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Alameda County
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November 3, 2010

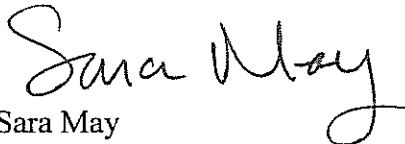
Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Terradev Jefferson LLC Property
645 Fourth Street, Oakland, CA 94607
Fuel Leak Case No. RO0003001
Blue Rock Project No. ASE-1

Dear Mr. Wickham,

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

Sincerely,



Sara May
Director of Operations
Metrovation, LLC, managing agent for
Terradev Jefferson, LLC

Attachment:

Blue Rock Environmental, Inc.'s
Well Installation and Removal Action Report dated October 29, 2010



Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

October 29, 2010

Re: Well Installation and Removal Action Report

Terradev Jefferson LLC Property
645 Fourth Street, Oakland, CA 94607
Fuel Leak Case No. RO0003001
Blue Rock Project No. ASE-1

Dear Mr. Wickham,

This report was prepared by Blue Rock Environmental, Inc. (Blue Rock), on behalf of Terradev Jefferson, LLC, for the site at 645 Fourth Street, Oakland, California (site) (Figure 1). The work presented in this report was proposed in the *Removal Action Workplan* dated February 3, 2010, which was conditionally approved by the Alameda County Health Care Services Agency – Environmental Health Services (ACHCSA) in a letter dated February 19, 2010. The ACHSA granted a due-date extension for this report until October 30, 2010.

Background

Site Description and UST History

The site is located southeast of the intersection of Fourth Street and Martin Luther King Jr. Way in Oakland, California (Figure 1). The site consists of a single story commercial building, bounded closely on the sides and back by other commercial buildings. One single-walled steel underground storage tank (UST) was discovered beneath the sidewalk immediately adjacent to the front of the building during renovation in 2006. The UST is located on the upgradient edge of a developed city block (which prohibits evaluation of subsurface conditions immediately downgradient of the UST – see section below).

In their *Tank Closure Report* dated September 21, 2006, Golden Gate Tank Removal, Inc. (GGT) reported that the UST contained gasoline with an approximate holding capacity of 1,000-gallons, measuring approximately 10 feet in length and 4 feet in diameter. The bottom of the UST was estimated to be located 7.5 to 8 feet below ground surface (ft bgs). The fill port was reported to be located at the west end of the tank.

GGT abandoned the UST in place by triple washing followed by filling to capacity with concrete slurry because of structural considerations due to the proximity of the UST to the building foundation. Abandonment was performed with the permission and under the oversight of the City of Oakland Fire Prevention Bureau.

Two soil samples were collected from below the UST at a depth of 9 ft bgs during abandonment activities. Both samples contained elevated concentrations of total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX); however, TPH as diesel (TPHd) and the five fuel oxygenates MTBE, TBA, ETBE, DIPE, and TAME were not detected (Table 2). No groundwater was encountered during abandonment activities, though the soil samples collected beneath the tank were reported as “wet”.

Summary of Investigation Activities

Ninyo & Moore Geotechnical and Environmental Sciences Consultants (Ninyo & Moore) completed a limited subsurface investigation in 2009, the findings of which were presented in their *Limited Phase II Environmental Site Assessment* dated July 24, 2009. Two temporary borings (B-1 and B-2) were advanced on each side of the UST by direct push drilling methods to a depth of 20 ft bgs. No soil samples were submitted for laboratory analysis; however, soil samples were screened in the field with a photo-ionization detector (PID) meter. In B-1, PID readings increased with depth to a maximum of 1,422 parts per million (ppm) at 9 ft bgs, and attenuated below that depth. Temporary wells were built in each boring, in which groundwater stabilized at a depth of approximately 9.6 ft bgs and sampled. Concentrations of TPHd, TPHg, BTEX, and MTBE were present in groundwater samples collected from both borings (Table 3), although TPHg levels were an order of magnitude greater than TPHd levels suggesting the former is the primary hydrocarbon range of interest at the site.

Site Conceptual Model

The site conceptual model for the project was initially developed by Amicus in their September 13, 2009 correspondence. The following section presents a summary of the current site conceptual model, which will be modified as new information regarding site conditions is acquired.

The subject site is located in a commercial/industrial neighborhood along the San Francisco Bay-Margin. The site is underlain by sediments characterized as silty and clayey sand with some layers of sandy clay and sand to a depth of 20 ft bgs (the maximum depth previously explored) and groundwater is present in unconfined conditions at a depth of approximately 10 ft bgs. Groundwater flows generally to the southeast, towards the estuary, based on information from nearby sites.

Gasoline range hydrocarbons are present in soil and groundwater proximal to the abandoned UST. Interestingly, the contaminant signature also includes MTBE, a gasoline additive not used abundantly in California until the early/mid 1990s (MTBE became a mandated addition to California gasoline following passage of the Clean Air Act Amendments in 1990). Although it is uncertain when the subject UST was removed from service, it is expected that it was not in service during MTBE's lifespan as a gasoline additive.

The abandoned UST is located beneath the sidewalk along Fourth Street, at the upgradient edge of a city block. The location of densely packed, low ceiling (occupied) buildings prohibits implementation of a traditional environmental investigation (i.e. an array of downgradient borings and wells). The nearest location for the construction of downgradient monitoring wells is the street or sidewalk along Third Street, on the other side of the city block. Review of the results of UST studies at nearby sites (Allen property at 345 Martin Luther King Jr. Way and Markus Hardware at 632-638 Second Street) suggest that a Third Street location for downgradient monitoring points would simply be too far from the expected downgradient edge of the plume to serve any practical purpose. Yet, the results of corrective action at nearby sites can be used to predict aspects of the subject case.

The Allen property, located across Martin Luther King Jr. Way (formerly Grove Street), provides a useful example. Contamination originating from a 10,000-gallon UST at that property extended approximately 75 feet downgradient. According to Allen property reports, a 10,000-gallon UST was used at that property to fuel fleet vehicles prior to its in-place abandonment. Available reports do not describe the installation date, throughput, or contents of the tank; however, the analytes detected in proximal groundwater suggest the tank may have held gasoline. It is notable that the UST at the subject site is much smaller than the Allen UST, and not obviously associated with a business employing a fleet of delivery trucks (implying a possibly lower throughput). Consequently, a conservative approximation of Terradev migratory extent may be the extent of migration of the Allen release (i.e. approximately 75 feet downgradient of the UST). This approximation is clearly far from the Third Street edge of the developed block, which is approximately 235 feet downgradient of the UST. Groundwater beneath this area of Oakland is not presently used for beneficial purposes (consumption or irrigation). Additionally, it is reasonable to assume that the shallowest water-bearing zone in the vicinity of the subject site will plausibly not be used for beneficial consumption for the indeterminate future, if ever (in terms of City habitation). The residual hydrocarbons in groundwater do not, therefore, pose a threat to groundwater quality in a human health context. Residual hydrocarbons in soil and groundwater do, however, likely represent an exposure risk to construction or utility workers, and serve as a source of hydrocarbon vapor in the vadose (water-unsaturated) zone beneath local buildings.

Blue Rock understands that an upgradient property at the corner of Fifth St. and Martin Luther King Jr. Way was formerly used as a gas station, the tanks for which were removed many years ago under Alameda County oversight. Additional data is not currently available to evaluate if the downgradient extent of any impact from that property has encroached onto the subject site.

Recommended Source Area Remediation

Amicus evaluated investigative and remedial options available at the site in the September 13, 2009 correspondence. It was noted that corrective actions would be necessarily constrained by the location of the abandoned UST relative to existing development - i.e. assessment proximally downgradient is prohibited, inadequate space to build a traditional fixed in-situ remediation system, and remedial excavation would undermine the existing building. Yet the persistence of elevated concentrations of gasoline range hydrocarbons in the subsurface merit remedial action. As a result, the use of mobile high-vacuum extraction equipment was recommended as an aggressive approach to reduce the remaining gasoline mass in the vicinity of the UST for which details were proposed in the *Removal Action Workplan* dated February 3, 2010, which was conditionally approved by the ACHCSA in a letter dated February 19, 2010. The plan called for the installation of three wells proximal to the former UST to serve as both extraction and source area monitoring points to be sampled before and after a 5-day high-vacuum dual-phase extraction event.

Well Installation and Soil Sampling Activities

Blue Rock installed three wells at the source area for the dual purpose of remediation and groundwater monitoring (DPE-1 through DPE-3) (Figure 2). Professional experience suggests that a conservative minimum estimate of vacuum influence during vapor extraction is approximately equal to the thickness of the vadose zone, which is approximately 9.5 feet at this site. Therefore, the three wells provide are assumed to provide sufficient overlap of remedial influence, in order to aggressively recover gasoline hydrocarbons from the subsurface.

Blue Rock originally proposed to drill one soil boring along the northern side of Fourth Street, in the parking lane, for the purpose of evaluating if the former gas station located at the corner of Fifth St. and Martin Luther King Jr. Way was a potential source of petroleum impact present in the area of the subject site. However, the presence of two high pressure natural gas lines transecting the area of interest negated completion of that boring during this phase of field work. The need for this boring will be evaluated later.

Prior to drilling, the property owner obtained an Indenture Agreement with the City of Oakland to install the three wells in the sidewalk and Blue Rock obtained an Excavation Permit (attached). Blue Rock also obtained well installation permits from the Alameda County Public Works Agency (attached). The site was marked by Underground Service Alert to identify utilities proximal to proposed drilling location, and a private utility locator was employed to clear exact drilling locations. Blue Rock prepared a site specific Health and Safety Plan, which was reviewed and signed by project workers.

The wells were installed on September 20, 2010. A Blue Rock geologist supervised all drilling and well installation activities. Gregg Drilling & Testing, Inc. (Gregg), a C-57 licensed company, used a drill-rig equipped with both direct-push technology and hollow-stem augers to complete drilling, sampling, and wells installation activities. The first five feet of each hole was cleared with a hand auger. The borings were then continuously to their final depth using direct-push drill-rod lined with four-foot long sample tubes.

A Blue Rock geologist logged soil types in accordance with the Unified Soil Classification System. The upper 6 feet generally consisted of a brown sand (SP-SM), which was underlain by a gray and yellow-brown sandy clay (CL) unit from ~6 – 7 ft bgs and a mottled red-brown and gray clayey sand (SC) from ~7 – 15 ft bgs, the maximum depth explored. Groundwater was later measured at a depth of approximately 9.5 ft bgs (see attached boring logs).

Following soil sampling, Gregg over-drilled each boring with eight-inch diameter hollow-stem augers to install the wells. Wells were built in each boring to the following specifications:

Proposed Well	Casing Diameter (inches)	Slot Size (inches)	Total Depth (feet)	Blank Interval (feet)	Screen Interval (feet)	Filter Pack (feet)	Bentonite Seal (feet)	Neat Cement (feet)
DPE-1	2	0.01	15	0-8	8-15	7-15	5-7	0.5-5
DPE-2	2	0.01	15	0-8	8-15	7-15	5-7	0.5-5
DPE-3	2	0.01	12	0-6	6-10	5-10	4-5	0.5-4

Note: please Table 1 and attached boring logs / well construction diagrams for more detail

A total of eight soil samples, between the depths of approximately 6 and 15 ft bgs, were retained for laboratory analysis. These samples were cut from the four-foot sample tube into segments approximately six-inches long, covered with Teflon lined plastic caps, labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory. The soil samples were analyzed by Kiff Analytical LLC, a DHS-certified laboratory, for TPHg, BTEX, MTBE, TBA, 1,2-DCA, and EDB by EPA Method 8260B and TPHd by EPA Method 8015M.

TPHg was present in all of the samples at concentrations ranging from 1.2 mg/kg (DPE-2-6') to 160,000 mg/kg (DPE-2-11'), and cumulative data suggest that highest concentrations are generally located between the depth interval of approximately 8 to 12 ft bgs (Table 2). TPHd was also detected in all of the samples; however, all but one of the samples was flagged by the laboratory indicating that "Hydrocarbons are lower-boiling than typical Diesel Fuel." Based on this flag and the observation that TPHd was typically one to two orders of magnitude lower than TPHg in the same sample, Blue Rock interprets the TPHd quantified in the soil samples to be primarily longer chain gasoline hydrocarbons that overlap into the diesel range. MTBE was present in the 12' and 15' samples from DPE-1 at concentrations of 0.71 mg/kg and 0.39 mg/kg, respectively. Lead scavengers, 1,2-DCA or EDB, were detected in at least one soil sample from each boring.

The new wells were surveyed and uploaded to GeoTracker per requirements. All downhole sampling equipment was cleaned with an Alconox® wash followed by double rinse in clean tap water. Clean augers were used on each hole. Soil cuttings and sampler rinse water were stored on-site in labeled 55-gallon drums pending disposal. Filter Recycling of Colton, California picked up the drums for off-site disposal on October 5, 2010 (if requested, disposal documentation will be forwarded upon receipt).

High-Vacuum Dual-Phase Extraction (HVDPE) Remedial Event

Blue Rock oversaw CalClean, Inc. (CalClean) of Tustin, California perform a 5-day mobile HVDPE remedial event on newly installed wells DPE-1, DPE-2, and DPE-3 from September 28 to October 3, 2010. HVDPE test equipment, methodology, and test results are summarized below and presented in the attached CalClean report.

The purpose of this mobile event was to maximize gasoline mass recovery at the source location of the abandoned UST. Wells DPE-1, DPE-2, and DPE-3 were used as extraction wells at the start of the event. These wells have screen intervals that extend across documented soil and groundwater impact at the source area.

The HVDPE event was performed in accordance with CalClean's Bay Area Air Quality Management District permit for various locations (Plant No. 12568).

A mobile HVDPE unit was mobilized to the site. The CalClean truck-mounted unit consisted of a 25-horsepower oil sealed liquid-ring pump capable of producing 29 "Hg vacuum, and a thermal oxidizer capable of treating an air flow of approximately 450 ACFM. An onboard electric generator powered the equipment and onboard propane tanks provided supplemental fuel for the thermal oxidizer. A unit intake hose was connected to the test wells through a vacuum cap attached at the wellhead. Extracted water was treated and stored in temporary above-ground storage tanks mobilized to the site. A schematic of HVDPE equipment is presented in Figure 3.

The remedial event occurred over the span of 5 continuous days from September 28 to October 3, 2010. Wells DPE-1, DPE-2, and DPE-3 were used as extraction wells at the start of the event. A stinger hose was lowered into each well through a vacuum tight cap and placed approximately one foot off the bottom of each well. Depth to water at the beginning of the test was approximately 9.5 ft bgs in all three wells. Therefore, the stinger was set at a depth of approximately 14 ft bgs in wells DPE-1 and DPE-2, and approximately 9 ft bgs in DPE-3.

During the event, applied vacuum and field monitoring of hydrocarbon concentrations in process air was monitored at the unit manifold. A total of seven air samples were collected from individual wells and the total combined influent for laboratory analysis. Extracted water was separated by a water knockout, and temporarily stored in two 2,600-gallon capacity storage tanks prior to off-haul.

As the event progressed into day three, it became clear that DPE-1 and DPE-2 were producing significantly higher vapor concentrations than DPE-3, probably because these wells fully intersect the highest TPHg levels in soil that are present from ~8 to 12 ft bgs. Well DPE-3 was shut-off in the middle of day three after its vapor concentrations had fallen to 268 ppmv as measured on the field PID, and the extraction event continued until the end using wells DPE-1 and DPE-2. At the end of the event vapor samples were collected from the two operating wells individually and combined. The results of vapor sample analysis are summarized below:

Well / Sample	TPHg (ppmv) in Vapor	
	Start HVDPE (9/28/10)	End HVDPE (10/3/10)
DPE-1	3,530	598
DPE-2	6,540	888
DPE-3	1,700	NA
Total Inlet	1,660	690

The total average hydrocarbon mass recovered was **174 lbs** (based on 122 lbs calculated from field PID data and 225 lbs calculated from lab data), which equates to an average extraction rate of nearly 35 lbs/day.

A total of approximately 7,950 gallons of water were produced by the HVDPE remedial event. On September 30 and October 4, 2010, the water was transported by Clearwater Environmental Management, Inc. to the Seaport Environmental facility in Redwood City, California for disposal (see attached disposal forms). The average water production rate was approximately 1.1 gpm.

Pre- and Post-Remedial Event Groundwater Quality

On September 22, 2010, the wells were developed and sampled to establish groundwater quality prior to the 5-day remedial event, and the wells were sampled again on October 18, 2010 to document groundwater conditions 15 days following completion of the remedial event.

During each monitoring effort an electronic water level indicator, accurate to within ± 0.01 -ft, was used to measure depth to water in each well. Well DPE-3 was essentially dry each time, as the water column was < 0.5 -ft. All wells were checked for measureable thicknesses, equal to greater than 0.01-ft, of light non-aqueous-phase liquid (LNAPL); however, none was observed. On September 22, 2010, wells DPE-1 and DPE-2 were developed by the removal of water from each well until such time that it is relatively free of sediment, and pH, temperature, and conductivity parameters had stabilized, which occurred after approximately 10 wetted casing volumes. On October 18, 2010, wells DPE-1 and DPE-2 were purged until pH, temperature, and conductivity parameters had stabilized, which occurred after approximately 3 wetted casing volumes. Following recovery of water levels to approximately 80% of their static levels, groundwater samples were collected from DPE-1 and DPE-2 using disposable polyethylene bailers and transferred to laboratory-supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox[®] wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinse water from the September 22, 2010 event were removed by Filter Recycling for off-site disposal on October 5, 2010 (if requested, disposal documentation will be forwarded upon receipt). The purge and rinse water from the October 18, 2010 event was transported to Seaport Environmental in Redwood City, California for disposal (see attached form).

The water samples were analyzed by Kiff Analytical LLC, a DHS-certified laboratory, for TPHg, BTEX, MTBE, TBA, 1,2-DCA, and EDB by EPA Method 8260B and TPHd by EPA Method 8015M. The results are summarized below and in Table 2.

Analytes	DPE-1		DPE-2	
	Before 5-day HVDPE (9/22/10)	After 5-day HVDPE (10/18/10)	Before 5-day HVDPE (9/22/10)	After 5-day HVDPE (10/18/10)
TPHd ($\mu\text{g/L}$)	<4,000	<4,000	<4,000	<5,000
TPHg ($\mu\text{g/L}$)	120,000	97,000	110,000	84,000
Benzene ($\mu\text{g/L}$)	25,000	15,000	21,000	11,000
MTBE ($\mu\text{g/L}$)	320	490	200	77

Discussion of HVDPE Treatment Results and Recommendations

A total of approximately 174 lbs of gasoline range hydrocarbons were recovered during this 5 day event, which equated to an average removal rate of nearly 35 lbs/day. The influent vapor concentrations began to decline over the course of the event indicating that reduction of the in-situ petroleum mass around the extraction point was occurring. Despite this mass reduction, groundwater quality only improved modestly by the end of the test. Additional HVDPE mass removal would likely benefit site conditions by further decreasing dissolved-phase concentrations, which would ultimately strengthen the rationale for case closure in the future.

Prior to selecting the duration of another HVDPE event, Blue Rock recommends completing a groundwater monitoring event in December 2010-January 2011 so that two sets of post-removal event data will be available for evaluation. The results of the groundwater monitoring event will be presented in a brief letter report with specific recommendations regarding the additional HVDPE event based on cumulative site data.

References

Amicus Strategic Environmental Consulting, 2009, letter regarding Terradev Jefferson, LLC Property, 645 Fourth Street, Oakland, September 13.

Blue Rock, 2010, *Removal Action Workplan*, 645 Fourth Street, Oakland, California, February 3.

Ninyo & Moore, 2009, *Limited Phase II Environmental Site Assessment*, 645 Fourth Street, Oakland, California, July 24.

Golden Gate Tank Removal, Inc. 2006, *Tank Closure Report*, 645 Fourth Street, Oakland, California, September 21.

