RECEIVED
By Alameda County Environmental Health at 2:50 pm, Nov 06, 2013

BUREAU VERITAS

October 31, 2013

Mr. Jerry Wickham
ALAMEDA COUNTY ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6700

Project No. 33113-013181.00

Subject: *Work Plan for Subsurface Investigation* at Shell-Branded Gasoline Station
1800 ½ Powell Street, Emeryville, California
Case No. RO0000254 and GeoTracker Global ID: T0600101231

Dear Mr. Wickham:

Bureau Veritas North America, Inc. (BVNA), on behalf of Au Energy, LLC (Au Energy, the *responsible party*), is submitting this *Work Plan for Subsurface Investigation and Groundwater Monitoring Well Installation* ("Work Plan") to Alameda County Environmental Health, Environmental Protection (ACEH) for the property located at the above referenced address (the Site – Figures 1 and 2). This Work Plan was prepared in response to the ACEH's letter dated October 10, 2013.

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. If you have any comments or questions regarding this report, please do not hesitate to contact Jeremy Wilson at (925) 498-6518 or Philip McLaughlin at (925) 498-6512.

Sincerely,

Sunny Goyal
Vintners Distributors Inc.
41805 Albrae Street
Fremont, CA 94538

PM/jw

cc: Mr. Sunny Goyal, Au Energy, LLC

Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
2430 Camino Ramon, Suite 122
San Ramon, CA 94583
Main: (925) 426.2600
Fax: (925) 426.0106
www.us.bureauveritas.com

OBJECTIVE

The ACEH requested submittal of a work plan that provides 1) documentation of activities, observations and data associated with the diesel fuel release at the Site; 2) plans to investigate and monitor the extent of contamination from the release; and 3) plans to perform interim soil and groundwater cleanup.

BACKGROUND

The Site is an active retail gasoline station. Aboveground structures include a station building and canopy structure covering three dispenser islands in the central portion of the Site. The Site is primarily covered with asphalt and concrete pavement. The underground storage tanks (USTs) are located to the east of the canopy structure. A car wash structure is located on the northeastern portion of the Site. The Site is planned for redevelopment during the summer of 2014.

Geology and Hydrogeology

The Site was covered by waters of the San Francisco Bay between at least 1939 and the 1950s. In the late 1950s, the Site area was filled in with soil, industrial waste, and construction debris by the Paraffine Company, which operated an industrial complex along the Emeryville waterfront from around 1884 until the late 1960s. The Site was used for dumping until approximately 1970 when it was developed as a gasoline station. Borings completed at the Site have typically encountered sands, silts and silty gravels with fill and refuse materials, including wood and tar paper, to depths of approximately 18 feet below ground surface (bgs), underlain by clayey sand, clay with sand and sand to depths up to 29 feet bgs; bay mud is anticipated to be found at depths greater than 29 feet bgs. Groundwater has been measured in onsite groundwater monitoring wells at depths between approximately 5 and 10 feet bgs and has been reported to consistently flow in a southwest orientation towards the San Francisco Bay.

Previous Releases and Investigations

In September 1982, approximately 3,200 gallons of unleaded gasoline were released from damaged fiberglass piping during fuel dispenser upgrade/replacement activities in the area of existing Well S-9. Four tank backfill wells (S-1 through S-4) and three groundwater monitoring wells (S-5 through S-7) were installed to investigate the release. In 1983, three additional groundwater monitoring wells (S-8 through S-10) were installed. Groundwater monitoring has been conducted at the site since 1983; since 1996 Well S-9 has apparently been coated with a tar-like substance that has prevented the well from being sampled. Between 1983 and 1986, approximately 25,246 gallons of groundwater was extracted from onsite wells, reportedly removing approximately 400 gallons of separate phase hydrocarbons (SPHs). In 1989, three groundwater monitoring wells (S-12 through S-14) were installed and two groundwater monitoring wells (S-6 and S-7) were decommissioned; Well S-11/D is currently located in the UST backfill area. Soil samples collected during well installation identified impacts from total petroleum hydrocarbons (TPH) as oil (TPH-o) up to 11,000 milligrams per kilogram (mg/kg), TPH as diesel (TPH-d) up to 3,300 mg/kg, TPH as gasoline (TPH-g) up to 9,100 mg/kg, and benzene, toluene, ethyl benzene, and xylenes (BTEX) up to 900 mg/kg.

In 1995, an SPH sample was collected and analyzed by Shell's laboratory and was determined to contain approximately 50 percent gasoline and 50 percent C_{20} to C_{50} hydrocarbons, possibly roofing tar. In 1996, six offsite soil borings (B-1 through B-6) were advanced downgradient of the Site to depths up to 16 feet

bgs; analyzed soil samples contained total recoverable petroleum hydrocarbons (TRPH) up to 1,500 mg/kg, TPH-d up to 870 mg/kg, TPH-g up to 43 mg/kg, ethylbenzene up to 0.072 mg/kg, and xylenes up to 0.19 mg/kg. Organochlorine pesticides, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs) were not detected in the analyzed soil samples. TPH-g, VOCs and MTBE were not detected in the grab-groundwater samples collected from the downgradient borings. In 1998, secondary containment was added to the dispensers and turbine pumps. Soil samples collected beneath dispenser (D-5, D-6, D-7 and D-9) contained concentrations of TPH-d and TPH-g up to 260 mg/kg, BTEX up to 14 mg/kg and MTBE up to 0.13 mg/kg.

In 2004, the fuel dispensers were upgraded and a product line was repaired. Nine soil samples (MPD-1 through MPD-9) were collected from beneath the dispensers and two soil samples were collected from beneath the repaired product line (MPD-10 at 4.3 and 4.6 feet bgs). Analyzed soil samples contained concentrations of TPH-d up to 3,500 mg/kg, TPH-g up to 7,900 mg/kg, BTEX up to 630 mg/kg (xylenes), MTBE up to 0.64 mg/kg and lead up to 150 mg/kg.

