9	1000.0	ug/L		105		70 - 130	
	MSD	1005654-91	ND	1001.6	1000.0	ug/L	4.4	100	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1005654-91	ND	36.089	40.000	ug/L		90.2		70 - 130	
	MSD	1005654-91	ND	36.616	40.000	ug/L		91.5		70 - 130	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF0715						
Diesel Range Organics (C12 - C24)	BTF0715-BLK1	ND	ug/L	50		M02
Tetracosane (Surrogate)	BTF0715-BLK1	86.1	%	28 - 139	(LCL - UCL)	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

								Control L	imits	
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
QC Batch ID: BTF0715										
Diesel Range Organics (C12 - C24)	BTF0715-BS1	LCS	374.42	500.00	ug/L	74.9		48 - 125		
Tetracosane (Surrogate)	BTF0715-BS1	LCS	18.280	20.000	ug/L	91.4		28 - 139		



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTF0715	Used	client sample:	: N								
Diesel Range Organics (C12 - C24)	MS	1005654-96	28.443	365.91	500.00	ug/L		67.5		36 - 130	
	MSD	1005654-96	28.443	328.97	500.00	ug/L	11.6	60.1	30	36 - 130	
Tetracosane (Surrogate)	MS	1005654-96	ND	18.109	20.000	ug/L		90.5		28 - 139	
	MSD	1005654-96	ND	15.562	20.000	ug/L		77.8		28 - 139	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF0499						
Total Magnesium	BTF0499-BLK1	ND	mg/L	0.050		
QC Batch ID: BTF0606						
Total Magnesium	BTF0606-BLK1	ND	mg/L	0.050		
QC Batch ID: BTF0837						
Sulfate	BTF0837-BLK1	ND	mg/L	1.0		



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

								Control L	imits.	
Constituent	OC Sample ID	Tuno	Result	Spike Level	Units	Percent	RPD	Percent	RPD	Lab Quals
Constituent	QC Sample ID	Туре	Resuit	Level	Ullits	Recovery	KPD	Recovery	KPD	Lab Quais
QC Batch ID: BTF0499										
Total Magnesium	BTF0499-BS1	LCS	10.888	10.000	mg/L	109		85 - 115		
QC Batch ID: BTF0606										
Total Magnesium	BTF0606-BS1	LCS	11.430	10.000	mg/L	114		85 - 115		
QC Batch ID: BTF0837										
Sulfate	BTF0837-BS1	LCS	103.08	100.00	mg/L	103		90 - 110		



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTF0499	Used	client sample:	N								
Total Magnesium	DUP	1007643-01	71.695	70.294		mg/L	2.0		20		
	MS	1007643-01	71.695	85.193	10.000	mg/L		135		75 - 125	A03
	MSD	1007643-01	71.695	87.874	10.000	mg/L	18.1	162	20	75 - 125	A03
QC Batch ID: BTF0606	Used	client sample:	N								
Total Magnesium	DUP	1007763-01	49.379	50.141		mg/L	1.5		20		
	MS	1007763-01	49.379	63.520	10.000	mg/L		141		75 - 125	A03
	MSD	1007763-01	49.379	61.308	10.000	mg/L	17.0	119	20	75 - 125	
QC Batch ID: BTF0837	Used	client sample:	Y - Descr	iption: U-11-	pre, 05/28/2	010 09:15	5				
Sulfate	DUP	1007537-01	51.964	52.482		mg/L	1.0		10		
	MS	1007537-01	51.964	160.99	101.01	mg/L		108		80 - 120	
	MSD	1007537-01	51.964	161.93	101.01	mg/L	0.9	109	10	80 - 120	



Reported: 06/16/2010 16:12

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Notes And Definitions

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit RPD Relative Percent Difference

PQL's and MDL's are raised due to sample dilution. A01

A03 The sample concentration is more than 4 times the spike level.

A91 TPH does not exhibit a "gasoline" pattern. TPH is entirely due to MTBE.

M02 Analyte detected in the Method Blank at a level between the PQL and 1/2 the PQL.



Date of Report: 06/22/2010

Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

RE: 4186 BC Work Order: 1008054 Invoice ID: B082255

Enclosed are the results of analyses for samples received by the laboratory on 6/10/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Molly Meyers

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



Table of Contents

Sample Information	
Chain of Custody and Cooler Receipt form	3
Laboratory / Client Sample Cross Reference	5
Sample Results	
1008054-01 - U-11-WK2	
Water Analysis (General Chemistry)	7
1008054-02 - U-8-WK2	
Water Analysis (General Chemistry)	8
1008054-03 - U-10-WK2	
Water Analysis (General Chemistry)	9
1008054-04 - SP-2-WK2	
Water Analysis (General Chemistry)	10
1008054-05 - SP-5-WK2	
Water Analysis (General Chemistry)	11
1008054-06 - SP-8-WK2	
Water Analysis (General Chemistry)	12
1008054-07 - U-4-WK2	
Water Analysis (General Chemistry)	13
Quality Control Reports	
Water Analysis (General Chemistry)	
Method Blank Analysis	14
Laboratory Control Sample	
Precision and Accuracy	
Notes	
Notes and Definitions	17

Chain of	G	
Chain of Custody and Cooler Receipt Form for 1008054	Laboratories, Inc.	
054		_

ı	℧
ı	a
ı	9
ı	ē
ı	
ı	_
ı	0
ı	-
ı	N

Not Field Filtered

Various Preservatives Not Field Filtered

Various Preservatives

Not Field Filtered Various Preservatives Not Field Filtered

1050

مااعآ

BC Lab	oratories, Inc.							CO	nocc	Pn	шр	S)na	n ()t (Cu	sto	dy	Re	cor	d					
4400	44 0		oPhillips						Terry (rayso	on		_					Co	iocaPi	allips S	AP Project	Numb	er			
	Atlas Court	INVOIC	E REMIT	TANCE	ADDR	ESS:				CON	OCOP	san i i	ne				ľ	1		-					0.0	0
Bakersfi	eld, CA 93308	1								Attn:	: Dee I	Hutch	inson					Conc	. 100.00		dalfon/Li		Spragnis (1)	DATE:	4604	u-
(661) 327-4911	(661) 327-1918 fax	1									l South ta Ana,		or, Sui 92704	te 200)			Conte	Ormen	ha rordr	attron / Li	ne Nun	nter	PAGE	0609	r
BAMPLING COMPANY:		Welld Volum is	0:			СОМОСОРИ	TLUPS SM	CNUMB	ER.										_							,
Delta Consultants						SS# 418															LID NO.:					
ADDRESS:						SITE ADDRES	SS (Street	and City	()c		_	_			_	_		++	-		010177		ANACOD:			
PROJECT CONTACT (Hards	oad #110, Rancho Cordov	a, CA 9567	0			1771 1st	St. Live	mon	e. CA											1			mau.			
	James Barr					EDF DOLING										-		1			Graysor	'				
TELEPHONE: (916) 503-1279	PAX:	E-MAIL:	No. of the contract of the con			1			goner (De	llat						916-		279/75		E-MAL: Terry L.	Grayson@:	contra	TAB 08			
SAMPLER HAME(S) (Print):	(916) 638-8385		gdeltsenv.t			Gills Gasti	ran G T Ja	111 454	goner (De	naj										gipt,com	acophilips.	com	10	30	MELL	
	emello-Rice	CONSULTAN	7 PROJECT NU C10418			1									DEO	HEST	ED /	NALY	ere	_					000	A ROSE DE PRODUCTION
TURNAROUND TIME (CA			01041	00205		_									recu	ULS	COA	NAL I	aca							
	72 HOURS 1 48 HOURS 1	24 HOURS	LESS	5 THUN 24 F	OURS	1		1	1								П		Г			П	\neg			
						-			1					ш							- 1 - 1					
SPECIAL INSTRUCTIO	NS OR NOTES:	CHECK	BOX IF EDD	IS NEEDER		4			8					П											FIELD NO	TES:
		0.1.2011	DOWN LEED	- ALLEGE	(5)	l _	l		. <u>ē</u>					ш							- 1 - 1				Container/Pres	servative
**8 day turnaro	und time.					FE	MTBE		mniseuse	1															or PID Rea	
						19. T	3		€					H											or Laborator	y Notes
1						E E	втех,	Sulfate	Total					Ш							- 1 - 1					
* Field Point name of	only required if different from	Sample ID)			1 =										ш					- 1					
.056	tification/Field Point		PLING	MATRIX	NO.OF	8015M	82608	300.0	80108					П		ш								TEMP	ERATURE ON RE	CEIPT C*
OWLY	Name*	DATE	TIME		CONT.	8	66	8	- 8															1.2		
-13	U-11-WK2	6/7/10	2:30	H2O	2			×	x													\neg			Various Prese	
2	U-8-WK2	6/7/10	1:30	H2O				x	×							1	+	++		+	+	-	\rightarrow	+	Not Field Fi Various Prese	
- 2		67/10	1:30	H2O	2		_	+		-	-		- 01	10	1	ř		-	-Million	_					Not Field Fi	iltered
3	U-10-WK2	6/7/10	3:15	H2O	2			X	×					- 1	Z,	-	d.	UR	30	TION	4	7			Various Prese Not Field Fi	
141	SP-2-Wk2	6/7/10	10:20	H2O	,			x	×			- :1	C		T	0	1	NI	Ti Chan		7	11		+	Various Prese	

х

х х

х х

samma

a a Para succ

FED EX THACKING # 8632 0760 9738

10:30 H2O

2

Received by: (Signature)

11:00 H2O

3:45 H2O

12:45 H2O

6/7/10

6/7/10

6/7/10

6/7/10

SP-2-Wk2

SP-5-WK2

SP-8-WK2

U-4-WK2

7



Chain of Custody and Cooler Receipt Form for 1008054 Page 2 of 2

BC LABORATORIES INC.		SAMPLE	RECEI	TFORM		. No. 12	06/24/08	Page 1	014	
Submission#: 1008059	7					CLUDDU	10.001		-	
SHIPPING INFO Federal Express # UPS BC Lab Field Service Other	Hand Deliv □ (Specify)	ery 🗆		1	ce Chest E	2	Othe	FAINEK e □ r □ (Spec	ify)	
Refrigerant: Ice D Blue Ice	□ None (⊃ Otl	her 🗆 🔻	Comment	-					
Custody Seals Ice Chest Intact? Yes No	Containe		None 🖄	Comme	nts:					
All samples received? Yes Ø No□	All samples							h COC? Y		
. /)	Emissivity: _ Temperature:						1]	Date/Time Analyst Ir	<u>JUN 1</u> nit <u>BL7</u>	0 2010
					SAMPLE	UMBERS				
SAMPLE CONTAINERS	1	2	3	4	5	6				10
OT GENERAL MINERALI GENERAL PHYSICA	L									
PT PE UNPRESERVED	A	_A	A	A	4	4	A.			
QT INORGANIC CHEMICAL METALS				-						-
PT INORGANIC CHEMICAL METALS	16	00	122	B	13	13	13			
PT CYANIDE				1						
PT NITROGEN FORMS										-
PT TOTAL SULFIDE										
202. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON				-				-		
PT TOX				-						-
PT CHEMICAL OXYGEN DEMAND				-						1
PIA PHENOLICS					-					-
40mi VOA VIAL TRAVEL BLANK			-		<u> </u>				<u> </u>	
40mt VOA VIAL			4					<u> </u>		
QT EPA 413.1, 413.2, 418.1			-	-	-			-		-
PT ODOR			-	-					-	-
RADIOLOGICAL			-	-		-		-		1
BACTERIOLOGICAL			-	-	-					1
40 ml VOA VIAL-504			-	-			-	-		+
QT EPA 508/608/8080			-	-	-		-	-		
OT EPA 515.1/8150				+	 		-	+	-	+
QT EPA 525			+	-				-	 	+
QT EPA 525 TRAVEL BLANK			-	+		-		-		+
100ml EPA 547				-	 			-	-	+
100ml EPA 531.1					+					
QT EPA 548		 		 			-	 	-	
QT EPA 549				-				-		-
QT EPA 632		-	-	-	-			 		+
QT EPA 8015M		-	-	-	-			+	 	+
OT AMBER		 			-			-	-	+
8 OZ. JAR			-	-			 		-	
32 OZ JAR	-	-			-	-	-	-	-	
SOILSLEEVE				-	+		-	+		-
PCB VIAL			-	+	+	-	-	+		-
PLASTIC BAG	-	-	-	-	-	-		-		-
FERROUS IRON		-	-		1	-	-	-	+	-
ENCORE					Jana					-
Comments: Sample Numbering Completed By: A = Actual / C = Corrected	wat	Date/	Time:\0~	070	1750	[H:/DOCSWP	BOILAB_DOC	SIFORNISISAMF	REC2.WPD)	



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1008054-01 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: U-11-WK2 Sampled By: DECR **Receive Date:** 06/10/2010 10:50 **Sampling Date:** 06/07/2010 02:30

Sample Depth: ---Sample Matrix: Water

Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): U-11

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008054-02 COC Number: --

Project Number: 4186
Sampling Location: --Sampling Point: U-8-V

Sampling Point: U-8-WK2 Sampled By: U-8-WK2 **Receive Date:** 06/10/2010 10:50 **Sampling Date:** 06/07/2010 01:30

Sample Depth: --Sample Matrix: Water
Delivery Work Order:

Global ID: T0600101777 Location ID (FieldPoint): U-8

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008054-03 COC Number: --

Project Number: 4186
Sampling Location: ---

Sampling Point: U-10-WK2 Sampled By: DECR **Receive Date:** 06/10/2010 10:50 **Sampling Date:** 06/07/2010 03:15

Sample Depth: --Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777
Location ID (FieldPoint): U-10

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008054-04 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-2-WK2 Sampled By: DECR **Receive Date:** 06/10/2010 10:50 **Sampling Date:** 06/07/2010 10:30

Sample Depth: --Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777
Location ID (FieldPoint): SP-2

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information** 1008054-05 06/10/2010 10:50 COC Number: Receive Date: Sampling Date: **Project Number:** 4186 06/07/2010 11:00 Sampling Location: Sample Depth: Sampling Point: SP-5-WK2 Water Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): SP-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:

1008054-06 COC Number: --- Receive Date:

Project Number:4186Sampling Date:06/07/2010 03:45Sampling Location:---Sample Depth:---

Sampling Point: SP-8-WK2 Sample Matrix: Water Sampled By: DECR Delivery Work Order:

Global ID: T0600101777 Location ID (FieldPoint): SP-8

06/10/2010 10:50

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008054-07 COC Number: --- Receive Date: 06/10/2010 10:50

Project Number:4186Sampling Date:06/07/2010 12:45Sampling Location:---Sample Depth:---

Sampling Point:U-4-WK2Sample Matrix:WaterSampled By:DECRDelivery Work Order:Global ID: T0600101777

