Shell Oil Products US

December 15, 2003

Alameda County
DEC 17 2003
Environmental Health

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

Subject: **Shell-branded Service Station**
350 Grand Avenue
Oakland, California

Dear Mr. Hwang:

Attached for your review and comment is a copy of the *Interim Remediation Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

December 15, 2003

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

Re: **Interim Remediation Report**
Shell-branded Service Station
350 Grand Avenue
Oakland, California
SAP Code 135698
Incident #98995755

Dear Mr. Hwang:

Cambria Environmental Technology, Inc. (Cambria) prepared this *Interim Remediation Report* on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) for the referenced site (Figures 1 and 2). The following sections describe the site background and summarize the interim remediation activities and results.

SITE BACKGROUND

Site Description: The site is an active Shell-branded Service Station, located at the northeast corner of the intersection of Grand Avenue and Perkins Street in Oakland, California (Figure 1). Lakeside Park is located at the southwest corner of this intersection. The area surrounding the site consists of mixed commercial and residential properties.

Soil Lithology: The site is underlain by silty and sandy clays to an explored depth of 20 feet below grade (fbg).

Groundwater Flow Direction and Depth: Groundwater generally flows in a southerly direction, as illustrated by the rose diagram shown on Figure 2. Depth to water has ranged historically between 7 and 15 fbg.

1990 Soil Borings: On May 11, 1990, GeoStrategies Inc. of Hayward, California (GSI) drilled five exploratory soil borings with a hollow-stem auger drilling rig. The highest hydrocarbon concentration in soil was in boring S-A, located at the southwest corner of the property in the vicinity of the gasoline USTs. Levels detected at a depth of 9.5 fbg in this area were 2,900 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg), 2,400 ppm total petroleum hydrocarbons as diesel (TPHd), and 13 ppm benzene.

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1991 Monitoring Well Installation: On January 7, 1991, GSI installed three monitoring wells (S-1, S-2, and S-3) at the site (Figure 2). The highest hydrocarbon concentrations in soil and groundwater were in well S-2, located at the southwest corner of the property in the vicinity of the gasoline USTs. Detected levels were 440 ppm TPHg, 360 ppm TPHd, and 4.5 ppm benzene in soil at 8.5 fbg; and 2,500 parts per billion (ppb) TPHg, 1,200 ppb TPHd, and 550 ppb benzene in groundwater. No TPHg, TPHd, or benzene was detected in the groundwater sample from well S-1.

1993 Hydropunch Borings: On January 27, 1993, GSI installed three hydropunch borings off site (Figure 2). The highest hydrocarbon concentrations were detected in boring HP-1, located crossgradient of the USTs. Maximum concentrations in that boring were 1,500 ppm TPHg, 18 ppm TPHd, and 0.11 ppm benzene in soil at 6.5 fbg and 22,000 ppb TPHg, 14,000 ppb TPHd, and 2,500 ppb benzene in groundwater. TPHg and benzene were not detected in soil and groundwater samples from borings HP-2 and HP-3, located downgradient of the USTs.

1996 Tank Removal: On April 22, 1996, Weiss Associates of Emeryville, California (WA) observed the removal of three 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST and collected soil samples. Up to 4,800 ppm TPHg, 2,800 ppm TPHd, and 22 ppm benzene were detected in samples collected from the UST excavation, product piping trenches, and beneath the product dispensers.

1998 Potential Receptor Survey: In April 1998, Cambria identified wells and surface water bodies within a ½-mile radius of the site. Three water producing wells are located between 2,640 feet and 3,960 feet crossgradient of the site. Lake Merritt is located approximately 900 feet downgradient of the site. The potential receptor survey results were presented to the ACHCSA in Cambria's May 31, 1998 *MTBE Investigation Report* and are identified on Figure 1.

1998 Geoprobe Well Installation: On April 16, 1998, Cambria installed two ¾-inch diameter pre-packed wells (S-4 and S-5) within the Grand Avenue right-of-way, downgradient of the site. No TPHg, benzene, toluene, ethylbenzene, or xylenes (BTEX), or MTBE were detected in soil or groundwater in the borings.

1999 Geoprobe Boring Installation: In March 1999, Cambria installed three Geoprobe borings to evaluate whether utility conduit trenches serve as preferential pathways for the migration of impacted groundwater. Two borings (HP-4 and HP-5) were advanced within the sanitary sewer conduit trench along the north sidewalk on Grand Ave, and the third boring (HP-6) was advanced within Perkins Street. The maximum TPHg concentration detected in soil was 408 ppm in soil sample HP-4-10. The maximum MTBE concentration reported (by EPA Method 8020) in soil was 2.52 ppm in soil sample HP-4-10. Grab groundwater samples collected from HP-4 contained

100,000 ppb TPHg, 83,000 ppb TPHd, and 2,000 ppb MTBE (by EPA Method 8020). Grab groundwater samples from HP-5, near the diesel UST complex, contained 160 ppb TPHg. TPHg, BTEX, and MTBE were below detection limits in grab groundwater samples from HP-5 and HP-6.

2001 Dual-Phase Vapor Extraction (DVE) Pilot Test: In June 2001, Cambria conducted an 8-hour DVE pilot test on groundwater monitoring well S-2. DVE is the process of applying high vacuum through an airtight well seal to simultaneously extract soil vapors from the vadose zone and enhance groundwater extraction from the saturated zone. Approximately 50 gallons of groundwater were extracted during the 8-hour test. This data is consistent with the low permeability soil (sandy silt and silt) encountered at this site. Estimated mass removal through groundwater extraction of TPHg, benzene and MTBE was 0.008 pounds, 0.0004 pounds and 0.009 pounds, respectively. Estimated mass removal through vapor extraction of TPHg, benzene and MTBE was 2.44 pounds, 0.002 pounds and 0.005 pounds, respectively.

2002 Tank Backfill Well Installation: On July 10, 2002, Gregg Drilling installed two tank backfill wells (T-1 and T-2) at the site (Figure 2). A groundwater sample collected from T-1 on July 16, 2002 contained <5,000 ppb TPHg, 180 ppb TPHd, <50 ppb benzene, and 14,000 ppb MTBE. A groundwater sample collected from T-2 on July 16, 2002 contained <5,000 ppb TPHg, 390 ppb TPHd, <50 ppb benzene, and 17,000 ppb MTBE.

2002 Initiation of Batch Groundwater Extraction: Batch GWE using vacuum trucks was initiated on the two tank backfill wells beginning in October 2002, and have been occurring on a twice-monthly basis through October 2003. Concentrations of MTBE in T-1 have been reduced from 17,000 to 3300 ppb, and MTBE in T-2 has been reduced from 17,000 to 2,800 ppb as of the third quarter 2003 sample event. These activities have successfully removed approximately 0.419 pounds of TPHg, 0.001 pounds of benzene and 2.55 pounds of MTBE from the groundwater. The batch GWE is ongoing on a monthly basis, and is reported with the quarterly groundwater monitoring reports.

Groundwater Monitoring: Groundwater monitoring has been conducted at the site since well installation in 1991. The maximum contaminant concentrations at this site have always been detected at the location of well S-2. Historically, samples from well S-2 have contained up to 120,000 ppb TPHg, 36,000 ppb TPHd, 10,000 ppb benzene, and 30,200 ppb MTBE. The concentrations of these constituents in well S-2 as of the third quarter 2003 were 26,000 ppb TPHg, 4,800 ppb TPHd, 850 ppb benzene and 13,000 ppb of MTBE.

INTERIM REMEDIATION - DUAL-PHASE EXTRACTION

As discussed above, a pilot test using dual-phase vapor extraction (DVE) was performed in 2001. This test lasted for 8-hours and was unsuccessful in removing significant volumes of groundwater or contaminated soil vapor. After two additional years of groundwater monitoring, the concentrations in well S-2 were still markedly elevated. Since the lateral extent of impacted groundwater does not extend to wells S-4 and S-5, and since there are underground utility conduits near the southwest corner of the site, Cambria decided to conduct an extended dual-phase extraction (DPE) test on S-2. The DPE test on well S-2 was scheduled to last 5-days, if it was observed to be successful. The intent was to closely monitor the operations and try to maximize the effectiveness of DPE by increasing or decreasing the flow rates or other system parameters.

DPE was performed in an effort to extract contaminant vapors from the soils between approximately 6-9 fbg in well S-2. On the third day of testing (as described below), it was determined that this method was ineffective at S-2. Since the equipment and personnel were already mobilized to the site, Cambria decided to perform vapor extraction from one of the tank backfill wells in order to gain additional knowledge about the site conditions. Thus, Cambria performed DPE from monitoring well S-2 and soil vapor extraction (SVE) from tank backfill well T-1 between September 15 and 18, 2003.

DPE Equipment: A Solleco trailer-mounted liquid-ring pump with electric catalytic oxidizer (Solleco unit) was used as the extraction and vapor abatement device during interim remediation. A 100-kilowatt generator powered the Solleco unit. A recirculation valve controlled the applied vacuum and vapor extraction flow rate. The Solleco unit is equipped with auto-dilution and manual dilution valves for additional vacuum and flow control, as well as to maintain oxidizer temperatures within the specified range.

Field vapor concentrations were measured with a Horiba model MEXA554JU organic vapor analyzer (OVA). Vapor samples were collected in one-liter tedlar bags using a Thomas Industries model 907CDC18F vacuum pump. Vacuum induced in nearby wells, at the wellhead, and within the sample manifold was monitored using Magnehelic differential pressure gauges. A thermal anemometer was used to measure system, dilution, and wellhead vapor flow rates.

Groundwater extracted during the DPE test (approximately 35 gallons) was transported to Shell's Martinez Refinery for recycling.

Data Collection and Sampling: Data was collected on standard forms (Appendix A). The depth to water in onsite monitoring wells was recorded prior to beginning DPE. Throughout the DPE activities, Cambria measured the applied vacuum, airflow, volatile organic vapor concentration, and vacuum influence in nearby wells at 15-60 minute intervals. Samples of the extracted soil vapor were collected several times each day from the extraction well.

Analyses: All laboratory samples were analyzed by Severn Trent Laboratories, Inc. (STL San Francisco) of Pleasanton, California (a State of California certified laboratory) using EPA Method 8260B to determine TPHg, BTEX, and MTBE concentrations and verify field measurements.