Certification

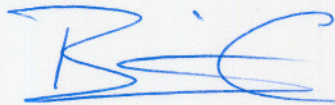
This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

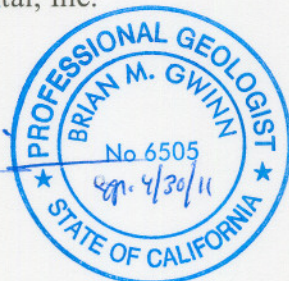
The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (650) 522-9292.

Sincerely,
Blue Rock Environmental, Inc.



Brian Gwinn, PG
Principal Geologist



Attachments:

Figure 1: Site Location Map

Figure 2: Site Plan

Figure 3: High-Vacuum Dual-Phase Extraction Process Schematic

Table 1: Well Construction Data

Table 2: Soil Sample Analytical Data

Table 3: Groundwater Analytical Data

Soil Boring and Well Construction Logs: DPE-1, DPE-2, DPE-3

Blue Rock's Well Gauging and Purging Data Field Sheets

Alameda County Department of Public Works Well Installation Permit

City of Oakland Indenture Agreement

City of Oakland Excavation Permit

City of Oakland Obstruction Permit

Kiff Analytical LLC Laboratory Reports and Chain-of-Custody Forms

CalClean's High Vacuum Dual Phase Extraction Report – October 13, 2010

Seaport Environmental Non-Hazardous Water Transport Forms (9/30/10, 10/4/10, and 10/18/10)

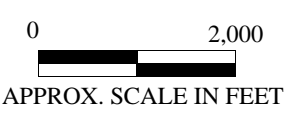
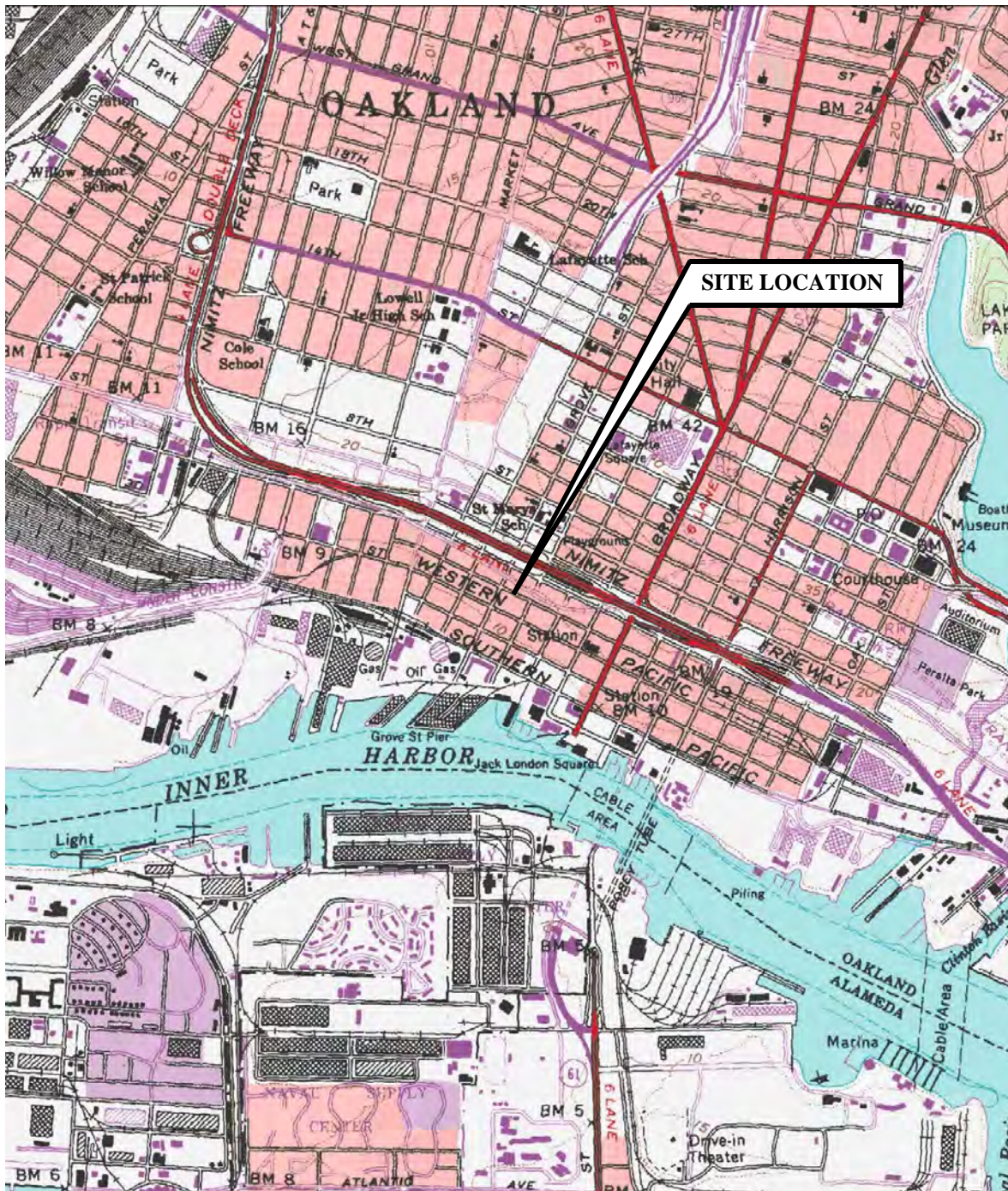
Distribution:

Ms. Sara May, Metrovation

580 Second St. Suite 260, Oakland, CA 94607

Mr. Markus Niebanck, Amicus Strategic Environmental Consulting

580 Second St. Suite 260, Oakland, CA 94607



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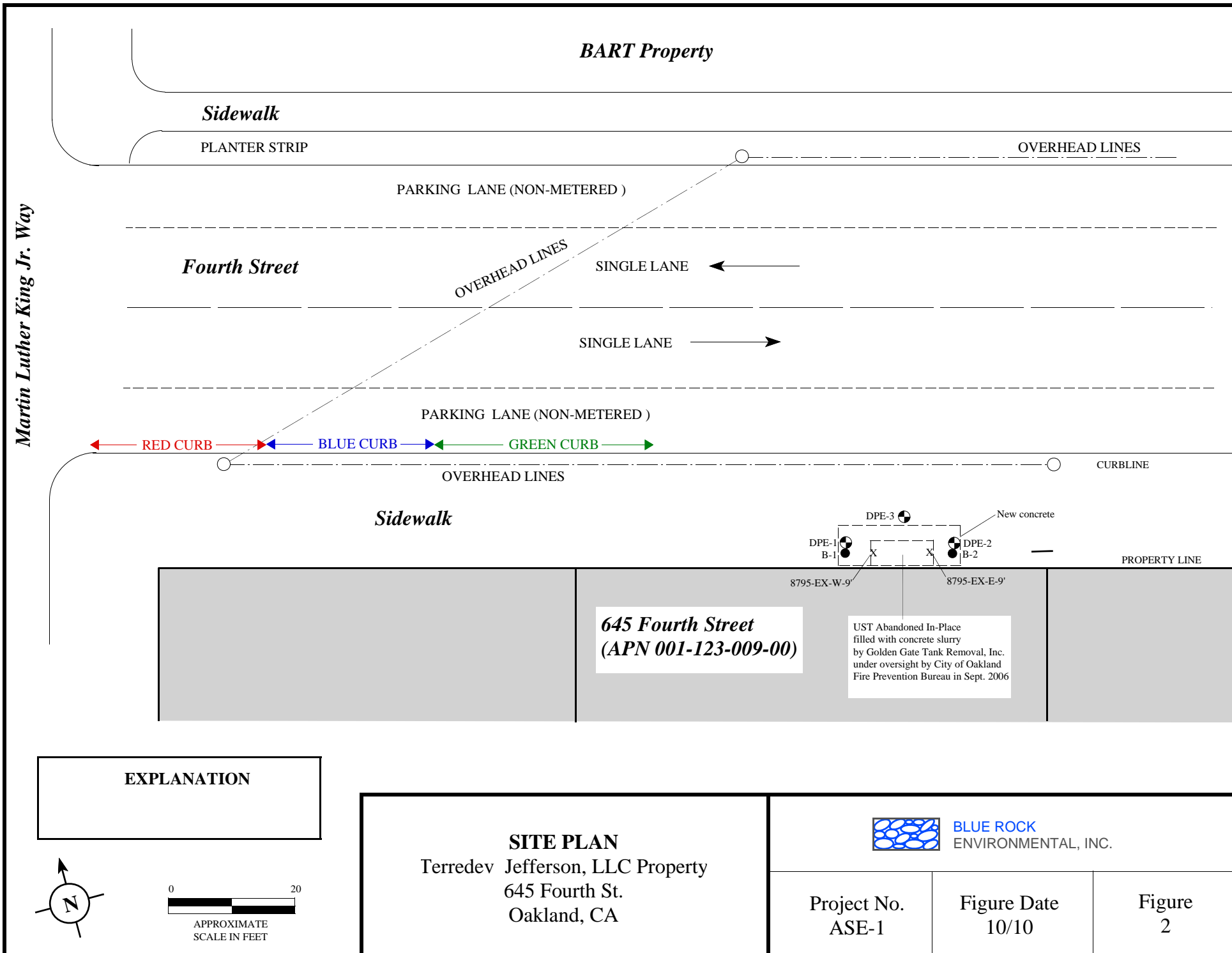
SITE LOCATION MAP
 Terradev Jefferson LLC Property
 645 Fourth St.
 Oakland, CA

 **BLUE ROCK**
 ENVIRONMENTAL, INC.

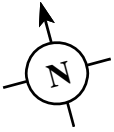
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EXPLANATION



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APPROXIMATE SCALE IN FEET

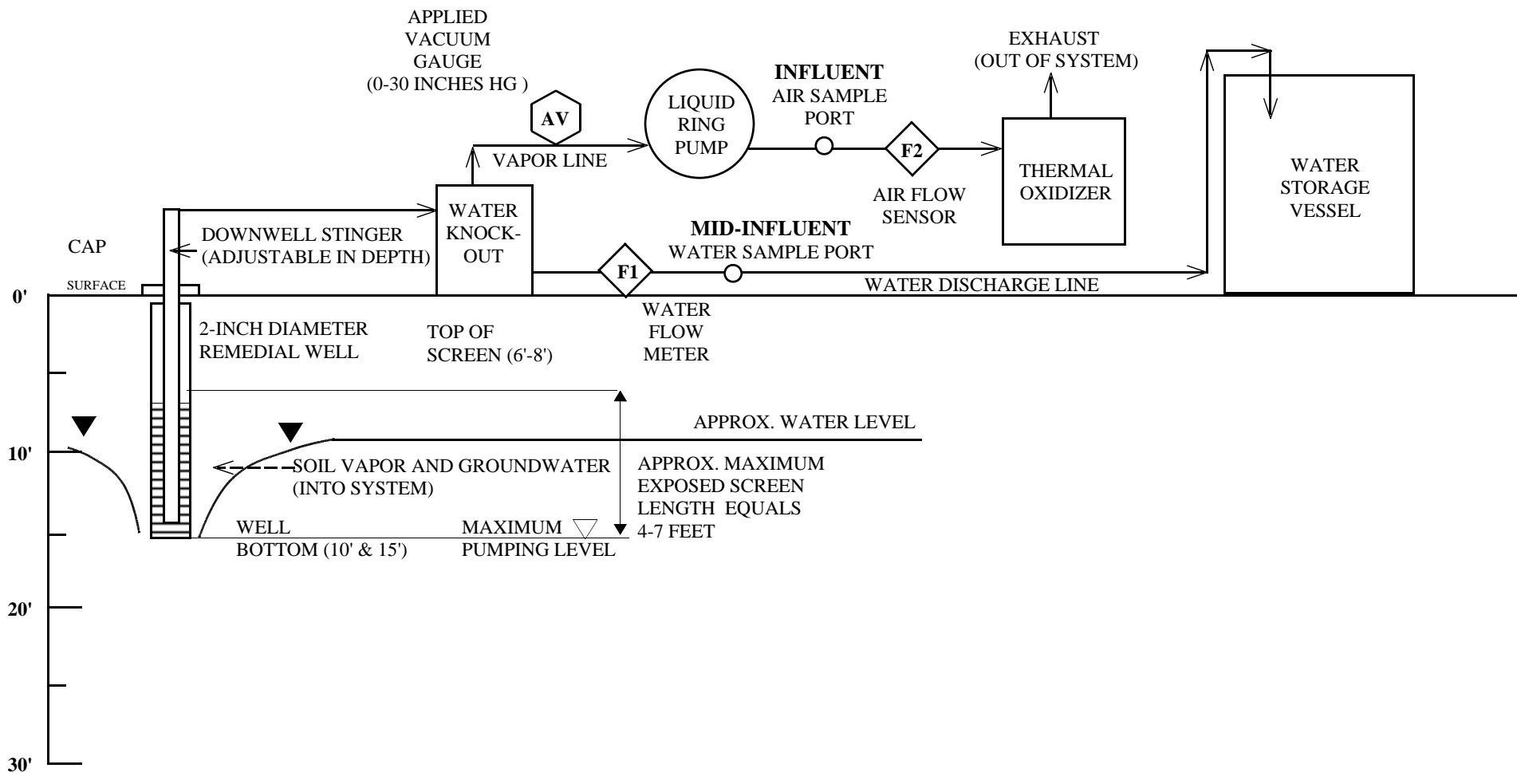
SITE PLAN
Terredev Jefferson, LLC Property
645 Fourth St.
Oakland, CA

 **BLUE ROCK ENVIRONMENTAL, INC.**

Project No.
ASE-1

Figure Date
10/10

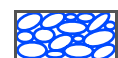
Figure
2



NOT TO SCALE

**HIGH-VACUUM DUAL-PHASE EXTRACTION
PROCESS SCHEMATIC**

Terradev Jefferson LLC Property
465 Fourth Street
Oakland, California



BLUE ROCK ENVIRONMENTAL, INC.

Project No.
ASE-1

Report Date
10/10

Figure
3

TABLE 1
Well Construction Data
 Terradev Jefferson, LLC Property
 645 Fourth Street
 Oakland, CA

Well ID	Date Installed	Total Boring Depth (ft bgs)	Casing Diameter (inches)	Screen Depth (ft bgs)	Sandpack Depth (ft bgs)	Bentonite Depth (ft bgs)	Cement Grout Depth (ft bgs)
DPE-1	9/20/10	15	2	8 - 15	7 - 15	5 - 7	0 - 5
DPE-2	9/20/10	15	2	8 - 15	7 - 15	5 - 7	0 - 5
DPE-3	9/20/10	10	2	6 - 10	5 - 10	3 - 5	0 - 3

Notes:

ft bgs Feet below ground surface.

TABLE 2
Soil Sample Analytical Data
Terradev Jefferson, LLC Property
645 Fourth Street
Oakland, CA

Sample ID	Depth (ft bgs)	Sample Date	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE,		EDB (mg/kg)
											ETBE, (mg/kg)	TAME (mg/kg)	
<i>UST Removal Samples</i>													
8795-EX-W-9'	9	8/23/06	<120	10,000	130	1,000	230	1,200	<12	<100	all<12	---	---
8795-EX-E-9'	9	8/23/06	<25	920	6.8	55	18	110	<1.2	<10	all<1.2	---	---
<i>Investigation Samples</i>													
DPE-1-7.5	7.5	9/20/10	810^	6,500	14	320	180	980	<0.50	<2.5	---	<0.50	0.50
DPE-1-12	12	9/20/10	260^	2,300	26	160	45	240	0.71	<1.5	---	<0.30	<0.30
DPE-1-15	15	9/20/10	92^	770	10	53	15	80	0.39	<0.50	---	0.11	<0.090
DPE-2-6	6	9/20/10	15	1.2	<0.0050	0.0054	<0.0050	0.021	<0.0050	<0.0050	---	<0.0050	<0.0050
DPE-2-11	11	9/20/10	1,200^	160,000	1,400	10,000	3,300	19,000	<0.25	<1.5	---	<0.25	1.8
DPE-2-15	15	9/20/10	66^	430	3.8	25	8.3	47	<0.50	<2.5	---	<0.050	<0.50
DPE-3-7	7	9/20/10	260^	860	2.1	37	19	100	<0.10	<0.50	---	<0.10	<0.10
DPE-3-10	10	9/20/10	800^	8,900	78	580	180	980	<0.25	<1.5	---	<0.25	0.82

Notes:

ft bgs feet below ground surface
mg/kg milligrams per kilogram
TPHd total petroleum hydrocarbons as diesel by EPA Method 8015M or 8015B
TPHg total petroleum hydrocarbons as gasoline by EPA Method 8260B
BTEX benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B
MTBE, TBA, ETBE, methyl tert-butyl ether, tert-butanol, ethyl tert-butyl ether, di-isopropyl ether, tert-amyl methyl ether by EPA Method 8260B,
DIPE, TAME
1,2-DCA, EDB 1,2-dichloroethane, 1,2-dibromoethane by EPA Method 8260B.
µg/L Micrograms per liter.
<### Not detected at or above the indicated reporting limit.
^ Laboratory Flag: Hydrocarbons are lower-boiling than typical Diesel Fuel
--- Data not available, not monitored, or not sampled

TABLE 3
Groundwater Analytical Data
Terradev Jefferson, LLC Property
645 Fourth Street
Oakland, CA

Sample ID	Sample Date	TOC (ft MSL)	DTW (ft)	LNAPL (ft)	GWE (ft MSL)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
<i>Grab Groundwater Samples</i>															
B-1-GW*	7/10/09	--	~10 - 20	--	--	5,300	78,000	15,000	13,000	1,700	10,500	570	--	--	--
B-2-GW*	7/10/09	--	~10 - 20	--	--	2,300	60,000	13,000	13,000	890	4,800	120	--	--	--
<i>Monitoring Well Data</i>															
DPE-1	9/22/10	15.81	9.21	0.00	6.60	<4,000^	120,000	25,000	18,000	3,300	17,000	320	320	620	<40
Screen	9/28-10/3/10	15.81	--	--	--	5-day HVDPE Remedial Event									
~8' - 15'	10/18/10	15.81	9.26	sheen	6.55	<4,000^	97,000	15,000	20,000	1,600	11,000	490	270	390	<40
DPE-2	9/22/10	16.01	9.44	0.00	6.57	<4,000^	110,000	21,000	18,000	3,100	14,000	200	260	540	110
Screen	9/28-10/3/10	16.01	--	--	--	5-day HVDPE Remedial Event									
~8' - 15'	10/18/10	16.01	9.48	sheen	6.53	<5,000^	84,000	11,000	16,000	1,600	9,200	77	<200	220	77
DPE-3	9/22/10	15.87	9.43	0.00	6.44	insufficient water column for sampling (i.e. <0.5-ft)									
Screen	9/28-10/3/10	15.87	--	--	--	5-day HVDPE Remedial Event									
~6' - 10'	10/18/10	15.87	9.35	0.00	6.52	insufficient water column for sampling (i.e. <0.5-ft)									

Notes:

Screen	Well screen depth interval.
TOC	Top of casing relative to feet above mean sea level (ft MSL) (ref NAVD88).
DTW	Depth to water (for borings DTW shows "depth to water" and "depth to bottom of boring")
LNAPL	Light non-aqueous phase liquid petroleum, "sheen" is an immeasurable thickness (i.e. <0.01-ft)
GWE	Groundwater Elevation (TOC-DTW) in ft MSL.
TPHd	Total petroleum hydrocarbons as diesel by EPA Method 8015M, *8015B.
TPHg	Total petroleum hydrocarbons as gasoline by EPA Method 8260B, * 8015B.
BTEX	Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B, * 8021B.
	Note: total xylenes equal the sum of sepearate isomers reported for the 7/09 samples.
MTBE	Methyl tert-butyl ether by EPA Method 8260B, * 8021B.
TBA	Tert-butanol by EPA Method 8260B.
1,2-DCA, EDB	1,2-dichloroethane, 1,2-dibromoethane by EPA Method 8260B.
µg/L	Micrograms per liter.
<###	Not detected at or above the indicated reporting limit.
^	Method detection limit increased due to ineterference from gasoline range hydrocarbons
---	Data not available, not monitored, or not sampled

SOIL BORING AND WELL CONSTRUCTION LOG: DPE-1

BLUE ROCK ENVIRONMENTAL, INC.

