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Alameda County Environmental Health



3280 Brookshire Drive, Rocklin, CA 95677

Tel: (916) 415-1134, FAX :(916) 415-1154

August 27, 2007

Mr. Jeff Baker Tesoro Environmental Resources Company 3450 S. 344th Way, Suite 100 Auburn, Washington 98001

Subject: Monitoring Well MW-12 and Soil Borings DP-1 through DP-3 Installation Report Tesoro Station No. 67107 (Former Beacon Station No. 3721)
44 Lewelling Boulevard San Lorenzo, California RDM Project No. 02-67107

Dear Mr. Baker:

RDM Environmental, Inc. (RDM) has been authorized by Tesoro Environmental Resources Company (Tesoro), to install monitoring well MW-12 and advance soil borings DP-1 through DP-3 at the subject site. The location of the site is presented in Figure 1, and a detailed site map with well locations is included as Figure 2.

The well installation was conducted in accordance with the RDM approved work plan entitled *Monitoring Well Installation Work Plan* dated November 19, 2006. The work plan was verbally approved by Mr. Jerry Wickham of the Alameda County Health Care Services Agency. Copies of the Alameda County Public Works Agency Well Permits are included in Enclosure A. The soil borings and monitoring well were installed in the parking area of an off-site apartment complex located at 15814 Via Granada.

<u>Soil Borings</u>

On June 25, 2007, a RDM representative observed Woodward Drilling Company of Rio Vista, California use a PowerProbe Model 9630 truck-mounted hydraulic-push/hollow-stem auger rig to advance three soil borings (DP-1 through DP-3) and install one 2-inch diameter monitoring well (MW-12). The locations of the soil borings and newly installed monitoring well are illustrated in Figure 2. Field methods and procedures used during soil boring activities, sampling, and monitoring well installation are summarized in Enclosure B.

Soil borings DP-1 through DP-3 were each advanced to a depth of 40 feet below surface grade (bsg). Monitoring well MW-12 was completed to a depth of approximately 30 feet bsg.

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Due to the proximity of monitoring well MW-12 to soil boring DP-1, the boring log for monitoring well MW-12 was not logged. Soil borings DP-1 trough DP-3 were continuously logged using the Unified Soil Classification System visual manual method and the results are recorded on the soil boring logs included in Enclosure C.

Soil samples were collected at approximately four-foot intervals and screened for the presence of petroleum hydrocarbon vapors using a photoionization detector (PID). A total of nine of the soil samples were submitted to the laboratory for analysis. The soil samples chosen for laboratory analysis were based on PID field readings, changes in soil lithology, and correlation with other soil borings.

Soil Sample Analytical Results

The soil samples were submitted to Kiff Analytical LLC, (Kiff) for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPHg) as gasoline, methyl-tbutyl ether (MTBE), diisopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butanol (TBA) using EPA Method 8260B.

The soil analytical results from soil borings DP-1 through DP-3 indicated that BTEX, MTBE, DIPE, ETBE, TAME and TBA were not reported in any of the soil samples submitted for analysis. TPHg was reported at low levels (8.5 to 1.2 mg/kg) in the soil samples collected from DP-1 at 24 and 28 feet bsg, and in DP-3 at 24.5 feet bsg (8.3 mg/kg). The soil sample analytical results are summarized in Table 1. A copy of the laboratory analytical report including chain-of-custody documentation is included in Enclosure D.

Soil Stockpile

Three 55-gallon drums of soil were generated as a result of the drilling activities. The soil was stored on-site, at the Tesoro station, pending review of laboratory analytical results and evaluation of disposal options. One composite soil sample was collected from the stockpile and submitted to Kiff for analysis of BTEX, TPHg, MTBE, DIPE, ETBE, TAME and TBA by EPA Method 8260B, and for total lead by EPA Method 6010B. Laboratory analytical results reported the soil sample to be below the laboratory's reporting limits for all analytes except total lead at 7.42 mg/kg. The stockpile soil sample analytical results are summarized in Table 1. A copy of the laboratory analytical report including chain-of-custody documentation is included as Enclosure D. Based on the stockpile soil sample analytical results: the soil stockpile will be hauled off-site to an appropriately-licensed, Tesoro-approved disposal facility.

Well Installation

Monitoring well MW-12 was constructed of 2-inch diameter flush threaded Schedule 40 PVC casing to a total depth of 30 feet bsg. The well was screened over the lower most 20 feet with 0.02"-slotted casing, and the annular space was filled with No. 3 Silica Resources Inc. sand to approximately 1-foot above the screen section. A 1-foot thick bentonite seal was emplaced above the filter pack and the remaining annulus was filled with neat cement to within 1-foot of the surface grade. The wellhead was secured within an 8-inch diameter, steel, traffic-rated well box. Well construction details are included in Enclosure C.

The newly installed monitoring well was developed on July 5, 2007 and an initial groundwater sample was collected from the well immediately following development.

Mr. Jeff Baker Tesoro Environmental Resources Company August 27, 2007 Page 3

Groundwater Sample Analytical Results

The groundwater sample was submitted to Kiff Laboratory for analysis of BTEX, TPHg, MTBE, DIPE, ETBE, TAME, and TBA using EPA Method 8260B. Laboratory analytical results reported TPHg at 480 micrograms per liter (μ g/L); the other analytes were below the laboratory's reporting limits. The groundwater sample analytical results are summarized in Table 2. A copy of the laboratory analytical report including chain-of-custody documentation is included in Enclosure E.

Recommendations

Since BTEX, MTBE, DIPE, ETBE, TAME, and TBA were not reported in the groundwater sample collected from MW-12, but TPHg was reported at a concentration of 480 μ g/L, RDM recommends quarterly groundwater sampling of monitoring well MW-12 beginning with the third quarter 2007 event. The necessity for additional assessment down gradient of monitoring well MW-12 will be evaluated following completion of four quarters of sampling.

Remarks/Signatures

The interpretations contained in this document represent our professional opinions, and are based in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact Richard Munsch at (916) 415-1134.

Sincerely,

RDM ENVIRONMENTAL, INC.

Richard D. Munsch Project Manager

No. COSS795 Exp. 12/31/01 + CMIL PTE OF CALIFORNIA

Michael G. Lee, P.E. California Registered Civil Engineer No. C055795

RDM (MW-12 and DP-1 thru DP-3 Installation Report 6-26-07.doc) Enclosures

cc: Mr. Jerry T. Wickham- Alameda County Environmental Health Mr. Steven Ritchie – Regional Water Quality Control Board

TABLE 1 Soil Sample Analytical Results

Tesoro Station No. 67107 (former Beacon Station No. 3721) 44 Lewelling Boulevard San Lorenzo, California

Sample ID	Date	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	TPH as gasoline (mg/kg)	Fuel Oxygenates (mg/kg)	Total Lead (mg/kg)
Soil Borings									
DP-1-24'	06/25/07	24	<0.0050	<0.0050	<0.0050	<0.0050	8.5	<0.0050	NA
DP-1-28'	06/25/07	28	<0.0050	<0.0050	<0.0050	<0.0050	1.2	<0.0050	NA
DP-1-36'	06/25/07	36	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	NA
DP-1-40'	06/25/07	40	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	NA
DP-2-16'	06/25/07	16	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	NA
DP-2-24'	06/25/07	24	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	NA
DP-3-24.5'	06/26/07	24.5	<0.0050	<0.0050	<0.0050	<0.0050	8.3	<0.0050	NA
DP-3-28'	06/26/07	28	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	NA
DP-3-36'	06/26/07	36	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	NA
Soil Stockpil	e (Drill Cutti	ngs)							
SP-1a,b	06/26/07		< 0.0050	< 0.0050	< 0.0050	< 0.0050	<1.0	< 0.0050	7.42

TABLE 2

Groundwater Sample Analytical Results

Tesoro Station No. 67107 (former beacon StatinNo. 3721) 44 Lewelling Boulevard San Lorenzo, California

		Top of		Ground								
		Riser	Depth to	Water			Ethyl-	Total	TPH as			
Monitoring		Elevation	Water	Elevation	Benzene	Toluene	benzene	Xylenes	gasoline	MTBE ^a	Oxygenates ^{b,c}	
Well	Date	(ft)	(ft)	(ft)	(µg/L)	$(\mu g/L)$	$(\mu g/L)$	$(\mu g/L)$	$(\mu g/L)$	(µg/L)	(µg/L)	Comments
MW-1	07/05/07	NM	NM	NC	< 0.50	< 0.50	< 0.50	< 0.50	480	< 0.50	$<\!\!0.50\!/\!\!<\!\!5.0^d$	No free product or sheen

a MTBE by EPA Method 8260.

b Constituents by EPA Method 8260.

 $c \quad Oxygenates = diisopropyl \ ether, \ ethyl-t-butyl \ ether, \ tert-amyl \ methyl \ ether, \ tert-butanol$

d Tert-Butanol

Top of Riser Elevations = Elevations surveyed relative to mean sea level.