In 2005, an SPH sample was analyzed and determined to contain approximately 18% by weight gasoline, little material from C_{13} to C_{18}, 45% by weight in the vacuum gas oil range (carbon range higher than diesel, ie., pitch or asphalt), and 35% by weight vacuum residue range (heavy fraction hydrocarbons up to C_{110}). In 2006, a grab water sample was collected from the second stage of the six-stage carwash clarifier sump, the sump was pumped out, and continuous cracks were observed in the first and second units of the clarifier sump. The grab water sample contained 14,000 micrograms per liter (µg/l) oil and grease, 5,300 µg/l motor oil range organics (C_{24}-C_{36}), 30,000 µg/l hydraulic oil range organics (C_9-C_{36}), 10,000 µg/l TPH-d, 0.55 µg/l toluene, and 3.5 µg/l xylenes. As a result of these findings, an unauthorized release form was submitted to the regulatory agency. In April 2006, additional soil and groundwater investigation identified soil impacts from TPH-d up to 6,060 mg/kg, TPH-g up to 502 mg/kg, BTEX up to 0.328 mg/kg and MTBE up to 0.0396 mg/kg. Grab-groundwater samples contained concentrations of TPH-d up to 66,000 µg/l, TPH-g up to 13,500 µg/l, BTEX up to 35.5 µg/l and MTBE up to 72.7 µg/l.

Groundwater monitoring has been conducted at the Site since 1983. Between 2011 and 2012, detected constituents in groundwater samples included TPH-d up to 15,600 µg/l, TPH-g up to 950 µg/l, BTEX up to 23 µg/l and MTBE up to 120 µg/l. Information associated with previous investigations at the Site is available on the California Regional Water Quality Control Board (RWQCB) online GeoTracker records database.

DESCRIPTION OF 2013 RELEASE

Au Energy contracted with BVNA in 2013 to collect soil samples for initial waste characterization prior to removal and replacement of the existing underground storage tank system associated with planned redevelopment of the Site in 2014. Prior to conducting the field work, BVNA obtained the required Alameda County Public Works drilling permit (permit number W2013-0824 dated September 26, 2013. The proposed boring locations were marked and Underground Service Alert (USA) was notified on September 18, 2013 as required by law (USA Notification Number 0366492), and the boring locations were cleared of underground utilities by a private utility locator, OHJ Subsurface Locator.

September 30, 2013

On September 30, 2013, BVNA performed the permitted soil characterization field work utilizing hand clearing equipment and hydraulic direct push drilling equipment (truck-mounted GeoProbe rig). Four borings (BV-1 through BV-4) were hand-cleared of underground utilities prior to advancement by GeoProbe equipment to depths between 8 and 12 feet bgs for soil sampling. Boring BV-3 was proposed to be advanced just east of the southernmost fuel island; the boring was concrete-cored and a hand probe was utilized to clear the boring of underground utilities to a depth of approximately 5 feet bgs. During GeoProbe advancement at Boring BV-3, a subsurface fiberglass diesel fuel product line was apparently damaged; BVNA field staff was unaware that the diesel product line was damaged.

The diesel fueling system reportedly went into alarm and shut down when the next diesel fueling attempt was made at approximately 12:30 pm. Service Station Systems responded to the Site to investigate a PLLD Gross Test Fail and PLLD Shutdown Alarm. BVNA understands that Service Station Systems inspected the fuel system alarm and started the diesel-fuel turbine pumps in attempts to return the diesel fuel system to operational status.

October 1, 2013

Service Station Systems notified Au Energy of possible damage to a diesel fuel line and disabled diesel fueling operations. At this time, Au Energy submitted notifications to regulators, began investigation to reconcile loss of inventory, and dispatched contractors for repair and cleanup activities.

October 2, 2013

Au Energy completed notification procedures and Au Energy contractor and consultant Walton Engineering and BVNA, respectively, mobilized to the Site to perform excavation and investigate the area of Boring BV-3 to locate the reported release and/or damaged pipe. Following removal of concrete and soil from the Boring BV-3 location, a damaged fiberglass diesel fuel product line was discovered. Using an oil/water separator probe, BVNA collected measurements from UST backfill observation wells (S-1/A, S-2/E, S-3/B, S-4/C and S-11/D). Up to approximately three inches of SPH was measured in two of the UST backfill observation wells (S-2/E, S-3/B). Measurable SPH were not found in remaining UST backfill observation wells. Au Energy was notified of the accumulating SPH's and Clean Harbors was contracted by Au Energy to remove water/SPH mixture from the UST backfill area via UST backfill observations wells (S-2/E and S-3/B) utilizing a vacuum truck. Approximately 5,000-gallons of water/SPH mixture was removed for offsite disposal.

BVNA monitored groundwater monitoring wells S-9, S-10 and S-13, which are located downgradient of the damaged product line, for measurable SPH on October 2nd, 3rd, 4th, 7th, 9th, 15th and 23rd, 2013. Measurable SPH was not detected in these wells. BVNA will continue to gauge groundwater monitoring wells S-8, S-10 and S-13 for measurable SPH on a weekly basis; the screened area of well S-9 is reportedly clogged with tar-like substances, is dry and will no longer be monitored.

October 3, 2013

Walton Engineering reportedly completed repair of the fiberglass diesel product line and coordinated arrangements for follow-up inspections with local regulators.

October 4, 2013

Mr. Jeremy Wilson of BVNA, under the direction and oversight of Chris Tougeron of ACEH, collected two soil samples (CS-1 and CS-2) from within the excavation at the damaged diesel product line; CS-1 was collected at a depth between 3.0 and 3.5 feet, adjacent to the damaged area; CS-2 was collected at a depth between 2.5 and 3.0 feet, approximately 3.0 feet southwest of the damaged product line. These soil sample locations and excavation area are depicted on Figure 2. The two soil samples were analyzed for TPH-d, BTEX, ethylene dibromide (EDB), ethylene dichloride (EDC), MTBE, tertiary amyl methyl ether (TAME), ethyl tertiary-butyl ether (ETBE), diisopropyl ether (DIPE), tertiary butyl alcohol (TBA) and ethyl alcohol (EtOH) as directed by ACEH. As summarized in Attachment 2 (Table 1), detected concentrations included ethylbenzene up to 4,900,000 mg/kg, total xylenes up to 26,000,000 mg/kg, TBA up to 12,000,000 mg/kg and TPH-d up to 20,000 mg/kg. Remaining constituents were not detected above the laboratory reporting limits. It should be noted that laboratory reporting limits were elevated due to the detected concentrations. The laboratory reports are included as Attachment 3. Walton Engineering completed the required precision testing of the repaired diesel product line and received approval from ACEH allowing diesel dispensing to resume.