Location ID (FieldPoint): U-4

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1008054-01	Client Sample	Name:	4186, U-11-V	VK2, 6/7/2010 2:30:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		1200	mg/L	0.10	EPA-6010B	ND	A01	1	
Sulfate		5000	mg/L	20	EPA-300.0	ND	A01	2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:17	ARD	PE-OP1	2	BTF1014	
2	EPA-300.0	06/18/10	06/19/10 00:06	SDU	IC5	20	BTF1381	



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID:	1008054-02	Client Sample	e Name:	4186, U-8-Wh	K2, 6/7/2010 1:30:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		67	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		6.7	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:05	ARD	PE-OP1	1	BTF1014	
2	EPA-300.0	06/18/10	06/18/10 15:02	LD1	IC1	1	BTF1383	



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1008054-03	Client Sample	e Name:	4186, U-10-W	/K2, 6/7/2010 3:15:00AM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Magnesium		98	mg/L	0.050	EPA-6010B	ND		1
Sulfate		50	mg/L	1.0	EPA-300.0	ND		2

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:07	ARD	PE-OP1	1	BTF1014	
2	EPA-300.0	06/18/10	06/18/10 15:15	LD1	IC1	1	BTF1383	



MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 **Reported:** 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1008054-04	Client Sample	e Name:	4186, SP-2-W	K2, 6/7/2010 10:30:00A	И			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		170	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		330	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:09	ARD	PE-OP1	1	BTF1014	
2	EPA-300.0	06/18/10	06/19/10 04:25	SDU	IC5	1	BTF1381	



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1008054-05	Client Sample	e Name:	4186, SP-5-W	VK2, 6/7/2010 11:00:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		62	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		29	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:11	ARD	PE-OP1	1	BTF1014	
2	EPA-300.0	06/18/10	06/19/10 04:40	SDU	IC5	1	BTF1381	



MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1008054-06	Client Sample	e Name:	4186, SP-8-W	/K2, 6/7/2010 3:45:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		140	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		310	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:13	ARD	PE-OP1	1	BTF1014	
2	EPA-300.0	06/18/10	06/19/10 04:54	SDU	IC5	1	BTF1381	



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID:	1008054-07	Client Sample	e Name:	4186, U-4-WK	2, 6/7/2010 12:45:00PM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		96	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		41	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/15/10	06/16/10 13:15	ARD	PE-OP1	1	BTF1014	
2	EPA-300.0	06/18/10	06/19/10 05:08	SDU	IC5	1	BTF1381	



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1014						
Total Magnesium	BTF1014-BLK2	ND	mg/L	0.050		
QC Batch ID: BTF1381						
Sulfate	BTF1381-BLK1	ND	mg/L	1.0		
QC Batch ID: BTF1383						
Sulfate	BTF1383-BLK1	ND	mg/L	1.0		



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

								Control L	imits.	
Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent	RPD	Percent	RPD	Lab Quals
Constituent	QC Sample ID	Туре	Resuit	Level	Ullits	Recovery	KPD	Recovery	KPD	Lab Quais
QC Batch ID: BTF1014										
Total Magnesium	BTF1014-BS2	LCS	10.271	10.000	mg/L	103		85 - 115		
QC Batch ID: BTF1381										
Sulfate	BTF1381-BS1	LCS	98.297	100.00	mg/L	98.3		90 - 110		
QC Batch ID: BTF1383										
Sulfate	BTF1383-BS1	LCS	103.79	100.00	mg/L	104		90 - 110		

Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

		·	·	·	·		·	Cont	rol Limits	
	Source	Source		Spike			Percent		Percent	Lab
Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
Used	client sample:	: N								
DUP	1008073-02	332.78	333.40		mg/L	0.2		20		
MS	1008073-02	332.78	343.42	10.000	mg/L		106		75 - 125	
MSD	1008073-02	332.78	342.74	10.000	mg/L	6.6	99.7	20	75 - 125	
Used	client sample:	: N								
DUP	1008058-01	2065.4	2050.2		mg/L	0.7		10		
MS	1008058-01	2065.4	3151.0	1010.1	mg/L		107		80 - 120	
MSD	1008058-01	2065.4	3109.5	1010.1	mg/L	3.9	103	10	80 - 120	
Used	client sample:	: N								
DUP	1008453-01	69.418	68.787		mg/L	0.9		10		
MS	1008453-01	69.418	181.17	101.01	mg/L		111		80 - 120	
MSD	1008453-01	69.418	180.73	101.01	mg/L	0.4	110	10	80 - 120	
	Used DUP MS MSD Used DUP MS MSD Used DUP MS DUP MS	Type Sample ID Used client sample: DUP DUP 1008073-02 MS 1008073-02 MSD 1008073-02 Used client sample: DUP MS 1008058-01 MSD 1008058-01 Used client sample: DUP DUP 1008453-01 MS 1008453-01	Type Sample ID Result Used client sample: N DUP 1008073-02 332.78 MS 1008073-02 332.78 MSD 1008073-02 332.78 Used client sample: N DUP 1008058-01 2065.4 MSD 1008058-01 2065.4 MSD 1008058-01 2065.4 Used client sample: N DUP 1008453-01 69.418 MS 1008453-01 69.418	Type Sample ID Result Result Used client sample: N DUP 1008073-02 332.78 333.40 MS 1008073-02 332.78 343.42 MSD 1008073-02 332.78 342.74 Used client sample: N DUP 1008058-01 2065.4 2050.2 MS 1008058-01 2065.4 3151.0 MSD 1008058-01 2065.4 3109.5 Used client sample: N DUP 1008453-01 69.418 68.787 MS 1008453-01 69.418 181.17	Type Sample ID Result Result Added Used client sample: N DUP 1008073-02 332.78 333.40 MS 1008073-02 332.78 343.42 10.000 MSD 1008073-02 332.78 342.74 10.000 Used client sample: N DUP 1008058-01 2065.4 2050.2 MS 1008058-01 2065.4 3151.0 1010.1 MSD 1008058-01 2065.4 3109.5 1010.1 Used client sample: N DUP 1008453-01 69.418 68.787 MS 1008453-01 69.418 181.17 101.01	Type Sample ID Result Added Units Used client sample: N DUP 1008073-02 332.78 333.40 mg/L MS 1008073-02 332.78 343.42 10.000 mg/L MSD 1008073-02 332.78 342.74 10.000 mg/L Used client sample: N ng/L mg/L mg/L MS 1008058-01 2065.4 2050.2 mg/L MSD 1008058-01 2065.4 3151.0 1010.1 mg/L MSD 1008058-01 2065.4 3109.5 1010.1 mg/L Used client sample: N DUP 1008453-01 69.418 68.787 mg/L MS 1008453-01 69.418 68.787 mg/L MS 1008453-01 69.418 181.17 101.01 mg/L	Type Sample ID Result Added Units RPD Used client sample: N DUP 1008073-02 332.78 333.40 mg/L 0.2 MS 1008073-02 332.78 343.42 10.000 mg/L 6.6 Used client sample: N DUP 1008058-01 2065.4 2050.2 mg/L 0.7 MS 1008058-01 2065.4 3151.0 1010.1 mg/L 3.9 Used client sample: N DUP 1008453-01 69.418 68.787 mg/L 0.9 MS 1008453-01 69.418 181.17 101.01 mg/L 0.9	Type Sample ID Result Added Units RPD Recovery Used client sample: N DUP 1008073-02 332.78 333.40 mg/L 0.2 106 MSD 1008073-02 332.78 343.42 10.000 mg/L 6.6 99.7 Used client sample: N DUP 1008058-01 2065.4 2050.2 mg/L 0.7 107 MSD 1008058-01 2065.4 3151.0 1010.1 mg/L 3.9 103 Used client sample: N DUP 1008453-01 69.418 68.787 mg/L 0.9 111 MS 1008453-01 69.418 181.17 101.01 mg/L 0.9 111	Source Type Source Sample ID Source Result Spike Added Units Percent Recovery Percent Recovery RPD Used client sample: N 1008073-02 332.78 333.40 mg/L 0.2 20 MS 1008073-02 332.78 343.42 10.000 mg/L 106 99.7 20 MSD 1008073-02 332.78 342.74 10.000 mg/L 6.6 99.7 20 Used client sample: N mg/L 0.7 10	Type Sample ID Result Added Units RPD Recovery RPD Recovery Used client sample: N DUP 1008073-02 332.78 333.40 mg/L 0.2 20 20 MS 1008073-02 332.78 343.42 10.000 mg/L 6.6 99.7 20 75 - 125 MSD 1008073-02 332.78 342.74 10.000 mg/L 6.6 99.7 20 75 - 125 Used client sample: N 1008058-01 2065.4 2050.2 mg/L 0.7 10 80 - 120 MS 1008058-01 2065.4 3151.0 1010.1 mg/L 3.9 103 10 80 - 120 Used client sample: N DUP 1008453-01 69.418 68.787 mg/L 0.9 10 80 - 120 MS 1008453-01 69.418 181.17 101.01 mg/L 0.9 10



Reported: 06/22/2010 15:01

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Notes And Definitions

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

Practical Quantitation Limit PQL RPD Relative Percent Difference

PQL's and MDL's are raised due to sample dilution. A01



Date of Report: 07/09/2010

Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

RE: 4186 BC Work Order: 1008804 Invoice ID: B083127

Enclosed are the results of analyses for samples received by the laboratory on 6/25/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Molly Meyers

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



Table of Contents

Sample Information	
Chain of Custody and Cooler Receipt form	3
Laboratory / Client Sample Cross Reference	5
Sample Results	
1008804-01 - U-11-WK4	
Water Analysis (General Chemistry)	7
1008804-02 - U-8-WK4	
Water Analysis (General Chemistry)	8
1008804-03 - U-10-WK4	
Water Analysis (General Chemistry)	9
1008804-04 - SP-2-WK4	
Water Analysis (General Chemistry)	10
1008804-05 - SP-5-WK4	
Water Analysis (General Chemistry)	11
1008804-06 - SP-8-WK4	
Water Analysis (General Chemistry)	12
Quality Control Reports	
Water Analysis (General Chemistry)	
Method Blank Analysis	13
Laboratory Control Sample	14
Precision and Accuracy	
Notes	
Notes and Definitions	16

П
õ
w

Chain of Custody and Cooler Receipt Form for 1008804 Laboratories, Inc. Environmental Testing Laboratory Since 1949

Page 1 of 2

	BC Laborat	ories, Inc.							Со	noco	Phillip	os C	hain	Of 0	Cus	tod	y R	ec	or	d						
			Conoco	Phillips	Site Ma	nager:				Terry G	rayson					200	Cono	ooPNI	lips 84	P Pro	jest Numb	per				
	4100 Atla	s Court	INVOICE	REMITT	TANCE A	ADDRE	SS:				CONOCO	DHII LID!											5/24/2	1040		
	Bakersfield,										Attn: Dee 3611 Sout	Hutchin th Harbo	son r, Suite :	200			Conocal	Philip	Requ	sition	/ Line Nu				1 6	1
		i1) 327-1918 fax									Santa Ana	, CA. 92	704									\neg				
	COMPANY:		Valid Value (0)				COVOCOMI		NUMBE	DR.								- 1	BLOB4				_			
ADDRESS	onsultants		L				SS# 4186		-4.00	4.			-					_			1777					
		1110, Rancho Cordova	, CA 95670)			1771 1st			-									Геггу			POPULACIÓN:				
PROJEC	CONTACT (Haresepy o	FOF Report let: James Barn	ard				EDF DELINGS								PHONE N				nan.	Gray	SOII	1.7307	SEON			
TELEPHO		FAX:	E-WAL:				1			goner (Delt	•1				916-5		9/1275	5 3	Servil.	annyar	on@contra		Co	2000	× 1	
(916) 50		(916) 638-8385	jbarnard@				Juli Dalla	and r Jak	1 7705	goner toen	a,				L			- 5	tor.com	occoh	(las.com	1000	U	100		
	Jody Deme		CONSULTANT	C10418										REQ	UESTE	D AN	ALYS	ES							•	
	OUND TIME (CALEN	DAR DAYS): 72 HOURS 🔲 48 HOURS [7 za urvies	□ ,ess	THWN 24 H	nue.			Г						П	\top		П	Т	Т		П	\top			
		Eroora D 49 roora E	2 24110013		11984 24 11		1																			
Special	INSTRUCTIONS	NO NOTES:	CHECK	OOX IF EDD I	s Neenen	121	1			ε					11									1-11	ELD NOT	ES:
or con-	- mornacriano	in notes.					- T	ш		18							Ш								ainen/Prese - PID Readi	
**8 d	ay turnaround	time.					ТРНО	MTBE		8							1 1					1 1			aboratory	
							тРН9,1	8	8	Total magnesit																
							Ē	BTEX,	Sulfate	100							Ш									
		equired if different from cation/Field Point	Sample ID SAMP	I INCO			8015M -			ė							Ш						L.			
OWLY.		ame*	DATE	TIME	MATRIX	NO, OF CONT.	8	\$260B	300.0	60108													"	EMPERATU	IRE ON REC	EIPT C*
ŠE.	11.4	1-WK4	6/24/10	5:00	H2O	2			х	×					\vdash	_		\neg	\top	\top	\neg		\neg		us Preser	
2									x	×		1-			+	+	\vdash	+	+	+	+		+		t Field Fill us Preser	
	U-l	-WK4	6/24/10	3:35	H2O	2			-	-		-			\vdash	+-	\vdash	+	+	+		\vdash	-		t Field Filt us Preser	
3	U-1	D-WK4	6/24/10	4:15	H2O	2			X	×						4				_		\sqcup	_	No	t Field Filt	ered
9	SP-	2-Wk4	6/24/10	1:30	H2O	2			х	×			QH.	KBY	1		TR	SΨ	TID	N					us Preser t Field Filt	
5	SP-	5-WK4	6/24/10	2:10	H2O	2			×	х			1	7	1	14 N	X.			-					us Preser t Field Filt	
9		8-WK4	6/24/10	2:55	H2O	2			×	х			U		1	+	SU	3-0	υĖ	T.			_	Vario	us Preser	vatives
-	ar-	p-1870-4	6/24/10	2:00	HZO				\vdash			++	-	-	-	-		+	-	-	more contract		+		t Field Filt us Preser	
									_			++	-	-	-	-		+	+	+		-	+	No	t Field Filt	ered
023																\perp										
192																										
		20								,						\top			\top	\top						
Rosnquid	TON CORDINATIONS				Received by	(Signature)	Poss	() _A ·	Ź	r fca	7							6	15		10		Time.	22	<u> </u>	
Retriquiste	or programmed &	so Dicla	3 6/28	-/13	Received by	2º		1	_	_ 1								6	25	Ţ	10		Time:1	L73	7	
5.	Dispusible	1 1 200	102	0.63	Received by	(SHOP NO.												Diffe	ريرا	5	7 .	\neg	Time:	70	1	
\sim	muy i	- 12 am	102	94(O	2													Ψl	C	3/	u			W	50	



