RECEIVED

2:27 pm, Nov 14, 2008

Alameda County Environmental Health



76 Broadway Sacramento, California 95818

November 11, 2008

Mr. Jerry Wickham Alameda County Health Agency 1131 Harbor Bay parkway, Suite250 Alameda, California 94502-577

Re:

Site Investigation Report

Former 76 Service Station # 4186 RO # 0436

1771 First Street Livermore, CA

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 call me at (916) 558-7666.

Sincerely,

Terry L. Grayson Site Manager

Risk Management & Remediation

November 11, 2008

Mr. Jerry Wickham Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Site Investigation Report

Former 76 Station No. 4186

1771 First Street Livermore, California

Fuel Leak Case No. R00000436



Dear Mr. Wickham:

On behalf of ConocoPhillips Company (COP), Delta Consultants (Delta), has prepared this report presenting the results of the installation of eight additional monitoring well at the above-referenced site. The work was performed as proposed in our *Work Plan Addendum* dated October 30, 2007, and approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated March 21, 2008. A copy of the letter is presented as Attachment A.

The investigation consisted of the installation of four middle water bearing zone monitoring wells (U-8 through U-11) and four lower water bearing monitoring wells (U-12 through U-15) to assess the horizontal and vertical extent of the dissolved phase petroleum hydrocarbon impact to the groundwater beneath the site.

SITE BACKGROUND AND PREVIOUS ENVIRONMENTAL WORK

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

In June 1996, during dispenser and piping replacement activities, six soil samples were collected beneath the dispensers and product piping. Total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethyl-benzene and total xylenes (BTEX) were below the laboratory's indicated reporting limits in each of the samples collected and submitted for analysis.



In September 1997, a soil gas survey was conducted at the site. Six soil gas probes were advanced and samples were collected at 3 or 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 by volume (ppbv), benzene was reported at concentrations up to 110 ppbv, and methyl tertiary butyl ether (MTBE) was reported at concentrations up to 8,000 ppbv. The highest concentrations were reported in the area of the USTs.

In June 1998, three groundwater monitoring wells (U-1 through U-3) were installed at the site to depths of 34 feet bgs. TPHg, benzene, and MTBE were below the laboratory's indicated reporting limits in the soil samples collected from the well borings. The approximate well locations are shown on Figure 2.

A site conceptual model (SCM) was completed for the site in May 2000. 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. In addition, it was concluded that petroleum hydrocarbon impact to groundwater appears to fluctuate with the rise and fall of the groundwater surface beneath the site.

In February 2001, 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). TPHg, BTEX, and MTBE were below the laboratory's indicated reporting limits in soil samples collected from the well borings. TPHg and benzene were below the laboratory's indicated reporting limits in the initial groundwater samples collected from monitoring wells U-4 and U-5; however, MTBE was reported at concentrations of 38.2 and 55.4 micrograms per liter (μ g/L), respectively. The approximate well locations are shown on Figure 2.

In December 2001, two additional monitoring wells (U-6 and U-7) and eight ozone 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 dual-nested 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. The approximate well locations are shown on Figure 2.

In April 2006, seven borings (B-1 through B-7) were advanced at the site. Three boreholes were advanced at each boring location. The initial borehole was advanced to record a cone penetration 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 a discrete groundwater sample at approximately 57 feet 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 up to 700 milligrams per kilogram (mg/kg). MTBE was reported in three

upper zone, three clay zone, and two lower zone soil samples at concentrations up to 0.29 milligrams per kilogram (mg/kg). Benzene was reported in three clay zone soil samples at concentrations up to 1.3 milligrams per kilogram (mg/kg). TPHg was reported in each of the 14 groundwater samples at concentrations up to 26,000 μ g/L. Benzene was reported in five upper zone, and six lower zone groundwater samples at concentrations up to 510 μ g/L. MTBE was reported in four upper zone, and six lower zone groundwater samples at concentrations up to 1,100 μ g/L.

In March 2007, two additional on-site borings (B-8 and B-9) and one additional 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 the laboratory's indicated reporting limits in each of the soil samples collected for analysis. TPHg (200 $\mu g/L$), benzene (0.94 $\mu g/L$), and MTBE (7.1 µg/L) were reported in the groundwater sample collected at 79 to 83 feet bgs from boring B-8. TPHg, BTEX, and fuel oxygenates were below the laboratory's indicated reporting limits in the groundwater sample collected at 78 to 88 feet bgs from boring B-9. A low concentration of MTBE (0.73 µg/L) was reported in the groundwater sample collected at 66 to 70 feet bgs from boring B-10, and a low concentration of toluene (1.4 µg/L) was reported in the groundwater sample collected at 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 boring B-9 was not impacted.

Although the ozone system experienced problems with consistent operation, it appeared to be effective as TPHg, BTEX, and MTBE concentrations in monitoring well U-3 significantly decreased since startup of the system. The system was shut down in October 2006 to evaluate for groundwater concentration rebound. In March 2007, oxygen injection testing was performed in sparge wells SP-5/5S and SP-6S to evaluate the radius of influence (ROI) of the existing sparge wells, 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 areas.

Impacted groundwater remains beneath the site in the areas of monitoring wells U-6 and U-7. Impacted groundwater also remains in the northwest portion of the site based on the results of the borings advanced in April 2006.

Sensitive Receptors

Alameda County Zone 7 Water Agency files were reviewed on April 8, 1998, to identify water supply wells located within a one half mile radius of the site. Two municipal wells were identified as present approximately 1,500 feet and 1,800 feet northwest of the site, and two domestic wells were located approximately 1,900 feet and 2,800 feet southwest and west of the site.

2006 – 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 a one mile radius 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 located.

Site Geology and Hydrogeology

The subject site is located in the Livermore Valley in the north-central Coast Range and is underlain by interbedded Holocene age alluvial fan and gravel facies. These deposits are composed of semi-consolidated deposits of sand and gravel in a matrix of clayey sand. During this soil boring assessment and previous field investigations, it was determined that the unsaturated (vadose) zone is composed predominantly of gravel with varying amounts of clay, silt and sand. The saturated zone is composed of clay, silty sand, and gravel.

Groundwater was initially encountered at depths of 28 to 30.5 feet bgs during drilling at the site and across First Street. Historical monitoring data show the static depth to water on-site varies from 23 to 44 feet bgs. The historical groundwater flow direction has varied from northwest to southwest with the most recent gradient of 0.06 feet per foot (ft/ft). The nearest surface water to the site is the Arroyo Mocho Creek, located approximately 2,900 feet south of the site.

Soil encountered during this investigation consisted primarily of gravel with varying amounts of silt and sand near the surface, and continued to depths of approximately 19 to 25 feet bgs. Units composed of clay with various amounts of silt and sand was encountered below the gravel to depths of approximately 32 to 39 feet bgs and 47 to 68 feet bgs. A saturated layer generally consisting of silty sand with gravel and comprised of multiple smaller units consisting of various amounts of gravel, sand and silt was encountered at approximately 32 to 36 feet bgs and continued to a depth of approximately 47 feet bgs. Similar lithology was encountered from 68 feet bgs to the total depth explored, 75 feet bgs. With the exception of monitoring well U-8, roundwater was not encountered in the middle zone monitoring wells. Groundwater in monitoring well U-8 was encountered at a depth of approximately 45 feet bgs. In the lower zone monitoring wells groundwater was first encountered at depths ranging from 70 to 72 feet bgs. Zones of saturated soil varied in thickness and lithology within and between borings.

SITE INVESTIGATION

Pre-Field Activities

A utility survey was conducted prior to the field investigation. Underground Services Alert (USA) was notified prior to drilling and a private utility locator was retained to minimize the risk of damage to underground utilities. Additionally, the first five feet of

the borehole was cleared using an air-knife to further minimize the risk of damage to underground utilities.

Delta prepared a site-specific Health and Safety Plan (HASP) in accordance with Title 8, Section 5192 of the California Code of Regulations. The HASP contained a list of emergency contacts, as well as a hospital route map to the nearest emergency facility.

Drilling permits were obtained for the eight monitoring wells from Zone 7 prior to drilling. A copy of the drilling permits is presented as Attachment B.

Middle Zone Monitoring Well Installation

On September 8, through 12, 2008, Gregg Drilling (Gregg), under supervision of a Delta field geologist, advanced four borings for monitoring wells (U-8 through U-11) at the site. The borings were advanced to a depths ranging from of approximately 45 feet bgs to 50 feet bgs using a truck mounted drill-rig equipped with 8-inch outside diameter hollow-stem augers. The soils encountered in the boring were logged using the Unified Soil Classification System (USCS) for lithologic interpretation and field screened using a calibrated photo ionization detector (PID). Soil samples were collected for lithologic interpretation and field screening at approximately 5-foot intervals beginning at 5 feet bgs. A copy of the boring logs is presented as Attachment C. The boring locations are shown on Figure 2.

Soil samples were collected at depths of approximately 37 feet bgs (U-8), 40 feet bgs, (U-9), 39 and 48 feet bgs, (U-10), and 30 and 44 feet bgs (U-11) were retained for laboratory analysis. The soil samples were analyzed by BC Laboratories (BC) for total purgeable petroleum hydrocarbons (TPPH), BTEX and MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), TBA, 1,2-dichloroethane (1,2-DCA), ethylene di-bromide (EDB), and ethanol - (8 oxygenates) by Environmental Protection Agency (EPA) Method 8260 and total lead by EPA Method 6010B.

The borings were converted to groundwater monitoring wells by installing a 2-inch diameter schedule 40 polyvinyl chloride (PVC) well casing with a screened intervals from 35 and 45 feet bgs. The perforation size in the screened interval was 0.020-inch. A sand pack consisting of RMC Lonestar #3 sand was placed in the annular space and extended to approximately 2 feet above the top of the screen. Borings U-8 and U-10 were advanced to depths of approximately 50 feet bgs and 48.5 feet bgs, respectively and backfilled with a bentonite slurry to a depth of 45 feet bgs prior to well construction.

A 2-foot thick bentonite seal was placed on top of the sand pack. The monitoring wells were surged prior to the placement of the bentonite seal to promote settling of the sand pack. The remainder of the annular space was filled with neat cement and the well fitted with a locking cap and encased in a traffic-rated protective vault placed at existing ground level. Well construction details are shown on Figure 3.

Lower Zone Monitoring Well Installation

On September 22, through October 10, 2008, Gregg Drilling (Gregg), under supervision of a Delta field geologist, advanced four borings for monitoring wells (U-12 through U-15) at the site. The borings were advanced to a depths ranging from of approximately 55 feet bgs to 59 feet bgs using a truck mounted drill-rig equipped with 17-inch outside

diameter tri-cone drill-bit using the mud-rotary drilling method. The soils encountered in the boring were logged using the USCS for lithologic interpretation. Soil samples were collected for lithologic interpretation at approximately 5-foot intervals beginning at 5 feet bgs. A 12-inch outside diameter conductor casing was placed in each the borings and pushed into the clay unit described above a minimum of 2 feet. The final depth of the conductor casing ranged from 52 feet bgs to 57 feet bgs in the four borings.

Subsequent to the installation of the conductor casing the borings were further advanced to depths ranging from 71.5 feet bgs to 75 feet bgs using a truck mounted drill-rig equipped with 10-inch outside diameter hollow-stem augers. The borings were converted to groundwater monitoring wells by installing a 4-inch diameter schedule 40 PVC well casing with a 10-foot screen interval. The perforation size in the screened interval was 0.020-inch. A sand pack consisting of RMC Lonestar #3 sand was placed in the annular space and extended to approximately 2 feet above the top of the screen. A copy of the boring logs is presented as Attachment C. The boring locations are shown on Figure 2.

A 2-foot thick bentonite seal was placed on top of the sand pack. The monitoring wells were surged prior to the placement of the bentonite seal to promote settling of the sand pack. The remainder of the annular space was filled with neat cement and the well fitted with a locking cap and encased in a traffic-rated protective vault placed at existing ground level.

Well Development, Monitoring, and Sampling

On October 13, 2008, Gregg, under supervision of a Delta field geologist, attempted to developed the newly installed middle zone monitoring wells (U-8 through U-11). However, the middle zone monitoring wells contained insufficient water for development. Therefore, Gregg, under supervision of a Delta field geologist, developed the newly installed lower zone monitoring wells (U-12 through U-15). The lower zone monitoring wells were developed using by bailing and a surge block followed by bailing and pumping. A copy of the well development logs is presented as Attachment D.

The newly installed monitoring wells are currently scheduled to be purged and sampled for the first time on December 3, 2008, by TRC Solutions, Inc. (TRC) as part of the quarterly monitoring and sampling activities at the site. Details of the quarterly monitoring and sampling activities will be presented in a report under a separate cover.

Groundwater samples will be collected for analysis from the seven previously installed monitoring wells, five on-site and two off-site, as well as the eight newly installed monitoring wells. Groundwater samples will be analyzed for TPPH, BTEX and MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, EDB, and ethanol by EPA Method 8260B and dissolved lead by EPA Method 6010B. In addition, as directed by the SCEMD the groundwater samples were analyzed for hexavalent chromuim by EPA Method 7196, and total arsenic and total lead by EPA Method 6010B and bromate by EPA Method 300.1 prior to restarting the ozone remediation system.

Wellhead Survey

A California licensed surveyor will be retained to survey the northing and easting of the newly installed monitoring wells as well as the previously installed monitoring wells using Datum NAD 83. The monitoring well elevations will be surveyed relative to mean

sea level, with an accuracy of +/- 0.01 foot on September 15, 2008. A global positioning system (GPS) will be used to survey in the latitude and longitude of the wells. This data will be uploaded to the State GeoTracker database.

Disposal of Drill Cuttings and Wastewater

Drill cuttings generated during the investigation were placed into were placed into roll-off bins properly labeled 55-gallon Department of Transportation (DOT) approved steel drums and temporarily stored on-site. Samples of the drill cuttings, well development water, and decontamination water were collected, properly labeled, placed on ice, and transported to BC with chain of custody documentation. The samples were analyzed for TPPH, BTEX and MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, EDB, and ethanol by EPA Method 8260, and total lead by EPA Method 6010B. The drummed drill cuttings and wastewater are currently being profiled for transportation to and disposal at a COPapproved facility.

RESULTS OF THE INVESTIGATION

The subsurface materials encountered in the borings consisted of silt, clay and sand with well graded gravel. A copy of the boring logs for the monitoring wells is presented as Attachment C.

Data collected during this investigation indicated that TPPH was present in each of the soil samples collected. The highest TPPH concentration (1,900 mg/kg) was found in the soil sample collected from the U-9 boring at a depth of 40 feet bgs. Benzene was present one of the six soil samples collected during this investigation. The highest benzene concentration (0.7 mg/kg) was found in the soil sample collected from boring U-10 at a depth of 48 feet bgs. MTBE was also present four of the six soil samples collected during this investigation. The highest MTBE concentration (1.3 mg/kg) was found in the soil sample collected from boring U-10 at a depth of 48 feet bgs. Soil analytical results are presented in Table 1. A copy of the laboratory report and chain of custody documentation is presented as Attachment E.

CONCLUSIONS AND RECOMMENDATIONS

The analytical results from the soil samples collected and submitted for analysis during this investigation indicate petroleum hydrocarbons are present in the soil at depths ranging from 30 feet bgs to 48 feet bgs. The impacted soil likely originated from the fuel dispensers and the USTs.

Analytical data from soil samples collected during this investigation as well as previous investigations at the site indicate that the highest petroleum hydrocarbon impacted soil is found in the vicinity of borings B-1, B-2, and U-9 at depths ranging from 40 feet bgs to 45 feet bgs. These borings are located in the northwest corner of the site.

Delta recommends that the newly installed monitoring wells (U-8 through U-15) as well as the previously installed monitoring wells (U-1 through U-7) be purged and sampled on a quarterly basis for a minimum of two quarters. Then based on the analytical data from quarterly groundwater monitoring and data obtained during previous site investigations a work plan will be prepared proposing additional ozone injection wells be installed at the site. These injection wells will be added to the existing ozone injection network for the

purpose of remediating the petroleum hydrocarbon impacted soil and groundwater beneath the site.

REMARKS/SIGNATURES

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 will be 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 expressed or implied warranty as to the contents of this report.

If you have any questions regarding this project, please contact me at (916) 503-1261 or Mr. Terry Grayson of COP at (916) 558-7666.

DENNIS SHANNON DETTLOFF No. 7480

OF CALIF

Sincerely,

DELTA CONSULTANTS

Dennis S. Dettloff, P.G. Senior Project Manager

California Registered Professional Geologist No. 7480

Figures:

Figure 1 – Site Location Map

Figure 2 - Site Plan

Figure 3 - Middle Zone Monitoring Well Construction Detail

Table:

Table 1 - Soil Analytical Results

Attachments:

Attachment A - ACHCSA Approval Letter

Attachment B – Drilling Permit

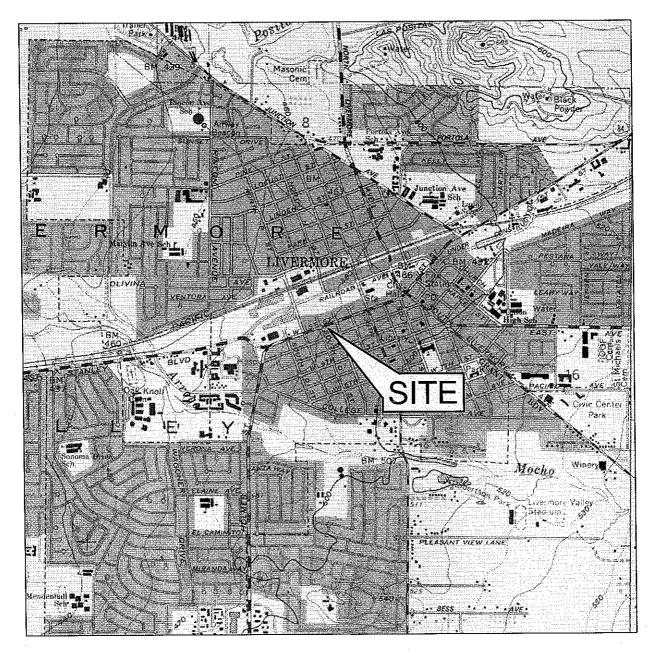
Attachment C - Boring Logs

Attachment D - Well Development Logs

Attachment E - Site Investigation Analytical Reports

cc: Mr. Terry Grayson, ConocoPhillips (electronic copy only)

Figures



0 1000 FT 2000 FT SCALE: 1 : 24,000





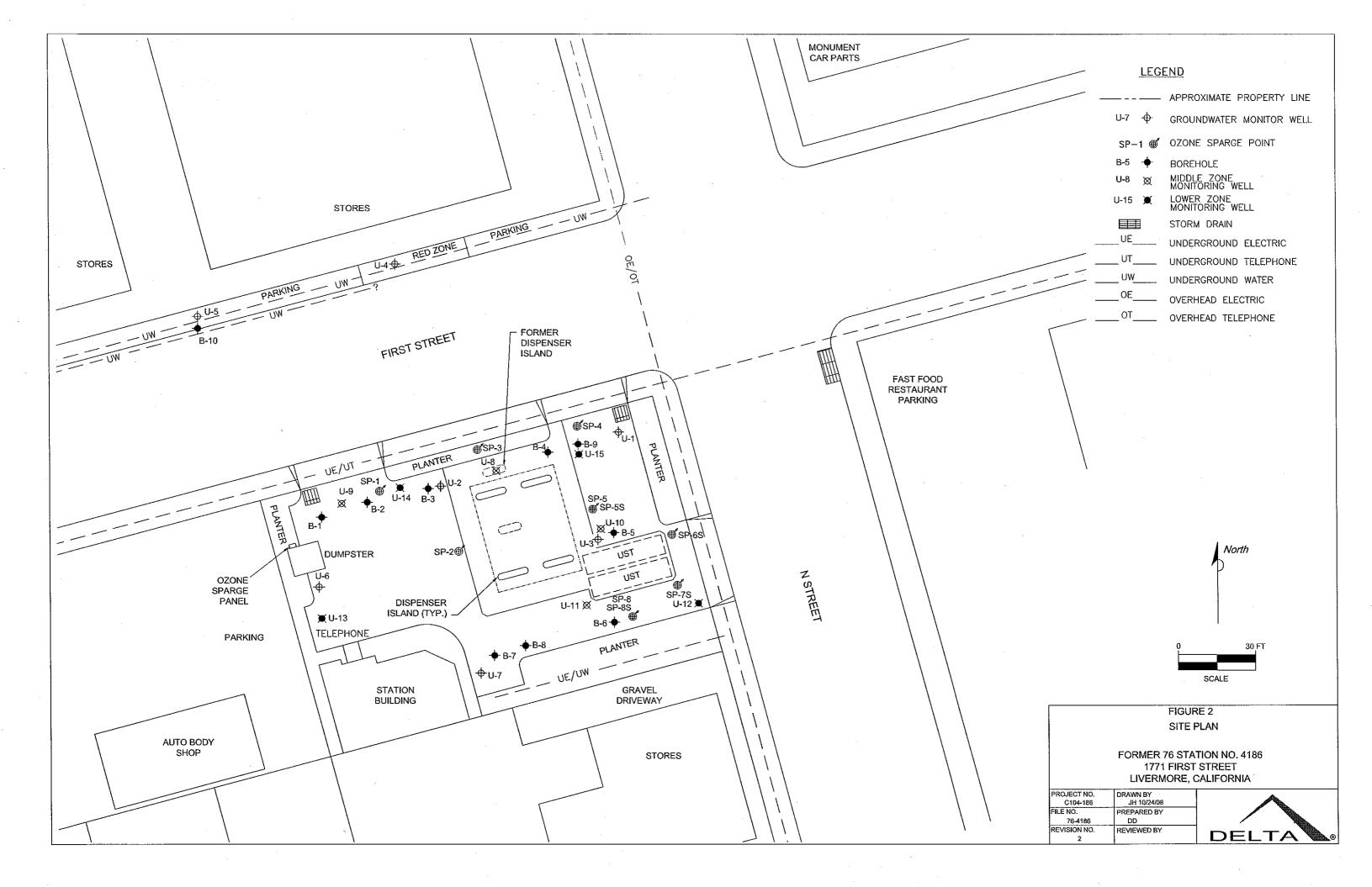
FIGURE 1 SITE LOCATION MAP

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
1	



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, CALABASAS QUADRANGLE, 1967



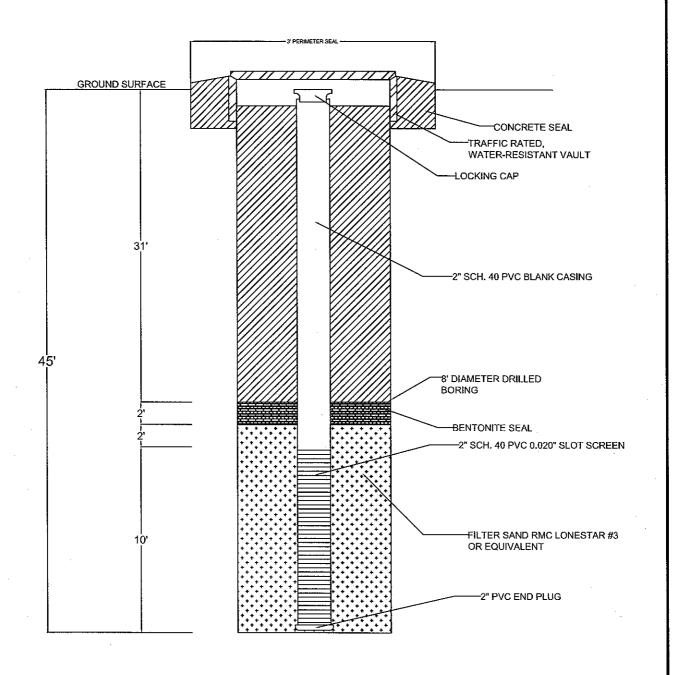


FIGURE 3

MIDDLE ZONE MONITORING WELL CONSTRUCTION DETAIL

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

PROJECT NO.	DRAWN BY
C104186	JH 10/24/08
FILE NO.	PREPARED BY
4186-WELLDETAIL	DD
REVISION NO.	REVIEWED BY
1 .	DD



Table

Table 1

SOIL ANALYTICAL RESULTS Former 76 Station No. 4186

	Former 76 S		
1771	First Street,	Livermore,	California

Sample ID	Date	Sample	TPPH	Benzene	Toluene	Ethyl-	Total	MTBE	ТВА	TAME	DIPE	ETBE	Ethanol	1,2-DCA	EDB	Lead
53, 15		Depth	(mg/kg)	(mg/kg)	(mg/kg)	benzene (mg/kg)	Xylenes (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Soil Samples	<u> </u>														- 0 00F	
U-8 @ 37	9/8/2008	37	1.3	<0.005	0.0051	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005	NA
	9/10/2008	40	1,900	<0.25	<0.25	8.0	48	<0.25	<2.5	<0.25	<0.25	<0.25	<50	<0.25	<0.25	NA NA
	9/11/2008		2.4	<0.005	<0.005	<0.005	< 0.01	< 0.005	0.058	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005	NA
	9/11/2008		22	0.7	0.12	0.31	2.2	0.29	1.3	<0.05	< 0.05	< 0.05	<10	< 0.05	<0.05	NA
	9/12/2008	30	2.0	<0.005	<0.005	<0.005	0.017	0.54	0.93	< 0.005	< 0.005	< 0.005	<1.0	<0.005	<0.005	NA
	9/12/2008		0.45	<0.005	<0.005	< 0.005	< 0.01	0.34	0.54	<0.005	<0.005	<0.005	<1.0	0.011	<0.005	NA NA
Waste Sample:																
	9/24/2008		<0.2	<0.005	<0.005	<0.005	< 0.01	0.0052	NA	NA	NA	NA	NA	NA	NA	6.7
	9/25/2008		0.42	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	NA	NA	ÑA	NA	NA	NA	NA NA	NA
Notes: TPPH = BTEX = MTBE = TBA = TAME = DIPE = ETBE = Ethanol =	benzene, to methyl terti tertiary but tertiary-am Di-isopropy	oluene, eth iary butyl e yl alcohol l yl methyl e il ether by ry-butyl etl	yi-benzene ether by EP. by EPA Met ether by EP. EPA Methoo her by EPA	, total xylen A Method 82 hod 8260B A Method 82	160B	8260B ethod 8260E	3	1,2-DCA = EDB = Lead = mg/kg = < = NA = Bold = EPA =	milligrams Below the l not analyze Above the	oehtane by y EPA Metho per kilogram aboratory's ed laboratory's	EPA Method od 6010B	8260B porting limit				

Attachment A ACHCSA Approval Letter

ALAMEDA COUNTY

HEALTH CARE SERVICES

AGENCY



DAVID J. KEARS, Agency Director

March 21, 2008

William Borgh ConocoPhillips 76 Broadway Sacramento, CA 95818

Thomas and Celine Vadakkekunnel 4481 Peacock Court Dublin, CA 94568 ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335



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

Dear Mr. Borgh 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, "Work Plan - Second Addendum," dated February 12, 2008. The Work Plan Addendum was prepared in response to technical comments in ACEH correspondence dated December 7, 2007. The "Work Plan - Second Addendum," dated February 12, 2008 is acceptable and may be implemented as proposed. We request that you perform the proposed work and send us the technical reports requested below.

TECHNICAL REPORT REQUEST

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

- July 22, 2008 Well Installation Report
- 45 days following sampling event Quarterly Report (To include summary report, remedial performance summary, and quarterly monitoring report)

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

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. Instructions for

William Borgh Thomas and Celine Vadakkekunnel RO0000436 March 21, 2008 Page 3

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.

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,

Jo-13/100300 1000000

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297

Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon, QIC 80201 Zone 7 Water Agency 100 North Canyons Parkway Livermore, CA 94551

> Danielle Stefani Livermore-Pleasanton Fire Department 3560 Nevada Street Pleasanton, CA 94566

Dennis Dettloff
Delta Environmental Consultants, Inc.
3164 Gold Camp Drive, Suite 200
Rancho Cordova, CA 95670

Donna Drogos, ACEH Jerry Wickham, ACEH File

Attachment B Drilling Permit



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486

PHONE (925) 454-5000

September 8, 2008



Ms. Joyce Weish Delta Consultants 11050 Whiterock Road, Suite 110 Rancho Cordova, CA 95670

Dear Ms. Welsh:

Enclosed is drilling permit 28123 for a monitoring well construction project at 1771 First Street in Livermore for Conoco Phillips. Also enclosed is a current drilling permit application for your files. Drilling permit applications for future projects can also be downloaded from our web site at www.zone7water.com.

Please note that permit conditions A-2 requires that a well construction report be submitted after completion of the work. The report must be completed on Department of Water Resources form 188. Please submit the original of your completion report signed by the driller. Also include a copy of any analysis of the soil and water samples. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 5056 or Matt Katen at extension 5071.

where we because the comment of the comment of the comment

Sincerely,

Wyman Hong

Water Resources Specialist

Enc.