SCOPE OF WORK

Au Energy proposes to install one 4-inch groundwater monitoring well in the near vicinity of the diesel fuel release at the Site and perform groundwater monitoring activities to assess the extent of impacts associated with the diesel fuel release. Upon approval, Au Energy will submit the required permit applications and fees to complete the scope of work presented herein. The following scope of work is proposed to complete the above listed objectives:

- Pre-field activities will include obtaining a monitoring well construction permit from The Alameda County Public Works Agency, Water Resources (ACPW), preparing a Site Health and Safety Plan (SHSP), obtaining permission from Shell to sample existing groundwater monitoring wells, and marking and clearing proposed boring locations of potential underground utilities.
- A licensed C-57 drilling contractor will install one (1) four-inch groundwater monitoring well/SPH recovery well (MW-1) using a truck-mounted hollow stem auger drill rig. Soil samples for chemical analysis will be collected during well installation.
- The newly constructed monitoring well will be developed and sampled; existing groundwater monitoring wells S-8, S-10 and S-13, which are located downgradient of the diesel release, will be sampled to further characterize the groundwater flow direction and groundwater conditions.
- Soil and groundwater samples will be analyzed.

- A technical report will be prepared to documents field activities and analytical results, and to present findings, conclusions, and recommendations.

PRE-FIELD ACTIVITIES

Upon approval of this Work Plan, the required monitoring well construction permit will be obtained from ACPW prior to the commencement of drilling activities.

A SHSP will be prepared for the proposed work at the Site in accordance with the requirements of the State of California General Industry Safety Order (GISO) 5192 and Title 29 of the Code of Federal Regulations, Section 1910.120 (29 CFR 1910.120). A copy of the SHSP will be kept onsite during field activities. The SHSP will detail the work to be performed, safety precautions, emergency response procedures, nearest hospital information, and onsite personnel responsible for managing emergency situations.

The boring location will be marked in white paint and Underground Service Alert (USA) will be contacted at least 48 hours prior to drilling, as required by law. A private utility locating service is proposed to be utilized prior to conducting the field activities to clear the proposed boring location relative to the presence and/or marked locations of subsurface utilities. Subsurface work will not be conducted prior to Site clearance by USA and the utility locating service, if utilized. Air-knife equipment may be used to clear the boring location of underground utilities.

INSTALLATION OF GROUNDWATER MONOTIRNG WELL

Following drilling permit approval from ACPW, a licensed C-57 drilling contractor utilizing a truck-mounted hollow stem auger drill rig will advance one boring (MW-1), to be completed as a groundwater monitoring well, at or in near vicinity of diesel fuel release at the Site. The location of the proposed well is presented on Figure 2. Location of the proposed monitoring well is subject to change based on utility clearance, access limitations and drilling conditions. The rationale for the location and depth of the well is as follows:

- MW-1: On the south-central portion of the Site and adjacent to the recent diesel fuel release to a total depth of approximately 20 feet bgs; nearby groundwater monitoring wells S-8, S-10 and S-13 were set at total depths between 17.81 and 19.40 feet bgs.

The drill rig will be equipped with 10-inch or 12-inch diameter hollow-stem augers to allow conversion of the soil boring to a groundwater monitoring well. During drilling, soil samples will be collected from the borehole for soil logging at approximate five foot intervals to locate the potential water-bearing zones. Soil samples will be collected using an 18-inch California modified split spoon sampler with a 140 pound hammer falling 30 inches. Blow counts for each six inch soil sample segment will be recorded. Field observations will be entered into a field notebook or on a borehole-log sheet. The soil cores will also be examined for soil classification and described on detailed boring logs in general conformance with the Unified Soil Classification System (USCS).

Soil cores will be field screened for VOCs with a photoionization detector (PID). Qualitative measurements of headspace vapors will be obtained in the ppm range for total VOCs. Results of the headspace tests will be recorded on the boring log for use in field screening the soil core samples for indications of potential contamination. Up to three soil samples will be submitted for laboratory analysis

based on field observations and olfactory observations. Exact soil sampling depths will be determined based on field observations. Soil samples will be collected in six-inch brass or stainless steel tubes measuring two inches in diameter. Soil samples collected for TPH-g or VOC analysis will be preserved in accordance with EPA Method 5035. The retrieved sample tubes will be sealed with Teflon tape and plastic end caps, labeled with identifying information, and stored in a pre-chilled ice-chest awaiting transportation to the laboratory. Selected soil samples for chemical analysis will be recorded onto a chain-of-custody document that will accompany the samples to the laboratory and will designate the analytical program; remaining soil samples will be placed on hold by the laboratory pending additional analysis (if necessary).

Drilling equipment and down-hole sampling equipment will be steam cleaned or washed in a solution of non-phosphate detergent, double rinsed with tap water after each use, and allowed to dry. Rinse water and soil drilling cuttings will be containerized in California Department of Transportation (CDOT) approved 55-gallon drums.

Well MW-1 is proposed to be constructed as a 4-inch diameter well within the completed borehole using a 10- or 15-foot length of well screen that will be flush-threaded to Schedule-40 polyvinyl chloride (PVC) blank pipe in the borehole. The well screen section will be constructed of four-inch diameter schedule 40 PVC casing factory-perforated with 0.020-inch slots or larger, and fitted with a PVC end cap.