Results of DPE Interim Remediation

Details of the DPE activities are presented below. Vapor extraction data is summarized in Table 1. The field data sheets are included as Appendix A and the laboratory analytical reports are included in Appendix B.

September 15, 2003: Cambria mobilized the DPE equipment to the site on September 15 and set up on well S-2. Electrical difficulties were encountered with the Solleco unit and generator on September 15. Operational time was minimal (approximately one hour) and conducted to troubleshoot, service and repair the Solleco unit. Data collection during this time is not considered consistent with the objective of this interim remediation, and representative of the subsurface yield. In consideration of these circumstances, the data collected on this day was not included in the results and analysis of the DPE activities.

September 16, 2003: DPE from monitoring well S-2 began at 8:19 on September 16. Applied vacuum readings were measured at the wellhead. An initial wellhead vacuum of 7.5 inches mercury-gauge (Hg) resulted from a liquid-ring pump-generated vacuum of 15 inches Hg. The maximum wellhead vacuum achieved was 13 inches Hg. After some initial adjustments, a wellhead vacuum of approximately 7.5 inches Hg was established. This vacuum level was maintained throughout the day. Since accurate readings could not be obtained at the wellhead due to excessive moisture in the vapor stream, the total system flow rate and the dilution flow rate were measured, and the wellhead flow rate was calculated by taking the difference between these two measurements. Cambria also determined that a small amount of dilution air at the wellhead (obtained by opening the wellhead ports slightly) was required to promote the extraction of water and vapor from the low permeable soil formation surrounding the well. This

volume of air is considered negligible to the overall flow rate. However, samples were collected with wellhead dilution and without wellhead dilution, for comparison.

The Solleco unit operated overnight at the established vacuum setting to maximize the remedial effort. The extraction flow rate ranged from 1 to 27 standard cubic feet per minute (scfm), and averaged 15.3 scfm. No vacuum influence was observed in tank backfill well T-1 The Solleco unit was placed on top of well T-2 due to space constraints and safety considerations at the site. Therefore, Cambria was unable to monitor vacuum influence in well T-2.

A vapor sample collected from the wellhead at 09:43, with the *dilution port open*, did not contain detectable concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, methyl tertiary butyl ether (MTBE) at detection limits of 10, 0.31 and 0.14 parts per million by volume (ppmv), respectively. The vapor sample collected from the wellhead at 14:17 with the *dilution port open* contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE. Similarly, the vapor sample collected from the wellhead at 14:19 with the *dilution port closed* contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE.

September 17, 2003: DPE from well S-2 was performed on September 17 with periodic alternation between using wellhead dilution and excluding wellhead dilution. Again, this was determined necessary to extract groundwater and vapors given the low permeability of the soil formation. The wellhead vacuum ranged from of 7 to 16 inches Hg, with a liquid-ring pump vacuum level between 18 and 21 inches Hg. The Solleco unit was operated, using wellhead dilution air, over night at the established vacuum setting. The extraction flow rate ranged from 2 to 9 scfm, and averaged 4.6 scfm. No vacuum influence was observed in tank backfill well T-1.

The vapor sample collected from the wellhead at 12:45 with the *dilution port open* contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE. Similarly, the vapor sample collected from the wellhead at 14:00 with the *dilution port closed* contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE. The vapor sample collected from the wellhead at 15:55 with the *dilution port open* contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE. Similarly, the vapor sample collected from the wellhead at 15:59 with the *dilution port closed* contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE.

September 18, 2003: Vapor samples were collected from well S-2 with the dilution port open and the dilution port closed on September 18 at 9:21 and 9:29, respectively. The analytical results of these samples indicated that TPHg, benzene and MTBE were not present in well S-2 at detection limits of 10, 0.31 and 0.14 ppmv, respectively.

Following sample collection from S-2, the DPE equipment was moved to tank backfill well T-1. SVE (excludes groundwater extraction) from well T-1 began at approximately 10:09 on September 18. Applied vacuum readings were measured at the wellhead. Extraction flow rates were measured at the wellhead. An approximate wellhead vacuum of 0.1 inches Hg was established with the liquid-ring pump set at a vacuum of approximately 5 inches Hg. The extraction flow rate ranged from 40 to 51 scfm, and averaged 48.9 scfm. Vacuum influence in nearby wells was not measured during SVE activities on well T-1. A sample collected from T-1 at 11:02 contained <10 ppmv TPHg, <0.31 ppmv benzene, and <0.14 ppmv MTBE. A sample collected from T-1 at 15:00 contained 52 ppmv TPHg, <0.31 ppmv benzene, and 1.5 ppmv MTBE.

RESULTS

During extraction from well S-2, vacuum influence was not discernible in well T-1, which is located approximately 30 feet away. The lack of discernible vacuum influence may be attributed to either the low permeable soil near well S-2 inhibiting the extent of vacuum influence, or the high permeable backfill material (pea gravel) within the UST facility dissipating the vacuum applied to the formation. Approximately 35 gallons of groundwater were extracted from well S-2 during the pilot test. Mass removal based on this amount of water is considered insignificant, and is not reported. TPHg, benzene and MTBE concentrations were low or not detected in vapor samples collected from S-2 and T-1 throughout the pilot test activities. Based on operating parameters and vapor sample analytical results, the total TPHg vapor-phase mass removed from S-2 is estimated at 0.016 pounds. Benzene and MTBE vapor-phase mass removed from S-2 was insignificant. Based on operating parameters and vapor sample analytical results, the total TPHg and MTBE vapor-phase mass removed from T-1 is estimated at 0.136 and 0.004 pounds, respectively. Benzene vapor-phase mass removed from T-1 was insignificant.

CONCLUSIONS

The data from the DPE testing over the course of three days confirms that DPE is not an effective technique for interim remediation at this site. This conclusion is primarily attributed to low-permeability soil beneath the site. The amount of hydrocarbons and MTBE removed from the site by DPE activities was minimal. Cambria does not recommend further implementation of this remedial technology at the subject site.

CLOSING

Cambria is still awaiting comments or approval of the *Tank Backfill Well Installation Report and Investigation Work Plan Addendum* dated September 26, 2002. Upon receiving written approval of our work plan addendum, Cambria will obtain the required permits and schedule the field activities for installation of the four proposed borings, shown on Figure 2.

If you have any questions regarding the contents of this document, please call Ana Friel at (707) 442-2700.

Sincerely,
Cambria Environmental Technology, Inc.

M. Murray for

Cynthia Vasko
Senior Staff Engineer

Ana Friel
Senior Project Geologist
RG # 6452

REGISTERED GEOLOGIST
ANA
FRIEL
Exp. 9/05
Lic. #6452
STATE OF CALIFORNIA

Attachments:

Table 1.	Dual-Phase Extraction – Vapor Phase Mass Removal Data
Figure 1.	Site Vicinity and Area Well Survey Map
Figure 2.	Site Plan
Appendix A.	Field Data Sheets
Appendix B.	Certified Laboratory Analytical Reports

cc: Karen Petryna, Shell Oil Products US
Gursharnjeet Cheema, 1060 St. Raphael Drive, Bay Point, CA 94565

Table 1. Dual Phase Extraction Test - Vapor Phase Mass Removal Data, Shell-branded Service Station, 350 Grand Avenue, Oakland, California

Well # / Date/Time	Hour Meter (hours)	Cumulative Operation (hours)	Vacuum (in Hg) Gage	Vacuum (in Hg) Absolute	Flow Rate (cfm)	Flow Rate (scfm)	Hydrocarbon Concentrations (Concentrations in ppmv) TPHg	Benzene	MTBE	TPHg Removal Rate (#/hour)	TPHg Cumulative Removed (#)	Benzene Removal Rate (#/hour)	Benzene Cumulative Removed (#)	MTBE Removal Rate (#/hour)	MTBE Cumulative Removed (#)
S-2 DPE TEST															
9/16/2003 8:19	735.7	0.0	7.5	22	NA	23	--	--	--	0.002	0.000	0.000	0.000	0.000	0.000
9/16/2003 8:31	736.0	0.3	12	18	38.5	23	1,734	--	--	0.002	0.000	0.000	0.000	0.000	0.000
9/16/2003 8:56	736.3	0.6	13	17	36	20	1,605	--	--	0.001	0.001	0.000	0.000	0.000	0.000
9/16/2003 9:29	736.8	1.1	13	17	NA	20	1,478	--	--	0.001	0.002	0.000	0.000	0.000	0.000
9/16/2003 9:43	737.1	1.4	13	17	18.5	10	*<10*	*<0.31*	*<0.14*	0.001	0.002	0.000	0.000	0.000	0.000
9/16/2003 10:33	737.9	2.2	7	23	35.5	27	142	--	--	0.002	0.003	0.000	0.000	0.000	0.000
9/16/2003 11:40	738.9	3.2	7.5	22	1	1	131	--	--	0.000	0.003	0.000	0.000	0.000	0.000
9/16/2003 12:30	739.9	4.2	7.5	22	4.5	3	127	--	--	0.000	0.003	0.000	0.000	0.000	0.000
9/16/2003 14:17	741.6	5.9	7.5	22	13.5	10	*<10*	*<0.31*	*<0.14*	0.001	0.005	0.000	0.000	0.000	0.000
9/16/2003 14:19	741.6	5.9	7.5	22	19	14	**<10**	**<0.31**	**<0.14**	0.001	0.005	0.000	0.000	0.000	0.000
9/17/2003 12:45	764.0	28.3	8	22	5	4	*<10*	*<0.31*	*<0.14*	0.000	0.010	0.000	0.000	0.000	0.000
9/17/2003 12:50	764.2	28.5	15	15	NA	4	0	--	--	0.000	0.010	0.000	0.000	0.000	0.000
9/17/2003 14:01	765.4	29.7	5	25	8	7	**<10**	**<0.31**	**<0.14**	0.000	0.011	0.000	0.000	0.000	0.000
9/17/2003 14:27	765.9	30.2	15	15	4	2	0	--	--	0.000	0.011	0.000	0.000	0.000	0.000
9/17/2003 15:01	766.4	30.7	7	23	8.5	7	2	--	--	0.000	0.011	0.000	0.000	0.000	0.000
9/17/2003 15:05	766.6	30.9	14.5	15	4.5	2	0	--	--	0.000	0.011	0.000	0.000	0.000	0.000
9/17/2003 15:54	767.4	31.7	7	23	11.5	9	*<10*	*<0.31*	*<0.14*	0.001	0.011	0.000	0.000	0.000	0.000
9/17/2003 15:59	767.5	31.8	16	14	6	3	**<10**	**<0.31**	**<0.14**	0.000	0.012	0.000	0.000	0.000	0.000
9/18/2003 9:13	784.6	48.9	8	22	5.5	4	*<10*	*<0.31*	*<0.14*	0.000	0.016	0.000	0.000	0.000	0.000
9/18/2003 9:29	784.9	49.2	14.5	15	5	3	**<10**	**<0.31**	**<0.14**	0.000	0.016	0.000	0.000	0.000	0.000
T-1 SVE TEST															
9/18/2003 10:09	784.9	0.0	0.1	30	0	0	--	--	--	0.000	0.000	0.000	0.000	0.000	0.000
9/18/2003 10:45	785.5	0.6	0.1	30	40	40	6	--	--	0.003	0.002	0.000	0.000	0.000	0.000
9/18/2003 11:02	785.8	0.9	0.1	30	50	50	**<10**	**<0.31**	**<0.14**	0.003	0.003	0.000	0.000	0.000	0.000
9/18/2003 11:30	786.3	1.4	0.1	30	51.2	51	2	--	--	0.035	0.020	0.000	0.000	0.001	0.001
9/18/2003 12:40	787.5	2.6	0.1	30	51	51	1	--	--	0.035	0.063	0.000	0.000	0.001	0.002

