



Stantec

Stantec Consulting Corporation
3017 Kilgore Road Suite 100
Rancho Cordova CA 95670
Tel: (916) 861-0400
Fax: (916) 861-0430

Alameda County

DEC 18 2008

Environmental Health

December 16, 2008

Mr. John Rigter
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

RE: **Fuel System Upgrade Soil Sampling Report**
7-Eleven Store #32266
1339 North Vasco Road
Livermore, California
Stantec Project No.: 77EL.32266.48.0537

Dear Mr. Rigter:

Stantec Consulting Corporation (Stantec) has prepared this report on behalf of 7-Eleven Inc. (7-Eleven) to document the soil sample results obtained during the fuel system upgrade activities conducted at 7-Eleven Store Number 32266 located at 1339 North Vasco Road in Livermore, California (Figures 1 and 2). This work was conducted on December 4, 2008 in accordance with the requirements of Livermore-Pleasanton City Fire Department (LPCFD).

INTRODUCTION

The purpose of Stantec's project involvement was to collect soil samples to assess subsurface conditions beneath four fuel dispenser islands. The fuel line upgrade activities were conducted by Alpha Petroleum Services, Inc. (Alpha). Stantec's scope of work consisted of the following tasks:

- Prepare a site-specific health and safety plan for soil sampling;
- Collect soil samples beneath the dispensers and stockpiled material;
- Submit the soil samples for laboratory analysis;
- Prepare a summary report documenting the soil sampling activities and soil sample analytical results.

FUEL SYSTEM UPGRADE SOIL SAMPLING ACTIVITIES

Site-Specific Health and Safety Plan

Stantec prepared a site-specific health and safety plan for sampling activities at the site, as required by the Occupational Health and Safety Administration (OSHA) Standard "*Hazardous Waste Operations and Emergency Response*" guidelines (29 CFR 1910.120). The document was reviewed and signed by Stantec personnel and subcontractors performing work at the site.

Dispenser Soil Sample Collection

On December 4, 2008, Stantec's field scientist collected one soil sample in native soil from beneath four of the six dispensers (D1-5.0, D2-5.0, D3-5.0 and D4-5.0) at the site (Figure 2). A hand auger was used to retrieve native soil from beneath the sample location. The soil samples were collected in clean, 2-inch-diameter by 6-inch long stainless steel sample liners that were driven into the native soil using a slide-hammer.

The dispenser soil samples collected for analysis were retained in stainless steel liners, labeled, and capped with Teflon[®] sheets and plastic end caps. The samples were then sealed in zip-lock bags, placed on ice, and transported to Kiff Analytical (Kiff) laboratory located in Davis, California, accompanied by the appropriate Chain-of-Custody (COC) documentation. The soil samples were analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX), total petroleum hydrocarbons as gasoline (TPHg), methyl tertiary butyl ether (MtBE), diisopropyl ether (DIPE), ethyl-tert butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA) by Environmental Protection Agency (EPA) Method 8260B. Copies of the field notes are included in Attachment A.

Stockpile Sample Collection

On December 3, 2008, Alpha began stockpiling soil overlaying the top of the underground storage tanks (USTs) and dispenser excavation backfill material. The stockpiled material was deemed suitable by the LPCFD specialist for reuse as backfill and compaction material above the existing USTs and dispenser excavations pending laboratory analysis. Stockpile samples were collected by advancing 2-inch diameter by 3-inch long brass sample liners into the soil stockpile, after removing approximately 6 inches to 1 foot of surface material in the sample location.

On December 4, 2008, a total of four stainless steel sleeves were collected for one composite sample SP1(ABCD). Each stainless steel sleeve was labeled and capped with Teflon[®] sheets and plastic end caps. The samples were then sealed in zip-lock bags, placed on ice, and transported to Kiff accompanied by the appropriate COC documentation. The composite sample was combined in the laboratory. The four-point-composite soil sample SP1(ABCD) was analyzed for TPHg, BTEX, and MtBE, TBA, DIPE, ETBE, and TAME by EPA Method 8260B, and total lead by EPA Method 6010B.

ANALYTICAL RESULTS***Dispenser Soil Sample Analytical Results***

BTEX and TPHg were not detected above laboratory reporting limits in the dispenser soil samples collected, with the exception of dispenser sample D2-5, which contained 0.21 mg/kg, 0.59 mg/kg, 0.26 mg/kg, 1.4 mg/kg, and 12 mg/kg, respectively. MtBE and TBA were detected exclusively in soil sample D1-5.0, at concentrations of 0.024 mg/kg and 0.0076 mg/kg, respectively. DIPE, EtBE, and TAME were not detected above laboratory reporting limits in any dispenser soil samples collected. The dispenser soil sample results are summarized in Table 1. Copies of the certified analytical laboratory reports and COC documentation are presented in Attachment B.

