



Stantec Consulting Services Inc.
11130 NE 33rd Place, Suite 200
Bellevue, Washington 98004
425.869.9448

May 15, 2015
File: 185750040

Attention: Ms. Carol Johnston

Washington State Department of Ecology
Southwest Regional Office - Independent Cleanup Program
PO Box 47775
Olympia, WA 98504-7775

Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014 and First Quarter 2015

- **Site Name:** 7-Eleven Store No. 25983
- **Site Address:** 3541 Martin Way East, Olympia, Washington
- **Facility Site ID:** 5465157
- **Cleanup Site ID:** 5366

Dear Ms. Johnston,

On behalf of 7-Eleven, Inc. (7-Eleven) this report presents the results of groundwater monitoring and sampling conducted by Stantec Consulting Services Inc. (Stantec). The purpose of fieldwork is to evaluate dissolved contaminant concentration trends related to a petroleum release from the former retail gasoline fuel system at 7-Eleven Store No. 25983 (the Site), located at 3541 Martin Way East, Olympia, Washington (the Property) (**Figures 1 and 2**).

Site Background

7-Eleven currently leases the Property and solely operates a convenience store. According to Ecology records, installation of the three 12,000-gallon, single-wall fiberglass USTs was completed in 1984 with sales of leaded and unleaded gasoline. The USTs and ancillary equipment were removed in 2014 in accordance with Washington Administrative Code 173-360-610.

The initial release was discovered June 1995, during a product piping upgrade. Soil samples collected from the dispenser area contained concentrations of petroleum hydrocarbon constituents exceeding the Model Toxics Control Act (MTCA) Method A Cleanup Level (CUL). Subsequent investigations from 1999 to 2009 concluded that the soil and groundwater impacts were limited from beneath product lines to just west of the dispenser area.



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Ms. Carol Johnston

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Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014 and First Quarter 2015

In October 2014, the UST System and ancillary equipment was removed. Approximately 1,393 tons of petroleum contaminated soil was removed from the Property and transported off-Site for disposal at the Rabanco/Allied Waste Landfill in Roosevelt, WA, and the Cowlitz County Landfill (formerly Weyerhaeuser) in Castle Rock, WA. Confirmation soil samples verified that the majority of the petroleum impacted soil was removed. Wells MW-1 and MW-4 were decommissioned before UST removal activities. Groundwater has been below MTCA CULs in Site wells since 2007.

Environmental activities conducted at the Site are summarized in the following documents:

- *Annual 2013 Groundwater Monitoring Report, 7-Eleven Store No. 25983, 3541 Martin Way East, Olympia, Washington, dated June 7, 2013;*
- *Additional Subsurface Investigation Report, 7-Eleven Store No. 25983, 3541 Martin Way East, Olympia, WA, dated December 16, 2009;*
- *UST System Removal Report, 7-Eleven Store No. 25983, 3541 Martin Way, Olympia, WA, dated January 6, 2015.*

Groundwater Monitoring and Sampling Results

Figure 3 illustrates groundwater elevations across the Site for each event. **Figure 4** shows the laboratory analytical results from each sampling event posted near each respective well. **Table 1** summarizes historical and current analytical results and groundwater elevation data. Copies of the laboratory analytical report and the chain-of-custody document are provided in **Attachment A**. For each sampling event, all indicated wells were purged and sampled in accordance with the procedures detailed in **Attachment B**.

Fourth Quarter 2014 conducted on December 8, 2014:

- Groundwater samples were collected from wells MW-2, MW-3, and MW-5.
- Groundwater samples were analyzed for total petroleum hydrocarbons characterized as gasoline (TPH-G) by EPA Method NWTPH-Gx; benzene, toluene, ethyl benzene, and total xylenes (BTEX); methyl tertiary-butyl ether (MtBE); 1,2-dichloroethane (EDC) by EPA Method 8260B; ethylene dibromide (EDB) by EPA Method 8011; and total lead by EPA Method 200.8.
- The average depth to groundwater was 25.69-feet bgs and ranged from 25.15- to 26.39-feet bgs. Groundwater flowed in a westerly direction with an average hydraulic gradient of 0.0086 vertical feet per horizontal foot (ft/ft).



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Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014 and First Quarter 2015

- MTCA Method A CULs were not exceeded in any groundwater samples collected during this sampling event.

First Quarter 2015 conducted on March 9, 2015:

- Groundwater samples were collected from wells MW-2, MW-3, and MW-5.
- Groundwater samples were analyzed for TPH-G by EPA method Northwest TPH-Gx; BTEX, MtBE, and EDC by EPA Method 8260B; EDB by EPA method 8011; and lead by EPA method 200.8.
- The average depth to groundwater was 25.65 feet bgs and ranged from 25.11- to 26.34-feet bgs. Groundwater flowed in a westerly direction with an average hydraulic gradient of 0.0085 ft/ft.
- MTCA Method A CULs were not exceeded in any groundwater samples collected during this sampling event.

DISCUSSION

The groundwater flow direction at the Site is generally to the west. As seen in **Table 1**, dissolved concentrations of BTEX and TPH-G have been historically found in well MW-4. These dissolved concentrations have attenuated below MTCA Method A CULs since 2007.

Based on the results of this sampling event, along with the recent UST removal and report results, Stantec plans to submit a future Cleanup Action Report that will include a site closure argument based upon an established Site-specific Method B CUL for TPH-G and will formally request a No Further Action determination for the Subject Property.