Chain of Custody and Cooler Receipt Form for 1008804 Page 2 of 2

		-		446015	DEACHDE	FORM	Down	No. 12 (6/24/08	Page _	01	
C LABORATORIES INC.			s	AMPLE	RECEIPT	FORIN	Rev.	NO. 12	10/24100	· ago		
	0880r				т-				O CONT	AINED		
SHIPI ederal Express CLab Field Service	PING INFO UPS 🗆 Other	Hai	nd Delive		_	lc	e Chest ☑ Box ☐		None		ify)	
Refrigerant: Ice 🗹	Blue Ice		None [omments						
ustody Seals Ice Cho	est⊡ es⊡ No⊡	Int	ontainer	No □	None, Ø						os 🗆 No. I	
III samples received? Yes	s⊄ No□				intact? Ye							
COC Received		Emi	ssivity: _	0 <u>490</u> 2	ontainer: 1	<u>рьсе</u> т	nermomet 3.8	er ID: <u>\</u>		Date/Tim Analyst I	nit <u>JDW</u>) Version
THE PARTY OF THE P		T				-	SAMPLE N					4
SAMPLE CONTAL	NERS	ħ	1	2	1	4	5	6	7	В	1 8	10
t GENERAL MINERAL/ GEN	ERAL PHYSIC	CAL	A	A-	A	A	A	12-		-	+	
PT PE UNPRESERVED		_			-				-			
OT INORGANIC CHEMICAL		-	-0	165	13	18	100	B				
PT INORGANIC CHEMICAL	METALS	\dashv	0	15.2	10	10	- 45	1				
PT CYANIDE		\dashv		-								
PT NITROGEN FORMS		_									-	-
PT TOTAL SULFIDE		\neg								-	-	
202 NITRATE / NITRITE	W	\neg							-			-
PT TOTAL ORGANIC CARBO	214								-	-		-
PT TOX PT CHEMICAL OXYGEN DE	MAND									+	-	-
PLA PHENOLICS					-		-				+	+
40m) VOA VIAL TRAVEL BL	ANK				-		 	1 .	1 .	1 .	1 (1
40mt VOA VIAL				+	1		-	'	+			
OT EPA 413.1, 413.2, 418.1				-		+	+	1				
PT ODOR				+	+	+						
RADIOLOGICAL			 	+	+	1	1					
BACTERIOLOGICAL												-
40 ml VOA VIAL- 504												-
OT EPA 508/608/8080										-	-	+
OT EPA 515, L/8150 OT EPA 525												+-
OT EPA 525 TRAVEL BLAN	K						-			-	+-	_
100ml EPA 547						-	-	+	+	-	_	_
100ml EPA 531.1			-		-	-	+		-	_		
QT EPA 548				-		-	-	-	-	_		
QT EPA 549			-	-	-	-	+					
OT EPA 632			+	-	-	-	+	_				
QT EPA S015M			+	-	-	_	1					
QT AMBER		-	-	+	1							
8 OZ. JAR		-	-									
32 OZ, JAR		-	1									
SOILSLEEVE									-	_		-
PCB VIAL												
PLASTIC BAG FERROUS IRON									-			_
ENCORE Comments: NO AO Sample Numbering Com A = Actual J C = Corr											-	



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information**

1008804-01 COC Number:

> 4186 **Project Number:** Sampling Location:

Sampling Point: U-11-WK4 Sampled By: **DECR**

Receive Date: 06/25/2010 20:50 06/24/2010 05:00 Sampling Date:

Sample Depth: Water Sample Matrix:

Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): U-11

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008804-02 COC Number:

> **Project Number:** 4186 Sampling Location: U-8-WK4 Sampling Point:

DECR Sampled By:

Receive Date: 06/25/2010 20:50 Sampling Date: 06/24/2010 03:35

Sample Depth: Water Sample Matrix: Delivery Work Order:

Global ID: T0600101777 Location ID (FieldPoint): U-8

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008804-03 **COC Number:**

> **Project Number:** 4186 Sampling Location:

U-10-WK4 Sampling Point: Sampled By: **DECR**

06/25/2010 20:50 Receive Date: 06/24/2010 04:15 Sampling Date:

Sample Depth: Water Sample Matrix: Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): U-10

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008804-04 **COC Number:**

> **Project Number:** 4186 Sampling Location:

SP-2-WK4 Sampling Point: **DECR** Sampled By:

Receive Date: 06/25/2010 20:50 Sampling Date: 06/24/2010 01:30

Sample Depth: Water Sample Matrix: Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): SP-2

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1008804-05 COC Number:

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-5-WK4
Sampled By: DECR

Receive Date: 06/25/2010 20:50 **Sampling Date:** 06/24/2010 02:10

Sample Depth: --Sample Matrix: Water

Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): SP-5

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1008804-06 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-8-WK4
Sampled By: DECR

Receive Date: 06/25/2010 20:50 **Sampling Date:** 06/24/2010 02:55

Sample Depth: --Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777

Global ID: T0600101777 Location ID (FieldPoint): SP-8

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1008804-01	Client Sample	e Name:	4186, U-11-V	VK4, 6/24/2010 5:00:00A	AM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		1200	mg/L	0.10	EPA-6010B	ND	A01	1	
Sulfate		5900	mg/L	20	EPA-300.0	ND	A01	2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/30/10	07/01/10 13:14	ARD	PE-OP1	2	BTF2038	
2	EPA-300.0	07/01/10	07/01/10 18:20	LD1	IC2	20	BTG0087	



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID: 1008804-02 Client Sample Name:			4186, U-8-WK4, 6/24/2010 3:35:00AM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		120	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		120	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-6010B	06/30/10	07/01/10 12:40	ARD	PE-OP1	1	BTF2038		
2	EPA-300.0	07/01/10	07/02/10 10:11	LD1	IC2	1	BTG0087		



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID: 1008804-03 Client Sample Name:				4186, U-10-WK4, 6/24/2010 4:15:00AM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#		
Total Magnesium		110	mg/L	0.050	EPA-6010B	ND		1		
Sulfate		49	mg/L	1.0	EPA-300.0	ND		2		

			Run				QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-6010B	06/30/10	07/01/10 12:54	ARD	PE-OP1	1	BTF2038		
2	EPA-300.0	07/01/10	07/02/10 10:25	LD1	IC2	1	BTG0087		



MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1008804-04	Client Sample	e Name:	4186, SP-2-V	VK4, 6/24/2010 1:30:00A	ΑM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Magnesium		130	mg/L	0.050	EPA-6010B	ND		1
Sulfate		120	mg/L	1.0	EPA-300.0	ND		2

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/30/10	07/01/10 13:08	ARD	PE-OP1	1	BTF2038	
2	EPA-300.0	07/01/10	07/01/10 17:25	LD1	IC2	1	BTG0087	



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1008804-05	Client Sample	e Name:	4186, SP-5-W	/K4, 6/24/2010 2:10:00/	ΑM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		64	mg/L	0.050	EPA-6010B	ND		1	
Sulfate 14 mg/L				1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/30/10	07/01/10 13:10	ARD	PE-OP1	1	BTF2038	
2	EPA-300.0	07/01/10	07/01/10 17:39	LD1	IC2	1	BTG0087	



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1008804-06	Client Sample	e Name:	4186, SP-8-W	VK4, 6/24/2010 2:55:00A	AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Magnesium		96	mg/L	0.050	EPA-6010B	ND		1
Sulfate		10	mg/L	1.0	EPA-300.0	ND		2

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	06/30/10	07/01/10 13:12	ARD	PE-OP1	1	BTF2038	
2	EPA-300.0	07/01/10	07/01/10 17:52	LD1	IC2	1	BTG0087	



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF2038						
Total Magnesium	BTF2038-BLK1	ND	mg/L	0.050		
QC Batch ID: BTG0087						
Sulfate	BTG0087-BLK1	ND	mg/L	1.0		



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

								Control L	imits.	
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
QC Batch ID: BTF2038										
Total Magnesium	BTF2038-BS1	LCS	9.8422	10.000	mg/L	98.4		85 - 115		
QC Batch ID: BTG0087										
Sulfate	BTG0087-BS1	LCS	106.36	100.00	mg/L	106		90 - 110		



Reported: 07/09/2010 9:27

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTF2038	Used	client sample:	Y - Descr	iption: U-8-V	VK4, 06/24/2	2010 03:3	5				
Total Magnesium	DUP	1008804-02	117.01	115.14		mg/L	1.6		20		
	MS	1008804-02	117.01	127.01	10.000	mg/L		100		75 - 125	
	MSD	1008804-02	117.01	130.68	10.000	mg/L	30.9	137	20	75 - 125	A03,Q 02
QC Batch ID: BTG0087	Used	client sample:	Y - Descr	iption: U-11-	WK4, 06/24	/2010 05:0	00				
Sulfate	DUP	1008804-01	5857.8	5859.8		mg/L	0.0		10		
	MS	1008804-01	5857.8	7805.1	2020.2	mg/L		96.4		80 - 120	
	MSD	1008804-01	5857.8	7820.6	2020.2	mg/L	8.0	97.2	10	80 - 120	



Delta Environmental Consultants, Inc. Reported: 07/09/2010 9:27 Project: 4186 11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670 Project Number: 4513481270 Project Manager: Jim Barnard

Notes And Definitions

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit RPD Relative Percent Difference

PQL's and MDL's are raised due to sample dilution. A01

A03 The sample concentration is more than 4 times the spike level.

Q02 Matrix spike precision is not within the control limits.



Date of Report: 07/28/2010

Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

RE: 4186 BC Work Order: 1009736 Invoice ID: B084128

Enclosed are the results of analyses for samples received by the laboratory on 7/14/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Molly Meyers

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



Table of Contents

Sampl	e Information	
	Chain of Custody and Cooler Receipt form	3
	Laboratory / Client Sample Cross Reference	5
Sampl	e Results	
	1009736-01 - U-11-wk7	
	Volatile Organic Analysis (EPA Method 8260)	7
	Purgeable Aromatics and Total Petroleum Hydrocarbons	8
	Total Petroleum Hydrocarbons	9
	Water Analysis (General Chemistry)	10
	1009736-02 - U-8-wk7	
	Volatile Organic Analysis (EPA Method 8260)	11
	Purgeable Aromatics and Total Petroleum Hydrocarbons	12
	Total Petroleum Hydrocarbons	13
	Water Analysis (General Chemistry)	14
	1009736-03 - U-10-wk7	
	Volatile Organic Analysis (EPA Method 8260)	15
	Purgeable Aromatics and Total Petroleum Hydrocarbons	16
	Total Petroleum Hydrocarbons	17
	Water Analysis (General Chemistry)	18
	1009736-04 - SP-2-wk7	
	Volatile Organic Analysis (EPA Method 8260)	19
	Purgeable Aromatics and Total Petroleum Hydrocarbons	20
	Water Analysis (General Chemistry)	21
	1009736-05 - SP-5-wk7	
	Volatile Organic Analysis (EPA Method 8260)	22
	Purgeable Aromatics and Total Petroleum Hydrocarbons	23
	Water Analysis (General Chemistry)	24
	1009736-06 - SP-8-wk7	
	Volatile Organic Analysis (EPA Method 8260)	25
	Purgeable Aromatics and Total Petroleum Hydrocarbons	26
	Water Analysis (General Chemistry)	27
Quality	y Control Reports	
	Volatile Organic Analysis (EPA Method 8260)	
	Method Blank Analysis	28
	Laboratory Control Sample	29
	Precision and Accuracy	30
	Purgeable Aromatics and Total Petroleum Hydrocarbons	
	Method Blank Analysis	31
	Laboratory Control Sample	32
	Precision and Accuracy	
	Total Petroleum Hydrocarbons	
	Method Blank Analysis	
	Laboratory Control Sample	
	Precision and Accuracy	
	Water Analysis (General Chemistry)	
	Method Blank Analysis	
	Laboratory Control Sample	
	Precision and Accuracy	39
Notes		
	Notes and Definitions	40

\square
Ιñ
V

Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1009736

Page 1 of 2

	BC Laborato	ries Inc.						(Coi	noco	Phi	llip	s C	Cha	in C	of C	us	tod	y F	dec	oro	Ľ						
	20 20001010	,	Conoco	Phillips	Site Ma	nager:				Terry G	rayso	on.						183	Conc	eePhil	ius 8A	P Proje	eel Nur	nbar	8			
	4100 Atlas	Court	INVOICE	REMIT	TANCE	ADDRE	ss:				CON	ocor	PHILLI	PS						-		-	Andrew Terrorian Andrews		٦,	ATE:		
	Bakersfield,	CA 93308	l								Attn:	Dee	Hutch		to 200				Conoco	Philip	s Requi	sition	/ Line N	umber	103			
	(661) 327-4911 (66	1) 327-1918 fax	1											92704	100 200			-				ZAGITA	-0.51	1100 110	- F	PAGE: _	of	
SAM	PLING COMPANY:		Valid Value ID				сомосорн	LUPE SITE	NUMBER	R										Т	010840	ID NO.	.:		_			
	ta Consultants						SS# 4186															0101		NAMAGE				
)50 White Rock Road #	110, Rancho Cordov	a, CA 95670	0																				INVINUE	,re			
PE	OUBCT CONTACT (Hardcopy or	POF Report to): James Barn					1771 1st										PHONE I				erry	Grays	on	1000	B USE 4	Call O		
	LEPHONE:	Faz:	E-MAL)				Jim Barn	-		e georg								03-127	5	- 5	Serry, L. C	ita pa	n@conit	1 0	1	50	736	,
-	6) 503-1279	(916) 638-8385	jbamarditi				Sen Barn	ard (Deli	(a)											2	tor.con	acopin il	lips.com	U) ~	991	100	
SAU	PLER HAME(S) (Print): Allam Bud	ehler	CONSULTANT	G104186610 REQUESTED AN										ALYS	ES													
	RIVAROUND TIME (CALENO						 	T			T-	T	T	Т	TT			$\overline{}$	T	П	Т	\top	\neg	Т	Т	$\overline{}$		
	14 DWYS 7 DWYS 7	2 HOURS 48 HOURS	24 HOURS	LESS	THAN 24 H	IOURS	1				ĺ																	
	**8 day turnaround										١.																FIELD NO)TES:
SPI	ECIAL INSTRUCTIONS O	R NOTES:	CHECK	BOX IF EDD	IS NEEDED				ا ا		등		1	1												'	Container/Pres or PID Read	
۱,	Please CC Alan Buehler	at abuehlen@deltaenv	.com on all	reports.			1				1 8			1													or Laborator	
		-					5	2	BTEX, MTBE	£	Total Magnesium								١.									
							- ТРН	TPHd	8	300,0 - Suffate	5																	
14	Field Point name only n	equired if different from ation/Field Point		MING	1	NO. OF	8015M	. WS	8	9	98							1					-			TEMPE	RATURE ON RE	CERTO?
US GM	či	me*	DATE	TIME	MATRIX	CONT.	801	8015M	82608	300	60108																TOCTOTAL OTT THE	
-17	. U-1	1-wk7	7/13/10	12:101p	H2O	9	×	X	х	х	Х	Т								П	\top	Т		T	Т	1	arious Prese Not Field Fi	
12	U-8	l-wk7	7/13/10	1:20p	H2O	9	×	×	х	х	×	\top	1		\Box			\top	T	\Box	\top	\top	\top	\top	\top	1	/arious Preso	ervatives
-3	II-10	D-wk7	7/13/10	1:00p	H2O	9	×	×	×	×	×	+	+-	-	1-1			_	-	+	-	-	+	+	+	-	Not Field Fi /arious Prese	
7						-	-	<u> </u>			+~	+	-	-	-				-	+	+	+	-	+	+	<u> </u>	Not Field Fi Various Prese	
-4	<u> </u>	2-wk7	7/13/10	1:45p	H2O	7	X		Х	х	-	-	-	-	\perp		_		-	_	_	_	_	_	\perp		Not Field Fi	iltered
- <u>5</u>	SP-	5-wk7	7/13/10	2:00p	H2O	7	х		Х	X										-	-						Not Field Fi	iltered
-14	SP-4	B-wk7	7/13/10	12:30p	H2O	7	×		х	X																١,	arious Prese/ Not Field Fi	
												Τ			\top									h	1			
									П			\top	T	1	CH	CBY	,	14	VN	ei i		1		1	+	$\overline{}$		
- 12									Н		\vdash	+	1	\vdash	-	1	77	54	10	1	370	1	#	#	+	_		
-	1			-		-		١,	H		_	+	+-	+	0	7	H	9	3	JB-	0	FE	圭	#	+	-		
Heis	Oronales Islandes - 2	20			Recorded 9,	r. ISignotus (1	-	4				-	_	1	lines.		-1.		-	Date	100	,	_		Time	·	2-0-	
944		,~,			IS.	2/1	240	(i)es												7	14/	10			Time		35	
IX	so Dido	04 7/14	110		K (Riv	W ~	عک												5	1	1.	10		1.00	(9	00	
K	O POWER (SEPON)		.14.	10)	Preceived by	((Signature)		_	X	1	->									Oute:	- 11	1-	-10)	Time	21	FS	