Table 1. Dual Phase Extraction Test - Vapor Phase Mass Removal Data, Shell-branded Service Station, 350 Grand Avenue, Oakland, California

Well # / Date/Time	Hour Meter (hours)	Cumulative Operation (hours)	Vacuum (in Hg) Gage	Vacuum (in Hg) Absolute	Flow Rate (cfm)	Flow Rate (scfm)	Hydrocarbon Concentrations (Concentrations in ppmv) TPHg	Benzene	MTBE	TPHg Removal Rate (#/hour)	TPHg Cumulative Removed (#)	Benzene Removal Rate (#/hour)	Benzene Cumulative Removed (#)	MTBE Removal Rate (#/hour)	MTBE Cumulative Removed (#)
9/18/2003 13:30	788.6	3.7	0.1	30	50.1	50	0	--	--	0.035	0.101	0.000	0.000	0.001	0.003
9/18/2003 14:01	788.9	4.0	0.1	30	50.1	50	0	--	--	0.035	0.111	0.000	0.000	0.001	0.003
9/18/2003 14:30	789.3	4.4	0.1	30	50	50	0	--	--	0.035	0.125	0.000	0.000	0.001	0.004
9/18/2003 15:00	789.6	4.7	0.1	30	50	50	**52**	**<0.31**	**1.5**	0.035	0.136	0.000	0.000	0.001	0.004
Total Pounds Removed:										**TPHg**	**0.152**	**Benzene**	**0.001**	**MTBE**	**0.004**

Abbreviations and Notes:

CFM = Cubic feet per minute

SCFM = Standard cubic feet per minute

in Hg = inches of mercury column

Atmospheric pressure = 29.921 in Hg

Absolute = Atmospheric pressure - gage vacuum (in Hg)

= Pounds

°F = Degrees Farenheit

ppmv = Parts per million by volume

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

Bold = Sample concentrations from laboratory analysis; Non-Bold = field measured concentrations by a Horiba organic vapor analyzer.

Italics = Sample was collected with dilution air at the wellhead.

TPHg, Benzene, and MTBE analyzed by EPA Method 8260B from 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Laboratory analytical concentration (ppmv) x system flow rate (scfm) x (1lb-mole/386ft^3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

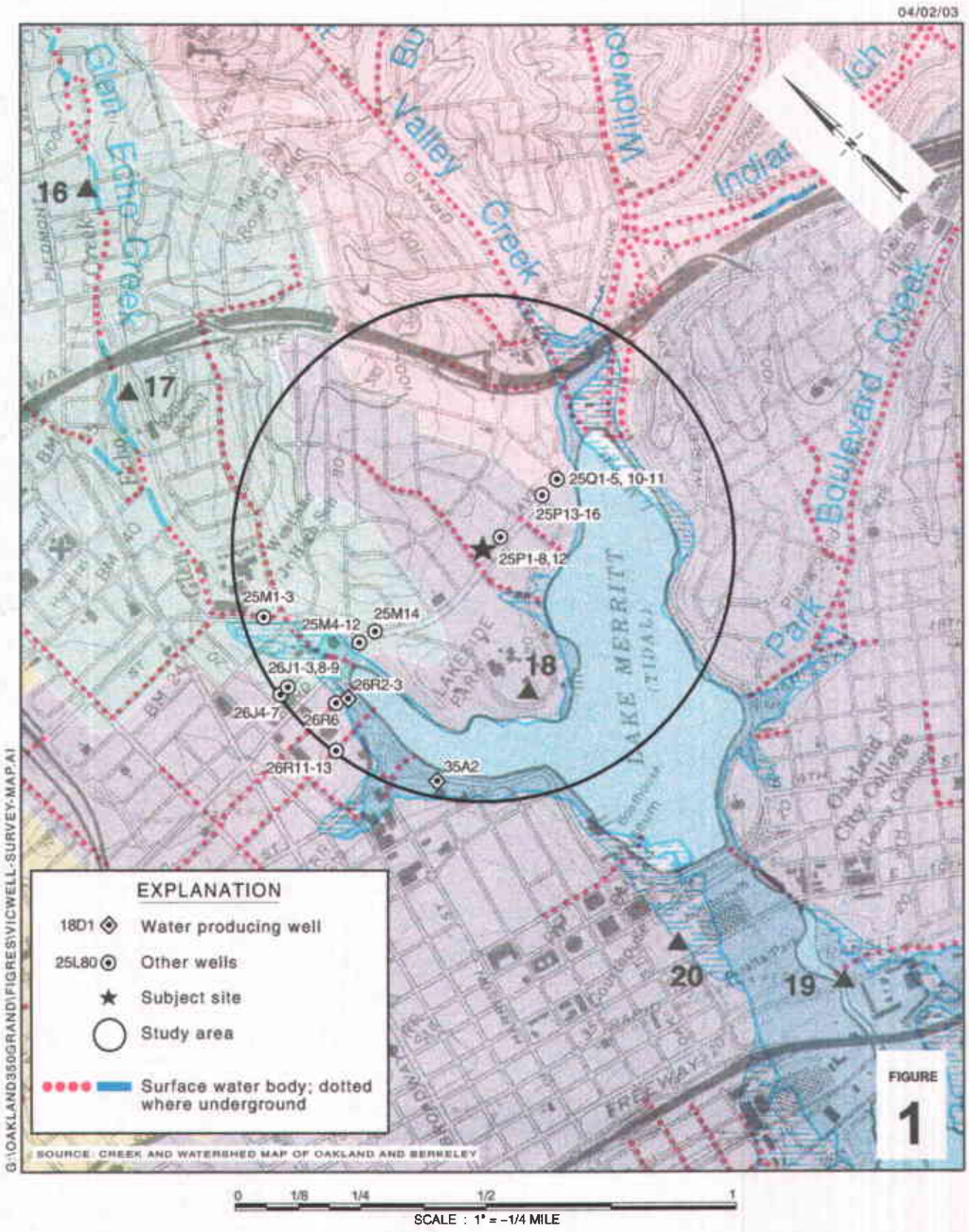
Cumulative TPHg / Benzene / MTBE removal = removal rate multiplied by the hour-interval of operation plus the previous total

S-2 flow rate was calculated based on the difference between the system and dilution flow rates. T-1 flow rate was measured at the wellhead.

When flow rate data was not available, the flow rate was assumed to be equal to the previous flow rate measurement. For the initial reading on September 16, the flow rate was assumed to be equal to the subsequent flow rate measurement.

When constituents are not detected, the concentration is assumed to be equal to half the detection limit in subsequent calculations.

Mass removal calculations were based on the laboratory analytical results. For well S-2, the results of samples collected with wellhead dilution were used..