The well screen filter pack for each installed well will be constructed by pouring clean graded-sand filter pack to fill the annular space of the borehole from the bottom of the borehole to approximately 2 feet above the top of the screened section of casing. A 1-foot thick section of 3/8-inch bentonite pellets will be placed over the sand pack, and hydrated to seal the top of the sand pack prior to placement of the grout seal. The grout seal will consist of neat Portland cement-grout placed from the top of the bentonite seal to within a foot of the ground surface. The remaining one foot of annular space will be constructed of the concrete surface cap in which a traffic-rated well box will be set to cover the top of the well casing. The well box will be flush mounted with a locking type box that contains a gasket seal and a lockable expanding well cap used to secure and seal the wellhead. A notch will be placed on the north side of the top of the well casing for use as a surveying and depth to water measurement reference point. The well construction details will be recorded on a well construction field log for incorporation in the report.

A State of California Licensed Land Surveyor will survey the location and elevation of the groundwater monitoring well. The survey will include the top of well casing elevation (north face) and top of well box rim elevation. The elevation data will be surveyed to an accuracy of 0.01 foot. The northing and easting coordinates will be surveyed to 0.1-foot accuracy and referenced to a recognized survey monument. Upon completion, the survey information for the well will be uploaded into the State of California GeoTracker website.

DEVELOPMENT AND SAMPLING OF MONITORING WELLS

Development of the new monitoring well will be performed to help stabilize the filter pack-sand and geologic materials surrounding the new well screen and to remove sediment that has accumulated in the well casing and filter pack during well construction. The monitoring well will be developed using a combination of surging and bailing. Well development will be accomplished by the repeated insertion and withdrawal of a surge block inside the well casing. Following surging, groundwater will then be removed from

the well casing using a disposable bailer or submersible pump. With the removal of each well casing volume, water quality parameters, including pH, specific conductivity and temperature will be taken. Surging and bailing activities will continue until either 1) a minimum of ten well casing volumes of water has been removed, 2) the water quality parameters have stabilized, or 3) the well is purged dry.

Prior to sample collection, each well (MW-1, S-8, S-10 and S-13) will be gauged to the nearest 0.01 foot with an electronic water level indicator and/or an electronic oil/water indicator to determine the groundwater flow direction and to assess for evidence of separate phase hydrocarbons. Samples will not be collected if evidence of SPH is observed in a well. The wells will be purged using low-flow purging techniques. Low-flow purging involves removing groundwater from each well at a slow rate to minimize stress on the aquifer and the potential for entraining fine sediments, and to reduce the total purge volume while collecting a representative water sample. A peristaltic or submersible pump with new polyethylene tubing will be used to purge each of the wells at a rate of approximately 0.5 liters per minute. During purging, the drawdown in each well will be monitored and kept to a minimum. Physical parameters including pH, electrical conductivity, dissolved oxygen (DO), oxygen reduction potential (ORP), turbidity, and temperature will be measured during purging with a field meter and flow-through cell connected to the pump discharge tubing at five minute intervals. Purging will be considered complete when field parameters have stabilized or when three casing volumes have been purged from the wells. Following well purging activities, a groundwater sample will be collected and decanted into the appropriate laboratory-supplied sample containers. The samples will be capped, labeled with identifying information, placed in a chilled cooler, and recorded on a chain-of-custody document.

Well development and down-hole sampling equipment will be steam-cleaned or washed in a solution of non-phosphate detergent, double-rinsed with tap water after each use, and allowed to dry and/or will be disposable. Decontamination water and purge water will be containerized in CDOT approved 55-gallon drums.

LABORATORY ANALYSES

Up to three soil samples collected during the installation of MW-1 and groundwater samples collected from wells MW-1, S-8, S-10 and S-13 will be submitted to a State-certified laboratory for chemical analysis by the following United States Environmental Protection Agency (USEPA) Methods as required by ACEH:

- BTEX, ethylene dibromide (EDB), ethylene dichloride (EDC), MTBE, tertiary amyl methyl ether (TAME), ethyl tertiary-butyl ether (ETBE), diisopropyl ether (DIPE), tertiary butyl alcohol (TBA) and ethyl alcohol (EtOH) by Method 8260B (Soil samples collected for TPH-g or VOC analysis will be preserved in accordance with EPA Method 5035)
- TPH-d and motor oil (TPH-mo) by Method 8015M

The samples will be analyzed on a standard 5 to 10 business-day turn-around time.

REPORTING

Upon completion of the field activities and receipt of laboratory analyses, a written report will be prepared summarizing the findings of work performed at the Site. The final report will include a description of the

Site, summary of investigative methodologies, analytical results and summary tables including historical data, figures showing boring locations, findings and conclusions. Appendices will include a boring log and certified laboratory analytical reports.

The analytical results and a hard copy of the report will be uploaded to the State of California GeoTracker database website along with the customary paper reports. The data will be submitted through Electronic Deliverable Format (EDF) that includes all sample results, latitude, longitude, and elevations of well locations, and PDF copies of reports and the boring log.

INTERIM SOIL AND GROUNDWATER CLEANUP

Based on analytical data for groundwater samples collected in 2011 and 2012, soil and groundwater underlying the Site was impacted prior to the release on September 30, 2013. Measurable SPH has not been found in groundwater monitoring wells located downgradient of the release location; the existing wells will continue to be monitored for measurable SPH's. The Site is proposed to be redeveloped during the summer of 2014. This will include demolition and removal of existing buildings, features, fueling system equipment and USTs. At that time, additional remediation measures may be implemented. The proposed redevelopment includes installation of new USTs that may be located in the area of the recent release; anticipated soil removal and disposal during UST installation may mitigate potentially impacted soil. In the interim, the groundwater monitoring wells (MW-1, S-8, S-10 and S-13) and UST backfill observation wells will be monitored for measureable SPH. If measureable SPH is observed in the wells, additional measures will be proposed.

CLOSING

If you have any questions or concerns, please contact me at 925.498.6518 or Philip McLaughlin at 925.498.6512.