215



Chain of Custody and Cooler Receipt Form for 1009736 Page 2 of 2

Refrigerant: Ice Blue Ice None Other Comments: No Cooling Find Custody Seals Ice Chest None Comments: Ice Containers None Comments: Ice Cooling Find Custody Seals Ice Chest None Comments: Ice Containers None Comments: Ice Cooling Find Cooling Fin	Submission#: 10 09 🕇	36											
COC Received COC Received Emissivity: Off Containers Intermediate ID-State ID-Stat		ORMAT	ION	-			- 011 5					1	
All samples received Containers None & Comments: COC Inster Yea No None & Comments: COC Inster Yea No None & Comments: COC Inster Yea No None & Comments: COC Received No All samples containers intact? Yea No Description(s) match COC? Yea No No No None & Comments: COC Received No All samples containers intact? Yea No Description(s) match COC? Yea No No No No No No No N					_	IC					ify)		
COURT REAL PROPERTY OF A DESCRIPTION OF THE PROPERTY OF A DESCRIPTION OF A DESCRIP	Refrinerant: Ice ⊠≎ Blue Ice	1 0	lone [Oth	er⊡ C	omments	s: 10X-	eno	18h	COOLI	ng to	mo/	
Ill samples received No Description(s) match COC? Yes Description(s) ma			tainer	50	None AO	Commer	nts:			l.	œ	/ .	
COC Received Emissivity-ORY Container PP Thermometer ID-HITT Temperature: A Q. Y. C. J. Q. S. T. C. Analyst Initio 2220 SAMPLE CONTAINERS SAMPLE CONTAINERS 1 2 3 4 5 6 7 8 9 10 DI GUERGALA MINERALI GENERAL PHYSICAL TY PE INPRESERVED DI FORGANIC CIERMICAL MITTALS TY CONTAINERS TY CONTAINER TY CONTAINERS TY CONTAINERS TY CONTAINERS TY TOTAL SELECTION THE TOTAL ORGANIC CREEMICAL MITTALS TY CONTAINERS TY TOTAL SELECTION THE TOTAL ORGANIC CREEMICAL MITTALS TY CONTAINER TY TOTAL SELECTION THE TOTAL ORGANIC CREEMICAL MITTALS TY TOTAL SELECTION THE TOTAL ORGANIC CREEMICAL MITTALS TY TOTAL SELECTION THE TOTAL ORGANIC CREEMICAL MITTALS TO THE CREMINAL ONLYGEN DEMAND TO THE MINISTRATE TO THE CREMINAL ORGANIC CREEMICAL MITTALS TO THE MINISTRATE MINISTRATE TO THE MINISTRATE MINIS	Intact? Yes 🗆 No 🗆	Intact	2 Yes C	No □									
SAMPLE CONTAINERS SAMPLE CONTAINERS 1 2 3 4 5 6 7 9 9 19 DI GENERAL MINERAL GENERAL PHYSICAL T PE INPRESSEVED TI PORGANIC CIETALICAL METALS PI CYCANIDE TY NORGANIC CIETALICAL METALS PI CYCANIDE TY TORAGANIC CIETALICAL METALS PI CYCANIDE TY TORAGANIC CIETALICAL METALS PI CYCANIDE TY TORAGANIC CIETALICAL METALS PI CYTANIDE TY TORAGANIC CARBON PI TOTAL SULFIDE 1000, NICHARLE INTRITIF PI CONTAIN AND AND AND AND AND AND AND AND AND AN	All samples received? Yeb No□					-7				I	- 7 1		
SAMPLE CONTAINERS	1 -			00	ontainer:	10 C	hermomet 7 . 5		<u> </u>	1	4 /	10 .2210	
DI GENERAL MERCALI GENERAL PHYSICAL IT PE UNPRESERVED IT POR CANIC CHEMICAL METALS IT PE UNPRESERVED IT NORGANIC CHEMICAL METALS IT CYTOMAGEN FORMS IT TOTAL SULFIPE BUS NITRATE / NITRITE IT TOTAL ORGANIC CARBON IT TOTAL SULFIPE BUS NITRATE / NITRITE IT TOTAL ORGANIC CARBON IT TO EPA ORGANIC CARBON IT TO EPA ALL TRAVEL BLANK IDON VA VIAL ID OF EPA ASIS ILAIS IT TO TO EPA ASIS ILAIS IT TO EPA ASIS TRAVEL BLANK IDON EPA A													
TY PE LIMPRESERVED DY INORGANIC CHEMICAL METALS TY CYANIDE TY CONGRANIC CHEMICAL METALS (C C C C C C C C C C C C C C C C C C C	SAMPLE CONTAINERS		1	2	3	4		6	7		9	1 10	
TYPENPESSREVE TYPENP	OT GENERAL MINERALI GENERAL PHYSI	CAL		0	2	0	12	B				1	
T FORGRANIC CHEMICAL METALS T CYANDE T CYANDE T CYANDE T TOTAL SULFIDE 100. NITRATE INTENTE PT TOTAL SULFIDE 100. NITRATE INTENTE PT TOTAL SULFIDE 100.	PT PE UNPRESERVED	$-\mathcal{L}$	Z	15	17	12	1-2	2				1	
T RORGANIC CHEMICAL MITALS PT TOTAL SULFIDE PT NITROGEN FORMS PT TOTAL SULFIDE PT TOTAL SULFIDE PT TOTAL SULFIDE PT TOTAL ORGANIC CARBON PT TOX PT TOX PT CIEMERAL DXYGEN DEMAND PLA PHENOLICS ### ### ### ### ### ### ### ### ### #	OT INORGANIC CHEMICAL METALS	12		17	7							4	
PT NTROGEN FORMS PT TOTAL SULFIDE SIGN INTRATE / NTRITE PT TOTAL ORGANIC CARBON PT TOX PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS ### WON VIAL TRAVEL BLANK ### WON VIAL SULF BLANK ### WON VIAL ### WON	PT INORGANIC CHEMICAL METALS		-							-		1	
PT TOTAL SULFIDE 102. NITRATE / NITRITE 17 TOTAL ORGANIC CARBON PT TOTAL ORGANIC CARBON PT TOTAL OXYGEN DEMAND PLA PHENOLICS 100ml VOA VIAL 100ml VOA V	PT CYANIDE									-			
Dec. NITRATE / NITRITE PT TOTAL ORGANIC CARBON PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS Solan VOA VIAL TRAVEL BLANK GOBIN VOA VIAL TRAVEL BLANK GOT EPA 41D.1, 413.2, 413.1 PT ODOR RADIOLOGICAL BACTERIOLOGICAL BACTERIOLOGICAL GOT EPA 515 TRAVEL BLANK GOT EPA 515 TRAVEL BL	PT NITROGEN FORMS									-			
PT TOX PT TOX PT TOX PT CHEMICAL OXYGEN DEMAND PA PHENOLICS 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL	PT TOTAL SULFIDE	_								-	-	+	
PT TOX PT TOX PT TOX PT CHEMICAL OXYGEN DEMAND PA PHENOLICS 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL	202. NITRATE / NITRITE									-	-	+	
PT CHEMICAL OXYGEN DEMAND PLA PHINOLICS 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL OT EPA 413.1, 413.1, 413.1 PT ODOR RADIOLOGICAL 40 ml VOA VIAL 40 ml VOA VIAL 50 T EPA 505:6085830 OT EPA 515: IM156 OT EPA 525 TRAVEL BLANK 100ml EPA 547 100ml EPA 547 100ml EPA 549 OT EPA 632 OT EPA 633 OT EPA 635 OT EPA 630 OT EPA 649 OT EPA 649 OT EPA 640 OT E	PT TOTAL ORGANIC CARBON										-	+	
PT CHEMICAL OXYGEN DEMAND PLA PHINOLICS 40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL OT EPA 413.1, 413.1, 413.1 PT ODOR RADIOLOGICAL 40 ml VOA VIAL 40 ml VOA VIAL 50 T EPA 505:6085830 OT EPA 515: IM156 OT EPA 525 TRAVEL BLANK 100ml EPA 547 100ml EPA 547 100ml EPA 549 OT EPA 632 OT EPA 633 OT EPA 635 OT EPA 630 OT EPA 649 OT EPA 649 OT EPA 640 OT E	PT TOX										-	+	
PLA PHENOLICS ### ### ### ### ### ### ### ### ### #	NEST PROPERTY OF THE PERSON NAMED IN COLUMN TO PERSON NAMED IN COLUMN										-	-	
### ### ##############################										-	+	-	
### ### ##############################					1		1	1			+		
OT EPA 413.1, 413.1, 413.1 PT ODOR RABIOLOGICAL BACTERIOLOGICAL BACTERIOLOGICAL BO BLYOA VIAL 904 OT EPA 515.103156 OT EPA 515.103156 OT EPA 515 TRAVEL BLANK 100ml EPA 547 100ml EPA 547 100ml EPA 548 OT EPA 519 OT EPA 519 OT EPA 519 OT EPA 519 OT EPA 5015M OT AMBER S OZ. JAR SOUL SLEEVE PCB VIAL PLASTIC BAG EFRROUS IRON ENCORE			7 10	14.6	1 A10	17716	1 14 10	9 11119		1	1		
PT ODOR RADIOLOGICAL BACTERIOLOGICAL 10 ml VOA VIAL 594 OT EPA 515 L/8156 OT EPA 515 L/8156 OT EPA 515 TRAVEL BLANK 100ml EPA 547 100ml EPA 549 OT EPA 539 OT EPA 539 OT EPA 530 OT EPA 530 OT EPA 530 OT EPA 548 OT EPA 549 OT EPA 549 OT EPA 549 OT EPA 540 OT EPA 541 OT EPA 542 OT EPA 543 OT EPA 545 OT EPA 54										-	-		
RADIOLOGICAL BACTERIOLOGICAL 40 oil VOA VIAL 504 OT EPA 508/00080800 OT EPA 515.18150 OT EPA 515.18150 OT EPA 515. TRAVEL BLANK 100ml EPA 547 100ml EPA 531.1 OT EPA 548 OT EPA 548 OT EPA 632 OT EPA 632 OT EPA 631 OT AMBER S OZ. JAR SOUL SILEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE											-	-	
BACTERIOLOGICAL 40 mi VOA VIAL- 504 OT EPA 508/668/8030 OT EPA 515.L/8156 OT EPA 515.L/8156 OT EPA 515 OT EPA 515 OT EPA 515 OT EPA 517 IDOmi EPA 547 IDOmi EPA 53LI OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 632 OT EPA 8015M OT AMBER S OZ. JAR SOUL SIÆEVE PCB VIAL PLASTIC BAG FÉRROUS IRON ENCORE													
40 ml VOA VIAL 504 OT EPA 508/608/6080 OT EPA 515.1/5156 OT EPA 515 OT EPA 525 TRAVEL BLANK 100mt EPA 547 100mt EPA 541 100mt EPA 542 OT EPA 548 OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 632 OT EPA 632 OT EPA 632 SOZ. JAR SOZ. JAR SOZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE											-		
OT EPA 508/608/8000 OT EPA 515.1/8150 OT EPA 525 OT EPA 525 OT EPA 525 OT EPA 527 100ml EPA 531.1 OT EPA 531.1 OT EPA 531. OT EPA 532 OT EPA 532 OT EPA 532 OT EPA 533 OT EPA 5015M OT AMBER S OZ. JAR SOL SLEEVE PCB VIAL PLASTIC BAG EFEROUS IRON ENCORE											-		
OT EPA 515. L/8150 OT EPA 525 OT EPA 525 TRAVEL BLANK 100ml EPA 547 100ml EPA 534.1 OT EPA 538 OT EPA 538 OT EPA 532 OT EPA 532 OT EPA 5015M OT AMBER 8 OZ. JAR 32 OZ. JAR 35 OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE										-	-		
OT EPA 525 OT EPA 525 TRAVEL BLANK 100ml EPA 547 100ml EPA 548 OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 632 OT EPA 8015M OT AMBER S OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE					1								
OT EPA 525 TRAVEL BLANK 100ml EPA 547 100ml EPA 531.1 OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 632 OT EPA 9015M OT AMBER S OZ. JAR SOZ. JAR SOZ. JAR SOZ. JAR SOL JAR SOL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE													
100ml EPA 547 100ml EPA 548 OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 6915M OT AMBER S OZ. JAR S OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FÉRROUS IRON ENCORE		-											
100mi EPA 53L1 OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 631 OT AMBER OT AMBER SOZ. JAR SOZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FÉRROUS IRON ENCORE		-				$\overline{}$							
OT EPA 548 OT EPA 549 OT EPA 632 OT EPA 6915M OT AMBER S OZ. JAR 32 OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	100ml EPA 547	7		-			1			,) ·			
OT EPA 549 OT EPA 632 OT EPA 632 OT RPA 9015M OT AMBER S OZ. JAR S OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FÉRROUS IRON ENCORE	100ml EPA 531.1			+	+	+	-	1					
OT EPA 632 OT EPA 9015M OT AMBER DDDD SOZ. JAR SOZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	QT EPA 548	-		+	+	-	-	-					
OT AMBER OT AMBER S OZ. JAR S OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	OT EPA 549			-	-	+	+		1	_	1		
OT AMBER 8 OZ. JAR 32 OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	QT EPA 632	- $+$		-		+			-				
S OZ. JAR SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	OT EPA 8015M				-	+		-			-	_	
SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	QT AMBER	_	D_	12	+ 7-	-	-		-		+	-	
SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE	8 OZ. JAR								 	-	-		
SOIL SLEEVE PCB VIAL PLASTIC BAG FERROUS IRON ENCORE						-		-	+			-	
PCB VIAL PLASTIC BAG FERROUS IRON ENCORE											-		
PLASTIC BAG FERROUS IRON ENCORE				1 .							-		
FERROUS IRON ENCORE		-							-	-	-		
ENCORE O COLO													
A-1/ 00-0										-1			
Comments: Sample Numbering Completed By: / //// Date(Time: 4/15/10 1)\\$0						A-1	_ 0.4	2007					
	Comments: Sample Numbering Completed By:	O 1A	27	Date	Time: 7	1511	Q /)(V	73U					