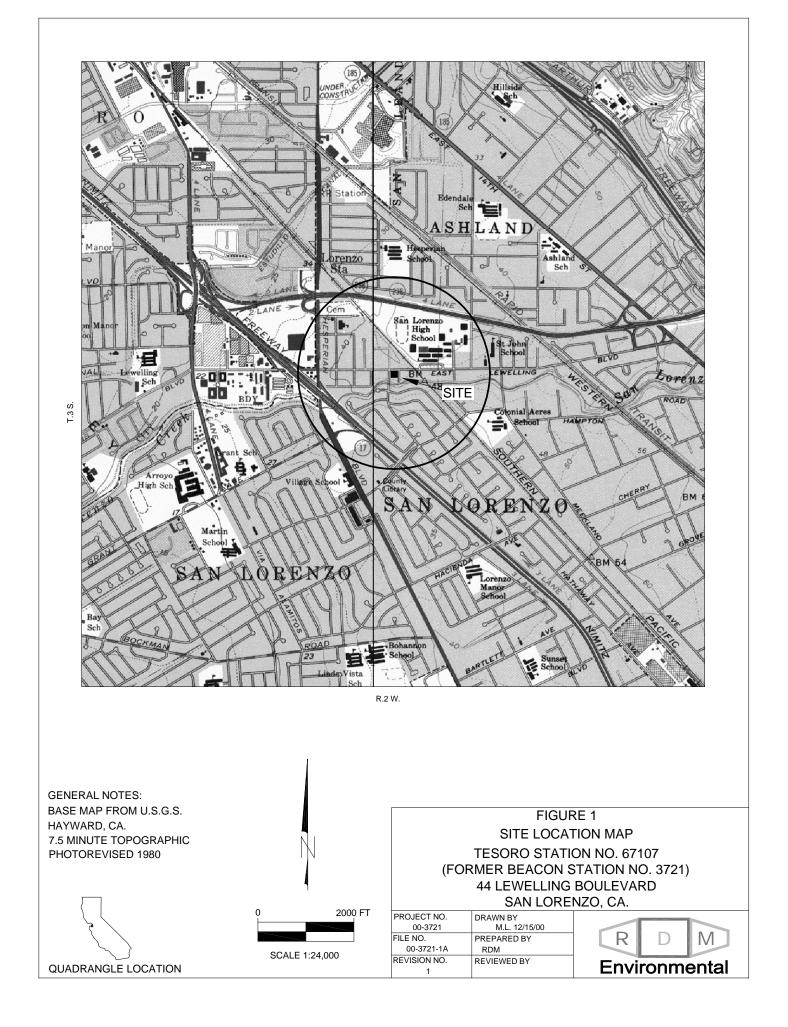
TPH = Total petroleum hydrocarbons.

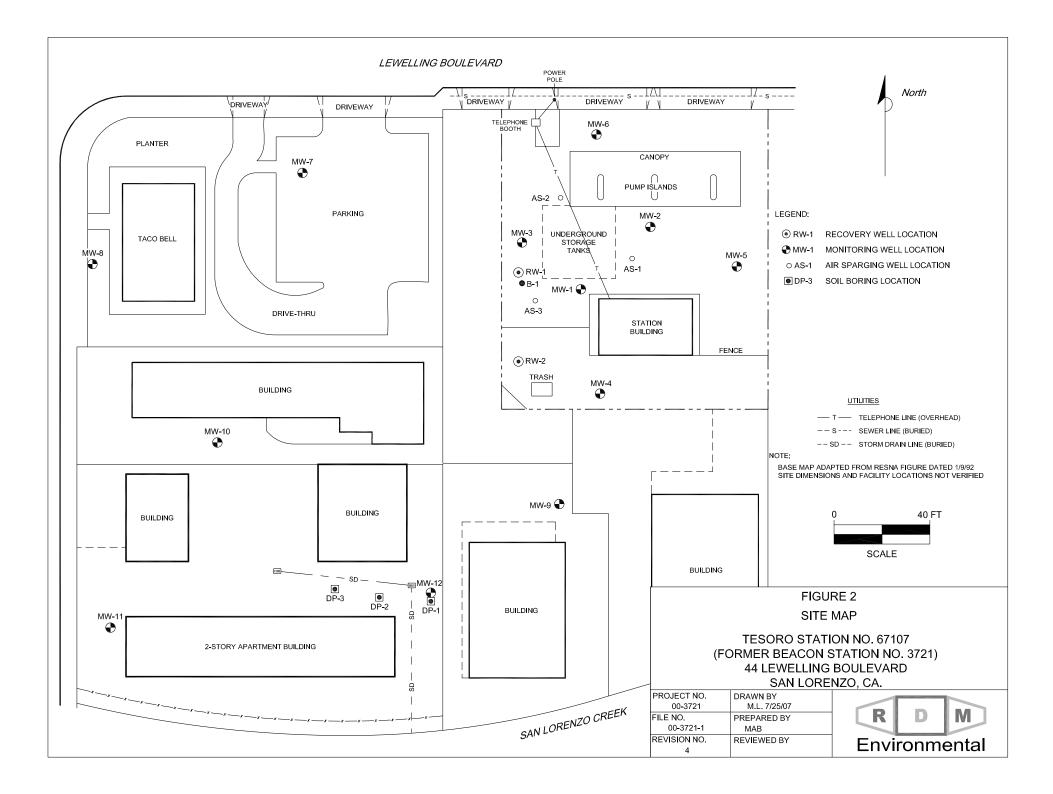
MTBE = Methyl tertiary butyl ether.

 $\mu g/L = Micrograms$ per liter.

NM = Not measured.

NC = Not calculated.





ENCLOSURE A

Alameda County Well Permit

Alameda County Public Works Agency - Water Resources Well Permit

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500,00.

Borehole(s) for Investigation-Geotechnical Study/CPT's - 2 Boreholes Driller: Woodward Drilling - Lic #: 710079 - Method: auger

Work Total: \$200.00

Specifications

Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
Number			Boreholes		
W2007-	05/29/2007	09/05/2007	2	2.00 in	40.00 ft
0649					

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approve	d on: 05/29/2007 By jamesy		007-0648 to W2007-0649 06/07/2007 to 06/08/2007
Application Id: Site Location:	1180029127352 15814 Via Granda, San Lorenzo, CA 94580	City of Project Site	e:San Lorenzo
Project Start Date:	06/07/2007	Completion Date	e:06/08/2007
Applicant:	RDM Environmental Inc Richard Munsch 6280 Brookshire Dr., Rocklin, CA 95747	Phone	: 916-415-1134
Property Owner:	Tony Ruiz	Phone	: 510-818-0975
Client:	15814 Via Granada, San Lorenzo, CA 94580 ** same as Property Owner **		
	Receipt Number: WR2007-0237 Payer Name : RDM		\$500.00 \$500.00 PAID IN FULL

Works Requesting Permits:

raduk: MC-0-5

Well Construction-Monitoring-Monitoring - 1 Wells Driller: woodward Drilling - Lic #: 710079 - Method: auger

Specifications

Permit #	Issued Date	Expire Date	Owner Well	Hole Diam.	Casing	Seal Depth	Max. Depth
			ld		Diam.		
W2007-	05/29/2007	09/05/2007	Mw-12	8.00 in.	2.00 in.	9.00 ft	40.00 ft
0648							

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

Work Total: \$300.00

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

Alameda County Public Works Agency - Water Resources Well Permit

application on site shall result in a fine of \$500.00.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

ENCLOSURE B

Field Methods and Procedures

RDM ENVIRONMENTAL

Enclosure B

Sampling Methods

Proper sampling methods must be followed to assure that samples represent actual field conditions and that samples are labeled, preserved, and transported properly to retain sample integrity. This attachment describes procedures to be followed by RDM Environmental (RDM), during collection of samples of subsurface soil and groundwater. Sampling procedures will be based on sampling guidance documents from the American Society of Testing and materials (ASTM), U.S. Environmental protection Agency (EPA), and California Department of Health Services (DHS). Actual sampling procedures to be employed will be based on field conditions and may differ from those described here.

A. EXPLORATION BORING/SOIL SAMPLING PROCEDURES

Soil borings and soil sampling will be performed under the direction of a RDM engineer/geologist. The soil borings will be advanced using drilling techniques appropriate for each project, as specified in the project work plan.

Soil samples will be collected at maximum intervals of 5 feet. Soil sampling will be done in accordance with ASTM 1586-84. Using this procedure, three 1.06- to 2-inch-diameter, 6-inch-length, brass or stainless steel tubes are placed in a California-type-split-barrel sampler, or a slide hammer with a single 6-inch by 2-inch brass or stainless tube by tapping the tube into the soil in the backhoe bucket with a hammer. The sampler is driven into the soil by a 140-pound weight falling 30 inches or with a slide hammer on hand auger samples. After an initial set of 6 inches, the number of blows required to drive the sampler an additional 12 inches is known as penetration resistance, or the $\bullet N \bullet$ value. The $\bullet N \bullet$ value is used as an empirical measure of the relative density of cohesion-less soils and the consistency of cohesive soils. When collecting a soil sample from a tank excavation or line excavation, the soil sample will be collected by tapping a brass stainless steel tube into the soil in the backhoe bucket.

Upon recovery of the split-barrel sampler or slide hammer sampler, the brass or stainless steel tubes containing the soil will be removed. One tube will be sealed at the ends with plastic end caps. The end caps will be secured to the ends of the tube to prevent loss of volatile constituents. The sample will be labeled with an identification number, time, date, location, and requested laboratory analysis. The sample will then be placed in a plastic bag and stored at approximately 4 degrees Celsius in an ice chest for transport to the laboratory. Sample custody procedures outlined in Section D of this attachment will be followed. This will be performed for each sample collected.