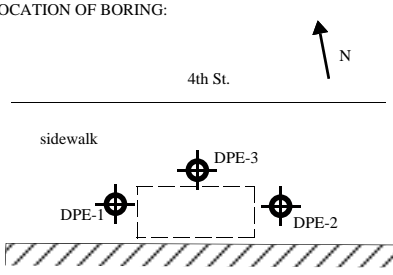
FIELD LOCATION OF BORING:		DRILLING CONTRACTOR:	BORING DIAMETER:	CLIENT/LOCATION:	
		Gregg Drilling &	8 inches	Terradev Jefferson, 645 4th St., Oakland	
		DRILL RIG OPERATOR:	BORING DEPTH:	SCREEN SLOT SIZE:	DRILLING DATE:
		Paul Rogers	15 feet	0.01 inches	9/20/10
		DRILL RIG TYPE:	WELL DEPTH:	WELL MATERIAL:	FILTER PACK:
PowerProbe	15 feet	2-in. PVC	#2/12 Lonestar Sand		
WELL SEAL:	PLANNED USE:	LOGGED BY:			
Neat Cement over hydrated bentonite	Remediation	Brian Gwinn, PG			

WELL CONSTRUCTION DETAIL	WATER LEVEL	DEPTH (FEET)	SAMPLING		OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	SAMPLING METHOD:	MONITORING INST:	APPROVED BY:
			INTERVAL	RECOVERY			Direct-push macro core	Thermo 580B	Brian Gwinn, PG
FIRST ENCOUNTERED WATER DEPTH:							STATIC WATER DEPTH - DATE:		
NA							9.21 feet - 9/21/10		

WELL CONSTRUCTION DETAIL	WATER LEVEL	DEPTH (FEET)	SAMPLING		OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	DESCRIPTION
			INTERVAL	RECOVERY			
		1					Concrete sidewalk.
		2					hand-auger first 5 feet, logged from cuttings.
		3					SAND with Silt (SP-SM); brown; poor to moderately graded; fine-medium sand; ~10% silt; damp; no odor. (Fill?)
		4					
		5					
		6					SAND (SW); gray-brown; moderately to well graded; medium-coarse sand; ~3 fines; moist-wet; faint gasoline odor. (Native begins?)
		7					
		8	▼	▼			Sandy CLAY (CL); gray & yellow-brown; low plasticity; ~40% fine sand; moist; moderate gasoline odor.
		9					
		10					
		11					
		12	▼	▼			Clayey SAND (SC); mottled red-brown & gray; moderately graded; fine-medium sand; moist-wet; strong gasoline odor.
		13					
		14					
		15	▼	▼			
		16					Soil samples collected by direct-push macro core tubes, boring then overdrilled with 8-inch diameter augers with wood plug for well construction.
		17					
		18					Wellbox set flush with concrete in sidewalk within 18-inch diameter core.
		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

SOIL BORING AND WELL CONSTRUCTION LOG: DPE-2

BLUE ROCK ENVIRONMENTAL, INC.

FIELD LOCATION OF BORING: 		DRILLING CONTRACTOR: Gregg Drilling &	BORING DIAMETER: 8 inches	CLIENT/LOCATION: Terradev Jefferson, 645 4th St., Oakland	
		DRILL RIG OPERATOR: Paul Rogers	BORING DEPTH: 15 feet	SCREEN SLOT SIZE: 0.01 inches	DRILLING DATE: 9/20/10
		DRILL RIG TYPE: PowerProbe	WELL DEPTH: 15 feet	WELL MATERIAL: 2-in. PVC	FILTER PACK: #2/12 Lonestar Sand
		WELL SEAL: Neat Cement over hydrated bentonite	PLANNED USE: Remediation	LOGGED BY: Brian Gwinn, PG	

WELL CONSTRUCTION DETAIL	WATER LEVEL	DEPTH (FEET)	SAMPLING		OVM READING (PPM)	GRAPHIC LOG OR USCS CODE	SAMPLING METHOD: Direct-push macro core	MONITORING INST: Thermo 580B	APPROVED BY: Brian Gwinn, PG
			INTERVAL	RECOVERY			FIRST ENCOUNTERED WATER DEPTH: NA	STATIC WATER DEPTH - DATE: 9.44 feet - 9/21/10	

WELL CONSTRUCTION DETAIL	WATER LEVEL	1				GRAPHIC LOG OR USCS CODE	Concrete sidewalk.		
		2					hand-auger first 5 feet, logged from cuttings.		
		3					SAND with Silt (SP-SM); brown; poor to moderately graded; fine-medium sand; ~10% silt; damp; no odor. (Fill?)		
		4							
		5							SAND (SW); gray-brown; moderately to well graded; medium-coarse sand; ~3 fines; moist-wet; faint gasoline odor. (Native begins?)
		6							
		7							
		8							Sandy CLAY (CL); gray & yellow-brown; low plasticity; ~40% fine sand; moist; moderate gasoline odor.
		9							
		10							
		11							
		12							Clayey SAND (SC); mottled red-brown & gray; moderately graded; fine-medium sand; moist-wet; strong gasoline odor.
		13							
		14							
		15							
		16							Soil samples collected by direct-push macro core tubes, boring then overdrilled with 8-inch diameter augers with wood plug for well construction.
		17							
		18							Wellbox set flush with concrete in sidewalk within 18-inch diameter core.
		19							
		20							
		21							
		22							
		23							
		24							
		25							
		26							
		27							
		28							
		29							
		30							

WELL PURGING DATA

SHEET 1 OF 2

Job No.: ASE-1	Location: 645 Fourth St Oakland Ca.	Date: 9/22/10	Tech: SR
----------------	--	---------------	----------

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: Sample for: (circle)
DPE-1	0833	1	67.3	2590	6.74	TPHg TPHd TPHmo
Calc. purge volume 8.9	0834	2	67.2	2532	6.72	BTEX MTBE 8010
	0837	3	67.1	2531	6.71	Other: 2 Pb Scans, MTBE + TBA
	0838	4	67.4	2380	6.72	Sampling Method: Dedicated / Disposable bailer
	0841	5	67.0	2359	6.67	
COMMENTS: color, turbidity, recharge, etc.						Purging Method: PVC bailer / Pump

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: Sample for: (circle)
	0842	6	67.4	2082	6.71	TPHg TPHd TPHmo
Calc. purge volume 9	0845	7	67.0	1817	6.74	BTEX MTBE 8010
	0847	8	67.0	1736	6.76	Other: 2 Pb Scans, TBA
	0851	9	66.8	1594	6.73	Sampling Method: Dedicated / Disposable bailer
COMMENTS: color, turbidity, recharge, etc. Drawn, moderate, poor, odor						

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: Sample for: (circle)
						TPHg TPHd TPHmo
Calc. purge volume						BTEX MTBE 8010
						Other:
						Sampling Method: Dedicated / Disposable bailer
COMMENTS: color, turbidity, recharge, etc.						Purging Method: PVC bailer / Pump

BLUE ROCK ENVIRONMENTAL, INC.

1169 Chess Drive, Foster City, CA 94404 Phone (650) 522-9292 Fax (650) 522-9259

WELL PURGING DATA

SHEET 2 OF 2

Job No.: ASE-1 Location: 645 4th Street Oakland Ca. Date: 9/22/10 Tech: SR

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: Sample for: (circle)
DPE-2	0753	1	66.0	2647	6.77	TPHg TPHd TPHmo
Calc. purge volume 8.9	0757	2	67.4	2587	6.83	BTEX MTBE 8010
	0800	3	67.7	2309	6.76	Other: 2 Pb scans, TBA
	0804	4	67.2	2233	6.76	Sampling Method:
	0806	5	67.2	1919	6.73	Dedicated / Disposable bailer
COMMENTS: color, turbidity, recharge, etc.						Purging Method: PVC bailer / Pump

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: Sample for: (circle)
DPE-2	0808	6	67.3	1681	6.74	TPHg TPHd TPHmo
Calc. purge volume 8.9	0810	7	67.1	1433	6.71	BTEX MTBE 8010
	0811	8	66.8	1380	6.70	Other: 2 Pb scans, TBA
	0813	9	67.0	1421	6.71	Sampling Method:
COMMENTS: color, turbidity, recharge, etc. brown, moderate, fair, odor						Dedicated / Disposable bailer
						Purging Method: PVC bailer / Pump

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: Sample for: (circle)
DPE-3	0824	0.1	65.3	3606	6.67	TPHg TPHd TPHmo
Calc. purge volume						BTEX MTBE 8010
						Other:
						Sampling Method:
COMMENTS: color, turbidity, recharge, etc. brown, high, poor, odor only 1 cup could be purged from well not enough water to sample						Dedicated / Disposable bailer
						Purging Method: PVC bailer / Pump Disposable bailer

BLUE ROCK ENVIRONMENTAL, INC.

1169 Chess Drive, Foster City, CA 94404 Phone (650) 522-9292 Fax (650) 522-9259

WELL PURGING DATA

SHEET 1 OF 1

Job No.: ASE-1	Location: 645 Footh Street Oakland Ca.	Date: 10/18/10	Tech: SR
----------------	---	----------------	----------

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: 0854
DPE-1	0810	0.66	66.8	1342	6.11	Sample for: (circle) <input checked="" type="checkbox"/> TPHg <input checked="" type="checkbox"/> TPHd TPHmo <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE 8010 Other: TPA, 1,2 DCA, EDB
Calc. purge volume 2.65	0813	1.32	67.6	1050	6.73	Sampling Method: Dedicated / Disposable bailer Purging Method: <input checked="" type="checkbox"/> PVC bailer / Pump
	0816	1.98	67.6	1023	6.70	
	0820	2.65	67.2	961	6.69	
COMMENTS: color, turbidity, recharge, etc. tan, moderate, poor, odor, slight sheen						

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time: 0904
DPE-2	0827	0.64	67.3	944	6.77	Sample for: (circle) <input checked="" type="checkbox"/> TPHg <input checked="" type="checkbox"/> TPHd TPHmo <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE 8010 Other: TBA, 1,2 DCA, EDB
Calc. purge volume 2.56	0829	1.28	67.3	952	6.73	Sampling Method: Dedicated / Disposable bailer Purging Method: <input checked="" type="checkbox"/> PVC bailer / Pump
	0830	1.92	67.3	934	6.76	
	0832	2.60	67.2	918	6.74	
COMMENTS: color, turbidity, recharge, etc. tan, moderate, fair, odor, slight sheen						

WELL No.	TIME (24-hr)	VOLUME (gal)	TEMP. (deg. F.)	COND. (µS/cm)	pH	Sample time:
						Sample for: (circle) <input type="checkbox"/> TPHg <input type="checkbox"/> TPHd TPHmo <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE 8010 Other:
Calc. purge volume						Sampling Method: Dedicated / Disposable bailer Purging Method: PVC bailer / Pump
COMMENTS: color, turbidity, recharge, etc.						

BLUE ROCK ENVIRONMENTAL, INC.

1169 Chess Drive, Foster City, CA 94404 Phone (650) 522-9292 Fax (650) 522-9259

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 Approved on: 07/07/2010 By jamesy

Permit Numbers: W2010-0495 to W2010-0496
Permits Valid from 08/02/2010 to 09/30/2010

Application Id: 1278112899251
Site Location: 645 Fourth St., Oakland, CA 94607

City of Project Site:Oakland

Project Start Date: 08/02/2010
Assigned Inspector: Leaking Underground Fuel Tank Project
Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Completion Date:09/30/2010

Applicant: Blue Rock Environmental, Inc. - Brian Gwinn
1169 Chess Drive, Suite C, Foster City, CA 94404
Property Owner: Attn. Tim Low (Permit Supervisor) City of

Phone: 650-522-9292

Phone: --

Client: Oakland
250 Frank H Ogawa Plaza, Oakland, CA 94612
Attn. Sara May Terradev Jefferson LLC
580 Second St., Oakland, CA 94607

Phone: --

	Total Due:	\$530.00
Receipt Number: WR2010-0238	Total Amount Paid:	\$530.00
Payer Name : Brian Gwinn Blue Rock Envntl		PAID IN FULL
Inc		

Works Requesting Permits:

Remediation Well Construction-Extraction - 3 Wells
Driller: Gregg Drilling & Testing, Inc. - Lic #: 485165 - Method: hstem

Work Total: \$265.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0495	07/07/2010	10/31/2010	DPE-1	8.00 in.	2.00 in.	7.00 ft	15.00 ft
W2010-0495	07/07/2010	10/31/2010	DPE-2	8.00 in.	2.00 in.	7.00 ft	15.00 ft
W2010-0495	07/07/2010	10/31/2010	DPE-3	8.00 in.	2.00 in.	5.00 ft	10.00 ft

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.

2. Permittee, 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. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or 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

Alameda County Public Works Agency - Water Resources Well Permit

number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
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. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).
7. Minimum surface seal thickness is two inches of cement grout placed by tremie
8. 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.
9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a 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.

Borehole(s) for Investigation-Environmental/Monitorinig Study - 1 Boreholes

Driller: Gregg Drilling & Testing, Inc. - Lic #: 485165 - Method: hstem

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0496	07/07/2010	10/31/2010	1	8.00 in.	20.00 ft

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. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
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. 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

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

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a 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.

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.

NO FEE DOCUMENT PURSUANT
TO GOVERNMENT CODE SECTION 6103

recording requested by:

CITY OF OAKLAND

when recorded mail to:

City of Oakland
CEDA - Building Services
Dalziel Administration Building
250 Ogawa Plaza - 2nd Floor
Oakland, CA 94612
Attn: City Engineer

----- space above for Recorder's use only -----

INDENTURE AGREEMENT

Address 645 4th Street

permit no. ENMI 10220

parcel no. 001 -0123-009-00

authorities Municipal Code Section 12.08.080

description Allow three monitoring wells in sidewalk area adjacent to 4th Street near M. L. King Jr. Way and subsurface tank abandoned in place below sidewalk along 4th Street.

RECITAL

The owner subscribed below of fee simple interest in the property referenced above and described in Exhibit B attached hereto, is hereby granted, for an indeterminate period of time, the revocable permit referenced above allowing the temporary encroachment described above and delineated in Exhibit C, attached hereto, and limiting the use, exercise, and operation of the encroachment with the requirements and restrictions set forth in Exhibit A, attached hereto, and the associated permit. The owner agrees by and between themselves to be bound by the general and special conditions in Exhibit A and to comply with these conditions faithfully and fully at all times. The conditions of this agreement and associated permit shall equally bind all agents, heirs, successors, and assigns of the owner.

ACKNOWLEDGEMENT OF PROPERTY OWNER

(Notarization of signature required)

TERRADEV JEFFERSON, LLC

Signature 

Date 8-27-10

Print Name SARA MAY

Title DIR. OF OPERATIONS

ATTACHMENTS

Exhibit A - Conditions of encroachment

Exhibit C - Limits of encroachment

Exhibit B - Description of privately owned parcel

CITY OF OAKLAND
a municipal corporation

WALTER S. COHEN
Director

by 

RAYMOND M. DERANIA
City Engineer

Community and Economic Development Agency

date _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Alameda }

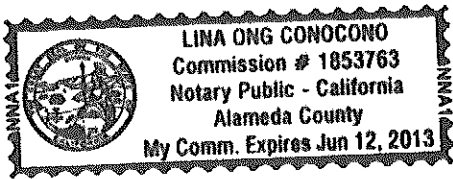
On August 27, 2010 before me, LINA CONOCONO, NOTARY PUBLIC
Date Here Insert Name and Title of the Officer

personally appeared SARA MAY
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Place Notary Seal Above

Signature Lina Ong Conocono
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Indemnity Agreement Linsader System, LLC
 Document Date: 8/27/10 Number of Pages: 8

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: SARA MAY
 Individual
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Attorney in Fact
 Trustee
 Guardian or Conservator
 Other: _____



Signer Is Representing: Linsader System, LLC

Signer's Name: _____
 Individual
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Attorney in Fact
 Trustee
 Guardian or Conservator
 Other: _____



Signer Is Representing: _____

EXHIBIT A

Conditions For An Encroachment In The Public Right-Of-Way

address 645 4th Street

parcel no. 001 -0123-009-00

permittee TERRADEV JEFFERSON, LLC

permit no. ENMI 10220

• **General conditions of the encroachment**

1. This agreement may be voided and the associated permit for an encroachment may be revoked at any time and for any reason, at the sole discretion of the City Administrator or his or her designee, or the associated permit may be suspended at any time, at the sole discretion of the City Engineer, upon failure of the permittee to comply fully and continuously with each and all of the general and special conditions set forth herein and in the associated permit.
2. The property owner and permittee hereby disclaim any right, title, or interest in or to any portion of the public right-of-way, including the sidewalk and street, and agree that the encroachment is granted for indeterminate period of time and that the use and occupancy by the permittee of the public right-of-way is temporary and does not constitute an abandonment, whether expressed or implied, by the City of Oakland of any of its rights associated with the statutory and customary purpose and use of and operations in the public right-of-way.
3. The permittee agrees to indemnify and save harmless the City of Oakland, its officers, agents, employees, and volunteers, and each of them, from any suits, claims, or actions brought by any person or persons, corporations, or other entities for on account of any bodily injury, disease, or illness, including death, damage to property, real or personal, or damages of any nature, however caused, and regardless of responsibility for negligence, arising in any manner out of the construction of or installation of a private improvement itself or sustained as result of its construction or installation or resulting from the permittees' failure to maintain, repair, remove and/or reconstruct the private improvement.
4. The permittee shall maintain fully in force and effect at all times that the encroachment occupies the public right-of-way good and sufficient public liability insurance in a face amount not less than \$300,000.00 for each occurrence, and property damage insurance in a face amount not less than \$50,000.00 for each occurrence, both including contractual liability, insuring the City of Oakland, its officers, agents, employees, and volunteers against any and all claims arising out of the existence of the encroachment in the public right-of-way, as respects liabilities assume under this permit, and that a certificate of such insurance and subsequent notices of the renewal thereof, shall be filed with the City Engineer of the City of Oakland, and that such certificate shall state that the insurance coverage shall not be canceled or be permitted to lapse without thirty calendar (30) days written notice to the City Engineer. The permittee also agree that the City of Oakland may review the type and amount of insurance required of the permittee annually and may require the permittee to increase the amount of and/or change the type of insurance coverage required.
5. The permittee shall be solely and fully liable and responsible for the repair, replacement, removal, reconstruction, and maintenance of any portion or all of the private improvements constructed or installed in the public right-of-way, whether by the cause, neglect, or negligence of the permittee or others and for the associated costs and expenses necessary to restore or remove the encroachment to the satisfaction of the City Engineer and shall not allow the encroachment to become a blight or a menace or

a hazard to the health and safety of the general public.