ZONE

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306 E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
LOCATION OF PROJECT 177/ FIRST ST	
LIVERMORE CA	PERMIT NUMBER 28123
Coordinates Source 6006 LG CAETH ft. Accuracy 5 ft. LAT: 37, 679 604 ft. LONG: -121, 77396/ ft.	WELL NUMBER <u>3S/2E-17A16 to 3S/2E-17A23</u> APN 097-0010-001-01
LAT: 37, 679 804 ft. LONG: -127, 77396/ ft.	PERMIT CONDITIONS
	(Circled Permit Requirements Apply)
Name CONO CO Philips	(A) GENERAL
Address 76 BROADWAY Phone 9/6 558, 7600	 A permit application should be submitted so as to arrive at the
	Zone 7 office five days prior to your proposed starting date. 2. Submit to Zone 7 within 60 days after completion of permitted
APPLICANT Name_DGLTA_CONSULTANTS	work the original Department of Water Resources Water Well
_Email DD . HLOFF @Dectaenv. Com Fax 916 638 2085 8	Drillers Report (DWR Form 188), signed by the driller. Permit is void if project not begun within 90 days of approva
Address 110 50 WHITEROCK Rd 110 Phone 914 638, 2085	date.
CITY RANCHO CORDOVA CA ZIP95676	B. WATER SUPPLY WELLS
TYPE OF PROJECT:	1. Minimum surface seal diameter is four inches greater than the
Well Construction	well casing diameter. 2. Minimum seal depth is 50 feet for municipal and industrial wells
Well Destruction '9 Contamination Investigation 9 Cathodic Protection 9 Other 9	or 20 feet for domestic and irrigation wells unless a lesser depth
PROPOSED WELL USE:	is specially approved. 3. Grout placed by tremie.
Domestic 9 Irrigation 9	4. An access port at least 0.5 inches in diameter is required
Municipal 9 Remediation 9	on the wellhead for water level measurements. 5. A sample port is required on the discharge pipe near the
Industrial 9 Groundwater Monitoring SC Dewatering 9 Other 9	wellhead.
DRILLING METHOD:	C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
Mud Rotary Air Rotary 9 Hollow Stem Auger Cable Tool 9 Direct Push 9 Other	 Minimum surface seal diameter is four inches greater than
	the well or piezometer casing diameter. 2. Minimum seal depth for monitoring wells is the maximum
DRILLING COMPANY GREGE	depth practicable or 20 feet.
DRILLER'S LICENSE NO. C-57 48\$51 65	3. Grout placed by tremie.
WELL SPECIFICATIONS: / in. Maximum /	D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or
Casing Diameter 2/10 in. Depth 45/75 ft.	heavy bentonite and upper two feet with compacted material. In
Surface Seal Depth ft. Number 4/4	areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
SOIL BORINGS:	
Number of Borings Maximum Hole Diameter in Depth ft	 E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
	noning.
ESTIMATED STARTING DATE 9/2/0% ESTIMATED COMPLETION DATE 9/2/0%	F. WELL DESTRUCTION. See attached.
	G. SPECIAL CONDITIONS, Submit to Zone 7 within 60 days after
I hereby agree to comply with all requirements of this permit and Alameda	completion of permitted work the well installation report
County Ordinance No. 73-68.	including all soil and water laboratory analysis results.
APPLICANT'S	Wriman Stone
SIGNATURE JOHN Phill Date 8-1-08	Approved No. 10 Date 9/5/08
Joyce Welsh	Wyman Hong
ATTACH SITE PLAN OR SKETCH	$oldsymbol{V}_{i}$, which is the state of $oldsymbol{V}_{i}$.

Attachment C Boring Logs

					010110		00-	1.	ConocoPhillips		Well No: U-8	
			Project No Logged By		C104186 Joyce W		Clier Loca		1771 First Street, Live	emore. CA	Page 1 of 2	
	14		Logged by	•	Joyce w Gregg D			Drilled:	9/4/08, 9/8/08	Location M		
1 14	elta	ֹ ג	Drilling Me			item Auger/						
			Sampling			_		Depth:	50 feet Please see site map			
Cor	nsultants		Casing Ty		SCH 40		Well	Diamete	r: 2 inches	2 inches		
			Slot Size:		0.020		Well	Depth:	45 feet			
			Gravel Pa		#3 Sand			ng Sticku		4		
			E	Elevation			Latitude		Longitude			
Well			 	0		<u> </u>	1				·	
ompletion	Mall	Static	활별	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample	Soil Type				
₽ €	Well Details	Water	Moisture Content	Rea	etra	Ę	ka Ye	=	Li	THOLOGY /	DESCRIPTION	
Casing		Level	žΟ	유)	Per (b)	Der Der	Recovery	ြိ				
	well				A		 ~ -		Concrete			
	box					1,0 -		1				
	neat	1				1.0 —						
	cement				ig.	2.0		GM	Silty Sandy Gravel: we	ell graded,	no odor	
					Air Knife			-			· · · · · · · · · · · · · · · · · · ·	
					₹	3.0 —	 	1				
						-		1				
	2" PVC					4.0 —		1	- AMAN-			
	casing				+	5.0 —		GM	Silty Sandy Gravel: da	ırk brown,	well graded,	
			DRY	0		6.0 —					oose, no odor, dry	
		ŀ				7.0						
					wol	8.0 —						
					no bl	9.0 —						
			!		used-	10.0		-		- LE-1		
			DRY	0.3	Rhino Rig used- no blow counts collected	11.0			100		-	
					Rhin	12.0—	94494400000	-				
						13.0—						
						14.0						
						15.0—]				
			DRY	0		16.0						
						17.0—						
						18.0—		CL	Gravelly Silty Clay: br			
						19.0 —		_	>50% silty clay to			
			WET	146		20.0-		CL	Silty Clay: brown, med		icity, firm, moderate	
			VVE1	140		21.0—			Tryarocarbon out			
						22.0—						
						23.0—						
						24.0—						
			WET	0.4		25.0-		CL	Gravelly Clay: brown,	well grad	ed, >50% clay, no odor	

			Project No	5:	C104186	3	Clier	t	ConocoPhillips		Well No: U-8	
			Logged B		Joyce W		Loca	tion:	1771 First Street, Live		Page 2 of 2	
	elta	`	Driller:		Gregg D			Drilled:	9/4/08, 9/8/08 er: 8 inches	Location M	ap	
יט	JILC	ス	Drilling Me Sampling			item Auger/		Depth:	50 feet	Please see site map		
Cor	sultants		Casing Ty		SCH 40			Diamete				
			Slot Size:	-	0.020			Depth:	45 feet			
			Gravel Pa		#3 Sand	,		ng Stick		4 .		
				Elevation	l		Latitude		Longitude			
Well			<u> </u>					<u> </u>				
Completion	Well	Static	en te	adin J	atior s/6")	(feet	Sample	, e		TUO! 00V !	DECCRIPTION.	
Backfill Casing Backfill	Details	Water Level	Moisture Content	PID Reading (ppm)	Penetration (biows/6")	Depth (feet)	Recovery	Soil Type	L	INOLOGIA	DESCRIPTION	
B S B				룹	4 ≈	ă	Rec					
	neat		WET			26.0 —		CL	Gravelly Clay: brown, v	well grade	d, >50% clay, no odor	
	cement					-	100000	┨	wet	-		
						27.0		1				
						28.0-]				
		İ				-	1 -	-				
	2" PVC	1				29.0—		1		,		
	casing					30.0		<u> </u>				
	,		,,,			-		CL	Silty Clay: orange-brov	vn, high pl	asticity, soft, no odor, wet	
	bentonite		WET	0.3		31.0-		-				
	Dentonie	1				-		1				
						32.0 —]				
		-				33.0-		-				
	#3 sand					-	+	-				
	Julia					34.0 —		<u> </u>	-		AMIN CITY	
						35.0		-	O to Oleveno Orange	aranga hi	rouse mottled	
	well		WET	0.4	ð	-		GC	Sandy Clayey Gravel: low plasticity, so			
	screen		1		무 p	36.0-		1	ion plaction, co	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
					no Rig used- no blow counts collected	37.0—						
			I NATE TO	4220	Se	_			As above: grey r		th moderate to strong	
			WET	1338	Sig u	38.0			nydrocarbon odd	JI		
					S 20	39.0			* soil sample co	llected for	laboratory analysis	
				165	Rhi	-					211	
			MOIST	358		40.0		CL	Silty Clay: orange-bro	wn, mediu	ım-high plasticity.	
			INICIOI	330		1410 -			<20% silt, strong			
						41.0 —		1				
						42.0—		_			,	
			MOIST	20		-			As above: with r	no odor		
						43.0			<u> </u>			
]		44.0			Candy Class and dissert	hroun mo	dium high placticity	
			MOIST	57		-		CL	Sandy Clay: medium <30% sand, we		soft, no odor, moist	
	# 3 sand	3	MOIST	56		45.0—		1				
			İ			46.0-		CL			e-brown, medium plasticity,	
	bentonit	e	MOIS	238					soft, no odor, m	oist		
			MOIS	70		47.0—						
			WICIS	' '		1,00						
			MOIS			48.0—						
			MOIS	T 15		49.0—						
						<u></u>	-	-				
*/////////////////////////////////////	%1		t			 50.0	188		Boring terminat	ed at 50 fe	eet below ground surface.	

			Decised No		C104186			lient:		ConocoPhillips	Well No: U-9
			Project No Logged B		Joyce We		_	neni. ocatio	n:	1771 First Street, Livern	1
	14		Driller:	•	Gregg Dr		D	ate Di	rilled:		ocation Map
1)(elta	}	Drilling Me	ethod:	Hollow S	tem Auger	Н	ole Di	iamete	B inches	
		A	Sampling		Split Spo	on	Hole Depth:		epth:	45 feet F	Please see site map
Cor	nsultants		Casing Ty	rpe;	SCH 40 PVC				iamete		
			Slot Size:		0.020			/ell De	•	45 feet	
			Gravel Pa		#3 Sand				Sticku		- Chatin Consumburator
				Elevation			Latitude			Longitude	Static Groundwater
Well				<u>p</u>	د م	Đ		. T	<u></u>		
ompletion	Well	Static		adir T)	Penetration (blows/6")	Depth (feet)	Samp	- 1	Soil Type	ı i'rı	HOLOGY / DESCRIPTION
Casing Backfill	Details	Water Level	ont	Pp Pp	netr lows	£	ž	Interval	듣ㅣ	LIIF	OLOGY / DESCRIPTION
Casing Backfill		revei	≥ 0	PID Reading (ppm)	9 e	ద్ది	Recovery	불	Ø.		
	well				A	_				Asphalt	
	box					1.0 —		4			
	neat					_		_		Cille Candy Casyals wall	graded no eder
	cement		!		j <u>i</u>	2.0 —	-		GM	Silty Sandy Gravel: well	graded, no odor
					Air Knife	_	 	-			
					<	3.0		\neg			
	2" PVC	1				4.0					
	casing										
	Casing				<u> </u>	5.0		_		Sandy Silty Gravel: med	dium to dork brown
			DRY	0.7	9 54	<u> </u>			GM		well graded, no odor, dry
		İ	ן זאט	0.7	5	6.0				50 % Salidy Sitt, W	ion graded, no oder, dry
					"						
						7.0		\neg		- Lagran	
						8.0 —					
					1	0.0 —		0000000000			
					9	9.0					donos
			DRY	0.7	18 10	_				as above: medium	i dense
			İ	!	10	10.0	+				***
					Ì	-	1	\dashv			
						11.0—					
						12.0					
						12.0		_			
						13.0—					
		İ			40	-					
			DRY	0.3	18 25	14.0-			GM	Silty Sandy Gravel: bro	wn, 30-35% silty sand, well
			DK1	0.3	26	-			ÇIVI	graded, no odor, o	
			ł			15.0—				J	
			İ			16.0					
						16.0—					
			1			17.0—	1				<u> </u>
			İ			-					· · · · · · · · · · · · · · · · · · ·
						18.0-	+			***	
					12	-			GC	Sandy Clavey Gravel: b	prown, low plasticity, 20-30%
			DRY	0.2	50	19.0				sandy clay, no od	
			5,(1	0.2	5	-					
						20.0 —					
			1			21.0-					
		1				-					1/50 000/2
		İ		1		22.0—					ss gravel (50-60%)
			1	Ì		-				(as per driller from	n augers)
						23.0 —					
					8	-		-	CI	Silty Clay: orange-brow	n, medium plasticity, very stiff,
			MOIS	Н о	10	24.0—		10.75		no odor, moist	
					12	1250	77		1		
356535 B3355	R&	1	1		1 -	25.0			1	,	

			Project No		C104186 Joyce W		Client Locat		ConocoPhillips 1771 First Street, Liv	Well No: U-9 remore, CA Page 2 of 2
			Logged B		•				9/4/08, 9/10/08	Location Map
\square	∖l+∠	•	Driller:		Gregg Di		Date Drilled: Hole Diameter:		•	2004mon map
レt	elta	1	Drilling Me			tem Auger				Diagon and site mon
			Sampling					Depth:	45 feet	Please see site map
Con	sultants		Casing Ty	•	SCH 40	PVC		Diameter		
			Slot Size:		0.020			Depth:	45 feet	
			Gravel Pa	ick:	#3 Sand		Casin	g Sticku		4 _
			E	levation	tion		Latitude		Longitude	Static Groundwater
Vell			- I	D D	٠. (Ĉ.		63		
pletion	Well	Static	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample >	Soil Type		THE COLUMN THE CONTROL
₽ 🗐	Details	Water	onte	Re	ows	듄	ver ver	=	Ł	ITHOLOGY / DESCRIPTION
Casing		Level	ĮŠŎĮ	ნ,	9 9) De	Recovery	တိ		
O m							<u> ř = </u>		Cille Clare areas bear	un madium planticity atiff to hard
	neat		MOIST			26.0		CL		wn, medium plasticity, stiff to hard,
	cement		i I			_			no odor, moist	
			1 1		1	27.0			**********	
								1		
	2" PVC					28.0 —		l İ		
	casing				6	29.0-		CL	Clay: orange-brown, m	nedium-high plasticity, stiff to very sti
			моізт	0	8	Z8.U			no odor, moist	
					9	-				
						30.0				
								i i		
	bentonite	ł			1	31.0		1		
	Dentonic		[-	 			
		1				32.0	 	GM	Gravel	
					ļ	-	 	"""	(as per driller fro	om augers)
			MOIST	0	1	33.0			(as per diffici in	on augers/
	#3		MOIST	"	40	-	 	CL	Cravelly Sandy Clay	orange-brown mottled, medium
	sand		-		18	34.0		CL		% sandy clay, soft, no odor, moist
					25	_	 	-	plasticity, 50-60	76 Sandy Clay, Son, no odor, moist
100000		<u> </u>	1	١.	34	35.0		4		500/ candu alau no odor wat
	well		WET	1	8	_			as above: with a	50% sandy clay, no odor, wet
	screen		-		18	36.0				
					25	_		<u> </u>		
		Į.		ļ	36	37.0—				
			WET	60	15	_		∫ GM		reen-grey mottled with black
					21	38.0			staining, hydrod	arbon odor, wet
			1		34	00.0				
		ì	1		21	39.0		GC		: black-brown mottled in color,
		1	WET	122	24	39.0		1	low plasticity, de	ense, strong hydrocarbon odor, wet
			1	1	30	40.0		1		
					9	40.0				
			MOIST	647	12		Control	٦		
	1			~	5	41.0-	1 1	1		*****
					4	-	 	1	Clav: orange bi	rown, medium-high plasticity,
			MOIST	89	2	42.0-		CL		rong hydrocarbon odor, moist
		-	INCIST	J	3	-		CL		own, medium-high plasticity, medium
				1	5	43.0 —		4 ~~	stiff, hydrocarbo	
						-		-1	Sun, nyurocarbo	on odor, moist
		1.	1,,,	l	1	44.0			an china hara	ming wot
		▼.	WET	75	4	-			as above: beco	ming wet
				<u> </u>	4	J _{45.0} —				
									Boring terminat	ed at 45 feet below ground surface.
			:							•
									•	

			Project No	· ·	C104186		Clie	nt·	ConocoPhillips	Well No: U-10	
			Logged B	- •	Joyce W			ation:	1771 First Street, Live	1	
	_ 1.1 _		Driller:	•	Gregg D		Date	Drilled:	9/5/08, 9/11/08 Location Map		
-1-)(elta	7	Drilling M	ethod:	Hollow Stem Auger		Hole Diameter:				
		^	Sampling					Depth:	48.5 feet	Please see site map	
Coi	nsultants		Casing Ty	-	SCH 40	PVC		Diamete			
			Slot Size:		0.020			Depth:	47 feet		
			Gravel Pa		#3 Sand		Cas Latitude	ing Sticki	ıp: - Longitude	4	
				Elevation	JII.		Lautude		Longitude		
IleW noitelqmo: Racktill da Backtill da Backtill da	Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery 69 interval a	Soil Type	ւ	ITHOLOGY / DESCRIPTION	
Casing Backfill		LEVE	≥0	믑	8 a a	De	Reck	ď			
	well				1	_			Asphalt		
	box neat					1.0		GM	Gravel with Cobbles a	and Silt: well graded, no odor	
	cement				<u>a</u>	2.0 —					
					Air Knife	_		\dashv			
					4	3.0 —		1			
	2" PVC					4.0 —		-			
	casing					5.0 —		j			
			DDV	13	18	-		GM	Silty Sandy Gravel: br	rown, well graded, ad matrix, dense, no odor, dry	
			DRY	13	21 34	6.0 —			20-30 % Sifty Sail	d matrix, dense, no odor, dry	
		!		}		7.0 —]			
						_		-			
						8.0 —					
			DRY	1	50/5	9.0 —		GC		brown, well graded, medium-low % sandy clay, very dense, no odor, dr	
						10.0—					
						-		-			
						11.0 —		1			
		-				12.0—		_			
		į				13.0—		_		404	
			DRY	2	27 30	14.0		GC		: brown-orange mottled, sand, very dense, no odor, dry	
			DKI		40	15.0			20-3078 Clayey C	sand, very dense, no oder, ary	
						-	 	_			
						16.0 —					
						17.0-	-	-	- 148 8491		
						18.0					
					15	19.0—		33388		Annua.	
			MOIST	1	20 4	-		CL	Silty Clay: orange-bro	own, high plasticity, hard, no odor,	
						20.0			moist		
						21.0					
						22.0—					
						23.0			· · · · · · · · · · · · · · · · · · ·	And the second s	
			MOIS	П 1	16 15	24.0-			as above: with r	medium plasticity, hard	
					25	25.0				100 mp	

			Project No	0:	C104186	3	Clien	t:	ConocoPhillips	Well No: U-10	
			Logged B	y:	Joyce W		Locat		1771 First Street, Liv		
	~ l+~	•	Driller:		Gregg D	-		Drilled:	9/5/08, 9/11/08	Location Map	
13	elta	1	Drilling M			item Auger		Diameter		1	
		~	Sampling	Method	Split Spo	on	Hole	Depth:	48.5 feet	Please see site map	
Co	nsultants		Casing Ty	ype:	SCH 40	PVC	Well	Diameter:	2 inches		
			Slot Size:		0.020		Well	Depth:	47 feet		
			Gravel Pa	ack:	#3 Sand		Casir	ng Stickup): -	_	
			E	Elevation	1		Latitude		Longitude		
Well				Ð	E ~	Ç	0	a			
mpletion	Well	Static	Moisture Content	ag €	Penetration (blows/6")	Depth (feet)	Sample	Soil Type	LITHOLOGY / DESCRIPTION		
ing Kfill	Details	Water Level	ont	8 <u>g</u>	low low	€	over Iva	<u>=</u>	L	ITHOLOGY / DESCRIPTION	
Casing Backfill		revei	≥0	PID Reading (ppm)	<u>a</u> ⊕	De D	Recovery	νĭ			
	neat	ļ <u> </u>	MOIST		<u> </u>		<u> </u>	CL S	Silty Clay: orange-broy	wn, medium plasticity, hard, no odor	
	i .	l ·	ויטוטווין		1	26.0		~_	moist	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	cement	1				-		 	1110101	- Line Serv	
			i 1			27.0					
						-	 	1 ⊦			
		1				28.0	 	1 1			
	2" PVC				_	-		┪┟	as ahove with h	igh plasticity, stiff to very stiff	
	casing		моізт	1	6 7	29.0 —			as above, with h	agir pidotony, our to rory our	
		1	INICIPI	'	9	_		1 +			
*		İ		1	"	30.0	3000000	1 1			
				İ		-	 	1 +			
		1]		31.0	 	 			
						-	 	1 }	- MATT		
					1	32.0	 	-{ -		Mary Mary Mary Mary Mary Mary Mary Mary	
		1				-	-	┨			
	L 4 '4 -	1		1		33.0		1 }			
	bentonite	i				i –		CL	Gravelly Clay, orange	-brown, high plasticity, <20% gravel,	
			LACIOT			34.0	 	┨┖╏	stiff to very stiff,		
			MOIST	1 1	5	_			Sun to very sun,	110 Odor, moist	
		-) AUTT		6 14	35.0		4 1	ac above with s	sandy clay (<20%) and mottling	
00 00 00 00 00 00 00 00 00 00 00 00 00	#3		WET	2	ı		 	┨	as above, with s	salidy Gdy (12070) and motting	
00 to 10 to	sand		1	1	10 12	36.0					
		ĺ	ĺ			-					
		4	LACET	1.	19	37.0 —	\$6500E	-i I	oo abaya: with h	plack staining and slight hydrocarbor	
	well	.]	WET	4	28				odor, 30-40% s		
	screen	İ	NACIOT		8	38.0-			0001, 30-40 // 8/	andy clay	
			MOIST	11	27	-		┪╏			
					35	39.0 —		1	Clave orango brown w	ith grey mottling, medium plasticity,	
				1	18	-	100	CL		nur grey mouning, mediciti plasticity,	
			1,,,		21	40.0		-{	hard, no odor	· · · · · · · · · · · · · · · · · · ·	
		1	WET	2	23	-	+ +	1	Silfu Clavov Graveli	orange-brown with ~20% silty clay,	
			.]		4	41.0		GC	only Clayey Gravel: (medium plasticity, no odor, wet	
					14	_		4	огаск staining, r	medium piasucity, no odor, wet	
	3. 8		,,	1 .	28	42.0		-		44.44.4	
			WET	1	39	-		-			
			ĺ		11	43.0-			~-		
		1	1		14	_					
	30	ı	1	_	53	44.0	 	4			
		i	1	3	10	_	 	4			
			i			" 45 0				ng grey in color with orange mottling	
			1,		50/5	45.0-	200000344490004				
			WET	10	12	45.0—			and staining, si	ight hydrocarbon odor	
					12 20	45.0			and staining, si	ight hydrocarbon odor	
			WET		12 20 25	46.0			and staining, si	ight hydrocarbon odor	
			WET		12 20 25 30	46.0					
	bentonit	e			12 20 25 30 8	45.0		CL	Sandy Clay: orange-l	prown mottled with grey staining, hig	
	bentonit	e	WET		12 20 25 30 8 7	46.0— 47.0—		CL	Sandy Clay: orange-liplasticity, <10%	orown mottled with grey staining, hig 6 sand, stiff to very stiff, moderate	
	bentonit	e	WET		12 20 25 30 8	46.0		CL	Sandy Clay: orange-l plasticity, <10% hydrocarbon oc	brown mottled with grey staining, hig 6 sand, stiff to very stiff, moderate	

			Project No	o:	C104186		Clien	t;	ConocoPhillips	Well No: U-11
			Logged B		Joyce W		Loca		1771 First Street, Live	emore, CA Page 1 of 2
	. 11		Driller:	-	Gregg Drilling		Date Drilled:		9/3/08, 9/12/08	Location Map
1)/	elta	ק	Drilling M	ethod:	Hollow Stem Auger		Hole Diameter:		r: 8 inches	
					: Split Spoon		Hole Depth:		45 feet	Please see site map
Co	nsultants		Casing Ty		SCH 40 PVC			Diametei	r: 2 inches	·
00	iisuitaiits		Slot Size:		0.020			Depth:	45 feet	
			Gravel Pa		#3 Sand			ig Sticku		
				Elevation		 .	Latitude	ig Olioka	Longitude	4
				Licvation			Latitudo			
Well				Ď.	Γ	ф.		45		
npletion	Well	Static	Moisture Content	ig (c	ogtio ('6'')	<u>ē</u> .	Sample	Soil Type		
27 ⊑	Details	Water	<u>\$</u>	% ng	etra	£	Š je je	Ξ.	Lľ	THOLOGY / DESCRIPTION
Casing Backfill	Details	Level	≥ॅॅ	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery	လွ		
O m				ш.			<u> </u>		A b - b	
	well				T	_			Asphalt	
	box	ł				1.0	 	ŀ		
	neat						 	GM	Crovel with Cobbles a	nd Silty Sand: well graded,
	cement	l]		Knife	2.0		GIVI	***************************************	ind Sitty Sand. Well graded,
					본	<u> </u>			no odor	
	2" PVC				₽	3.0	 			
	casing					_				
						4.0	 			
						_	 	}		
					4	5.0 —		sw	Gravelly Sand: brown,	1/4 - 3/4" diameter gravel,
		1	моіѕт	1 0	19					ed sand, loose to medium dense,
		ŀ		_	19	6.0 —		1	no odor, moist	-
								i l		
		ļ	ļ			7.0 —		1		
				İ				1	.,,,,,,	
					1	8.0 —				
				1				1		
				ŀ		9.0 —		1	A##7007	
			1	İ		-	 	1		
					11	10.0 —		GM	Gravel with Silty Sand	d: light brown-brown, 1/2 -1 1/4"
			MOIST	1 0	14	-			diameter gravel,	40% sandy silt, medium dense,
		1			14	11.0-		1	no odor, moist	
						40.0	SAME OF THE PARTY	1	****	
		İ				12.0		1		
						-	1	1		
		1	1			13.0		1		
						14.0	1	1		
					Ì	-	 	1		
			1	İ	23	15.0			as above: with 2	25-30% sandy silt, dense,
		1	MOIST	0	50/5"	146.0		W 1		er gravel, no odor, moist
		1			5	16.0—		1		
		1	1		1	47.0		1		1.1.100
						17.0—		1		
		1	1]	48.0		1		
			1			18.0			1	
						100		1		
						19.0—		1	1.2.11	
						20.0				
					20	20.0		7		
			MOIST	т о	24	24.0		1		
					29	21.0—				
				1		00.0	30.55	CL		, medium-high plasticity, stiff,
		1				22.0	 	┪ -		as per driller from augers)
						00.0	1 1	1	, , , , , , , , , , , , , , , , , , , ,	
						23.0—	1 1	1		
			1			1040	1 1	1		
						24.0—	† ™	1	,-	- 3 (54)/-
						_{25 2} -	1 1	1	Gravelly Silty C	Clay: light brown, medium plasticity
	437	1	1	1	7	25.0 —	-	CL	very stiff, 5% gr	augl na adar maiat

			Project No		C104186		Clien		ConocoPhillips		Well No. U-11	
			Logged B	y:	Joyce W		Loca			1771 First Street, Livemore, CA Page 2 of 2		
Delta			Driller:		Gregg D	-	Date Drilled:		9/3/08, 9/12/08	Location Map		
			Drilling Me			tem Auger		Diamete		l		
	•		Sampling				Hole Depth:		45 feet	Please see	site map	
Co	nsultants		Casing Ty	/pe:	SCH 40	PVC	Weli	Diamete		2 inches 45 feet		
			Slot Size:		0.020		Well	Depth:	45 feet			
			Gravel Pa	ack:	#3 Sand		. Casi	ng Sticku	ip: -			
			E	Elevation			Latitude		Longitude			
Well			1		Ι		r					
ompletion	Well	Static	Moisture Content	Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample	Soll Type				
5 <u>≡</u>	Details	Water		isti onte	78. E	l # &	l ≨	S S		L	ITHOLOGY /	DESCRIPTION
Casing Backfill	Betano	Level	≱ŏ	- E	[B	Recovery	လွ				
ပြော	nont		MOIST	24	13		Re I	CL	Gravelly Silty Clay: lig	ht brown	medium plasticity	
	neat			24	16	26.0		OL.	very stiff, 5% gra			
	cement				10	_	2000000	1	very suit, 570 gre	avci, 110 00	Ot, moise	
						27.0		-				
	2" PVC					i –						
	casing					28.0	1	1				
							ļ	1				
						29.0		4				
						_			· · · · · · · · · · · · · · · · · · ·			
						30.0-						
			1		5	_	10000000	CL	Silty Clay: light brown,		nigh plasticity,	
			MOIST	33	7	31.0			stiff, no odor, mo	oist		
	bentonite	1			9	31.0			-			
								1				
			1	ŀ		32.0		1				
						_		1	1.00/11		1872	
""	#3					33.0		1				
	sand				l	l		1				
	Sand	1				34.0 —	 -	1				
						-	1	1				
		ł	WET	0	11	35.0 —		SP	Gravelly Clavey Sand	li orange-h	prown to brown mottled,	
	well	ł	VVCI	U		_		J			?" gravel, soft-medium stif	
	screen				16	36.0 —	 	4		u, 1/4 - 1/2	graver, sort-medium sur	
					17	-	1 1 .	4	no odor, wet			
					4	37.0 —		100	Candy Classes Correct	L oronna L	roun to brown mottled	
		1	WET	1.5	13	_		GC	Sandy Clayey Gravel			
					35	38.0					ravel, soft, slight	
					36	_		_	hydrocarbon od	or, wet		
			1	1	14	39.0—						
			MOIST	4.8	29	_		_				
		-			40	40.0						
			DRY	7.1	10	70.0-		CL	Sandy Clay: brown, lo	w-medium	n plasticity, hard, no odor	
				l	11	144.0						
					15	41.0	911.73	7				
					8	1400		7				
			моіѕт	2.7	4	42.0			as above: beco	ming light	brown with high plasticity,	
				1	4	1		NO.	soft to medium			
			MOIST	13.3		43.0—		1		,		
			INCIST	13.3	3	-		-	as shove with	nrev etaini	ng, medium-high plasticity	
				1		44.0			soft to medium			
		1			4	-		E .	Soil to medium	oun, muist	11.7	
	:: 1	1	1	1	4	45.0			Boring terminat			