Soil in one of the brass or stainless steel tubes from the split-barrel sampler will be extracted upon recovery, placed in a plastic bag, and sealed for later screening for organic vapors using a photo ionization detector (PID) or a flame ionization detector (FID). The remaining portion of the soil sample will be examined and a complete log of soil conditions will be recorded on a soil boring log using the Unified Soil Classification System. The soil will be examined for grain size, color, and moisture content.

The split-barrel sampler or slide hammer sampler will be cleaned to prevent contamination across sampling intervals using procedures described in Section B. Soil generated from the soil borings will be stored in 55-gallon drums (unless otherwise directed by agencies or the client) labeled with the corresponding boring number, date, and address of the facility.

B. DECONTAMINATION AND DISPOSAL PROCEDURES

All equipment that comes into contact with potentially contaminated soil, drilling fluid, air or water will be decontaminated before each use. Decontamination will consist of steam cleaning, a high-pressure, hot water rinse, or trisodium phosphate (TSP) wash and freshwater rinse, as appropriate. Drilling and sampling

equipment will be decontaminated as follows:

- 1. Drill rig augers, drill rods, and drill bits will be steam-cleaned prior to use and between borings. Visible soil, grease, and other impurities will be removed.
- 2. Soil sampling equipment will be steam-cleaned prior to use and between each boring. Prior to individual sample collection, any sampling device will also be cleaned in a TSP solution and rinsed twice in clean water. Any visible soil residue will be removed.
- 3. It is anticipated that disposable equipment will be used to collect water samples. If disposable equipment is not used, water sampling equipment will be decontaminated using methods described in item 2 above for soil sampling equipment.
- 4. Water sampling containers will be cleaned and prepared by the respective analytical laboratories.
- 5. Stainless steel or brass soil sampling tubes will be steam-cleaned or washed in TSP solution and rinsed with clean water.
- 6. Field monitoring equipment (pH, conductivity, or temperature probes) will be rinsed with clean water prior to use and between samples.

C. FIELD MEASUREMENTS

Field data will be collected during various sampling and monitoring activities; this section describes routine procedures to be followed by personnel performing field measurements. The methods presented below are intended to ensure that field measurements are consistent and reproducible when performed by various personnel.

C.1 Buried Utility Locations

Prior to commencement of work on site, RDM will contact underground service alert and appropriate utility companies to have underground utility lines located. RDM will also visually survey the site to estimate the locations of potentially unmarked underground utilities. All work associated with the borings will be preceded by hand augering to a minimum depth of 5 feet below grade to avoid damaging underground utilities.

C.2 Lithologic Logging

A log of soil conditions encountered during the drilling and sample collection will be maintained using the Unified Soil Classification System by a RDM engineer/geologist. All boring logs will be reviewed by a California registered engineer/geologist.

The collected soil samples will be examined and the following information recorded: boring location, sample interval and depth, blow counts, color, soil type, moisture content (qualitative), and depth at which ground water (if present) is first encountered. Also recorded on the soil boring logs will be the field screening results derived from the use of a portable PID or FID.

C.3 Disposal Procedures

Soils and fluids that are produced and/or used during the installation and sampling of borings, and that are known or suspected to contain potentially hazardous materials, will be contained during the above operations. These substances will be retained on site until chemical testing has been completed to determine the proper means of disposal. Handling and disposal of substances known or suspected to contain potentially hazardous materials will comply with all applicable regulations including those of DHS and the California Department of Water Resources. Soils and fluids produced and/or used during the above-described operations that are shown

to contain potentially hazardous materials will be disposed of appropriately.

Residual substances generated during cleaning procedures that are known or suspected to pose a threat to human health or the environment will be placed in appropriate containers until chemical testing has been completed to determine the proper means for their disposal.

C.4 Conductivity, Temperature, and pH

Specific conductance, water temperature, and pH measurements will be made when a water sample is collected. Regardless of the sample collection method, a representative water sample will be placed in a transfer bottle used solely for field parameter determinations. A conventional pH meter with a combination electrode or equivalent will be used for field-specific conductance measurements. Temperature measurements will be performed using standard thermometers or equivalent temperature meters. Combination instruments capable of measuring two or all three of the parameters may also be used.

All instruments will be calibrated in accordance with manufacturer's recommendations. The values for conductivity standards and pH buffers used in calibration will be recorded in a field notebook. All probes will be thoroughly cleaned and rinsed with fresh water prior to any measurements, in accordance with Section C.1

D. SAMPLE CUSTODY

This section describes standard operating procedures for sample custody and custody documentation. Sample custody procedures will be followed through sample collection, transfer, analysis, and ultimate disposal. The purpose of these procedures is to assure that (1) the integrity of samples is maintained during their collection, transportation, and storage prior to analysis and (2) post-analysis sample material is properly disposed of. Sample custody is divided into field procedures and laboratory procedures, as described below.

D.1 Field Custody Procedures

Sample quantities, types, and locations will be determined before the actual fieldwork commences. As few personnel as possible will handle samples. The field sampler is personally responsible for the care and custody of the collected samples until they are properly transferred.

D.1.1 Field Documentation

Each sample will be labeled and sealed properly immediately after collection. Sample identification documents will be carefully prepared so that identification and chain-of-custody records can be maintained and sample disposition can be controlled. Forms will be filled out with waterproof ink. The following sample identification documents will be utilized:

- Sample labels
- Field notebook
- Chain-of-custody forms

D.1.2 Sample Labels

Sample labels provide identification of samples. Preprinted sample labels will be provided. Where necessary, the label will be protected from water and solvents with clear label-protection tape. Each label

will contain the following information:

- Name of collector
- Date and time of collection
- Place of collection
- RDM project number

- Sample number
- Preservative (if any)

D.1.3 Sample Labels Field Data Sheet

Information pertinent to a field survey, measurements, and/or sampling must be recorded on field data sheets. Entries on data sheets should include the following:

- Name and title of author, date and time of entry, and physical/environmental conditions during field activity.
- Location of sampling or measurement activity.
- Name(s) and title(s) of field crew.
- Type of sampled media (e.g., soil, groundwater, air, etc.).
- Sample collection or measurement method(s).
- Number and volume of sample(s) collected.
- Description of sampling point(s).
- Description of measuring reference point(s).
- Date and time of collection or measurement.
- Sample identification number(s).
- Sample preservative (if any).
- Sample distribution (e.g., laboratory).
- Field observations/comments.
- Field measurement data (pH, etc.).

D.1.4 Chain-of-custody Record

A chain-of-custody record will be completed out for and will accompany every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection to disposal. The record will contain the following information:

- Station number and sample I.D.
- Signature of collector, sampler, or recorder.
- Date and time of collection.
- Place of collection.
- Sample type.
- Signatures of persons involved in the chain of possession.
- Inclusive dates of possession.

The laboratory portion of the form should be completed by laboratory personnel and will contain the following information:

- Name of person receiving the sample.
- Laboratory sample number.
- Date and time of sample receipt.
- Analyses requested.
- Sample condition and temperature.

D.1.5 Sample Transfer and Shipment

A chain-of-custody record will always accompany samples. When transferring samples, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain-of-custody record.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis.

The chain-of-custody record will accompany each shipment. The method of shipment, courier name(s), and other pertinent information will be entered in the chain-of-custody record.

D.2 Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample label matches that on the chain-of-custody record. Information regarding method of delivery and sample conditions will also be checked on the chain-of-custody record. The custodian will then enter the appropriate data into the laboratory sample tracking system. The laboratory custodian may use the sample number on the sample label or may assign a unique laboratory number to each sample. The custodian will then transfer the sample to the proper analyst or store the sample in the appropriate secure area.

Laboratory personnel are responsible for the care and custody of samples from the time they are received until the sample is exhausted. Once at the laboratory, the samples will be handled in accordance with <u>U.S.</u> <u>Environmental Protection Agency SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition</u>, for the intended analyses. All data sheets, chromatographs, and laboratory records will be filed as part of the permanent documentation.

D.3 Corrections to Documentation

Original data recorded in field notebooks, chain-of-custody records, sampling information sheets, and other forms should be written in ink. These documents should not be altered, destroyed, or discarded even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made or found on a document, the individual making the corrections will do so by crossing a single line through the error, entering the correct information, and initialing and dating the change. The erroneous information will be obliterated. Any subsequent error(s) discovered on a document will be corrected. All corrections will be initialed and dated.

D.4 Sample Storage and Disposal

The analytical laboratory should retain samples and extracts for 60 days after the laboratory issues a written report. Unless notified by the program manager, excess or unused samples should be disposed of by the laboratory in an appropriate manner consistent with applicable government regulations.