6. The permittee acknowledge and agree that the encroachment is out of the ordinary and does not comply with City of Oakland standard installations. The permittee further acknowledge and agree that the City of Oakland and public utility agencies will periodically conduct work in the public right-of-way, including excavation, trenching, and relocation of its facilities, all of which may damage the encroachment. Permittee further acknowledge and agree that the City and public utility agencies take no responsibility for repair or replacement of the encroachment which may be damaged by the City or its contractors or public utility agencies or their contractors. Permittee further acknowledge and agree that upon notification by and to the satisfaction of the City Engineer, permittee shall immediately repair, replace, or remove, at the sole expense of the permittee, all damages to the encroachment that are directly or indirectly attributable to work by the City or its contractors or public utility agencies or their contractors.
7. Permittee shall remain liable for and shall immediately reimburse the City of Oakland for all costs, fee assessments, penalties, and accruing interest associated with the City's notification and subsequent abatement action for required maintenance, repairs, or removal, whether in whole or in part, of the encroachment or of damaged City infrastructure made necessary by the failure, whether direct or indirect, of the permittee to monitor the encroachment effectively and accomplish preventative, remedial, or restorative work expeditiously. The City reserves the unqualified right to collect all monies unpaid through any combination of available statutory remedies, including recordation of Prospective Liens and Priority Liens/ Special Assessments with the Alameda County Recorder, inclusion of non-reimbursed amounts by the Alameda County Assessor with the annual assessment of the general levy, and awards of judgments by a court of competent jurisdiction.
8. Upon revocation of the encroachment permit, permittee shall immediately, completely, and permanently remove the encroachment from the public right-of-way and restore the public right-of-way to its original conditions existing before the construction or installation of the encroachment, to the satisfaction of the City Engineer and all at the sole expense of the permittee.
9. This agreement and the associated permit for an encroachment shall become effective upon filing of this agreement with the Alameda County Recorder for recordation as an encumbrance of the property and its title.

• **Special conditions of the encroachment**

10. That said permittee shall obtain excavation permit(s) prior to construction and separate excavation permit(s) prior to the removal of the monitoring well.
11. That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location of the monitoring well. And the results of all data collected from the monitoring well.
12. That said permittee shall remove the monitoring well and repair any damage to the street area in accordance with City standards two (2) years after construction or as soon as monitoring is complete.
13. That said permittee shall notify the Community & Economic Development Agency, Building Services Division after the monitoring well is removed and the street area restored to initiate the procedure to rescind the minor encroachment permit.
14. That the monitoring well cover installed within the sidewalk area shall have a skid-proof surface.

15. That the monitoring well casing and cover shall be iron and shall meet H-20 load rating. The cover shall be secured with a minimum of two stainless steel bolts. Bolts and cover shall be mounted flush with the surrounding surface. For sidewalk installations, a pre-cast concrete utility box and non-skid cover may be needed in conjunction with the bolted cast iron cover with City approval.
16. That said permittee acknowledges that the City makes no representations or warranties as to the conditions beneath said encroachment. By accepting this revocable permit, permittee agrees that it will use the encroachment area at its own risk, is responsible for the proper coordination of its activities with all other permittee, underground utilities, contractors, or workmen operating, within the encroachment area and for the safety of itself and any of its personnel in connection with its entry under this revocable permit.
17. That said permittee acknowledges that the City is unaware of the existence of any hazardous substances beneath the encroachment area; and permittee hereby waives and fully releases and forever discharges the City and its officers, directors, employees, agents, servants, representatives, assigns and successors from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise out of or in any way connected with the physical condition or required remediation of the excavation area of any law or regulation applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 466 et seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401, 1450), the Hazardous Waste Control Law (California Health and Safety Code Sections 25100 et seq.), the Porter-Cologne Water Quality Control Act (California Health and Safety Code Section 13000 et seq.), the Hazardous Substance Account Act (California Health and Safety Code Sections 253000 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.).
18. That said permittee further acknowledges that it understands and agrees that it hereby expressly waives all rights and benefits which it now has or in the future may have, under and by virtue of the terms of California Civil Code Section 1542, which reads as follows: "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR."
19. That said permittee recognizes that by waiving the provisions of this section, permittee will not be able to make any claims for damages that may exist, and to which, if known, would materially affect its decision to agree to these encroachment terms and conditions, regardless of whether permittee's lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.
20. (a) That said permittee, by the acceptance of this revocable permit, agrees and promises to indemnify, defend, and hold harmless the City of Oakland, its officers, agents, and employees, to the maximum extent permitted by law, from any and all claims, demands, liabilities damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs; collectively referred to as "claims", whether direct or indirect, known or unknown, foreseen or unforeseen, to the extent that such claims were either (1) caused by the permittee, its agents, employees, contractors or representatives, or, (2) in the case of environmental contamination, the claim is a result of environmental contamination that emanates or emanated from 645 4th Street, Oakland, California site, or was otherwise caused by the permittee, its agents, employees, contractors or representatives.

(b) That, if any contamination is discovered below or in the immediate vicinity of the encroachment, and the contaminants found are of the type used, housed, stored, processed or sold on or from 645 4th Street, Oakland, California site, such shall amount to a rebuttable presumption that the contamination below, or in the immediate vicinity of, the encroachment was caused by the permittee, its agents, employees, contractors or representatives.

(c) That said permittee shall comply with all applicable federal, state, county and local laws, rules, and regulations governing the installation, maintenance, operation and abatement of the encroachment.

21. That said Minor Encroachment Permit and Agreement shall take effect when all the conditions hereinabove set forth shall have been complied with to the satisfaction of the City Engineer, and shall become null and void upon the failure of the permittee to comply with all conditions.
22. That said Indenture Agreement alone does not allow work to be done which requires inspection. Permittee to obtain any and all required permits before beginning work.
23. The City, at its sole discretion and at future date not yet determined, may impose additional and continuing fees as prescribed in the Master Fee Schedule for use and occupancy of the public right-of-way.

EXHIBIT B.1

Description Of the Private Property Abutting The Encroachment

address 645 4th Street

parcel no. 001-0123-009-00

deed no. 2000-141336

recorded 5/12/2000

PARCEL ONE:

Lots 4, 5, 6, 7, 8, 9, 10, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and a portion of Lots 3 and 28 in Block 27, as said Lots and Block are shown on Kellersberger's Map of Oakland, on file and of record in the Office of the County Recorder of Alameda County, described as follows:

Beginning at the intersection of the Northeastern line of 3rd Street, with the Northwestern line of Jefferson Street; running thence along said line of Jefferson Street Northeasterly 150 feet; thence parallel with the Southwestern line of 4th Street Northwesterly 75 feet; thence parallel with said line of Jefferson Street Northeasterly 50 feet to the Southwestern line of 4th Street; thence along the last named line Northwesterly 50 feet; thence parallel with said line of Jefferson Street Southwesterly 100 feet; thence parallel with said line of 4th Street Northwesterly 50 feet; thence parallel with said line of Jefferson Street Northeasterly 100 feet to the Southwestern line of 4th Street; thence along the last named line Northwesterly 125 feet to the Southeastern line of Grove Street; thence along the last named line Southwesterly 134 feet, 10 inches; thence parallel with said line of 3rd Street Southeasterly 100 feet; thence parallel with said line of Grove Street Southwesterly 65 feet 2 inches to the Northeastern line of 3rd Street; and thence along the last named line Southeasterly 200 feet to the point of beginning.

PARCEL TWO:

Lot 11 in Block 27, as said Lot and Block are shown on Kellersberger's Map of Oakland, on file and of record in the Office of the County Recorder of Alameda County, described as follows:

Beginning at a point on the Southwestern line of 4th Street distant thereon Southeasterly 125 feet from the Southeastern line of Grove Street; running thence along said line of 4th Street 25 feet; thence parallel with said line of Grove Street Southwesterly 100 feet; thence parallel with said line of 4th Street Northwesterly 25 feet; and thence parallel with said line of Grove Street Northeasterly 100 feet to the point of beginning.

PARCEL THREE:

Portions of Lots 1, 2 and 3 in Block 27, as said Lots and Block are shown on Kellersberger's Map of Oakland, on file in the Office of the County Recorder of Alameda County, described as follows:

Beginning at the point of intersection of the Northeastern line of 3rd Street with the Southeastern line of Grove Street, as said Street are shown on said Map; running thence Southeasterly along said line of 3rd Street 70 feet, 3 inches; thence at right angles Northeasterly 65 feet, 2 inches; thence at right angles Northwesterly 70 feet 3 inches to said Southeastern line of Grove Street; thence Southwesterly along said last named line 65 feet 2 inches to the point of beginning.

A more legible copy is available for viewing at the **Office of the City Engineer**,
City of Oakland, 250 Frank Ogawa Plaza, 2nd floor.

EXHIBIT B.2

Description Of the Private Property Abutting The Encroachment

address 645 4th Street

parcel no. 001-0123-009-00

deed no. 2000-141336

recorded 5/12/2000

PARCEL FOUR:

Lot 12 in Block 27, as said Lot and Block are shown on Kellersberger's Map of Oakland, on file in the Office of the County Recorder of Alameda County, described as follows:

Beginning at a point on the Southwestern line of 4th Street distant thereon 125 feet Northwesternly from the Northwestern line of Jefferson Street; running thence Northwesternly along said line of 4th Street, 25 feet; thence at right angles Southwesterly, 100 feet; thence at right angles Southeasterly 25 feet; thence at right angles Northeasterly 100 feet to the point of beginning.

A.P. No.: 001-0123-009

A more legible copy is available for viewing at the
Office of the City Engineer,
City of Oakland, 250 Frank Ogawa Plaza, 2nd floor.

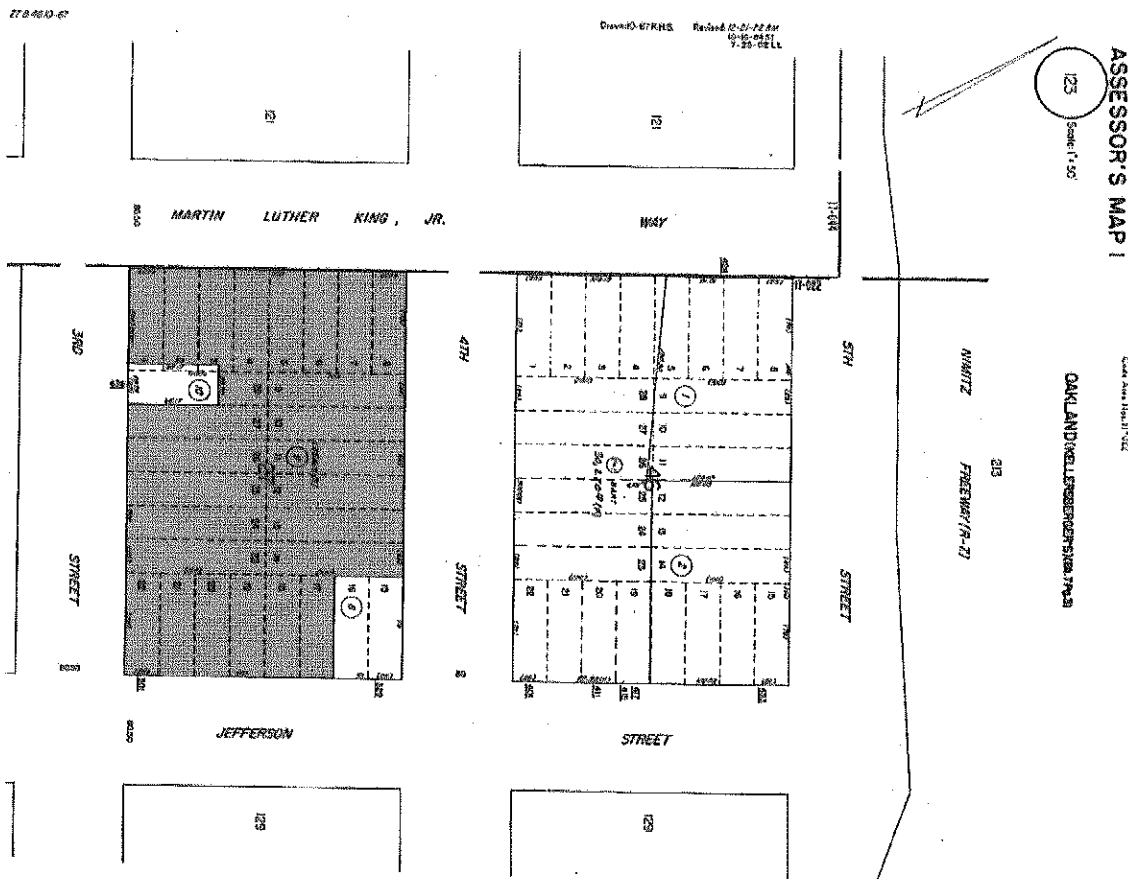
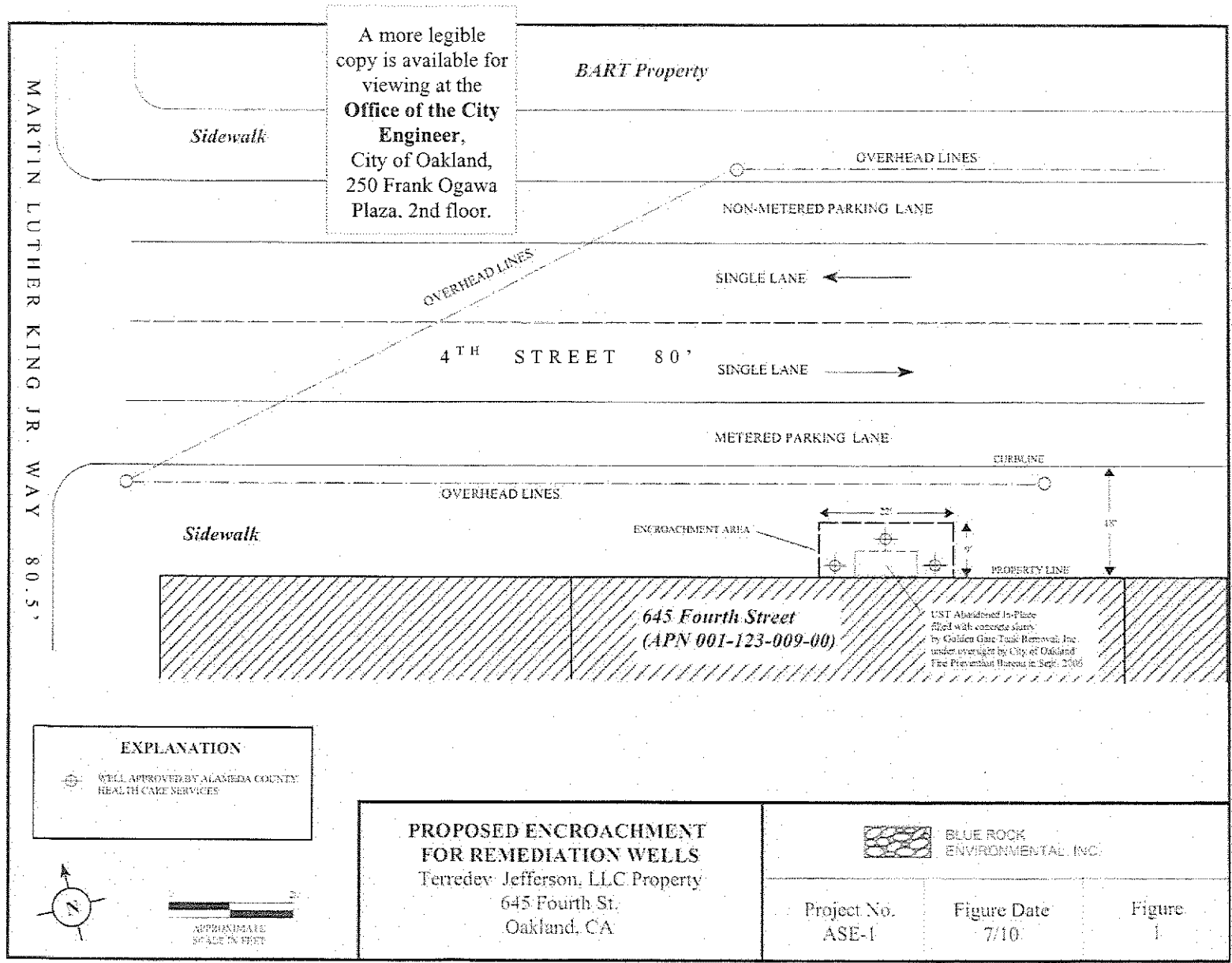


EXHIBIT C

Limits Of The Encroachment In The Public Right-Of-Way

address 645 4th Street

parcel no. 001-0123-009-00



A more legible copy is available for viewing at the Office of the City Engineer, City of Oakland, 250 Frank Ogawa Plaza, 2nd floor.

CITY OF OAKLAND • Community and Economic Development Agency

250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# X1001156

Job Site 645 4TH ST

Parcel# 001 -0123-009-00

Descr Install monitoring well(s). Ref: ENMI10220

Permit Issued 09/01/10

Call PWA INSPECTION prior to start: 510-238-3651.

Allow three monitoring wells in sidewalk

Work Type EXCAVATION-PRIVATE P

*4' floor
left a vacuum 9/9/10
left a vacuum 9/9/10*

USA # 203964

Util Co. Job #

Acctg#:

Util Fund #:

Applicant Phone# Lic# --License Classes--

Owner TERRADEV JEFFERSON LLC (510) 839-4000

Contractor BLUE ROCK ENVIRONMENTAL INC X (650) 522-9292 888734 A

Arch/Engr BRIAN GWINN/ BLUE ROCK (650) 522-9292

Agent

Applic Addr 1169 CHESS DRIVE SUITE C, FOSTER CITY, CA, 94404

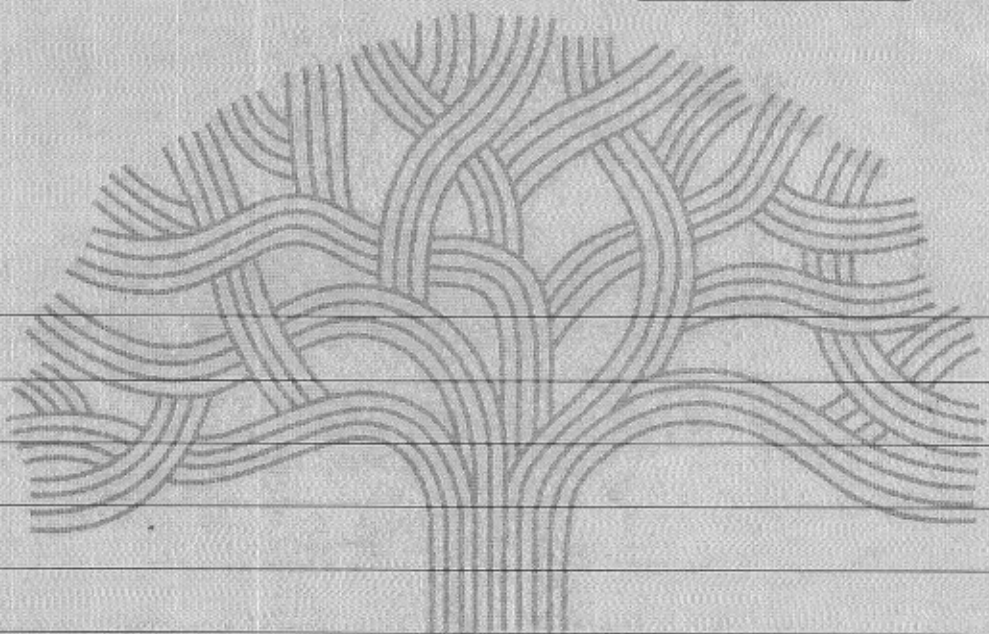
JOB SITE

\$436.05 TOTAL FEES PAID AT ISSUANCE

\$71.00	Applic	\$309.00	Permit
\$.00	Process	\$36.10	Rec Mgmt
\$.00	Gen Plan	\$.00	Invstg
\$.00	Other	\$19.95	Tech Enh

Permit Issued By *[Signature]* Date: 9/1/10

Finald By _____ Date: _____



ADDRESS

DIST.