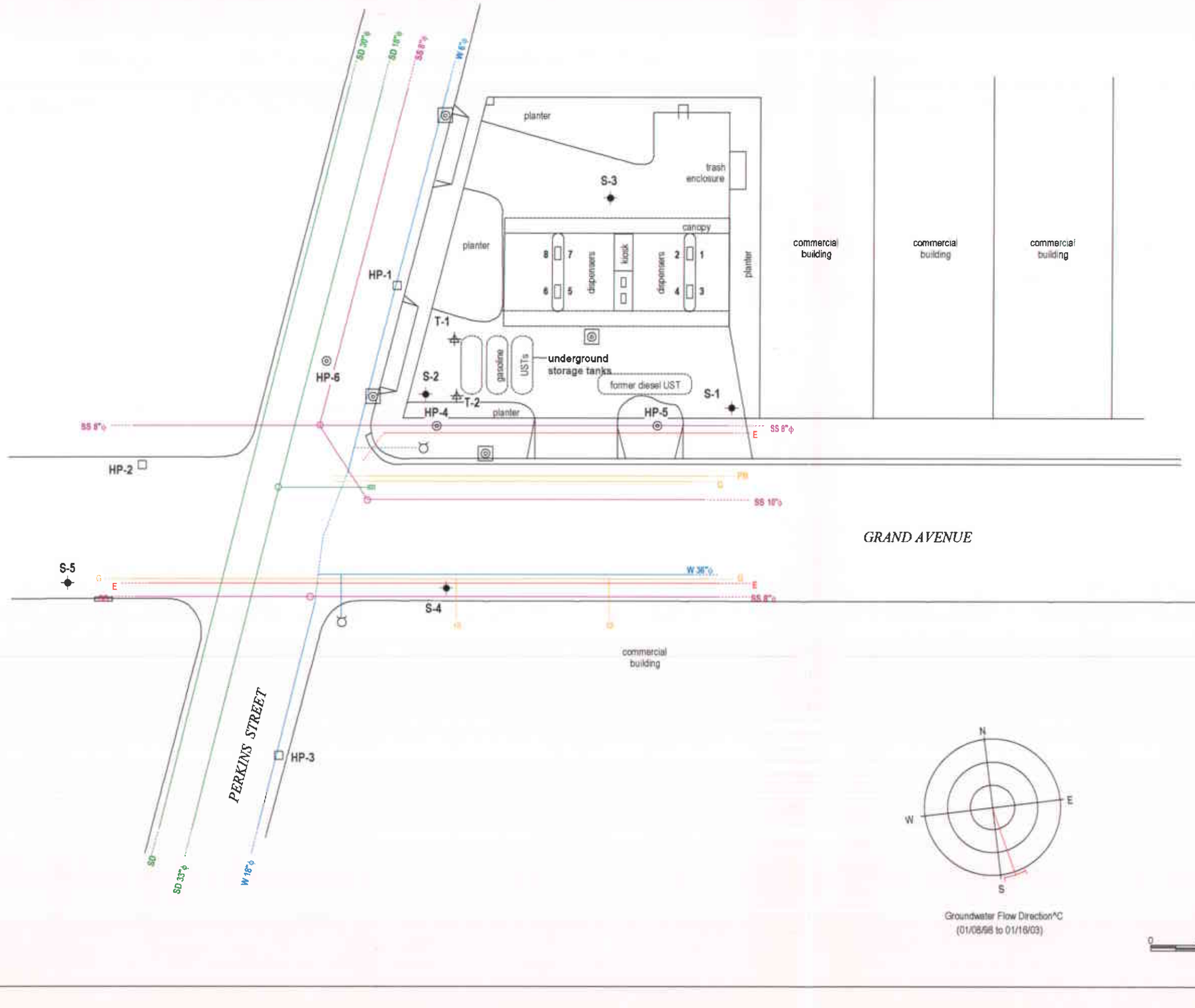
Shell-branded Service Station
350 Grand Avenue
Oakland, California
Incident #98995755

CAMBRIA

Vicinity/Area Well Survey Map

19Jun03

Site Plan



EXPLANATION

- Proposed soil boring location
- Groundwater monitoring well
- T-1 Tank backfill well location
- HP-1 Hydropunch boring location (1993)
- HP-4 Soil boring location (1999)
- E — Electric utility line
- W — Water main utility line
- G — Gas utility line
- SS — Sanitary sewer utility line
- SD — Storm drain utility line
- PB — Pacific Bell utility line
- Storm drain inlet
- Manhole
- Fire hydrant

NOTE Utilities lines are dashed where inferred

FIGURE

2

Shell-branded Service Station
350 Grand Avenue
Oakland, California

0715

APPENDIX A

Field Data Sheets

CAMBRIA

DAILY FIELD REPORT

Project Name: Shell Oil	Cambria Mgr: D.L.	Field Person: D Busch
Project Number: 245-0715	Date: 9/15/00	Site Address: 350 Grand Oakland
General Tasks: DPE Test		

Time	Activity/Comments	Hours
0600	Depart Base (SAC) For Equipment yard. To p/u Sollrco	
0930	Drop Sollrco AT Site, Go To Office (EV) To Do Time Sheet And p/u Trailer Bags	
1200	Leave For Str.	
1247	On Site Again, S-2 water level: (See Attached) Problem w/ system (See Below) Trouble Shoot hoose down head, and Flow meter Display problem	
1330	Paul R on Str. Help move Equipment, Finally able To Get Started	
1430	Start Dewater, of S-2	
1445	Start at 15" Hg, For Step Test. No Step Test This location, formation Too tight.	
	* This one of those wells That Dilution Air must be added at well Head To keep Air / water moving. Select 15" Hg To Run Form Max Flow.	
1531	Last Readings, Talk w/ Dan Secure Site Head For Day, Do not Run Over night, Dan wants To Talk About Tommorow.	
	DD	

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND
Project No. 245-0715-007
Incidient No. 98995755

Date: 9/15/03
Technician: D. BUSH
Project Mgr: DL

Time (hh:mm)	Hour Meter (hrs)	LR Pump Vac (in Hg)	Wellhead Vac (in Hg)	System Flow (cfm)	Dilution Flow (cfm)	Wellhead Flow (S2) (cfm)	Influent Vapor (ppmv)	Effluent Vapor (ppmv)	GW Flow (gpm)	GW Volume (gal)	
1320	733.9	W/	ARM	UP	GRAN/	SYSTEM	—	—	—	98155	TOTALIZER
		MOVE		SYSTEM							
1430	734.3	16.0	7"	101	O/R	O/R					
1505	734.5	16.0	7"	101	O/R	O/R	95	0	<1	≈10	
1515	734.9	16.0	7"	105	O/R	O/R	750	0	<1		
1531	735.0	16.0	7"	110	O/R	O/R	1000	0	<1	≈15	

NOTES:
→ SAMPLE LOCATION O/R = OVER RANGE

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND, OAKLAND
Project No. 245-0715-007
Incidlent No. 98995755

Date: 9/15/02
Technician: BJS
Project Mgr: D.L.

Time (hh:mm)	Hour Meter (hrs)	Observation Well Data T1 (in H20)	T1 (DTW)	T2 (In H2O)	T2 (DTW)	S1 (DTW)	S3 (DTW)	S4 (DTW)	S5 (DTW)	S2 Stinger Depth	S-2	
1245	INITIAL										8.41	

NOTES:

CAMBRIA

DAILY FIELD REPORT

Project Name: SHELL	Cambria Mgr: D.L	Field Person: D. WOSCH
Project Number: 245-0715	Date: 9/16/03	Site Address: 350 GRAND OAKLAND, CA
General Tasks: DPE TEST		

Time	Activity/Comments	Hours
0530	DEPART BASE (SACRAMENTO)	2
0729	ARRIVE SITE, SECURE PARKING, SYSTEM / EQUIPMENT ALL SEEM / ARE INTACT. WARM UP GEN. SET.	
0750	WARM UP SOLECO, WAITING FOR DAN TO ARRIVE	
0815	DAN CALL "GO AHEAD WILL DEHATE) OK START DEWATER	
0830	DO NOT TRY H2O LEVEL IN EARLY A.M. YOU WILL GET HURT, THIS SEEMS TO BE A CAR-POOL P/U, RIGHT PAST MY AREA AND WITH ALL TRAFFIC COMING UP. LOOK OUT. —	
0831	READINGS FOR INF. CONC ARE W/ DEVIATION ON EFF. SIDE OF PUMP, DAN ON SITE	
0955	DAN DEPARTS AFTER EVALUATING S-2 PARAMETERS	
1033	TAKE READINGS AND RE-ADJUST L/R TO SET POINT WE WANT TO.	
1200	BENITO (FUEL TRUCK) HAS NO PROBLEM W/ US RUNNING SYSTEM DURING FUEL DROP. ON W/ POSITION OF OUR EQUIPMENT TO TANKS AND FILL PORTS.	
1406	FINAL SAMPLES (RAY'S READINGS	
1500	SECURE SITE, ALL IS WELL LEAVE FOR BAY	

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NSM 8/16/94

674-434

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND
Project No. 245-0715-007
Incident No. 98995755

Date: 9/16/03
Technician: D. DOSCH
Project Mgr:

2"

Time (hh:mm)	Hour Meter (hrs)	LR Pump Vac (in Hg)	Wellhead Vac (in Hg)	System "Flow" (cfm) 3	Dilution Flow (cfm) 2	Wellhead Flow (S2) (cfm)	Influent Vapor (ppmv)	Effluent Vapor (ppmv)	GW Flow (gpm)	GW Volume (gal)
0819	735.7	15	7.5	103.0	D/W	D/W	D/W	0	1-2	≈20
0831	736.0	18.5	12	66.5	105.0	110.0	1734		≈1	≈30
0856	736.3	19	13	65.0	101.0	—	1605.0			
0929	736.8	19	13	(NOTE)			1478.0		≈1	Vapor lock K
* 0943	737.1	18	13	82.5	101.0	116.5	1230		MIST	UNlock
* PULLED UP GLOVES & CLOSED WELLHEAD VALVES (DILUTION) TO DETERMINE WELL FLOW (SYSTEM - DILUTION = WELL). MUST KEEP WELLHEAD VALVES OPEN TO EXTRACT WATER & VAPORS (IS INTO AIR FOR EXTRACTION).										
↳						→	(212.0)	W/DILUTION		
1033	737.9	16.75	7	63.0	98.5	←	142.0	2	MIST	NOLOCK
1140	738.9	18	7.5	71.5	70.5	←	131.0	2	MIST	NOLOCK
1230	~~739~~ 739.9	18	7.5	74.0	69.5	←	122.0	0	MIST	NOLOCK
1410	741.6	18	7.5	57.5	71.0	←	50.	0	MIST	NOLOCK W/D
1419	741.6	~~18~~ 22	7.5	52.5	71.5	←	20.0	0	MIST	NOLOCK W/O

NOTES: D/W = DRAWTEN MODE

+ - INFLUENT AIR SAMPLE (NOTE) - DILUTION ADDED AT WELL HEAD TO AVOID VAPOR LOCK

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND, OAKLAND
Project No. 245-0715-007
Incidient No. 98995755

Date: 9/16
Technician: D. Duvall
Project Mgr: D. Lescure

Time (hh:mm)	Hour Meter (hrs)	Observation Well Data										
		T1 (in H20)	T1 (DTW)	T2 (in H2O)	T2 (DTW)	S1 (DTW)	S3 (DTW)	S4 (DTW)	S5 (DTW)	S2 Stinger Depth	~~S2~~ H2O	
0741				UNABLE TO						10	09:03	
0750	735.5		8.82	ACCESS,								
				DO TO VAN						13		
				TIGHT SITE								
0835	736.0									14		
0850		0.0	8.82			7.56	9.68	8.86	8.40	15/TD		
1100	738.3	0.0	8.81	—	—	7.56	9.67	8.85	8.38	~15	T.D	
1230	738.9	0.0	8.80	—	—	7.56	9.67	8.85	8.08	14.5	T.D	