ENCLOSURE C

Soil Boring Logs and Well Details

			80 Br	ook	mental, Inc. shire Drive n, CA		LC	DG	O	= BOI	RING	DP-1/I	WW-12 (Page 1 of 1)
	Ins	4 stallatio	4 Lew San on of N	elling Lorei	ation No . 67107 Boulevard nzo, CA pring Well MW-12 DP-1 thru DP-3	Date Started/Complete Hole Diameter Drilling Method Sampling Method Drilling Company/Drille	: 2.25 : Dire : Dua	5-in./8 ct Pu I Tub	.25-ii sh/H e;1.7	SA 5 in.X48 i	ا n. acetate ا	Drill Rig Logged By Survey By Northing/Ea Casing Elev	: PowerProbe Model 9630 : M. Berrington, P.G. #7124 : Pending sting Coord: /. :
	Depth in Feet	Surf. Elev. 45.00	nscs	GRAPHIC	Sample Interval Lab Sample Sample Interval Lost	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler AL Clear Acetate Liner	PID (ppm)	Sample Interval	Sampler Type	Lab No.	Well: N Elev.:	/W-12	
	0	- 40	ML		Asphalt (2") Fill: Aggregate Basero SILT; brown, nonplasti hand auger cuttings)	c, moist (logged	0					8 9 10	WELL CONSTRUCTION Date Compl. :6-26-07 Hole Diameter :8.25 in. Drill. Method :HSA WELL CASING : Material :Sch. 40 PVC Diameter :2-in. Joints :flush-thread WELL SCREEN : Material Material :Sch. 40 PVC Diameter :2-in. Joints :flush-thread Slot Spacing :0.020-in.
	- - - 15— - -	- 30	ML-CL		interbedded silty sand CLAYEY SILT; brown, plasticity, soft, moist slightly wet at 15 to 16		0						SAND PACK : No. 3 Sand TRANSITION : Bentonite chips ANNULAR SEAL: Neat Cement SURFACE : 8-in. dia. COMPLETION : steel well box
	- 20- - -	- 25	SC CL		CLAYEY SAND: fine-g plasticity fines; brown, wet CLAY: mottled gray-bc medium plasticity, soft moist	medium dense, wwn, low to to medium stiff,	0			DP-1-24'			Boring for MW-12 was advanced immediately adjacent to boring DP-1. No soil samples were collected from boring for MW-12.
	- - 25 -	- 20	СН		SILTY SAND: fine-gra medium dense, wet FAT CLAY: dark gray, very stiff, moist	/	52						
	- - 30 - - -	- 15	CL		CLAY: pale tan gray w brown mottling; mediu stiff, moist red brown mottling inc wet and soft at 32 ft.	m plasticity, very	0		AL	DP-1-28'		30	
00-21-2001 C.OSEISWINE(DOCUTIENTS) ESOLOCATI FORTZORONING FORSULESOLO VI 107 DF-1 (INM-	- 35— - -		SP ML-CL		POORLY-GRADED S sand; brown, loose, we SILTY CLAY: pale bro medium plasticity, med	et/ wn, low to	0		AL	DP-1-36'			
	- 40 - -	- 5	₩€L		SANDY SILT: pale bro SILTY CLAY: pale red medium plasticity, med moist	own, wet brown, low to			AL	DP-1-40'			
;	- 45 —	- 0											

				mental, Inc. shire Drive	LO	G O	F BC	DR	INC	G DP-2	
		Ro	ockli	n, CA							(Page 1 of 1)
	4 stallatio	4 Lew San on of N	elling Lore Monite	ation No . 67107 Boulevard nzo, CA pring Well MW-12 DP-1 thru DP-3	5	Hole Diameter: 2.25-in.Logged ByDrilling Method: Direct Push/HSASurvey BySampling Method: Dual Tube;1.75 in.X48 in. acetate Northing/Easting C					: PowerProbe Model 9630 : M. Berrington, P.G. #7124 : Pending Coord: :
Depth in Feet	Surf. Elev. 45.00	NSCS	GRAPHIC	Sample Interval Lab Sample Sample Interval Lost	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler AL Clear Acetate Liner ESCRIPTION	Water Level	PID (ppm)	Sample Interval	Sampler Type	Lab No.	REMARKS
	40 35 30 25 20 15 10			cuttings) contains thin (<2 in.) le CLAYEY SILT; brown, moist wet from 16 to 20 ft.; se POORLY GRADED SA brown, medium dense, CLAY: mottled gray-bo to medium stiff, moist POORLY GRADED SA grained sand; trace (<1 0.25-in dia.; gray brown wet FAT CLAY: dark gray, stiff, moist CLAY: pale tan gray wi medium plasticity, very red brown mottling incr wet and soft at 32 ft. grades into clayey silt a	ic, moist (logged hand auger enses of interbedded silty sand low to medium plasticity, soft, oft to medium stiff AND: fine to medium grained sand; , wet own, low to medium plasticity, soft AND WITH SILT: fine to medium 10%) fine, subrounded gravel to n to green brown, medium dense, medium to high plasticity, very ith pale red brown mottling; y stiff, moist rease with depth		0 0 0 0 0 0 0			DP-2-16'	
40-	- 5	CL-MI		SILTY SAND; fine grai subangular gravel to 2- CLAYEY SILT: pale br medium stiff to stiff, mo	AND ??- determination based on	/	0				Total Depth = 40 ft.

08-27-2007 C:\Users\Mike\Documents\Tesoro\San Lorenzo\Boring Logs\Tesoro 67107 DP-2 boring log.bor

		Ro	cklir	n, CA									(Page 1 of 1)		
	4	4 Lewe San	elling Lorer	ation No . 67107 Boulevard nzo, CA	Hole I Drillin	Started/Comple Diameter g Method	ted 6-26-2007 : 2.25-in. : Direct Push/HS : Dual Tube;1.75		9 in oo		Surve	ed By ey By	: PowerProbe Model 9630 : M. Berrington, P.G. #713 : Pending		
Ins				oring Well MW-12 DP-1 thru DP-3			ller: Woodward Drill					ng Elev.	:		
Depth in Feet	Surf. Elev. 45.00	nscs	GRAPHIC	Sample Interval Lab Sample Sample Interval Lost	ESCR	Sampler Ty SS Split Spo ST Shelby T PS Piston S AL Clear Act	on ube ampler	Water Level	PID (ppm)	Sample Interval	Sampler Type	Lab No.	REMARKS		
0-				Asphalt (2") Fill: Aggregate Baseroo											
- - 5- -	40	ML		SILT; brown, nonplastic cuttings)		t (logged han	d auger		0						
- 10-	25			contains thin (<2 in.) le		fintarbaddad	silty sand		0						
-				CLAYEY SILT; brown, moist				-	0						
- 15- - -	- 30	ML-CL		first groundwater betwe stiff	en 17	to 18 ft.; soft	o medium		0						
20	- 25	SC CL		CLAYEY SAND: fine to medium dense, wet CLAY WITH SAND: fin	e-grain	ied sand; trac	e (<10%)		0						
-		SM		fine, subrounded grave gray-bown, low to medi stiff, moist	ium pla	sticity, soft to	nedium	┍	15		AL	DP-3-24.5'			
25- - -	- 20	сн		SILTY SAND: fine to m fine, subrounded grave green brown, medium o	l to 0.2 dense,	5-in dia.; gray wet	v brown to		6.5						
- - 30—	- 15			FAT CLAY: dark gray, stiff, moist CLAY: pale tan gray wi	th pale	red brown m			0			DP-3-28			
-		CL		medium plasticity, very red brown mottling inc wet and soft at 32 ft.					0						
- 35- -		ML SP-SN	ALL A	SILT WITH SAND: pale moist to wet					0		AL	DP-3-36			
-	1	CL-ML SP		POORLY GRADED SA trace (<10%) fine, suba medium dense, wet	angular	gravel to 2-ir	. dia.;		0				No recovery from 39 to 40 ft.		
40	- 5			CLAYEY SILT: pale bro medium stiff to stiff, mc POORLY GRADED SA observation of material	ND ??	vet - determinatio									

ENCLOSURE D

Soil Sample Laboratory Analytical Results



Report Number : 57256 Date : 7/3/2007

Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Subject : 9 Soil Samples Project Name : Tesoro #67107 Project Number : 67107

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

ni l bel Kiff



Subject :9 Soil SamplesProject Name :Tesoro #67107Project Number :67107

Report Number : 57256 Date : 7/3/2007

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with samples DP-1-36' and DP-1-28' for the analyte Tert-Butanol were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate Results associated with samples DP-1-36' and DP-1-28' for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

	Approved By:	Jul vill
2795 2nd St, Suite 300 Davis, CA 95616		Jde Kiff



Sample : DP-1-24'		Matrix :	Soil	Lab Number : 57256-01		
Sample Date :6/25/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007	
Tert-Butanol	< 0.015	0.015	mg/Kg	EPA 8260B	6/29/2007	
TPH as Gasoline	8.5	2.5	mg/Kg	EPA 8260B	6/30/2007	
Toluene - d8 (Surr) 4-Bromofluorobenzene (Surr)	95.1 97.4		% Recovery % Recovery	EPA 8260B EPA 8260B	6/29/2007 6/29/2007	

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Approved By:	Joel K	(iff	
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Sample : DP-1-28'		Matrix :	Soil	Lab Number : 57256-02		
Sample Date :6/25/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007	
TPH as Gasoline	1.2	1.0	mg/Kg	EPA 8260B	6/30/2007	
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	6/30/2007	
4-Bromofluorobenzene (Surr)	98.2		% Recovery	EPA 8260B	6/30/2007	