CITY OF OAKLAND

PAID
9/1/10

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# OB100552 Job Site 645 4TH ST Parcel# 001 -0123-009-00

Reserve parking for construction vehicles. No impact on traffic lane or sidewalk allowed. One space NO FEE per: X1001156. Allow three monitoring wells in sidewalk

Display on Dashboard

ONE SPACE NO FEE: X1001156

Nbr of days: 7
Effective: 09/28/10

Linear feet: 75
Expiration: 10/04/10

SHORT TERM NON-METERED

	Applent	Phone#	Lic#	--License Classes--
Owner	TERRADEV JEFFERSON LLC	(510)839-4000		
Contractor	BLUE ROCK ENVIRONMENTAL INC	X (650)522-9292	888734 A	
Arch/Engr	BRIAN GWINN/ BLUE ROCK	(650)522-9292		
Agent				
Applic Addr	1169 CHESS DRIVE SUITE C, FOSTER CITY, CA, 94404			

\$497.44 TOTAL FEES PAID AT FILING
\$71.00 Applic \$362.50 Permit
\$.00 Process \$41.18 Rec Mgmt.
\$.00 Gen Plan \$.00 Invstg
\$.00 Other \$22.76 Tech Enh

\$.00 TOTAL FEES PAID AT ISSUANCE

JOB SITE

Display on Dashboard

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS
DIST

Applicant: _____

Issued by: _____

CITY OF OAKLAND

Date: 09/23/10 Amt Paid: 497.44
By: DLR Register ROJ Receipt# 150366



Laboratory Results

Brian Gwinn
Blue Rock Environmental, Inc.
1169 Chess Drive Suite C
Foster City, CA 94404

Subject : 8 Soil Samples
Project Name : Terrader Jefferson LLC Property
Project Number : ASE-1
P.O. Number : ASE-1

Dear Mr. Gwinn,

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. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Subject : 8 Soil Samples
Project Name : Terrader Jefferson LLC Property
Project Number : ASE-1
P.O. Number : ASE-1

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples DPE-1-7.5, DPE-1-12, DPE-1-15, DPE-2-6, DPE-2-11, DPE-2-15, DPE-3-7, and DPE-3-10 for the analyte TPH as Diesel were affected by the analyte concentrations already present in the un-spiked sample.

A version of this report was previously issued on 10/01/2010. This revised version replaces that report.



Report Number : 74674

Date : 10/11/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-1-7.5**

Matrix : Soil

Lab Number : 74674-01

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	14	0.50	mg/Kg	EPA 8260B	09/30/10 03:03
Toluene	320	0.50	mg/Kg	EPA 8260B	09/30/10 03:03
Ethylbenzene	180	0.50	mg/Kg	EPA 8260B	09/30/10 03:03
Total Xylenes	980	2.5	mg/Kg	EPA 8260B	09/30/10 21:31
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	mg/Kg	EPA 8260B	09/30/10 03:03
Tert-Butanol	< 2.5	2.5	mg/Kg	EPA 8260B	09/30/10 03:03
TPH as Gasoline	6500	250	mg/Kg	EPA 8260B	09/30/10 21:31
1,2-Dichloroethane	< 0.50	0.50	mg/Kg	EPA 8260B	09/30/10 03:03
1,2-Dibromoethane	0.50	0.50	mg/Kg	EPA 8260B	09/30/10 03:03
1,2-Dichloroethane-d4 (Surr)	98.7		% Recovery	EPA 8260B	09/30/10 03:03
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	09/30/10 03:03
2-Bromochlorobenzene (Surr)	90.0		% Recovery	EPA 8260B	09/30/10 03:03
TPH as Diesel	810	1.0	mg/Kg	M EPA 8015	09/29/10 10:34
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	90.4		% Recovery	M EPA 8015	09/29/10 10:34



Report Number : 74674

Date : 10/11/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-1-12**

Matrix : Soil

Lab Number : 74674-02

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	26	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
Toluene	160	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
Ethylbenzene	45	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
Total Xylenes	240	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
Methyl-t-butyl ether (MTBE)	0.71	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
Tert-Butanol	< 1.5	1.5	mg/Kg	EPA 8260B	09/30/10 12:31
TPH as Gasoline	2300	30	mg/Kg	EPA 8260B	09/30/10 12:31
1,2-Dichloroethane	< 0.30	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
1,2-Dibromoethane	< 0.30	0.30	mg/Kg	EPA 8260B	09/30/10 12:31
1,2-Dichloroethane-d4 (Surr)	94.4		% Recovery	EPA 8260B	09/30/10 12:31
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	09/30/10 12:31
2-Bromochlorobenzene (Surr)	98.8		% Recovery	EPA 8260B	09/30/10 12:31
TPH as Diesel	260	1.0	mg/Kg	M EPA 8015	09/29/10 11:10
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	88.7		% Recovery	M EPA 8015	09/29/10 11:10

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-1-15**

Matrix : Soil

Lab Number : 74674-03

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	10	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
Toluene	53	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
Ethylbenzene	15	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
Total Xylenes	80	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
Methyl-t-butyl ether (MTBE)	0.39	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
Tert-Butanol	< 0.50	0.50	mg/Kg	EPA 8260B	09/30/10 10:46
TPH as Gasoline	770	9.0	mg/Kg	EPA 8260B	09/30/10 10:46
1,2-Dichloroethane	0.11	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
1,2-Dibromoethane	< 0.090	0.090	mg/Kg	EPA 8260B	09/30/10 10:46
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	09/30/10 10:46
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	09/30/10 10:46
2-Bromochlorobenzene (Surr)	99.8		% Recovery	EPA 8260B	09/30/10 10:46
TPH as Diesel	92	1.0	mg/Kg	M EPA 8015	09/29/10 11:46
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	98.8		% Recovery	M EPA 8015	09/29/10 11:46

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-2-6**

Matrix : Soil

Lab Number : 74674-04

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
Toluene	0.0054	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
Total Xylenes	0.021	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
TPH as Gasoline	1.2	1.0	mg/Kg	EPA 8260B	09/29/10 12:01
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/29/10 12:01
1,2-Dichloroethane-d4 (Surr)	107		% Recovery	EPA 8260B	09/29/10 12:01
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/29/10 12:01
TPH as Diesel	15	1.0	mg/Kg	M EPA 8015	09/29/10 09:25
Octacosane (Diesel Surrogate)	95.8		% Recovery	M EPA 8015	09/29/10 09:25

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-2-11**

Matrix : Soil

Lab Number : 74674-05

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	1400	150	mg/Kg	EPA 8260B	09/30/10 14:11
Toluene	10000	250	mg/Kg	EPA 8260B	09/30/10 22:06
Ethylbenzene	3300	150	mg/Kg	EPA 8260B	09/30/10 14:11
Total Xylenes	19000	250	mg/Kg	EPA 8260B	09/30/10 22:06
Methyl-t-butyl ether (MTBE)	< 0.25	0.25	mg/Kg	EPA 8260B	09/29/10 16:38
Tert-Butanol	< 1.5	1.5	mg/Kg	EPA 8260B	09/29/10 16:38
TPH as Gasoline	160000	25000	mg/Kg	EPA 8260B	09/30/10 22:06
1,2-Dichloroethane	< 0.25	0.25	mg/Kg	EPA 8260B	09/29/10 16:38
1,2-Dibromoethane	1.8	0.25	mg/Kg	EPA 8260B	09/29/10 16:38
1,2-Dichloroethane-d4 (Surr)	89.4		% Recovery	EPA 8260B	09/29/10 16:38
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	09/29/10 16:38
2-Bromochlorobenzene (Surr)	91.7		% Recovery	EPA 8260B	09/29/10 16:38
TPH as Diesel	1200	1.0	mg/Kg	M EPA 8015	09/29/10 12:57
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	93.2		% Recovery	M EPA 8015	09/29/10 12:57

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-2-15**

Matrix : Soil

Lab Number : 74674-06

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	3.8	0.050	mg/Kg	EPA 8260B	09/30/10 10:14
Toluene	25	0.050	mg/Kg	EPA 8260B	09/30/10 10:14
Ethylbenzene	8.3	0.050	mg/Kg	EPA 8260B	09/30/10 10:14
Total Xylenes	47	0.050	mg/Kg	EPA 8260B	09/30/10 10:14
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/Kg	EPA 8260B	09/30/10 10:14
Tert-Butanol	< 0.25	0.25	mg/Kg	EPA 8260B	09/30/10 10:14
TPH as Gasoline	430	5.0	mg/Kg	EPA 8260B	09/30/10 10:14
1,2-Dichloroethane	< 0.050	0.050	mg/Kg	EPA 8260B	09/30/10 10:14
1,2-Dibromoethane	< 0.50	0.50	mg/Kg	EPA 8260B	09/29/10 16:04
1,2-Dichloroethane-d4 (Surr)	98.3		% Recovery	EPA 8260B	09/30/10 10:14
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	09/30/10 10:14
2-Bromochlorobenzene (Surr)	96.8		% Recovery	EPA 8260B	09/30/10 10:14
TPH as Diesel	66	1.0	mg/Kg	M EPA 8015	09/29/10 12:21
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	91.6		% Recovery	M EPA 8015	09/29/10 12:21



Report Number : 74674

Date : 10/11/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-3-7**

Matrix : Soil

Lab Number : 74674-07

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	2.1	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
Toluene	37	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
Ethylbenzene	19	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
Total Xylenes	100	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
Tert-Butanol	< 0.50	0.50	mg/Kg	EPA 8260B	09/30/10 11:59
TPH as Gasoline	860	10	mg/Kg	EPA 8260B	09/30/10 11:59
1,2-Dichloroethane	< 0.10	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
1,2-Dibromoethane	< 0.10	0.10	mg/Kg	EPA 8260B	09/30/10 11:59
1,2-Dichloroethane-d4 (Surr)	94.8		% Recovery	EPA 8260B	09/30/10 11:59
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	09/30/10 11:59
2-Bromochlorobenzene (Surr)	103		% Recovery	EPA 8260B	09/30/10 11:59
TPH as Diesel	260	1.0	mg/Kg	M EPA 8015	09/29/10 12:24
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	102		% Recovery	M EPA 8015	09/29/10 12:24



Report Number : 74674

Date : 10/11/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-3-10**

Matrix : Soil

Lab Number : 74674-08

Sample Date :09/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	78	0.25	mg/Kg	EPA 8260B	09/30/10 13:03
Toluene	580	25	mg/Kg	EPA 8260B	10/01/10 04:52
Ethylbenzene	180	0.25	mg/Kg	EPA 8260B	09/30/10 13:03
Total Xylenes	980	25	mg/Kg	EPA 8260B	10/01/10 04:52
Methyl-t-butyl ether (MTBE)	< 0.25	0.25	mg/Kg	EPA 8260B	09/30/10 13:03
Tert-Butanol	< 1.5	1.5	mg/Kg	EPA 8260B	09/30/10 13:03
TPH as Gasoline	8900	2500	mg/Kg	EPA 8260B	10/01/10 04:52
1,2-Dichloroethane	< 0.25	0.25	mg/Kg	EPA 8260B	09/30/10 13:03
1,2-Dibromoethane	0.82	0.050	mg/Kg	EPA 8260B	09/30/10 03:38
1,2-Dichloroethane-d4 (Surr)	95.6		% Recovery	EPA 8260B	09/30/10 13:03
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	10/01/10 04:52
2-Bromochlorobenzene (Surr)	Diluted Out		% Recovery	EPA 8260B	10/01/10 04:52
TPH as Diesel	800	1.0	mg/Kg	M EPA 8015	09/29/10 11:47
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	106		% Recovery	M EPA 8015	09/29/10 11:47

QC Report : Method Blank Data

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	09/29/2010
Octacosane (Diesel Surrogate)	71.4		%	M EPA 8015	09/29/2010
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	09/27/2010
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/27/2010
1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	09/27/2010
Toluene - d8 (Surr)	99.9		%	EPA 8260B	09/27/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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QC Report : Matrix Spike/ Matrix Spike DuplicateProject Name : **Terrader Jefferson LLC Property**Project Number : **ASE-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	74674-04	15	20.0	19.7	39.1	29.2	mg/Kg	M EPA 8015	9/29/10	121	72.4	50.2	60-140	25
1,2-Dibromoethane	74557-04	<0.0050	0.0398	0.0398	0.0340	0.0350	mg/Kg	EPA 8260B	9/27/10	85.6	88.2	2.95	67.2-121	25
1,2-Dichloroethane	74557-04	<0.0050	0.0398	0.0398	0.0380	0.0386	mg/Kg	EPA 8260B	9/27/10	95.6	97.1	1.57	64.0-124	25
Benzene	74557-04	<0.0050	0.0398	0.0398	0.0326	0.0332	mg/Kg	EPA 8260B	9/27/10	82.1	83.5	1.76	67.9-120	25
Ethylbenzene	74557-04	<0.0050	0.0398	0.0398	0.0275	0.0271	mg/Kg	EPA 8260B	9/27/10	69.1	68.1	1.47	65.5-127	25
Methyl-t-butyl ether	74557-04	<0.0050	0.0398	0.0398	0.0432	0.0355	mg/Kg	EPA 8260B	9/27/10	108	89.3	19.5	57.0-122	25
O-Xylene	74557-04	<0.0050	0.0398	0.0398	0.0270	0.0271	mg/Kg	EPA 8260B	9/27/10	67.8	68.1	0.398	62.3-124	25
P + M Xylene	74557-04	<0.0050	0.0398	0.0398	0.0256	0.0252	mg/Kg	EPA 8260B	9/27/10	64.3	63.3	1.51	62.5-124	25
Tert-Butanol	74557-04	<0.0050	0.199	0.199	0.172	0.180	mg/Kg	EPA 8260B	9/27/10	86.6	90.3	4.14	64.3-122	25

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene	74557-04	<0.0050	0.0398	0.0398	0.0305	0.0307	mg/Kg	EPA 8260B	9/27/10	76.8	77.3	0.569	65.7-120	25

QC Report : Laboratory Control Sample (LCS)Project Name : **Terrader Jefferson LLC Property**Project Number : **ASE-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	9/29/10	87.1	70-130
1,2-Dibromoethane	0.0398	mg/Kg	EPA 8260B	9/27/10	103	67.2-121
1,2-Dichloroethane	0.0398	mg/Kg	EPA 8260B	9/27/10	106	64.0-124
Benzene	0.0398	mg/Kg	EPA 8260B	9/27/10	96.6	67.9-120
Ethylbenzene	0.0398	mg/Kg	EPA 8260B	9/27/10	102	65.5-127
Methyl-t-butyl ether	0.0398	mg/Kg	EPA 8260B	9/27/10	94.9	57.0-122
O-Xylene	0.0398	mg/Kg	EPA 8260B	9/27/10	100	62.3-124
P + M Xylene	0.0398	mg/Kg	EPA 8260B	9/27/10	97.8	62.5-124
Tert-Butanol	0.199	mg/Kg	EPA 8260B	9/27/10	93.8	64.3-122
Toluene	0.0398	mg/Kg	EPA 8260B	9/27/10	98.6	65.7-120



Laboratory Results

Brian Gwinn
Blue Rock Environmental, Inc.
1169 Chess Drive Suite C
Foster City, CA 94404

Subject : 2 Water Samples
Project Name : Terrader Jefferson LLC Property
Project Number : ASE-1

Dear Mr. Gwinn,

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. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff



Report Number : 74676

Date : 09/30/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-1**

Matrix : Water

Lab Number : 74676-01

Sample Date :09/22/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	25000	40	ug/L	EPA 8260B	09/30/10 15:22
Toluene	18000	40	ug/L	EPA 8260B	09/30/10 15:22
Ethylbenzene	3300	40	ug/L	EPA 8260B	09/30/10 15:22
Total Xylenes	17000	40	ug/L	EPA 8260B	09/30/10 15:22
Methyl-t-butyl ether (MTBE)	320	40	ug/L	EPA 8260B	09/30/10 15:22
Tert-Butanol	320	200	ug/L	EPA 8260B	09/30/10 15:22
TPH as Gasoline	120000	4000	ug/L	EPA 8260B	09/30/10 15:22
1,2-Dichloroethane	620	40	ug/L	EPA 8260B	09/30/10 15:22
1,2-Dibromoethane	< 40	40	ug/L	EPA 8260B	09/30/10 15:22
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/30/10 15:22
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/30/10 15:22
TPH as Diesel (Note: MRL increased due to interference from Gasoline-range hydrocarbons.)	< 4000	4000	ug/L	M EPA 8015	09/27/10 10:39
Octacosane (Diesel Surrogate)	99.9		% Recovery	M EPA 8015	09/27/10 10:39



Report Number : 74676

Date : 09/30/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-2**

Matrix : Water

Lab Number : 74676-02

Sample Date :09/22/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	21000	40	ug/L	EPA 8260B	09/30/10 14:44
Toluene	18000	40	ug/L	EPA 8260B	09/30/10 14:44
Ethylbenzene	3100	40	ug/L	EPA 8260B	09/30/10 14:44
Total Xylenes	14000	40	ug/L	EPA 8260B	09/30/10 14:44
Methyl-t-butyl ether (MTBE)	200	40	ug/L	EPA 8260B	09/30/10 14:44
Tert-Butanol	260	200	ug/L	EPA 8260B	09/30/10 14:44
TPH as Gasoline	110000	4000	ug/L	EPA 8260B	09/30/10 14:44
1,2-Dichloroethane	540	40	ug/L	EPA 8260B	09/30/10 14:44
1,2-Dibromoethane	110	40	ug/L	EPA 8260B	09/30/10 14:44
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	09/30/10 14:44
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/30/10 14:44
TPH as Diesel (Note: MRL increased due to interference from Gasoline-range hydrocarbons.)	< 4000	4000	ug/L	M EPA 8015	09/27/10 11:14
Octacosane (Diesel Surrogate)	99.9		% Recovery	M EPA 8015	09/27/10 11:14

QC Report : Method Blank Data

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	09/27/2010
Octacosane (Diesel Surrogate)	97.8		%	M EPA 8015	09/27/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/29/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/29/2010
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	09/29/2010
1,2-Dichloroethane-d4 (Surr)	98.0		%	EPA 8260B	09/29/2010
Toluene - d8 (Surr)	98.1		%	EPA 8260B	09/29/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Terrader Jefferson LLC Property

Project Number : ASE-1

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	BLANK	<50	1000	1000	1030	1030	ug/L	M EPA 8015	9/27/10	103	103	0.458	70-130	25
1,2-Dibromoethane	74702-16	<0.50	39.5	40.0	37.3	36.7	ug/L	EPA 8260B	9/30/10	94.5	91.7	2.97	80-120	25
1,2-Dichloroethane	74702-16	<0.50	39.5	40.0	39.3	39.0	ug/L	EPA 8260B	9/30/10	99.4	97.6	1.83	75.7-122	25
Benzene	74702-16	<0.50	39.5	40.0	34.7	36.0	ug/L	EPA 8260B	9/30/10	87.9	89.9	2.24	80-120	25
Ethylbenzene	74702-16	<0.50	39.5	40.0	40.0	41.8	ug/L	EPA 8260B	9/30/10	101	105	3.42	80-120	25
Methyl-t-butyl ether	74702-16	<0.50	39.5	40.0	34.3	34.4	ug/L	EPA 8260B	9/30/10	86.8	86.1	0.825	69.7-121	25
O-Xylene	74702-16	<0.50	39.5	40.0	38.9	40.6	ug/L	EPA 8260B	9/30/10	98.5	101	2.99	79.7-120	25
P + M Xylene	74702-16	<0.50	39.5	40.0	37.8	39.6	ug/L	EPA 8260B	9/30/10	95.6	99.0	3.48	76.8-120	25
Tert-Butanol	74702-16	<5.0	198	200	191	191	ug/L	EPA 8260B	9/30/10	96.6	95.6	1.11	80-120	25

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene	74702-16	<0.50	39.5	40.0	35.4	36.7	ug/L	EPA 8260B	9/30/10	89.6	91.8	2.45	80-120	25