			Project N	o:	C10418	ô		Client	:	ConocoPhillips		Well No: U-12		
	4		Logged E		Joyce W			Locati		1771 First Street, Live	more, CA	Page 1 of 3		
	. 11		Driller:	•	Gregg D				Orilled:		Location Ma			
-1-14	elta)	Drilling M	lethod:		tary/Hollow S	tem	Hole [Diamete	•	•	•		
	CILC	A	Sampling			•			Depth:	75 feet	Please see site map			
Cor	nsultants			ng Type: 12" Steel/ 4" SCH 40 PVC							, 15255 555 5115 1114p			
	ioditailes		Slot Size		0.020				Depth:	75 feet				
			Gravel Pa		#3 Sand	İ		Casing Stickup						
				Elevation			atitud			Longitude	I ▼	= Static Groundwater		
Well				вu	5.	_{कि}	Com		اها					
mpletion	Well	Static	Moisture Content	ag €	Penetration (blows/6")	Depth (feet)	Sam	. 1	Soil Type		THOLOGY (DECCRIPTION		
<u>¥</u> 8 3 3 8	Details	Water Level	sio S	8 9	o det	돭	ĕ	ğ	=	LII	HULUGT /	DESCRIPTION		
Steel Steel Backfill		LCVCI	≥0	PID Reading (ppm)	8 0	8	Recovery	Interval	σ					
	well				A					Asphalt				
	box							\neg		!				
	neat				<u>.</u>	1.0					***	L. B. L. L. L. L. L. L. L. L. L. L. L. L. L.		
	cement		·		Water Knife	١,, +			GC	Gravel with Sand, Silt	and Clay:	tight sand-clay,		
	00				ម	2.0				no odor				
	12" steel	ŀ			Ş									
	&				>	3.0				The state of the s				
	4" PVC			1		1,, 7		\Box						
	casings		1			4.0		П						
]				↓	5.0								
]			A	3.0			GW	Sandy Gravel: well grad	ded, no od	or		
					1 1	6.0				(Note: Mud Rotary does	not allow	for detailed lithology)		
						0.0								
						7.0								
						1.0								
						8.0					*****	·		
						0.0	į							
			l			9.0								
			i] 3.0				AAL MYTT				
						10.0								
				1	1 1		. ·							
						11.0-								
						_						AM-mar		
		ŀ	ľ		1 1	12.0-								
		İ										. www.		
				1	totary	13.0						AAFLANN		
				i	102.1									
		Į.			Mud	14.0								
		i			Σ	_								
						15.0 —						· · ·		
						-	<u> </u>							
				1		16.0		<u> </u>						
						1 -								
		1		1		17.0-			CM	Sandy Graval: amallas	coarec as	ained eand no odor		
			1			1 -	 		GM	Sandy Gravel: smaller with < 1 1/2" diar				
						18.0	<u> </u>	+	1	(as per driller)	netel CODE	nes, no odoí		
			1			-	ļ	┼─		(as per driller)				
			1			19.0	 	+	1					
]	-	 	┼	1	ATTRY				
		1				20.0 —			SW	Gravelly Sand: no odo	r			
						-	 		344	(as per driller)		Lat. W.P.		
		1		1		21.0	-	+	1	(as per uniter)				
			1			-		\vdash	ł					
		1				22.0	-	+	1	as above: with co	nhhlee			
				1		-		 	SP	Sand: green-grey, no o				
			1			23.0	 	+	J.	Sand. green-grey, no o	AUI			
			1			_	-	┼	-					
						24.0—	 	1	1					
par 1 1 13%	81	ŀ	1	1	1	-	 	-	-					
	20			,		25.0								

			Dunia at hi		040444	20		Cli a a l		ConnecDhilling		Well No: U-12	
			Project N Logged B		C10418 Joyce \			Client Locati		ConocoPhillips 1771 First Street, Live	more. CA	Page 2 of 3	
	_ 11 _	_	Driller:	-y.	Gregg				Drilled:	· ·	Location Ma		
1)6	elta	7	Drilling M	lethod:	-	otary/Hollow :	Stem I	Hole (Diamete		Please see site map		
		A	Sampling				uger l						
Cor	sultants		Casing T	ype:	12" Ste	el/ 4" SCH 4				r: 4 inches			
			Slot Size	ε.	0.020		١	Well [Depth:	75 feet			
			Gravel P	ack:	#3 San	d	(Casing Stick		p: -			
				Elevation			Latitud	e		Longitude	▼	 Static Groundwater 	
Well ompletion				PID Reading (ppm)	5 -	୍ଷି	Sam	nle	ا ہ				
· ·	Well	Static Water	ten!	ğ ğ	ratik /s/6	<u>ě</u>			Ş	LIT	HOLOGY (I	NESCRIPTION	
Steel Casing Steel Backfill	Details	Level	Moisture Content	E E	Penetration (blows/6")	Depth (feet)	Recovery	interval	Soil Type	LITHOLOGY / DESCRIPTION			
လုပ္လပ္က				Ī	4 -	ا م	Rec	Ĕ	<i>"</i>				
	neat				1	26.0-			GC	Clayey Gravel: orange-l	brown, no	odor	
	cement					20.0			ļ				
]			27.0							
	12" steel					_							
	&					28.0							
	4" PVC	İ	İ			-	\vdash		CL	Clay: orange-brown, no	oaor		
	casings					29.0	 						
						-	\vdash			LAME SHARE STREET			
		1				30.0			CL	Sandy Clay: orange-bro	wn no od		
		}	1			-	 	\dashv	~_		, 110 00	~.	
						31.0-	\vdash						
]		-	\vdash						
						32.0—						The state of the s	
				ĺ		33.0				••			
		1				33.0							
						34.0-							
						-				**			
				1		35.0—							
						_	-						
						36.0			CIM	Canaly Crayaly wall area	dod no od	or	
						_			GW	Sandy Gravel: well grad	ueu, no ou	OI	
						37.0	1						
				1	≥	-							
					Rotary	38.0							
					임	-						· · · · · · · · · · · · · · · · · · ·	
					Ιğ	39.0—				A ALIFE THE			
			1		-	40.0							
									Ì				
			1			41.0							
						42.0-						- The sak Mil	
			ł			-	1					•	
						43.0							
	1		1			-		<u> </u>	-				
	1		1			44.0-	-	ļ	l				
						-	-						
			1			45.0	1		•				
						-		 	1				
				1		46.0 —			1				
						47.5	1		1	<u> </u>			
						47.0			1	·	· · · · ·	-	
			1			40.0			CL	Gravelly Clay: light bro	wn, no ode	or	
	1					48.0-			1				
	l				1. 1	49.0	L]				
						49.0]				
		1				50.0—]		-		
11	1	1	1	1	₩	100.0—			1	l	·		

			1								Na. 11 4-			
			Project No		C104186		Clie		ConocoPhillips		Well No: U-12			
_			Logged B	у:	Joyce W			ation:	1771 First Street, Live		Page 3 of 3			
	elta	•	Driller:		Gregg D	_		e Drilled:	9/2, 9/22-26,10/7/08	Location Ma	ар			
	JIIc	1	Drilling M			ary/Hollow S				17 inches				
		•	Sampling				ger Hole		75 feet	Please see	site map			
Cor	sultants		Casing Ty	-		I/ 4" SCH 40								
			Slot Size:		0.020			I Depth:	75 feet					
			Gravel Pa		#3 Sand			ing Sticku						
			[E	Elevation	1		Latitude		Longitude	▼	= Static Groundwater			
187-11 E			ļ					1						
Well Completion		Static	p ±	<u>ij</u>	Penetration (blows/6")	g	Sample	8						
	Well	Water	afer	ea (E	trat vs/E) (F		≥	Lin	THOLOGY /	DESCRIPTION			
Steel Casing Steel Steel	Details	Level	Moisture Content	PID Reading (ppm)	무유	Depth (feet)	Recover y Interval	Soll Type						
30008				<u>a.</u>	~ ~	٥	<u> </u>							
	neat	\blacksquare			↑	51.0-		CL	Gravelly Clay: light brow	wn, no odd	or			
	cement]		1 1					······································				
			1			52.0		_			·			
	12" steel				Mud	_		_						
	&				2	53.0		4			ALAM SALVEY I			
	4" PVC					ا آ		_						
	casings					54.0		4						
]			4						
\square					<u> </u>	55.0		4						
						_		4						
						56.0		_						
						_		4						
	4" PVC	İ			l	57.0			NO DECOMEDY					
	casings				ŀ			4	NO RECOVERY		· · · · · · · · · · · · · · · · · · ·			
						58.0		-						
								-		<u>.</u>				
			1			59.0		-						
							\vdash	-						
			MOIST	0	10	60.0		CL	Sandy Clay: light brow	/n. ~10° di:	ameter coarse sand			
			TO	Ŭ	1 10	_					odor, moist to wet			
	bentonite	1	WET			61.0 —		-	· ·	, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	odor, moiot to wot			
	Dentonic		**-			_		-	as above: becom	nina liaht b	rown-orange mottled			
			моіѕт	0	14	62.0			45 450101 200011					
			11110101	ľ	1 ''									
	#3	1	WET	0	16	63.0		CL	Gravelly Clay: light bro	wn. ~30-4	0% gravel, medium-high			
	sand					-			plasticity, very st					
						64.0—			· · · · · · · · · · · · · · · · · · ·	<u> </u>	• • • • • • • • • • • • • • • • • • • •			
						CE 0 -			NO RECOVERY					
	well	1			1	65.0		 						
	screen		1	1	1	660	1	7			and market			
			WET	0	18	66.0 —		CL	Gravelly Sandy Clay:					
			ĺ		1	67.0			gravel, high plas					
						07.0		1						
						68.0—			NO RECOVERY					
			1			00.0		_]						
]	69.0								
			1			03.0		_]						
			1		1	70.0		_]			at a read the read of the read			
			1			1,0.0—					10			
		İ				71.0					- MANAGE - 7			
		1				7 1.0								
	9		WET	0	10	72.0		GP	Sandy Gravel: light bro	own, <5%	sand, loose, no odor			
			1	1	1	12.0			wet					
						72.0								
						73.0								
						74.0					n, <20% clay, soft, wet			
			WET	0		14.0		GC	as above: with >					
	3	I.	I	l .	1	I			very firm to hard	. no odor.	wet			
		L				- 175.0			<u> </u>	,	w ground surface (bgs).			

			Design A M		C40	4186			Client		ConocoPhillips		Well No: U-13		
			Project N Logged B			04186 ce W			Client		1771 First Street, Liven	nore, CA	Page 1 of 3		
	14		Driller:	·y ·	•		rilling			Drilled:	9/2,26,29-30,10/8/08		1		
1 14	elta)	Drilling M	ethod:			ary/Hollow St	em		Diameter			•		
	こりして	l	Sampling						Hole [Please see	e site map		
Cor	sultants		Casing T				// 4" SCH 40					<u> </u>			
COI	isuitaiits		Slot Size		0.02					Depth:	72 feet				
			Gravel Pa		#3 3	Sand				g Sticku	p: -				
				Elevation				atituo.			Longitude	Y	= Static Groundwater		
Well									- 1						
mpletion		Static	e 는	PID Reading (ppm)	ţ.	(plows/6")	Depth (feet)		nple	Soil Type					
, p	Well Details	Water		gea Spm	etra	/S/	<u>د</u> ا	ē	<u>0</u>	트	LITH	HOLOGY	DESCRIPTION		
Casing Steel Backfill	Details	Level	၌ပိ	<u> </u>	ě	음	de Di	Recovery	Interval	Soj					
, O , , W			_	п.	Ë	·		ď	, =		Asphalt				
	well box								\vdash	ŀ	nopriali				
1	neat	i	1				1.0		\Box	1					
	cement				ம	1	ا م			GM	Gravel with Silty Sand a	and Cob	bles: no odor		
					Knife	İ	2.0 —								
	12" steel				1	1	3.0								
	&				₽	1	3.0								
	4" PVC	1					4.0		<u> </u>						
	casings		1	1]		\sqcup						
						<u> </u>	5.0 —			0)::	0-1-0	blas	all areded no ada-		
		1				↑			\vdash		Sandy Gravel with Cob (Note: Mud Rotary does				
		Ì	1				6.0 —				(Note: Iviud Kotary does	not allov	v ioi detailed litrology)		
					ŀ	1	i —		-				·		
		1					7.0 —		\vdash				MIN.		
				1			_		+						
					ı	1	8.0								
		1									No.				
				1			9.0 —								
							100			·					
							10.0								
					1		11.0-			ļ					
			1												
		1	1 .				12.0								
			1		,				ļ						
					Poten,	5	13.0	<u> </u>	-	ļ					
									<u> </u>	-					
				1	Z. M	3	14.0		-	-					
					2	≥	_		-	1					
							15.0 ——		+	-					
		İ		1			-	-	+	1					
							16.0		-	1					
								\vdash	1	1	764 A 41				
		İ					17.0-	1	+	1	.,,,		AMPI (
							400			1					
							18.0—			1					
							19.0—					3430			
					ļ		19.0]					
							20.0								
										SW			gravel, coarse grained sa		
							21.0-	<u> </u>		1	well graded, no o	dor			
							, _	_	<u> </u>	4					
							22.0—	_		4	,		and the second s		
		1					_	-		4					
						1	23.0	 	+	-					
			1				_	-	_	-			-		
			i		1		24.0	+-	+	-{	100000000000000000000000000000000000000		1.174***		
							-	┼	+-	-					
	tyoff.		1	1	- 1	- 1	25.0 —	1	i		Clayey Gravel: orange-				

				Drain at N		C104	1100			Clion	+-	ConocoPhillips		Well No: U-13			
				Project N Logged B		C104 Joyce		elsh		Clien Locat		1771 First Street, Liver	more, CA	Page 2 of 3			
		_ 11 _	_	Driller:		Greg					Drilled:	9/2,26,29-30,10/8/08					
	1)6	elta	}	Drilling M	ethod:	Mud.	Rota	ry/Hollow St	em	Hole	Diamete						
			•	Sampling								72 feet Please see site map		site map			
	Con	sultants		Casing T				4" SCH 40									
				- · - · - · · · · · · · · · · · · · ·		0.020				Well Depth: Casing Stick		72 feet n: -					
					Elevation	#3 Sand		atitud		III SIICKU	Longitude	▼ .	= Static Groundwater				
					Lioratori	<u> </u>		Luna		•			_				
	Well				D	_	_	₽ I									
	npletion	Well	Static		agir 3 agir	Penetration	8/9/	Depth (feet)	Sam ≻		Soil Type	LIT	HOLOCY (E	SECCRIPTION			
출종	g = ₹	Details	Water Level	loist	Re (pp	let.	<u>§</u>	ŧ.	Ş	Interval	=	LII	HOLOGY	DESCRIPTION			
Seg	Casing Steel Backfill		Lavai	20	PID Reading (ppm)	g,	ၔ၂	å	Recovery	발	ן יס						
		neat				1		26.0—			GC	Clayey Gravel: orange-l	orown, no	odor			
		cement															
		408 -41						27.0				****					
		12" steel &					l				1						
		4" PVC	1		'			28.0—			CL	Clay: orange-brown, hig	h plasticity	no odor			
		casings						29.0]	-					
								30.0		ļ	SC	Sandy Clay: orange-bro	wn no od	or			
								_			30	Salidy Clay. Grange-bio	WII, NO GO	<u> </u>			
								31.0			1		•••				
				İ				32.0]						
				ļ				JZ.U —			1						
								33.0			4			· A17.71			
											-	WD		A PLANT			
								34.0		-	1						
								35.0					**				
								_			_			4			
								36.0		 	1			,			
														1.0.4			
								37.0			GP	Sandy Gravel: no odor	·-·-				
				1		Rotary	1	38.0	<u> </u>	<u> </u>	1			- W 111			
				1		&				┡	_			10-11			
						Mud		39.0	\vdash	-	-						
						2		40.0		1	1						
			1					40.0									
								41.0	<u> </u>	<u> </u>	_		•				
				1				l –	-	╂—	-	<u> </u>	Mr. Fr.				
								42.0		╁	-	·	400				
								42.0		\vdash	1						
							1	43.0]						
								44.0		1	_			34-			
								<u> </u>	-	-	-			2002			
				1				45.0	┢┈	╁	-	***************************************					
								46.0	1	\dagger	1			13777			
								46.0									
			}					47.0	\perp	\perp	4			W-8-T-1			
			1					-	-	\vdash	CL	Gravelly Clay: no odor					
				1				48.0-	+	+	՝ ՝ ՝	Graverry Clay: 110 0001					
								-	+	\top	7	***					
								49.0									
								50.0			_						
					<u> </u>		*	1 2.2			l						

	_		Dunin at Ni		C404	100			Client		ConocoPhillips		Well No: U-13
		İ	Project No Logged B		C104 ² Joyce		sh		Locati		1771 First Street, Live	more, CA	Page 3 of 3
_			Driller:	·y.	-					Drilled:	· · · · · · · · · · · · · · · · · · ·	/2,26,29-30,10/8/08 Location Map	
	⊃lt∢	5	Drilling M	othod:						Diamete		•	
יט	Delta					•					72 feet	Please see s	ite man
0			Casing Ty		Split Spoon Auger 12" Steel/ 4" SCH 40 PVC			Hole Depth:					
COI	sultants		Slot Size:	0.020			Well Depth:		72 feet				
			Gravel Pa	#3 Sand			Casing Stickup:						
<u> </u>				Elevation				Latitud		y Juliana	Longitude	│ ▼	Static Groundwater
			· '	Licyanoi	•	ĺ					-		
Well				D.	T = _	\top		Γ.	T	- 0			
Completion	Well	Static	Moisture Content	agi ∂gi	Penetration	2	Depth (feet)	١.	nple	Туре	2 17	HOLOGY / D	ESCRIPTION
∰ a g a ∰	Details	Water Level	onto	Re (pp	l de l	3	듔	§ >	Interval	Soil	£II	HOLOGI / D	ESCRIPTION
Backfill Steel Casing Steel Backfill		Level	≥ 0	PID Reading (ppm)	9 4	3	පී	Recover	l te	σ			
	neat				1		-4.0	_		GC	Gravelly Clay: no odor		
	cement	▼				į,	51.0	-			-		
	12" steel					-	52.0 <i></i> -						
	&				Mud	- [3	J2.U ———			GP	Gravel: no odor		
	4" PVC				2		 53.0 <i></i> _						
	casings				1								*****
] [1			54.0 <i>—</i>						
	bentonite			1		ľ	- · · · · · · · · · · · · · · · · · · ·	<u> </u>		GC	Clayey Gravel: no odor		
	grout	1			1 1		55.0 —	ļ					
	plug		i '	1	1 1			<u> </u>		GP	Gravel: no odor		
							56.0		<u> </u>			· · · · · · · · · · · · · · · · · · ·	
						ļ		-					WOW!
			ĺ			1	57.0	-	-				
	4" PVC					ı	_		-			N	
	casing	-	1				58.0	 	+		<u> </u>		
	bentonite	7						1	 				******
			1				59.0	+	+		NOTE: Drilled to 59' wi	th 10" bit: b	ackfilled to 54'
			1			ĺ		+	+-	i	with bentonite		
	#3	-	WET	0	ļ		60.0 —			GC	Clayey Gravel: light bro		% clay, no odor
	sand		1	"	ł	ļ				CL	Gravelly Sandy Clay:	ight brown-	orange mottled, ~30%
100 (100 (100 (100 (100 (100 (100 (100	Joina		WET	0	ļ	ĺ	61.0—				gravel, low plasti		
			''-'	-	1	ļ	~~~					•	
	well	1	WET	0			62.0—			1			
	screen		1							1			
	5		WET	0		ļ	63.0 —						
							64.0-						
			1				J-7.U ——			<u> </u>			
					1	ļ	65.0 —						1-4
			WET	0					***	4			
			1				66.0	2000		4			
	Was a	1	WET	0		ļ	_				Constru Construit Contri	400/	and as adequat
			,,	1 _			67.0—			GP	Sandy Gravel: light bro	JWN, ~1U%	sano, no odor,wet
			WET	0			_		4		Sandy Clayer Crayel	light brown	no odor wet
							68.0 —	-		GC	Sandy Clayey Gravel:	ngiit brown	, 110 OUOI, WEL
				1			_	-		CL	Sandy Clay: light brow	n 20.300/.	neand
			LAZET				69.0-		-	-	medium stiff, no		ouru,
			WET	0			-	-			medium sun, no	ouoi, wet	
							70.0 —						
							-			1	as above; with <	20% sand	low plasticity, soft
			WET	0			71.0				as above: with		
	905 905 801		\ vv⊏ ı	J 0			-	-		4	stiff, no odor, we		
Mana Cata	E FOLK	امالما	u Stom A	IDOT 50 7	2' bas		72.0—	_ K		4	Boring terminated at 72		ground surface (bas)
Mud Rotary	- ៦ - ៦ម៉ bgs	s, Hollov	v Stem Au	iger 59-7	∠ bgs						Dorning terminiated at 12	- ICCL DEION	g. cana canace (bgc).

			Project N Logged E		C10418 Joyce V			Client:		ConocoPhillips 1771 First Street, Liver	nore, CA	Well No: U-14 Page 1 of 3
	14		Driller:	.1.	Gregg [Date D		9/3,29,30,10/1, 9/08	Location Ma	
)(elta	}	Drilling M	lethod:		tary/Hollow	Stem		iamete			
		1			I: Split Spoon Auger			Hole E	epth:	73 feet	Please see site map	
Cor	sultants		Casing T			el/ 4" SCH 4				r: 4 inches		
			Slot Size		0.020			Well D	•	73 feet		
			Gravel P		#3 Sand				Sticku		_	- Statio Commitments
			ļ.,,	Elevation	•	<u> </u>	Latitud	ae ,		Longitude		= Static Groundwater
Well Completion	Well	Static	ure	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	San		Soil Type			
<u> </u>	Details	Water Level		P. Re	lows	Æ) še	Interval	<u> </u>	LIT	HOLOGY / L	DESCRIPTION
Backfill Steel Casing Steel Backfill			20	문	a e	<u>a</u>	Recovery	뺼	Ō			
	well				1					Asphalt		
	box					1.0						
	neat	1				_				0	1 0 - 1 - 1	I
	cement			1	Knife	2.0 —		H	GM	Gravel with Silty Sand a	ana CODD	ies: well graded,
	10" 04001				고	-	1	\vdash		no odor		
	12" steel &				Ψ	3.0 —	+	++				
	4" PVC						+	+				
	casings					4.0 —						
					+	5.0 —	-	1	GW	Sandy Gravel with Cob	hlae: wall	araded no odor
					↑	-		+	GW	(Note: Mud Rotary does		
						6.0	1	+		mad notary does	unow i	usumou milology
						7.0	1	\Box				
		1				7.0						
						8.0 —		\Box				Markett .
			İ			-		+				The state of the s
			1			9.0 —		1				
				1		-	+-	+				
						10.0—		1	•	- MAGNETAN I		
						11.0—						
		1						igspace			2000	
						12.0-	-	4		WAN-11		
					2	-	+	+-				
					Rotary	13.0-	+	+				
					 	-	1	+				
					Mud	14.0						
		1				15.0—						
						-	_			as above: with fev	ver larger	sized cobbles
		1				16.0 —	-					
						-	-	_				
						17.0				1.027		had the tree of
						18.0—						
						10.0—						
		1				19.0—		-			am	
						-		-				
						20.0		+	SW	Gravelly Sand: well gra	ded, no o	dor
						04.0	+	+		grandi mon gra		
				-		21.0—						
						22.0—						-4
						22.0—						<u></u>
				1		23.0—		-				
					.		-	_		·		
						24.0-	+	+	GC	Clayey Gravel: orange-	brown no	odor
			1	1		1 .	+	+	"	July Oraton Orange		
	323	1				25.0						

Project No: Logged By: Joyce Welsh Location: 1771 First Street, Livemore, CA Page 2 of	3
Driller: Gregg Drilling Date Drilled: 9/3,29,30,10/1, 9/08 Location Map Drilling Method: Sampling Method: Split Spoon Auger Hole Depth: 73 feet Please see site map Please	
Drilling Method: Split Spoon Auger Hole Diameter: 17 inches Sampling Method: Split Spoon Auger Hole Depth: 73 feet Casing Type: 12" Steel/ 4" SCH 40 PVC Well Diameter: 4 inches Slot Size: 0.020 Well Depth: 73 feet Gravel Pack: #3 Sand Casing Stickup: - Elevation Latitude Longitude Well Completion Well Depth: 73 feet	ndwater
Consultants Casing Type: 12" Steel/ 4" SCH 40 PVC Well Diameter: 4 inches Slot Size: 0.020 Well Depth: 73 feet Casing Stickup: -	ndwater
Casing Type: 12" Steel/ 4" SCH 40 PVC Well Diameter: 4 inches Slot Size: 0.020 Well Depth: 73 feet Gravel Pack: #3 Sand Casing Stickup: Elevation Latitude Longitude The Static Water Level Details Neat Casing Type: 12" Steel/ 4" SCH 40 PVC Well Diameter: 4 inches 73 feet Casing Stickup: - Elevation Latitude Longitude LitthoLogy / Description LitthoLogy / Description 26.0 27.0 28.0 Casing Stickup: - Elevation Latitude Longitude Longitude LitthoLogy / Description LitthoLogy / Description CL. Sandy Clay: orange-brown, no odor	ndwater
Slot Size: 0.020 Well Depth: 73 feet Gravel Pack: #3 Sand Casing Stickup: - Elevation Latitude Longitude Well Completion Well Completion Details Well Details Well Details Well Completion LitthoLogy / Description Reat Cement 12" steel 4" PVC 28.0 28.0 Well Depth: 73 feet Casing Stickup: - Longitude LitthoLogy / Description Sample A	ndwater
Completion Well Completion Well Details Static Water Level Static Cement 12" steel & 4" PVC cessions 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 12" Static Cement 1	ndwater
Well Completion Well Details Water Level Properties Of Static Water Level 12" steel & 4" PVC consistence of the properties of the properti	ndwater
Completion Well Details New Process New Pro	<u> </u>
Completion Well Details New Process New Pro	
neat cement 12" steel & 4" PVC centers	
neat cement 12" steel & 4" PVC consists of the consists of th	•
neat cement 12" steel & 4" PVC consists of the consists of th	
neat cement 12" steel & 4" PVC cereings	
12" steel & 4" PVC cosings	
& 4" PVC	
4" PVC	
cosings	
31.0	=
32.0	
	· ···········
34.0-	
35.0	
	<u> </u>
37.0	
38.0 <u>Sotato</u>	
39.0	
40.0 GM Sandy Gravel: no odor	-Inter-
42.0 GC Clayey Gravel: no odor	
43.0	
	····
45.0	
45.0 CL. Gravelly Clay: no odor	
46.0	
49.0	
▼ 50.0 CL Sandy Clay: no odor	

			D!4 N		C104186	,	Clier	ot:	ConocoPhillips	Well No: U-14
			Project No Logged B		Joyce W			ation:	1771 First Street, Liver	
			Driller:	у.	Gregg D			Drilled:	9/3,29,30,10/1-3/08	Location Map
1)	elta	ב	Drilling M	ethod:		ary/Hollow		Diamete		25 Gallott High
יט	こいに	7	Sampling			•		Depth:	73 feet	Please see site map
Co	nsultants		Casing Ty		-		0 PVC Wel	•		
COI	isuitaiits		Slot Size:		0.020	B 4 0011 4		l Depth:	73 feet	
			Gravel Pa		#3 Sand			ing Stickt		
				Elevation			Latitude		Longitude	= Static Groundwater
									-	
Well				PID Reading (ppm)	5.	£	Sample	ω		
mpletion	Well	Static Water	Moisture Content	m (m	Penetration (blows/6")	Depth (feet)	i.	Soil Type	LIT	HOLOGY / DESCRIPTION
Steel Steel Backfill	Details	Level	iğ 5	Қ.	S S	# <u></u>	Recover y Interval	<u>≅</u>		
មិនទ				₹	4 =	ă	a z			
					Mud	51.0	\bot	CL	Sandy Clay: no odor	
	12" steel				Σ	i –	 	4		
┧┟╜	casing				+	52.0 —	-	-		
	noot					-	+ +	-		
	neat cement					53.0		┪		
	Comon							CL	Gravelly Clay: orange-b	rown-light brown mottled, ~20%
		1	моізт	1		54.0		7 -		um plasticity, hard, no odor, moist
]	55.0				
			DRY	0	1		_	CL	Gravelly Sandy Clay: o	
		1		i _	İ	56.0		_		% sand, low-medium plasticity
			MOIST	0		_		-	no odor	-ht h-rough (F9/ group) 20 409/
			MOICT		1	57.0		CL		ght brown, <5% gravel, 20-40% ity, firm, no odor, moist
	4" PVC		MOIST	0		j –	- -	┨	Sand, myn piastic	ity, iiini, no odor, moist
	casing		MOIST	0		58.0		-	as above: turning	orange-brown-light brown in color
	Casing		NICIO I	്		1		┪	with <5% gravel a	
			моізт	1		59.0-		1		
						-		GC	Clayey Sandy Gravel:	orange-brown, 20-30% clay,
			1			60.0		7	low plasticity, soft	, no odor, moist
		ļ				61.0				
	bentonite	•	WET	1		_				orange-brown-light brown in color
		ľ] _		62.0 —		_	with 30-40% clay,	, 50-60% gravel, soft, wet
			MOIST	0	1	_		4		
	40	-			1	63.0 —		-	1. A/1.11	· · · · · · · · · · · · · · · · · · ·
	#3				ğ	-		4		- 14 MOV
	sand		моіѕт	0		64.0—		\dashv	as above: turning	light brown in color
			lwo.o.	"	E E	-		┪	do do voi tarring	
	well	1	моіѕт	1 0	v counts recorded	65.0-		_		
	screen				Blow counts recorded	66.0]	as above: turning	orange-brown-light brown in color
					I	66.0				
			WET	0		67.0—		CL		wn, ~ 40% gravel, medium-high
	XXXX		1.]"." .		_	plasticity, soft-firr	n, no odor, wet
			1,	_		68.0—		4		
		1	WET	0		-	CONTRACTOR CO.		Sandy Gravel: light bro	wa loose no oder wet
						69.0		GM	Sandy Graver: light bro	· vali, 1005e, 110 0001, Wet
						-		\dashv		
		1	MOIST	0		70.0		CL	Sandy Clay: orange-bro	own, high plasticity, hard, no odor,
			Two is i	΄ ΄				⊣ ັ`	moist moist	
			MOIST	d o		71.0—		-		
		1	[70.0		7		
			WET	1	1	72.0—		7	to a select de se	
			<u> </u>	<u>.</u>				CL		brown, 5-10% gravel, high plasticit
						– 13.0 –			firm to hard, no o	odor, wet
	5 5015	· Hallow	v Stem Au	ger 50-73	3º bas				Boring terminated at 73	feet below ground surface (bgs).