NOTES:

SHELL Chain Of Custody Record

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

Shell Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

INCIDENT NUMBER (S&E ONLY): 98995755

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/16/03

PAGE: 1 of 1

SAMPLING COMPANY: CAMBRIA ENVIRONMENTAL TECHNOLOGY INC

LOG CODE: CETS

SITE ADDRESS (Street and City): 350 Grande Ave, Oakland

GLOBAL ID NO.:

ADDRESS: 5900 HOLLIS ST, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Responsible Party or Designee):

PHONE NO.:

E-MAIL:

CONSULTANT PROJECT NO.: 245-0715-007

PROJECT CONTACT (Hardcopy or PDF Report to): Dan Lescure

TELEPHONE: (510) 420-3306

FAX: (510) 420-9170

E-MAIL: dlescure@cambria-env.com

SAMPLER NAME(S) (Print): DAYTON BOSCH

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☑ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☒

9/15/03

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Purgeable	TPH - Extractable (8015m)	BTEX	MTBE	tBA	5 Oxygenates	1,2 DCA and EDB	Ethanol	Methanol	VOCs by 8260B	Semi-Volatiles by 8270C	Lead ☐ Total ☐ STLC ☐ TCLP	LUFTS ☐ Total ☐ STLC ☐ TCLP	CAM17 ☐ Total ☐ STLC ☐ TCLP	Test for Disposal
	S-2-A	9/16/03	1515	Air	1	X		X	X											
	S-2-C-WD	9/16/03	1417	A	1	X		X	X											
	S-2-C-WD	9/16/03	1419	A	1	X		X	X											
	S-2-D-WD	9/10	0545	A	1	X		X	X											
	S-2-A																			

FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature)	Date: 9/16/03	Time: 1530
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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CAMBRIA

DAILY FIELD REPORT

Project Name: SHELL	Cambria Mgr: D.L.	Field Person: D.DUSCH
Project Number: 245-0715	Date: 9/11/03	Site Address: 350 GRAND OAKLAND
General Tasks: DPE TEST		

Time	Activity/Comments	Hours
1030	DEPART BASE (SACRAMENTO) I-80 W - CLOSED THIS A.M. SO USE A.M TO DO A COUPLE OF OTHER TASKS, CALL DAN, LEAVE MESSAGE	
1231	ARRIVE SITE, DELAY AT I-580 OFF RAMP CLOSED DO TO BOMB SQUAD ACTIVITIES	
1245	FINALLY ON SITE, SYSTEM HAS RUN ALL NIGHT FUEL O.K, SITE MANAGER O.K. TAKE FIRST READINGS CALL DAN, I INSTRUCTIONS: CONTINUE RUNNING, DO READINGS AND SAMPLES W/ WELL DILUTION AND WITHOUT WELL DILUTION. TURN DOWN FCAT TEMP TO 400°F TO CONSERVE FUEL AS READINGS ARE VERY LOW. SEE DPE DATA SHEET.	
1601	COLLECT LAST READINGS OF DAY. ALL IS WELL SITE/EQUIPMENT SECURE FUEL O.K	

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND
Project No. 245-0715-007
Incident No. 98995755

Date: 9/17/03
Technician: D. Busch
Project Mgr: D.L

	Time (hh:mm)	Hour Meter (hrs)	LR Pump Vac (in Hg)	Wellhead Vac (in Hg)	System Flow 3" (cfm)	Dilution Flow 2" (cfm)	Wellhead Flow (S2) (cfm)	Influent Vapor (ppmv)	Effluent Vapor (ppmv)	GW Flow (gpm)	GW Volume (gal)	
#1	1245	764.0	18.75	8	~~96.0~~	75.	←	~~2~~6.0	0	MIST	≈35	NO lock
W/D	1250	764.2	20.5	15.0	(43.5)	64.5	←	0.0	0	NONE	—	
WO	1401	765.4	18.5	8	75	67.0	T/W	1.0	0	MIST	—	
NO	1427	765.9	21.0	15	65.0	61.0	T/W	0.0	0	MIST	NO lock W/O NO	
NO	1501	766.4	18.4	7	74.5	66.0	T/W	2.0	0	MIST	NO lock	
NO	1505	766.6	21.0	14.5	65.	60.5	T/W	0.0	0	MIST	NO LOCK	
	1554		18.0	7	75	60.5	T/W	4.0	0	MIST		
	1559		21.0	16.0	66.0	60.0	T/W	0.0	0		START LOCK	

NOTES: #1 W/DILUTION AT WELLHEAD

( ) = NOT A GOOD #, V ALL EQUIPMENT

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND, OAKLAND
Project No. 245-0715-007
Incidient No. 98995755

Date: 9/11/03
Technician: D. DOSCH
Project Mgr: D. L.

Time (hh:mm)	Hour Meter (hrs)	Observation Well Data										
		T1 (in H20)	T1 (DTW)	T2 (in H2O)	T2 (DTW)	S1 (DTW)	S3 (DTW)	S4 (DTW)	S5 (DTW)	S2 Stinger Depth		
1430	765.9	0.0	8.78			7.68	9.66		~~40~~	15.00		
				NO ACCESS	NO ACCESS			NO ACCESS	NO ACCESS			
				UNDER SOLED				CANS PARKED OVER ON STRIP				
1600												

NOTES: S-3 HAS NO BOLT THREAD TABS

SHELL Chain of Custody Record

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

Shell Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

INCIDENT NUMBER (S&E ONLY): 98995757

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/17/03

PAGE: 1 of 1

SAMPLING COMPANY: CAMBRIA ENVIRONMENTAL TECHNOLOGY INC	LOG CODE:	SITE ADDRESS (Street and City): 350 Grande Ave, Oakland	GLOBAL ID NO.:
ADDRESS: 5900 HOLLIS ST, Suite A, Emeryville, CA 94608		EDF DELIVERABLE TO (Responsible Party or Designee):	PHONE NO.: / E-MAIL: / CONSULTANT PROJECT NO.: 245-0715-007
PROJECT CONTACT (Hardcopy or PDF Report to): Dan Lescure		SAMPLER NAME(S) (Print): Dayton Bush	LAB USE ONLY
TELEPHONE: (510) 420-3306	FAX: (510) 420-9170	E-MAIL: dlescure@cambria-env.com	

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☑ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

DPE Testing

REQUESTED ANALYSIS

FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Purgeable	TPH - Extractable (8015m)	BTEX	MTBE	TBA	5 Oxygenates	1,2 DCA and EDB	Ethanol	Methanol	VOCs by 8260B	Semi-Volatiles by 8270C	Lead ☐ Total ☐ STLC ☐ TCLP	LUFTS ☐ Total ☐ STLC ☐ TCLP	CAM17 ☐ Total ☐ STLC ☐ TCLP	Test for Disposal	TEMPERATURE ON RECEIPT C°
—	S-2D-WD	9/16/03	1245	Air	1	X		X	X												WD = W/ Dilution
—	S-2D-ND	9/16/03	1400	Air	1	X		X	X												ND = No Dilution
—	S-2E-WD	9/16/03	1555	Air	1	X		X	X												
—	S-2E-ND	9/16/03	1559	Air	1	X		X	X												

Relinquished by: (Signature) Dayton Bush	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 9/19/03	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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10/16/00 Revision

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CAMBRIA

DAILY FIELD REPORT

Project Name: SHELL	Cambria Mgr: DL	Field Person: D. DUSCH
Project Number: 245-0715	Date: 9/18/03	Site Address: 350 GRAND OAKLAND
General Tasks: DPE		

Time	Activity/Comments	Hours
0700	DEPART BASE (SAC) FOR SITE	
0900	ON SITE, 350 GRAND, SYSTEM HAS RUN ALL NIGHT.	2
0930	TALK W/ DAN, WANTS TO RUN ON T-1, OK SET UP TO RUN (SEE DPE FORM). TRAIN J.R. ON SYSTEM, C-O OVER ALL ASPECTS OF MOUND LOCATIONS, MONITORING, ADJUSTMENT OF SOLIDCO, ETC.	
1300	CALL BAKER TANK FOR P/U (F-7170W) THEY WILL DO ON MONDAY ≈ 10.00 HRS HEAVY MASSAGE W/ ONYX - MARK) GENERATOR WILL STAY ON SITE, PER DESCO, WE will lock UP. THEY will MOB MONDAY TO RICHMOND SITE E.T.A - 1100	
1500	COMPLETE TESTING, SAMPLE AND BREAK DOWN SYSTEM, DEMOB TO EMERYVILLE, TO DROP SOLIDCO. STATION MANAGER PHRASED W/ USE, (CAMBRIA). NO PROBLEMS	

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND AVE
Project No. 245-0715
Incidient No. 98995755
"HR"

Date: 9/18/03
Technician: D.DeSH
Project Mgr: D.L

	Time (hh:mm)	Hour Meter (hrs)	LR Pump Vac (in Hg)	Wellhead Vac ~~(in Hg)~~	System Flow 1 (cfm)	Dilution 2 Flow (cfm)	Wellhead Flow (S2) (cfm)	Influent Vapor (ppmv)	Effluent Vapor (ppmv)	GW Flow (gpm)	GW Volume (gal)
WD	0923	784.6	19	8	75.	69.5	T/W	2.0	0	0	MIST
WD	0929	784.9	21	14.5	69.5	64.5	T/W	0	0	0	MIST
					SWITCH		T-1				
	1045	785.5	4	0.0	1970	O/R	40.0	6.0	—	0	NO MIST
→	1102	785.8	5	0.0	180.0	O/R	50.0	2.0	—	0	NO MIST.
	1130		5	0.1	182.0	O/R	51.2	2.0	—	0	
	1240	787.5	5	0.1	181.0	O/R	51.0	1.0	—	0	NONE
	1330	789.6	5	0.1	180.0	1	50.1	0.0	—	0	
	1401	788.9	5	0.1	140.	O/R	50.1	0.0	—	0	NONE
	1430	789.3	5	0.1	180.0	O/R	50.0	0.0	—	0	
→	1500	789.6	5	0.1	181.0	O/R	50.0	0.0	—	0	NO MIST

NOTES: T/W = TOO WET TO MEASURE O/R = OVER RANGE
WD = WITH WELL DILUTION | ND = NO WELL DILUTION
→ = SAMPLE POINT

CAMBRIA

DPE TEST DATA FORM

Site Address: 350 GRAND
Project No. 245-0715-007
Incidient No.