QC Report : Laboratory Control Sample (LCS)Project Name : **Terrader Jefferson LLC Property**Project Number : **ASE-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
1,2-Dibromoethane	40.0	ug/L	EPA 8260B	9/30/10	89.9	80-120
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	9/30/10	97.8	75.7-122
Benzene	40.0	ug/L	EPA 8260B	9/30/10	88.0	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	9/30/10	104	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	9/30/10	85.2	69.7-121
O-Xylene	40.0	ug/L	EPA 8260B	9/30/10	99.8	79.7-120
P + M Xylene	40.0	ug/L	EPA 8260B	9/30/10	98.4	76.8-120
Tert-Butanol	200	ug/L	EPA 8260B	9/30/10	93.5	80-120
Toluene	40.0	ug/L	EPA 8260B	9/30/10	90.3	80-120



2795 2nd Street, Suite 300
 Davis, CA 95618
 Lab: 530.297.4800
 Fax: 530.297.4802

SRG # / Lab No. 74676

Page 1 of 1

Project Contact (Hardcopy or PDF To): Brian Swinn
 Company / Address: Blue Rock Env. Inc. 1169 Chess Dr. #C, Foster City, CA
 Phone Number: 650-522-9292
 Fax Number: 650-522-9259
 Project #: ASE-1 P.O. #:
 Project Name: Terrader Jefferson LLC Property
 California EDF Report? Yes No
 Sampling Company Log Code: BRSF
 Global ID: T10000001072
 EDF Deliverable To (Email Address): brian@biverockenv.com
 Bill to: Blue Rock / Foster City, CA
 Sampler Print Name: Brian Swinn
 Sampler Signature: [Signature]

Chain-of-Custody Record and Analysis Request

Sample Designation	Sampling		Container				Preservative			Matrix			MTBE @ 0.5 ppb (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B)	7 Oxygenates (5 oxy + EIOH, MeOH) (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)	PLEASE CIRCLE METHOD				TAT		
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO ₃	None	Water	Soil												Air	CAM 17 Metals (EPA 200.7 / 6010)	5 Waste Oil Metals (Cd,Cr,Ni,Pb,Zn) (EPA 200.7 / 6010)	Mercury (EPA 245.1 / 7470 / 7471)		Total Lead (EPA 200.7 / 6010)	W.E.T. Lead (STLC)
DPE-1	9/22/10	0927	XL					X			X			X	X														X	01
DPE-2	9/22/10	0916	XL					X			X			X	X													X		02

Analysis Request												PLEASE CIRCLE METHOD				TAT
12 hr	24 hr	48 hr	72 hr	1 wk	For Lab Use Only											
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

Relinquished by: [Signature] Date: 9/23/10 Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: 092410 Time: 1100 Received by Laboratory: Roz McSee KIFF Analytical

Remarks: * If TPHd is detected, please perform silica-gel clean-up on the sample and rerun. Please report both results. *

For Lab Use Only: Sample Receipt					
Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Page 8 of 9



Laboratory Results

Brian Gwinn
Blue Rock Environmental, Inc.
1169 Chess Drive Suite C
Foster City, CA 94404

Subject : 2 Water Samples
Project Name : Terrader Jefferson LLC Property
Project Number : ASE-1

Dear Mr. Gwinn,

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. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Subject : 2 Water Samples
Project Name : Terrader Jefferson LLC Property
Project Number : ASE-1

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples DPE-1 and DPE-2 for the analyte 1,2-Dichloroethane 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 DPE-1 and DPE-2 for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.



Report Number : 75025

Date : 10/26/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-1**

Matrix : Water

Lab Number : 75025-01

Sample Date :10/18/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	15000	40	ug/L	EPA 8260B	10/22/10 01:35
Toluene	20000	40	ug/L	EPA 8260B	10/22/10 01:35
Ethylbenzene	1600	40	ug/L	EPA 8260B	10/22/10 01:35
Total Xylenes	11000	40	ug/L	EPA 8260B	10/22/10 01:35
Methyl-t-butyl ether (MTBE)	490	40	ug/L	EPA 8260B	10/22/10 01:35
Tert-Butanol	270	200	ug/L	EPA 8260B	10/22/10 01:35
TPH as Gasoline	97000	4000	ug/L	EPA 8260B	10/22/10 01:35
1,2-Dichloroethane	390	40	ug/L	EPA 8260B	10/22/10 01:35
1,2-Dibromoethane	< 40	40	ug/L	EPA 8260B	10/22/10 01:35
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	10/22/10 01:35
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/22/10 01:35
TPH as Diesel (Note: MRL increased due to interference from Gasoline-range hydrocarbons.)	< 4000	4000	ug/L	M EPA 8015	10/21/10 22:49
Octacosane (Diesel Surrogate)	103		% Recovery	M EPA 8015	10/21/10 22:49



Report Number : 75025

Date : 10/26/2010

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Sample : **DPE-2**

Matrix : Water

Lab Number : 75025-02

Sample Date :10/18/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	11000	40	ug/L	EPA 8260B	10/22/10 01:00
Toluene	16000	40	ug/L	EPA 8260B	10/22/10 01:00
Ethylbenzene	1600	40	ug/L	EPA 8260B	10/22/10 01:00
Total Xylenes	9200	40	ug/L	EPA 8260B	10/22/10 01:00
Methyl-t-butyl ether (MTBE)	77	40	ug/L	EPA 8260B	10/22/10 01:00
Tert-Butanol	< 200	200	ug/L	EPA 8260B	10/22/10 01:00
TPH as Gasoline	84000	4000	ug/L	EPA 8260B	10/22/10 01:00
1,2-Dichloroethane	220	40	ug/L	EPA 8260B	10/22/10 01:00
1,2-Dibromoethane	77	40	ug/L	EPA 8260B	10/22/10 01:00
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	10/22/10 01:00
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/22/10 01:00
TPH as Diesel (Note: MRL increased due to interference from Gasoline-range hydrocarbons.)	< 5000	5000	ug/L	M EPA 8015	10/21/10 23:24
Octacosane (Diesel Surrogate)	103		% Recovery	M EPA 8015	10/21/10 23:24

QC Report : Method Blank Data

Project Name : **Terrader Jefferson LLC Property**

Project Number : **ASE-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	10/21/2010
Octacosane (Diesel Surrogate)	97.1		%	M EPA 8015	10/21/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/21/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/21/2010
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/21/2010
1,2-Dichloroethane-d4 (Surr)	97.5		%	EPA 8260B	10/21/2010
Toluene - d8 (Surr)	99.1		%	EPA 8260B	10/21/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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QC Report : Matrix Spike/ Matrix Spike DuplicateProject Name : **Terrader Jefferson LLC**Project Number : **ASE-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	BLANK	<50	1000	1000	952	954	ug/L	M EPA 8015	10/21/10	95.2	95.4	0.302	70-130	25
1,2-Dibromoethane	75046-08	<0.50	39.6	39.1	38.6	36.8	ug/L	EPA 8260B	10/21/10	97.5	94.1	3.46	80-120	25
1,2-Dichloroethane	75046-08	5.2	39.6	39.1	35.3	34.0	ug/L	EPA 8260B	10/21/10	76.1	73.7	3.15	75.7-122	25
Benzene	75046-08	220	39.6	39.1	237	253	ug/L	EPA 8260B	10/21/10	48.8	91.6	60.9	80-120	25
Ethylbenzene	75046-08	8.4	39.6	39.1	45.7	45.8	ug/L	EPA 8260B	10/21/10	94.2	95.7	1.62	80-120	25
Methyl-t-butyl ether	75046-08	15	39.6	39.0	54.3	53.0	ug/L	EPA 8260B	10/21/10	100	98.2	1.80	69.7-121	25
P + M Xylene	75046-08	7.9	39.6	39.1	44.4	44.5	ug/L	EPA 8260B	10/21/10	92.0	93.5	1.68	76.8-120	25
Tert-Butanol	75046-08	63	198	195	243	244	ug/L	EPA 8260B	10/21/10	90.6	92.5	2.10	80-120	25
Toluene	75046-08	7.6	39.6	39.1	43.4	43.1	ug/L	EPA 8260B	10/21/10	90.2	90.6	0.523	80-120	25

QC Report : Laboratory Control Sample (LCS)Project Name : **Terrader Jefferson LLC**Project Number : **ASE-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
1,2-Dibromoethane	40.0	ug/L	EPA 8260B	10/21/10	94.0	80-120
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	10/21/10	89.9	75.7-122
Benzene	40.0	ug/L	EPA 8260B	10/21/10	96.2	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	10/21/10	98.7	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	10/21/10	101	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	10/21/10	96.2	76.8-120
Tert-Butanol	200	ug/L	EPA 8260B	10/21/10	91.7	80-120
Toluene	40.0	ug/L	EPA 8260B	10/21/10	96.0	80-120

SAMPLE RECEIPT CHECKLIST

RECEIVER
LJR
Initials

SRG#: 75025 Date: 10/9/10
Project ID: Terrader Jefferson LLC Property
Method of Receipt: Courier Over-the-counter Shipper

COC Inspection

Is COC present? Yes No

Custody seals on shipping container? Intact Broken Not present N/A

Is COC Signed by Relinquisher? Yes No Dated? Yes No

Is sampler name legibly indicated on COC? Yes No

Is analysis or hold requested for all samples? Yes No

Is the turnaround time indicated on COC? Yes No

Is COC free of whiteout and uninitialed cross-outs? Yes No, Whiteout No, Cross-outs

Sample Inspection

Coolant Present: 3.7 Yes No (includes water)

Temperature °C 3.7 Therm. ID# IR-2 Initial LJR Date/Time 10/9/10/1908 N/A

Are there custody seals on sample containers? Intact Broken Not present

Do containers match COC? Yes No No, COC lists absent sample(s) No, Extra sample(s) present

Are there samples matrices other than soil, water, air or carbon? Yes No

Are any sample containers broken, leaking or damaged? Yes No

Are preservatives indicated? Yes, on sample containers Yes, on COC Not indicated N/A

Are preservatives correct for analyses requested? Yes No N/A

Are samples within holding time for analyses requested? Yes No

Are the correct sample containers used for the analyses requested? Yes No

Is there sufficient sample to perform testing? Yes No

Does any sample contain product, have strong odor or are otherwise suspected to be hot? Yes No

Receipt Details

Matrix WA Container type VOA # of containers received 12

Matrix _____ Container type _____ # of containers received _____

Matrix _____ Container type _____ # of containers received _____

Date and Time Sample Put into Temp Storage Date: 10/9/10 Time: 1908

Quicklog

Are the Sample ID's indicated: On COC On sample container(s) On Both Not indicated

If Sample ID's are listed on both COC and containers, do they all match? Yes No N/A

Is the Project ID indicated: On COC On sample container(s) On Both Not indicated

If project ID is listed on both COC and containers, do they all match? Yes No N/A

Are the sample collection dates indicated: On COC On sample container(s) On Both Not indicated

If collection dates are listed on both COC and containers, do they all match? Yes No N/A

Are the sample collection times indicated: On COC On sample container(s) On Both Not indicated

If collection times are listed on both COC and containers, do they all match? Yes No N/A

COMMENTS:

CALCLEAN INC.

"A Partner in Protecting California's Waters"

October 13, 2010

Blue Rock Environmental Inc.
1169 Chess Dr. Suite C
Foster City, CA 94404

ATTN: MR. BRIAN GWINN

SITE: TERRADEV PROPERTY
645 4th STREET
OAKLAND, CALIFORNIA

RE: HIGH VACUUM DUAL PHASE EXTRACTION REPORT

Dear Mr. Gwinn:

CalClean Inc. is submitting this High Vacuum Dual Phase Extraction Report for the above referenced site. This report includes all activities performed during the dates of September 28-October 3, 2010.

From September 28-October 3, 2010, CalClean performed a 5-day high vacuum dual phase extraction (HVDPE) event on several onsite extraction wells using a low-noise, truck-mounted 450-CFM high-vacuum liquid ring blower along with a Bay Area Air Quality Management District (BAAQMD) various locations permitted propane-fired thermal oxidizer (Plant No. 12568). This technology allows hydrocarbons to be simultaneously removed from the vadose zone, capillary fringe, and saturated soil zone. A high vacuum was applied for vapor extraction and drawdown of the groundwater table around the extraction wells, while vacuum and vapor flow rates were modified to optimize recovery of vapor, free-product (if any) and dissolved-phase hydrocarbons.

During the event, the high vacuum dual phase extraction (HVDPE) system was connected to various wells individually or in combination. HVDPE was performed in extraction wells DPE-1 and DPE-2. HVDPE activities were conducted for a total of 5 days during the HVDPE event.

Vapor samples were collected in Tedlar bags at the start of HVDPE from each extraction well. Combined influent samples were also collected during the event. The laboratory results, listed in Table 1 and laboratory reports included in Attachment 1, indicate the following:

- The starting Total Petroleum Hydrocarbons as Gasoline (TPH-G) vapor concentrations for wells DPE-1 and DPE-2 were 3,530 ppmv and 6,540 ppmv, respectively. The ending TPH-G vapor concentrations were 598 ppmv and 888 ppmv, respectively. The TPH-G vapor concentration in well DPE-3 was 1,700 ppmv. The starting and ending combined well TPH-G concentrations were 1,660 ppmv and 690 ppmv, respectively.

- The starting Benzene vapor concentrations for wells DPE-1 and DPE-2 were 77 ppmv and 138 ppmv, respectively. The ending Benzene vapor concentrations were 10 ppmv and 31 ppmv, respectively. The Benzene vapor concentration in well DPE-3 was 18 ppmv. The starting and ending combined well Benzene concentrations were 28 ppmv and 14 ppmv, respectively.
- The starting Methyl tert-Butyl Ether (MtBE) vapor concentrations for wells DPE-1 and DPE-2 were 21 ppmv and 50 ppmv, respectively. The ending MtBE vapor concentrations were 2 ppmv and 5.5 ppmv, respectively. The MtBE vapor concentration in well DPE-3 was ND<5 ppmv. The starting and ending combined well MtBE concentrations were 8.5 ppmv and 2.9 ppmv, respectively.

The total equivalent amount of hydrocarbons recovered through vapor extraction during the 5-day HVDPE event was 224.80 pounds (based on laboratory data), and 122.35 pounds (based on the Horiba field organic vapor analyzer data) with an average of 173.57 pounds. The cumulative tabulation of recovered hydrocarbons (based on laboratory data) is provided in Table 2. The cumulative tabulation of recovered hydrocarbons (based on the field organic vapor analyzer data) is provided in Table 3.

The total volume of hydrocarbon-affected groundwater recovered from the extraction wells during the HVDPE event was approximately 7,340 gallons. The extracted groundwater was placed in tanks onsite for further handling.

The following attachments are included to document the HVDPE event at the site:

Table 1	Results of Laboratory Analysis of Influent Vapor Samples
Table 2	Hydrocarbon Mass Removal (using Lab Data)
Figure 1	Total Inlet HC Concentrations versus Time (5-Days, Using Lab Data)
Figure 2	Cumulative HC Recovered over 5 Days (using Lab Data)
Table 3	Hydrocarbon Mass Removal (using Horiba Data)
Figure 3	Total Inlet HC Concentrations versus Time (5-Days, Using Horiba Data)
Figure 4	Cumulative HC Recovered over 5 Days (using Horiba Data)
Attachment 1	Laboratory Reports
Attachment 2	High Vacuum Dual Phase Extraction Field Data Sheets

High Vacuum Dual Phase Extraction Report
Terradev Property, Oakland, CA
October 13, 2010

If you have any questions regarding this report, please contact us at (714) 734-9137 or via cell phone at (714) 936-2706.

Sincerely,

CALCLEAN INC.



Noel Sheno
Principal Engineer

Attachments

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
 Terradev Property
 Oakland, CA

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MTBE (ppmv)
DPE-1	9/28/2010 0800	3,530	77	144	22	73	21
DPE-1	10/3/2010 0745	598	10	44	10	60	2
DPE-2	9/28/2010 0810	6,540	138	210	40	154	50
DPE-2	10/03/2010 0800	888	31	50	1	64	5.5
DPE-3	9/28/2010 0820	1,700	18	95	28	123	ND<5
TOTAL INLET	9/28/2010 0825	1,660	28	134	33	168	8.5
TOTAL INLET	10/3/2010 0730	690	14	45	9.5	56	2.9
Notes: ppmv = parts per million by volume TPH - g = total petroleum hydrocarbons - gasoline TPH-G, BTEX and MIBE analyzed by EPA 8015M/8021B MIBE = methyl tertiary butyl ether							

Table 2
HYDROCARBON MASS REMOVAL (Using Lab Data)
 Terradev Property, Oakland, CA

TIME	SYSTEM PARAMETERS			Hydrocarbon Recovery		
	Average System Vacuum (in of Hg)	Average Total System Inlet Flow (scfm)	Influent Concentrations Post-dilution* (ppmv)	(lbs)	(gal)	(Cumul. lbs)
	9/28/2010 8:25	17	160	1,660	0.00	0.00
10/3/2010 7:30	23	76	690	224.80	35.98	224.80
TOTAL HC RECOVERED* - LAB DATA				224.80	35.98	
TOTAL HC RECOVERED** - FIELD ANALYZER DATA				122.35	19.58	
Average HC Recovered*** (Field Analyzer/Lab Data)				173.57	27.78	

in of Hg = inches of mercury

ppmv = parts per million by volume

scfm = standard cubic feet per minute

gal = gallons

lbs = pounds

* Concentration data based on laboratory data.