									O		O Di-115		Well No. 11 45
			Project N			4186 ce W			Client Locat		ConocoPhillips 1771 First Street, Live	more CA	Well No: U-15 Page 1 of 3
	3 4		Logged B Driller:	у.	-	gg Di				Drilled:		Location Ma	
1)4	elta)	Drilling M	lethod:			ary/Hollow Ste			Diamete			•
		ı	Sampling						Hole I	Depth:	71.5	Please see	site map
Con	sultants		Casing T				/ 4" SCH 40 F	PVC	Well I	Diamete	r: 4 inches		
			Slot Size:	:	0.02	20				Depth:	71		
			Gravel Pa			Sand				g Sticku		_	Station Commitments
				Elevation	1		L	atituc	ię		Longitude	▼	= Static Groundwater
Well ompletion	Well Details	Static Water Level		PtD Reading (ppm)	netration	(blows/6")	Depth (feet)	Recovery S	Interval ald	Soil Type	LiT	HOLOGY / I	DESCRIPTION
Steel Casing Steel Backfill		LCVO	≥ ∪	DIA.	g.	<u>a</u>	ea O	Rec	큚	·			
	well					↑	_				Asphalt		
	box neat	ł					1.0						
	cement]	்	1	۱., 🛨		\vdash	GM	Gravel with Silty Sand	and Cobb	oles: well graded
	001110111]]	Knife		2.0 —				no odor		
	12" steel					1	3.0						
	&			[Ą	1	`.,						
	4" PVC						4.0 —						
	casings				1.				-				
					\vdash	<u>*</u>	5.0			GW	Sandy Gravel with Col	bles: wel	l graded, no odor
											(Note: Mud Rotary does		
		-					6.0]			
							7.0		<u> </u>				
							 		-	ļ			A A WAR
							8.0 —		\vdash				La Aura III
				1	-		-		 	1	10077		145 m =
							9.0		1			. =	
		1					10.0		1	1			
							10.0						,,,,
							11.0						
		1	İ				-		 	-			
		i					12.0		1	1			
			1		1 2	2	1,,, =		┼─	1	-u		
					Sotary	3	13.0		1	1			
				1		-1	14.0]		4001177	** Allews
					M	≨	17.0			1			*****
							15.0—		1	4			
				1				<u> </u>	+-	-			
							16.0	-	+	1			·
							47.0		+	1			
							17.0]			A-1
		1					18.0						
								_	╂	4			1407
							19.0		+	-	V-		
		1					-	-	+	1			
							20.0—	1	T	1			
							21.0]			
							121.0		\perp	4			
							22.0—	<u> </u>	1	4			
		-						├—	+-	4			
							23.0	-	-	GC	Clayey Gravel with Co	obbles: no	odor
							-	\vdash	+	┧。	Slayey Stavet Hill St	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
							24.0	T	1	1	\\\\\		
							25.0						
	% [1	1	1		\psi	23.0						

			Project No		C10				Client		ConocoPhillips	more CA	Well No: U-15 Page 2 of 3
			Logged B	y:	Joyc				Locati		1771 First Street, Live 9/4-5,23,10/2-3,6,10/08	Location M	
	∽lt∽	•	Driller:				rilling 			Drilled:		EOCALIOIT IVI	iaβ
	elta	1	Drilling M				ary/Hollow S			Diamete Depth:	71.5	Please see	seita man
			Sampling				on Au 1/4" SCH 40					Fiedse see	s site map
Cor	sultants		Casing Ty		0.02		1/4° 5CH 40			Diamete Depth:	71		
			Slot Size:			and Sand				g Stickt			
			Gravel Pa	ick: Elevation		anu		Latituc		y Stickt	Longitude	┫	⇒ Static Groundwater
			'	Elevasor	'			Lautuc	iC .		Longitude	_	- Clade Great and Co.
Well		·			1			Γ				<u> </u>	
Completion		Static	e =	ži.	Į, į	<u>.</u>	(F)	San	nple	be			
: =	Well	Water	istu ntei	bm	T E	/S/M	9	e d	ख	Ę	LIT	THOLOGY /	DESCRIPTION
Steel Casing Steel Backfiil	Details	Level	Moisture Content	PIĎ Reading (ppm)	8	(plows/6")	Depth (feet)	Recovery	Interval	Soil Type			
80000				п.	<u> </u>	_		8	゠				
	neat				'	Î	26.0		Ш	GC	Clayey Gravel with Col	bbles: no	odor
	cement						_						
							27.0						
	12" steel				1		_		Щ				
	&				1		28.0	<u> </u>					
	4" PVC							<u> </u>			*****		·
	casings						29.0		Ш				
							-	<u> </u>					
							30.0	 	\vdash	C:	Class light has a no	lor	
]								—	 	CL	Clay: light brown, no od	IUI	
						1	31.0						
									<u> </u>				
							32.0				, James		
			ł		1		ļ —	-	-				
			1				33.0	-	<u> </u>				
			Ì				_	1	 	ł			
						1	34.0 —	 					
			1					1					
							35.0	†	\vdash	1	ART - I		
		1								1	100		241707
					l.	İ	36.0 —		1		1 01.00		
				1		1	27.0				""		
		1					37.0—			Ī			
					2	3	38.0—						
				1	Rotary	3	30.0			GC	Clayey Gravel: no odo	r	
				ı	Iτ	3 I	39.0						
					Ž	2	39.0]			
				1			40.0						
			İ				_			CL	Gravelly Clay: light bro	own, no o	dor
			1				41.0		ļ				
			1					1_	1	1			- AAN TT
							42.0		1	4			
									<u> </u>	4			
			1				43.0 —	-	╀	4			
]			_	-	1	4			
		1					44.0-	+	 	4			/ATT
							-		+	4			A 444 WYTTEN
							45.0		-	-	.,		
							-	+	1	4			- Luiv
							46.0	+-	4-	-			· ·
						1	-	+	+-	-			
							47.0—	-	+	GC	Clayey Gravel: no odo	\r	
							1 -		+	ا تون	Clayey Graver: 110 000	н .	
			1				48.0 —	+	+	-			- AV APPA
							-	+	+	-			1. *
		}		1			49.0	+		┥			
			1_				-	+	╅	-			40-
		1	Y			\downarrow	50.0	+	-	-	a ————————————————————————————————————		
33 I I 🖟	4					▼	1	<u> </u>	1				

								A.,		O DINE		I AL-MAN-AND AS
			Project No		C104186			Client		ConocoPhillips	CA	Well No: U-15
			Logged B	y:	Joyce W			Locat		1771 First Street, Live		Page 3 of 3
	elta	`	Driller:	- 41 1-	Gregg D	-	·		Drilled:		Location Map)
	こいて	1	Drilling M			ary/Hollow \$			Diamete			
			Sampling				uger		Depth.	71.5	Please see s	пе пар
Cor	sultants		Casing Ty			1/ 4" SCH 40	JPVC		Diamete Depth:			
			Slot Size:		0.020 #3 Sand				⊳eptn: ig Sticku	71 ip: -		
i			Gravel Pa	Elevation			Latitu		ig Stickt	Longitude	₩ ₌	Static Groundwater
			'	Licyation			Lauta	uc		Longitudo		· Oldio Orodinamater
Well				<u>B</u> i	Ę _	£		. 1	- a			
Completion	Well	Static	Moisture Content	∄ åg ∭	Penetration (blows/6")	Depth (feet)	1.	nple	Туре	1.17	HOLOCY (D	COCRIDITION
	Details	Water Level	iois InoX	ж. Э	low low	₽	8 ×	Interval	Soil	LII	HOLOGY / DI	ESCRIPTION
Backfill Steel Casing Steel Backfill		LOVO	20	PID Reading (ppm)	ନ ପ ଜୁନ	2	Recover	불	ν̈́			
	neat					51.0-			GC	Gravelly Clay: light brov	vn	
	cement				Mud							
					₩	52.0	<u> </u>					
	12" steel					_	↓	ļ				
	casing					53.0		₩				
						-	 	<u>. </u>				
$ \cup \cup $						54.0	-			MITHER T.		
						-	+	\vdash				
			DRY	5		55.0 —	200		CL	Gravelly Sandy Clay: o	range-brow	n-light brown mottled
	4" PVC					<u> </u>			V L			ticity, hard-firm, no odor
	casing					56.0				70 1070 9, 4701, 171	iouiuiii piao	10/0/1 (/0/0 ///// /// /// ///
	ouomig		DRY	5								
	bentonite					57.0						
						58.0—						
			MOIST	2		30.0			CL	Sandy Clay: light brown	ı, <5% grav	el, low plasticity,
						59.0—				soft-firm, no odor	, moist	
	#3	1	MOIST	1								
	sand		l	İ		60.0—			GC	Sandy Clayey Gravel:		
			WET			_	(30.00.000.000.00			1-2" diameter cob	obles, soft,	loose, no odor, moist
	. 11		1000			61.0		<u> </u>				
	well		WET	1		-	-	-	l			
	screen			İ		62.0		-				· · · · · · · · · · · · · · · · · · ·
					ļ	_	+	-		NO RECOVERY		
					ŀ	63.0		_	ĺ	INO REGOVERY		***************************************
							+		1			
			WET	14		64.0 —	200000		GC	Sandy Clayey Gravel:	light brown,	20-30% sandy clay,
				Į.		-				loose, no odor, w		•
			WET	7		65.0-		1	1			
					+	66.0 —	a lita.]			
			WET	0	E _	00.0	1]			273
				1	Blow counts not recorded	67.0				- Control of the second		
		1	WET	8	2 2					as above: with 40)% sandy c	lay
		1			≥ 5	68.0-						
			1		읆	-	1	1				
					-	69.0 —			<u></u>	NO RECOVERY		
						_	_		CL	(as per driller: cla	ay @ 69')	ALAMAN ALTON
		1	1,,,,,,			70.0		\bot	0'	Condy Class links harry	a E 400/	and high planticity
			WET	1		-		 	CL	Sandy Clay: light brown		aru, ragn plasticity,
		1	1			71.0—	-	+-	1	soft, no odor, we	ι	
	F	11-9	C+=== ^	F0 74	E 1 1 1	1	Щ.		4	Boring terminated at 71	5 foot hala	w ground curfoce (has)
Mud Rotary	- 5 - 59' bgs;	HOllow	Stem Aug	ger 59-71	.pr pgs	l				pointy terminated at 71	.J ICCI DEIO	w ground surface (pgs).

Attachment D Well Development Logs

EGG				MONITO	RING WE	LL DEVELO	PMENT LO	OG T	Page	of
	All measuremen	ts taken from:	Top of	Casing 🔲 F	Protective Cas	sing 🗌 Grou	nd Level	· · · · · · · · · · · · · · · · · · ·	Sample ID	*************************************
Well Numbe	er <u>UB</u> [0:13-0	ි ති		Borehole Dia	meter	8			Oty. of Drilling Fluid Lost Minimum Gal. to be Purged Development Method	
Client	9:00			Measured De Static Water Standing Wa	epth (post-de Level (ft.) ter Column (ft	44.3 D.56	5	• 1	Purging Equipment Water Level Equipment pH/EC Meter	
	Date	8		One Annulus			X		Turbidity Meter	
Time	Amount Purged (gal.)	рН	EC	Turbidity	D.O.	D.O. Temp.	SAL.	GPM W.L.	Comments	Fi Te
(A) (A)					, ,	,				
· · ·		Da	ted	We	// (129			,	
		1/		1 1	6	1,2	<i>j</i>			
	W	211	010	0 10	1	PCO	Colo	J.C.		
	, ,									
	· · · · · · · · · · · · · · · · · · ·									
						·				
	<u></u>]		1]
!	1.									7 -

FINAL FIELD PARAMETER: MEASUREMENTS

G	REGG	

MONITORING WELL DEVELOPMENT LOG

Page	of	
, age	 U I	

				<u>.</u>		D 0	امديم المحس	8	sample ID	
in the second	All measureme	nts taken from	: L1 lop of	Casing LIF	rotective Cas	sing ∐ Gro	una Levei	c	Qty. of Drilling Fluid Lost	spr.
Well Numl	ber C	1-12		Borehole Dia	meter	10			Ainimum Gal. to be Purged 140.03	<u>-</u>
		08		Screen Lengt	th	10			Development Method Bail - Sua	
Time Star	10-14- 1:8:40	End: 10:4	15	Measured De	epth (pre-deve	elopment)	72.1		Bail-pump	
			74	Measured De	epth (post-dev	velopment)	74.95	F	Purging Equipment SS Bailer - 3	2 pon
Project		·		Static Water	Level (ft.)	<u>50.84</u>	<u> </u>	v	Vater Level Equipment <u>Solins</u>	
Job Numb	oer		· · ·	Standing Wat	ter Column (ft.	121.2	6	p	H/ECMeter HOZZBAUL	<u>o</u> .
Installation	n Date			One Well Vol	ume (gal.)	14.03		т	urbidity Meter HOZZLA-U	16
Well Diam	eter	/ Tal.		One Annulus	Vol. (gal.)			c	Other	
		· · · · · · · · · · · · · · · · · · ·						_ 2		т
Time	Amount Purged (gal.)	рН	EC	Turbidity	D.O.	D.O. Temp.	SAL.	GPM W.L.	Comments	Field Tech.
9:40	40	6.41	1.05	>999	* *************************************	19.0	0.04	2/54,55	F29:1-10 GAC	
9:50	60	6.37	.931	>999		19.7	0.03		SUCGE-8:50-9:1	0
10:00	80	6.43	. 829	>999		18.4	0.02	2/54.97	Bail-10 GAL	
0:10	100	6,41	.831	704		19.1	0.03	2/54.9	7	
10:20	120	10.39	.829	617		19.1	0.03	V54.77		
0:30	140	6.40	.831	441		19.2	0 03	2/54.17	7-	
	,			li:						
									• •	
	-									
				FINAL	FIELD PARAI	METER MEAS	UREMENTS			
, j. 4.	I	1								

G	<u>REGG</u>	
∖ ≓∨	-	

MONITORING WELL DEVELOPMENT LOG

Page	of	

		•	•	III O I III C				•	Page of	· ·		
	 ■ All measureme	ents taken from	: Top of	Casing □ F	Protective Ca	sina 🗌 Gro	und Level	s	Sample ID	 .		
P				_ ·				, 0	Qty. of Drilling Fluid Lost			
Well Num	iber	1-13		Borehole Dia	meter	10		N	Ainimum Gal. to be Purged	7		
Well Number				Screen Length					Development Method Bail SURGE			
Time Star	Time Start: 11. 20 End: 1:56				Measured Depth (pre-development) 7/- 73							
				Measured De	epth (post-de	velopment)	73.1	F	Purging Equipment Scale - 27201			
				Static Water		5)-7	Y	v	Vater Level Equipment 53/1/25/	<i>.</i>		
	ber			Standing Wa	ter Column (ft	• 7	66		H/EC Meter #1-075A UI	0		
	n Date			One Well Vol	ume (gal.)	14.29	,	Т	urbidity Meter _ グラフレチャル	· <u>/ </u>		
Well Diam		4 = .							Other			
			· •	*	•							
	Field Parameters Measured											
Time	Amount Purged (gal.)	pH	EC	Turbidity	D.O.	D.O. Temp.	SAL.	GPM W.L.	Comments	Field Tech.		
2:20	40	6.77	1.03	7999		21,9	j .	· .	2Ba,1-106AC			
12:30	60	6.41	,895	55		21.7	0.03	2/54.79	SURGE- 11:25-1	1:45		
a:48	€0	(0.46	.894	54		21.9	0.03	2/54.7	Barl- 16 GAC			
2:50	180	6,41	.891	50		21.7	0.03	2/54-79	>			
1:00	120	(0-44	.896	52		21,7	0.03	2/54.7	7			
1:10	140	6.43	.894	54	·	21.6	0.63	254. 7.	2			
7.4		· · · · · · · · · · · · · · · · · · ·				1 1						
									·			
·····	:											
	:											

FINAL FIELD PARAMETER MEASUREMENTS

G	REGG'

MONITORING WELL DEVELOPMENT LOG

	1	
Page	of	

1 (A) 2 (A)	- All measuremei	nts taken from	Y Top of	Casing 🗀 I	Protective Cas	sing Cro	und Level	`	sample ID			
		20 De 14		Casing []	101000140 Odd	wia Ci dio			Qty. of Drilling Fl	uid Lost		 ,
Well Numb	per	15	·	Borehole Dia	ameter	10			Minimum Gal. to	be Purged	33.9	
Date				Screen Leng	th	10	* 2		Becol - Pour P			
				Measured D	epth (pre-deve	elopment)	70.5					
				Measured Depth (post-development) 70.88					Purging Equipment 55 Boler - 37			
Project	Project Job Number			Static Water Level (ft.) 50 · A Standing Water Column (ft.) 30 · 3				v	Water Level Equipment Solinst pH/EC Meter HOF ZDA 010			
Job Numb								r				
Installation	n Date			One Well Vol	ume (gal.)	3.39			urbidity Meter_	HORT	DA 610	
	eter	/	· .	One Annulus	Vol. (gal.)				Other	* *.		- .
					·····					197		
	Amount]	Field P	arameters Mo	easured	<u> </u>	GPM /	-			Field
Time	Purged (gal.)	рН	EC	Turbidity	D.O.	D.O. Temp.	SAL.	W.L.		Comments	•	Tech.
11:47	55	6.21	1.09	3999		27.5	0-04	a/51.1	Bail-	15 GA		
11:57	75	6.49	0.96	7999	~	22.1	0.04	2/5/.19	5026	= - 10:	15-10	:45
12:07	95	6.38	0.90	7999	-	72,2	0.04	2/52.1	Bar 1-			
12:16	110	6.37	6.92	794		aa.l	0-04	2/526	7			
12:26	130	635	0.93	674	Abort Maria Angula Inno	22.2	0-04	2/506	7			-
12:33	146	6.36	0.92	697		22.1	0-04	2/526	7			

apar 1			7 ₁₁	Í			:					
			•				:	, 144 2				
			, y	•	N.			::				
1 A.				FINAL	FIELD PARA	METER MEAS	UREMENTS					
										•		į

	•	.
	K	LJ.
_		 _
		 -
	7.	

Job Number ____ Installation Date_ Well Diameter __

MONITORING WELL DEVELOPMENT LOG

Page of	
Sample ID	
Qty. of Drilling Fluid Lost	
Minimum Gal. to be Purged / 4/. /	
Development Method Bail - 56 & GG-	

All measurements taken from: Top o	of Casing
Well Number V-15	Borehole Diameter
Date	Screen Length
Time Start: 40 End: 4:10	Measured Depth (pre-development) 71,59
Client	Measured Depth (post-development)
Project	Static Water Level (ft.) 50-2

Borehole Diameter	10"		
Screen Length	16-		
		 1.0	

Oci ceri Lengtii
Measured Depth (pre-development) 71.59
Measured Depth (post-development) 7/.59
Static Water Level (ft.) 50-2
Otandia 14(1) 71.39

Standing Water Column (ft.)) <u>(% { ^ ~) </u>
	111 11
One Well Volume (gal.)	19.11

One went volune (gail)	
One Annulus Vol. (gal.)	

Qty. of Drilling Fluid Lost
Minimum Gal. to be Purged 14/. /
Development Method Bay - 50 @ 66-
Bail-pump
Purging Equipment 55 Boiler - & Dumi
Water Level Equipment Solins +
pH/EC Meter HORIDA 018
Turbidity Meter 40R Ib A U16

Other_

		1			Field P	arameters Me	asured				
	Time	Amount Purged (gal.)	рH	EC	Turbidity	D.O.	D.O. Temp.	SAL.	GPM W.L.	Comments	Field Tech.
8	:45	50	6.61	.784	7999		23.1	0.03	2/51.89	Bail- 5 GAC	• .
2		75	6:41	786	794		23-a	0.03	2/5.219	150166-1:45-2:15	~
3	05	95 .	6.49	787	350		23.1	0-03	2/52/	7 Bail-56AC	
3	10 1	110	10:41	785	157		22.1	0.03	2/57.1	7	1
3	35	1:40	6.42	786	33		23.2	0.03	2/52/7		
			• •			<u>.</u>					
											:
		₽.			·	Section 1					
					• .	*					•
							7				
					FINAL	FIELD PARAM	TETER MEAS	UREMENTS			-

Attachment E Site Investigation Analytical Reports



Date of Report: 09/17/2008

RECEIVED

SEP 2 4 2008

Dennis Dettloff

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

RE: 4186

BC Work Order: 0812134

Enclosed are the results of analyses for samples received by the laboratory on 9/12/2008. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

Authorized Signature

ConocoPhillips Chain Of Custody Record

STL- San Francisco	ConocoPhi	illips Site Mar	ager:			Terry	Gray	/son							Conoc	5Phill	ps W	ork (rder	Nume	Jer .		-/-/-
1220 Quarry Lane		EMITTANCE A					CONC	COP	HILLIP	s						45	102	2935	84			DATE:	9/12/08
	Met Oight Ite					•	Attn:	Dee l	Hutchi	nson	- 200				Cc	noce	9111117	os Co	st Ob	ject		PAGE:	/ of }
Pleasanton, CA 94566			•				3611 Santa	Soutr Ana,	CA. 9	r, Suite 2704	200			1	00010	1203	49-N(0022	e telikise meres	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, AQL	
(925) 454-1919 (925) 484-1096 fax	be list that the list.	·	СОМОСОРНІ	LLIPS SITE I	UMBER									130	000010	. 1200	GLOB	AL ID N	10.;				
SAMPLING COMPANY!	Valid Value ID:		4186	 .,													T06	3001	017	<u>77</u>	4000		· · · · · · · · · · · · · · · · · · ·
Delta Consultants ADDRESS:	1		SITE ADDRES	S (Street ar	d City):														LIPS SI		AGEK:	٠.	
11050 White Rock Road, Suite 110 Rancho Co	ordova, CA 956	70	1771 Fi	st St., I	_iver	more	, CA									•	Shel	by Le	throp				
PROJECT CONTACT (Hardcopy or PDF Report to):			EOF DELIVER	ABLE TO (F	P or Des	ignee)							PHONE	NO.:			E-MAIL:			183		EONLY	
Dennis Dettloff TELEPHONE: FAX:	E-MAIL:		Joyce We	leh									916-	503-12	268		<u>iwels</u> om	h@de	<u>eltaen</u>	<u>v.c</u>)	r>⊊-	12134
916-503-1261 916-638-8385	ddettloff@delta		JOYCE VVE	1311												-7	<u> </u>						
SAMPLER NAME(S) (Print):	CONSULTANT PRO											REC	UES	TED A	ANAL'	/SES							
Joyce Welsh	C10	04186201			1			Į.	Γ		1	<u> </u>							$\neg \tau$			T	
TURNAROUND TIME (CALENDAR DAYS): X 14 DAYS 7 DAYS 72 HOURS 48 HOURS	☐ 24 HOURS ☐ L	LESS THAN 24 HOURS	TBA/1,2-				ļ									Ì					1	ĺ	
14 DAYS / DAYS /2 HOURS HOURS			- 월	,,			}											i					FIELD NOTES:
TOTAL CONTROL OF NOTES.	CHECK BOX IF EDI	D IS NEEDED IV	8260B - TPH-G/BTEX/ MTBE/TAME/ETBE/DIPE/ DCA/1,2-DBA/ethanol	DSTLC															ĺ		1	C	ontainer/Preservative
SPECIAL INSTRUCTIONS OR NOTES:			공혈호	🖺]			1 .	or PID Readings or Laboratory Notes
			BTE TE	□Total														l l	1				•
			A FE	🖺		7	9	黨		say	l	jde	8					1	İ				
			A P P	6010 - Lead [DTCLP		8015M - TPH-D	VOCs - 8260	CAM 17 Metals		Fish Bioassay	Pesticides	Total Cyanide	Sulfide				ŀ						
* Field Point name only required if different fro	m Sample ID SAMPLING	NO.	₩ 8 H 8.	0 T		1	ي	Σ	- T	ë	stic	<u> </u>	Total		į							TEMPER	ATURE ON RECEIPT Cº
Sample Identification/Field Point Name*	DATE TIME	- MAIKIA I GON	# 826 DC MT	8 -		8	8	გ.	Z.	芷	<u>a</u> .	ုင္	阜							_			
Name*	3/2/08/1005		X							'													
	1 1		1 🗸											_		-			-	-			• •
V-11- 44	D/17/08 1712	1 200		<u> </u>				┼─~	 		<u> </u>		 										
·			_					ļ <u> </u>		 		ļ								-		 	
							-				ļ	ļ	ļ										
											Ċ												
CHK BY DISTRI	₿UTIФIN -								1												1		
								 			ļ <u>-</u>	-	-			1							•
Da Sus								ļ		<u> </u>	ļ		 	- -				\vdash					
			1.		}																_		
	 													1									
	*							 													_		
		Bood on hy (Signa	tural						L.,,	<u> </u>	<u> </u>	!				Date		<u> </u>	7		Tio		2
Relinquished by: (Signeture)		Pan		la.	72		1	41	3							2	//	2/	<u> </u>			161	<u> </u>
Relingered by (Signature)		Received by: (Signa	ture)		-/- -			¥• Æ								يق	- 1	7	0	Ω,	Tin		300
Kora Dedian 9/11/08	<u> </u>	KUK	<u> كىپ</u>	<u>ر</u>	<u> </u>											Date	\	<u>, </u>	<u> </u>	_ب	Tir		
Balinquishy by: (Signature)	2125	Received by: (Signa	Tures 1													14	(2		8		21	2 <i>S</i>
My 27-16-00								÷						-			*97					9/19/0	3 Revision
e mail code	al C	00-																					

BC LABORATORIES INC.		SAMPLE	RECEIP	T FORM	Rev	. No. 12	06/24/08	Page \	Of	
Submission #: $08-1217$	34 [
SHIPPING INF Federal Express UPS BC Lab Field Service Othe	ORMATION Hand Deliv	/ery 🗆 🗀		1	ce Chest I Box I	₫ 🧎	IG CONT None Other		ify)	
Refrigerant: Ice Blue Ice	e □ None	□ Otl	ner 🗆 🔾	omment	s:					`
Custody Seals lice Chest	Containe	20022950.42025.4501.7524	None 🗗	Comme	nts:	,		·		
All samples received? Yes ☐ No □	All samples							h COC?. Ye		
COC-Received YES □ NO	Emissivity: _						2801		9121 9-121 it <u>JU</u> L	
					SAMPLE	UMBERS				
SAMPLE CONTAINERS	11	2	. 3	4	5	6	7	8	. 9	10
QT GENERAL MINERALI GENERAL PHYSI PT PE UNPRESERVED	CAL						2			
OT INORGANIC CHEMICAL METALS									,	
PT INORGANIC CHEMICAL METALS					-					
PT CYANIDE									• .	
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										-
PT TOTAL ORGANIC CARBON										
PT TOX			·							
PT CHEMICAL OXYGEN DEMAND		<u> </u>		,						
PtA PHENOLICS		<u> </u>								,
40ml VOA VIAL TRAVEL BLANK						, -				
40ml VOA VIAL		()	()	()	()	()	()	()		()
QT EPA 413.1, 413.2, 418.1							. <u>-</u>	ė ,		
PT ODOR										
RADIOLOGICAL								3 3		<u> </u>
BACTERIOLOGICAL		-								
40 ml VOA VIAL- 504									, 0	
OT EPA 508/608/8080										<u> </u>
OT EPA 515.1/8150			 -							
OT EPA 525						<u> </u>				
OT EPA 525 TRAVEL BLANK		<u> </u>	-			<u> </u>				
100ml EPA 547		<u> </u>	ļ	·		-				
100ml EPA 531.1			<u> </u>				-			
OT EPA 548 OT EPA 549			<u> </u>							
OT EPA 632		 	 	<u> </u>				<u> </u>		
OT EPA 8015M		<u> </u>	· · · · · · · · · · · · · · · · · · ·							t
OT AMBER		· -	1					<u> </u>		
8 OZ. JAR		<u> </u>								1
32 OZ. JAR		1.	1					1		
SOIL SLEEVE	A	A								
PCB VIAL	- 1 '	1 ''	1							
PLASTIC BAG					<u> </u>			 		T
FERROUS IRON				i -						1
ENCORE				l						1
		- 1	<u> </u>			L.			!	