Sincerely,

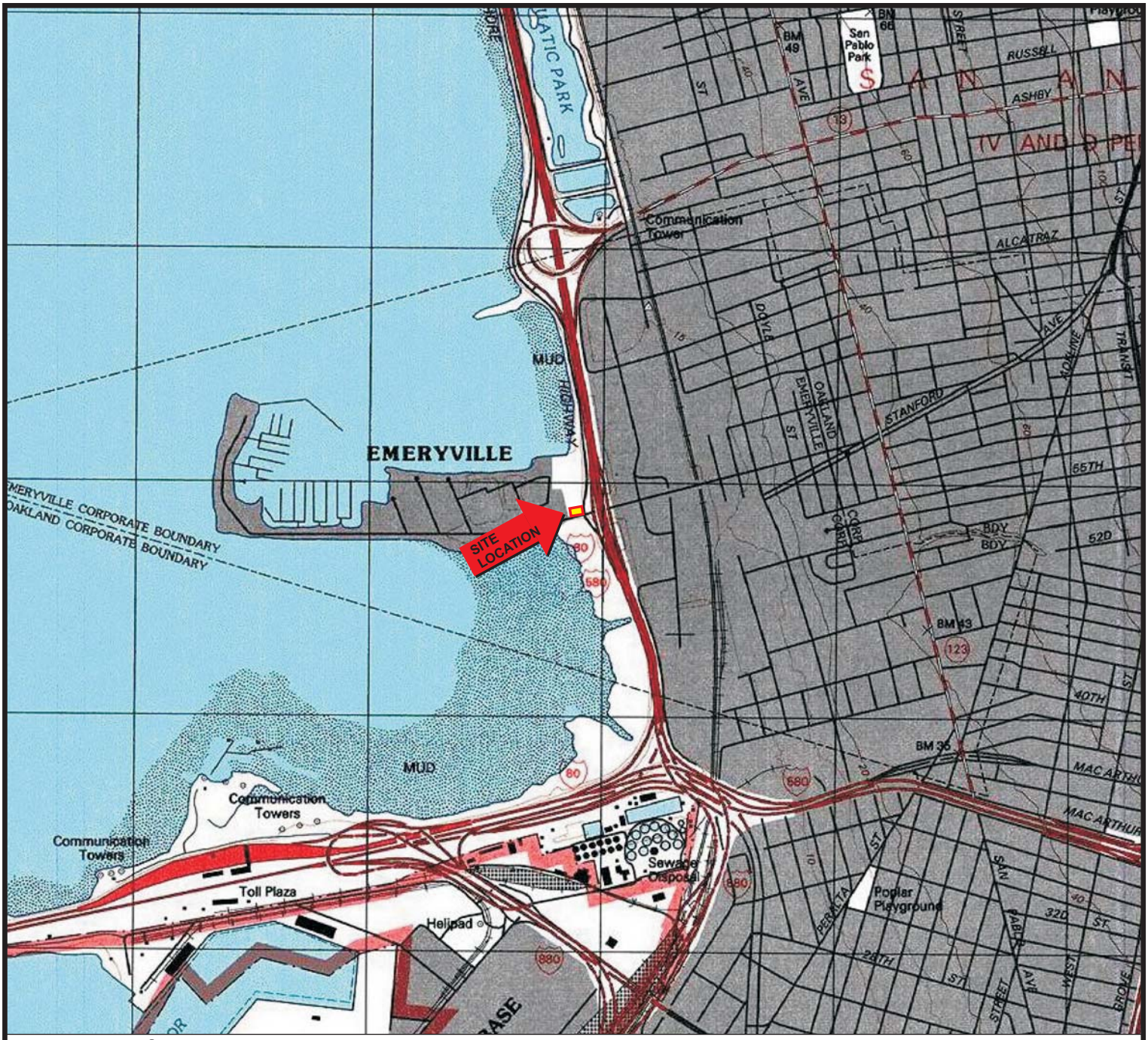
Jeremy V. Wilson, C.S.S.T., R.E.P.A.
Environmental Consultant II
Health, Safety and Environmental Services
jeremy.wilson@us.bureauveritas.com

Philip V. McLaughlin, P.G., C.H.G.
Senior Project Manager
Health, Safety and Environmental Services
philip.mclaughlin@us.bureauveritas.com

Attachments
Attachment 1 – Figures 1 and 2
Attachment 2 – Table 1 (Summary of CS-1 and CS-2 Soil Sample Results)
Attachment 3 – Laboratory Analytical Data Sheets (Soil Samples CS-1 and CS-2)

ATTACHMENT 1

FIGURES 1 AND 2



Source: TOPO! © 2000 National Geographic Holdings

Note: Location Information is Approximate

1 0 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Portion of the 7.5-Minute Series, Oakland West, California
Quadrangle Topographic Map (Datum: NAD 83)
United States Department of the Interior
Geological Survey
1997 Photorevised from 1993

N

CALIF

QUADRANGLE LOCATION

SITE LOCATION MAP	FIGURE
1800 ½ Powell Street Emeryville, California Project No. 33113-013181.00	1

BUREAU VERITAS

Holiday Inn
Hotel Building
1800 Powell

Parking Lot

FRONTAGE ROAD

Shell Station
1800 1/2 Powell

Car Wash

Marketeer Building

USTs

Service islands

canopy

trash encl.

Air/ water

planter

parking lot

traffic island

POWELL STREET

Approximate Groundwater Flow Direction

MPD-1 MPD-2 MPD-3 MPD-4 MPD-5 MPD-6 MPD-7 MPD-8 MPD-9 MPD-10

D-5 D-6 D-7 D-9

SB-7 SB-8 SB-9 SB-10 SB-11 SB-12

S-1/A S-2/E S-3/B S-4/C S-5 S-6 S-7 S-8 S-9 S-10 S-11/D S-12 S-13 S-14

BV-1 BV-2 BV-3 BV-4

MW-1

0 30

SCALE: feet

REFERENCE: CAMBRIA, "SITE PLAN". DATED 6/2/2006.