Date: 9/18/03
Technician: D. BUSCH
Project Mgr: DL

Time (hh:mm)	Hour Meter (hrs)	Observation Well Data T1 (in H20)	T1 (DTW)	T2 (in H2O)	T2 (DTW)	S1 (DTW)	S3 (DTW)	S4 (DTW)	S5 (DTW)	S2 Stinger Depth		
1045			8.79									
				~								
~~1400~~												
1400			8.78		P				12.00			
1500			8.78						11.94			

NOTES: N/A = NO ACCESS

SHELL C... of Custody Record

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

Shell Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

INCIDENT NUMBER (S&E ONLY): 98995755

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/18/03

PAGE: 1 of 1

SAMPLING COMPANY: CAMBRIA ENVIRONMENTAL TECHNOLOGY INC	LOG CODE: CRTS	SITE ADDRESS (Street and City): 350 Grande Ave, Oakland	GLOBAL ID NO.:
ADDRESS: 5900 HOLLIS ST, Suite A, Emeryville, CA 94608		EDF DELIVERABLE TO (Responsible Party or Designee):	PHONE NO.: / E-MAIL: / CONSULTANT PROJECT NO.: 245-0715-007
PROJECT CONTACT (Hardcopy or PDF Report to): Dan Lescure		SAMPLER NAME(S) (Print): DAYTON BUSCH	LAB USE ONLY
TELEPHONE: (510) 420-3306 / FAX: (510) 420-9170 / E-MAIL: dlescure@cambria-env.com			

TURNAROUND TIME (BUSINESS DAYS): ☑ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☑ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

DPE TESTING

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Purgeable	TPH - Extractable (8015m)	BTEX	MTBE	tBA	5 Oxygenates	1,2 DCA and EDB	Ethanol	Methanol	VOCs by 8260B	Semi-Volatiles by 8270C	Lead ☐ Total ☐ STLC ☐ TCLP	LUFT5 ☐ Total ☐ STLC ☐ TCLP	CAM17 ☐ Total ☐ STLC ☐ TCLP	Test for Disposal
	S-2-WD	9/18/03	0921	Air	1	X		X	X											
	S-2-END		0929	Air	1															
	T-1-A		1102	Air	1															
	T-1-B	9/18/03	1500	Air	1	X		X	X											

FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT C°

WD = w/ Dilution

ND - no Dilution

Relinquished by: (Signature)	Received by: (Signature)	Date: 9/18/03	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

10/16/00 Revision

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APPENDIX B

Certified Laboratory Analytical Reports

SEVERN TRENT STL

Submission#: 2003-09-0535

Cambria Environmental Emeryville

September 29, 2003

5900 Hollis Street, Ste. A
Emeryville, CA 94608

Attn.: Dan Lescure

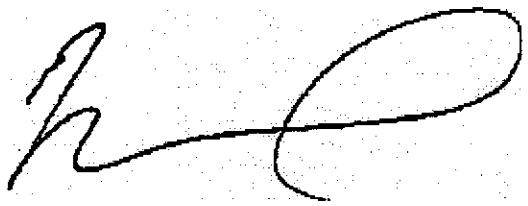
Project#: 245-0715-007
Project: 98995755
Site: 350 Grande Ave, Oakland

Dear Dan

Attached is our report for your samples received on 09/16/2003 15:30
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 10/31/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,



Vincent Vancil
Project Manager

SEVERN TRENT STL

Submission #: 2003-09-0535

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
S-2A	09/15/2003 15:15	Air	1
S-2-C-WD	09/16/2003 14:17	Air	2
S-2-C-WO	09/16/2003 14:19	Air	3
S-2-B-WD	09/16/2003 09:43	Air	4

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Prep(s): 5030B
Test(s): 8260FAB

Sample ID: **S-2A**
Lab ID: 2003-09-0535 - 1

Sampled: 09/15/2003 15:15
Extracted: 9/17/2003 12:06

Matrix: Air
QC Batch#: 2003/09/17-1E.65

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2900	140	ppmv	10.00	09/17/2003 12:06	
Benzene	ND	3.1	ppmv	10.00	09/17/2003 12:06	
Toluene	ND	2.6	ppmv	10.00	09/17/2003 12:06	
Ethylbenzene	ND	2.3	ppmv	10.00	09/17/2003 12:06	
Total xylenes	ND	2.3	ppmv	10.00	09/17/2003 12:06	
Methyl tert-butyl ether (MTBE)	3.9	1.4	ppmv	10.00	09/17/2003 12:06	
Surrogate(s)						
1,2-Dichloroethane-d4	94.3	76-130	%	1.00	09/17/2003 12:06	
Toluene-d8	99.4	78-115	%	1.00	09/17/2003 12:06	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**S-2-C-WD**	Lab ID:	2003-09-0535 - 2
Sampled:	09/16/2003 14:17	Extracted:	9/17/2003 01:45
Matrix:	Air	QC Batch#:	2003/09/16-2C.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/17/2003 01:45	dl
Benzene	ND	0.31	ppmv	1.00	09/17/2003 01:45	
Toluene	ND	0.26	ppmv	1.00	09/17/2003 01:45	
Ethylbenzene	ND	0.23	ppmv	1.00	09/17/2003 01:45	
Total xylenes	ND	0.23	ppmv	1.00	09/17/2003 01:45	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/17/2003 01:45	
Surrogate(s)						
1,2-Dichloroethane-d4	110.0	76-130	%	1.00	09/17/2003 01:45	
Toluene-d8	100.0	78-115	%	1.00	09/17/2003 01:45	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**S-2-C-WO**	Lab ID:	2003-09-0535 - 3
Sampled:	09/16/2003 14:19	Extracted:	9/17/2003 02:07
Matrix:	Air	QC Batch#:	2003/09/16-2C.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/17/2003 02:07	dl
Benzene	ND	0.31	ppmv	1.00	09/17/2003 02:07	
Toluene	ND	0.26	ppmv	1.00	09/17/2003 02:07	
Ethylbenzene	ND	0.23	ppmv	1.00	09/17/2003 02:07	
Total xylenes	ND	0.23	ppmv	1.00	09/17/2003 02:07	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/17/2003 02:07	
Surrogate(s)						
1,2-Dichloroethane-d4	107.2	76-130	%	1.00	09/17/2003 02:07	
Toluene-d8	102.3	78-115	%	1.00	09/17/2003 02:07	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**S-2-B-WD**	Lab ID:	2003-09-0535 - 4
Sampled:	09/16/2003 09:43	Extracted:	9/17/2003 02:30
Matrix:	Air	QC Batch#:	2003/09/16-2C.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/17/2003 02:30	dl
Benzene	ND	0.31	ppmv	1.00	09/17/2003 02:30	
Toluene	ND	0.26	ppmv	1.00	09/17/2003 02:30	
Ethylbenzene	ND	0.23	ppmv	1.00	09/17/2003 02:30	
Total xylenes	ND	0.23	ppmv	1.00	09/17/2003 02:30	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/17/2003 02:30	
Surrogate(s)						
1,2-Dichloroethane-d4	115.9	76-130	%	1.00	09/17/2003 02:30	
Toluene-d8	101.4	78-115	%	1.00	09/17/2003 02:30	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

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Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/16-2C.65**

MB: 2003/09/16-2C.65-038 — Date Extracted: 09/17/2003 00:38

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/17/2003 00:38	
Benzene	ND	0.5	ug/L	09/17/2003 00:38	
Toluene	ND	0.5	ug/L	09/17/2003 00:38	
Ethylbenzene	ND	0.5	ug/L	09/17/2003 00:38	
Total xylenes	ND	1.0	ug/L	09/17/2003 00:38	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/17/2003 00:38	
Surrogates(s)					
1,2-Dichloroethane-d4	95.2	76-130	%	09/17/2003 00:38	
Toluene-d8	109.6	78-115	%	09/17/2003 00:38	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/17-1E.65**

MB: 2003/09/17-1E.65-013 — Date Extracted: 09/17/2003 10:13

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/17/2003 10:13	
Benzene	ND	0.5	ug/L	09/17/2003 10:13	
Toluene	ND	0.5	ug/L	09/17/2003 10:13	
Ethylbenzene	ND	0.5	ug/L	09/17/2003 10:13	
Total xylenes	ND	1.0	ug/L	09/17/2003 10:13	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/17/2003 10:13	
Surrogates(s)					
1,2-Dichloroethane-d4	96.8	76-130	%	09/17/2003 10:13	
Toluene-d8	107.6	78-115	%	09/17/2003 10:13	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville
Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2003/09/16-2C.65**

LCS 2003/09/16-2C.65-053 Extracted: 09/16/2003 Analyzed: 09/16/2003 23:53

LCSD 2003/09/16-2C.65-016 Extracted: 09/17/2003 Analyzed: 09/17/2003 00:16

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	23.5	24.9	25	94.0	99.6	5.8	69-129	20		
Toluene	24.1	25.7	25	96.4	102.8	6.4	70-130	20		
Methyl tert-butyl ether (MTBE)	19.4	20.1	25	77.6	80.4	3.5	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	462	470	500	92.4	94.0		76-130			
Toluene-d8	534	532	500	106.8	106.4		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2003/09/17-1E.65**

LCS 2003/09/17-1E.65-028 Extracted: 09/17/2003 Analyzed: 09/17/2003 09:28

LCSD 2003/09/17-1E.65-051 Extracted: 09/17/2003 Analyzed: 09/17/2003 09:51

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	24.3	23.6	25	97.2	94.4	2.9	69-129	20		
Toluene	24.2	24.8	25	96.8	99.2	2.4	70-130	20		
Methyl tert-butyl ether (MTBE)	20.1	20.1	25	80.4	80.4	0.0	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	495	467	500	99.0	93.4		76-130			
Toluene-d8	542	536	500	108.4	107.2		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/16/2003 15:30

Site: 350 Grande Ave, Oakland

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

dl

Analyte reporting limit represents Method Detection Limit (MDL).