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Informat	ion			
0812134-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 U-11 U-11-30 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/12/2008 21:25 09/12/2008 10:05 Solids	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
0812134-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 U-11 U-11-44 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/12/2008 21:25 09/12/2008 11:10 Solids	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 08	12134-01	Client Samp	le Name:	4186, U-11, U-11-	30, 9/12/200						QC	MB	Lab
						Prep	Run		Instru-	Dilution	Batch ID	Bias	Quals
Constituent		Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	BRI0695	ND	Quais
Benzene		ND	mg/kg	. 0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1			
1,2-Dibromoethane		ND	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
1,2-Dichloroethane		ND	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
Ethylbenzene		ND	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
Methyl t-butyl ether		0.54	mg/kg	0.025	EPA-8260	09/16/08	09/16/08 17:20	LHS	MS-V2	5	BR10695	ND	A01
Toluene		ND	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BR10695	ND	
Total Xylenes		0.017	mg/kg	0.010	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
t-Amyl Methyl ether		ND	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
t-Butyl alcohol		0.93	mg/kg	0.050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BR10695	ND	
Diisopropyl ether		ND .	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
Ethanol		ND	mg/kg	1.0	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695	ND	
Ethyl t-butyl ether		ND	mg/kg	0.0050	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	11	BRI0695	ND	
Total Purgeable Petroleum	n	2.0	mg/kg	1.0	EPA-8260	09/16/08	09/16/08 17:20	LHS	MS-V2	5	BR10695	ND	A01
1,2-Dichloroethane-d4 (Su	ırrogate)	98.6	%	70 - 121 (LCL - UCL)	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	11	BRI0695		
1,2-Dichloroethane-d4 (Su	ırrogate)	103	%	70 - 121 (LCL - UCL)	EPA-8260	09/16/08	09/16/08 17:20	LHS	MS-V2	5	BRI0695		
Toluene-d8 (Surrogate)	ALLE MARKET OF THE STREET	102	%	81 - 117 (LCL - UCL)	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BR10695	,,	
Toluene-d8 (Surrogate)		104	%	81 - 117 (LCL - UCL)	EPA-8260	09/16/08	09/16/08 17:20	LHS	MS-V2	5	BRI0695		
4-Bromofluorobenzene (S	urrogate)	92.4	%	74 - 121 (LCL - UCL)	EPA-8260	09/15/08	09/15/08 19:00	LHS	MS-V2	1	BRI0695		
4-Bromofluorobenzene (S		88.3	%	74 - 121 (LCL - UCL)	EPA-8260	09/16/08	09/16/08 17:20	LHS	MS-V2	5	BRI0695		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 081	2134-02	Client Sam	ole Name:	4186, U-11,	U-11-4	14, 9/12/200				Instru-		QC	MB	Lab
		D 14	l lmián		VIDL.	Method	Prep Date	Run Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
<u>Constituent</u>	·	Result	Units	PQL 1	VIUL	EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BR10695	ND	
Benzene		ND	mg/kg							 		BRI0695	ND ND	
1,2-Dibromoethane		ND	mg/kg	0.0050	<u>.</u>	EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	. 1			
1,2-Dichloroethane		0.011	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	
Ethylbenzene	## ## ## ## ## ## ## ## ## ## ## #	ND	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	
Methyl t-butyl ether		0.34	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	
Toluene		ND	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	
Total Xylenes		ND	mg/kg	0.010		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	
t-Amyl Methyl ether		ND	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BR10695	ND	
t-Butyl alcohol		0.54	mg/kg	0.050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	11	BRI0695	ND	A. (
Diisopropyl ether		ND	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	
Ethanol		ND	mg/kg	1.0		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BR10695	ND	
Ethyl t-butyl ether		ND	mg/kg	0.0050		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BR10695	ND	
Total Purgeable Petroleum Hydrocarbons		0.45	mg/kg	0.20		EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695	ND	,
1,2-Dichloroethane-d4 (Sur	rogate)	92.3	%	70 - 121 (LCL -	UCL)	EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695		
Toluene-d8 (Surrogate)		102	%	81 - 117 (LCL -	UCL)	EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695		.44.00
4-Bromofiuorobenzene (Su	rrogate)	87.5	%	74 - 121 (LCL -	UCL)	EPA-8260	09/15/08	09/15/08 19:28	LHS	MS-V2	1	BRI0695		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

										Contro	ol Limits
Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
Benzene	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	. 0	0.13590 0.13437	0.12500 0.12500	mg/kg mg/kg	1.9	109 107	20	70 - 130 70 - 130
Toluene	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19	0 .	0.12342 0.13497	0.12500 0.12500	mg/kg mg/kg	9.0	98.7 108	20	70 - 130 70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BR10695	Matrix Spike Matrix Spike Duplicat	0811604-19	ND ND	0.050217 0.049275	0.050000 0.050000	mg/kg mg/kg		100 98.6	,,	70 - 121 70 - 121
Toluene-d8 (Surrogate)	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	ND ND	0.048216 0.052881	0.050000 0.050000	mg/kg mg/kg		96.4 106		81 - 117 81 - 117
4-Bromofluorobenzene (Surrogate)	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e0811604-19	ND ND	0.048141 0.047283	0.050000 0.050000	mg/kg mg/kg		96.3 94.6		74 - 121 74 - 121



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

									Contr	ol Limits	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units_	Percent Recovery	Percen RPD Recover		Lab Quals
Benzene		BRI0695-BS1	LCS	0.13336	0.12500	0.0050	mg/kg	107	70 - 130		
Toluene	BRI0695	BRI0695-BS1	LCS	0.11931	0.12500	0.0050	mg/kg	95.4	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.049860	0.050000		mg/kg	99.7	70 - 121		
Toluene-d8 (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.047299	0.050000		mg/kg	94.6	81 - 117		Y
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.046543	0.050000		mg/kg	93.1	74 - 121		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Toluene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BRI0695	BRI0695-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BRI0695	BR10695-BLK1	ND	mg/kg	0.050		
Diisopropyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		ALL MARKET BUTTON
Ethanol	BRI0695	BRI0695-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Total Purgeable Petroleum Hydrocarbons	BRI0695	BRI0695-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BR10695-BLK1	101	%	70 - 121 (LCL	- UCL)	
Toluene-d8 (Surrogate)	BRI0695	BRI0695-BLK1	95.0	%	81 - 117 (LCL	- UCL)	
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BLK1	88.3	%	74 - 121 (LCL	- UCL)	
4-DIOMONDODENZENE (Odnogate)							



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 15:28

Notes And Definitions

RPD

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit

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

Relative Percent Difference



Date of Report: 09/17/2008

RECEIVED

Dennis Dettloff

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

RE: 4186

BC Work Order: 0812073

Enclosed are the results of analyses for samples received by the laboratory on 9/9/2008. 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

OTI . On Francisco	1. 1. 1. 1	X	170	ארוא	5	-		Co	noc	:oP	hil	lips	Ch	air	1 O	f C	us	tod	y R	lec	or	d				
STL- San Francisco		Cono	coPhil	lips Site	Mana	ger:			Terr	/ Gra	yson							Conc	coPhi	llips '	Work	Orde	r Nur	mber		0/2/2
1220 Quarry Lane	· :			MITTAN			-					HILLIF					İ		4	1510	293	584			DATE:	9/9/08
Pleasanton, CA 94566	s				•			•				Hutchi 1 Harb	nson or, Suit	e 200)			C	onoc	oPhill	lps C	ost O	(bjec	t	PAGE:	
(925) 454-1919 (925) 484-10	196 fax			-						Santa	Ana	CA. 9	2704					0000	10120							
SAMPLING COMPANY:		Valid Value	e ID:			солосорні	LLIPS SITE I	NUMBER	R			•								,	BALID	1017	777			
Delta Consultants						4186	SS (Street ac	nd Cityl:	<u>-</u>									-						ANAGER	R:	
ADDRESS: 11050 White Rock Road, Suite 110	Rancho Co	rdova, C	A 95670	0		1771 Fi				CA										She	elby L	.athro)p			
PROJECT CONTACT (Hardcopy or PDF Report to						EDF DELIVER	-			, 07.						PHON	NO.:			E-MAI	iL:			LAB	USE ONLY	
Dennis Dettloff		EMAIL:				EDF DECIVE	CABLE TO (A	(FOI De	:signee)							ì	503-1	268		iwel	lsh@	deltae	env.c			
TELEPHONE: FAX: 916-503-1261 916-638-8			[@deltae	env.com	1	Joyce We	ls <u>h</u>													<u>om</u>						
SAMPLER NAME(S) (Print):				CT NUMBER	<u> </u>							: -			ŘFC	OUES	TED	ANA	YSE	s	4					
Joyce Welsh			C104	186201																	-				·	
TURNAROUND TIME (CALENDAR DAYS):		7				1,2-								1							1	li				
14 DAYS 7 DAYS 72 HOURS	48 HOURS L	_ 24 HOU	RS [_] LE	SS THAN 24	HOURS	TBA/1,2-									1							•	1	1]		FIELD NOTES:
	·			La Lieraca	Fal.		2								1				- }			1				Container/Preservative
SPECIAL INSTRUCTIONS OR NOTES:	-C	CHECK BO	IX IF EDD	IS NEEDED	(A)	- TPH-G/BTEX/ TAME/ETBE/DIPE/ 2-DBA/ethanol	DSTLC				-							- }						J		or PID Readings
			•			STE BE/	□Total																			or Laboratory Notes
					•	A/et	<u> </u>		7		Metals		, se		g	يو						[]				
	**					AME	-Lead		Ē	-8260	1		Ssec	ges.	yani	nlfid			- }		İ					
* Field Point name only required if o	lifferent from	Sample	a ID	· · · · · · · · · · · · · · · · · · ·		8 7 X	금		8015M - TPH-D	S	M 17		Fish Bioassay	Pesticides	Total Cyanide	Total Sulfide					ľ				TEMP	PERATURE ON RECEIPT C
Sample Identification/Fig ov.ly Name*	ela Point	SAMP	TIME	MATRIX	NO. OF CONT.	8260B - TPH-G/BTEX/ MTBE/TAME/ETBE/DIP DCA/1,2-DBA/ethanol	6010 - L		801	VOCs	CAM	22	Fis	Pe	ě	Þ							L			
V-8-37		2/8/08	10:50	5014	1	X								`												
0 8 37		7 400	,																	T						
							 													- 						
						 				-	 			├	 -				+				-			
			-V) N	ر	_^=									ļ		ļ					-	-		\vdash		
	СНК	RA	-4	ISTR	BUIL	<u> PN</u>	<u> </u>	,				.,							_							<u> </u>
	DM	,	45		ŽI.													-			Ì					
	\V'\			SUB	ЮП																					
		1300000	Car Table		Marian and the	The state of the s	 	 						-	 	-			_	-	1					
							ļ													+	 	 		 		
1		·				<u> </u>								L		<u> </u>					ļ			 		
							,								<u> </u>						<u> </u>			لللل	Time:	
Reingdished by: (Signature)	ا نبوديون			Received by:		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		92/	2	m									Da (9/9	16.	8				00
Relinguished by: (Signature)		<u> </u>		Received by:		N.M.	on)		/~	11/2									Da	10:	<u> </u>	<u></u>	Δ	-	Time:	1 0
Kos Dichon 9	19/08	<i>)</i>		12/	<u> </u>	ey &	سک	=			<u>-</u>				,				Da	_ •	<u> </u>	· <u>'</u> O	<u>'C</u>		Time:	1900
Reinquished by: (Signature)	$\supset \bigcirc$	_ ^ ^		Beceived by:	(Signature)															<u>a</u>	a.	-	·/	- 1	91	e

Please & mail copy of COC

	·									
BC LABORATORIES INC. CTL.	alulos	SAMPLE	RECEIP	FORM	Rev	No. 12	06/24/08	Page \	Of \	
Submission #: 1949									·	
SHIPPING INFOI Federal Express □ UPS □	Hand Deliv		·	lo		1	None	. 🗆	ify)	
Refrigerant: Ice Blue Ice] None	□ Oth	er □ C	omment	s:	·				
	A CONTRACTOR OF THE PARTY OF TH	Charles and Associated and Associate	None 々	Comme	nts:			<u> </u>		
All samples received? Yes ☑ No □	All samples	containers	intact? Ye	s ⊠ No □]	Description	on(s) matc	h COC?. Ye	s □ No □	1
			_	•	_	er ID: <u>48</u> °C				
					SAMPLE	IUMBERS				
SAMPLE CONTAINERS	11	. 2	. 3	4	5	6	7	. 8	9	10
	<u> </u>			, ,		·				•
-	<u> </u>			_			-			•••
		<u> </u>	<u> </u>							· -···
	-									
Submission #:										
SUBMISSION #: SHIPPING INFORMATION Federal Express UPSE Hand Delivery Ico Chest # Rone Rone General Express UPSE Hand Delivery Ico Chest # Rone General Express UPSE Hand Delivery Ico Chest # Rone General Express General E										
	-									
		<u> </u>				······································				
										· · · · · · · · · · · · · · · · · · ·
		·- `		· · · · ·	7.7.77					
							:		-	
	. (()	()		()	()	. (()	()	()
OT EPA 413.1, 413.2, 418.1								<u> </u>		
PT ODOR				<u> </u>					e-60)	
RADIOLOGICAL								<u> </u>		
BACTERIOLOGICAL			<u>ļ. </u>	<u> </u>	·					
40 mt VOA VIAL- 504		ļ	ļ					ļ		
SUBDITIONS OF SHIPPING INFORMATION Tederal Express UPS UPS Hand Delivery DEC Cheest SUBDITION Of ther Uspecify None DEC Cheest SUBDITION OF SHIPPING CONTAINER To Cheest SUBDITION OF SHIPPING CONTAINER To Cheest SUBDITION OF SHIPPING CONTAINER To Cheest SUBDITION OF SHIPPING CONTAINER To Cheest SUBDITION OF SHIPPING CONTAINER To Cheest SUBDITION OF SHIPPING CONTAINER TO CHEEST SUBDITION OF SHIPPING CONTAIN										
Submission #: SHIPPING INFORMATION Federal Express UPS Hand Dolivary Contents None Governments:										
OT EPA 525		i	 	<u> </u>		 	ļ	 	<u> </u>	
OT EPA 525 TRAVEL BLANK	_	<u> </u>	 	 -	<u> </u>		<u> </u>			
		 	 		<u> </u>	 		 		
		-		 	ļ		ļ. ———	 		
· · · · · · · · · · · · · · · · · · ·	-	 	-	 				 	1	
		+	 			<u> </u>	<u> </u>	 	,	
		 	 	 	 	 	 	 	 	
			 	 	 		-	 	 	
	+	 	+	1.	 				 	1
<u> </u>		-	 	 	 	1	-		 	
	NARC	alia alia		1	1		 	1	†	
K	4-1	- Cula	 		 	· .	<u> </u>	1	1	
	<u> </u>	+	 		 	 	1	-		1
		 	1							
ENCORE		1.	1	1	1	1		1		
I ALLONE						<u> </u>	1			

Comments:
Sample Numbering Completed By: A = Actual / C = Corrected

H:IDOCSIWP801LAB_DOCSIFORMSISAMREC2WPD] Date/Time: 1

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 9:40

Laboratory / Client Sample Cross Reference

Client Sample Information Laboratory Delivery Work Order: 09/09/2008 21:55 Receive Date: **COC Number:** 0812073-01 Global ID: T0600101777 09/08/2008 10:50 Sampling Date: 4186 **Project Number:** Matrix: SO Sample Depth: U-8 Sampling Location: Sample QC Type (SACode): CS Sample Matrix: Solids Sampling Point: U-8-37 Cooler ID: **DECR** Sampled By:

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 9:40

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0812073-0	01 Client Samp	le Name	: 4186, U-8, U-8-37	, 9/8/2008							2.47	Lab
					Prep	Run		Instru-	D1141	QC Datab ID	MB	Lab Quals
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias ND	wuais
Benzene	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695		
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	11	BRI0695	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	11	BRI0695	ND	
Toluene	0.0051	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
Total Xylenes	0.011	mg/kg	0.010	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BR10695	ND	
Ethanol	ND	mg/kg	1.0	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695	ND	
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	. 1	BRI0695	ND	v
Total Purgeable Petroleum Hydrocarbons	1.3	mg/kg	0.50	EPA-8260	09/15/08	09/15/08 16:14	LHS	MS-V2	2.500	BRI0695	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	102	%	70 - 121 (LCL - UCL)	EPA-8260	09/15/08	09/15/08 16:14	LHS	MS-V2	2.500	BRI0695		
1,2-Dichloroethane-d4 (Surrogate)	99.3	%	70 - 121 (LCL - UCL)	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695		
Toluene-d8 (Surrogate)	105	- %	81 - 117 (LCL - UCL)	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	11	BRI0695		
Toluene-d8 (Surrogate)	105	%	81 - 117 (LCL - UCL)	EPA-8260	09/15/08	09/15/08 16:14	LHS	MS-V2	2.500	BRI0695		
4-Bromofluorobenzene (Surrogate)	88.5	%	74 - 121 (LCL - UCL)	EPA-8260	09/15/08	09/15/08 16:14	LHS	MS-V2	2.500	BR10695		
4-Bromofluorobenzene (Surrogate)	95.3	%	74 - 121 (LCL - UCL)	EPA-8260	09/12/08	09/12/08 19:44	LHS	MS-V2	1	BRI0695		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 9:40

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

	··········									ol Limits	
Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
Benzene	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	0	0.13590 0.13437	0.12500 0.12500	mg/kg mg/kg	1.9	109 107	20	70 - 130 70 - 130
Toluene	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	0 0	0.12342 0.13497	0.12500 0.12500	mg/kg mg/kg	9.0	98.7 108	20	70 - 130 70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	ND ND	0.050217 0.049275	0.050000 0.050000	mg/kg mg/kg		100 98.6		70 - 121 70 - 121
Toluene-d8 (Surrogate)	BRI0695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	ND ND	0.048216 0.052881	0.050000 0.050000	mg/kg mg/kg		96.4 106		81 - 117 81 - 117
4-Bromofluorobenzene (Surrogate)	BR10695	Matrix Spike Matrix Spike Duplicat	0811604-19 e 0811604-19	ND ND	0.048141 0.047283	0.050000 0.050000	mg/kg mg/kg		96.3 94.6		74 - 121 74 - 121

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 9:40

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

		QC Sample ID		 				Control Limits				
Constituent	Batch ID		QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recover		Lab Quals	
Benzene		BRI0695-BS1	LCS	0.13336	0.12500	0.0050	mg/kg	107	70 - 130			
Toluene	BRI0695	BRI0695-BS1	LCS	0.11931	0.12500	0.0050	mg/kg	95.4	70 - 130			
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.049860	0.050000		mg/kg	99.7	70 - 121		,,,	
Toluene-d8 (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.047299	0.050000		mg/kg	94.6	81 - 117			
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.046543	0.050000		mg/kg	93.1	74 - 121			

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 9:40

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BR10695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Toluene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BRI0695	BRI0695-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BRI0695	BRI0695-BLK1	ND	mg/kg	0.050	amas geography and a compound detail of all	
Diisopropyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Ethanol	BRI0695	BRI0695-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BR10695	BRI0695-BLK1	ND	mg/kg	0.0050		
Total Purgeable Petroleum Hydrocarbons	BR10695	BRI0695-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BRI0695-BLK1	101	%	70 - 121 (LC	L - UCL)	
Toluene-d8 (Surrogate)	BR10695	BRI0695-BLK1	95.0	%	81 - 117 (LC	L - UCL)	
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BLK1	88.3	%	74 - 121 (LC	L - UCL)	



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/17/2008 9:40

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.



Date of Report: 09/16/2008

Dennis Dettloff

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

RE: 4186

BC Work Order: 0811985

Enclosed are the results of analyses for samples received by the laboratory on 9/10/2008. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

Authorized Signature

ConocoPhillips Chain Of Custody Record STL-San Francisco ConocoPhillips Work Order Number Terry Grayson ConocoPhillips Site Manager: DATE: 9/10, 4510293584 INVOICE REMITTANCE ADDRESS: 1220 Quarry Lane CONOCOPHILLIPS Attn: Dee Hutchinson ConocoPhillips Cost Object Pleasanton, CA 94566 3611 South Harbor, Suite 200 Santa Ana, CA, 92704 000010120349-00022 (925) 454-1919 (925) 484-1096 fax GLOBAL ID NO.: CONOCOPHILLIPS SITE NUMBER SAMPLING COMPANY: T0600101777 4186 CONOCOPHILLIPS SITE MANAGER: Delta Consultants SITE ADDRESS (Street and City): ADDRESS: Shelby Lathrop 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670 1771 First St., Livermore, CA PROJECT CONTACT (Hardcopy or PDF Report to): EDF DELIVERABLE TO (RP or Designee) Dennis Dettloff iweish@deltaenv.c 916-503-1268 TELEPHONE: Joyce Welsh ddettloff@deltaenv.com 916-638-8385 916-503-1261 REQUESTED ANALYSES SAMPLER NAME(S) (Print): C104186201 Joyce Welsh TURNAROUND TIME (CALENDAR DAYS): 🔯 14 DAYS 🗌 7 DAYS 🗍 72 HOURS 🔲 48 HOURS 🔲 24 HOURS 🗎 LESS THAN 24 HOURS FIELD NOTES: - Lead □Total □STLC Container/Preservative CHECK BOX IF EDD IS NEEDED SPECIAL INSTRUCTIONS OR NOTES: or PID Readings /TAME/ETBE/DIP 1,2-DBA/ethanol or Laboratory Notes CAM 17 Metals 8015M - TPH-D **Total Cyanide** Fish Bioassay Fotal Sulfide Pesticides 6010 - L * Field Point name only required if different from Sample ID

Sample Identification/Field Point | SAMPLIN TEMPERATURE ON RECEIPT C° SAMPLING NO. OF MATRIX DATE TIME Name* SOIL 0/10/08/1330 **TRIBUTION** SUB-OUT

BC LABORATORIES INC.		SAMPLÉ	RECEIPT	FORM	Rev.	No. 12	06/24/08	Page	Of	
Submission #:										
SHIPPING INFORMATION Federal Express UPS Hand Delivery BC Lab Field Service Other (Specify) SHIPPING CONTAINER Ice Chest None Other (Specify) Box Other (Specify)										
Refrigerant: Ice ☑ Blue Ice ☐	None [] Oth	er□ C	omments	5:-				<u> </u>	
	ontainer	ENTERNAL FRENT	None 🗵	Commen	ıts:			·	- 2	
All samples received? Yes ☐ No ☐ Al	i samples	containers	intact? Ye	No 🗆	! 	Description	on(s) matc	ń сос?. Y	es Z No [
_4		•		<u>руре</u> т С 1 С		°C	8		e <u>9-10-8</u> nit <u>1944</u>	
SAMPLE CONTAINERS	1	. 2	3	4	SAMPLE N	UMBERS 6	7	8	9	10
	<u>-</u> 1				<u> </u>		, ,			
OT GENERAL MINERAL/ GENERAL PHYSICAL PT PE UNPRESERVED					-					
		-	l							
OT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE	·		1			- <u>-</u> .				
20Z. NITRATE / NITRITE						,				
PT TOTAL ORGANIC CARBON	~									
PT TOX PT CHEMICAL OXYGEN DEMAND				T						
PIA PHENOLICS					<u> </u>		:			-
40ml VOA VIAL TRAVEL BLANK			<u> </u>							
40ml VOA VIAL	. (() t) (()	()) () (()
OT EPA 413.1, 413.2, 418.1			<u> </u>							
PT ODOR										<u> </u>
RADIOLOGICAL		<u> </u>							<u> </u>	
BACTERIOLOGICAL			<u> </u>	-	-					<u> </u>
40 ml VOA VIAL- 504			<u> </u>							
OT EPA 508/608/8080	<u> </u>	1								
OT EPA 515.1/8150	1.									
OT EPA 525		1						<u></u>		
OT EPA 525 TRAVEL BLANK										
100ml EPA 547									<u> </u>	
100mi EPA 531.1										_]
OT EPA 548			9							
QT EPA 549					T					
OT EPA 632		,				, ,			,	
OT EPA 8015M		—								<u> </u>
OT AMBER		<u> </u>	T				-			
8 OZ. JAR					1					
32 OZ. JAR	1	1			1				·	
SOIL SLEEVE	A	 	1							_
PCB VIAL	1''	1								
PLASTIC BAG	1									
FERROUS IRON	1			· ·						
ENCORE ENCORE										
comments:	_									
Sample Numbering Completed By: + 11111 A = Actual / C = Corrected	16	Date/	Time: <u>9-1</u>	·08-8	330	[H:/DOCS/W	P80\LAB_000	SIFORMSISAI	MREC2.WPD]	



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/16/2008 8:19

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Informat	ion			
0811985-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 U-9-40 U-9-40 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/10/2008 13:30	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/16/2008 8:19

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0811985-01	Client Sam	ple Name:	4186, U-9-40), U-9-	40, 9/10/20				Instru-	···	QC	MB	Lab
					95 - 41 ¹	Prep	Run Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Constituent	Result	Units		/IDL	Method	Date	09/12/08 03:51	LHS	MS-V2	50	BRI0695	ND	A01
Benzene	ND	mg/kg	0.25		EPA-8260	09/11/08					BRI0695	ND	A01
1,2-Dibromoethane	ND	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50			A01
1,2-Dichloroethane	ND	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BR10695	ND	
Ethylbenzene	8.0	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695	ND	A01
Methyl t-butyl ether	ND	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695	ND	A01
Toluene	ND	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BR10695	ND	A01
Total Xylenes	48	mg/kg	0.50		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695	ND	A01
	ND	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695	ND	A01
t-Amyl Methyl ether	ND	mg/kg	2.5		EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695	ND	A01
t-Butyl alcohol			0.25		EPA-8260	09/11/08		LHS	MS-V2	50	BRI0695	ND	A01
Diisopropyl ether	ND	mg/kg			EPA-8260	09/11/08		LHS	MS-V2	50	BRI0695	ND	A01
Ethanol	ND	mg/kg	50						MS-V2	50	BR10695	ND	A01
Ethyl t-butyl ether	ND	mg/kg	0.25		EPA-8260	09/11/08	09/12/08 03:51	LHS					
Total Purgeable Petroleum Hydrocarbons	1900	mg/kg	200		EPA-8260	09/12/08	09/12/08 17:25	LHS	MS-V2	1000	BRI0695	ND	A01
1.2-Dichloroethane-d4 (Surrogate)	98.6	%	70 - 121 (LCL -	UCL)	EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695		
1,2-Dichloroethane-d4 (Surrogate)	101	%	70 - 121 (LCL -	UCL)	EPA-8260	09/12/08	09/12/08 17:25	LHS	MS-V2	1000	BRI0695		
Toluene-d8 (Surrogate)	.106	%	81 - 117 (LCL -	UCL)	EPA-8260	09/12/08	09/12/08 17:25	LHS	MS-V2	1000	BRI0695		
Toluene-d8 (Surrogate)	110	%	81 - 117 (LCL -	UCL)	EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BRI0695		<u> </u>
4-Bromofluorobenzene (Surrogate)	97.4	%	74 - 121 (LCL -	UCL)	EPA-8260	09/11/08	09/12/08 03:51	LHS	MS-V2	50	BR(0695		
4-Bromofluorobenzene (Surrogate)	89.4	%	74 - 121 (LCL -	UCL)	EPA-8260	09/12/08	09/12/08 17:25	LHS	MS-V2	1000	BRI0695		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/16/2008 8:19

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

	**·								Contro	<u>ol Limits</u>
Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
BRI0695	Matrix Spike	0811604-19	0	0.13590	0.12500	mg/kg		109		70 - 130
		e 0811604-19	0	0.13437	0.12500	mg/kg	1.9	107	20	70 - 130
BRI0695	Matrix Spike	0811604-19	0	0.12342	0.12500	mg/kg		98.7		70 - 130
Bracooo	• • •	e 0811604-19	0	0.13497	0.12500	mg/kg	*	108	20	70 - 130
BRI0695			ND	0.050217	0.050000	mg/kg		100		70 - 121
DITTOOOD	•		ND	0.049275	0.050000	mg/kg		98.6		70 - 121
BB10605	Matrix Snike	0811604-19	ND	0.048216	0.050000	mg/kg		96.4		81 - 117
DICTOOSS			ND	0.052881	0.050000	mg/kg		106		81 - 117
BR10695			ND	0.048141	0.050000	mg/kg		96.3		74 - 121
DIGUUSS	•		ND	0.047283	0.050000	mg/kg		94.6		74 - 121
	Batch ID BRI0695 BRI0695 BRI0695 BRI0695 BRI0695	Matrix Spike Duplicat BRI0695 Matrix Spike Matrix Spike Duplicat BRI0695 Matrix Spike Matrix Spike Duplicat BRI0695 Matrix Spike Matrix Spike Duplicat BRI0695 Matrix Spike Duplicat BRI0695 Matrix Spike	Batch ID QC Sample Type Sample ID BRI0695 Matrix Spike 0811604-19 Matrix Spike Duplicate 0811604-19 0811604-19 BRI0695 Matrix Spike 0811604-19 BRI0695 Matrix Spike Duplicate 0811604-19 Matrix Spike Duplicate 0811604-19 0811604-19 BRI0695 Matrix Spike Duplicate 0811604-19 Matrix Spike Duplicate 0811604-19 0811604-19	Batch ID QC Sample Type Sample ID Result BRI0695 Matrix Spike 0811604-19 0 Matrix Spike Duplicate 0811604-19 0 BRI0695 Matrix Spike Duplicate 0811604-19 0 BRI0695 Matrix Spike Duplicate 0811604-19 ND Matrix Spike Duplicate 0811604-19 ND BRI0695 Matrix Spike Duplicate 0811604-19 ND Matrix Spike Duplicate 0811604-19 ND BRI0695 Matrix Spike Duplicate 0811604-19 ND	Batch ID QC Sample Type Sample ID Result Result BRI0695 Matrix Spike 0811604-19 0 0.13590 Matrix Spike Duplicate 0811604-19 0 0.13437 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 Matrix Spike Duplicate 0811604-19 ND 0.050217 Matrix Spike Duplicate 0811604-19 ND 0.049275 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 Matrix Spike Duplicate 0811604-19 ND 0.052881 BRI0695 Matrix Spike 0811604-19 ND 0.048141	Batch ID QC Sample Type Sample ID Result Result Added BRI0695 Matrix Spike 0811604-19 0 0.13590 0.12500 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13497 0.12500 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000	Batch ID QC Sample Type Sample ID Result Result Added Units BRI0695 Matrix Spike 0811604-19 0 0.13590 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13437 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 mg/kg BRI0695 Matrix Spike 0811604-19 ND 0.048216 0.050000 mg/kg	Batch ID QC Sample Type Sample ID Result Result Added Units RPD BRI0695 Matrix Spike 0811604-19 0 0.13590 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13437 0.12500 mg/kg 1.9 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 mg/kg 9.0 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 mg/kg 9.0 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 mg/kg BRI0695 Matrix Spike 0811604-19 ND 0.048216 0.050000 mg/kg	BRI0695 Matrix Spike	Source Source Spike Percent

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/16/2008 8:19

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

		<u> </u>		· · · · · · · · · · · · · · · · · · ·					Control	Limits	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals
Benzene		BRI0695-BS1	LCS	0.13336	0.12500	0.0050	mg/kg	107	70 - 130		
Toluene	BRI0695	BRI0695-BS1	LCS	0.11931	0.12500	0.0050	mg/kg	95.4	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.049860	0.050000		mg/kg	99.7	70 - 121		
Toluene-d8 (Surrogate)		BRI0695-BS1	LCS	0.047299	0.050000		mg/kg	94.6	81 - 117		
4-Bromofluorobenzene (Surrogate)		BRI0695-BS1	LCS	0.046543	0.050000		mg/kg	93.1	74 - 121	,,,	

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/16/2008 8:19

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1.2-Dibromoethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Toluene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.010		
Total Xylenes	BRI0695	BRI0695-BLK1	ND .	mg/kg	0.0050		
t-Amyl Methyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.050		
t-Butyl alcohol	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Diisopropyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	1.0		
Ethanol	BRI0695	BR10695-BLK1	ND	mg/kg	0.0050		
Ethyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.20		
Total Purgeable Petroleum Hydrocarbons		BRI0695-BLK1	101	%	70 - 121 (LCL	- UCL)	
1,2-Dichloroethane-d4 (Surrogate)	BRI0695		95.0	%	81 - 117 (LCL		
Toluene-d8 (Surrogate)	BRI0695	BRI0695-BLK1	88.3	⁷⁰	74 - 121 (LCL		
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BLK1	00.3		1,7-121 (202		



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/16/2008 8:19

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.