Approximate Excavation Boundary

Service Islands

CS-1 CS-2

Approximate Location of Diesel Product Line

Damaged Product Line

EXPLANATION

- MPD-1 — Soil sample location (9/23/04)
- D-9 — Soil sample location (3/19/98)
- B-1 — Soil boring location (5/20/96)
- SB-7 — Soil boring location (4/18-19/06)
- S-5 — Monitoring well location
- S-6 — Destroyed monitoring well location
- S-1/A — Tank backfill well location
- Soil Boring Location (Bureau Veritas, 9/30/13)
- Proposed Groundwater Monitoring Well
- Soil Sample Location (Bureau Veritas, 10/4/13)
- Electrical line (E)
- Storm drain line (SD)
- Water line (W)
- Gas line (G)
- Telecommunications line (T)
- Storm drain catch basin

SITE PLAN WITH PROPOSED MONITORING WELL LOCATION

SHELL-BRANDED SERVICE STATION
1800 1/2 POWELL STREET
EMERYVILLE, CALIFORNIA

Project No. 33113-013181.00

Figure **2**

10/29/13
SITE1013.DWG

BUREAU VERITAS

ATTACHMENT 2

TABLE 1

TABLE 1
Soil Analytical Results-TPH and VOCs
1800 1/2 Powell Street
Emeryville, California
Project No. 33113-013188.00

	Boring Identification	CS-1	CS-2	RWQCB ESL - Commercial
	Sample Depth (feet bgs)	3.0' - 3.5'	2.5' - 3.0'	
	Sample Date	10/4/2013	10/4/2013	
VOCs (µg/kg)	Benzene	<4,800	<4,200	44
	Toluene	<4,800	<4,200	2,900
	Ethylbenzene	**4,900**	<4,200	3,300
	Total Xylenes	**26,000**	**17,000**	2,300
	Ethanol	<480,000	<470	--
	Methyl Tert-Butyl Ether (MTBE)	<4,800	<4,200	23
	Tert-Amyl Methyl Ether (TAME)	<4,800	<4,200	--
	Ethyl Tert-Butyl Ether (ETBE)	<4,800	<4,200	--
	Ethylene Dibromide (EDB)	<4,800	<4,200	--
	Ethylene Dichloride (EDC)	<4,800	<4,200	--
	Tert-Butyl Alcohol (TBA)	<9,600	**12,000**	75
	Diisopropyl Ether (DIPE)	<4,800	<4,200	--
Diesel Range Organics (DRO) (mg/kg)		**20,000**	**7,200**	500

Notes:
Volatile organic compounds (VOC) samples reported in micrograms per kilogram (µg/Kg)
Diesel Range Organics (DRO) samples reported in milligrams per kilogram (mg/Kg)
<4,800 = not detected above analytical laboratory reporting limit (elevated reporting limits due to dillution)
RWQCB ESL = Regional Water Quality Control Board Environmental Screening Level for Commercial land use (RWQCB, Table A, Ma
DTSC CHHSL - Commercial values from Table 1 of the California Human Health Screening Levels (CHHSLs) California Environmental
Protection Agency, Use of CHHSLs in Evaluation of Contaminated Properties -- January 2005 (updated October 2010).
DRO analyzed by EPA Method 8015B with silica gel cleanup
VOCs analyzed by EPA Method 5035
Bolded values denote concentrations detected above laboratory reporting limits and above ESL and/or CHHSL
-- = Not Established

ATTACHMENT 3

LABORATORY ANALYTICAL DATA SHEETS
(CS-1 AND CS-2)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-52791-1
Client Project/Site: 1800 1/2 Powell, Emeryville, CA

For:
Bureau Veritas North America, Inc.
Bishop Ranch 6
2430 Camino Ramon Suite 122
San Ramon, California 94583

Attn: Mr. John Werfal

Authorized for release by:
10/9/2013 3:43:21 PM

Micah Smith, Project Manager I
()
micah.smith@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-52791-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-52791-1

Comments
No additional comments.

Receipt
The samples were received on 10/4/2013 10:52 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 11.4º C.

GC/MS VOA
Method(s) 8260B: Surrogate recoveries for samples CS-1-3.0-3.5 (720-52791-1) and CS-2-2.5-3.0 (720-52791-2) were outside control limits due to matrix. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: (720-52791-1 MS), (720-52791-1 MSD), CS-1-3.0-3.5 (720-52791-1), CS-2-2.5-3.0 (720-52791-2).

Method(s) 8015B: Due to the high concentration of C10-C28, the matrix spike / matrix spike duplicate (MS/MSD) for batch 145669 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Client Sample ID: CS-1-3.0-3.5 — Lab Sample ID: 720-52791-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	4900		4800		ug/Kg	1000		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	26000		9600		ug/Kg	1000		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	20000		200		mg/Kg	200		8015B	Silica Gel Cleanup

Client Sample ID: CS-2-2.5-3.0 — Lab Sample ID: 720-52791-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	17000		8500		ug/Kg	1000		8260B/CA_LUFT MS	Total/NA
TBA	12000		8500		ug/Kg	1000		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	7200		99		mg/Kg	100		8015B	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Client Sample ID: CS-1-3.0-3.5
Date Collected: 10/04/13 08:05
Date Received: 10/04/13 10:52

Lab Sample ID: 720-52791-1
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
Ethylbenzene	**4900**		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
Ethanol	ND		480000		ug/Kg		10/08/13 10:00	10/08/13 16:29	1000
MTBE	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
TAME	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
Ethyl tert-butyl ether	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
Toluene	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
EDB	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
Xylenes, Total	**26000**		9600		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
EDC	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
TBA	ND		9600		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000
DIPE	ND		4800		ug/Kg		10/08/13 10:00	10/08/13 13:30	1000

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**20000**		200		mg/Kg		10/07/13 15:10	10/08/13 11:15	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0*		*0 - 1*	*10/07/13 15:10*	*10/08/13 11:15*	*200*
p-Terphenyl	*0*	*D X*	*38 - 148*	*10/07/13 15:10*	*10/08/13 11:15*	*200*

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Client Sample ID: CS-2-2.5-3.0
Date Collected: 10/04/13 08:15
Date Received: 10/04/13 10:52