SHELL Chain Of Custody Record

78757

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

Shell Project Manager to be Invoiced:

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

Karen Petryna

2003-09-0535

INCIDENT NUMBER (S&E ONLY): 9 8 9 9 5 7 5 5

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/16/03

PAGE: 1 of 1

SAMPLING COMPANY: CAMBRIA ENVIRONMENTAL TECHNOLOGY INC

LOG CODE: CETS

SITE ADDRESS (Street and City): 350 Grande Ave, Oakland

GLOBAL ID NO.:

ADDRESS: 5900 HOLLIS ST, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Responsible Party or Designate):

PHONE NO.:

E-MAIL:

CONSULTANT PROJECT NO.: 245-0715-007

PROJECT CONTACT (Hardcopy or PDF Report to): Dan Lescure

SAMPLER NAME(S) (Print): Dayton Dosch

LAB USE ONLY

TELEPHONE: (510) 420-3306

FAX: (510) 420-9170

E-MAIL: dlescure@cambria-env.com

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☑ UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☒

9/15/03

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Purgeable	TPH - Extractable (8015m)	BTEX	MTBE	IBA	5 Oxygenates	1,2 DCA and EDB	Ethanol	Methanol	VOCs by 8260B	Semi-Volatiles by 8270C	Lead ☐ Total ☐ STLC ☐ TCLP	LUFTS ☐ Total ☐ STLC ☐ TCLP	CAM17 ☐ Total ☐ STLC ☐ TCLP	Test for Disposal						FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	S-2A	9/16/03	1515	Air	1	X		X	X																	
	S-2-C-WD	9/16/03	1417	Air	1	X		X	X																	
	S-2-C-WD	9/16/03	1419	Air	1	X		X	X																	
	S-2-B-WD	9/16	0549	Air	1	X		X	X																	
	S-2-A																									

21.0

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature)	Date: 9/16/03	Time: 1530
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client

O:\Oakland 350 Grand Avenue\REMEDIATION\Interim Remediation\[SHELL_COC.xls]STL

10/15/99 Revision

CAD Graphic (714) 895-9703

SEVERN TRENT STL

Submission#: 2003-09-0728

Cambria Environmental Emeryville

October 02, 2003

5900 Hollis Street, Ste. A
Emeryville, CA 94608

Attn.: Dan Lescure

Project#: 245-0715-007
Project: 98995755
Site: 350 Grande Ave, Oakland

Dear Dan

Attached is our report for your samples received on 09/19/2003 11:25
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/03/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

SEVERN TRENT STL

Submission #: 2003-09-0728

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
S-2D-WD	09/17/2003 12:45	Air	1
S-2D-ND	09/17/2003 14:00	Air	2
S-2E-WD	09/17/2003 15:55	Air	3
S-2E-ND	09/17/2003 15:59	Air	4

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Prep(s): 5030B
Test(s): 8260FAB

Sample ID: **S-2D-WD**
Lab ID: 2003-09-0728 - 1

Sampled: 09/17/2003 12:45
Extracted: 9/22/2003 16:08

Matrix: Air
QC Batch#: 2003/09/22-1F.64

Analysis Flag: HT (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/22/2003 16:08	dl
Benzene	ND	0.31	ppmv	1.00	09/22/2003 16:08	
Toluene	ND	0.26	ppmv	1.00	09/22/2003 16:08	
Ethylbenzene	ND	0.23	ppmv	1.00	09/22/2003 16:08	
Total xylenes	ND	0.23	ppmv	1.00	09/22/2003 16:08	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/22/2003 16:08	
Surrogate(s)						
1,2-Dichloroethane-d4	84.4	76-130	%	1.00	09/22/2003 16:08	
Toluene-d8	96.0	78-115	%	1.00	09/22/2003 16:08	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

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5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Prep(s): 5030B
Test(s): 8260FAB

Sample ID: **S-2D-ND**
Lab ID: 2003-09-0728 - 2

Sampled: 09/17/2003 14:00
Extracted: 9/22/2003 15:45

Matrix: Air
QC Batch#: 2003/09/22-1Z.64

Analysis Flag: HT (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/22/2003 15:45	dl
Benzene	ND	0.31	ppmv	1.00	09/22/2003 15:45	
Toluene	ND	0.26	ppmv	1.00	09/22/2003 15:45	
Ethylbenzene	ND	0.23	ppmv	1.00	09/22/2003 15:45	
Total xylenes	ND	0.23	ppmv	1.00	09/22/2003 15:45	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/22/2003 15:45	
Surrogate(s)						
1,2-Dichloroethane-d4	86.9	76-130	%	1.00	09/22/2003 15:45	
Toluene-d8	96.5	78-115	%	1.00	09/22/2003 15:45	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Prep(s): 5030B
Test(s): 8260FAB
Sample ID: **S-2E-WD**
Lab ID: 2003-09-0728 - 3
Sampled: 09/17/2003 15:55
Extracted: 9/22/2003 15:23
Matrix: Air
QC Batch#: 2003/09/22-1Z.64
Analysis Flag: HT (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/22/2003 15:23	dl
Benzene	ND	0.31	ppmv	1.00	09/22/2003 15:23	
Toluene	ND	0.26	ppmv	1.00	09/22/2003 15:23	
Ethylbenzene	ND	0.23	ppmv	1.00	09/22/2003 15:23	
Total xylenes	ND	0.23	ppmv	1.00	09/22/2003 15:23	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/22/2003 15:23	
Surrogate(s)						
1,2-Dichloroethane-d4	85.4	76-130	%	1.00	09/22/2003 15:23	
Toluene-d8	99.9	78-115	%	1.00	09/22/2003 15:23	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Prep(s): 5030B
Test(s): 8260FAB

Sample ID: S-2E-ND
Lab ID: 2003-09-0728 - 4

Sampled: 09/17/2003 15:59
Extracted: 9/22/2003 15:01

Matrix: Air
QC Batch#: 2003/09/22-1Z.64

Analysis Flag: HT (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/22/2003 15:01	dl
Benzene	ND	0.31	ppmv	1.00	09/22/2003 15:01	
Toluene	ND	0.26	ppmv	1.00	09/22/2003 15:01	
Ethylbenzene	ND	0.23	ppmv	1.00	09/22/2003 15:01	
Total xylenes	ND	0.23	ppmv	1.00	09/22/2003 15:01	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/22/2003 15:01	
Surrogate(s)						
1,2-Dichloroethane-d4	87.2	76-130	%	1.00	09/22/2003 15:01	
Toluene-d8	96.0	78-115	%	1.00	09/22/2003 15:01	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/22-1F.64**

MB: 2003/09/22-1F.64-008 — Date Extracted: 09/22/2003 12:08

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/22/2003 12:08	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/22/2003 12:08	
Benzene	ND	0.5	ug/L	09/22/2003 12:08	
Toluene	ND	0.5	ug/L	09/22/2003 12:08	
Ethylbenzene	ND	0.5	ug/L	09/22/2003 12:08	
Total xylenes	ND	1.0	ug/L	09/22/2003 12:08	
Surrogates(s)					
1,2-Dichloroethane-d4	82.0	76-130	%	09/22/2003 12:08	
Toluene-d8	98.0	78-115	%	09/22/2003 12:08	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

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Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/22-1Z.64**

MB: 2003/09/22-1Z.64-008 — Date Extracted: 09/22/2003 12:08

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/22/2003 12:08	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/22/2003 12:08	
Benzene	ND	0.5	ug/L	09/22/2003 12:08	
Toluene	ND	0.5	ug/L	09/22/2003 12:08	
Ethylbenzene	ND	0.5	ug/L	09/22/2003 12:08	
Total xylenes	ND	1.0	ug/L	09/22/2003 12:08	
Surrogates(s)					
1,2-Dichloroethane-d4	82.0	76-130	%	09/22/2003 12:08	
Toluene-d8	98.0	78-115	%	09/22/2003 12:08	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike | **Water** | **QC Batch # 2003/09/22-1F.64**

LCS 2003/09/22-1F.64-024 Extracted: 09/22/2003 Analyzed: 09/22/2003 11:24

LCSD 2003/09/22-1F.64-046 Extracted: 09/22/2003 Analyzed: 09/22/2003 11:46

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	24.6	23.8	25	98.4	95.2	3.3	65-165	20		
Benzene	23.2	24.8	25	92.8	99.2	6.7	69-129	20		
Toluene	26.8	25.8	25	107.2	103.2	3.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	426	419	500	85.2	83.8		76-130			
Toluene-d8	494	502	500	98.8	100.4		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2003/09/22-1Z.64**

LCS 2003/09/22-1Z.64-024 Extracted: 09/22/2003 Analyzed: 09/22/2003 11:24

LCSD 2003/09/22-1Z.64-046 Extracted: 09/22/2003 Analyzed: 09/22/2003 11:46

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	24.6	23.8	25	98.4	95.2	3.3	65-165	20		
Benzene	23.2	24.8	25	92.8	99.2	6.7	69-129	20		
Toluene	26.8	25.8	25	107.2	103.2	3.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	426	419	500	85.2	83.8		76-130			
Toluene-d8	494	502	500	98.8	100.4		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave, Oakland

Legend and Notes

Analysis Flag

HT

Extracted out of holding time

Result Flag

dl

Analyte reporting limit represents Method Detection Limit (MDL).