Stockpile Sample Analytical Results

BTEX, TPHg, MtBE, TBA, DIPE, ETBE, and TAME were not detected at concentrations above laboratory reporting limits in the stockpiled soil sample collected during this investigation. Total

lead was detected at concentration of 4.4 mg/kg. The stockpile analytical results are summarized in Table 1. Copies of the certified analytical reports and COC documentation are presented in Attachment B.

WASTE DISPOSAL ACTIVITIES

Stockpile and Excavation Backfill

The stockpiled material was approved for reuse by the LPCFD as backfill and compaction material following the fuel line upgrade activities.

SUMMARY AND CONCLUSION

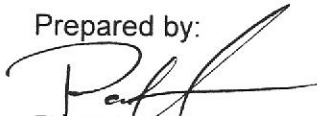
With the exception of dispenser sample D2-5, BTEX and TPHg were not detected above laboratory reporting limits in the dispenser soil samples collected. BTEX and TPHg were detected in dispenser sample D2-5 at concentrations of 0.21 mg/kg, 0.59 mg/kg, 0.26 mg/kg, 1.4 mg/kg, and 12 mg/kg, respectively. MtBE and TBA were detected only in soil sample D1-5.0 at concentrations of 0.024 mg/kg and 0.0076 mg/kg, respectively.

The stockpile composite sample did not contain petroleum hydrocarbon concentrations above laboratory reporting limits. Total lead was detected at a concentration of 4.4 mg/kg. The stockpiled material was reused as UST and dispenser backfill and compaction material.

Should you have any questions regarding this site, please contact the undersigned at (916) 861-0400.

Sincerely,
Stantec Consulting Corporation

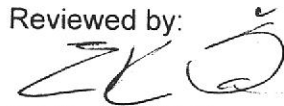
Prepared by:

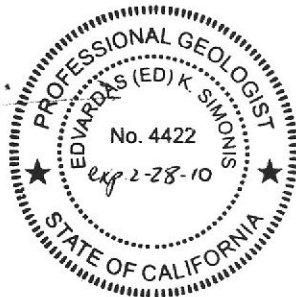

Patrick Herrmann
Project Scientist

Reviewed by:


Damon Brown
Geologic Associate
Project Manager

Reviewed by:


Ed Simonis P.G.
Senior Geologist



ATTACHMENTS

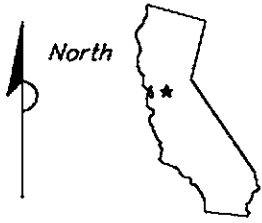
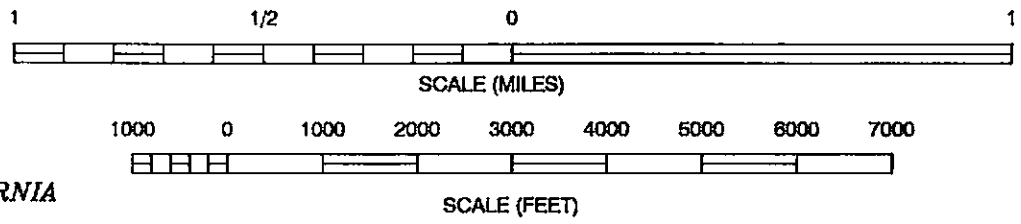
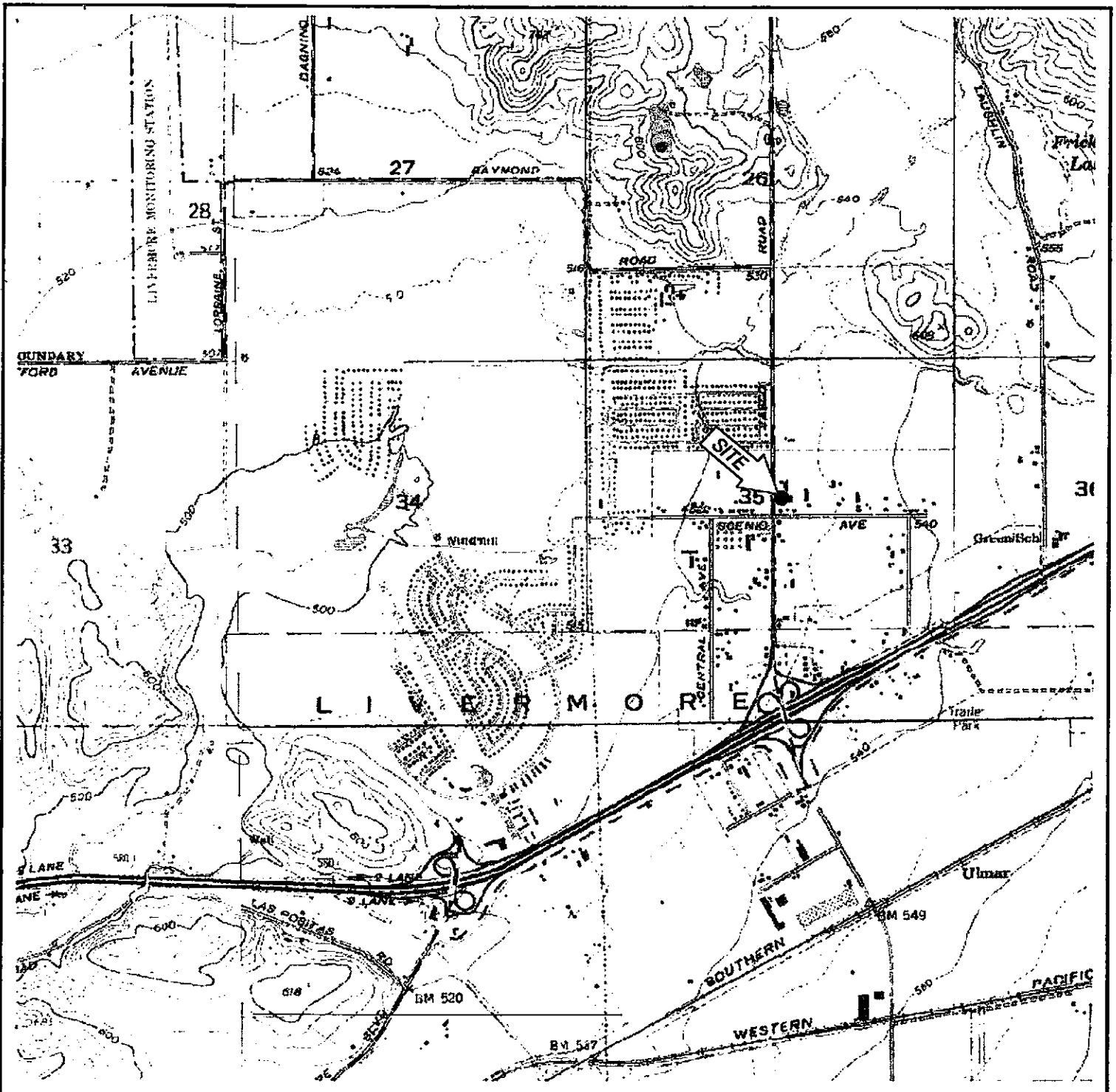
Figures

Tables

Attachment A – Field Notes

Attachment B – Certified Analytical Reports and Chain-of-Custody Documentation

cc: Ms. Donna Drogos, ACEH, 1131 Harbor Bay Parkway, Alameda, CA 94502-6577
Mr. John Wainwright, Stantec, 308 East 4500 South, Suite 100, Murray, Utah 84107-3957



CALIFORNIA

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, LIVERMORE, CALIFORNIA



Stantec

FOR:
7-ELEVEN, INC.
 FACILITY NO. 32266
 1339 VASCO ROAD
 LIVERMORE, CALIFORNIA

SITE LOCATION MAP

FIGURE:
1

JOB NUMBER: 77EL.32266.08	DRAWN BY: STA	CHECKED BY: PH	APPROVED BY: DB	DATE: 12/10/08
------------------------------	------------------	-------------------	--------------------	-------------------

VASCO ROAD

SCENIC AVE.

LEGEND

CHEMICAL ANALYTICAL RESULTS:

DEPTH	TPHg	B	MtBE	ANALYTE
5.0'	<1.0	<0.0050	<0.0050	CONCENTRATION (mg/kg)

ANALYTES:

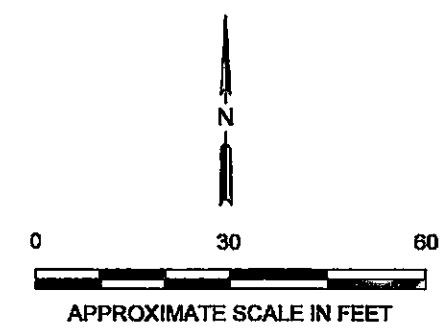
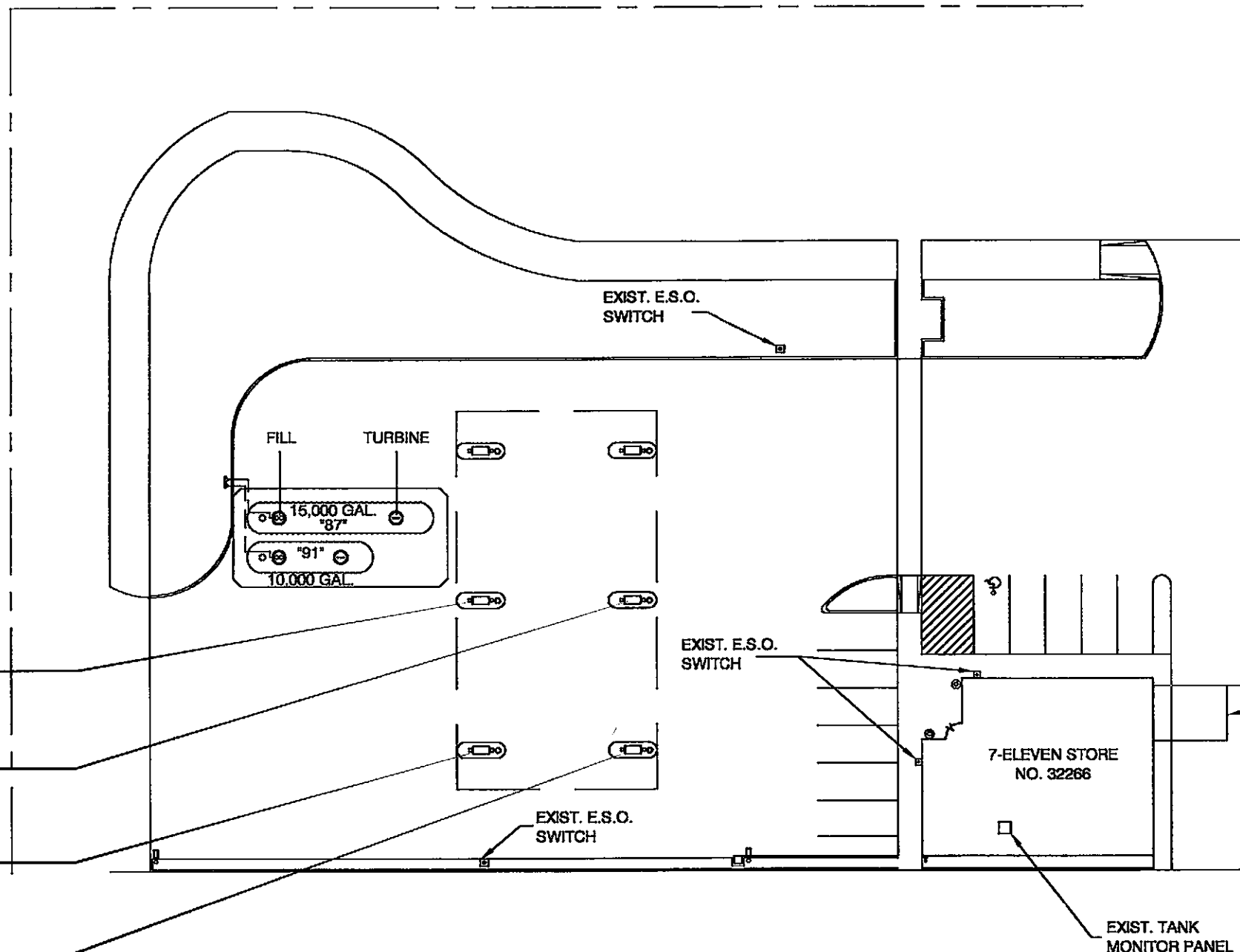
- DEPTH — DEPTH IN FEET BELOW GRADE SURFACE
- TPHg — TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
- B — BENZENE (mg/kg)
- MtBE — METHYL TERTIARY BUTYL ETHER (mg/kg)
- mg/kg — MILLIGRAMS PER KILOGRAM

D4-5.0 (12/04/08)				
DEPTH	TPHg	B	MtBE	
5.0'	<1.0	<0.0050	<0.0050	

D3-5.0 (12/04/08)				
DEPTH	TPHg	B	MtBE	
5.0'	<1.0	<0.0050	<0.0050	

D2-5.0 (12/04/08)				
DEPTH	TPHg	B	MtBE	
5.0'	12	0.21	<0.0050	

D1-5.0 (12/04/08)				
DEPTH	TPHg	B	MtBE	
5.0'	<1.0	<0.0050	0.024	



No warranty is made by Stantec Consulting Corp. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

	FOR:	7-ELEVEN STORE NO. 32266 1339 NORTH VASCO ROAD LIVERMORE, CALIFORNIA	FUEL LINE UPGRADE SOIL SAMPLE CONCENTRATION MAP		FIGURE: 2
	JOB NUMBER: 77EL.32266.08	DRAWN BY: STA	CHECKED BY: PH	APPROVED BY: DB	DATE: 12/10/08