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information** 1009736-01 Receive Date: 07/14/2010 21:55 COC Number: 4186 07/13/2010 12:10 **Project Number:** Sampling Date: Sampling Location: Sample Depth: Sampling Point: U-11-wk7 Water Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): U-11 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1009736-02 **COC Number:** Receive Date: 07/14/2010 21:55 **Project Number:** Sampling Date: 07/13/2010 13:20 4186 Sampling Location: Sample Depth: U-8-wk7 Water Sampling Point: Sample Matrix: DECR Delivery Work Order: Sampled By: Global ID: T0600101777 Location ID (FieldPoint): U-8 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1009736-03 **COC Number:** 07/14/2010 21:55 Receive Date: 07/13/2010 13:00 **Project Number:** 4186 Sampling Date: Sampling Location: Sample Depth: U-10-wk7 Water Sampling Point: Sample Matrix: Sampled By: **DECR** Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): U-10 Matrix: W Sample QC Type (SACode): CS Cooler ID: 1009736-04 **COC Number:** Receive Date: 07/14/2010 21:55 **Project Number:** 4186 Sampling Date: 07/13/2010 13:45 Sampling Location: Sample Depth: SP-2-wk7 Water Sampling Point: Sample Matrix: **DECR** Sampled By: Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): SP-2 Matrix: W Sample QC Type (SACode): CS

Cooler ID:



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1009736-05 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-5-wk7
Sampled By: DECR

Receive Date: 07/14/2010 21:55 **Sampling Date:** 07/13/2010 14:00

Sample Depth: --Sample Matrix: Water

Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): SP-5

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1009736-06 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-8-wk7
Sampled By: DECR

Receive Date: 07/14/2010 21:55 **Sampling Date:** 07/13/2010 12:30

Sample Depth: --Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777

Matrix: W

Sample QC Type (SACode): CS

Location ID (FieldPoint): SP-8

Cooler ID:

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1009736-01	Client Sampl	e Name:	4186, U-11-wk7, 7/1	3/2010 12:10:00)PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		3.1	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		6.4	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		4900	ug/L	50	EPA-8260	ND	A01	2
Toluene		1.0	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		2.6	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	96.7	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)		88.7	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		98.4	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	(Surrogate)	101	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	93.2	%	86 - 115 (LCL - UCL)	EPA-8260			2

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260	07/22/10	07/23/10 00:54	KEA	MS-V10	1	BTG1322
2	EPA-8260	07/22/10	07/26/10 13:31	KEA	MS-V10	100	BTG1322

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-01	Client Sampl	e Name:	4186, U-11-wk7, 7/1	3/2010 12:10:00	OPM			
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Gasoline Range Orga	nics (C4 - C12)	5600	ug/L	500	Luft	ND	A01	1	
a,a,a-Trifluorotoluene	a,a,a-Trifluorotoluene (FID Surrogate)		%	70 - 130 (LCL - UCL)	Luft			1	

		Run				QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	Luft	07/15/10	07/15/10 17:05	jjh	GC-V4	10	BTG0777			



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-01	Client Sampl	e Name:	4186, U-11-wk7, 7/1	PM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Diesel Range Organic	cs (C12 - C24)	340	ug/L	50	Luft/TPHd	ND	A52	1	
Tetracosane (Surroga	te)	79.4	%	28 - 139 (LCL - UCL)	Luft/TPHd			1	

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	Luft/TPHd	07/20/10	07/21/10 20:49	MWB	GC-5	1	BTG1302



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1009736-01	Client Sample	Client Sample Name:		7, 7/13/2010 12:10:00F	PM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		590	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		1800	mg/L	10	EPA-300.0	ND	A01	2	

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-6010B	07/24/10	07/27/10 19:12	ARD	PE-OP1	1	BTG1416
2	EPA-300.0	07/21/10	07/21/10 10:34	LD1	IC1	10	BTG1273

Mul

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 **Reported:** 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1009736-02	Client Sampl	e Name:	4186, U-8-wk7, 7/13	3/2010 1:20:00PI	M		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Benzene		6.5	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		2.6	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		3.9	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		94.9	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	94.7	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	07/22/10	07/23/10 00:36	KEA	MS-V10	1	BTG1322	

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-02	Client Sampl	e Name:	4186, U-8-wk7, 7/13					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Orga	nics (C4 - C12)	1400	ug/L	500	Luft	ND	A01	1	
a,a,a-Trifluorotoluene	a,a,a-Trifluorotoluene (FID Surrogate)		%	70 - 130 (LCL - UCL)	Luft			1	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/15/10	07/15/10 17:27	jjh	GC-V4	10	BTG0777	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-02	Client Sampl	e Name:	4186, U-8-wk7, 7/13	3/2010 1:20:00PI	M				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Diesel Range Organio	cs (C12 - C24)	370	ug/L	50	Luft/TPHd	ND	A52	1		
Tetracosane (Surroga	te)	93.2	%	28 - 139 (LCL - UCL)	Luft/TPHd			1		

			Run				QC
Run	# Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	Luft/TPHd	07/20/10	07/21/10 21:04	MWB	GC-5	0.980	BTG1302



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

BCL Sample ID:	1009736-02	Client Sample	Sample Name: 4186, U-8-wk7, 7/13/2010 1:20:00PM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		90	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		7.6	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	07/19/10	07/21/10 12:49	ARD	PE-OP1	1	BTG0981	
2	EPA-300.0	07/21/10	07/21/10 13:17	LD1	IC1	1	BTG1273	

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1009736-03	Client Sampl	e Name:	4186, U-10-wk7, 7/1	13/2010 1:00:00	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		51	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		37	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		190	ug/L	1.0	EPA-8260	ND	A01	2
Toluene		2.9	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		4.6	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	105	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4	(Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	95.9	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.0	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	(Surrogate)	105	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	95.6	%	86 - 115 (LCL - UCL)	EPA-8260			2

			Run			QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8260	07/22/10	07/23/10 00:18	KEA	MS-V10	1	BTG1322		
2	EPA-8260	07/22/10	07/26/10 12:51	KEA	MS-V10	2	BTG1322		

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-03	Client Sampl	e Name:	4186, U-10-wk7, 7/1	13/2010 1:00:00	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Orga	nics (C4 - C12)	3500	ug/L	500	Luft	ND	A01	1
a,a,a-Trifluorotoluene	(FID Surrogate)	126	%	70 - 130 (LCL - UCL)	Luft			1

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/15/10	07/15/10 17:48	jjh	GC-V4	10	BTG0777	



Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-03	4186, U-10-wk7, 7/1	4186, U-10-wk7, 7/13/2010 1:00:00PM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Diesel Range Organio	s (C12 - C24)	170	ug/L	50	Luft/TPHd	ND	A52	1	
Tetracosane (Surrogat	re)	82.2	%	28 - 139 (LCL - UCL)	Luft/TPHd			1	

			Run				QC
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	Luft/TPHd	07/20/10	07/21/10 21:18	MWB	GC-5	1	BTG1302



Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID:	1009736-03	Client Sample	e Name:	4186, U-10-wł	<7, 7/13/2010 1:00:00P	М		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Magnesium		100	mg/L	0.050	EPA-6010B	ND		1
Sulfate		42	mg/L	1.0	EPA-300.0	ND		2

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-6010B	07/19/10	07/21/10 12:51	ARD	PE-OP1	1	BTG0981
2	EPA-300.0	07/21/10	07/21/10 13:30	LD1	IC1	1	BTG1273

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1009736-04	Client Sampl	e Name:	4186, SP-2-wk7, 7/13/2010 1:45:00PM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Benzene		38	ug/L	0.50	EPA-8260	ND		1		
Ethylbenzene		6.0	ug/L	0.50	EPA-8260	ND		1		
Methyl t-butyl ether		500	ug/L	5.0	EPA-8260	ND	A01	2		
Toluene		1.8	ug/L	0.50	EPA-8260	ND		1		
Total Xylenes		4.4	ug/L	1.0	EPA-8260	ND		1		
1,2-Dichloroethane-d4 ((Surrogate)	113	%	76 - 114 (LCL - UCL)	EPA-8260			1		
1,2-Dichloroethane-d4 ((Surrogate)	96.1	%	76 - 114 (LCL - UCL)	EPA-8260			2		
Toluene-d8 (Surrogate)	1	94.1	%	88 - 110 (LCL - UCL)	EPA-8260			1		
Toluene-d8 (Surrogate)	ı	98.5	%	88 - 110 (LCL - UCL)	EPA-8260			2		
4-Bromofluorobenzene	(Surrogate)	99.9	%	86 - 115 (LCL - UCL)	EPA-8260			1		
4-Bromofluorobenzene	(Surrogate)	94.6	%	86 - 115 (LCL - UCL)	EPA-8260			2		

		Run					QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	EPA-8260	07/22/10	07/23/10 00:00	KEA	MS-V10	1	BTG1322			
2	EPA-8260	07/22/10	07/26/10 12:34	KEA	MS-V10	10	BTG1322			

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-04	Client Sampl	e Name:	4186, SP-2-wk7, 7/	4186, SP-2-wk7, 7/13/2010 1:45:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Gasoline Range Orga	nics (C4 - C12)	5600	ug/L	500	Luft	ND	A01	1		
a,a,a-Trifluorotoluene (FID Surrogate)		120	%	70 - 130 (LCL - UCL)	Luft			1		

Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/15/10	07/15/10 18:10	jjh	GC-V4	10	BTG0777	

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

BCL Sample ID:	1009736-04	Client Sampl	e Name:	4186, SP-2-wk7, 7/13/2010 1:45:00PM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Sulfate		58	mg/L	1.0	EPA-300.0	ND		1

	Run					QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-300.0	07/21/10	07/21/10 13:44	LD1	IC1	1	BTG1273	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1009736-05	Client Sampl	e Name:	4186, SP-5-wk7, 7/	13/2010 2:00:00	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		3.6	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate	e)	98.2	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	e (Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			1

		Run		QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	07/22/10	07/22/10 23:42	KEA	MS-V10	1	BTG1322	

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-05	Client Sampl	e Name:	4186, SP-5-wk7, 7/13/2010 2:00:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Gasoline Range Orga	nics (C4 - C12)	110	ug/L	50	Luft	ND		1	
a,a,a-Trifluorotoluene	(FID Surrogate)	114	%	70 - 130 (LCL - UCL)	Luft			1	

	Run							
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/15/10	07/19/10 12:29	jjh	GC-V4	1	BTG0777	

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1009736-05	Client Sample	e Name:	4186, SP-5-wk7, 7/13/2010 2:00:00PM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Sulfate		16	mg/L	1.0	EPA-300.0	ND		1

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-300.0	07/21/10	07/21/10 13:57	LD1	IC1	1	BTG1273	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 10097	736-06 Client Sa	mple Name:	4186, SP-8-wk7, 7/13/2010 12:30:00PM						
Constituent	Resul	t Units	PQL	Method	MB Bias	Lab Quals	Run #		
Benzene	29	ug/L	0.50	EPA-8260	ND		1		
Ethylbenzene	3.9	ug/L	0.50	EPA-8260	ND		1		
Methyl t-butyl ether	47	ug/L	0.50	EPA-8260	ND		1		
Toluene	ND	ug/L	0.50	EPA-8260	ND		1		
Total Xylenes	1.3	ug/L	1.0	EPA-8260	ND		1		
1,2-Dichloroethane-d4 (Surrogate	e) 104	%	76 - 114 (LCL - UCL)	EPA-8260			1		
Toluene-d8 (Surrogate)	91.6	%	88 - 110 (LCL - UCL)	EPA-8260			1		
4-Bromofluorobenzene (Surrogat	e) 100	%	86 - 115 (LCL - UCL)	EPA-8260			1		

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	07/22/10	07/22/10 20:09	KEA	MS-V10	1	BTG1322	

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1009736-06	Client Sampl	e Name:	4186, SP-8-wk7, 7/	4186, SP-8-wk7, 7/13/2010 12:30:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Gasoline Range Orga	nics (C4 - C12)	190	ug/L	50	Luft	ND		1		
a,a,a-Trifluorotoluene (FID Surrogate)		113	%	70 - 130 (LCL - UCL)	Luft			1		

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/15/10	07/19/10 12:50	jjh	GC-V4	1	BTG0777	

Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

BCL Sample ID:	1009736-06	Client Sample	e Name:	4186, SP-8-w	4186, SP-8-wk7, 7/13/2010 12:30:00PM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Sulfate		33	mg/L	1.0	EPA-300.0	ND		1	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-300.0	07/21/10	07/21/10 14:11	LD1	IC1	1	BTG1273	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
BTG1322-BLK1	ND	ug/L	0.50		
BTG1322-BLK1	ND	ug/L	0.50		
BTG1322-BLK1	ND	ug/L	0.50		
BTG1322-BLK1	ND	ug/L	0.50		
BTG1322-BLK1	ND	ug/L	1.0		
BTG1322-BLK1	103	%	76 - 114	(LCL - UCL)	
BTG1322-BLK1	97.7	%	88 - 110	(LCL - UCL)	
BTG1322-BLK1	93.9	%	86 - 115	(LCL - UCL)	
	BTG1322-BLK1 BTG1322-BLK1 BTG1322-BLK1 BTG1322-BLK1 BTG1322-BLK1 BTG1322-BLK1 BTG1322-BLK1	BTG1322-BLK1 ND BTG1322-BLK1 ND BTG1322-BLK1 ND BTG1322-BLK1 ND BTG1322-BLK1 ND BTG1322-BLK1 ND BTG1322-BLK1 103 BTG1322-BLK1 97.7	BTG1322-BLK1 ND ug/L BTG1322-BLK1 103 % BTG1322-BLK1 97.7 %	BTG1322-BLK1 ND ug/L 0.50 BTG1322-BLK1 ND ug/L 0.50 BTG1322-BLK1 ND ug/L 0.50 BTG1322-BLK1 ND ug/L 0.50 BTG1322-BLK1 ND ug/L 1.0 BTG1322-BLK1 103 % 76 - 114 BTG1322-BLK1 97.7 % 88 - 110	BTG1322-BLK1 ND ug/L 0.50 BTG1322-BLK1 ND ug/L 1.0 BTG1322-BLK1 103 % 76 - 114 (LCL - UCL) BTG1322-BLK1 97.7 % 88 - 110 (LCL - UCL)