Lab Sample ID: 720-52791-2
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
Ethylbenzene	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
MTBE	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
TAME	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
Ethyl tert-butyl ether	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
Toluene	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
EDB	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
Xylenes, Total	**17000**		8500		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
EDC	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
TBA	**12000**		8500		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
DIPE	ND		4200		ug/Kg		10/08/13 10:00	10/08/13 13:02	1000
Etanol	ND		470		ug/Kg		10/07/13 08:00	10/08/13 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*0*	*X*	*45 - 131*	*10/07/13 08:00*	*10/08/13 00:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*125*		*60 - 140*	*10/07/13 08:00*	*10/08/13 00:47*	*1*
Toluene-d8 (Surr)	*104*		*58 - 140*	*10/07/13 08:00*	*10/08/13 00:47*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**7200**		99		mg/Kg		10/07/13 15:10	10/08/13 11:45	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0*		*0 - 1*	*10/07/13 15:10*	*10/08/13 11:45*	*100*
p-Terphenyl	*0*	*D X*	*38 - 148*	*10/07/13 15:10*	*10/08/13 11:45*	*100*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-145683/5
Matrix: Solid
Analysis Batch: 145683

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Etanol	ND		500		ug/Kg			10/07/13 20:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*45 - 131*		*10/07/13 20:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*60 - 140*		*10/07/13 20:26*	*1*
Toluene-d8 (Surr)	*88*		*58 - 140*		*10/07/13 20:26*	*1*

Lab Sample ID: LCS 720-145683/6
Matrix: Solid
Analysis Batch: 145683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Etanol			1000	1010		ug/Kg		101	49 - 162		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*103*		*58 - 140*

Lab Sample ID: LCSD 720-145683/7
Matrix: Solid
Analysis Batch: 145683

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Etanol			1000	1010		ug/Kg		101	49 - 162	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*104*		*60 - 140*
Toluene-d8 (Surr)	*102*		*58 - 140*

Lab Sample ID: MB 720-145723/4
Matrix: Solid
Analysis Batch: 145723

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		500		ug/Kg			10/08/13 09:03	100
Ethylbenzene	ND		500		ug/Kg			10/08/13 09:03	100
MTBE	ND		500		ug/Kg			10/08/13 09:03	100
Toluene	ND		500		ug/Kg			10/08/13 09:03	100
EDB	ND		500		ug/Kg			10/08/13 09:03	100
Xylenes, Total	ND		1000		ug/Kg			10/08/13 09:03	100
EDC	ND		500		ug/Kg			10/08/13 09:03	100
TBA	ND		1000		ug/Kg			10/08/13 09:03	100
DIPE	ND		500		ug/Kg			10/08/13 09:03	100
TAME	ND		500		ug/Kg			10/08/13 09:03	100
Ethyl tert-butyl ether	ND		500		ug/Kg			10/08/13 09:03	100

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-145723/5
Matrix: Solid
Analysis Batch: 145723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5000	5060		ug/Kg		101	76 - 122
Ethylbenzene	5000	5000		ug/Kg		100	76 - 137
MTBE	5000	5210		ug/Kg		104	71 - 146
m-Xylene & p-Xylene	10000	10100		ug/Kg		101	71 - 142
Toluene	5000	5010		ug/Kg		100	77 - 120
EDB	5000	5040		ug/Kg		101	80 - 138
EDC	5000	5690		ug/Kg		114	67 - 126
TBA	100000	103000		ug/Kg		103	70 - 130
DIPE	5000	5040		ug/Kg		101	70 - 130
TAME	5000	5270		ug/Kg		105	70 - 130
Ethyl tert-butyl ether	5000	5230		ug/Kg		105	70 - 130

Lab Sample ID: LCSD 720-145723/6
Matrix: Solid
Analysis Batch: 145723

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	5000	4970		ug/Kg		99	76 - 122	2	20
Ethylbenzene	5000	5040		ug/Kg		101	76 - 137	1	20
MTBE	5000	5470		ug/Kg		109	71 - 146	5	20
m-Xylene & p-Xylene	10000	10100		ug/Kg		101	71 - 142	0	20
Toluene	5000	5070		ug/Kg		101	77 - 120	1	20
EDB	5000	5320		ug/Kg		106	80 - 138	6	20
EDC	5000	5580		ug/Kg		112	67 - 126	2	20
TBA	100000	99700		ug/Kg		100	70 - 130	3	20
DIPE	5000	5110		ug/Kg		102	70 - 130	1	20
TAME	5000	5390		ug/Kg		108	70 - 130	2	20
Ethyl tert-butyl ether	5000	5410		ug/Kg		108	70 - 130	3	20

Lab Sample ID: MB 720-145725/22
Matrix: Solid
Analysis Batch: 145725

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		50000		ug/Kg			10/08/13 17:52	100

Lab Sample ID: LCS 720-145725/23
Matrix: Solid
Analysis Batch: 145725

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	100000	113000		ug/Kg		113	70 - 130

Lab Sample ID: LCSD 720-145725/25
Matrix: Solid
Analysis Batch: 145725

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethanol	100000	122000		ug/Kg		122	70 - 130	8	20

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-145669/1-A
Matrix: Solid
Analysis Batch: 145667

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 145669

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.98		mg/Kg		10/07/13 15:10	10/08/13 03:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.0005*		*0 - 1*	*10/07/13 15:10*	*10/08/13 03:10*	*1*
p-Terphenyl	*94*		*38 - 148*	*10/07/13 15:10*	*10/08/13 03:10*	*1*

Lab Sample ID: LCS 720-145669/2-A
Matrix: Solid
Analysis Batch: 145667

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 145669

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			82.4	76.8		mg/Kg		93	36 - 112		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*94*		*38 - 148*

Lab Sample ID: LCSD 720-145669/3-A
Matrix: Solid
Analysis Batch: 145667

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 145669

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			82.8	73.7		mg/Kg		89	36 - 112	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*94*		*38 - 148*

Lab Sample ID: 720-52791-1 MS
Matrix: Solid
Analysis Batch: 145744

Client Sample ID: CS-1-3.0-3.5
Prep Type: Silica Gel Cleanup
Prep Batch: 145669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]	20000		82.7	19700	4	mg/Kg		-332	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
p-Terphenyl	*0*	*D X*	*38 - 148*