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Approved By:	Joel	Kiff	
2795 2nd St., Suite 300 Davis, CA 95616 530-29	07-4800)	



Sample : DP-1-36'		Matrix : Soil		Lab Number : 57256-0	
Sample Date :6/25/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/30/2007
Toluene - d8 (Surr) 4-Bromofluorobenzene (Surr)	100 96.9		% Recovery % Recovery	EPA 8260B EPA 8260B	6/30/2007 6/30/2007
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Approved By:	Joe	Kiff		_
2795 2nd St., Suite 300 Davis, CA 95616 530-29	7-4800	V		



Sample : DP-1-40'		Matrix : Soil		Lab Number : 57256-04	
Sample Date :6/25/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	6/29/2007
4-Bromofluorobenzene (Surr)	96.9		% Recovery	EPA 8260B	6/29/2007

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Sample : DP-2-24'		Matrix : Soil		Lab Number : 57256-05	
Sample Date :6/25/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr) 4-Bromofluorobenzene (Surr)	100 97.9		% Recovery % Recovery	EPA 8260B EPA 8260B	6/29/2007 6/29/2007

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Sample : DP-2-16'		Matrix : Soil		bil Lab Number : 572	
Sample Date :6/25/2007	Measured	Method Reporting		Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr) 4-Bromofluorobenzene (Surr)	101 98.8		% Recovery % Recovery	EPA 8260B EPA 8260B	6/29/2007 6/29/2007
4-biomonuorobenzene (Sult)	90.0		10 Recovery	EFA 0200D	0/29/2007

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	Approved By:	Joel Kiff	
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Sample : DP-3-24.5'		Matrix : Soil		Lab Number : 572	
Sample Date :6/26/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
TPH as Gasoline	8.3	5.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr)	86.4		% Recovery	EPA 8260B	7/2/2007
4-Bromofluorobenzene (Surr)	96.9		% Recovery	EPA 8260B	7/2/2007

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Sample : DP-3-28'		Matrix : Soil		Lab Number : 57256-0	
Sample Date :6/26/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr) 4-Bromofluorobenzene (Surr)	101 98.0		% Recovery % Recovery	EPA 8260B EPA 8260B	6/29/2007 6/29/2007
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	Approved By:	Joel Kiff	
2795 2nd St., Suite 300 Da	oavis, CA 95616 530-29	7-4800 🗸	



Sample : DP-3-36'		Matrix :	Soil	Lab Number : 57	256-09
Sample Date :6/26/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Toluene	< 0.0050 < 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	6/29/2007
4-Bromofluorobenzene (Surr)	98.2		% Recovery	EPA 8260B	6/29/2007

		Jour vi	4
	Approved By:	Joel Kiff	
2795 2nd St., Suite 300 Da	oavis, CA 95616 530-29	7-4800 🗸	

QC Report : Method Blank Data

Project Name : **Tesoro #67107**

Project Number : 67107

Parameter	Measured Value	Method Reportin Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/29/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/29/2007
Toluene - d8 (Surr)	101		%	EPA 8260B	6/29/2007
4-Bromofluorobenzene (Surr)	98.3		%	EPA 8260B	6/29/2007
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/30/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/30/2007
Toluene - d8 (Surr)	101		%	EPA 8260B	6/30/2007
4-Bromofluorobenzene (Surr)	99.0		%	EPA 8260B	6/30/2007

Report Number : 57256 Date : 7/3/2007

Parameter	Measured Value	Method Reportin Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/2/2007
Toluene - d8 (Surr) 4-Bromofluorobenzene (Surr)	100 97.6		% %	EPA 8260B EPA 8260B	7/2/2007 7/2/2007

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Project Name : **Tesoro #67107**

Project Number : 67107

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicat Spiked Sample Percent Recov.	-	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	57256-03	<0.0050	0.0396	0.0389	0.0381	0.0369	mg/Kg	EPA 8260B	6/30/07	96.2	94.7	1.48	70-130	25
Toluene	57256-03	<0.0050	0.0396	0.0389	0.0383	0.0370	mg/Kg	EPA 8260B	6/30/07	96.7	95.2	1.52	70-130	25
Tert-Butanol	57256-03	0.0058	0.198	0.194	0.178	0.172	mg/Kg	EPA 8260B	6/30/07	87.0	85.7	1.57	70-130	25
Methyl-t-Butyl Ethe	er 57256-03	<0.0050	0.0396	0.0389	0.0400	0.0402	mg/Kg	EPA 8260B	6/30/07	101	103	2.36	70-130	25
Benzene	57278-03	<0.0050	0.0399	0.0378	0.0348	0.0310	mg/Kg	EPA 8260B	6/30/07	87.1	82.0	6.06	70-130	25
Toluene	57278-03	<0.0050	0.0399	0.0378	0.0341	0.0299	mg/Kg	EPA 8260B	6/30/07	85.5	79.0	7.85	70-130	25
Tert-Butanol	57278-03	0.0063	0.200	0.189	0.150	0.138	mg/Kg	EPA 8260B	6/30/07	71.9	69.6	3.29	70-130	25
Methyl-t-Butyl Ethe	er 57278-03	0.058	0.0399	0.0378	0.112	0.0900	mg/Kg	EPA 8260B	6/30/07	137	85.5	46.0	70-130	25
Benzene	56536-07	<0.0050	0.0398	0.0398	0.0346	0.0322	mg/Kg	EPA 8260B	7/2/07	87.1	81.0	7.22	70-130	25
Toluene	56536-07	<0.0050	0.0398	0.0398	0.0359	0.0334	mg/Kg	EPA 8260B	7/2/07	90.2	84.0	7.13	70-130	25
Tert-Butanol	56536-07	<0.0050	0.199	0.199	0.173	0.167	mg/Kg	EPA 8260B	7/2/07	87.2	84.1	3.55	70-130	25
Methyl-t-Butyl Ethe	er 56536-07	<0.0050	0.0398	0.0398	0.0350	0.0339	mg/Kg	EPA 8260B	7/2/07	87.9	85.4	2.94	70-130	25

	Jace vil	1
Approved By:	Joel Kiff	

KIFF ANALYTICAL, LLC

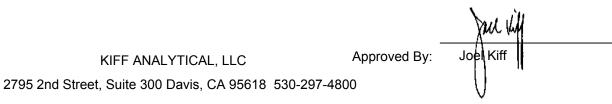
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Tesoro #67107**

Project Number : 67107

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0399	mg/Kg	EPA 8260B	6/29/07	108	70-130
Toluene	0.0399	mg/Kg	EPA 8260B	6/29/07	112	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	6/29/07	95.8	70-130
Methyl-t-Butyl Ether	0.0399	mg/Kg	EPA 8260B	6/29/07	107	70-130
Benzene Toluene Tert-Butanol Methyl-t-Butyl Ether	0.0394 0.0394 0.197 0.0394	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8260B EPA 8260B EPA 8260B EPA 8260B	6/30/07 6/30/07 6/30/07 6/30/07	93.9 94.6 101 94.3	70-130 70-130 70-130 70-130
Benzene Toluene Tert-Butanol Methyl-t-Butyl Ether	0.0391 0.0391 0.195 0.0391	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8260B EPA 8260B EPA 8260B EPA 8260B	7/2/07 7/2/07 7/2/07 7/2/07	87.6 90.1 89.2 86.2	70-130 70-130 70-130 70-130 70-130



KIFF ANALYTICAL, LLC



Analysis Summary

Report Number : 57256 Date : 7/3/2007

Attention : Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Project Name :Tesoro #67107 Project Number : 67107

Sample Name		DP	-1-24'	DP	-1-28'	DP	DP-1-36'		DP-1-40'		-2-24'	DP-2-16'		DP-3-24.5'		DP-3-28'		
	S	ample Date	6/25	6/25/2007		5/2007	6/25	5/2007	6/25	5/2007	6/25	/2007	6/25	5/2007	6/26	6/2007	6/26	6/2007
Analyte	Method	Units	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Toluene	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Ethylbenzene	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Total Xylenes	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Diisopropyl ether (DIPE)	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Ethyl-t-butyl ether (ETBE)	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Tert-amyl methyl ether (TAME)	EPA 8260B	mg/Kg	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Tert-Butanol	EPA 8260B	mg/Kg	0.015	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg	2.5	8.5	1.0	1.2	1.0	ND	1.0	ND	1.0	ND	1.0	ND	5.0	8.3	1.0	ND
Toluene - d8 (Surr)	EPA 8260B	%		95.1		101		100		100		100		101		86.4		101
4-Bromofluorobenzene (Surr)	EPA 8260B	%		97.4		98.2		96.9		96.9		97.9		98.8		96.9		98.0