Date of Report: 09/15/2008

Dennis Dettloff

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

RE: 4186

BC Work Order: 0812074

Enclosed are the results of analyses for samples received by the laboratory on 9/11/2008. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

Authorized Signature

Record	umpeu umpeu	DATE:	Conocolf fillips Cost Out of of	GLOSAL ID NO.	T0600101///	Seattly-Latinop TORRY CRAYSON	(SUE	Ish@deltaenv.c		Si	FIELD NOTES:	Container/Preservative or PID Readings	or Laboratory Notes	TEMPERATURE ON RECEIPT C°							9/11/08 Time: 720	Q~11.08 m 850	Dete: The The 3205	Let a Mares BISTOTHENSON
ConocoPhillips Chain Of Custody Record	Terry Grayson Conocoeth	CONOCOPHILLIPS Affr. Dee Hirtchingon	000	S SITE NUMBER	4186	RESS (Street and Ofly):	FIRST OU, LIVERINIUM, ON	E-10 (KP of Designed)		REQUESTED ANALYSES			Metals Nessay les		_		CAN CAN	CHK BY COSTRIBUTION			The Robert			of sighted coc to above circ
	STL- San Francisco ConocoPhilips Site Manager:	1220 Quarry Lane INVOICE REMITTANCE ADDRESS:	Pleasanton, CA 94566	(925) 454-1919 (925) 484-1095 tax		B. J. S. Man Janetho Cardona CA 95670		tloff	10 10 10 10 10 10 10 10	(Print):	AYS): IRS		1PH-G/BTEX	nd if different from Sample ID No. of 60 N	7000	12					Reinpflated Wr. (Signature)	Reinfolished of Gapraure)	Capaling by: (Signature) O 1 0 2 2 2	please seral etrain copy

BC LABORATORIES INC.	· · · · · · · · · · · · · · · · · · ·	DAMPLE	KEUEIF	FURIN	Kev	NO. 12	U6/44/U8	raye_	<u> </u>	
Submission #)]
SHIPPING INFO	Hand Deliv			lo	ce Chest I Box [None		fy)	
Refrigerant: Ice Blue Ice	□ None (□ Oth	er□ C	omment	s:					
Custody Seals Ice Chest II	Gontaine Intact? Yes		None 🕼	Comme	nts:					
All samples received? Yes X No □	All samples	containers	intact? Ye	S No E	1	Descripti		h COC? Ye	5 No 0	
COC Received ☐ YES ☐ NO	Emissivity:	co	ontainer: _ 7°(500V TC	hermometr 1 - 2	er ID: <u>니</u> ? °C	8	Date/Time Analyst In	9-11-12 <u>Walk</u> ni	7 8
SAMPLE CONTAINERS		. , 	. 3	4	SAMPLE N	UMBERS 6	7	- B 1	9	10
	1 1	2	. 3	4	3	•	, ,			
QT GENERAL MINERAL/ GENERAL PHYSIC PT PE UNPRESERVED	YAL			, :						
OT INORGANIC CHEMICAL METALS				=		-				
PT INORGANIC CHEMICAL METALS								-		
PT CYANIDE										
PT NITROGEN FORMS	·							<u> </u>		
PT TOTAL SULFIDE							- -	<u> </u>		
20z. NITRATE / NITRITE					,					<u>_</u>
PT TOTAL ORGANIC CARBON					-		<u> </u>	<u> </u>	*	<u> </u>
PT TOX	. 4									
PT CHEMICAL OXYGEN DEMAND				· · · · · · · · · · · · · · · · · · ·				<u> </u>		
PtA PHENOLICS				•						
40ml VOA VIAL TRAVEL BLANK					, <u></u>		<u> </u>	 	:	
46ml VOA VIAL		()	()		()	()	()	(-)	()	(
QT EPA 413.1, 413.2, 418.1				-			 	1		-
PT ODOR						<u> </u>	 	 		
RADIOLOGICAL					 	 		1	i	
BACTERIOLOGICAL							 	-		*
40 ml VOA VIAL- 504		ļ	<u> </u>					:	4	
OT EPA 508/608/8089	·		<u> </u>			-	 			
OT EPA 515.1/8150	<u></u>	 				 	 	 		
OT EPA 525		 						 		
OT EPA 525 TRAVEL BLANK		<u> </u>				-	 	1		
100m3 EPA 547		 	<u> </u>		 		 	-	ļ	
100ml EPA 531.1		 	ļ		 	 	 	 	 	 -
OT EPA 548		 			 	 	 	 	 	
OT EPA 549		 			 	 		 	,	
OT EPA 632		 			<u> </u>	 	 	1	 	
OT EPA 8015M		 	1		 	 	 	 	 	
OT AMBER		 		 	 	 	1	1	 	
8 OZ. JAR	<u> </u>	1		 	1	 	 	 	 	
32 OZ. JAR		10/K	 	 	 	 			 	1
SOIL SLEEVE	A	1 XX			 	 	 	1	 	
PCB VIAL		1	1	 	-	 	 	 		
PLASTIC BAG		and;		 	- 	 	 	-	 	1
FERROUS IRON		40%	+	 	 	 	-	+ -	 	-
ENCORE	i	ŀ	I	<u> </u>	_1	<u>i</u>	1	_1	1	1

Comments:
Sample Numbering Completed By: A = Actual / C = Corrected

Date/Time: Q 12 C155

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Informat	ion			
0812074-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 U-10 U-10-39 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/11/2008 22:05 09/11/2008 12:35 Solids	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
0812074-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 U-10 U-10-48 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/11/2008 22:05 09/11/2008 13:20 Solids	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0812074-01	Client Sam	ole Name	: 4186, U-10, U-	-10-39, 9/11/2				Instru-		QC	MB	Lab
Competitions	Result	Units	PQL MI	DL Method	Prep I Date	Run Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Constituent Benzene	ND	mg/kg	0.0050	EPA-826	***************************************	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
1,2-Dibromoethane	ND ·	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BR10695	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BR10695	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BR10695	ND	
Toluene	ND ·	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BR10695	ND	
Total Xylenes	ND .	mg/kg	0.010	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BR10695	ND	
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
t-Butyl alcohol	0.058	mg/kg	0.050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
Diisopropyl ether	ND	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
Ethanol	ND	mg/kg	1.0	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	11	BRI0695	ND	
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
Total Purgeable Petroleum Hydrocarbons	2.4	mg/kg	0.20	EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	ND	
1,2-Dichloroethane-d4 (Surrogate)	99.7	%	70 - 121 (LCL - U	CL) EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695		
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - U	CL) EPA-826	0 09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695	- At 1: - All 1: - Al	
4-Bromofluorobenzene (Surrogate)	90.9	%	74 - 121 (LCL - U	CL) EPA-826	09/12/08	09/12/08 20:11	LHS	MS-V2	1	BRI0695		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0812074-02	Client Sam	ріе маті	: 4186, U-10, U-1	0-40, 3/11/20	08 1:20:0 Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDI	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	0.70	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BR10695	ND	A01
1,2-Dibromoethane	ND	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BR10695	ND	A01
1,2-Dichloroethane	ND	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Ethylbenzene	0.31	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Methyl t-butyl ether	0.29	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Toluene	0.12	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BR10695	ND	A01
Total Xylenes	2.2	mg/kg	0.10	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BR10695	ND	A01
t-Amyl Methyl ether	ND	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
t-Butyl alcohol	1.3	mg/kg	0.50	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Diisopropyl ether	ND	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Ethanol	ND	mg/kg	10	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Ethyl t-butyl ether	ND	mg/kg	0.050	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
Total Purgeable Petroleum Hydrocarbons	22	mg/kg	2.0	EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	96.6	%	70 - 121 (LCL - UC	_) EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695		
Toluene-d8 (Surrogate)	101	%	81 - 117 (LCL - UC	_) EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695	The state of the state of	
4-Bromofluorobenzene (Surrogate)	81.8	%	74 - 121 (LCL - UC) EPA-8260	09/12/08	09/12/08 20:39	LHS	MS-V2	10	BRI0695		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

									Contro	<u>ol Limits</u>
Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
BRI0695	Matrix Spike	0811604-19	0	0.13590	0.12500	mg/kg		109		70 - 130
	Matrix Spike Duplicat	e 0811604-19	0	0.13437	0.12500	mg/kg	1.9	107	20	70 - 130
BRI0695	Matrix Spike	0811604-19	0	0.12342	0.12500	mg/kg		98.7		70 - 130
Bittoooo	•	e 0811604-19	0	0.13497	0.12500	mg/kg	9.0	108	20	70 - 130
BRI0695	Matrix Spike	0811604-19	ND	0.050217	0.050000	mg/kg		100		70 - 121
2		e 0811604-19	ND	0.049275	0.050000	mg/kg		98.6		70 - 121
BRI0695	Matrix Spike	0811604-19	ND	0.048216	0.050000	mg/kg		96.4		81 - 117
B. 110000		e 0811604-19	ND	0.052881	0.050000	mg/kg		106		81 - 117
BRI0695	Matrix Spike	0811604-19	ND	0.048141	0.050000	mg/kg		96.3		74 - 121
2	•	e 0811604-19	ND	0.047283	0.050000	mg/kg		94.6		74 - 121
		Matrix Spike Duplicat BRI0695 Matrix Spike Matrix Spike Duplicat BRI0695 Matrix Spike Matrix Spike Duplicat BRI0695 Matrix Spike Matrix Spike Matrix Spike Duplicat BRI0695 Matrix Spike	Batch ID QC Sample Type Sample ID BRI0695 Matrix Spike 0811604-19 Matrix Spike Duplicate 0811604-19 0811604-19 BRI0695 Matrix Spike Duplicate 0811604-19 BRI0695 Matrix Spike Duplicate 0811604-19 Matrix Spike Duplicate 0811604-19 BRI0695 Matrix Spike Duplicate 0811604-19 Matrix Spike Duplicate 0811604-19 Matrix Spike Duplicate 0811604-19	Batch ID QC Sample Type Sample ID Result BRI0695 Matrix Spike 0811604-19 0 Matrix Spike Duplicate 0811604-19 0 BRI0695 Matrix Spike 0811604-19 0 Matrix Spike Duplicate 0811604-19 ND Matrix Spike Duplicate 0811604-19 ND BRI0695 Matrix Spike Duplicate 0811604-19 ND Matrix Spike Duplicate 0811604-19 ND BRI0695 Matrix Spike Duplicate 0811604-19 ND BRI0695 Matrix Spike 0811604-19 ND	Batch ID QC Sample Type Sample ID Result Result BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13590 Matrix Spike Duplicate 0811604-19 0 0.13437 BRI0695 Matrix Spike 0811604-19 0 0.12342 Matrix Spike Duplicate 0811604-19 0 0.13497 BRI0695 Matrix Spike 0811604-19 ND 0.050217 Matrix Spike Duplicate 0811604-19 ND 0.049275 BRI0695 Matrix Spike 0811604-19 ND 0.048216 Matrix Spike Duplicate 0811604-19 ND 0.052881 BRI0695 Matrix Spike 0811604-19 ND 0.048141	Batch ID QC Sample Type Sample ID Result Result Added BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13590 0.12500 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13437 0.12500 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 BRI0695 Matrix Spike 0811604-19 ND 0.048141 0.050000	Batch ID QC Sample Type Sample ID Result Result Added Units BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13590 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13437 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 mg/kg BRI0695 Matrix Spike Ouplicate 0811604-19 ND 0.048216 0.050000 mg/kg BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 mg/kg BRI0695 Matrix Spike 0811604-19 ND 0.048216 0.050000 mg/kg	Batch ID QC Sample Type Sample ID Result Result Added Units RPD BRI0695 Matrix Spike nuplicate 0811604-19 0 0.13590 0.12500 mg/kg 1.9 BRI0695 Matrix Spike nuplicate 0811604-19 0 0.12342 0.12500 mg/kg 1.9 BRI0695 Matrix Spike nuplicate 0811604-19 0 0.12342 0.12500 mg/kg 9.0 BRI0695 Matrix Spike nuplicate 0811604-19 ND 0.050217 0.050000 mg/kg BRI0695 Matrix Spike nuplicate 0811604-19 ND 0.048216 0.050000 mg/kg BRI0695 Matrix Spike nuplicate 0811604-19 ND 0.052881 0.050000 mg/kg BRI0695 Matrix Spike nuplicate 0811604-19 ND 0.052881 0.050000 mg/kg BRI0695 Matrix Spike nuplicate 0811604-19 ND 0.048141 0.050000 mg/kg	Batch ID QC Sample Type Sample ID Result Result Added Units RPD Recovery BRI0695 Matrix Spike 0811604-19 0 0.13590 0.12500 mg/kg 1.9 109 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 mg/kg 1.9 107 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 mg/kg 9.0 108 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 mg/kg 98.6 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 mg/kg 96.4 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000 mg/kg 96.4 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 mg/kg 96.3 BRI0695 Matrix Spike 0811604-19 ND 0.048216 0.050000 mg/kg 96.3	Batch ID QC Sample Type Sample ID Result Result Added Units RPD Recovery RPD BRI0695 Matrix Spike 0811604-19 0 0.13590 0.12500 mg/kg 1.9 109 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.13437 0.12500 mg/kg 1.9 107 20 BRI0695 Matrix Spike Duplicate 0811604-19 0 0.12342 0.12500 mg/kg 98.7 98.7 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.050217 0.050000 mg/kg 90 100 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.049275 0.050000 mg/kg 98.6 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048216 0.050000 mg/kg 96.4 Matrix Spike Duplicate 0811604-19 ND 0.052881 0.050000 mg/kg 96.3 BRI0695 Matrix Spike Duplicate 0811604-19 ND 0.048141 0.050000 mg/kg 96.3

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

						······································			Control	Control Limits					
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals				
Benzene		BRI0695-BS1	LCS	0.13336	0.12500	0.0050	mg/kg	107	70 - 130						
Toluene	BRI0695	BRI0695-BS1	LCS	0.11931	0.12500	0.0050	mg/kg	95.4	70 - 130						
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.049860	0.050000		mg/kg	99.7	70 - 121						
Toluene-d8 (Surrogate)	BR10695	BRI0695-BS1	LCS	0.047299	0.050000		mg/kg	94.6	81 - 117						
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BS1	LCS	0.046543	0.050000		mg/kg	93.1	74 - 121						

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quais
Benzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BR10695	BRI0695-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Toluene	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BRI0695	BRI0695-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BRI0695	BR10695-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BR10695	BRI0695-BLK1	ND	mg/kg	0.050		
Disopropyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Ethanol	BRI0695	BRI0695-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BRI0695	BRI0695-BLK1	ND	mg/kg	0.0050		
Total Purgeable Petroleum Hydrocarbons	BRI0695	BRI0695-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BRI0695	BRI0695-BLK1	101	%	70 - 121 (LCI	UCL)	
Toluene-d8 (Surrogate)	BRI0695	BRI0695-BLK1	95.0	%	81 - 117 (LCI	UCL)	
4-Bromofluorobenzene (Surrogate)	BRI0695	BRI0695-BLK1	88.3	%	74 - 121 (LCI	UCL)	
4-Diomondocizene (ourrogate)							



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/15/2008 15:22

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.



Date of Report: 09/30/2008

RECEIVED

Dennis Dettloff

OCT 06 ZUU8

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

RE: 4186

BC Work Order: 0812670

Enclosed are the results of analyses for samples received by the laboratory on 9/24/2008. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

Authorized Signature

ConocoPhillips Chain Of Custody Record STL-San Francisco ConocoPhillips Work Order Number Terry Grayson ConocoPhillips Site Manager: 4510293584 INVOICE REMITTANCE ADDRESS: 1220 Quarry Lane CONOCOPHILLIPS Attn: Dee Hutchinson ConocoPhillips Cost Object Pleasanton, CA 94566 3611 South Harbor, Suite 200 Santa Ana, CA. 92704 000010120349-00022 (925) 454-1919 (925) 484-1096 fax GLOBAL ID NO.: CONOCOPHILLIPS SITE NUMBER T0600101777 4186 Delta Consultants CONOCOPHILLIPS SITE MANAGER: SITE ADDRESS (Street and City): ADDRESS: 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670 Shelby Lathrop 1771 First St., Livermore, CA PROJECT CONTACT (Hardcopy or PDF Report to): EDF DELIVERABLE TO (RP or Designee) Dennis Dettloff 916-503-1268 TELEPHONE: Joyce Welsh <u>om</u> dettloff@deltaenv.com 916-503-1261 916-638-8385 REQUESTED ANALYSES SAMPLER NAME(S) (Print): C104186201 Jovce Welsh TURNAROUND TIME (CALENDAR DAYS): 14 DAYS 7 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS FIELD NOTES: Container/Preservative CHECK BOX IF EDD IS NEEDED SPECIAL INSTRUCTIONS OR NOTES: or PID Readings or Laboratory Notes 8015M - TPH-D Fish Bioassay Total Cyanide Total Sulfide * Field Point name only required if different from Sample ID TEMPERATURE ON RECEIPT Cº 6010 Sample Identification/Field Point SAMPLING NO, OF MATRIX Name* DATE | TIME Soil WD-I CHK BY SUB|OUT| E los BCIAB

> Prense send 3, and copy to Denhir see above

BC LABORATORIES INC.		SAMPLE	RECEIP.	T FORM	Rev	. No. 12	06/24/08	Page _	Of _	
Submission #: 08-12(0)	10									
SHIPPING INF Federal Express UPS BC Lab Field Service	ORMATION Hand Deliv		·	le	ce Chest I Box	Z	IG CONT None Other		ify)	
Refrigerant: Ice Blue Ice	e□ None	□ Oth	er□ C	omment	s:					
Custody Seals 16e Grest III	Containe imact::ves	SMSN 65444095X-954709528	None∠⊡	Comme	nts:					
All samples received? Yes Ø No □	All samples							h COC?. Ye	es □ No □	7
COC Received YES □ NO	Emissivity: _		_				<u>.</u>	l .	9-24-1 nit <u>JNN</u>	প্র
					SAMPLE I	UMBERS_				
SAMPLE CONTAINERS	11	2	. 3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSI PT PE UNPRESERVED	CAL .									
OT INORGANIC CHEMICAL METALS					,				·	
PT INORGANIC CHEMICAL METALS										
PT CYANIDE									-	
PT NITROGEN FORMS								·		
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										,
PT TOTAL ORGANIC CARBON							_		2	
PT TOX	~									
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS		•								
40ml VOA VIAL TRAVEL BLANK					· · · · · · · · · · · · · · · · · · ·			<u> </u>		
40ml VOA VIAL		()	()	(()	()	()	()	()	\cup
OT EPA 413.1, 413.2, 418.1	<u></u> .									
PT ODOR							<u> </u>		-	
RADIOLOGICAL							<u> </u>			<u> </u>
BACTERIOLOGICAL								<u> </u>		<u> </u>
40 mt VOA VIAL- 504		 	· · ·						- 0	
OT EPA 508/608/8080		·								
OT EPA 515.1/8150	<u>-</u>							ļ		
OT EPA 525				 -						
QT_EPA 525 TRAVEL BLANK			·						-	
100ml EPA 547								 	 	
100ml EPA 531.1							-			
OT EPA 548 OT EPA 549									 	-
OT EPA 632									· ·	
OT EPA 8015M										
OT AMBER		ļ ————	- -							
8 OZ. JAR	A			·						
32 OZ. JAR				Γ.	Ī				<u>.</u>	
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON									<u> </u>	<u> </u>
ENCORE JUN 9/24/0	8	<u>.</u>				<u> </u>			<u> </u>	
Comments: NO three day	e 00 8	ample	2, tim	e doe	s not	mata	h			

Date/Time: 4/24/08 034/0 [H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2\WPD] Sample Numbering Completed By: UNW
A = Actual / C = Corrected



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Informat	tion			
0812670-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 WD-1 WD-1 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/24/2008 21:25 09/24/2008 14:40 Solids	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0812670-01	Client Sam	ple Name	: 4186, WD-1, WD-	1, 9/24/2008	3 2:40:00	PM						
	<u></u>	······			Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556	ND	
Methyl t-butyl ether	0.0052	mg/kg	0.0050	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556	ND	
Toluene	ND	mg/kg	0.0050	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556	ND	
	ND	mg/kg	0.010	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556	ND	
Total Xylenes Total Purgeable Petroleum	ND	mg/kg	0.20	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556		
Hydrocarbons			70 - 121 (LCL - UCL)	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556		
1,2-Dichloroethane-d4 (Surrogate)	111	%								DDIASS		
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1 	BRI1556		·
4-Bromofluorobenzene (Surrogate)	95.0	%	74 - 121 (LCL - UCL)	EPA-8260	09/24/08	09/25/08 03:38	LHS	MS-V2	1	BRI1556		



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Total Concentrations (TTLC)

BCL Sample ID:	0812670-01	Client Sam	ple Name:	4186, W	/D-1, WD-	1, 9/24/2008	2:40:00	PM						
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Lead		6.7	mg/kg	2.5		EPA-6010B	09/26/08	09/29/08 12:12	ARD	PE-OP1	0.971	BRI1796	ND	

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

			,					···	****	Contr	ol Limits
O a matitude to	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
Constituent Benzene	BRI1556	Matrix Spike Matrix Spike Duplicate	0811604-51 e0811604-51	0	0.12107 0.12657	0.12500 0.12500	mg/kg mg/kg	4.1	96.9 101	20	70 - 130 70 - 130
Toluene	BRI1556	Matrix Spike Matrix Spike Duplicate	0811604-51	0	0.12400 0.12816	0.12500 0.12500	mg/kg mg/kg	3.8	99.2 103	20	70 - 130 70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRI1556	Matrix Spike Matrix Spike Duplicate	0811604-51	ND ND	0.050435 0.050090	0.050000 0.050000	mg/kg mg/kg		101 100		70 - 121 70 - 121
Toluene-d8 (Surrogate)	BRI1556	Matrix Spike Matrix Spike Duplicat	0811604-51	ND ND	0.050993 0.051052	0.050000 0.050000	mg/kg mg/kg		102 102		81 - 117 81 - 117
4-Bromofluorobenzene (Surrogate)	BRI1556	Matrix Spike Matrix Spike Duplicat	0811604-51	ND ND	0.049838 0.051382	0.050000 0.050000	mg/kg mg/kg		99.7 103		74 - 121 74 - 121



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

		· · · · · · · · · · · · · · · · · · ·								Contro	ol Limits
			Source	Source		Spike			Percent		Percent
<u></u>	Betch ID	QC Sample Type		Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Constituent				6.1001	6.2293		mg/kg	2.1		20	
Lead	BRI1796	Duplicate	0812729-01	6.1001	100.05	98.039	mg/kg		95.8		75 - 125
		Matrix Spike	0812729-01		95.305	98.039	mg/kg	5.1	91.0	20	75 - 125
		Matrix Spike Duplicat	te 0812729-01	6.1001	90.303	30.003	9.119				

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

			· · · · · · · · · · · · · · · · · · ·						Control	<u>Limits</u>	···
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals
······································		BRI1556-BS1	LCS	0.12219	0.12500	0.0050	mg/kg	97.8	70 - 130		
Benzene		BRI1556-BS1	LCS	0.12500	0.12500	0.0050	mg/kg	100	70 - 130		
Toluene		BRI1556-BS1	LCS	0.048541	0.050000		mg/kg	97.1	70 - 121		
1,2-Dichloroethane-d4 (Surrogate)		BRI1556-BS1	LCS	0.050193	0.050000		mg/kg	100	81 - 117		
Toluene-d8 (Surrogate)			LCS	0.050428	0.050000		mg/kg	101	74 - 121		
4-Bromofluorobenzene (Surrogate)	BK11556	BRI1556-BS1	LUG	0.000420	0.00000						



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

· ·		Quality	COLLIG	i itcpoit								
				<u></u>					Control	Limits		
	Potob ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals	
Constituent Lead		BRI1796-BS1	LCS	107.35	100.00	2.5	mg/kg	107	75 - 125			

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

	equiating -						
Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
	BRI1556	BRI1556-BLK1	ND	mg/kg	0.0050		
Benzene	BRI1556	BRI1556-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BRI1556	BRI1556-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BRI1556	BRI1556-BLK1	ND	mg/kg	0.0050		
Toluene	BRI1556	BRI1556-BLK1	ND	mg/kg	0.010		
Total Xylenes	BRI1556	BRI1556-BLK1	98.7	%	70 - 121 (LC	L - UCL)	
1,2-Dichloroethane-d4 (Surrogate)		BRI1556-BLK1	103	%	81 - 117 (LC	L - UCL)	
Toluene-d8 (Surrogate)	BRI1556	BRI1556-BLK1	94.7	%	74 - 121 (LC	L - UCL)	
4-Bromofluorobenzene (Surrogate)	BRI1556	DKI 1990-DEK I	V4.1				



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettioff

Reported: 09/30/2008 9:32

Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

· · · · · · · · · · · · · · · · · · ·	uality Control .	topoit in the	· · · · · · · · · · · · · · · · · · ·			
Canadituant	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL Lab Quals
Constituent	BRI1796	BRI1796-BLK1	ND	mg/kg	2.5	
Lead	DIGITIO					



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/30/2008 9:32

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



Date of Report: 09/29/2008

Dennis Dettloff

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

RE: 4186

BC Work Order: 0812751

Enclosed are the results of analyses for samples received by the laboratory on 9/25/2008. 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



11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/29/2008 9:32

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information	Ort .			
0812751-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 WD-2 WD-2 SIRC	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	09/25/2008 21:10 09/25/2008 15:20 Solids	Delivery Work Order: Global ID: T0600101777 Matrix: SO Sample QC Type (SACode): CS Cooler ID:



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

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/29/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0	812751-01	Client Sample	e Name:	4186, WD-2,	WD-2,	9/25/2008 3	:20:00PM							
302 Odinpis (2)		Result	Units	PQL.	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru- ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Constituent		ND	mg/kg	0.005D		EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673	ND	
Benzene		MD	- Ing/kg	0.0000			<u></u>					DD14070	ND ND	
Ethylbenzene		ND	mg/kg	0.0050		EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1 	BRI1673	IND	
Methyl t-butyl ether		ND	mg/kg	0.0050		EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673	ND	
Toluene		ND	mg/kg	0.0050		EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673	ND	
Total Xylenes		ND	mg/kg	0.010		EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673	ND	
Total Purgeable Petroleum		0.42	mg/kg	0.20		EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673	ND	
1.2-Dichloroethane-d4 (Suri	rogate)	112	%	70 - 121 (LCL - I	UCL)	EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673		
Toluene-d8 (Surrogate)		103	%	81 - 117 (LCL -	UCL)	EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673		
4-Bromofluorobenzene (Sur	rrogate)	104	%	74 - 121 (LCL -	UCL)	EPA-8260	09/25/08	09/26/08 07:18	LHS	MS-V2	1	BRI1673		



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

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/29/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	•									Control Limits		
	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals	
Benzene	BR(1673	Matrix Spike	0811604-53	0	0.12198	0.12500	mg/kg		97.6		70 - 130	
Delizerie	5,1,10,10	Matrix Spike Duplicate	0811604-53	0	0.12253	0.12500	mg/kg	0.4	98,0	20	70 - 130	
Toluene	BRI1673	Matrix Spike	0811604-53	0	0.12824	0.12500	mg/kg		103		70 - 130	
	DI (1070	Matrix Spike Duplicate	0811604-53	0	0.13228	0.12500	mg/kg	2.9	106	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BRI1673	Matrix Spike	0811604-53	ND	0.052031	0.050000	mg/kg		104		70 - 121	
	2	Matrix Spike Duplicate	0811604-53	ND	0.049619	0.050000	mg/kg		99.2		70 - 121	
Toluene-d8 (Surrogate)	BRI1673	Matrix Spike	0811604-53	ND	0.051144	0.050000	mg/kg		102		81 - 117	
	Dialo	Matrix Spike Duplicate	0811604-53	ND	0.051511	0,050000	mg/kg		103		81 - 117	
4-Bromofluorobenzene (Surrogate)	BRI1673	Matrix Spike	0811604-53	ND	0,052090	0.050000	mg/kg		104		74 - 121	
	2, 3, 10, 10	Matrix Spike Duplicate	0811604-53	ND	0.052588	0.050000	mg/kg		105		74 - 121	



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

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/29/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