SHELL Chain Of Custody Record

78921

STL-San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
(925) 484-1919 (925) 484-1096 fax

Shell Project Manager to be invoiced:
☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON
Karen Petryna
2003-09-0728

INCIDENT NUMBER (S&E ONLY): 9 8 9 9 5 7 5 5
SAP or CRMT NUMBER (TS/CRMT):
DATE: 9/17/03
PAGE: 1 of 1

SAMPLING COMPANY: CAMBRIA ENVIRONMENTAL TECHNOLOGY INC
LOG CODE:
SITE ADDRESS (Street and City): 350 Grande Ave, Oakland
GLOBAL ID NO.:
ADDRESS: 5900 HOLLIS ST, Suite A, Emeryville, CA 94608
EDF DELIVERABLE TO (Responsible Party or Designee):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: 245-0715-007
PROJECT CONTACT (Hardcopy or PDF Report to): Dan Lescure
TELEPHONE: (510) 420-3306
FAX: (510) 420-9170
E-MAIL: dlescure@cambria-env.com
SAMPLER NAME(S) (Print): Dan Lescure
LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS
☐ LA - RWQCB REPORT FORMAT ☑ UST AGENCY:
GCMS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐
DPE Testing

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Purgeable	TPH - Extractable (8015m)	BTEX	MTBE	tBA	5 Oxygenates	1,2 DCA and EDB	Ethanol	Methanol	VOCs by 8260B	Semi-Volatiles by 8270C	Lead ☐ Total ☐ STLC ☐ TCLP	LUFT5 ☐ Total ☐ STLC ☐ TCLP	CAM17 ☐ Total ☐ STLC ☐ TCLP	Test for Disposal
	S-2D-WD	9/16/03	1245	Air	1	X		X	X											
	S-2D-ND	9/16/03	1400	Air	1	X		X	X											
	S-2E-WD	9/16/03	1555	Air	1	X		X	X											
	S-2E-ND	9/16/03	1557	Air	1	X		X	X											

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes
26.3 °C
TEMPERATURE ON RECEIPT C°
WD = W/ Dilutions
ND = No Dilution

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	9/19/03	1125
Relinquished by: (Signature) 9/19/03 1740	Received by: (Signature)	9/19/03	1749

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client
10/15/00 Revision
O:\Oakland 350 Grand Avenue\REMEDIATION\Interim Remediation\[SHELL_COC.xls]STL

SEVERN TRENT STL

Submission#: 2003-09-0727

Cambria Environmental Emeryville

October 02, 2003

5900 Hollis Street, Ste. A
Emeryville, CA 94608

Attn.: Dan Lescure

Project#: 245-0715-007
Project: 98995755
Site: 350 Grande Ave. Oakland

Dear Dan

Attached is our report for your samples received on 09/19/2003 11:25
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/03/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

SEVERN TRENT STL

Submission #: 2003-09-0727

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
S-2 FWD	09/18/2003 09:21	Air	1
S-2 FND	09/18/2003 09:29	Air	2
T-1-A	09/18/2003 11:02	Air	3
T-1-B	09/18/2003 15:00	Air	4

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**S-2 FWD**	Lab ID:	2003-09-0727 - 1
Sampled:	09/18/2003 09:21	Extracted:	9/20/2003 01:05
Matrix:	Air	QC Batch#:	2003/09/19-3A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/20/2003 01:05	dl
Benzene	ND	0.31	ppmv	1.00	09/20/2003 01:05	
Toluene	ND	0.26	ppmv	1.00	09/20/2003 01:05	
Ethylbenzene	ND	0.23	ppmv	1.00	09/20/2003 01:05	
Total xylenes	ND	0.23	ppmv	1.00	09/20/2003 01:05	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/20/2003 01:05	
Surrogate(s)						
1,2-Dichloroethane-d4	92.6	76-130	%	1.00	09/20/2003 01:05	
Toluene-d8	100.9	78-115	%	1.00	09/20/2003 01:05	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**S-2 FND**	Lab ID:	2003-09-0727 - 2
Sampled:	09/18/2003 09:29	Extracted:	9/20/2003 00:43
Matrix:	Air	QC Batch#:	2003/09/19-3A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/20/2003 00:43	dl
Benzene	ND	0.31	ppmv	1.00	09/20/2003 00:43	
Toluene	ND	0.26	ppmv	1.00	09/20/2003 00:43	
Ethylbenzene	ND	0.23	ppmv	1.00	09/20/2003 00:43	
Total xylenes	ND	0.23	ppmv	1.00	09/20/2003 00:43	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/20/2003 00:43	
Surrogate(s)						
1,2-Dichloroethane-d4	92.2	76-130	%	1.00	09/20/2003 00:43	
Toluene-d8	97.0	78-115	%	1.00	09/20/2003 00:43	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	T-1-A	Lab ID:	2003-09-0727 - 3
Sampled:	09/18/2003 11:02	Extracted:	9/20/2003 00:20
Matrix:	Air	QC Batch#:	2003/09/19-3A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10	ppmv	1.00	09/20/2003 00:20	dl
Benzene	ND	0.31	ppmv	1.00	09/20/2003 00:20	
Toluene	ND	0.26	ppmv	1.00	09/20/2003 00:20	
Ethylbenzene	ND	0.23	ppmv	1.00	09/20/2003 00:20	
Total xylenes	ND	0.23	ppmv	1.00	09/20/2003 00:20	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	09/20/2003 00:20	
Surrogate(s)						
1,2-Dichloroethane-d4	93.7	76-130	%	1.00	09/20/2003 00:20	
Toluene-d8	97.6	78-115	%	1.00	09/20/2003 00:20	

SEVERN TRENT STL

Submission #: 2003-09-0727

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville
Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Alameda County
DEC 17 2003
Environmental Health

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	T-1-B	Lab ID:	2003-09-0727 - 4
Sampled:	09/18/2003 15:00	Extracted:	9/19/2003 23:58
Matrix:	Air	QC Batch#:	2003/09/19-3A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	52	14	ppmv	1.00	09/19/2003 23:58	
Benzene	ND	0.31	ppmv	1.00	09/19/2003 23:58	
Toluene	0.26	0.26	ppmv	1.00	09/19/2003 23:58	
Ethylbenzene	ND	0.23	ppmv	1.00	09/19/2003 23:58	
Total xylenes	ND	0.23	ppmv	1.00	09/19/2003 23:58	
Methyl tert-butyl ether (MTBE)	1.5	0.14	ppmv	1.00	09/19/2003 23:58	
Surrogate(s)						
1,2-Dichloroethane-d4	89.3	76-130	%	1.00	09/19/2003 23:58	
Toluene-d8	99.4	78-115	%	1.00	09/19/2003 23:58	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/19-3A.65**

MB: 2003/09/19-3A.65-035 — Date Extracted: 09/19/2003 23:35

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/19/2003 23:35	
Benzene	ND	0.5	ug/L	09/19/2003 23:35	
Toluene	ND	0.5	ug/L	09/19/2003 23:35	
Ethylbenzene	ND	0.5	ug/L	09/19/2003 23:35	
Total xylenes	ND	1.0	ug/L	09/19/2003 23:35	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/19/2003 23:35	
Surrogates(s)					
1,2-Dichloroethane-d4	89.1	76-130	%	09/19/2003 23:35	
Toluene-d8	103.8	78-115	%	09/19/2003 23:35	

SEVERN TRENT STL

Submission #: 2003-09-0727

Gas/BTEX/MTBE by 8260B (C6-C12)

Alameda County
DEC 17 2003
Environmental Health

Cambria Environmental Emeryville
Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike | **Water** | **QC Batch # 2003/09/19-3A.65**

LCS 2003/09/19-3A.65-050 Extracted: 09/19/2003 Analyzed: 09/19/2003 22:50

LCSD 2003/09/19-3A.65-013 Extracted: 09/19/2003 Analyzed: 09/19/2003 23:13

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	24.1	25.1	25	96.4	100.4	4.1	69-129	20		
Toluene	24.0	25.0	25	96.0	100.0	4.1	70-130	20		
Methyl tert-butyl ether (MTBE)	20.2	21.4	25	80.8	85.6	5.8	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	456	470	500	91.2	94.0		76-130			
Toluene-d8	525	514	500	105.0	102.8		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Emeryville

Attn.: Dan Lescure

5900 Hollis Street, Ste. A
Emeryville, CA 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project: 245-0715-007
98995755

Received: 09/19/2003 11:25

Site: 350 Grande Ave. Oakland

Legend and Notes

Result Flag

dl

Analyte reporting limit represents Method Detection Limit (MDL).

Alameda County

DEC 17 2003

STL-San Francisco

1220 Quarry Lane Environ...
Pleasanton, CA 94566
(925) 484-1919 (925) 484-1096 fax

SHELL Chain Of Custody Record 78920

Shell Project Manager to be invoiced:

☒ SCIENCE & ENGINEERING
☐ TECHNICAL SERVICES
☐ CRMT HOUSTON

Karen Petryna

2003-09-0727

INCIDENT NUMBER (S&E ONLY): 9 8 9 9 5 7 5 5

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/18/03

PAGE: 1 of 1

SAMPLING COMPANY: CAMBRIA ENVIRONMENTAL TECHNOLOGY INC

LOG CODE: CETS

SITE ADDRESS (Street and City): 350 Grande Ave, Oakland

GLOBAL ID NO.:

ADDRESS: 5900 HOLLIS ST, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Responsible Party or Designee):

PHONE NO.:

E-MAIL:

CONSULTANT PROJECT NO.: 245-0715-007

PROJECT CONTACT (Hardcopy or PDF Report): Dan Lescure

TELEPHONE: (510) 420-3306

FAX: (510) 420-9170

E-MAIL: dlescure@cambria-env.com

SAMPLER NAME(S) (Print): Dayton Busch

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☒ UST AGENCY: ____

GC/MS MTBE CONFIRMATION: HIGHEST ____ HIGHEST per BORING ____ ALL ____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

DPE TESTING

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	DATE	TIME	MATRIX	NO. OF CONT.	TPH - Purgeable	TPH - Extractable (8015m)	BTEX	MTBE	TBA	5 Oxygenates	1,2 DCA and EDB	Ethanol	Methanol	VOCs by 8260B	Semi-Volatiles by 8270C	Lead ☐ Total ☐ STLC ☐ TCLP	LUFTS ☐ Total ☐ STLC ☐ TCLP	CAM17 ☐ Total ☐ STLC ☐ TCLP	Test for Disposal					FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	S-2FWD	9/18	0921	Air	1	X		X	X																WD = w/Dilution
	S-2FND		0929	Air	1	X		X	X																ND - no/Dilution
	T-1-A		1102	Air	1	X		X	X																
	T-1-B	9/18/03	1200	Air	1	X		X	X																

TEMPERATURE ON RECEIPT C°: 26.3 °C

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Dayton Busch		9/18/03	
Jones		9/19/03	1125
9/19/03 1749		9/19/03	1749

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client

O:\Oakland 350 Grand Avenue\REMEDIATION\Interim Remediation\[SHELL_COC.xls]STL

10/16/00 Revision