MRL = Method Reporting Limit ND = Not Detected

Approved By,





Attention : Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Project Name :Tesoro #67107 Project Number : 67107

	mple Name	DP	-3-36'	
	S	ample Date	6/26	6/2007
Analyte	Method	Units	MRL	Results
Benzene	EPA 8260B	mg/Kg	0.0050	ND
Toluene	EPA 8260B	mg/Kg	0.0050	ND
Ethylbenzene	EPA 8260B	mg/Kg	0.0050	ND
Total Xylenes	EPA 8260B	mg/Kg	0.0050	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg	0.0050	ND
Diisopropyl ether (DIPE)	EPA 8260B	mg/Kg	0.0050	ND
Ethyl-t-butyl ether (ETBE)	EPA 8260B	mg/Kg	0.0050	ND
Tert-amyl methyl ether (TAME)	EPA 8260B	mg/Kg	0.0050	ND
Tert-Butanol	EPA 8260B	mg/Kg	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg	1.0	ND
Toluene - d8 (Surr)	EPA 8260B	%		100
4-Bromofluorobenzene (Surr)	EPA 8260B	%		98.2

MRL = Method Reporting Limit ND = Not Detected

Approved By,



Analysis Summary

Report Number : 57256 Date : 7/3/2007

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	Project Contact (Hardcopy or PDF To); Finand Munsch		[nia EDF	Repor	t?		Yes		No			Chain-of-Custody Record and Analysis Request						st									
	Company / Address:	· · · · · · · · · · · · · · · · · · ·	Sampli	ng Com	pany L	.og Co	ode:									_	A	naly	sis R	lequ	est						TAT	
	Company/Address: POM EnV. Phone #: 916)415-1134 (716)41.	5-1154	Global	ID:								5.0 ppb					(B)			ater)							□ 12 hr	
	Project #; 07 P.O. #:	5 1157	EDF D	eliverab	le To (Email	Addres	ss):				level @					EPA 8260B)		8260B)	524.2 Drinking Water)							□ 24 hr	
	Project Name: Tesoro #67107 Project Address: HA Lewelling Blod. San Lorenzo, CA		Samp	er Signe	H.	Ĺ	\leq	\mathcal{P}				EPA 8021	.5 ppb			(B)	ve) 2 FDR-FPA	PA 8260B)	Volatile Organics Full List (EPA 8260B)	524.2 Dri	15M)	TPH as Motor Oil (EPA 8015M)						⁻ or Lab Use Only
	Project Address:	Sampling		Containe	ər (7 F	Preserv	ative		Matri	×	ē	3) @ 0		60B)	A 826	A 820 24 & 1	us (El	Full	(EPA {	PA 80	(EPA	6010)	ଦ			48 hr	For
	San Lorenzo, CA		Ā									A 8260B)	A 8260	A 8260E	EPA 82	tes (EF	(1 2 D(locarbo	ganics	ganics	esel (E	otor Oil	(EPA (Id (STLC)			□ 72 hr	
			40 ml VOA Sleeve	Poly Glass	Tedlar	5	HNO ₃ None		Water			MTBE (EPA	MTBE (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	/ UXYGeriates (EPA 82005)	Volatile Halocarbons (EPA	latile On	Volatile Organics (EPA	TPH as Diesel (EPA 8015M)	H as Mo	Total Lead (EPA 6010)	W.E.T. Lead				
4	Sample Designation Da			<u> </u>	μ	모	Ξ X		3	∧ Soil		Σ	Σ		₽ J			<u> </u> \$	<u> </u> \$	Ş	Ę	Ę	To	<u>≯</u>	+		1 WK	
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Distribution: White - Lab; Pink - Originator Rev: 051805



Report Number : 57255 Date : 6/29/2007

Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Subject : 1 Soil Sample Project Name : Tesoro #67107 Project Number : 67107

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

ni l bel Kiff



Subject :1 Soil SampleProject Name :Tesoro #67107Project Number :67107

Report Number : 57255 Date : 6/29/2007

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with sample SP-1a,1b for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

		Approved By:	Jour vill	
2795 2nd St, Suite 300 Davis,	CA 95616		Jde Kiff	



Project Name : **Tesoro #67107** Project Number : **67107** Report Number : 57255 Date : 6/29/2007

Sample : SP-1a,1b		Matrix : Soil Lab Number : 57255-07						
Sample Date :6/26/2007	Measured	Method Reporting		Analysis	Date			
Parameter	Value	Limit	Units	Method	Analyzed			
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007			
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/28/2007			
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	6/28/2007			
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	6/28/2007			

	Jour vill
Approved By:	Joel Kiff
2795 2nd St., Suite 300 Davis, CA 95616 530-29	97-4800 🔰

QC Report : Method Blank Data

Project Name : **Tesoro #67107**

Project Number : 67107

Parameter	Measured Value	Method Reportin Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	6/28/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	6/28/2007
Toluene - d8 (Surr)	98.9		%	EPA 8260B	6/28/2007
4-Bromofluorobenzene (Surr)	97.1		%	EPA 8260B	6/28/2007

		Method	1		
	Measured	Reporti	ng	Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Project Name : Tesoro #67107

Project Number : 67107

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Percent	Duplicat Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	57221-11	0.0053	0.0397	0.0399	0.0411	0.0407	mg/Kg	EPA 8260B	6/28/07	90.2	88.7	1.74	70-130	25
Toluene	57221-11	<0.0050	0.0397	0.0399	0.0322	0.0349	mg/Kg	EPA 8260B	6/28/07	81.2	87.3	7.24	70-130	25
Tert-Butanol	57221-11	0.40	0.198	0.200	0.583	0.585	mg/Kg	EPA 8260B	6/28/07	94.1	94.6	0.510	70-130	25
Methyl-t-Butyl Ethe	er 57221-11	0.15	0.0397	0.0399	0.171	0.171	mg/Kg	EPA 8260B	6/28/07	60.1	59.7	0.583	70-130	25

Approved By: Joe Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Tesoro #67107** Project Number : **67107**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit	
Benzene	0.0393	mg/Kg	EPA 8260B	6/28/07	96.1	70-130	
Toluene	0.0393	mg/Kg	EPA 8260B	6/28/07	95.8	70-130	
Tert-Butanol	0.196	mg/Kg	EPA 8260B	6/28/07	95.8	70-130	
Methyl-t-Butyl Ether	0.0393	mg/Kg	EPA 8260B	6/28/07	95.7	70-130	





Attention : Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Project Name :Tesoro #67107 Project Number : 67107

	Sai	Sample Name	SP.	SP-1a,1b
	Se	Sample Date	6/26	6/26/2007
Analyte	Method	Units	MRL	Results
Benzene	EPA 8260B	mg/Kg	0.0050	ND
Toluene	EPA 8260B	mg/Kg	0.0050	ND
Ethylbenzene	EPA 8260B	mg/Kg	0.0050	ND
Total Xylenes	EPA 8260B	mg/Kg	0.0050	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg	0.0050	ND
Diisopropyl ether (DIPE)	EPA 8260B	mg/Kg	0.0050	ND
Ethyl-t-butyl ether (ETBE)	EPA 8260B	mg/Kg	0.0050	ND
Tert-amyl methyl ether (TAME)	EPA 8260B	mg/Kg	0.0050	ND
Tert-Butanol	EPA 8260B	mg/Kg	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg	1.0	ND
Toluene - d8 (Surr)	EPA 8260B	%		100
4-Bromofluorobenzene (Surr)	EPA 8260B	%		99.2

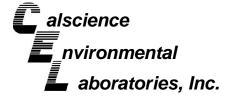
MRL = Method Reporting Limit ND = Not Detected

Approved By, obl Kiff

Analysis Summary

Report Number: 57255 Date: 6/29/2007

> 2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800 ELAP # 2236





July 09, 2007

Joel Kiff Kiff Analytical 2795 2nd Street, Suite 300 Davis, CA 95616-6593

Subject: Calscience Work Order No.: 07-06-2200 Client Reference: Tesoro #67107

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 6/29/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Amande Porter

Calscience Environmental Laboratories, Inc. Amanda Porter Project Manager

CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

C alscience
nvironmental
📕 aboratories, Inc.



Page 2 of 7

Kiff Analytical			Date Rec	eived:				06/29/07
2795 2nd Street, Suite 300			Work Ord	der No:			0	7-06-2200
Davis, CA 95616-6593			Preparati	on:			E	PA 3050B
			Method:				E	PA 6010B
Project: Tesoro #67107							Р	age 1 of 1
Client Sample Number		Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SP-1a,1b		07-06-2200-1	06/26/07	Solid	ICP 5300	07/01/07	07/02/07	070701L03
Parameter	Result	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Lead	7.42	0.500	1		mg/kg			
Method Blank		097-01-002-9,500	N/A	Solid	ICP 5300	07/01/07	07/02/07	070701L03
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			

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Kiff Analytical	Date Received:	06/29/07
2795 2nd Street, Suite 300	Work Order No:	07-06-2200
Davis, CA 95616-6593	Preparation:	EPA 3050B
	Method:	EPA 6010B

Project Tesoro #67107

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number		
07-06-2277-1	Solid	ICP 5300	07/01/07		07/02/07	070701S03		
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers		
Lead	102	103	75-125	1	0-20			

RPD - Relative Percent Difference, CL - Control Limit

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7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 · FAX: (714) 894-7501

Page 4 of 7

alscience nvironmental Quality Control - Laboratory Control Sample *aboratories, Inc.*

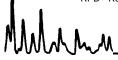


Kiff Analytical	Date Received:	N/A
2795 2nd Street, Suite 300	Work Order No:	07-06-2200
Davis, CA 95616-6593	Preparation:	EPA 3050B
	Method:	EPA 6010B