TABLE 1
Soil Sample Analytical Results

7-Eleven Store #32266
1339 Vasco Road
Livermore, California

Sample I.D.	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)	TPHg (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	EtBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	EDB (mg/kg)	EDC (mg/kg)	EtOH (mg/kg)	Total Lead (mg/kg)	Notes
Dispenser Samples																	
D1-5.5	01/28/05	5.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	6.71	
D2-5.0	01/28/05	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.039	<0.0050	<0.0050	<0.0050	0.016	<0.0050	<0.0050	0.010	6.57	
D3-4.5	01/28/05	4.5	0.026	0.086	0.010	0.055	<1.0	0.14	<0.0050	<0.0050	<0.0050	0.0064	<0.0050	<0.0050	0.27	28.4	J
D4-4.5	01/28/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	6.01	
D5-5.0	01/28/05	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	5.53	
D6-6.0	01/28/05	6.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.018	<0.0050	<0.0050	<0.0050	0.049	<0.0050	<0.0050	<0.010	4.98	
D1-5.5	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.024	<0.0050	<0.0050	<0.0050	0.0076	--	--	--	--	a, c
D2-5.0	12/04/08	5.0	0.21	0.59	0.26	1.4	12	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	b, c
D3-4.5	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	a, c
D4-4.5	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	b, c
Line Samples																	
L1-3.5	01/28/05	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	5.51	
L2-4.0	01/28/05	4.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	11.2	
L3-4.5	01/28/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	7.14	
L4-4.5	02/09/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	6.61	
L5-4.5	02/09/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	6.49	
UST Excavation Samples																	
T1-1-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.034	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	5.82	
T1-2-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	2.4	<0.0050	<0.0050	0.0068	2.6	<0.0050	<0.0050	<0.025	6.49	
T2-1-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.016	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	6.65	
T2-2-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	7.50	
T2-3-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	0.18	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	5.66	
Stockpile Soil Samples																	
SP1 (ABCD)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.75	
SP1 (EFGH)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	2.66	
SP1 (IJKL)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.30	
SP1 (MNOP)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	4.40	
SP2 (ABCD)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.80	
SP2 (EFGH)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.01	
SP2 (IJKL)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.24	
SP2 (MNOP)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	5.15	
SP2 (QRST)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	2.75	
SP2 (UVWX)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.17	
SP3 (ABCD)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	3.14	
SP1(ABCD)	12/04/08	---	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	4.4	b,c

TABLE 1
Soil Sample Analytical Results

7-Eleven Store #32266
1339 Vasco Road
Livermore, California

Sample I.D.	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)	TPHg (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	EtBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	EDB (mg/kg)	EDC (mg/kg)	EtOH (mg/kg)	Total Lead (mg/kg)	Notes
<p><u>Explanation</u></p> <p>TPHg, BTEX, MtBE, DIPE, EtBE, TAME, TBA, EDB EDC, EtOH by 8260</p> <p>ft bgs = Feet Below Ground Surface</p> <p>mg/kg = milligrams per kilogram or parts-per-million</p> <p>< = Not detected above laboratory reporting limit</p> <p>UST = Underground Storage Tank</p> <p>TPHg = Total petroleum hydrocarbons-as-gasoline</p> <p>MtBE = Methyl-tert-butyl ether</p> <p>DIPE = Diisopropyl ether</p> <p>EtBE = Ethyl-tert-butyl ether</p> <p>TAME = Tert-amyl-methyl ether</p> <p>-- = not analyzed</p> <p>TBA = Tert-butyl alcohol</p> <p>EDB = 1,2-Dibromoethane</p> <p>EDC = 1,2-Dichloroethane</p> <p>EtOH = Ethanol</p> <p>Total Lead analysis by 6010B</p> <p><u>Notes:</u></p> <p>a = Matrix Spike/Matrix Spike Duplicate results for the analytes tert-butanol and toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.</p> <p>b = Matrix Spike/Matrix Spike Duplicate results for the analyte methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.</p> <p>c = composite soil profile samples</p> <p>d = Note that dispenser sample names/designations differ in location from dispenser samples collected in 2005.</p> <p>J = TBA results for sample D3-4 5 may be biased slightly high and is flagged with a 'J'. A fraction of MtBE (up to 5%) converts to TBA during the analysis of soil samples. This conversion effect is considered to be mathematically significant in samples that contain MtBE/TBA in ratios of over 3:1.</p>																	

Attachment A
Field Notes

JOB NAME:	7-Eleven Store #32266	JOB NUMBER:	77EL.32266.48
SITE ADDRESS:	1339 North Vasco Road	START DATE:	12/4/08
	Livermore, CA	DATE PREPARED:	12/3/2008
PREPARED FOR:	Patrick Herrmann	PREPARED BY:	Patrick Herrmann

PROJECT MANAGER, Damon Brown

AUTHORIZATION _____

SITE VISITATION REPORT

Name(s) Patrick Herrmann Date: 12-04-08 Did you call in? Yes No
 Arrival Time: 1012am "Departure Time: 1220pm Who did you call? Damon Brown
 Weather Notations: SUN CLOUDY RAIN SNOW Temperature _____ F