** Based on Horiba field analyzer data.

*** Average HC Recovered using Laboratory and Horiba data

Figure 1
Total Inlet HC Concentrations vs Time (5 Days)
Terradev Property, Oakland, CA - 9/28-10/3/10

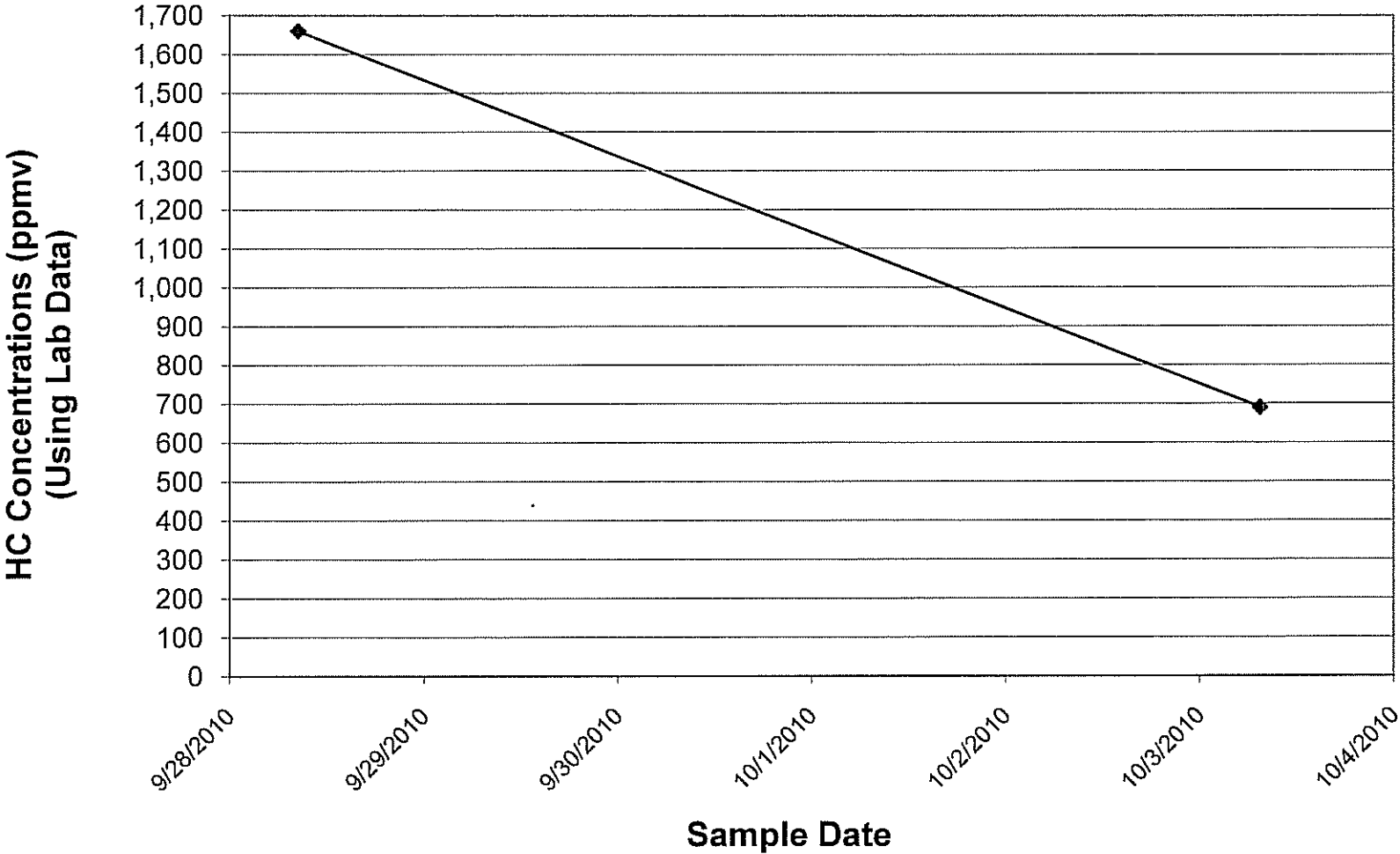
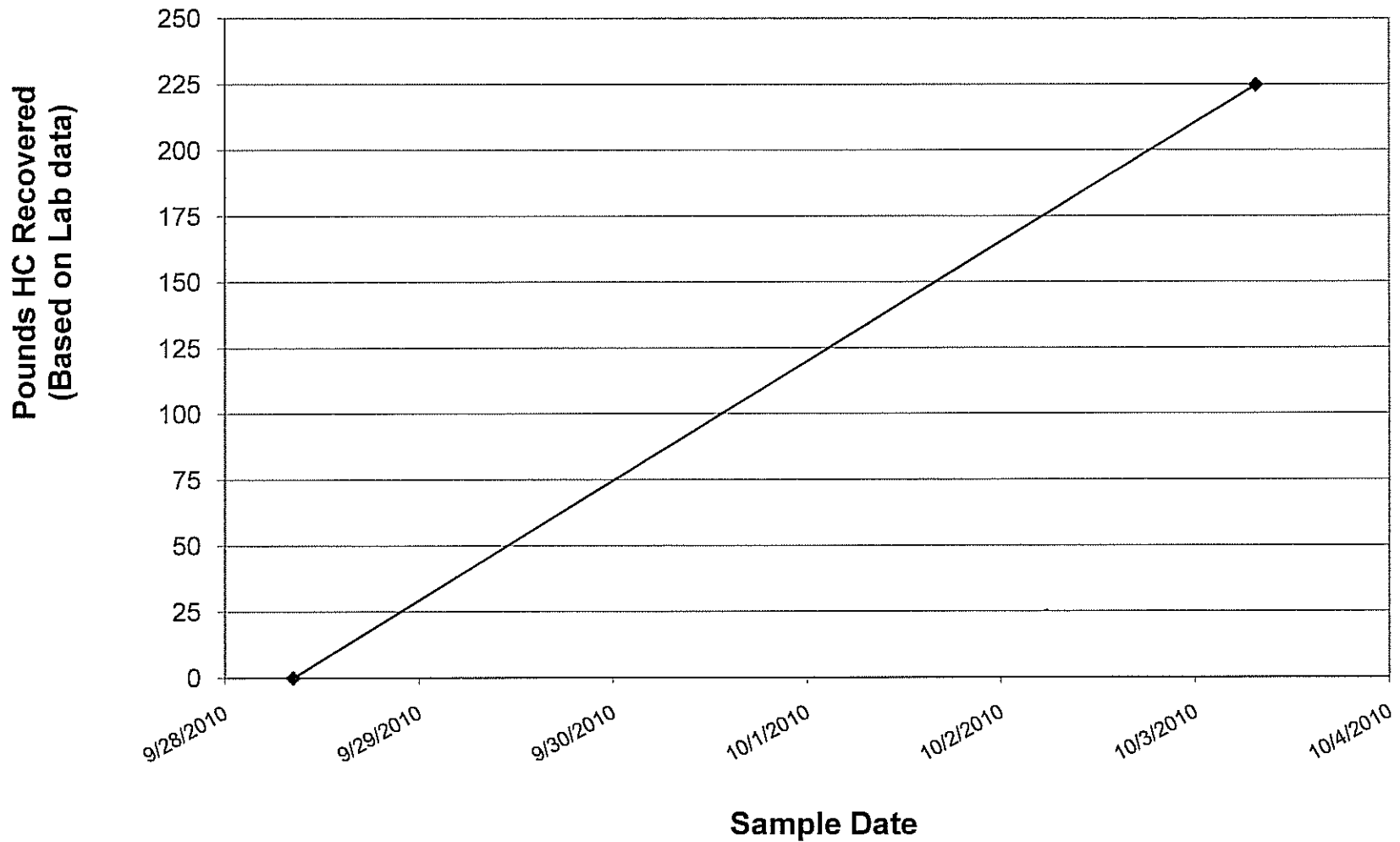


Figure 2
Cumulative HC Recovered Over 5 Days
Terradev Property, Oakland, CA - 9/28-10/3/10



**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)
Terradev Property, Oakland, CA**

TIME	Extraction Well # DPE-1 (Stinger Depth)	Extraction Well # DPE-2 (Stinger Depth)	Extraction Well # DPE-3 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv)*	(lbs)	(gal)	(Cumul. lbs)
9/28/2010 8:00	14'	14'	9'				17	160	893		0.00	0.00	0.00
9/28/2010 9:00	14'	14'	9'				17	161	665	3	1.70	0.27	1.70
9/28/2010 10:00	14'	14'	9'				17	165	741		1.56	0.25	3.26
9/28/2010 11:00	14'	14'	9'				17	160	754		1.65	0.26	4.92
9/28/2010 12:00	14'	14'	9'				17	164	716		1.62	0.26	6.54
9/28/2010 14:00	14'	14'	9'				17	165	680		3.13	0.50	9.66
9/28/2010 16:00	14'	14'	9'				17	160	653		2.95	0.47	12.61
9/28/2010 18:00	14'	14'	9'				17	161	644		2.83	0.45	15.45
9/28/2010 20:00	14'	14'	9'				17	164	627		2.81	0.45	18.26
9/28/2010 22:00	14'	14'	9'				17	160	635		2.78	0.45	21.04
9/29/2010 0:00	14'	14'	9'				17	165	571		2.67	0.43	23.71
9/29/2010 4:00	14'	14'	9'				17	162	463		4.60	0.74	28.31
9/29/2010 8:00	14'	14'	9'				17	164	496		4.26	0.68	32.57
9/29/2010 12:00	14'	14'	9'				17	168	521		4.60	0.74	37.17
9/29/2010 16:00	14'	14'	9'				17	167	468		4.51	0.72	41.68
9/29/2010 20:00	14'	14'	9'				17	164	561		4.64	0.74	46.32
9/30/2010 0:00	14'	14'	9'				17	167	482		4.70	0.75	51.02
9/30/2010 4:00	14'	14'	9'				17	164	415		4.04	0.65	55.06
9/30/2010 8:00	14'	14'	9'				17	168	426		3.80	0.61	58.86
9/30/2010 12:00	14'	14'	closed				23	68	853		4.11	0.66	62.97
9/30/2010 13:20	14'	14'					23	70	914		1.11	0.18	64.08
9/30/2010 16:00	14'	14'					23	78	1,014		2.59	0.41	66.67
9/30/2010 20:00	14'	14'					23	76	938		4.09	0.66	70.76
10/1/2010 0:00	14'	14'					23	74	962		3.88	0.62	74.64
10/1/2010 4:00	14'	14'					23	78	931		3.92	0.63	78.56
10/1/2010 8:00	14'	14'					23	76	948		3.94	0.63	82.50
10/1/2010 12:00	14'	14'					23	75	845		3.69	0.59	86.18
10/1/2010 16:00	14'	14'					23	72	934		3.56	0.57	89.74
10/1/2010 20:00	14'	14'					23	70	862		3.47	0.56	93.22
10/2/2010 0:00	14'	14'					23	75	845		3.37	0.54	96.59
10/2/2010 4:00	14'	14'					23	78	862		3.56	0.57	100.14

**Table 3
HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)
Terradev Property, Oakland, CA**

TIME	Extraction Well # DPE-1 (Stinger Depth)	Extraction Well # DPE-2 (Stinger Depth)	Extraction Well # DPE-3 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)				
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv)*	(lbs)	(gal)	(Cumul. lbs)		
10/2/2010 8:00	14'	14'					23	73	834		3.49	0.56	103.63		
10/2/2010 12:00	14'	14'					23	76	716		3.14	0.50	106.77		
10/2/2010 16:00	14'	14'					23	72	763		2.98	0.48	109.75		
10/2/2010 20:00	14'	14'					23	79	760		3.13	0.50	112.88		
10/3/2010 0:00	14'	14'					23	75	759		3.18	0.51	116.07		
10/3/2010 4:00	14'	14'					23	78	752		3.15	0.50	119.22		
10/3/2010 8:00	14'	14'					23	76	744		3.14	0.50	122.35		
											TOTAL HC RECOVERED		122.35	19.58	
											TOTAL LIQUID RECOVERED			7,340	

Comments: Manual dilution was not opened during the event.

in of Hg = inches of mercury

gal = gallons

scfm = standard cubic feet per minute

lbs = pounds

* Concentrations based on Horiba MEXA 324-JU field organic vapor analyzer, calibrated as hexane

** Inlet flow measured through orifice tube and converted from acfm to reported scfm

Figure 3
Total Inlet HC Concentrations vs Time (5 Days)
Terradev Property, Oakland, CA - 9/28-10/3/10

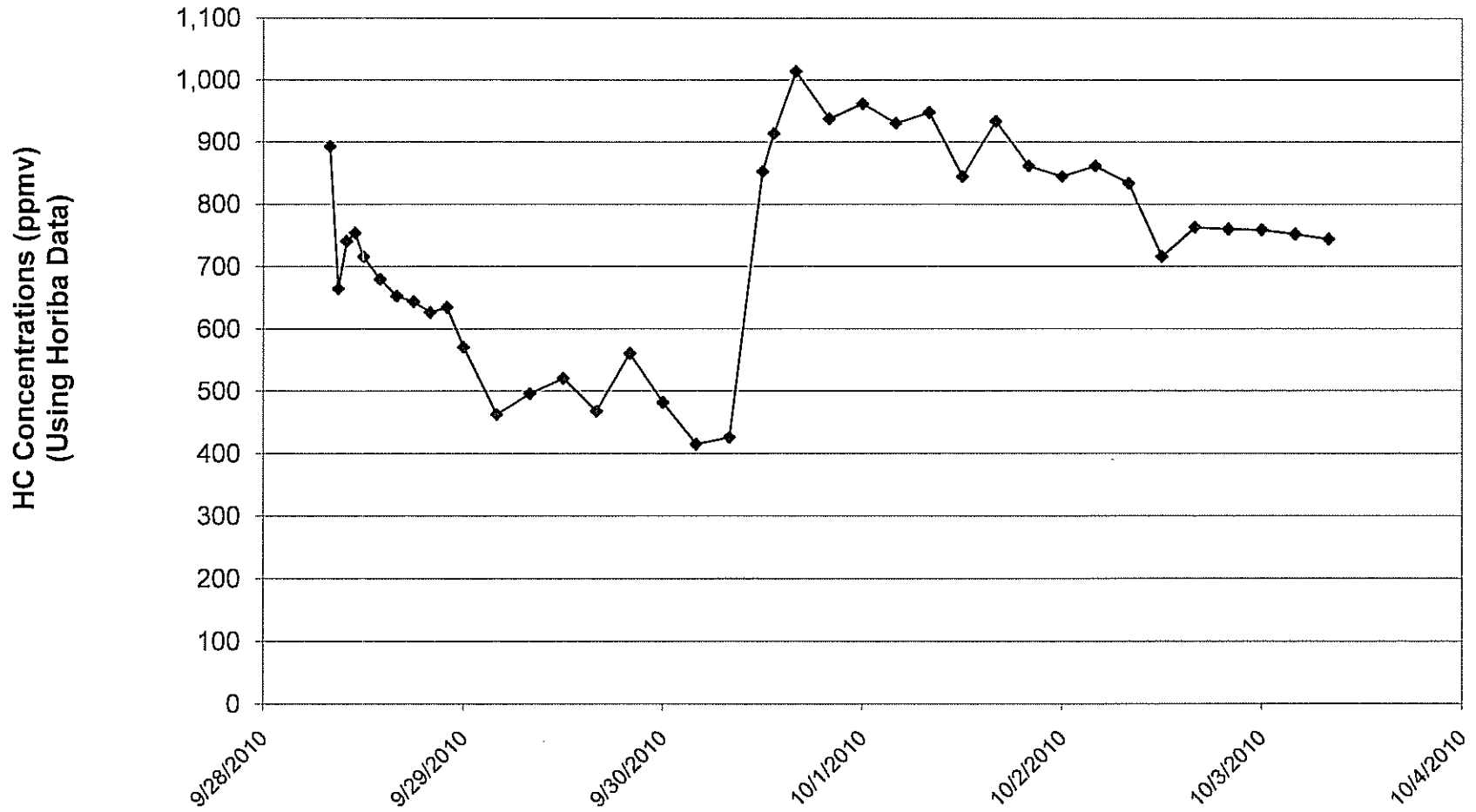
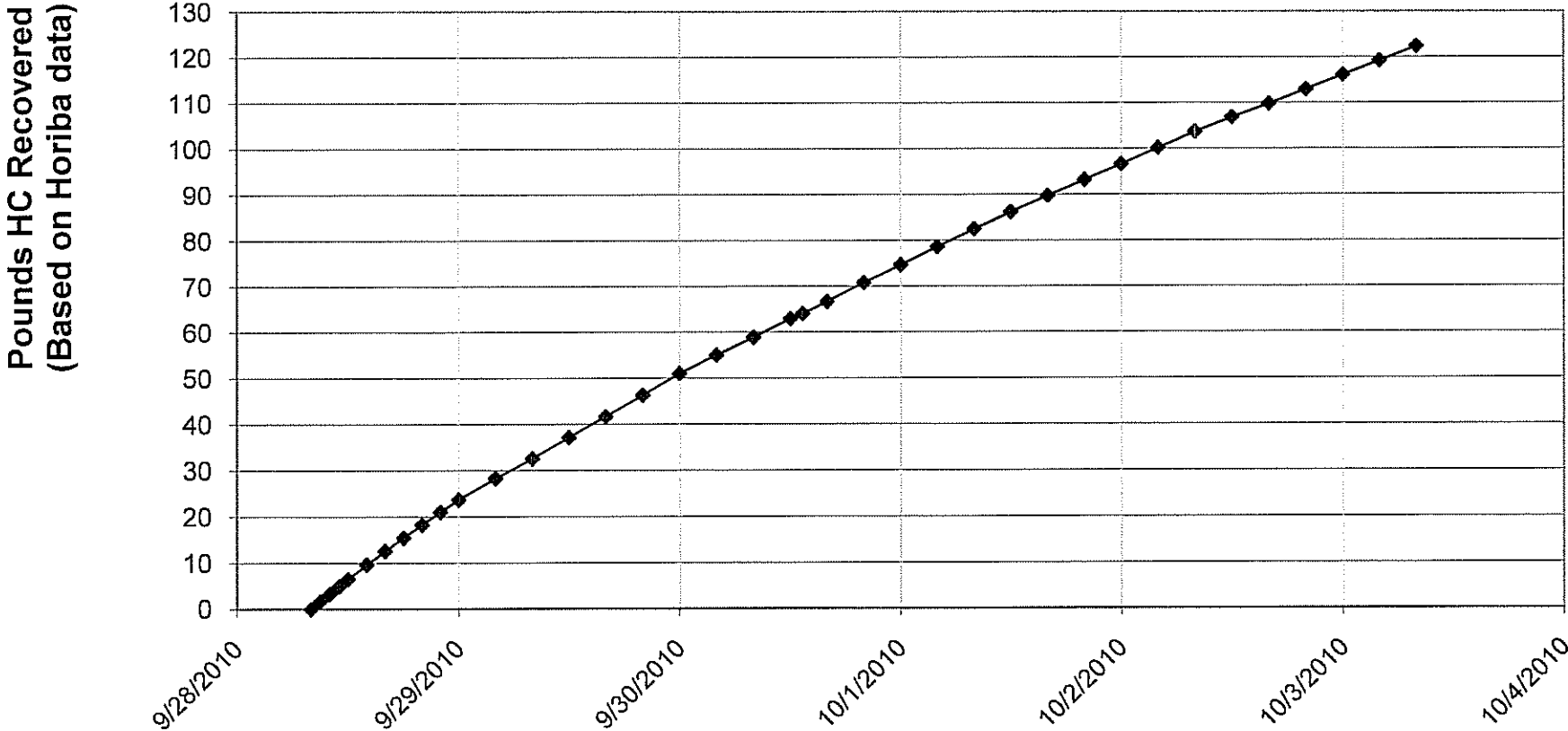


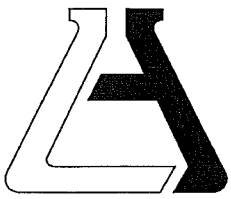
Figure 4
Cumulative HC Recovered Over 5-Days
Terradev Property, Oakland, CA - 9/28-10/3/10



CalClean Inc.

ATTACHMENT 1

LABORATORY REPORTS



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 262417

REPORTED 10/06/2010

RECEIVED 10/01/2010

PROJECT Terradev Property

SUBMITTER Client

COMMENTS Global ID: T10000001072

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.