Project: Tesoro #67107

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File	ID L(CS Batch Number
097-01-002-9,500	Solid	ICP 5300	07/02/07	070701-I-()3	070701L03
Parameter		Conc Added	Conc Recovered	LCS %Rec	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead		25.0	25.7	103	80-120	

RPD - Relative Percent Difference, CL - Control Limit



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Work Order Number: 07-06-2200

<u>Qualifier</u>	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
А	Result is the average of all dilutions, as defined by the method.
В	Analyte was present in the associated method blank.
С	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
Н	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
Ν	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
Х	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

KIFF Analytical LLC Project Contact (Hardcop Troy Turpen Company/Address: Kiff Analytical Phone No.: Project Number:		to): No.: No.:		Dav Lat Fax EI Recc Sat	vis, 5:5 x:5 DF	CA 30.2 30.2 R inded ing (nd S 956 297.4 297.4 epc but no Comp	16 800 808 Drt	2 Idator Log	y to c	ompl	Ye	S this s	G _X	ard 7 (_N	744 Ien 14	10 Lir I Grov -895-	ce Environmental Lincoln Way birove, CA 92841 05-5494 Lab No. Chain-of-Custody Record and Analysis Request Analysis Request									
67107		57255																			02	For Lab Use Only					
Project Name:							iress										010									2007	se (
Tesoro #67107		I		linb	ox@	<u>@kif</u>	fana	<u>lytic</u>	cal.c	com							PA 6									ڻ ا	n di
Project Address:		Samplir	ng	_	Co	onta	iner		Pre	eser	vat	ive		N	latr	ix	ο Λ Ε									July	r La
Sample Designation		Date	Time	AO'	Poly	sleeve	Glass Jar	Tedlar	NO ³	H ₂ SO ₄	Na ₂ 5203	ZnAc ₂ & NaOH	NONE	WATER	SOIL	Air	Total Lead by EPA 6010										Fo
SP-1a,1b			17:15		<u> </u>	0		╧┼╴	<u>+</u>				<u>-</u> 1	>	X	/	X			<u> </u>						x	
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Relinquished by:			Date 6/29/67	Time Received by Laboratory:				· · · ·	В	ill to:	4000	ount	ts Pa	yable	e												

	Page 7 of 7
Celscience Epvironmental	WORK ORDER #: 07 - 0 6 - 2 2 0 0
Laboratories, Inc.	Cooler of
SAME	PLE RECEIPT FORM
CLIENT: Kitt	DATE:6/29/07
TEMPERATURE – SAMPLES RECEIV	'ED BY:
CALSCIENCE COURIER: Chilled, cooler with temperature blank Chilled, cooler without temperature bla Chilled and placed in cooler with wet in Ambient and placed in cooler with wet Ambient temperature.	ank. <u>3.9</u> °C IR thermometer. ce. Ambient temperature.
C Temperature blank.	Initial:
CUSTODY SEAL INTACT:	
Sample(s): Cooler:	No (Not Intact) : Not Present:
	Initial:
SAMPLE CONDITION:	
	Yes No N/A
Chain-Of-Custody document(s) received with sa	
Sampler's name indicated on COC	
	dy papers
	······
Correct containers and volume for analyses req	uested
Proper preservation noted on sample label(s)	
VOA vial(s) free of headspace.	······································
Tedlar bag(s) free of condensation	
	Initial:
COMMENTS:	
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	2nd Street, Suite CA 95616	300				25r			
Analytical LLC	530.297.4800		SRG # / L	ab No.	5 [255		Page 🔶	of
Project #: Project #: Projec	California ED	F Report? Yes	No		Chain-c	of-Custody F	Record and An	nalysis Request	t
Company / Address:	Sampling Co	npany Log Code:				Analysis	Request		TAT
Port 415-1174 415-115	Global ID:			9 5.0 ppb		8260B) B1	/ater)		2 hr
Project #: P.O. #:	EDF Delivera	ble To (Email Address):		levei @		EPA 82(nking M		☐ 1 4 hr 8
Project #: 67107 Project Name: TCSOVO #67107 Project Address: 44 Cervelling Bhal Sam Corenzo	Sampler Sig		-	r EPA 8021 level 0.5 ppb	a	7 Oxygenates (EPA 8260B) Lead Scav.(1,2 DCA & 1,2 EDB-EPA 82 Volatile Halocarbons (EPA 8260B) Volatile Orcanics Full List (FPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water) TPH as Diesel (EPA 8015M) TPH as Motor Oil (EPA 8015M) Total Lead (EPA 6010)		rat Contract Lab Use Only
Project Address: And Sampling	Gontair	ner Preservative	Matrix	a o	88	A 8260 A 81,2 ns (EP	EPA 52 2A 801 (EPA 1	Q 4	
Sun Lorenzo	<			8260E	8260B EPA 82 es (EP	es (EP (1,2 DC ocarbo	Ranics (sel (El for Oil	ILS)	
	40 ml VOA Sleeve Poly Glass	ee ^o	- La	MTBE (EPA 8260B) MTBE (EPA 8260B)	BTEX (EPA 8260B) TPH Gas (EPA 8260B) 5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B) Lead Scav.(1,2 DCA & 1,2 E Volatile Halocarbons (EPA Volatile Orcanics Full List (Volatile Organics (EPA 524.2 TPH as Diesel (EPA 8015M) TPH as Motor Oil (EPA 8011 Total Lead (EPA 6010)		'2 hr
Sample Designation, Date Time			Water Soil Air	MTB MTB	5 OX TPH	7 Ox Leac Vola	TPH Vola		
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Distribution: White - Lab; Pink - Originator Rev: 051805

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ENCLOSURE E

Groundwater Sample Laboratory Analytical Results



Report Number : 57389 Date : 7/12/2007

Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Subject : 4 Water Samples Project Name : 67107 Project Number : 67107

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

ni l bel Kiff



Sample : GW-Inf	Matrix :	Water	Lab Number : 57389-01			
Sample Date :7/5/2007	Measured	Method Reporting		Analysis	Date	
Parameter	Value	Limit	Units	Method	Analyzed	
Benzene	13	0.50	ug/L	EPA 8260B	7/10/2007	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007	
Ethylbenzene	0.83	0.50	ug/L	EPA 8260B	7/10/2007	
Total Xylenes	4.6	0.50	ug/L	EPA 8260B	7/10/2007	
Methyl-t-butyl ether (MTBE)	10	0.50	ug/L	EPA 8260B	7/10/2007	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/10/2007	
TPH as Gasoline	200	50	ug/L	EPA 8260B	7/10/2007	
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	7/10/2007	
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	7/10/2007	

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Approved By:	Joel	Kiff	
2795 2nd St., Suite 300 Davis, CA 95616 530-29	07-4800)	



Sample : GW-MID		Matrix : V	Matrix : Water Lab Number : 5738		
Sample Date :7/5/2007	Measured	Method Reporting	l la ita	Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed
Benzene	6.1	0.50	ug/L	EPA 8260B	7/11/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Total Xylenes	1.6	0.50	ug/L	EPA 8260B	7/11/2007
Methyl-t-butyl ether (MTBE)	8.8	0.50	ug/L	EPA 8260B	7/11/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/11/2007
TPH as Gasoline	110	50	ug/L	EPA 8260B	7/11/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	7/11/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	7/11/2007

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	Approved By:	Joel Kiff	
2795 2nd St., Suite 300 Da	0avis, CA 95616 530-29	7-4800 🗸	



Sample : GW-EFF		Matrix : V	Water	Lab Number : 57	7389-03	
Sample Date :7/5/2007	Measured	Method Reporting		Analysis	Date	
Parameter	Value	Limit	Units	Method	Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/11/2007	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/11/2007	
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	7/11/2007	
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	7/11/2007	

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	Approved By:	Joe	l Kiff	
2795 2nd St., Suite 300	Davis, CA 95616 530-29	7-4800	J	



Sample : MW-12		Matrix :	Water	Lab Number : 57	7389-04
Sample Date :7/5/2007 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/11/2007
TPH as Gasoline	480	50	ug/L	EPA 8260B	7/11/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	7/11/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	7/11/2007

		X	your W	4
	Approved By:	Joe	l Kiff	
2795 2nd St., Suite 300	Davis, CA 95616 530-29	7-4800	J	

QC Report : Method Blank Data

Project Name : 67107

Project Number : 67107

Parameter	Measured Value	Method Reporting Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/10/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/10/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/10/2007
Toluene - d8 (Surr)	99.7		%	EPA 8260B	7/10/2007
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	7/10/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/11/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/11/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/11/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	7/11/2007
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	7/11/2007

Report Number : 57389 Date : 7/12/2007

		Method			
	Measured	Reporti	ng	Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Project Name : 67107