DRUM INVENTORY

<input checked="" type="checkbox"/>	WATER	<input checked="" type="checkbox"/>	CARBON	TOTAL OPEN TOP	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	SOIL	<input checked="" type="checkbox"/>	EMPTY	TOTAL BUNG TOP	<input checked="" type="checkbox"/>

HEALTH AND SAFETY ASSESSMENT

1012am Arrived onsite, reviewed and signed site specific health and safety plan, conducted health and safety assessment and reviewed scope of work to be performed. Onsite traffic, slips, trips and falls are to be avoided and controlled at all times. Wear proper PPE during soil sample collection.

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES

1018am Checked in with store clerk, presented business card and discussed scope of work to be performed by Stantec.
 1030am Took site photos from N, S, E and W directions.
 Prepared sampling equipment, purchased ice for cooler.
 1038am Checked in with Alpha Petroleum foreman (Nick).
 1043am Took soil stockpile measurements of excavation material. Stockpile included soil and peagravel from tank pit and dispenser excavations. Stockpile measured 37' x 22' x 3' = 2442/27 = 90.4 yd³. Collected one four point composite soil sample (SP1ABCD).
 1050am Called Mr. John Rich Rieger with the Livermore - Pleasanton Fire Department (925) 454-2337 (jrieger@lpfire.org) regarding sampling procedures. No response was given. Stantec will collect samples as applicable.
 1100am Began the collection of dispenser soil samples:
 1105am D1-5.0 took photos
 1125am D2-5.0 took photos.
 1135am D3-5.0 took photos.
 1150am D4-5.0 took photos.

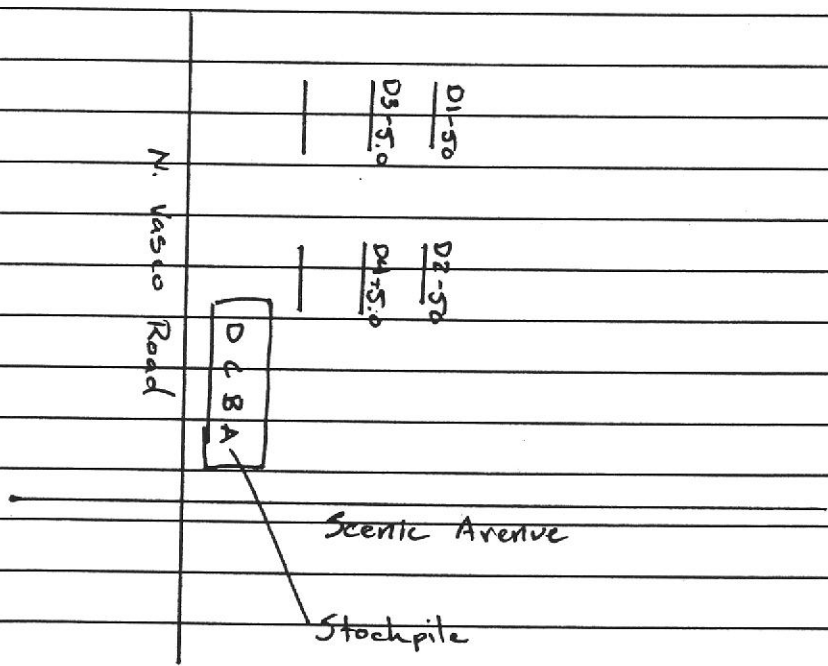
JOB NAME:	7-Eleven Store #32266	JOB NUMBER:	77EL.32266.48
SITE ADDRESS:	1339 North Vasco Road	START DATE:	12/4/08
	Livermore, CA	DATE PREPARED:	12/3/2008
PREPARED FOR:	Patrick Herrmann	PREPARED BY:	Patrick Herrmann

DESCRIPTION OF ACTIVITIES ON SITE AND NOTES (cont)

Field Work Conducted By: Patrick Herrmann Date: 12-4-08

1215 pm Finished collecting dispenser soil samples. Completed COC for stockpile samples and dispenser soil samples, and placed them on ice in cooler. Filled out equipment form.

1230 pm Picked up equipment, checked out with Nick and Store clerk. Called Damon Brown. left site and traveled to office.