Client Sample Identification

1114764
1114765
1114766
1114767

DPE-1
DPE-2
DPE-3
TOTAL INLET

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,


Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1114764

Client: Calclean

Matrix: AIR

Client Sample ID: DPE-1

Date Sampled: 09/28/2010

Time Sampled: 08:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	77	25	0.25	Vppm	10/01/10 SW
Ethyl benzene	22	25	0.25	Vppm	10/01/10 SW
Methyl t - butyl ether	21	25	2.5	Vppm	10/01/10 SW
Toluene	144	50	0.5	Vppm	10/01/10 SW
Xylene (total)	73	25	0.75	Vppm	10/01/10 SW
Benzene	246	25	0.75	ug/L	10/01/10 SW
Ethyl benzene	97	25	1.0	ug/L	10/01/10 SW
Methyl t - butyl ether	77	25	9.0	ug/L	10/01/10 SW
Toluene	540	50	2.0	ug/L	10/01/10 SW
Xylene (total)	316	25	3.25	ug/L	10/01/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	3530	25	125.0	Vppm	10/01/10 SW
Gasoline	14400	25	552.5	ug/L	10/01/10 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1114765

Client: Calclean

Matrix: AIR

Client Sample ID: DPE-2

Date Sampled: 09/28/2010

Time Sampled: 08:10

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	138	50	0.5	Vppm	10/01/10 SW
Ethyl benzene	40	50	0.5	Vppm	10/01/10 SW
Methyl t - butyl ether	50	50	5.0	Vppm	10/01/10 SW
Toluene	210	50	0.5	Vppm	10/01/10 SW
Xylene (total)	154	50	1.5	Vppm	10/01/10 SW
Benzene	440	50	1.5	ug/L	10/01/10 SW
Ethyl benzene	175	50	2.0	ug/L	10/01/10 SW
Methyl t - butyl ether	178	50	18.0	ug/L	10/01/10 SW
Toluene	791	50	2.0	ug/L	10/01/10 SW
Xylene (total)	668	50	6.5	ug/L	10/01/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	6540	50	250.0	Vppm	10/01/10 SW
Gasoline	26700	50	1105.0	ug/L	10/01/10 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1114766

Client: Calclean

Matrix: AIR

Client Sample ID: DPE-3

Date Sampled: 09/28/2010

Time Sampled: 08:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	18	50	0.5	Vppm	10/01/10 SW
Ethyl benzene	28	50	0.5	Vppm	10/01/10 SW
Methyl t - butyl ether	ND	50	5.0	Vppm	10/01/10 SW
Toluene	95	50	0.5	Vppm	10/01/10 SW
Xylene (total)	123	50	1.5	Vppm	10/01/10 SW
Benzene	56	50	1.5	ug/L	10/01/10 SW
Ethyl benzene	123	50	2.0	ug/L	10/01/10 SW
Methyl t - butyl ether	ND	50	18.0	ug/L	10/01/10 SW
Toluene	357	50	2.0	ug/L	10/01/10 SW
Xylene (total)	534	50	6.5	ug/L	10/01/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1700	50	250.0	Vppm	10/01/10 SW
Gasoline	6970	50	1105.0	ug/L	10/01/10 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1114767

Client: Calclean

Matrix: AIR

Client Sample ID: TOTAL INLET

Date Sampled: 09/28/2010

Time Sampled: 08:25

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	28	50	0.5	Vppm	10/01/10	SW
Ethyl benzene	33	50	0.5	Vppm	10/01/10	SW
Methyl t - butyl ether	8.5	50	5.0	Vppm	10/01/10	SW
Toluene	134	50	0.5	Vppm	10/01/10	SW
Xylene (total)	168	50	1.5	Vppm	10/01/10	SW
Benzene	88	50	1.5	ug/L	10/01/10	SW
Ethyl-benzene	143	50	2.0	ug/L	10/01/10	SW
Methyl t - butyl ether	31	50	18.0	ug/L	10/01/10	SW
Toluene	503	50	2.0	ug/L	10/01/10	SW
Xylene (total)	731	50	6.5	ug/L	10/01/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1660	50	250.0	Vppm	10/01/10	SW
Gasoline	6790	50	1105.0	ug/L	10/01/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 262417-764
Matrix: AIR
Prep. Date : October 1, 2010
Analysis Date: October 1, 2010
Lab ID#'s in Batch: 262417, 262343

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	3,526.72	3,433.85	3
Benzene	8021B	77.15	73.56	5
Toluene	8021B	126.36	121.78	4
Ethylbenzene	8021B	22.28	21.34	4
Xylenes	8021B	72.78	69.90	4

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209



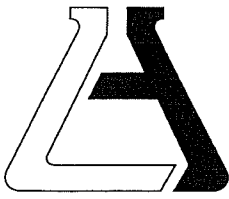
Company		Phone (714) 734-9137		A.L. Job No. 262417		Page 1 of 1										
Project Manager		Fax (714) 734-9138		Analysis Requested				Test Instructions & Comments								
Project Name		Project #														
Site Name and Address		TERRADEV PROPERTY		TPH-G (8015) BTEX/MTBE (8021) BTEX/XYL (8260B)												
OAKLAND																
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.										
1 DPE-1		9/28/10	0800	AIR	TEDLAR	NONE	X	X								
2 DPE-2			0810													
3 DPE-3			0820													
4 TOTAL INLET			0825													
5 STACK			0830													
6																
7																
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EDF

T10000001072

AIR=PPMV & ug/L

Sample Receipt - To Be Filled By Laboratory				Relinquished by Sampler: 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Properly Cooled Y/N/NA	Signature: Noel Sheno	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
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	<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.		Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: 10/01/10	Time: 10:19	Date:	Time:	Date:	Time:



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 262512

REPORTED 10/06/2010

RECEIVED 10/04/2010

PROJECT Terradev Property

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

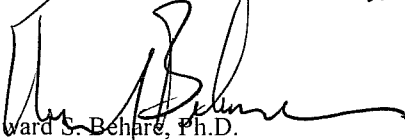
1115080

Client Sample Identification

STACK

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,



Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1115080

Client: Calclean

Matrix: AIR

Client Sample ID: STACK

Date Sampled: 09/28/2010

Time Sampled: 08:30

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Benzene	ND	1	0.01	Vppm	10/05/10 SW
Ethyl benzene	0.13	1	0.01	Vppm	10/05/10 SW
Methyl t - butyl ether	0.10	1	0.10	Vppm	10/05/10 SW
Toluene	0.15	1	0.01	Vppm	10/05/10 SW
Xylene (total)	0.37	1	0.03	Vppm	10/05/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Gasoline	ND	1	5.0	Vppm	10/05/10 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 262511-079
Matrix: AIR
Prep. Date : October 5, 2010
Analysis Date: October 5, 2010
Lab ID#'s in Batch: 262510, 262512, 262511

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	1,482.71	1,518.24	2
Benzene	8021B	28.01	28.02	0
Toluene	8021B	89.13	89.50	0
Ethylbenzene	8021B	8.59	8.63	0
Xylenes	8021B	43.51	43.22	1

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

Company _____
Project Manager **NOEL SHENOI**
Project Name **TERRADEN PROPERTY**
Site Name **ORLAND**
Address _____

Project # _____
Phone (714) 734-9137
Fax (714) 734-9138

A.L. Job No. _____

ASSOCIATED LABORATORIES
806 North Batavia • Orange, CA 92868
Phone: (714) 771-6900 • Fax: (714) 538-1209



Page 1 of 1
262512

Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	Analysis Requested	Test Instructions & Comments
1		9/28/10	0830	AIR	TEDLAR	NONE	TPH-G (8015) BTEX/MTBE (802-1) BTEX/MTBE (8260B)	
2								
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Sample Receipt - To Be Filled By Laboratory

Sampler: Relinquished by 1. _____

Signature: _____

Printed Name: _____

Date: 10/4/10 Time: 13:05

Received By: 1. _____

Signature: _____

Printed Name: _____

Date: 10-4-10 Time: 13:05

Relinquished by 2. _____

Signature: _____

Printed Name: _____

Date: _____

Received By: 3. _____

Signature: _____

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Received By: 3. _____

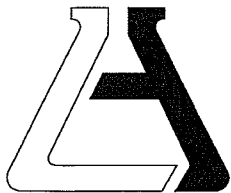
Signature: _____

Printed Name: _____

Date: _____

Received By: 3. _____

Signature: _____



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 262685

REPORTED 10/08/2010

RECEIVED 10/06/2010

PROJECT Terradev Property

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

1115911
1115912
1115913

Client Sample Identification

TOTAL INLET
DPE-1
DPE-2

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1115911

Client: Calclean

Matrix: AIR

Client Sample ID: TOTAL INLET

Date Sampled: 10/03/2010

Time Sampled: 07:30

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	14	13	0.125	Vppm	10/06/10 SW
Ethyl benzene	9.5	13	0.125	Vppm	10/06/10 SW
Methyl t - butyl ether	2.9	13	1.25	Vppm	10/06/10 SW
Toluene	45	13	0.125	Vppm	10/06/10 SW
Xylene (total)	56	13	0.375	Vppm	10/06/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	690	13	62.5	Vppm	10/06/10 SW
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1115912

Client: Calclean

Matrix: AIR

Client Sample ID: DPE-1

Date Sampled: 10/03/2010

Time Sampled: 07:45

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	10	13	0.125	Vppm	10/06/10 SW
Ethyl benzene	10	13	0.125	Vppm	10/06/10 SW
Methyl t - butyl ether	2.0	13	1.25	Vppm	10/06/10 SW
Toluene	44	13	0.125	Vppm	10/06/10 SW
Xylene (total)	60	13	0.375	Vppm	10/06/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	598	13	62.5	Vppm	10/06/10 SW
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1115913

Client: Calclean

Matrix: AIR

Client Sample ID: DPE-2

Date Sampled: 10/03/2010

Time Sampled: 08:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	31	10	0.1	Vppm	10/06/10 SW
Ethyl benzene	11	10	0.1	Vppm	10/06/10 SW
Methyl t - butyl ether	5.5	10	1.0	Vppm	10/06/10 SW
Toluene	50	25	0.25	Vppm	10/06/10 SW
Xylene (total)	64	10	0.3	Vppm	10/06/10 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	888	10	50.0	Vppm	10/06/10 SW
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 262685-911
Matrix: AIR
Prep. Date : October 6, 2010
Analysis Date: October 6, 2010
Lab ID#'s in Batch: 262518,262684, 262686, 262685

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	690.39	711.94	3
Benzene	8021B	14.05	14.58	4
Toluene	8021B	45.13	45.96	2
Ethylbenzene	8021B	9.51	10.32	8
Xylenes	8021B	56.03	59.61	6

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 262724-040
Matrix: AIR
Prep. Date : October 7, 2010
Analysis Date: October 7, 2010
Lab ID#'s in Batch: 262726, 262725, 262686, 262724, 262685, 262812

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	166.42	166.92	0
Benzene	8021B	5.30	5.31	0
Toluene	8021B	17.12	17.08	0
Ethylbenzene	8021B	1.45	1.45	0
Xylenes	8021B	6.27	6.31	1

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batarvia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209



Company		3002 Dow, #142 Tustin, CA 92780		Phone	(714) 734-9137		A.L. Job No.		262685		Page	1	of	1
Project Manager		NOEL SHENOI		Fax	(714) 734-9138		Analysis Requested				Test Instructions & Comments			
Project Name		TERRADEV PROPERTY		Project #										
Site Name and Address		OAKLAND, CA												
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/XY/S (8200B)					
1	TOTAL INLET	10/3/10	0730	AIR	TEDLAR	NONE	X	X						
2	DPE-1	↓	0745	↓	↓	↓	↓	↓						
3	DPE-2	↓	0800	↓	↓	↓	↓	↓						
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Properly Cooled Y/N/NA	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Custody Seals Y/N/NA	Samples Intact Y/N/NA	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Received in Good Condition Y/N	Samples Accepted Y/N	Date: 10/6/10	Time: 13:48	Date:	Time:	Date:	Time:	Date:	Time:
Turn Around Time				Received By: 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <input type="checkbox"/> Same Day <input type="checkbox"/> 48 hrs. <input type="checkbox"/> 24 hrs. <input type="checkbox"/> 72 hrs.				Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
				Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: 10/6/10	Time: 13:48	Date:	Time:	Date:	Time:

EDF

AIR=PPMV

CalClean Inc.

ATTACHMENT 2

**HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM
FIELD DATA SHEETS**

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 645 FOURTH STREET

City: OAKLAND

Site #: TERRADEV PROPERTY

Date: 9/28/2010

Page 1 of 3

Client: BLUE ROCK ENV

Operator (s):

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.					DPE-1			DPE-2			DPE-3													
Screen Interval: From-To (ft)					9.23			9.46			9.35													
Initial Depth To Water DTW (ft)																								
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals	
9/28					ON		14	ON		14	ON		9										255960	
0800	17	160	1425	893	1995			4270			710													
0900	17	161	1451	665																				
1000	17	165	1462	741																				
1100	17	160	1423	754																				
1200	17	164	1448	716	978			1913			495													
1400	17	165	1451	680																				
1600	17	160	1431	653																				
1800	17	161	1446	644																				
2000	17	164	652	627	946			1532			243												256870	910
2200	17	160	663	635																				
2400	17	165	670	571																				
9/29																								
0400	17	162	659	463																				
0800	17	164	652	496	641			1317			409												257630	1670
1200	17	168	646	521																				
1600	17	167	641	468	478			874			256												258130	2170
2000	17	164	654	561																			258330	2370
0000	17	167	654	482																				

Comments: 9-28-10 DPE-1 @ 0800 (1995 PPMV). DPE-2 @ 0810 (4270 PPMV). DPE-3 @ 0820 (710 PPMV).
 TOTAL INLET @ 0830 (893 PPMV). STACK @ 0835 (3 PPMV). CHANGE TO CAT @ 2000.

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 645 FOURTH STREET

City: OAKLAND

Site #: TERRADEV PROPERTY

Date: 9/30/2010

Page 2 of 3

Client: BLUE ROCK ENV

Operator(s): Bernardo / Faustino

	EXTRACTION WELLS												OBSERVATION WELLS												
Well I.D.	DPE-1			DPE2			DPE3													Water Meter Readings	Cumul. Water Extracted				
Screen Interval: From-To (ft)	9.23			9.46			9.35																		
Initial Depth To Water DTW (ft)	9.23			9.46			9.35													units	gals				
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
9/30																									
0400	17	164	641	415																					
0800	17	168	654	426	468			1152			228													259050	3090
1200	23	68	647	853							OFF														
1320	23	70	648	914	684			1585																	
1600	23	78	642	1014																					
2000	23	76	641	938																				259820	3860
0000	23	74	647	962																					
10/11																									
0400	23	78	647	931																					
0800	23	76	641	948	639			1814																260580	4620
1200	23	75	762	845	581			1791																	
1600	23	72	728	934	630			1622																261090	5130 164
2000	23	70	672	867																					
0000	23	75	641	845																					

Comments: 9-30-10 DPE-3 CLOSED @ 1010.

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 3 of 3

Project Location: 645 FOURTH STREET

City: OAKLAND

Site #: TERRADEV PROPERTY

Date: 10/2/2010

Client: BLUE ROCK ENV

Operator (s): Bernardo / Erik

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted		
Well I.D.		DPE-1			DPE-2			DPE-3																
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)			DTW (ft)	units
10/2																							2559.60	
0400	23	78	694	862																				
0800	23	73	717	834	726			1361															262050	6090
1200	23	76	740	716																				
1600	23	72	719	763	601			1213															262360	6440
2000	23	79	736	760																			262580	6620
0000	23	75	684	759																				
10/3																								
0400	23	78	741	752																				
0800	23	76	690	744	549			1232															263300	7340

Comments: 10-3-10 TOTAL INLET @ 0730 (744 PPMV). DPE-1 @ 0745 (549 PPMV). DPE-2 @ 0800 (1232 PPMV).



Seaport Environmental
NON-HAZARDOUS WATER TRANSPORT FORM

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GENERATOR INFORMATION

Terradev Jefferson, LLC Property
 645 Fourth Street
 Oakland Ca

CUSTOMER INFORMATION

Blue Rock Environmental, Inc.
 650-522-9292
 PO# ASE-1

DESCRIPTION OF WATER: Monitoring well development
 NON-HAZARDOUS WASTE WATER, MONITORING WELL PURGE WATER AND/OR AUGER RINSATE, TANK RINSATE OR ABOVE
 DESCRIBED WATER. THIS WATER MAY CONTAIN DISSOLVED HYDROCARBONS. I CERTIFY THAT THE ABOVE NAMED MATERIAL
 IS A LIQUID EXEMPT FROM RCRA PER 40 CFR 261.4 (b)(10) AND DOES NOT MEET THE CRITERIA OF HAZARDOUS WASTE AS
 DESCRIBED IN 22 CCR ARTICLE 11 OR ANY OTHER APPLICABLE STATE LAW, HAS BEEN PROPERLY DESCRIBED,
 CLASSIFIED AND PACKAGED AND IS IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE
 REGULATIONS.

Scott Robertson Blue Rock Environmental
 Generator Authorized Agent

Scott Rob 10/18/10
 Sign date

SITE INFORMATION

645 Fourth Street
 Oakland
 Ca

GROSS	
TARE	
NET	
TOTAL GALLONS	7 gallons

Calculated at 8.34lbs per USG

TRANSPORTER INFORMATION

Blue Rock Env.

Truck ID: 5WRC481
 Driver: Scott Robertson Scott Rob 10/18/10
 Print full name & sign date

1 X 55 gal drum

TIME OUT	
TIME IN	
TIME SPENT	

DISPOSAL FACILITY INFORMATION EPA ID: CAL 000032058

Seaport Environmental
 675 Seaport Boulevard
 Redwood City, Ca 94063
 Phone: (650) 364 1024

Approval Number

500 - 1085

Solids %Wt

pH

**Solids Surcharge
 \$/USG**

Received by: _____
 Print full name & sign

[Signature]
 date

10-18-10

* No charge for MT *



Seaport Environmental
NON-HAZARDOUS WATER TRANSPORT FORM

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GENERATOR INFORMATION

Terradev Jefferson, LLC Property
 845 Fourth Street
 Oakland Ca

CUSTOMER INFORMATION

Blue Rock Environmental, Inc.
 850-522-8292
 PO #

DESCRIPTION OF WATER: Monitoring well development
 NON-HAZARDOUS WASTE WATER, MONITORING WELL PURGE WATER AND/OR AUGER RINSATE, TANK RINSATE OR ABOVE
 DESCRIBED WATER. THIS WATER MAY CONTAIN DISSOLVED HYDROCARBONS. I CERTIFY THAT THE ABOVE NAMED MATERIAL
 IS A LIQUID EXEMPT FROM RCRA PER 40 CFR 261.4 (b)(1) AND DOES NOT MEET THE CRITERIA OF HAZARDOUS WASTE AS
 DESCRIBED IN 22 CCR ARTICLE 11 OR ANY OTHER APPLICABLE STATE LAW, HAS BEEN PROPERLY DESCRIBED,
 CLASSIFIED AND PACKAGED AND IS IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE
 REGULATIONS.

Brian Guinn 9/30/10
 Generator/Authorized Agent Sign date

SITE INFORMATION

845 Fourth Street
 Oakland
 Ca

GROSS	
TARE	
NET	
TOTAL GALLONS	3450

Calculated at 8.34 lbs per USG

TRANSPORTER INFORMATION

Clear Water Env.

Truck ID: 310 & 111
 Driver: Anthony Contreras 9/30/10
 Print full name & sign date

TIME OUT	
TIME IN	
TIME SPENT	

DISPOSAL FACILITY INFORMATION EPA ID: CAL 000032088

Seaport Environmental
 878 Seaport Boulevard
 Redwood City, Ca 94063
 Phone: (860) 364 1024

Approval Number

500 - 1088

Solids %Wt

6

pH

7

Solids Surcharge \$/USG

Received by: Shan Shelly 9/30/10
 Print full name & sign date

1500 HRS



Seaport Environmental
NON-HAZARDOUS WATER TRANSPORT FORM

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GENERATOR INFORMATION

Terradev Jefferson, LLC Property
 645 Fourth Street
 Oakland Ca

CUSTOMER INFORMATION

Blue Rock Environmental, Inc.
 650-522-9292
 PO #

DESCRIPTION OF WATER: Monitoring well development
 NON-HAZARDOUS WASTE WATER, MONITORING WELL PURGE WATER AND/OR AUGER RINSATE, TANK RINSATE OR ABOVE DESCRIBED WATER. THIS WATER MAY CONTAIN DISSOLVED HYDROCARBONS. I CERTIFY THAT THE ABOVE NAMED MATERIAL IS A LIQUID EXEMPT FROM RCRA PER 40 CFR 261.4 (b)(10) AND DOES NOT MEET THE CRITERIA OF HAZARDOUS WASTE AS DESCRIBED IN 22 CCR ARTICLE 11 OR ANY OTHER APPLICABLE STATE LAW, HAS BEEN PROPERLY DESCRIBED, CLASSIFIED AND PACKAGED AND IS IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE REGULATIONS.

Scott Robertson / Blue Rock Environmental

Generator Authorised Agent

Scott Roll 10/4/10

Sign date

SITE INFORMATION

645 Fourth Street
 Oakland
 Ca

GROSS	
TARE	
NET	
TOTAL GALLONS	4500

Calculated at 8.34lbs per USG

TRANSPORTER INFORMATION

Truck ID: 3104111

Driver: Anthony Carvones [Signature] 10-4-10
 Print full name & sign date

TIME OUT	
TIME IN	
TIME SPENT	

DISPOSAL FACILITY INFORMATION EPA ID: CAL 000032058

Seaport Environmental
 675 Seaport Boulevard
 Redwood City, Ca 94063
 Phone: (650) 354 1024

Approval Number

500 - 1085

Solids %Wt

0

pH

7

Solids Surcharge
 \$/USG

Received by: Shane Shelly [Signature] 10-4-10
 Print full name & sign date

CONTACT 4 969