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

								Control L	imits	
.		_		Spike		Percent		Percent		
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals
QC Batch ID: BTG1322										
Benzene	BTG1322-BS1	LCS	24.880	25.000	ug/L	99.5		70 - 130		
Toluene	BTG1322-BS1	LCS	27.330	25.000	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTG1322-BS1	LCS	9.7200	10.000	ug/L	97.2		76 - 114		
Toluene-d8 (Surrogate)	BTG1322-BS1	LCS	9.9300	10.000	ug/L	99.3		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTG1322-BS1	LCS	10.650	10.000	ug/L	106		86 - 115		



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

								Cont	rol Limits	
	Source	Source		Spike			Percent		Percent	Lab
Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
Used	client sample:	: N								
MS	1009676-22	ND	26.960	25.000	ug/L		108		70 - 130	
MSD	1009676-22	ND	26.940	25.000	ug/L	0.1	108	20	70 - 130	
MS	1009676-22	ND	26.820	25.000	ug/L		107		70 - 130	
MSD	1009676-22	ND	27.990	25.000	ug/L	4.3	112	20	70 - 130	
MS	1009676-22	ND	10.650	10.000	ug/L		106		76 - 114	
MSD	1009676-22	ND	10.340	10.000	ug/L		103		76 - 114	
MS	1009676-22	ND	9.6100	10.000	ug/L		96.1		88 - 110	
MSD	1009676-22	ND	10.050	10.000	ug/L		100		88 - 110	
MS	1009676-22	ND	10.040	10.000	ug/L		100		86 - 115	
MSD	1009676-22	ND	10.320	10.000	ug/L		103		86 - 115	
	MS MSD MS MSD MS MSD MS MSD MS MSD MS MSD MS	Type Sample ID Used client sample: MS 1009676-22 MSD 1009676-22	Type Sample ID Result Used client sample: N MS 1009676-22 ND MSD 1009676-22 ND MS 1009676-22 ND MSD 1009676-22 ND MSD 1009676-22 ND MS 1009676-22 ND MS 1009676-22 ND MSD 1009676-22 ND MS 1009676-22 ND	Type Sample ID Result Result Used client sample: N MS 1009676-22 ND 26.960 MSD 1009676-22 ND 26.940 MS 1009676-22 ND 26.820 MSD 1009676-22 ND 27.990 MS 1009676-22 ND 10.340 MS 1009676-22 ND 9.6100 MSD 1009676-22 ND 10.050 MS 1009676-22 ND 10.040	Type Sample ID Result Result Added Used client sample: N MS 1009676-22 ND 26.960 25.000 MSD 1009676-22 ND 26.940 25.000 MS 1009676-22 ND 26.820 25.000 MSD 1009676-22 ND 27.990 25.000 MS 1009676-22 ND 10.340 10.000 MS 1009676-22 ND 9.6100 10.000 MSD 1009676-22 ND 10.050 10.000 MS 1009676-22 ND 10.040 10.000	Type Sample ID Result Result Added Units Used client sample: N MS 1009676-22 ND 26.960 25.000 ug/L MSD 1009676-22 ND 26.940 25.000 ug/L MS 1009676-22 ND 27.990 25.000 ug/L MS 1009676-22 ND 10.650 10.000 ug/L MSD 1009676-22 ND 10.340 10.000 ug/L MS 1009676-22 ND 9.6100 10.000 ug/L MSD 1009676-22 ND 10.050 10.000 ug/L MS 1009676-22 ND 10.040 10.000 ug/L	Type Sample ID Result Added Units RPD Used client sample: N MS 1009676-22 ND 26.960 25.000 ug/L 0.1 MSD 1009676-22 ND 26.940 25.000 ug/L 0.1 MS 1009676-22 ND 26.820 25.000 ug/L 4.3 MSD 1009676-22 ND 27.990 25.000 ug/L 4.3 MS 1009676-22 ND 10.650 10.000 ug/L MS 1009676-22 ND 10.340 10.000 ug/L MSD 1009676-22 ND 10.050 10.000 ug/L MS 1009676-22 ND 10.050 10.000 ug/L MS 1009676-22 ND 10.040 10.000 ug/L	Type Sample ID Result Added Units RPD Recovery Used client sample: N MS 1009676-22 ND 26.960 25.000 ug/L 0.1 108 MSD 1009676-22 ND 26.940 25.000 ug/L 0.1 108 MS 1009676-22 ND 26.820 25.000 ug/L 107 MSD 1009676-22 ND 27.990 25.000 ug/L 4.3 112 MS 1009676-22 ND 10.650 10.000 ug/L 106 MSD 1009676-22 ND 10.340 10.000 ug/L 96.1 MSD 1009676-22 ND 9.6100 10.000 ug/L 96.1 MSD 1009676-22 ND 10.050 10.000 ug/L 100 MS 1009676-22 ND 10.040 10.000 ug/L 100	Source Type Source Sample ID Source Result Result Spike Added Units Percent Recovery RPD Used client sample: N V V V V V V V Percent Recovery RPD RP	Type Sample ID Result Added Units RPD Recovery RPD Recovery Used client sample: N MS 1009676-22 ND 26.960 25.000 ug/L 0.1 108 70 - 130 MSD 1009676-22 ND 26.940 25.000 ug/L 0.1 108 20 70 - 130 MS 1009676-22 ND 26.820 25.000 ug/L 107 70 - 130 MSD 1009676-22 ND 27.990 25.000 ug/L 4.3 112 20 70 - 130 MS 1009676-22 ND 10.650 10.000 ug/L 4.3 112 20 76 - 114 MSD 1009676-22 ND 10.340 10.000 ug/L 96.1 88 - 110 MSD 1009676-22 ND 10.050 10.000 ug/L 96.1 88 - 110 MS 1009676-22 ND 10.050 10.000 ug/L



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG0777						
Gasoline Range Organics (C4 - C12)	BTG0777-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTG0777-BLK1	112	%	70 - 130	(LCL - UCL)	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

							Control Limits				
				Spike		Percent		Percent			
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals	
QC Batch ID: BTG0777											
Gasoline Range Organics (C4 - C12)	BTG0777-BS1	LCS	1073.6	1000.0	ug/L	107		85 - 115			
a,a,a-Trifluorotoluene (FID Surrogate)	BTG0777-BS1	LCS	44.491	40.000	ug/L	111		70 - 130			



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTG0777	Used	client sample	: N								
Gasoline Range Organics (C4 - C12)	MS	1007897-93	ND	1061.1	1000.0	ug/L		106		70 - 130	
	MSD	1007897-93	ND	1044.6	1000.0	ug/L	1.6	104	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1007897-93	ND	45.386	40.000	ug/L		113		70 - 130	
	MSD	1007897-93	ND	45.813	40.000	ug/L		115		70 - 130	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG1302						
Diesel Range Organics (C12 - C24)	BTG1302-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTG1302-BLK1	83.4	%	28 - 139	(LCL - UCL)	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

								Control L	<u>imits</u>	
Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
QC Batch ID: BTG1302										
Diesel Range Organics (C12 - C24)	BTG1302-BS1	LCS	446.37	500.00	ug/L	89.3		48 - 125		



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTG1302	Used	client sample	: N								
Diesel Range Organics (C12 - C24)	MS	1007897-94	ND	464.74	500.00	ug/L		92.9		36 - 130	
	MSD	1007897-94	ND	454.50	500.00	ug/L	2.2	90.9	30	36 - 130	
Tetracosane (Surrogate)	MS	1007897-94	ND	18.378	20.000	ug/L		91.9		28 - 139	
	MSD	1007897-94	ND	17.426	20.000	ug/L		87.1		28 - 139	



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG0981						
Total Magnesium	BTG0981-BLK1	ND	mg/L	0.050		
QC Batch ID: BTG1273						
Sulfate	BTG1273-BLK1	ND	mg/L	1.0		
QC Batch ID: BTG1416						
Total Magnesium	BTG1416-BLK1	ND	mg/L	0.050		



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

								Control L	<u>imits</u>	
				Spike		Percent		Percent		
Constituent	QC Sample ID	Туре	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals
QC Batch ID: BTG0981										
Total Magnesium	BTG0981-BS1	LCS	9.8309	10.000	mg/L	98.3		85 - 115		
QC Batch ID: BTG1273										
Sulfate	BTG1273-BS1	LCS	99.351	100.00	mg/L	99.4		90 - 110		
QC Batch ID: BTG1416										
Total Magnesium	BTG1416-BS1	LCS	10.023	10.000	mg/L	100		85 - 115		



Reported: 07/28/2010 12:42

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

					·	·			Cont	rol Limits	•
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTG0981	Used	client sample:	N								
Total Magnesium	DUP	1009689-01	69.683	68.564		mg/L	1.6		20		
	MS	1009689-01	69.683	80.981	10.000	mg/L		113		75 - 125	
	MSD	1009689-01	69.683	81.369	10.000	mg/L	3.4	117	20	75 - 125	
QC Batch ID: BTG1273	Used	client sample:	Y - Descr	iption: U-11-	-wk7, 07/13/	2010 12:1	0				
Sulfate	DUP	1009736-01	1834.6	1841.0		mg/L	0.3		10		
	MS	1009736-01	1834.6	2896.2	1010.1	mg/L		105		80 - 120	
	MSD	1009736-01	1834.6	2889.7	1010.1	mg/L	0.6	104	10	80 - 120	
QC Batch ID: BTG1416	Used	client sample:	N								
Total Magnesium	DUP	1009861-01	24.178	24.363		mg/L	8.0		20		
	MS	1009861-01	24.178	34.220	10.000	mg/L		100		75 - 125	
	MSD	1009861-01	24.178	33.054	10.000	mg/L	12.3	88.8	20	75 - 125	



Delta Environmental Consultants, Inc. Reported: 11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670 Project Number: 4513481270 Project Manager: Jim Barnard

07/28/2010 12:42

Project: 4186

Notes And Definitions

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit RPD Relative Percent Difference

PQL's and MDL's are raised due to sample dilution. A01

A52 Chromatogram not typical of diesel.



Date of Report: 08/02/2010

Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

RE: 4186 BC Work Order: 1010328 Invoice ID: B084392

Enclosed are the results of analyses for samples received by the laboratory on 7/27/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Molly Meyers

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



Table of Contents

Sample Information	
Chain of Custody and Cooler Receipt form	4
Laboratory / Client Sample Cross Reference	6
Sample Results	
1010328-01 - U-11-wk9	
Volatile Organic Analysis (EPA Method 8260)	8
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	
Water Analysis (Metals)	
1010328-02 - U-8-wk9	
Volatile Organic Analysis (EPA Method 8260)	13
Purgeable Aromatics and Total Petroleum Hydrocarbons	14
Total Petroleum Hydrocarbons	15
Water Analysis (General Chemistry)	16
Water Analysis (Metals)	17
1010328-03 - U-10-wk9	
Volatile Organic Analysis (EPA Method 8260)	18
Purgeable Aromatics and Total Petroleum Hydrocarbons	19
Total Petroleum Hydrocarbons	20
Water Analysis (General Chemistry)	21
Water Analysis (Metals)	22
1010328-04 - SP-2-wk9	
Volatile Organic Analysis (EPA Method 8260)	23
Purgeable Aromatics and Total Petroleum Hydrocarbons	24
Water Analysis (General Chemistry)	25
Water Analysis (Metals)	26
1010328-05 - SP-5-wk9	
Volatile Organic Analysis (EPA Method 8260)	
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	
Water Analysis (Metals)	30
1010328-06 - SP-8-wk9	
Volatile Organic Analysis (EPA Method 8260)	
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Water Analysis (General Chemistry)	
Water Analysis (Metals)	34
Quality Control Reports	
Volatile Organic Analysis (EPA Method 8260)	
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	37
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	40
Total Petroleum Hydrocarbons	
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	43
Water Analysis (General Chemistry)	
Method Blank Analysis	
Laboratory Control Sample	
Precision and Accuracy	46



Table of Contents

	Water Analysis (Metals)	
	Method Blank Analysis	47
	Laboratory Control Sample	
	Precision and Accuracy	
Notes		
	Notes and Definitions	50