	QC Sample ID	QC Type					Control Limits				
Batch ID			Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
BRI1673	BRI1673-BS1	LCS	0.12020	0,12500	0.0050	mg/kg	96.2		70 - 130		
BRI1673	BRI1673-BS1	LCS	0.12572	0.12500	0.0050	mg/kg	101		70 - 130		
BRI1673	BRI1673-BS1	LCS	0.050968	0.050000		mg/kg	102		70 - 121		
BRI1673	BRI1673-BS1	LCS	0.049959	0.050000		mg/kg	99.9		81 - 117		
BRI1673	BRI1673-BS1	LCS	0.051266	0.050000		mg/kg	103		74 - 121		
	BRI1673 BRI1673 BRI1673 BRI1673	BRI1673 BRI1673-BS1 BRI1673 BRI1673-BS1 BRI1673 BRI1673-BS1 BRI1673 BRI1673-BS1	BRI1673 BRI1673-BS1 LCS BRI1673 BRI1673-BS1 LCS BRI1673 BRI1673-BS1 LCS BRI1673 BRI1673-BS1 LCS	BRI1673 BRI1673-BS1 LCS 0.12020 BRI1673 BRI1673-BS1 LCS 0.12572 BRI1673 BRI1673-BS1 LCS 0.050968 BRI1673 BRI1673-BS1 LCS 0.049959	Batch ID QC Sample ID QC Type Result Level BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 BRI1673 BRI1673-BS1 LCS 0.049959 0.050000	Batch ID QC Sample ID QC Type Result Level PQL BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 0.0050 BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 0.0050 BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 BRI1673 BRI1673-BS1 LCS 0.049959 0.050000	Batch ID QC Sample ID QC Type Result Level PQL Units BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 0.0050 mg/kg BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 0.0050 mg/kg BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 mg/kg BRI1673 BRI1673-BS1 LCS 0.049959 0.050000 mg/kg	Batch ID QC Sample ID QC Type Result Level PQL Units Recovery BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 0.0050 mg/kg 96.2 BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 0.0050 mg/kg 101 BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 mg/kg 102 BRI1673 BRI1673-BS1 LCS 0.049959 0.050000 mg/kg 99.9	Batch ID QC Sample ID QC Type Result Level PQL Units Recovery RPD BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 0.0050 mg/kg 96.2 BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 0.0050 mg/kg 101 BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 mg/kg 102 BRI1673 BRI1673-BS1 LCS 0.049959 0.050000 mg/kg 99.9	Batch ID QC Sample ID QC Type Result Level Level Level PQL Units Percent Recovery RPD Percent Recovery BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 0.0050 mg/kg 96.2 70 - 130 BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 0.0050 mg/kg 101 70 - 130 BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 mg/kg 102 70 - 121 BRI1673 BRI1673-BS1 LCS 0.049959 0.050000 mg/kg 99.9 81 - 117	Batch ID QC Sample ID QC Type Result Level Level PQL Units Recovery RPD Percent Recovery RPD Recovery RPD BRI1673 BRI1673-BS1 LCS 0.12020 0.12500 0.0050 mg/kg 96.2 70 - 130 BRI1673 BRI1673-BS1 LCS 0.12572 0.12500 0.0050 mg/kg 101 70 - 130 BRI1673 BRI1673-BS1 LCS 0.050968 0.050000 mg/kg 102 70 - 121 BRI1673-BS1 LCS 0.049959 0.050000 mg/kg 99.9 81 - 117



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/29/2008 9:32

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

	•							
Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals	
Benzene	BRI1673	BRI1673-BLK1	ND	mg/kg	0.0050			
Ethylbenzene	BRI1673	BRI1673-BLK1	ND	mg/kg	0.0050		<u>. </u>	
Methyl t-butyl ether	BRI1673	BRI1673-BLK1	ND	mg/kg	0.0050			
Toluene	BRI1673	BRI1673-BLK1	ND	mg/kg	0.0050			
Total Xylenes	BRI1673	BRI1673-BLK1	ND	mg/kg	0.010			
Total Purgeable Petroleum Hydrocarbons	BRI1673	BRI1673-BLK1	ND	mg/kg	0.20			
1,2-Dichloroethane-d4 (Surrogate)	BRI1673	BRI1673-BLK1	104	%	70 - 121	(LCL - UCL)		
Toluene-d8 (Surrogate)	BRI1673	BRI1673-BLK1	99.1	%	81 - 117	(LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BRI1673	BRI1673-BLK1	92.6	%	74 - 121	(LCL - UCL)		
4-Diomondocoponzono (carrogato)								



11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 09/29/2008 9:32

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

ConocoPhillips Chain Of Custody Record STL-San Francisco ConocoPhillips Work Order Number Terry Grayson ConocoPhillips Site Manager: 4510293584 INVOICE REMITTANCE ADDRESS: 1220 Quarry Lane CONOCOPHILLIPS Attn: Dee Hutchinson ConocoPhillips Cost Object Pleasanton, CA 94566 3611 South Harbor, Suite 200 Santa Ana. CA. 92704 000010120349-00022 (925) 454-1919 (925) 484-1096 fax CONOCOPHILLIPS SITE NUMBER T0600101777 4186 Delta Consultants CONOCOPHILLIPS SITE MANAGER: SITE ADDRESS (Street and City) ADDRESS: Shelby Lathrop TERRY GRAYSON 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670 1771 First St., Livermore, CA PROJECT CONTACT (Hardcopy or PDF Report to): LAB USE ONLY EDF DELIVERABLE TO (RP or Designee) Dennis Dettloff welsh@deltaenv.c 916-503-1268 TELEPHONE: Joyce Welsh ddettloff@deltaenv.com 916-503-1261 916-638-8385 CONSULTANT PROJECT NUMBER REQUESTED ANALYSES SAMPLER NAME(S) (Print): C104186201 Joyce Welsh TURNAROUND TIME (CALENDAR DAYS): 14 DAYS 7 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS FIELD NOTES: Container/Preservative CHECK BOX IF EDD IS NEEDED 1/1 SPECIAL INSTRUCTIONS OR NOTES: or PID Readings or Laboratory Notes Total 8015M - TPH-D Fotal Cyanide Sulfide * Field Point name only required if different from Sample ID

Sample Identification/Field Point | SAMPLIN 6010 - L TEMPERATURE ON RECEIPT C MTBE Total (CAM SAMPLING NO. OF MATRIX CONT. DATE TIME Name* RUN AS WD-2 LIO UID ADD 60)0 TOML CHK RY **DISTRIBUTION

> NOTE; RUN VAS LIQUID IF POSSIBLE SERP COC + DRAFT RESULTS TO ABOVG (2) EMAILS

BC LABORATORIES INC.	····	S	AMPLE	RECEIP'	FORM	Rev	No. 12	06/24/08	Page 🛴	Of	4
Submission#: 08-127	5]	1								•	
SHIPPING INF Federal Express UPS BC Lab Field Service Other	ORMAT Hand	Delive			lo	e Chest E Box [None		fy)	
Refrigerant: Ice Blue Ice	D N	one C) Oth	er□ C	omment	s:					
Custody Seals Ace Chest :			S E No to	None 🗆	Comme	nts:					
All samples received? Yes □ No □	All sam	ples c	ontainers	intact? Ye	sÆ No □	ì	Descripti	on(s) matcl	h COC?. Ye	s√ No □	3
COC Received ☑YES □ NO				ontainer: -{				<u>Y_</u>		2123 9-25-1 it_JNW	
						SAMPLE N	UMBERS	· · · · · · · · · · · · · · · · · · ·			
SAMPLE CONTAINERS			2	3	4		6	7	8	9]	. 10
OT GENERAL MINERAL/ GENERAL PHYSIC	CAL										
PT PE UNPRESERVED											
OT INORGANIC CHEMICAL METALS	_										
PT INORGANIC CHEMICAL METALS											
PT CYANIDE						,,, <u>i-</u>					
PT NITROGEN FORMS											
PT TOTAL SULFIDE		5									
20z, NITRATE / NITRITE		$\overline{}$								-	
PT TOTAL ORGANIC CARBON											
PT TOX		- a-			, , , , , , , , , , , , , , , , , , , 						
PT CHEMICAL OXYGEN DEMAND											
PtA PHENOLICS											
40ml VOA VIAL TRAVEL BLANK				()	-	()	()	()	()	(()
40ml VOA VIAL		4					· · · · · · · · · · · · · · · · · · ·				
OT EPA 413.1, 413.2, 418.1											
PT ODOR											
RADIOLOGICAL											
BACTERIOLOGICAL											
40 ml VOA VIAL 504											
OT EPA 508/608/8080 OT EPA 515.1/8150											
OT EPA 525									·		
OT EPA 525 TRAVEL BLANK											
100ml EPA 547											
100ml EPA 531.1											
OT EPA 548											
OT EPA 549											
OT EPA 632											
OT EPA 8015M			•						 		
OT AMBER		I						<u> </u>			
8 OZ. JAR	·				<u> </u>				ļ	<u> </u>	
32 OZ. JAR				<u> </u>		ļ	-		<u> </u>	<u> </u>	
SOIL SLEEVE]		<u> </u>					<u> </u>		
PCB VIAL						<u> </u>		<u> </u>			
PLASTIC BAG				<u> </u>			ļ	<u> </u>		<u> </u>	
FERROUS IRON			·	<u> </u>		ļ		ļ			
ENCORE							<u> </u>	<u> </u>	<u> </u>		<u> </u>

Comments:
Sample Numbering Completed By:
A = Actual / C = Corrected

Date/Time: 🕰

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Date of Report: 11/05/2008

Dennis Dettloff

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

RE:

4186

BC Work Order:

0813669

Invoice ID:

B052564

Enclosed are the results of analyses for samples received by the laboratory on 10/14/2008. 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



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

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information	on.			terry control of the
0813669-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 4186 WD-3 WD-3 DECR	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	10/14/2008 21:45 10/14/2008 12:15 Water	Delivery Work Order: Global ID: T0600101777 Matrix: W Sample QC Type (SACode): CS Cooler ID:

Project: 4186

Project Number: Inone)

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Organochlorine Pesticides (EPA Method 8081)

BCL Sample ID: 0813669-0	1 Client Samp	le Name:	4186, WD-3, V	VD-3, 1	0/14/2008	12:15:00PM							
•						Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL N	/IDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias ND	Quals
Aldrin	ND	ug/L	0,0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872		
aipha-BHC	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
beta-BHC	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
delta-BHC	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	TYL	GC-1	1	BRJ1872	ND	
gamma-BHC (Lindane)	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Chlordane (Technical)	ND	ug/L	0.50		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
4,4'-DDD	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
4,4'-DDE	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
4,4'-DDT	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Dieldrin	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Endosulfan I	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Endosulfan II	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Endosulfan sulfate	ND	ug/L	0,0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Endrin	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Endrin aldehyde	ND	ug/L	0.010		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Heptachlor	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Heptachlor epoxide	МД	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Methoxychlor	ND	ug/L	0.0050		EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
Toxaphene	ND	ug/L	2.0	••••	EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872	ND	
TCMX (Surrogate)	53.5		72 - 129 (LCL - U	CL)	EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872		S09
Dibutyl chlorendate (Surrogate)	52.6	%	82 - 177 (LCL - U	CL)	EPA-8081	10/17/08	10/30/08 13:39	JYT	GC-1	1	BRJ1872		S09
Dibaty onloss date (danogate)													



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0	813669-01	Client Sampl	e Name:	4186, WD)-3, WD - 3,	10/14/2008	12:15:00PM							
							Prep	Run		instru-		QC	MB	Lab
Constituent		Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Blas	Quals
Benzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Bromobenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Bromochloromethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Bromodichloromethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Bromoform		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Bromomethane		ND	ug/L	1.0		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	МD	
n-Butylbenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
sec-Butylbenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
tert-Butylbenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Carbon tetrachloride		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Chlorobenzene	AAV	ND	ug/L	0.50	-	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Chloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Chloroform	u. vurs	ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Chloromethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
2-Chlorotoluene	ALC: LYPE	ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
4-Chlorotoluene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Dibromochloromethane	··	ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2-Dibromo-3-chloropropar	ne	ND	ug/L	1.0	***	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2-Dibromoethane	and div	ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Dibromomethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2-Dichlorobenzene		ND	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,3-Dichlorobenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,4-Dichlorobenzene		ND	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0813669-01	Client Sampl	e Name:	4186, WD	-3, WD-3,	10/14/2008	12:15:00PM							
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Dichlorodifluoromethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1-Dichloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ИD	
1,2-Dichloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1-Dichloroethene		ΝÞ	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
cis-1,2-Dichloroethene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
trans-1,2-Dichloroethene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2-Dichloropropane		ND	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,3-Dichloropropane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
2,2-Dichloropropane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1-Dichloropropene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
cis-1,3-Dichloropropene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
trans-1,3-Dichloropropene	14 februari dalah sebesah sasat sebada se a sasat se se sasat sebas sasat sesat sesat sebas sesat sesat sesat	ND	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Ethylbenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Hexachlorobutadiene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Isopropylbenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
p-Isopropyltoluene		ND	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	8RJ1074	ND	
Methylene chloride		ND	ug/L	1.0		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Methyl t-butyl ether	Property of the real of the second of the se	1.4	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Naphthalene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND .	
n-Propylbenzene		ND	ug/L	0.50	•	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND .	
Styrene		ND	ug/L	0.50	, ,	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1,1,2-Tetrachloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1,2,2-Tetrachloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 08136	369-01	Client Sample	e Name:	4186, WD-3, W	D-3,	10/14/2008	12:15:00PM							
							Prep	Run		instru-		QC	MB	Lab
Constituent		Result	Units		DL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Tetrachloroethene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Toluene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2,3-Trichlorobenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2,4-Trichlorobenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1,1-Trichloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1,2-Trichloroethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Trichloroethene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Trichforofluoromethane		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2,3-Trichloropropane		ND	ug/L	1.0		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,1,2-Trichloro-1,2,2-trifluoroetha	ne	ND	ug/L	0.50	·	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2,4-Trimethylbenzene		ND	ug/L	0,50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	••••
1,3,5-Trimethylbenzene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Vinyl chloride		ND	ug/Ļ	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
Total Xylenes		ND	ug/L	1.0		EPA-8260	10/16/08	10/16/08 16;46	ANO	MS-V4	1	BRJ1074	ND	
p- & m-Xylenes		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
o-Xylene		ND	ug/L	0.50		EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074	ND	
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCI	L)	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074		
Foluene-d8 (Surrogate)		97.8	%	88 - 110 (LCL - UCI	L)	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074		
-Bromofluorobenzene (Surrogate	∌)	100	%	86 - 115 (LCL - UCI	L)	EPA-8260	10/16/08	10/16/08 16:46	ANO	MS-V4	1	BRJ1074		



Environmental Testing Laboratory Since 1949

Delta Environmental Consultants, Inc.

Project: 4186

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

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Total Petroleum Hydrocarbons

BCL Sample ID: 0813669-	01 Client	Sample Nam	ne:	4186, WD	-3, WD-3,	10/14/2008	12:15:00PM							
		•					Prep	Run		Instru-		QC	МВ	Lab
Constituent	Res	ult Un	nits	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Diesel Range Organics (C12 - C24)	N) uç	g/L	50		Luft/TPHd	10/23/08	11/04/08 20:34	CKD	GC-5	1	BRJ2101	ND	
Tetracosane (Surrogate)	99.	8 9	%	28 - 139 (LCI	L - UCL)	Luft/TPHd	10/23/08	11/04/08 20:34	CKD	GC-5	1	BRJ2101		



11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Reported: 11/05/2006 14.2

Water Analysis (General Chemistry)

BCL Sample ID:	0813669-01	Client Samp	le Name:	4186, WD	-3, WD-3,	10/14/2008 1	2:15:00PM							
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
рН		11.80	pH Units	0,05		EPA-150.1	10/17/08	10/17/08 13:30	FM2	B360	1	BRJ1338		
Total Cyanide		0.0074	mg/L	0.0050		EPA-335,2	10/21/08	10/21/08 12:17	RLP	KONE-1	1	BRJ1414	ND	
Reactive Cyanide	And the latest were	ND	mg/L	0.025		SW-7.3.3.2	10/21/08	10/22/08 10:47	TDC	KONE-1	1	BRJ1481	ND	NR
Total Sulfide		ND	mg/L	0.10		EPA-376.2	10/16/08	10/16/08 03:30	MRM	SPEC05	1	BRJ1058	ND	
Reactive Sulfide		ND	mg/L	20		SW-7.3.4.2	10/21/08	10/21/08 19:30	DIW	MANUAL	1	BRJ1487	ND	NR



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (Metals)

BCL Sample ID:	0813669-01	Client Sample	e Name:	4186, WD	-3, WD-3,	10/14/2008 1	2:15:00PM							
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Total Antimony		ND	ug/L	100		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Arsenic		ND	ug/L	50		EPA-6010B	10/20/08	10/22/08 14:22	ARD	PE-OP1	1	BRJ1351	ND	
Total Barium		220	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Beryllium		ND	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Cadmium		ND	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Chromium		620	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Cobalt		ND	ug/L	50		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Copper		14	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Lead		ND	ug/L	50		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Mercury		ND	ug/L	0.20		EPA-7470A	10/20/08	10/22/08 13:59	MEV	CETAC1	1	BRJ1371	ND	
Total Molybdenum		ND	ug/L	50		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	11	BRJ1351	ND	
Total Nickel		33	ug/L	10		EPA-6010B	10/20/08	10/22/08 14:22	ARD	PE-OP1	1	BRJ1351	ND	
Total Selenium		ND	ug/L	100	·	EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Silver		ND	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Thallium		ND	ug/L	100		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Vanadium		ND	ug/L	10		EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	
Total Zinc		ND	ug/L	50	• • • • • • • • • • • • • • • • • • • •	EPA-6010B	10/20/08	10/20/08 19:29	ARD	PE-OP1	1	BRJ1351	ND	



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Organochlorine Pesticides (EPA Method 8081)

										Contr	<u>ol Limits</u>
·			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Aldrin	BRJ1872	Matrix Spike	0811604-32	0	0,22354	0,25000	ug/L		89.4		80 - 136
Alalia	<u> </u>	Matrix Spike Duplicate	0811604-32	0	0.23086	0.25000	ug/L	3.2	92,3	20	80 - 136
gamma-BHC (Lindane)	BRJ1872	Matrix Spike	0811604-32	0	0.18744	0.25000	ug/L		75.0		60 - 126
garrina-bi to (cindono)	4.1.4 1.1.1	Matrix Spike Duplicate	0811604-32	. 0	0.19403	0,25000	ug/L	3.4	77.6	24	60 - 126
4,4'-DDT	BRJ1872	Matrix Spike	0811604-32	0	0.21473	0.25000	ug/L		85.9		61 - 128
7,7-00+	2,12,111	Matrix Spike Duplicate	0811604-32	0	0.23212	0.25000	ug/L	7.7	92.8	19	61 - 128
Dieldrin	BRJ1872	Matrix Spike	0811604-32	0	0.24466	0.25000	ug/L		97.9		76 - 132
Diole, II.		Matrix Spike Duplicate	0811604-32	0	0.25793	0,25000	ug/L	5.1	103	18	76 - 132
Endrin	BRJ1872	Matrix Spike	0811604-32	D	0.25742	0.25000	ug/L		103		76 - 143
		Matrix Spike Duplicate	0811604-32	0	0.26836	0,25000	ug/L	3.8	107	19	76 - 143
Heptachlor	BRJ1872	Matrix Spike	0811604-32	0	0.22265	0.25000	ug/L		89.1		81 - 138
Topasino		Matrix Spike Duplicate	0811604-32	0	0,22866	0.25000	ug/L	2.7	91.5	18	81 - 138
TCMX (Surrogate)	BRJ1872	Matrix Spike	0811604-32	ND	0.19856	0.30000	ug/L		66.2		72 - 129 S09
1 State (Same Sector)		Matrix Spike Duplicate	0811604-32	ND	0.20151	0.30000	ug/L		67.2		72 - 129 S09
Dibutyl chlorendate (Surrogate)	BRJ1872	Matrix Spike	0811604-32	ND	0.99379	0.75000	ug/L		133		82 - 177
Diputy officialis (bullogue)	2,1010.2	Matrix Spike Duplicate	0811604-32	ND	1.0984	0.75000	ug/L		146		82 - 177

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

										Contr	<u>ol Limits</u>
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Benzene	BRJ1074	Matrix Spike	0813707-01	0	21.920	25.000	ug/L		87.7		70 - 130
		Matrix Spike Duplicate	0813707-01	0	24.080	25.000	ug/L	9.3	96,3	20	70 - 130
Bromodichloromethane	BRJ1074	Matrix Spike	0813707-01	C	21.090	25.000	ug/L		84.4		70 - 130
		Matrix Spike Duplicate	0813707-01	C	23,400	25,000	ug/L	10.3	93.6	20	70 - 130
Chlorobenzene	BRJ1074	Matrix Spike	0813707-01	0	21.720	25,000	ug/L		86.9		70 - 130
		Matrix Spike Duplicate	0813707-01	0	23.680	25.000	ug/L	8.6	94.7	20	70 - 130
Chloroethane	BRJ1074	Matrix Spike	0813707-01	0	22.430	25.000	ug/L		89.7		70 - 130
		Matrix Spike Duplicate	0813707-01	0	25,180	25,000	ug/L	11.9	101	20	70 - 130
1.4-Dichlorobenzene	BRJ1074	Matrix Spike	0813707-01	0	20.730	25,000	ug/L		82,9		70 - 130
		Matrix Spike Duplicate	0813707-01	0	22.980	25,000	ug/L	10,3	91.9	20	70 - 130
1.1-Dichloroethane	BRJ1074	Matrix Spike	0813707-01	0	22.430	25.000	ug/L		89.7		70 - 130
.,,		Matrix Spike Duplicate	0813707-01	0	24,630	25,000	ug/L	9.4	98.5	20	70 - 130
1,1-Dichloroethene	BRJ1074	Matrix Spike	0813707-01	0	22.880	25.000	ug/L		91.5		70 - 130
		Matrix Spike Duplicate	0813707-01	0	25,780	25,000	ug/L	11.8	103	20	70 - 130
Toluene	BRJ1074	Matrix Spike	0813707-01	0 .	21.990	25.000	ug/L		88.0		70 - 130
		Matrix Spike Duplicate	0813707-01	0	24.150	25.000	ug/L	9.3	96.6	20	70 - 130
Trichloroethene	BRJ1074	Matrix Spike	0813707-01	0	22,270	25,000	ug/L		89.1		70 - 130
		Matrix Spike Duplicate	0813707-01	. 0	24.760	25.000	ug/L	10.5	99.0	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRJ1074	Matrix Spike	0813707-01	ND	10.290	10,000	ug/L		103		76 - 114
.,		Matrix Spike Duplicate	0813707-01	ND	10.290	10.000	ug/L		103		76 - 114
Toluene-d8 (Surrogate)	BRJ1074	Matrix Spike	0813707-01	МD	9.9200	10,000	ug/L		99.2	·	88 - 110
, , , , , , , , , , , , , , , , , , , ,		Matrix Spike Duplicate	0813707-01	ND	9.9500	10.000	ug/L		99.5		88 - 110
4-Bromofluorobenzene (Surrogate)	BRJ1074	Matrix Spike	0813707-01	ND	10,010	10,000	ug/L		100		86 - 115
- Plotterapional (Gallogace)	27.072.	Matrix Spike Duplicate	0813707-01	ND	10.050	10.000	ug/L		100		86 - 115



11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

Project: 4186

Project Number: Inonel

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Total Petroleum Hydrocarbons

										Contr	ol Limits
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Diesel Range Organics (C12 - C24)	BRJ2101	Matrix Spike	0811604-81	5.5210	343,94	500.00	ug/L		67.7		36 - 130
		Matrix Spike Duplicate	0811604-81	5.5210	361.69	500.00	ug/L	5.0	71.2	30	36 - 130
Tetracosane (Surrogate)	BRJ2101	Matrix Spike	0811604-81	ND	19,153	20,000	ug/L		95.8		28 - 139
		Matrix Spike Duplicate	0811604-81	ND	22.423	20.000	ug/L		112		28 - 139

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (General Chemistry)

										Contr	ol Limits	
			Source	Source		Spike			Percent		Percent	1
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recover	y Lab Quals
Total Sulfide	BRJ1058	Duplicate	0813661-04	0,0058800	ND		mg/L			10		
		Matrix Spike	0813661-04	0.0058800	0.47833	0.50000	mg/L		94.5		80 - 120	
		Matrix Spike Duplicate	0813661-04	0.0058800	0.47677	0.50000	mg/L	0,3	94.2	10	80 - 120	
pH	BRJ1338	Duplicate	0813709-11	7.5850	7.6600		pH Units	1.0		20		
Total Cyanide	BRJ1414	Duplicate	0813660-01	0.0034540	ND		mg/L			10		
		Matrix Spike	0813660-01	0.0034540	0.098558	0.10000	mg/L		95.1		90 - 110	
		Matrix Spike Duplicate	0813660-01	0.0034540	0.10437	0.10000	mg/L	6.0	101	20	90 - 110	
Reactive Cyanide	BRJ1481	Duplicate	0813669-01	0,0033850	ND		mg/L			20		NR
		Matrix Spike	0813669-01	0.0033850	0.14342	1.0000	mg/L		14.0		14 - 45	NR
		Matrix Spike Duplicate	0813669-01	0.0033850	0.14096	1.0000	mg/L	1.4	13.8	20	14 - 45	NR
Reactive Sulfide	BRJ1487	Duplicate	0813669-01	0	ND		mg/L			20		NR
		Matrix Spike	0813669-01	D	160.00	352.00	mg/L		45.5		50 - 100	NR,Q03
		Matrix Spike Duplicate	0813669-01	0	164.00	352.00	mg/L	2.4	46.6	20	50 - 100	NR,Q03

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (Metals)

w		****			·····*					Contr	ol Limits
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Total Antimony	BRJ1351	Duplicate	0813669-01	-4.7358	ND		ug/L			20	
		Matrix Spike	0813669-01	-4.7358	425.93	400.00	ug/L		106		75 - 125
		Matrix Spike Duplicate	0813669-01	-4.7358	420.15	400.00	ug/L	0.9	105	20	75 - 125
Total Arsenic	BRJ1351	Duplicate	0813669-01	30.061	ND		ug/L			20	A02
		Matrix Spike	0813669-01	30,061	243.20	200.00	ug/L		107		75 - 125
		Matrix Spike Duplicate	0813669-01	30.061	247.44	200.00	ug/L	1.9	109	20	75 - 125
Total Barium	BRJ1351	Duplicate	0813669-01	224.32	221,96		ug/L	1.1		20	
		Matrix Spike	0813669-01	224.32	635.32	400.00	ug/L		103		75 - 125
		Matrix Spike Duplicate	0813669-01	224.32	635.81	400.00	ug/L	0	103	20	75 - 125
Total Beryllium	BRJ1351	Duplicate	0813669-01	-0.046945	ND		ug/L			20	
,		Matrix Spike	0813669-01	-0.046945	203.61	200.00	ug/L		102		75 - 125
		Matrix Spike Duplicate	0813669-01	-0.046945	204.28	200.00	ug/L	0	102	20	75 - 125
Total Cadmium	BRJ1351	Duplicate	0813669-01	-0.97313	ND		ug/L			20	•
		Matrix Spike	0813669-01	-0.97313	204.11	200.00	ug/L		102		75 - 125
		Matrix Spike Duplicate	0813669-01	-0.97313	203.36	200.00	ug/L	0	102	20	75 - 125
Total Chromium	BRJ1351	Duplicate	0813669-01	619,80	620.84		ug/L	0.2		20	
		Matrix Spike	0813669-01	619.80	809.48	200.00	ug/L		94.8		75 - 125
		Matrix Spike Duplicate	0813669-01	619.80	811.20	200,00	ug/L	0.9	95,7	20	75 - 125
Total Cobalt	BRJ1351	Duplicate	0813669-01	3.0792	ND		ug/L			20	
		Matrix Spike	0813669-01	3.0792	213.19	200.00	ug/L		105		7 5 - 125
		Matrix Spike Duplicate	0813669-01	3,0792	212.38	200.00	ug/L	0	105	20	75 - 125
Total Copper	BRJ1351	Duplicate	0813669-01	13,991	14,268		ug/L	2.0		20	
		Matrix Spike	0813669-01	13.991	442.67	400.00	ug/L		107		75 - 125
	•	Matrix Spike Duplicate	0813669-01	13.991	445.96	400,00	ug/L	0.9	108	20	75 - 125
Total Lead	BRJ1351	Duplicate	0813669-01	6,0227	ND		ug/L			20	
		Matrix Spike	0813669-01	6.0227	413,78	400.00	ug/L		102		7 5 - 12 5
		Matrix Spike Duplicate	0813669-01	6.0227	410.79	400.00	ug/L	1.0	101	20	75 - 125



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (Metals)