Attachment B
Certified Analytical Reports and
Chain-of-Custody Documentation



Report Number : 66276

Date : 12/05/2008

Damon Brown
Stantec Consulting Corporation
3017 Kilgore Road, Suite 100
Rancho Cordova, CA 95670

Subject : 1 Soil Sample
Project Name : 7-Eleven Store #32266
Project Number : 77EL.32266.48

Dear Mr. Brown,

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

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

Sincerely,



Joel Kiff

Subject : 1 Soil Sample
Project Name : 7-Eleven Store #32266
Project Number : 77EL.32266.48

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with sample SP1(ABCD) for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **SP1(ABCD)**

Matrix : Soil

Lab Number : 66276-01

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	4.4	0.50	mg/Kg	EPA 6010B	12/05/2008
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	95.2		% Recovery	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	83.5		% Recovery	EPA 8260B	12/05/2008

QC Report : Method Blank DataProject Name : **7-Eleven Store #32266**Project Number : **77EL.32266.48**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	12/05/2008
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	103		%	EPA 8260B	12/05/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
-----------	----------------	------------------------	-------	-----------------	---------------

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number : 66276

Date : 12/05/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	66277-01	<0.0050	0.0391	0.0389	0.0295	0.0291	mg/Kg	EPA 8260B	12/5/08	75.5	74.9	0.893	70-130	25
Methyl-t-butyl ether	66277-01	0.024	0.0393	0.0391	0.0487	0.0517	mg/Kg	EPA 8260B	12/5/08	62.1	70.2	12.2	70-130	25
Tert-Butanol	66277-01	0.0076	0.199	0.198	0.160	0.155	mg/Kg	EPA 8260B	12/5/08	76.6	74.4	2.89	70-130	25
Toluene	66277-01	<0.0050	0.0399	0.0397	0.0305	0.0295	mg/Kg	EPA 8260B	12/5/08	76.5	74.3	2.96	70-130	25
Lead	66100-04	6.6	50.0	50.0	51.9	51.6	mg/Kg	EPA 6010B	12/5/08	90.7	90.1	0.580	75-125	20

KIFF ANALYTICAL, LLC

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

QC Report : Laboratory Control Sample (LCS)

Project Name : **7-Eleven Store #32266**Project Number : **77EL.32266.48**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	12/5/08	103	85-115
Benzene	0.0380	mg/Kg	EPA 8260B	12/4/08	87.5	70-130
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	12/4/08	92.8	70-130
Tert-Butanol	0.193	mg/Kg	EPA 8260B	12/4/08	85.8	70-130
Toluene	0.0388	mg/Kg	EPA 8260B	12/4/08	77.0	70-130



Report Number : 66277

Date : 12/05/2008

Damon Brown
Stantec Consulting Corporation
3017 Kilgore Road, Suite 100
Rancho Cordova, CA 95670

Subject : 4 Soil Samples
Project Name : 7-Eleven Store #32266
Project Number : 77EL.32266.48

Dear Mr. Brown,

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

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

Sincerely,



Joel Kiff

Subject : 4 Soil Samples
Project Name : 7-Eleven Store #32266
Project Number : 77EL.32266.48

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples D2-5.0 and D4-5.0 for the analytes Tert-Butanol and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate results associated with samples D1-5.0 and D3-5.0 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D1-5.0**

Matrix : Soil

Lab Number : 66277-01

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Methyl-t-butyl ether (MTBE)	0.024	0.0050	mg/Kg	EPA 8260B	12/04/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Tert-Butanol	0.0076	0.0050	mg/Kg	EPA 8260B	12/04/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/04/2008
1,2-Dichloroethane-d4 (Surr)	93.2		% Recovery	EPA 8260B	12/04/2008
Toluene - d8 (Surr)	84.0		% Recovery	EPA 8260B	12/04/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D2-5.0**

Matrix : Soil

Lab Number : 66277-02

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.21	0.0050	mg/Kg	EPA 8260B	12/04/2008
Toluene	0.59	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	0.26	0.0050	mg/Kg	EPA 8260B	12/04/2008
Total Xylenes	1.4	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
TPH as Gasoline	12	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	91.6		% Recovery	EPA 8260B	12/04/2008
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	12/04/2008

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Sample : **D3-5.0**

Matrix : Soil

Lab Number : 66277-03

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	99.1		% Recovery	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	83.8		% Recovery	EPA 8260B	12/05/2008



Report Number : 66277

Date : 12/05/2008

Project Name : 7-Eleven Store #32266

Project Number : 77EL.32266.48

Sample : D4-5.0

Matrix : Soil

Lab Number : 66277-04

Sample Date :12/04/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/04/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/04/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/04/2008
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	12/04/2008

Report Number : 66277

Date : 12/05/2008

QC Report : Method Blank Data

Project Name : **7-Eleven Store #32266**

Project Number : **77EL.32266.48**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	98.7		%	EPA 8260B	12/05/2008
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/05/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/05/2008
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	12/05/2008
Toluene - d8 (Surr)	103		%	EPA 8260B	12/05/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
-----------	----------------	------------------------	-------	-----------------	---------------