П
Ä
w

Laboratories, Inc. Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1010328

Page 1 of 2

ConocoPhillips Chain Of Custody Record

	BC Laborator	ies, Inc.										<u>.</u>							252 170	W. 101		100			-			
			Conocol	Phillips \$	Site Mar	nager:				Terry Gr	aysor	1						200	Connoc	РЫЦ	S SAP	Proje	et Num	per	8			
	4100 Atlas	Court	INVOICE	REMITT	ANCE A	ADDRE	SS:				CONC	сорі	HILLIP	s												DATE:		
	Bakersfield, C	A 93308									Attn:	Dee H	lutchir	nson				Ce	посоРі	itips	Requie	ition /	Line N	umber	1007			
	-										3811 S Santa			or, Suite 200 2704	,			1000		200			-	-	7	AGE:	of	_
(66	1) 327-4911 (661) 327-1918 fax									Janua	,	on	2107						To	OBAL	10.00						_
SAMPLIN	G COMPANY:		Valid Value (0)				CONOCOPHIL		WWIER	ı										1 -	0800							
	Consultants						SS# 4186 SITE ADDRESS		1000						_		_						PE SITE I	VANAGE	68:			_
ADDRE		40 Db- Cd	CA OFFICE																									
	White Rock Road #1		I, CA 85670				1771 1883	St, Liver	nore,	CA											erry G	yraya	.OII			ww		
		James Barn					DOF DELIVER	ABLE TO JA	Plat Des	signer);							UE 102.1	-1275			ML: mv.L.G	taxaa:	•Boom	100	AB USE		200	
TELEPI		FAX	E-MAIL: jbarnard@c	deltaenu ci			Jim Barna	ard (Delt	a)							311	,-505	-1275					pa com	1	11).	-10	828	
		(916) 638-8385																_		_		_			117	1 4		
STABLE	RAMMEISI (Print):		CONSULTANT	C10418			1								RE(QUES	TEC	ANA	LYSE	s								
	Alan Buel			C10418	9910		-	1			_	T	-		_	_	_		-	_	\neg	\neg	\neg	\neg		T		_
TURN	AROUND TIME (CALEND) DAYS 7 DAYS 2 72	IR DAYS):	T to HOURS	□ usss	THAN 24 H	ours	1	1				1																
□ 14	DAYS 7 DWYS 21 72	HDDRS [] 48 HOOKS [-		lΙ					1 1										1			FIELD NOTES:	
**3	day turnaround t	ime.					1	1	ΙI		l e																	
SPECI	AL INSTRUCTIONS OF	NOTES:	CHECK 6	SOX IF EDD	SNEEDED				l . l		분					1	1	1				- 1	- 1			1	Container/Preservative or PID Readings	
1									1 20		1 8						1									1	or Laboratory Notes	
Please	CC Alan Buehler at a	ibuehler@deltaenv.co	ım on ali rep	orts.					\	_	ğ	99						1										
							2	문	ă	ş	3	E				1	1	1			-1	-1						
l							TPH9	TPHd.	5	Sulfate	P	5				1					-1							
	eld Point name only re	quired if different fron	Sample ID				- i	18	ġ		l ė	ÌÈ						1	- 1							TEM	PERATURE ON RECEIPT C*	_
USC		ation/Field Point	DATE	TIME	MATRIX	NO, OF CONT.	8015M	801614	8260B - BTEX, MTBE	300.0	6010B - Total Magneslum	Chrome VI (7199)				-				-	- 1			1	-			
OWA	Na					-	×	X	×	X	×	х	\vdash		-	\neg	\top	\top			\neg	\top	\top	\top		\top	Various Preservatives	
Ì -	U-11	-wk9	7/26/10	11:25a	H2O	9	_ ×	^	1		<u> ^</u>	1^	-		+	+	+	+-	\vdash	+	+	+	+	+	+	+-	Not Field Filtered	_
- 2	U-B	wk9	7/28/10	11:40a	H2O	9	×	Х	×	х	×	Х						Ļ		_	_	\perp	_	\perp	\perp	\perp		_
3	U-10	0-wk9	7/26/10	1:05a	H20	9	х	х	х	Х	×	Х			C	HK	ВУ	7	0	80	ENB	111	100	10				
-	en :		7/26/10	12:00a	H20	7	×	-	X	×		X				7	7	1	R	10	17	*	30	\approx	٠II			
4	SP-2	2-wk9	7/26/10	12:008	120		<u> </u>		\vdash	_	-	-	-	1	b	4	+	1-8	No.	4	15	7	MI	X	<u></u>	+		-
5	SP-8	5-wk9	7/25/10	1:25a	H20	7	×		X	×		×		46	1_			l		8.	唐.	OL:	TE		-#-		npres. Poly only 0.5 full.	18.00
10	ep.	5-wk9	7/28/10	12:40a	H2O	7	×		х	×		X**			-	T	X	7		-		-	-	-			npres. Pory only 0.5 full. rugh to run Sulfate and	ii ne
4	35-4	7-86.0	1,20.10	12.700	1120	 			-		+-	-	-		+	16	1	17	-	+	+	+	+	+	_		ome, please run Sulfate.	_
											_						\$	<u> </u>	-		-	_	_		+	+		_
							1								10	7	SH	ΦRT	11	OL	OHN	Ğ	TIM	r:	7			
				-	-	-	 	-	-	-	+-	+	 		11	9	#	AC.		N	5.		DP.	SS	2	\top		
							-	-	-		-	-	-	-	#	26	1,	10	DA		_	-	-	100	4	-		_
							1		.						1-		-+-	72	BO	D	M	BA	S 1	CDT				
Hillian	arya by 1980 mensus	3 (1			Received to	ysteyess	· ()	, ,	/											Cusic T	7/	107	To	2	fo	re J.	2/2	
15/2	(1				/	as	0 BU	As	02											7	12	-+	110	1	-	//	~/U	_
Rynag	ignition by ISismolified	1 1			Received to	y Zi	r)	1												Date:	5,-	っ〜	7.1	n	- 1"		815	
1 /	1020 1 Victor	64 7/27/11	1		HK/	U/Li	ب بنك	جسک												Ditte	1.	- 1		Ų.	- 1		0.17	

721.10 21ar

7/27/10



MU

Chain of Custody and Cooler Receipt Form for 1010328 Page 2 of 2

Submission #: 10-10328 SHIPPING INFO	PMATION		-			SHIPPIN	G CON	TAINED		
Federal Express UPS O BC Lab Field Service O Other	Hand Deliv			lc	e Chest (a`	Non		:ify)	
Refrigerant: Ice Blue Ice	□ None	□ Oth	ner 🗆	Comments	5:					
Custody Seals Ice Chest Intact? Yes D No D	Containe Intact? Yes		None 5	Commer	ıts:					
All samples received? Yes ☑ No □	All samples	containers	intact? Ye	esø No⊡	ı	Descripti	on(s) mat	ch COC? Y	es,⊠`No	0
COC Received	Emissivity: (Temperature:						3	Date/Tim Analyst li	1 <i>FE F</i> : 0 NCAL_ Jin	10 ₂₁₁₇
		-		Appenia	SAMPLE			_		·
SAMPLE CONTAINERS	11	2	3	4	. 5	6	7	<u> </u>	9	10
QT GENERAL MINERAL/ GENERAL PHYSIC PT PE UNPRESERVED	B	B	13	B	B	82		1	-	+
	1		- 12	10					1	1
OT INORGANIC CHEMICAL METALS	C	C	C							1
PT INORGANIC CHEMICAL METALS	+-			-						1
PT CYANIDE										
PT NITROGEN FORMS								-	 	
PT TOTAL SULFIDE								+	1	+
Log. NITRATE / NITRITE								+	1	+
PT TOTAL ORGANIC CARBON				-				1	1	+
PT TOX		-		1			-		 	+
PT CHEMICAL OXYGEN DEMAND										-
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	P-10	Aio	Aie	PIL	Ale	PRO	,	1 (1	1 1
40ml VOA VIAL	1100	17.0	11100	F CASE	1 425.	1 100	<u> </u>	1	1	
OT EPA 413.1, 413.2, 418.1 PT ODOR									1	1
RADIOLOGICAL	1		1							
BACTERIOLOGICAL			<u> </u>							
40 ml VOA VIAL- 504										
OT EPA 508/608/8080				-						
OT EPA 515.1/8150	1									
OT EPA 525										
OT EPA 525 TRAVEL BLANK										
100ml EPA 547					,					
100mi EPA 531.1								3		
OT EPA 548										
OT EPA 549										
OT BPA 632										
QT EPA 8015M										
OT AMBER	G	D	D				I			
8 OZ. JAR										
32 OZ. JAR		1								-
SOIL SLEEVE		T	1							
PCB VIAL	1	-	1			1				
PLASTIC BAG				-						
FERROUS IRON		1								
ENCORE										
Comments: - OB PECSIVE A Sample Numbering Completed By: A = Actual / C = Corrected	yz. a. juw	All- 50 Date/I	m plac ime: 7	5 Nep	230E	EIVED 5 1 V 1 DOCSWAD	POS 000 F 000 V	ST Th	2 (x n=c2WH3 n=10	50 H.



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1010328-01 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: U-11-wk9
Sampled By: DECR

Receive Date: 07/27/2010 21:05 **Sampling Date:** 07/26/2010 11:25

Sample Depth: --Sample Matrix: Water
Delivery Work Order:

Global ID: T0600101777 Location ID (FieldPoint): U-11

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1010328-02 COC Number: --

Project Number: 4186
Sampling Location: --Sampling Point: U-8-wk9
Sampled By: DECR

 Receive Date:
 07/27/2010
 21:05

 Sampling Date:
 07/26/2010
 11:40

Sample Depth: --Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777

Location ID (FieldPoint): U-8

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

Sample Depth:

1010328-03 COC Number: --

Project Number: 4186
Sampling Location: ---

Sampling Point: U-10-wk9
Sampled By: DECR

Receive Date: 07/27/2010 21:05 **Sampling Date:** 07/26/2010 13:05

Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777
Location ID (FieldPoint): U-10

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1010328-04 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-2-wk9
Sampled By: DECR

Receive Date: 07/27/2010 21:05 **Sampling Date:** 07/26/2010 12:05

Sample Depth: --Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101777
Location ID (FieldPoint): SP-2

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1010328-05 COC Number: -

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-5-wk9
Sampled By: DECR

Receive Date: 07/27/2010 21:05 **Sampling Date:** 07/26/2010 13:25

Sample Depth: --Sample Matrix: Water

Delivery Work Order: Global ID: T0600101777 Location ID (FieldPoint): SP-5

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1010328-06 COC Number: --

Project Number: 4186 Sampling Location: ---

Sampling Point: SP-8-wk9
Sampled By: DECR

Receive Date: 07/27/2010 21:05 **Sampling Date:** 07/26/2010 12:40

Sample Depth: --Sample Matrix: Water
Delivery Work Order:

Global ID: T0600101777
Location ID (FieldPoint): SP-8

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1010328-01	Client Sampl	e Name:	4186, U-11-wk9, 7/2	26/2010 11:25:00)AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		2.9	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		3.6	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		4200	ug/L	50	EPA-8260	ND	A01	2
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		1.6	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4 (S	Surrogate)	98.0	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (S	Surrogate)	100	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)		102	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		97.9	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	111	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)	EPA-8260			2

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	07/28/10	07/28/10 17:51	MGC	MS-V5	1	BTG1634	
2	EPA-8260	07/28/10	07/29/10 10:37	MGC	MS-V5	100	BTG1634	

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-01	Client Sampl	e Name:	4186, U-11-wk9, 7/2	26/2010 11:25:00	DAM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Orga	nics (C4 - C12)	5500	ug/L	500	Luft	ND	A01,A91	1	
a,a,a-Trifluorotoluene	(FID Surrogate)	104	%	70 - 130 (LCL - UCL)	Luft			1	

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/27/10	07/28/10 16:00	jjh	GC-V4	10	BTG1564	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-01	Client Sampl	e Name:	4186, U-11-wk9, 7/2	26/2010 11:25:00)AM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Diesel Range Organio	cs (C12 - C24)	340	ug/L	50	Luft/TPHd	ND		1	
Tetracosane (Surroga	te)	93.2	%	28 - 139 (LCL - UCL)	Luft/TPHd			1	

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft/TPHd	07/28/10	07/29/10 12:17	EJB	GC-5	1	BTG1731	



Reported: 08/02/2010 15:35

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Water Analysis (General Chemistry)

BCL Sample ID:	1010328-01	Client Sample	e Name:	4186, U-11-w	k9, 7/26/2010 11:25:00AN	1			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Total Magnesium		820	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		2700	mg/L	10	EPA-300.0	ND	A01	2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	07/29/10	07/30/10 09:19	ARD	PE-OP1	1	BTG1753	
2	EPA-300.0	07/29/10	07/29/10 16:24	LD1	IC2	10	BTG1807	



Delta Environmental Consultants, Inc.

11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

BCL Sample ID:	1010328-01	Client Sampl	e Name:	4186, U-11-wł	k9, 7/26/2010 11:25:00	AM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Hexavalent Chromium		ND	ug/L	0.20	EPA-7199	ND	A26,S05	1	

			QC					
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-7199	07/28/10	07/28/10 09:43	LD1	IC-4	1	BTG1740	

MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1010328-02	Client Sampl	e Name:	4186, U-8-wk9, 7/26	5/2010 11:40:00 <i>A</i>	ΑM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		3.0	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		1.9	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Toluene		0.50	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		1.3	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	94.1	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	114	%	86 - 115 (LCL - UCL)	EPA-8260			1

		Run					QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8260	07/28/10	07/28/10 18:20	MGC	MS-V5	1	BTG1634		

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-02	Client Sampl	e Name:	4186, U-8-wk9, 7/26	6/2010 11:40:00A	М		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Orga	nics (C4 - C12)	1200	ug/L	500	Luft	ND	A01	1
a,a,a-Trifluorotoluene	(FID Surrogate)	106	%	70 - 130 (LCL - UCL)	Luft			1

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/27/10	07/28/10 16:21	jjh	GC-V4	10	BTG1564	



11050 White Rock Rd, Suite 110

Reported: 08/02/2010 15:35 Delta Environmental Consultants, Inc.

Project: 4186 Rancho Cordova, CA 95670 Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-02	Client Sampl	e Name:	4186, U-8-wk9, 7/26	6/2010 11:40:00 <i>P</i>				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Diesel Range Organio	s (C12 - C24)	430	ug/L	50	Luft/TPHd	ND		1	
Tetracosane (Surroga	te)	81.8	%	28 - 139 (LCL - UCL)	Luft/TPHd			1	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft/TPHd	07/28/10	07/29/10 12:32	EJB	GC-5	0.980	BTG1731	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

BCL Sample ID:	1010328-02	Client Sample	ient Sample Name: 4186, U-8-wk9, 7/26/2010 11:40:00AM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Magnesium		100	mg/L	0.050	EPA-6010B	ND		1
Sulfate		9.2	mg/L	1.0	EPA-300.0	ND		2

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	07/30/10	08/02/10 07:17	ARD	PE-OP1	1	BTG1848	
2	EPA-300.0	07/29/10	07/29/10 17:46	LD1	IC2	1	BTG1807	



08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

BCL Sample ID:	1010328-02	Client Sampl	e Name:	4186, U-8-wk	9, 7/26/2010 11:40:00AN			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium		ND	ug/L	0.20	EPA-7199	ND	A26,S05	1

		Run				QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-7199	07/28/10	07/28/10 10:33	LD1	IC-4	1	BTG1740		

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1010328-03	Client Sampl	e Name:	4186, U-10-wk9, 7/2	26/2010 1:05:00	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		26	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		12	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		130	ug/L	5.0	EPA-8260	ND	A01	2
Toluene		1.5	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		12	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	89.2	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4	(Surrogate)	96.6	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.9	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	(Surrogate)	108	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			2

			QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260	07/28/10	07/28/10 18:48	MGC	MS-V5	1	BTG1634
2	EPA-8260	07/28/10	07/29/10 11:06	MGC	MS-V5	10	BTG1634

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-03	Client Sampl	e Name:	4186, U-10-wk9, 7/2	4186, U-10-wk9, 7/26/2010 1:05:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Gasoline Range Orga	nics (C4 - C12)	4800	ug/L	500	Luft	ND	A01	1		
a,a,a-Trifluorotoluene	(FID Surrogate)	114	%	70 - 130 (LCL - UCL)	Luft			1		

	Run					QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	Luft	07/27/10	07/28/10 16:44	jjh	GC-V4	10	BTG1564			



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-03	Client Sampl	e Name:	4186, U-10-wk9, 7/2	26/2010 1:05:00	PM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Diesel Range Organic	cs (C12 - C24)	150	ug/L	50	Luft/TPHd	ND		1	
Tetracosane (Surroga	te)	80.0	%	28 - 139 (LCL - UCL)	Luft/TPHd			1	

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft/TPHd	07/28/10	07/29/10 12:45	EJB	GC-5	1	BTG1731	



MU

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

BCL Sample ID:	1010328-03	Client Sample	e Name:	4186, U-10-wk	(9, 7/26/2010 1:05:00P	М			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Total Magnesium		95	mg/L	0.050	EPA-6010B	ND		1	
Sulfate		25	mg/L	1.0	EPA-300.0	ND		2	

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-6010B	07/29/10	07/30/10 09:21	ARD	PE-OP1	1	BTG1753	
2	EPA-300.0	07/29/10	07/29/10 18:00	LD1	IC2	1	BTG1807	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

BCL Sample ID:	1010328-03	Client Sampl	e Name:	me: 4186, U-10-wk9, 7/26/2010 1:05:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Hexavalent Chromium		ND	ug/L	0.20	EPA-7199	ND	A26,S05	1	

				QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-7199	07/28/10	07/28/10 10:45	LD1	IC-4	1	BTG1740	

Delta Environmental Consultants, Inc.