Project Number : 67107

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicat Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	57389-01	13	40.0	40.0	52.2	51.6	ug/L	EPA 8260B	7/10/07	97.3	95.8	1.59	70-130	25
Toluene	57389-01	<0.50	40.0	40.0	40.1	39.8	ug/L	EPA 8260B	7/10/07	100	99.4	0.889	70-130	25
Tert-Butanol	57389-01	<5.0	200	200	204	205	ug/L	EPA 8260B	7/10/07	102	102	0.255	70-130	25
Methyl-t-Butyl Ethe	er 57389-01	10	40.0	40.0	48.0	48.3	ug/L	EPA 8260B	7/10/07	94.3	95.0	0.714	70-130	25
Benzene	57418-04	<0.50	40.0	40.0	42.5	42.3	ug/L	EPA 8260B	7/11/07	106	106	0.410	70-130	25
Toluene	57418-04	<0.50	40.0	40.0	43.1	42.6	ug/L	EPA 8260B	7/11/07	108	106	1.15	70-130	25
Tert-Butanol	57418-04	<5.0	200	200	216	211	ug/L	EPA 8260B	7/11/07	108	106	2.36	70-130	25
Methyl-t-Butyl Ethe	er 57418-04	<0.50	40.0	40.0	38.9	38.4	ug/L	EPA 8260B	7/11/07	97.2	95.9	1.38	70-130	25

Approved By: Joe kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Project Name : 67107

Project Number : 67107

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/10/07	101	70-130
Toluene	40.0	ug/L	EPA 8260B	7/10/07	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/10/07	97.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/10/07	102	70-130
Benzene	40.0	ug/L	EPA 8260B	7/11/07	98.0	70-130
Toluene	40.0	ug/L	EPA 8260B	7/11/07	99.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/11/07	98.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/11/07	91.2	70-130





Analysis Summary

Report Number : 57389 Date : 7/12/2007

Attention : Richard Munsch RDM Environmental 6280 Brookshire Drive Rocklin, CA 95677

Project Name :67107 Project Number : 67107

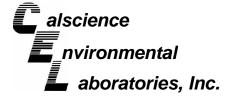
	Sa	mple Name	G١	V-Inf	GW-MID		GW-EFF		MW-12	
	S	ample Date	7/5/	/2007	7/5/2007		7/5/2007		7/5/2007	
Analyte	Method	Units	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L	0.50	13	0.50	6.1	0.50	ND	0.50	ND
Toluene	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Ethylbenzene	EPA 8260B	ug/L	0.50	0.83	0.50	ND	0.50	ND	0.50	ND
Total Xylenes	EPA 8260B	ug/L	0.50	4.6	0.50	1.6	0.50	ND	0.50	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L	0.50	10	0.50	8.8	0.50	ND	0.50	ND
Diisopropyl ether (DIPE)	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Ethyl-t-butyl ether (ETBE)	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Tert-amyl methyl ether (TAME)	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Tert-Butanol	EPA 8260B	ug/L	5.0	ND	5.0	ND	5.0	ND	5.0	ND
TPH as Gasoline	EPA 8260B	ug/L	50	200	50	110	50	ND	50	480
Toluene - d8 (Surr)	EPA 8260B	%		99.7		100		99.0		101
4-Bromofluorobenzene (Surr)	EPA 8260B	%		101		103		102		103

MRL = Method Reporting Limit ND = Not Detected

Approved By,









July 16, 2007

Joel Kiff Kiff Analytical 2795 2nd Street, Suite 300 Davis, CA 95616-6593

Subject: Calscience Work Order No.: 07-07-0512 Client Reference: 67107

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/10/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Amande Porter

Calscience Environmental Laboratories, Inc. Amanda Porter Project Manager

CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501 Calscience Invironmental Laboratories, Inc.

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Page 2 of 6

Kiff Analytical 2795 2nd Street, Suite 300 Davis, CA 95616-6593

Project: 67107

Date Received: Work Order No: 07/10/07 07-07-0512

Page 1 of 1

Client Sample Number			Sample Nun	Colle		Matrix		
GW-En		07-	07-0512-1	07/0	5/07 A	queous		
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand Solids, Total Suspended	5.0 ND	5.0 1.0	1 1		mg/L mg/L	07/11/07 N/A	07/11/07 07/11/07	EPA 410.4 SM 2540 D
Method Blank				N	/A A	queous		
Parameter	Result	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand Solids, Total Suspended	ND ND	5.0 1.0	1 1		mg/L mg/L	07/11/07 N/A	07/11/07 07/11/07	EPA 410.4 SM 2540 D

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Kiff Analytical 2795 2nd Street, Suite 300 Davis, CA 95616-6593 Date Received: Work Order No: N/A 07-07-0512

Project: 67107

Matrix: Aqueous								
Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Chemical Oxygen Demand	EPA 410.4	GW-Eff	07/11/07	5.0	5.0	0	0-25	
Solids, Total Suspended	SM 2540 D	07-07-0664-1	07/11/07	3390	3310	2	0-20	

RPD - Relative Percent Difference, CL - Control Limit

hM

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n M



Work Order Number: 07-07-0512

<u>Qualifier</u>	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
А	Result is the average of all dilutions, as defined by the method.
В	Analyte was present in the associated method blank.
С	Analyte presence was not confirmed on primary column.
Е	Concentration exceeds the calibration range.
Н	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
Ν	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
Х	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

KIFF Q Analytical LLC Project Contact (Hardcopy or PDF to): Troy Turpen Company/Address: Kiff Analytical					2795 Second Street, Suite 300 744 Davis, CA 95618 744 Lab: 530.297.4800 Garden Fax: 530.297.4808 714- EDF Report? _Yes _X_No Recommended but not mandatory to complete this section: Sampling Company Log Code:													Science Environmental 7440 Lincoln Way Jen Grove, CA 92841 14-895-5494 Lab No. 0 Chain-of-Custody Record and Analysis Request Analysis Request													
Phone No.:	FAX No.:					ID:														-											
Project Number: 67107	P.O. N	No.: 57389		EDF Deliverable to (Email Address):												Solids								2007	For Lab Use Only						
Project Name:				E-mail address:												l N p				ĺ				, 20	Jse						
67107 Project Address:		r		inbox@kiffanalytical.com																				July 16,	ab (
Project Address.		Samplin	า <u>ต</u>		Co	ntai	ner		Pres	serv	<u> </u>	1		<u>Vlatr</u> T	'ix T	spel					2			n <mark>y</mark>	r L						
Sample Designation	-		Time	Glass	Poly	Sleeve	Amber	Tediar	H _s SO,	Na ₂ S ₂ O ₃	ZnAc ₂ & NaOH	NONE	WATER	SOIL	Air	Total Suspended	COD								ш						
GW-Eff		7/5/07	0900		1		1		1			1	1	1		Х	Х							X							
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	Page 6 of 6
Calscience Environmental	WORK ORDER #: 07 - 0 7- 0 5 1 2
A aborstories, inc.	Cooler <u>\</u> of <u>\</u>
SA	MPLE RECEIPT FORM
CLIENT: Kiff	7 10-07
	DATE: 7-10-07
TEMPERATURE – SAMPLES REC	EIVED BY:
CALSCIENCE COURIER: Chilled, cooler with temperature b Chilled, cooler without temperature Chilled and placed in cooler with v Ambient and placed in cooler with Ambient temperature.	e blank °C IR thermometer. vet ice Ambient temperature.
°C Temperature blank.	Initial: WB
CUSTODY SEAL INTACT:	
Sample(s): Cooler:	No (Not Intact) :Not Present: Initial:
SAMPLE CONDITION	
SAMPLE CONDITION:	Yes No N/A
Chain-Of-Custody document(s) received wit	h samples
Chain-Of-Custody document(s) received wit Sampler's name indicated on COC	h samples
Chain-Of-Custody document(s) received wit Sampler's name indicated on COC Sample container label(s) consistent with cu	h samples
Chain-Of-Custody document(s) received wit Sampler's name indicated on COC Sample container label(s) consistent with cu Sample container(s) intact and good conditi	h samples
Chain-Of-Custody document(s) received with Sampler's name indicated on COC Sample container label(s) consistent with cu Sample container(s) intact and good conditi Correct containers and volume for analyses	h samples
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KIFF Analytical LLC	2795 2nd Street, Suite 300 Davis, CA 95616 Lab: 530.297.4800 SRG # / Lat Fax: 530.297.4802												Lat	ab No. <u>57389</u>												Pag	je	of	(
Fax: 530.297.4802 Project Contact (Hardcopy or PDF To): California EDF Report? Company / Address: Sampling Company Log Code: KDM Fax #: 9/L 4/5 Project #: P.Q. #: Complex Name: Sampler Signature:												Chain-of-Custody Record and Analysis Request																							
Company / Address:		San	Sampling Company Log Code:														Analysis Request													TAT					
Phone #: <i>AUL 1115 1124 BIL 115</i>	IFU	Global ID:													5.0 ppb						0B)			ater)								12 hr			
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Project Name:	 	San	Sampler Signature:												A 8021	0.5 ppb			â	(îe	EDB-EI	A 8260B	(EPA 8:	4.2 Drin	SM)	8015M)						24 hr	For Lab Use Only		
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Project Address: Sam 44 Cewelling San Lorenzo		40 ml VOA					ų.									MTBE (EPA 8260B) per EPA 8021		BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)		Ŝ, Ŝ,			□ 72 hr	Щ	
Sample Designation Date	Time	40 M	Sleeve	Poly	Tedlar		Ρ̈́	НNO ₃	None	H1504		Water	Soil	Air		MTBE	MTBE	BTEX	TPH 0	5 Oxy	7 Oxy	Lead (Volatil	Volati	Volati	трн а	трн а	Total (W.E.T	F			F wk		
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