										Contr	<u>ol Limits</u>
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Qual:
Total Molybdenum	BRJ1351	Duplicate	0813669-01	24.063	ND		ug/L			20	
· · · · · •		Matrix Spike	0813669-01	24.063	230.74	200.00	ug/L		103		75 - 125
		Matrix Spike Duplicate	0813669-01	24.063	230.13	200.00	ug/L	0	103	20	75 - 125
Total Nickel	BRJ1351	Duplicate	0813669-01	33.468	32.998		ug/L	1.4		20	
		Matrix Spike	0813669-01	33,468	465,09	400,00	ug/L		108		75 - 125
		Matrix Spike Duplicate	0813669-01	33,468	469.02	400.00	ug/L	0.9	109	20	75 - 125
Total Selenium	BRJ1351	Duplicate	0813669-01	-22,425	ND		ug/L			20	
		Matrix Spike	0813669-01	-22.425	163.64	200.00	ug/L		81.8		75 - 125
		Matrix Spike Duplicate	0813669-01	-22.425	179.22	200.00	ug/L	9.1	89.6	20	75 - 125
Fotal Silver	BRJ1351	Duplicate	0813669-01	-2,6054	ND		ug/L			20	
		Matrix Spike	0813669-01	-2.6054	101.08	100.00	ug/L		101		75 - 125
		Matrix Spike Duplicate	0813669-01	-2.6054	100.91	100.00	ug/L	0	101	20	75 - 125
Total Thallium	BRJ1351	Duplicate	0813669-01	14.138	ND		ug/L			20	
		Matrix Spike	0813669-01	14.138	436.81	400.00	ug/L		106		75 - 125
		Matrix Spike Duplicate	0813669-01	14.138	441.05	400.00	ug/L	0.9	107	20	75 - 125
Total Vanadium	BRJ1351	Duplicate	0813669-01	8.4826	ND		ug/L			20	
		Matrix Spike	0813669-01	8.4826	218.54	200.00	ug/L		105		75 - 125
		Matrix Spike Duplicate	0813669-01	8.4826	219.25	200,00	ug/L	0	105	20	75 - 125
Total Zinc	BRJ1351	Duplicate	0813669-01	24.858	ND		ug/L			20	
		Matrix Spike	0813669-01	24.858	543,06	500,00	ug/L		104		75 - 125
		Matrix Spike Duplicate	0813669-01	24.858	539.62	500.00	ug/L	1.0	103	20	75 - 125
Total Mercury	BRJ1371	Duplicate	0813659-12	0.052500	ND	-	ug/L			20	A02
,		Matrix Spike	0813659-12	0,052500	1.0275	1.0000	ug/L		97,5		70 - 130
		Matrix Spike Duplicate	0813659-12	0.052500	1.0225	1.0000	ug/L	0.5	97.0	20	70 - 130



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

Project: 4186

Reported: 11/05/2008 14:26

Project Number: [none]

Project Manager: Dennis Dettloff

Organochlorine Pesticides (EPA Method 8081)

										Control	<u>Limits</u>	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
Aldrin	BRJ1872	BRJ1872-BS1	LCS	0.18963	0.25000	0.0050	ug/L	75.9		77 - 142		L01
gamma-BHC (Lindane)	BRJ1872	BRJ1872-BS1	LCS	0.15962	0.25000	0,0050	ug/L	63.8		62 - 125		
4,4'-DDT	BRJ1872	BRJ1872-BS1	LCS	0.18682	0.25000	0.0050	ug/L	74.7		64 - 130		
Dieldrin	BRJ1872	BRJ1872-B\$1	LCS	0.21453	0.25000	0.0050	ug/L	85.8		79 - 133		
Endrin	BRJ1872	BRJ1872-B\$1	LCS	0.22437	0.25000	0.0050	ug/L	89.7		82 - 139		
Heptachlor	BRJ1872	BRJ1872-BS1	LCS	0.19047	0.25000	0.0050	ug/L	76.2		76 - 143		
TCMX (Surrogate)	BRJ1872	BRJ1872-BS1	LCS	0,13877	0.30000		ug/L	46,3		72 - 129		S09
Dibutyl chlorendate (Surrogate)	BRJ1872	BRJ1872-BS1	LCS	0,89213	0.75000		ug/L	119		82 - 177		

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

		-1								Control	<u>Limits</u>	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
Benzene	BRJ1074	BRJ1074-BS1	LCS	23.190	25.000	0.50	ug/L	92.8		70 - 130		
Bromodichloromethane	BRJ1074	BRJ1074-BS1	LCS	22.390	25.000	0.50	ug/L	89.6		70 - 130		
Chlorobenzene	BRJ1074	BRJ1074-BS1	LCS	22.340	25.000	0.50	ug/L	89.4		70 - 130		
Chloroethane	BRJ1074	BRJ1074-BS1	LCS	23,330	25.000	0.50	ug/L	93.3		70 - 130		
1,4-Dichlorobenzene	BRJ1074	BRJ1074-BS1	LCS	21.810	25,000	0.50	ug/L	87.2		70 - 130		
1,1-Dichloroethane	BRJ1074	BRJ1074-BS1	LCS	23,550	25,000	0.50	ug/L	94.2		70 - 130		
1,1-Dichloroethene	BRJ1074	BRJ1074-BS1	LCS	24.540	25.000	0.50	ug/L	98.2		70 - 130		
Toluene	BRJ1074	BRJ1074-BS1	LCS	22.870	25.000	0.50	ug/L	91,5		70 - 130		
Trichloroethene	BRJ1074	BRJ1074-BS1	LCS	23,820	25.000	0.50	ug/L	95,3		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRJ1074	BRJ1074-BS1	LCS	10.610	10,000		ug/L	106		76 - 114		
Toluene-d8 (Surrogate)	BRJ1074	BRJ1074-B\$1	LCS	9.8800	10.000		ug/L	98.8		88 - 110		
4-Bromofluorobenzene (Surrogate)	BRJ1074	BRJ1074-BS1	LCS	10,010	10.000		ug/L	100		86 - 115		
												· · · · · · ·



11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

Project: 4186

Project Number: Inonel

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Total Petroleum Hydrocarbons

										Control	<u>Limits</u>	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
Diesel Range Organics (C12 - C24)	BRJ2101	BRJ2101-BS1	LCS	371,02	500.00	50	ug/L	74.2		48 - 125		
Tetracosane (Surrogate)	BRJ2101	BRJ2101-BS1	LCS	20.040	20.000		ug/L	100		28 - 139	<u></u>	



11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (General Chemistry)

		·								Control	Limits	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
Total Sulfide	BRJ1058	BRJ1058-BS1	LCS	0.47052	0.50000	0.10	mg/L	94.1		90 - 110		
pH	BRJ1338	BRJ1338-BS1	LCS	7.0220	7.0000	0.05	pH Units	100		95 - 105		
Total Cyanide	BRJ1414	BRJ1414-BS1	LÇS	0.14541	0.15000	0.0050	mg/L	96.9		90 - 110		
Reactive Cyanide	BRJ1481	BRJ1481-B\$1	LCS	0.14268	1.0000	0.025	mg/L	14.3		14 - 45		
Reactive Sulfide	BRJ1487	BRJ1487-BS1	LCS	472.00	704.00	40	mg/L	67.0		50 - 100		



Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (Metals)

					· · · · · · · · · · · · · · · · · · ·					Control	Limits	
					Spike			Percent		Percent		
Constituent	Batch ID	QC Sample ID	QC Type	Result	Level	PQL	Units	Recovery	RPD	Recovery	RPD	Lab Quals
Total Antimony	BRJ1351	BRJ1351-BS1	LCS	371.38	400.00	100	ug/L	92.8		85 - 115		·
Total Arsenic	BRJ1351	BRJ1351-BS2	LCS	178.36	200.00	50	ug/L	89.2		85 - 115		
Total Barium	BRJ1351	BRJ1351-BS1	LCS	387,90	400.00	10	ug/L	97.0		85 - 115		
Total Beryllium	BRJ1351	BRJ1351-BS1	LCS	181.56	200.00	10	ug/L	90.8		85 - 115		
Total Cadmium	BRJ1351	BRJ1351-BS1	LCS	187.39	200,00	10	ug/L	93.7		85 - 115		
Total Chromium	BRJ1351	BRJ1351-BS1	LCS	185.72	200.00	10	ug/L	92.9		85 - 115		
Total Cobalt	BRJ1351	BRJ1351-B\$1	LCS	196.11	200.00	50	ug/L	98.1		85 - 115		
Total Copper	BRJ1351	BRJ1351-BS1	LCS	371.32	400.00	10	ug/L	92.8		85 - 115		
Total Lead	BRJ1351	BRJ1351-BS1	LCS	382.50	400.00	50	ug/L	95.6		85 - 115		
Total Molybdenum	BRJ1351	BRJ1351-BS1	LCS	181.06	200.00	50	ug/L	90.5		85 - 115		
Total Nickel	BRJ1351	BRJ1351-BS2	LCS	371,85	400.00	10	ug/L	93.0		85 - 115		
Total Selenium	BRJ1351	BRJ1351-BS1	LCS	184.25	200,00	100	ug/L	92.1		85 - 115		
Total Silver	BRJ1351	BRJ1351-BS1	LCS	87.702	100.00	10	ug/L	87.7		85 - 115		
Total Thallium	BRJ1351	BRJ1351-BS1	LCS	421.25	400.00	100	ug/L	105		85 - 115		
Total Vanadium	BRJ1351	BRJ1351-BS1	LCS	186.36	200.00	10	ug/L	93.2		85 - 115		
Total Zinc	BRJ1351	BRJ1351-BS1	LCS	501.42	500.00	50	ug/L	100		85 - 115		
otal Mercury	BRJ1371	BRJ1371-BS1	LCS	1.0025	1.0000	0.20	ug/L	100		85 - 115		

Project: 4186

Project Number: [none] Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Organochlorine Pesticides (EPA Method 8081)

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Aldrin	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
alpha-BHC	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
beta-BHC	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
delta-BHC	BRJ1872	BRJ1872-BLK1	ND	ug/L	6.0050		,
gamma-BHC (Lindane)	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Chlordane (Technical)	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.50		
4,4'-DDD	BRJ1872	BRJ1872-BLK1	ND ·	ug/L	0.0050		
4,4'-DDE	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
4,4'-DDT	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Dieldrin	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Endosulfan I	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Endosulfan II	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Endosulfan sulfate	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Endrin	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Endrin aldehyde	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.010		
Heptachlor	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Heptachlor epoxide	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Methoxychlor	BRJ1872	BRJ1872-BLK1	ND	ug/L	0.0050		
Toxaphene	BRJ1872	BRJ1872-BLK1	ND	ug/L	2.0		
TCMX (Surrogate)	BRJ1872	BRJ1872-BLK1	46.3	%	72 - 129 (LCL	- UCL)	S09
Dibutyl chlorendate (Surrogate)	BRJ1872	BRJ1872-BLK1	120	%	82 - 177 (LCL	· UCL)	

Project: 4186

Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Bromobenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Bromochloromethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Bromodichloromethane	8RJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Bromoform	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50	····	
Bromomethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	1.0		
n-Butylbenzene	BRJ1074	8RJ1074-BLK1	ND	ug/L	0.50		
sec-Butylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
tert-Butylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50	·	
Carbon tetrachloride	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Chlorobenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Chloroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Chloroform	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Chloromethane	BRJ1074	BRJ1074-BLK1	NĐ	ug/L	0.50		
2-Chlorotoluene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
4-Chloratoluene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Dibromochloromethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2-Dibromo-3-chloropropane	BRJ1074	BRJ1074-BLK1	ND	ug/L	1.0		
1,2-Dibromoethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		····
Dibromomethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2-Dichlorobenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,3-Dichlorobenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,4-Dichlorobenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50	-	
Dichlorodifluoromethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		

Project: 4186

Project Number: [none] Project Manager: Dennis Dettloff Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
1,1-Dichloroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,1-Dichloroethene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
cis-1,2-Dichloroethene	8RJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
trans-1,2-Dichloroethene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0,50		
1,2-Dichloropropane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,3-Dichloropropane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
2,2-Dichloropropane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,1-Dichloropropene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
cis-1,3-Dichloropropene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
trans-1,3-Dichloropropene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Ethylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50	·	
Hexachlorobutadiene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Isopropylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
p-Isopropyltoluene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Methylene chloride	BRJ1074	BRJ1074-BLK1	ND	ug/L	1.0		
Methyl t-butyl ether	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Naphthalene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
n-Propylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0,50		
Styrene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0,50		
1,1,1,2-Tetrachloroethane	BRJ1074	BRJ1074-BLK1	. ND	ug/L	0.50		
1,1,2,2-Tetrachloroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Tetrachloroethene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Toluene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		

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

Rancho Cordova, CA 95670

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Volatile Organic Analysis (EPA Method 8260)

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
1,2,3-Trichlorobenzene	8RJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2,4-Trichlorobenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,1,1-Trichloroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,1,2-Trichloroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0,50		
Trichloroethene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Trichlorofluoromethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2,3-Trichloropropane	BRJ1074	BRJ1074-BLK1	ND	ug/L	1.0		
1,1,2-Trichloro-1,2,2-trifluoroethane	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2,4-Trimethylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,3,5-Trimethylbenzene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Vinyl chloride	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
Total Xylenes	BRJ1074	BRJ1074-BLK1	ND	ug/L	1,0		
p- & m-Xylenes	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
o-Xylene	BRJ1074	BRJ1074-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BRJ1074	BRJ1074-BLK1	107	%	76 - 114 (LC	CL - UCL)	
Toluene-d8 (Surrogate)	BRJ1074	BRJ1074-BLK1	98.9	%	88 - 110 (LC	CL - UCL)	
4-Bromofluorobenzene (Surrogate)	BRJ1074	BRJ1074-BLK1	99.7	%	86 - 115 (LC	CL - UCL)	



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

Rancho Cordova, CA 95670

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Total Petroleum Hydrocarbons

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Diesel Range Organics (C12 - C24)	BRJ2101	BRJ2101-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BRJ2101	BRJ2101-BLK1	106	%	28 - 139	(LCL - UCL)	



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

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (General Chemistry)

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Total Sulfide	BRJ1058	BRJ1058-BLK1	ND	mg/L	0.10	•	
Total Cyanide	BRJ1414	BRJ1414-BLK1	ND	mg/L	0.0050		
Reactive Cyanide	BRJ1481	BRJ1481-BLK1	ND	mg/L	0.025		
Reactive Sulfide	BRJ1487	BRJ1487-BLK1	ND	mg/L	20		



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

Project: 4186

Project Number: [none]

Project Manager: Dennis Dettloff

Reported: 11/05/2008 14:26

Water Analysis (Metals)

	B-4-1 In	OC Comple ID	MB Result	Units	PQL	MDL	Lab Quals
Constituent	Batch ID	QC Sample ID	,				
Total Antimony	BRJ1351	BRJ1351-BLK1	ND	ug/L	100		
Total Arsenic	BRJ1351	BRJ1351-BLK2	ND	ug/L	50		
Total Barium	BRJ1351	BRJ1351-BLK1	ND	ug/L	10		
Total Beryllium	BRJ1351	8RJ1351-BLK1	ND	ug/L	10		
Total Cadmium	BRJ1351	BRJ1351-BLK1	.ND	ug/L	10		
Total Chromium	BRJ1351	BRJ1351-BLK1	ND	ug/L	10		
Total Cobalt	BRJ1351	BRJ1351-BLK1	ND	ug/L	50		
Total Copper	BRJ1351	BRJ1351-BLK1	ND	ug/L	10		
Total Lead	BRJ1351	BRJ1351-BLK1	ND	ug/L	50		
Total Molybdenum	BRJ1351	BRJ1351-BLK1	ND	ug/L	50		
Total Nickel	BRJ1351	BRJ1351-BLK2	ND	ug/L	10		
Total Selenium	BRJ1351	BRJ1351-BLK1	ND	ug/L	100		
Total Silver	BRJ1351	BRJ1351-BLK1	ND	ug/L	10		
Total Thallium	BRJ1351	BRJ1351-BLK1	ND	ug/L	100		
Total Vanadium	BRJ1351	BRJ1351-BLK1	ND	ug/L	10		
Total Zinc	BRJ1351	BRJ1351-BLK1	ND	ug/L	50	-	
Fotal Mercury	BRJ1371	BRJ1371-BLK1	ND	ug/L	0.20		



Project: 4186

Reported: 11/05/2008 14:26

11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670 Project Number: [none]

Project Manager: Dennis Dettloff

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

A02 The difference between duplicate readings is less than the PQL.

L01 The Laboratory Control Sample Water (LCSW) recovery is not within laboratory established control limits.

NR Non-Reactive

Q03 Matrix spike recovery(s) is(are) not within the control limits.

So9 The surrogate recovery on the sample for this compound was not within the control limits.

STL- San Francisco

ConocoPhillips Chain Of Custody Record

ConocoPhillips Site Manager: Terry Grayson

ConocoPhillips Work Or

	ConocoPhi				Ter	ry Gra	iyson	100		g one'	į	ConocoFF	illips Wo	ork Order Ni	lmber		11	
1220 Quarry Lane	INVOICE RE	MITTANCE	ADDRESS:	00/1000/1/1/20/0							45102	93584		DATE: 1	0/14/08	٠.		
Pleasanton, CA 94566							Dee Hut South Ha					Conec	oPhillip	s Cost Objec	et	PAGE:	1 0 7	j.
(925) 454-1919 (925) 484-1096 fax					a Ana, CA				Ī	000010120	0349-00	022		1,70	· · · · · · · · · · · · · · · · · · ·	-		
Delta Consultants	Delta Consultants					- 13 d							TOGOO101777 CONOCOPHILIPS SITE MANAGER:			_		
ADDRESS: 11050 White Rock Road, Suite 110 Rancho Cord	iova, CA 9567	0	10	ess (Street an irst St., L		··^ C^						, i v v .	1.	y Lathrop	MANAGER:			7
PROJECT CONTACT (Hardcopy or POF Report to): Dennis Dettloff			1	RABLE TO (R						PH	ONE NO.		E-MAIL:	y Launop		SE ONLY		
TELEPHONE: FAX:	J-MAIL:		Joyce W			•				1.	16-503-1	268	jwelsh	@deltaenv.c				
	idettioff@delta) Joyce W	eisii	. '	<u>.</u>		1 44					<u>om</u>					
SAMPLER NAME(S) (Print): Joyce Welsh TURNAROUND TIME (CALENDAR DAYS):	C104	4186201							·	REQU	ESTED	ANALYSE	S		 			
14 DAYS 7 DAYS 72 HOURS 48 HOURS	24 HOURS 🗍 LE	SS THAN 24 HOU	7BA/1,2-		ANAN		8 T.	ONO.	2.5	25. OH								
			1	ပ္	7		15 d	7 =		2 2	131						FIELD NOTES:	
SPECIAL INSTRUCTIONS OR NOTES: CH	ECK BOX IF EDD	IS MEEDED [A]	TPH-G/BTEX/ AME/ETBE/D/PE/	ОЅТС	= = 1		UNPRESCRUCED PORT	25	13	0 15 0	2 3					C(ontainer/Preservative or PID Readings	
			18E January	□Total	~	' ~ ·	一一	١, ٥		S S S S S S S S S S S S S S S S S S S	111	,				•	r Laboratory Notes	
	$\frac{(v_1,v_2,v_3)}{v_1} = \frac{v_2}{v_1}$		-TPH-G/BTEX/ TAME/ETBE/DI 2-DBA/ethanol	<u>a</u>	TPH-D	8260	17 Metals	Ssay		Cyanide								
* Field Point name only required if different from \$	Sample ID		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Lead	. F.		17 M	Bloassay	sepi	Cyanide								
Sample Identification/Field Point Name*	SAMPLING DATE TIME	MATRIX NO	8260B MTBE/ DCA/1,	6010 DTC	8015IM	Vocs	CAM		Pesticides	Total						TEMPERA	TURE ON RECEIPT CO	7
Bleeg States	14/5/12/5	lu l			4	13	7 (17	/ 2								
	/-			1														_
								8			1							
						1				7	11				-			
						1			1.1							1.		
										CH	(BY					1		
						1				137	#	12		TO 14				-
2005.50 2005.50 2005.50						 			-	T.	 	-	310			†		<u>.</u>
		 		1		1		1-	1 1				NB C	<u>) </u>		1	 	<u> </u>
2 011								1								 		
John Signature) No.		Received by: Kign	6 Wes	Ro	_ }	30	20					08	0/10	1/08	Tim	145	7	
Reinquist by (Signaline)		Received by: (Sign	ull	Ru								Dat	0/14	108	Tim	12	35	
Rehittusher ov Suprices		Received by: (Sign		MA								Dai	6/12	108	Tim	210	15	
BEC NOTE F	PON	V	1	1	An	ber	ن :	NI.		· .	3 1	16x5	1	HO	2	9/19/03	Revision	
MOLLIE				at		126	er	UN .				· .	رما ک	-41h-	76			i
AAOUT PRESE	אמוע פ		4	PT		L95	$f_{C} = \epsilon$	UN.					. ,	へ へ				

BC LABORATORIES INC.		SAMPLE	RECEIP	TFORM	Rev	. No. 12	06/24/08	Page 1	Of/_	•	
Submission#: 18 13 Leve	9								<u> </u>		
SHIPPING INFORMATION Federal Express UPS Hand Delivery Ice Chest None BC Lab Field Service Other (Specify) Box Other (Specify)											
Refrigerant: Ice Blue Ice	□ None	□ Otl	ner 🗆 🔾	Commen	ts:						
Custody Seals lice Chest											
All samples received?	All samples	7 4	intact? Y	on (c) se	j :	Descript	on(s) mate	h COC? Y	ès Do t	ם	
COC Received \ UES □ NO	Emissivity: _ Temperature:					er ID: <u>†#</u> ∂	<u> 280</u>		10-14-0 nit <u>AL</u> P	78	
SAMPLE CONTAINERS					SAMPLE	IUMBERS				3.3	
	11	2	3	4	5	6		8	9	10	
QT GENERAL MINERAL/ GENERAL PHYSIC PT PE UNPRESERVED					3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -						
	BUPE							·			
OT INORGANIC CHEMICAL METALS					 						
PT INORGANIC CHEMICAL METALS	- E		· · · · · · · · · · · · · · · · · · ·		ļi	100	7.5				
PT CYANIDE					 						
PT NITROGEN FORMS					ļ					THE STATE OF A .	
PT TOTAL SULFIDE	╼╂╌╌╌							Carried Albert	فاختاه والمتاجون	Marie and a second	
20z. NITRATE / NITRITE							9.7				
PT TOTAL ORGANIC CARBON							نجفنيب			and distribution	
PT TOX							·				
PT CHEMICAL OXYGEN DEMAND									<u> </u>		
PIA PHENOLICS					ļ				<u> </u>		
40ml VOA VIAL TRAVEL BLANK	- 										
40ml VOA VIAL	A 3		()		(-)	()	()	(.)	()		
OT EPA 413.1, 413.2, 418.1						- 1	Section 1				
PTODOR									ļ		
RADIOLOGICAL									 		
BACTERIOLOGICAL									<u> </u>		
40 ml VOA VIAL- 504									<u> </u>		
QT EPA 508/608/8080							r 	· :			
QT EPA 515,1/8150		<u> </u>									
QT EPA 525							E.		5.5		
QT EPA 525 TRAVEL BLANK							·				
100ml EPA 547											
100ml EPA 531.1											
QT EPA 548											
QT EPA 549			1,								
QT EPA 632				· · · · · · · · · · · · · · · · · · ·							
QT EPA 8015M	6_										
OT AMBER	HIGH						1. N. S.		ļ		
3 OZ. JAR											
32 OZ. JAR											
SOIL SLEEVE											
CB VIAL											
PLASTIC BAG								-		4.1 3.1	
ERROUS IRON											
NCORE											
			خسيط								

November 4, 2008

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

Attached are the results from Aquatic Testing Laboratories.

BCL Sample ID 0813669-01

Client Sample ID WD-3

Sample Date/Time 10/14/08 12:15

LABORATORY REPORT

Date:

October 22, 2008

Client:

BC Laboratories, Inc.

4100 Atlas Court

Bakersfield, CA 93308 Attn: Molly Meyers Aquatic Testing Laboratories

"dedicated to providing quality aquatic toxicity testing"

4350 Transport Street, Unit 107 Ventura, CA 93003

(805) 650-0546 FAX (805) 650-0756

CA DOHS ELAP Cert. No.: 1775

Laboratory No.:

A-08101702-001

Sample ID.:

0813669-01

Sample Control:

The sample was received by ATL in a chilled state, with the chain of custody record

attached.

Date Sampled:

10/14/08

Date Received:

10/17/08

Date Tested:

10/18/08 to 10/22/08

Sample Analysis:

The following analyses were performed on your sample:

CCR Title 22 - Fathead Minnow Hazardous Waste Screen Bioassay (Polisini and Miller 1988).

Attached are the test data generated from the analysis of your sample.

Result Summary:

Sample ID.

Results

0813669-01

PASSED (LC50 > 750 mg/l)

Quality Control:

Reviewed and approved by:

Joseph A. LeMay/ Laboratory Director

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY

Aquatic Testing Laboratories

Lab No.: 108/0/702-00/
Client/ID: 18C 08/3/6/9-0/

TEST SUMMARY

Species: Pimephales promelas.

Fish length (mm): av: 27; min: 25; max: 29. Fish weight (gm): av: 0.35; min: 0.30; max: 0.42.

Test chamber volume: 10 liters. Temperature: 20 +/- 2°C.

Aeration: Single bubble through 30 bore tube.

Number of replicates: 2.

Dilution water: Soft reconstituted water (40 - 48 mg/l CaCO₃).

QA/QC Batch No.: RT-081001.

Source: In-Lab Culture. Regulations: CCR Title 22.

Test Protocol: California F&G/DHS 1988.

Endpoints: Survival at 96 hrs.

Test type: Static. Feeding: None.

Number of fish per chamber: 10. Photoperiod: 16/8 hrs light/dark.

TEST DATA

	IN	ITLAI			24 Hr				48	Hr		72 Hr					96	Hr	
Date/Time:	11-18	28	m	10	10-19.04 1100			10	-25~	280	130	10-21	N-21-08 103		1031)	10-22-08		۶ <u>/</u>	100
Analyst:		&			,	1			-	<i>~</i>		Rom			R-				
,	°C	DO	pН	°C	DO	рH	# D	°C	DO	рН	# D	°C	DO	pН	# D	۰C	DO	pН	# D
Control A	200	દુક	2.2	20.4	8,5	>.3	0	20-4	85	7.2		20.4	8.5	20	2	2015	8.4	2.0	0
Control B	99	8.4	2.2	703	7.4	<u>ر</u>	0	204	8.6	7-2	. 12	20.3	8.3	2.0	0	20.4	8.6	20	0
400 mg/l A	20.0	8,5	7.2	20.7	8.6	7.4	0	20.2	85	7-2	1	20.4	8.6	2.1	0	205	8.8	21	0
400 mg/l B	199	8.4	2.2	20.2	3.6	7.2	0	207	84	2-2	0	20.3	8.7	21	0	20.4	8.8	21	B
750 mg/l A	19.9	8.5	7.3	20.2	8.6	7.1	0	202	84	27	0	22.3	8.8	21	0	20.4	8.10	7.1	0
750 mg/l B	19.8	8.4	73	20.1	8.8	7. ₹	0	203	84	22	0	202	8.8	2./	1)	20:3	8.9	2.1	0
Comments:																			

	CONT	ROL	HIGH CONCENTRATION						
	Alkalinity	Hardness	Alkalinity	Hardness					
Initial	₩ mg/! CaCO,	45 mg/l CaCO ₃	2) mg/l CaCO ₃	46mg/I CaCO,					
Final	3/ mg/l CaCO ₃	4/0 mg/1 CaCO,	3/) mg/l CnCO,	46 mg/1 CaCO,					

Dissolved Oxygen (DO) readings in mg/l O2.

Total Number Dead									
Control	O 120								
400 mg/l	12 /20								
750 mg/l	/20 را								

RESULTS (the checked result applies based on fish survival rates)									
X	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)							
	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)							
	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)							

SUBCONTRACT ORDER

BC Laboratories 0813669

SENDING LABORATORY:

BC Laboratories 4100 Atlas Ct Bakersfield, CA 93308

Phone: 661-327-4911 Fax: 661-327-1918

Project Manager: Molly Meyers

RECEIVING LABORATORY:

Aquatic Testing Laboratory \$AQTCT

4350 Transport St. #107 Ventura, CA 93003 Phone :805-650-0546

Fax: (805) 650-0756

Analysis	Due	Expires	Laboratory ID	Comments	
Sample ID: 0813669-	01 Cwater S	amplod:10/14/08 12:15			
oiw Fish Tox Haz Wa Containers Supplied:	aste AQTC10/28/08 17:00	10/13/09 12:15			

Released By Date Date Received By Date 10-12-08 1000

Released By

Date

Received By

Date

November 4, 2008

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

Attached are the results from Zalco Laboratories, Inc.

BCL Sample ID 0813669-01

Client Sample ID WD-3 Sample Date/Time 10/14/08 12:15



ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue Bakersfield, California 93308

(661) 395-0539 FAX (661) 395-3069

Tuesday, October 21, 2008

Molly Meyers BC Laboratories Inc 4100 Atlas Court Bakersfield, CA 93308

TEL: (661) 327-4911 FAX (661) 327-1918

RE: 0813669

Dear Molly Meyers:

Order No.: 0810241

Zalco Laboratories, Inc. received 1 sample(s) on 10/17/2008 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

Sincerely,

Authorized Signature

Zalco Laboratories, Inc

(661) 395-0539



ZALCO LABORATORIES, INC.

Analytical and Consulting Services

4309 Armour Avenue Bakersfield, California 93308

(661) 395-0539 FAX (661) 395-3069

Qual.

CLIENT:

BC Laboratories Inc

Lab Order:

0810241

Project:

Analyses

0813669

Client Sample ID: 0813669-01

Report Comment:

Report Date:

10/21/2008

Lab ID:

0810241-001A

Collection Date:

10/14/2008 12:15:00 PM

Matrix:

AQUEOUS

FLASH, P. MARTIN CLOSED CUP.	ASTM D93 (EPA	1010)

Flash Point

SW1010

Method

> 200

Result

°۴

Units

10/21/2008

Date Analyzed

Qualifiers / Abbreviations;

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Slank

* - Value exceeds Maximum Contaminant Level

H - Hold Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

DLR: Detection Limit for Reporting

NSS - Non-Sufficient Sample Amount

SUBCONTRACT ORDER

BC Laboratories

0813669

SENDING LABORATORY:

BC Laboratories 4100 Atlas Ct

Bakersfield, CA 93308 Phone: 661-327-4911

Fax: 661-327-1918

Project Manager: Molly Meyers

RECEIVING LABORATORY:

Zalco Laboratories \$ZLCLB

4309 Armour

Bakersfield, CA 93308

Phone: 395-0539 Fax: 395-3069

Analysis Due Expires Laboratory ID Comments Sample ID: 0813669-01 Water Sampled:10/14/08 12:15 oi1010w Flash Point ZLCLB 10/28/08 17:00 10/19/08 12:15 Containers Supplied,

Released By