11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1010328-04	Client Sampl	e Name:	4186, SP-2-wk9, 7/2	26/2010 12:05:00)PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		28	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		5.2	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		620	ug/L	5.0	EPA-8260	ND	A01	2
Toluene		1.5	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		4.3	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4	(Surrogate)	109	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4	(Surrogate)	102	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate	e)	100	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate	:)	104	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene	e (Surrogate)	114	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	e (Surrogate)	111	%	86 - 115 (LCL - UCL)	EPA-8260			2

			Run				QC	
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	07/28/10	07/28/10 19:17	MGC	MS-V5	1	BTG1634	
2	EPA-8260	07/28/10	07/29/10 11:34	MGC	MS-V5	10	BTG1634	

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-04	Client Sampl	e Name:	4186, SP-2-wk9, 7/2	4186, SP-2-wk9, 7/26/2010 12:05:00PM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #			
Gasoline Range Orga	nics (C4 - C12)	5200	ug/L	500	Luft	ND	A01	1			
a,a,a-Trifluorotoluene	(FID Surrogate)	118	%	70 - 130 (LCL - UCL)	Luft			1			

			Run				QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	Luft	07/27/10	07/28/10 17:05	jjh	GC-V4	10	BTG1564		

08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

BCL Sample ID: 1010328-04		Client Sample Name:		4186, SP-2-w	/k9, 7/26/2010 12:05:00F	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Sulfate		50	mg/L	1.0	EPA-300.0	ND		1

			Run				QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-300.0	07/29/10	07/29/10 18:13	LD1	IC2	1	BTG1807		



08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

BCL Sample ID:	1010328-04	Client Sample	e Name:	4186, SP-2-wk9, 7/26/2010 12:05:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Hexavalent Chromium		ND	ug/L	0.20	EPA-7199	ND	A26,S05	1	

	Run					QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-7199	07/28/10	07/28/10 10:58	LD1	IC-4	1	BTG1740	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 10	10328-05	Client Sample	e Name:	4186, SP-5-wk9, 7/2	4186, SP-5-wk9, 7/26/2010 1:25:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #		
Benzene		ND	ug/L	0.50	EPA-8260	ND		1		
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1		
Methyl t-butyl ether		3.8	ug/L	0.50	EPA-8260	ND		1		
Toluene		ND	ug/L	0.50	EPA-8260	ND		1		
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1		
1,2-Dichloroethane-d4 (Surro	gate)	96.1	%	76 - 114 (LCL - UCL)	EPA-8260			1		
Toluene-d8 (Surrogate)		100	%	88 - 110 (LCL - UCL)	EPA-8260			1		
4-Bromofluorobenzene (Surro	gate)	104	%	86 - 115 (LCL - UCL)	EPA-8260			1		

	Run						QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8260	07/28/10	07/28/10 19:46	MGC	MS-V5	1	BTG1634		

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-05	Client Sampl	e Name:	4186, SP-5-wk9, 7/2	26/2010 1:25:00	PM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Orga	nics (C4 - C12)	510	ug/L	50	Luft	ND		1	
a,a,a-Trifluorotoluene	(FID Surrogate)	116	%	70 - 130 (LCL - UCL)	Luft			1	

					QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/27/10	07/29/10 08:38	jjh	GC-V4	1	BTG1564	

08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

BCL Sample ID:	1010328-05	Client Sample Name: 4186, SP-5-wk9, 7/26/2010 1:25:00PM						
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Sulfate		16	mg/L	1.0	EPA-300.0	ND		1

	Run					QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-300.0	07/29/10	07/29/10 18:27	LD1	IC2	1	BTG1807		



08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

BCL Sample ID:	1010328-05	Client Sampl	e Name:	4186, SP-5-wk9, 7/26/2010 1:25:00PM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#	
Hexavalent Chromium		ND	ug/L	0.20	EPA-7199	ND	A26,S05	1	

				QC				
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-7199	07/28/10	07/28/10 11:10	LD1	IC-4	1	BTG1740	

Mul

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1010328-06 Client Sample Name:				4186, SP-8-wk9, 7/2	26/2010 12:40:00)PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		9.4	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		3.1	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		30	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		1.5	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		101	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene	(Surrogate)	106	%	86 - 115 (LCL - UCL)	EPA-8260			1

	Run						QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8260	07/28/10	07/28/10 20:14	MGC	MS-V5	1	BTG1634		

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1010328-06	Client Sampl	e Name:	4186, SP-8-wk9, 7/2	26/2010 12:40:00)PM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Orga	nics (C4 - C12)	420	ug/L	50	Luft	ND		1	
a,a,a-Trifluorotoluene	(FID Surrogate)	108	%	70 - 130 (LCL - UCL)	Luft			1	

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	Luft	07/27/10	07/29/10 09:00	jjh	GC-V4	1	BTG1564	

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

BCL Sample ID:	1010328-06	Client Sample	e Name:	4186, SP-8-v	vk9, 7/26/2010 12:40:00F	PM			
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Sulfate		27	mg/L	1.0	EPA-300.0	ND		1	

			Run			QC				
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID			
1	EPA-300.0	07/29/10	07/29/10 18:40	LD1	IC2	1	BTG1807			



08/02/2010 15:35 Reported:

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

BCL Sample ID:	1010328-06	Client Sample	e Name:	4186, SP-8-v	wk9, 7/26/2010 12:40:00P	PM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium		ND	ug/L	0.20	EPA-7199	ND	A26,S05	1

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-7199	07/28/10	07/28/10 11:48	LD1	IC-4	1	BTG1740	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG1634						
Benzene	BTG1634-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTG1634-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTG1634-BLK1	ND	ug/L	0.50		
Toluene	BTG1634-BLK1	ND	ug/L	0.50		
Total Xylenes	BTG1634-BLK1	ND	ug/L	1.0		
1,2-Dichloroethane-d4 (Surrogate)	BTG1634-BLK1	94.5	%	76 - 114	(LCL - UCL)	
Toluene-d8 (Surrogate)	BTG1634-BLK1	98.5	%	88 - 110	(LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	BTG1634-BLK1	97.6	%	86 - 115	(LCL - UCL)	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

							Control Limits			
		_	- "	Spike		Percent		Percent		
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals
QC Batch ID: BTG1634										
Benzene	BTG1634-BS1	LCS	23.860	25.000	ug/L	95.4		70 - 130		
Toluene	BTG1634-BS1	LCS	26.650	25.000	ug/L	107		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTG1634-BS1	LCS	8.8000	10.000	ug/L	88.0		76 - 114		
Toluene-d8 (Surrogate)	BTG1634-BS1	LCS	9.9200	10.000	ug/L	99.2		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTG1634-BS1	LCS	9.6400	10.000	ug/L	96.4		86 - 115		



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Volatile Organic Analysis (EPA Method 8260)

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTG1634	Used	client sample	: N								
Benzene	MS	1010261-01	ND	22.600	25.000	ug/L		90.4		70 - 130	
	MSD	1010261-01	ND	22.950	25.000	ug/L	1.5	91.8	20	70 - 130	
Toluene	MS	1010261-01	ND	24.650	25.000	ug/L		98.6		70 - 130	
	MSD	1010261-01	ND	24.270	25.000	ug/L	1.6	97.1	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1010261-01	ND	9.5400	10.000	ug/L		95.4		76 - 114	
	MSD	1010261-01	ND	9.4500	10.000	ug/L		94.5		76 - 114	
Toluene-d8 (Surrogate)	MS	1010261-01	ND	9.9600	10.000	ug/L		99.6		88 - 110	
	MSD	1010261-01	ND	9.8600	10.000	ug/L		98.6		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1010261-01	ND	9.7900	10.000	ug/L		97.9		86 - 115	
	MSD	1010261-01	ND	10.080	10.000	ug/L		101		86 - 115	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG1564						
Gasoline Range Organics (C4 - C12)	BTG1564-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTG1564-BLK1	99.0	%	70 - 130	(LCL - UCL)	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

								Control Limits			
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals	
QC Batch ID: BTG1564											
Gasoline Range Organics (C4 - C12)	BTG1564-BS1	LCS	1069.2	1000.0	ug/L	107		85 - 115			
a,a,a-Trifluorotoluene (FID Surrogate)	BTG1564-BS1	LCS	42.571	40.000	ug/L	106		70 - 130			



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Purgeable Aromatics and Total Petroleum Hydrocarbons

								Control Limits					
		Source	Source		Spike			Percent		Percent	Lab		
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals		
QC Batch ID: BTG1564	Used	ed client sample: N											
Gasoline Range Organics (C4 - C12)	MS	1009676-14	ND	1007.3	1000.0	ug/L		101		70 - 130			
	MSD	1009676-14	ND	1036.2	1000.0	ug/L	2.8	104	20	70 - 130			
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1009676-14	ND	43.096	40.000	ug/L		108		70 - 130			
	MSD	1009676-14	ND	43.104	40.000	ug/L		108		70 - 130			



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG1731						
Diesel Range Organics (C12 - C24)	BTG1731-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTG1731-BLK1	49.7	%	28 - 139	(LCL - UCL)	



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

								Control Limits				
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals		
QC Batch ID: BTG1731												
Diesel Range Organics (C12 - C24)	BTG1731-BS1	LCS	379.47	500.00	ug/L	75.9		48 - 125				
Tetracosane (Surrogate)	BTG1731-BS1	LCS	14.105	20.000	ug/L	70.5		28 - 139				



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Total Petroleum Hydrocarbons

									Cont	rol Limits		
		Source	Source		Spike			Percent		Percent	Lab	
Constituent	Туре	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals	
QC Batch ID: BTG1731	Used	client sample	: N									
Diesel Range Organics (C12 - C24)	MS	1009676-45	ND	361.01	500.00	ug/L		72.2		36 - 130		
	MSD	1009676-45	ND	342.12	500.00	ug/L	5.4	68.4	30	36 - 130		
Tetracosane (Surrogate)	MS	1009676-45	ND	12.897	20.000	ug/L		64.5		28 - 139		
	MSD	1009676-45	ND	11.755	20.000	ug/L		58.8		28 - 139		



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (General Chemistry)

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG1753						
Total Magnesium	BTG1753-BLK1	ND	mg/L	0.050		
QC Batch ID: BTG1807						
Sulfate	BTG1807-BLK1	ND	mg/L	1.0		
QC Batch ID: BTG1848						
Total Magnesium	BTG1848-BLK1	ND	mg/L	0.050		



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

							Control Limits				
Constituent	OC Samula ID	Tuna	Deculé	Spike	Units	Percent	DDD	Percent	BBB	Lab Ovala	
Constituent	QC Sample ID	Туре	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals	
QC Batch ID: BTG1753											
Total Magnesium	BTG1753-BS1	LCS	10.052	10.000	mg/L	101		85 - 115			
QC Batch ID: BTG1807											
Sulfate	BTG1807-BS1	LCS	100.89	100.00	mg/L	101		90 - 110			
QC Batch ID: BTG1848											
Total Magnesium	BTG1848-BS1	LCS	10.315	10.000	mg/L	103		85 - 115			

Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (General Chemistry)

									Cont	trol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTG1753	Used	client sample:	N								
Total Magnesium	DUP	1010268-01	47.690	47.490		mg/L	0.4		20		
	MS	1010268-01	47.690	56.766	10.000	mg/L		90.8		75 - 125	
	MSD	1010268-01	47.690	58.899	10.000	mg/L	21.0	112	20	75 - 125	Q02
QC Batch ID: BTG1807	Used	client sample:	Y - Descri	ption: U-11	-wk9, 07/26/	2010 11:2	5				
Sulfate	DUP	1010328-01	2654.2	2653.5		mg/L	0.0		10		
	MS	1010328-01	2654.2	3662.3	1010.1	mg/L		99.8		80 - 120	
	MSD	1010328-01	2654.2	3664.1	1010.1	mg/L	0.2	100	10	80 - 120	
QC Batch ID: BTG1848	Used	client sample:	N								
Total Magnesium	DUP	1010316-01	95.349	95.203		mg/L	0.2		20		
	MS	1010316-01	95.349	101.58	10.000	mg/L		62.3		75 - 125	A03
	MSD	1010316-01	95.349	107.60	10.000	mg/L	65.2	123	20	75 - 125	A03,Q 02



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270
Project Manager: Jim Barnard

Water Analysis (Metals)

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTG1740						
Hexavalent Chromium	BTG1740-BLK1	ND	ug/L	0.20		



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

				_				Control Limits				
				Spike		Percent		Percent				
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Lab Quals		
QC Batch ID: BTG1740												
Hexavalent Chromium	BTG1740-BS1	LCS	19.060	20.000	ug/L	95.3		90 - 110				



Reported: 08/02/2010 15:35

Project: 4186

Project Number: 4513481270 Project Manager: Jim Barnard

Water Analysis (Metals)

									rol Limits		
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: BTG1740	Used	client sample:	Y - Descr	iption: U-11	-wk9, 07/26/2	2010 11:2	5				
Hexavalent Chromium	DUP	1010328-01	ND	ND		ug/L			10		
	MS	1010328-01	ND	19.280	20.202	ug/L		95.4		90 - 110	
	MSD	1010328-01	ND	19.324	20.202	ug/L	0.2	95.7	10	90 - 110	



Delta Environmental Consultants, Inc. Reported: 08/02/2010 15:35 11050 White Rock Rd, Suite 110 Project: 4186

Rancho Cordova, CA 95670 Project Number: 4513481270 Project Manager: Jim Barnard

Notes And Definitions

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit RPD Relative Percent Difference

A01 PQL's and MDL's are raised due to sample dilution.

A03 The sample concentration is more than 4 times the spike level.

A26 Sample received past holding time.

A91 TPH does not exhibit a "gasoline" pattern. TPH is entirely due to MTBE.

Q02 Matrix spike precision is not within the control limits.

S05 The sample holding time was exceeded.