KIFF ANALYTICAL, LLC

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

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 7-Eleven Store #32266

Project Number : 77EL.32266.48

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	66215-04	<0.0050	0.0393	0.0383	0.0319	0.0291	mg/Kg	EPA 8260B	12/3/08	81.2	76.0	6.64	70-130	25
Methyl-t-butyl ether	66215-04	<0.0050	0.0395	0.0385	0.0329	0.0296	mg/Kg	EPA 8260B	12/3/08	83.3	76.9	7.93	70-130	25
Tert-Butanol	66215-04	<0.0050	0.200	0.195	0.162	0.135	mg/Kg	EPA 8260B	12/3/08	81.2	69.2	15.9	70-130	25
Toluene	66215-04	<0.0050	0.0400	0.0390	0.0289	0.0263	mg/Kg	EPA 8260B	12/3/08	72.2	67.3	7.03	70-130	25
Benzene	66277-01	<0.0050	0.0391	0.0389	0.0295	0.0291	mg/Kg	EPA 8260B	12/5/08	75.5	74.9	0.893	70-130	25
Methyl-t-butyl ether	66277-01	0.024	0.0393	0.0391	0.0487	0.0517	mg/Kg	EPA 8260B	12/5/08	62.1	70.2	12.2	70-130	25
Tert-Butanol	66277-01	0.0076	0.199	0.198	0.160	0.155	mg/Kg	EPA 8260B	12/5/08	76.6	74.4	2.89	70-130	25
Toluene	66277-01	<0.0050	0.0399	0.0397	0.0305	0.0295	mg/Kg	EPA 8260B	12/5/08	76.5	74.3	2.96	70-130	25

Report Number : 66277

Date : 12/05/2008

QC Report : Laboratory Control Sample (LCS)

Project Name : 7-Eleven Store #32266

Project Number : 77EL.32266.48

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0390	mg/Kg	EPA 8260B	12/3/08	88.6	70-130
Methyl-t-butyl ether	0.0393	mg/Kg	EPA 8260B	12/3/08	92.8	70-130
Tert-Butanol	0.198	mg/Kg	EPA 8260B	12/3/08	87.9	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	12/3/08	79.0	70-130
Benzene	0.0380	mg/Kg	EPA 8260B	12/4/08	87.5	70-130
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	12/4/08	92.8	70-130
Tert-Butanol	0.193	mg/Kg	EPA 8260B	12/4/08	85.8	70-130
Toluene	0.0388	mg/Kg	EPA 8260B	12/4/08	77.0	70-130

KIFF ANALYTICAL, LLC

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

Stantec Chain-of Custody Record

Field Office: 077 Sacramento
 Address: 3017 Kilgore Road, Suite 100
Rancho Cordova, CA

Additional documents are attached, and are part of this Record.
 Job Name: 7-Eleven Store #32266
 Location: 1339 North Vasco Road
Livermore, CA

Project # 77EL.32266.48 Task # 0806
 Project Manager Damon Brown
 Laboratory Kiff Analytical
 Turnaround Time 24 Hour TAT

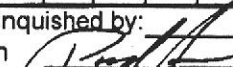
Sampler's Name Patrick Herrmann
 Sampler's Signature 


Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPH/g/BTEX - EPA 8260	TPHd (Diesel Only) 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile rganics 624/8240 (g=GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	5 Oxygenates EPA 8260B												Comments/Instructions	Number of Containers		
D1-5.0	12/04/08	1105am	soil		x							x														1	01
D2-5.0	12/04/08	1125am	soil		x							x														1	02
D3-5.0	12/04/08	1135am	soil		x							x														1	03
D4-5.0	12/04/08	1150am	soil		x							x														1	04

SAMPLE RECEIPT
 Temp 4.0 Therm. ID# 12-1
 Initial NW Date 12/04/08
 Time 1534 Coolant present: Yes


Special Instructions/Comments
 5 oxs: MtBE, ETBE, DIPE, TAME and TBA
 email analytical results to:
 damon.brown@stantec.com,
 patrick.herrmann@stantec.com

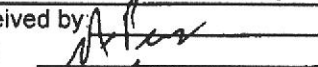
Relinquished by:
 Sign 
 Print Patrick Herrmann
 Company Stantec
 Time 234 pm Date 12/4/08

Received by:
 Sign 
 Print BRIAN BRANSCUM
 Company STANTEC
 Time 1434 Date 12/4/08

Sample Receipt

Total no. of containers:	
Chain of custody seals:	
Rec'd in good condition/cold:	
Conforms to record:	

Relinquished by:
 Sign 
 Print BRIAN BRANSCUM
 Company STANTEC
 Time 1534 Date 12/4/08

Received by:
 Sign 
 Print Nick Kiff
 Company Kiff Analytical
 Time 1534 Date 12/04/08

Client: Stantec
 Client Contact: Damon Brown
 Client Phone: (916) 861-0400
ext. 230