Lab Sample ID: 720-52791-1 MSD
Matrix: Solid
Analysis Batch: 145744

Client Sample ID: CS-1-3.0-3.5
Prep Type: Silica Gel Cleanup
Prep Batch: 145669

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	20000		82.7	20200	4	mg/Kg		249	50 - 150	2	30

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 720-52791-1 MSD
Matrix: Solid
Analysis Batch: 145744

Client Sample ID: CS-1-3.0-3.5
Prep Type: Silica Gel Cleanup
Prep Batch: 145669

Surrogate	MSD %Recovery	MSD Qualifier	Limits
p-Terphenyl	*0*	*D X*	*38 - 148*

GC/MS VOA

Analysis Batch: 145683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-2	CS-2-2.5-3.0	Total/NA	Solid	8260B/CA_LUFT MS	145769
LCS 720-145683/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-145683/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-145683/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 145723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-1	CS-1-3.0-3.5	Total/NA	Solid	8260B/CA_LUFT MS	145765
720-52791-2	CS-2-2.5-3.0	Total/NA	Solid	8260B/CA_LUFT MS	145765
LCS 720-145723/5	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-145723/6	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-145723/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 145725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-1	CS-1-3.0-3.5	Total/NA	Solid	8260B/CA_LUFT MS	145765
LCS 720-145725/23	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-145725/25	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-145725/22	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Prep Batch: 145765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-1	CS-1-3.0-3.5	Total/NA	Solid	5030B	
720-52791-2	CS-2-2.5-3.0	Total/NA	Solid	5030B	

Prep Batch: 145769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-2	CS-2-2.5-3.0	Total/NA	Solid	5030B	

GC Semi VOA

Analysis Batch: 145667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-145669/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	145669
LCSD 720-145669/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	145669
MB 720-145669/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	145669

Prep Batch: 145669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-1	CS-1-3.0-3.5	Silica Gel Cleanup	Solid	3546	
720-52791-1 MS	CS-1-3.0-3.5	Silica Gel Cleanup	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 145669 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-1 MSD	CS-1-3.0-3.5	Silica Gel Cleanup	Solid	3546	
720-52791-2	CS-2-2.5-3.0	Silica Gel Cleanup	Solid	3546	
LCS 720-145669/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-145669/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-145669/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 145744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52791-1	CS-1-3.0-3.5	Silica Gel Cleanup	Solid	8015B	145669
720-52791-1 MS	CS-1-3.0-3.5	Silica Gel Cleanup	Solid	8015B	145669
720-52791-1 MSD	CS-1-3.0-3.5	Silica Gel Cleanup	Solid	8015B	145669
720-52791-2	CS-2-2.5-3.0	Silica Gel Cleanup	Solid	8015B	145669

Lab Chronicle

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Client Sample ID: CS-1-3.0-3.5

Lab Sample ID: 720-52791-1

Date Collected: 10/04/13 08:05

Matrix: Solid

Date Received: 10/04/13 10:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			145765	10/08/13 10:00	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1000	145723	10/08/13 13:30	ASC	TAL PLS
Total/NA	Prep	5030B			145765	10/08/13 10:00	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1000	145725	10/08/13 16:29	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			145669	10/07/13 15:10	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		200	145744	10/08/13 11:15	JL	TAL PLS

Client Sample ID: CS-2-2.5-3.0

Lab Sample ID: 720-52791-2

Date Collected: 10/04/13 08:15

Matrix: Solid

Date Received: 10/04/13 10:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			145769	10/07/13 08:00	ASC	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	145683	10/08/13 00:47	ASC	TAL PLS
Total/NA	Prep	5030B			145765	10/08/13 10:00	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1000	145723	10/08/13 13:02	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			145669	10/07/13 15:10	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		100	145744	10/08/13 11:45	JL	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Bureau Veritas North America, Inc.
Project/Site: 1800 1/2 Powell, Emeryville, CA

TestAmerica Job ID: 720-52791-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-52791-1	CS-1-3.0-3.5	Solid	10/04/13 08:05	10/04/13 10:52
720-52791-2	CS-2-2.5-3.0	Solid	10/04/13 08:15	10/04/13 10:52

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

720-52791
320-44130

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone (925) 484-[illegible] 925) 600-3002

Reference #: 149080

Date 10-4-13 Page 1 of 1

10/9/2013

Report To

Attn: John Werfal + Jeremy Wilson
Company: Bureau Veritas NA, Inc
Address 2430 Camino Ramon
Email: john.werfal@us.bureauveritas.com
Bill To: Jeremy.wilson@ Sampled By: J. Wilson
Attn: Phone: 925-498-6518

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B ☐ Gas ☒ BTEX ☐ 5 Oxygenates ☐ EDB ☐ Ethanol + EDC	TEPH EPA 8015B ☒ Silica Gel ☒ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐200.7 ☐ Lead ☐ LUFT ☐RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS) ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity			Number of Containers
CS-1-3.0-3.5	10-4-13	805	S	—			X	X																	1
CS-2-2.5-3.0	10-4-13	815	S	—			X	X																	1

720-52791 Chain of Custody

RUSH

Page 18 of 19

Project Info

Project Name/ #: 1800 Y2 Powell Emeryville, CA
PO#
Credit Card Y/N. If yes, please call with payment information ASAP

Sample Receipt

of Containers: 2
Head Space
Temp: 11.4°C

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | 1 Day | Other: 48 hr Rush

Report ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID ___

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 1052	Signature: Time:	Signature: Time:
Printed Name: Jeremy Wilson Date: 10-4-13	Printed Name: Date:	Printed Name: Date:
Company: Bureau Veritas	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 1052	Signature: Time:	Signature: Time:
Printed Name: Mulley Date: 10-4-13	Printed Name: Date:	Printed Name: Date:
Company: [signature]	Company:	Company:

Rev. 10/2012

Login Sample Receipt Checklist

Client: Bureau Veritas North America, Inc.

Job Number: 720-52791-1

Login Number: 52791

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	