May 15, 2015

Ms. Carol Johnston

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Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014 and First Quarter 2015

LIMITATIONS AND CERTIFICATION

This document entitled 7-Eleven Store 25983 Groundwater Monitoring and Sampling Report – First Quarter 2015 was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of 7-Eleven Inc. (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by _____
(signature)

Emily Harper

Reviewed by _____
(signature)

Nathan Magnusson

If you have questions or require additional information, contact Paul Fairbairn at (425) 289-7343.

Regards,

Stantec Consulting Services Inc.

Paul Fairbairn
Project Manager
425-289-7343

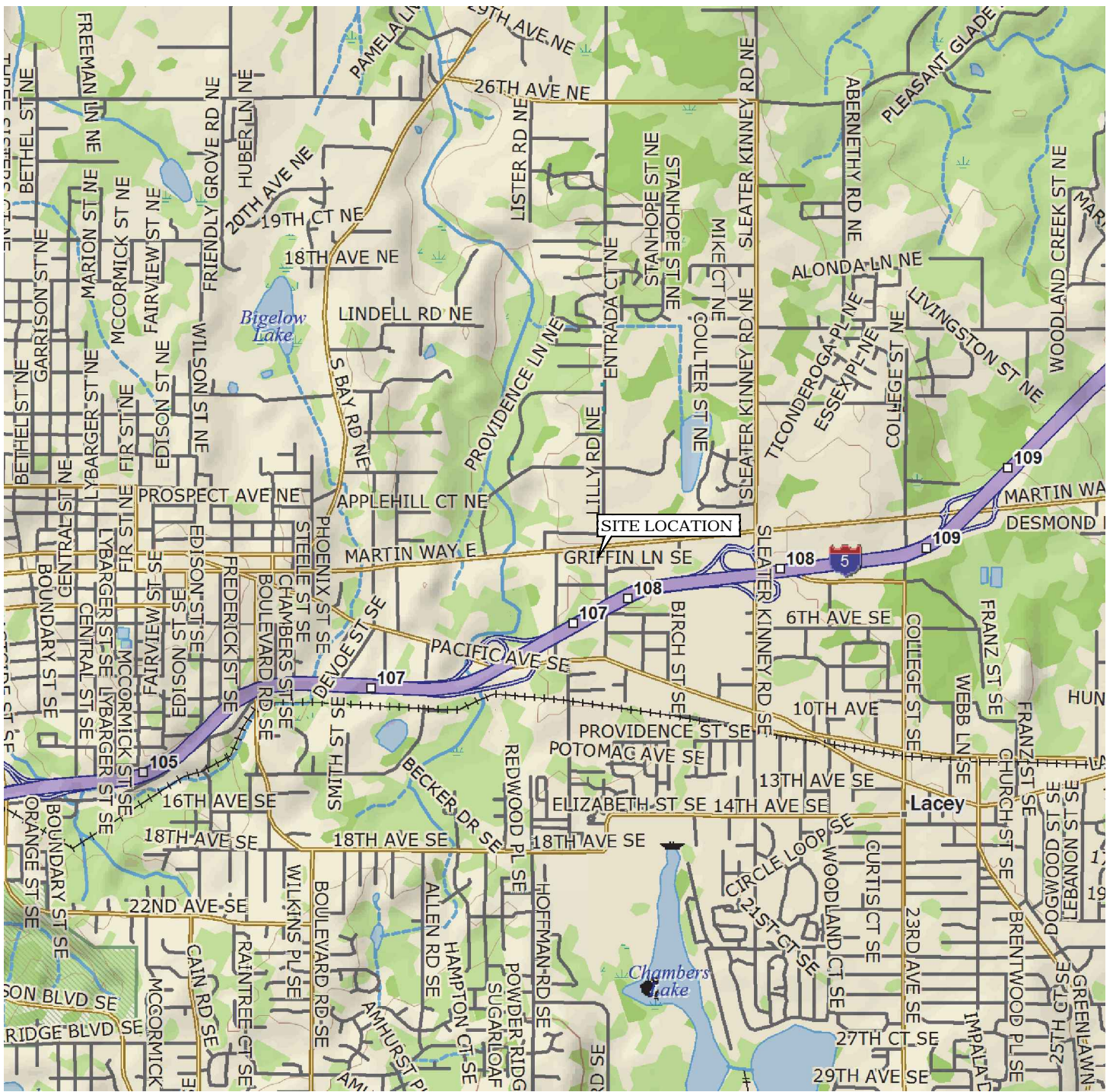


May 15, 2015

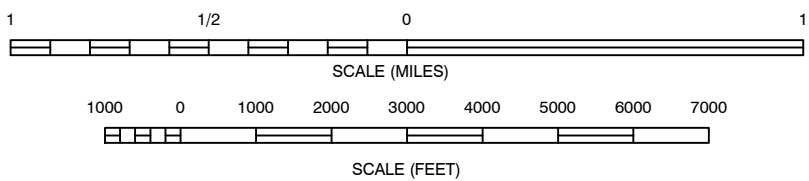
Ms. Carol Johnston

**Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014
and First Quarter 2015**

FIGURES, GRAPHS, and TABLES



WASHINGTON



REFERENCE: USGS 7.5 MINUTE QUADRANGLE, LACEY, WASHINGTON



11130 NE 33RD PLACE, SUITE 200
 BELLEVUE, WASHINGTON
 PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR:



STORE NO. 25983
 3541 MARTIN WAY EAST
 OLYMPIA, WASHINGTON

JOB NUMBER:
 185750040

DRAWN BY:
 MDR

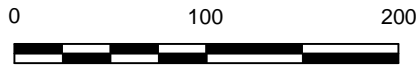
CHECKED BY:
 EWB

APPROVED BY:
 PF

FIGURE:

1

DATE:
 JUNE 2013





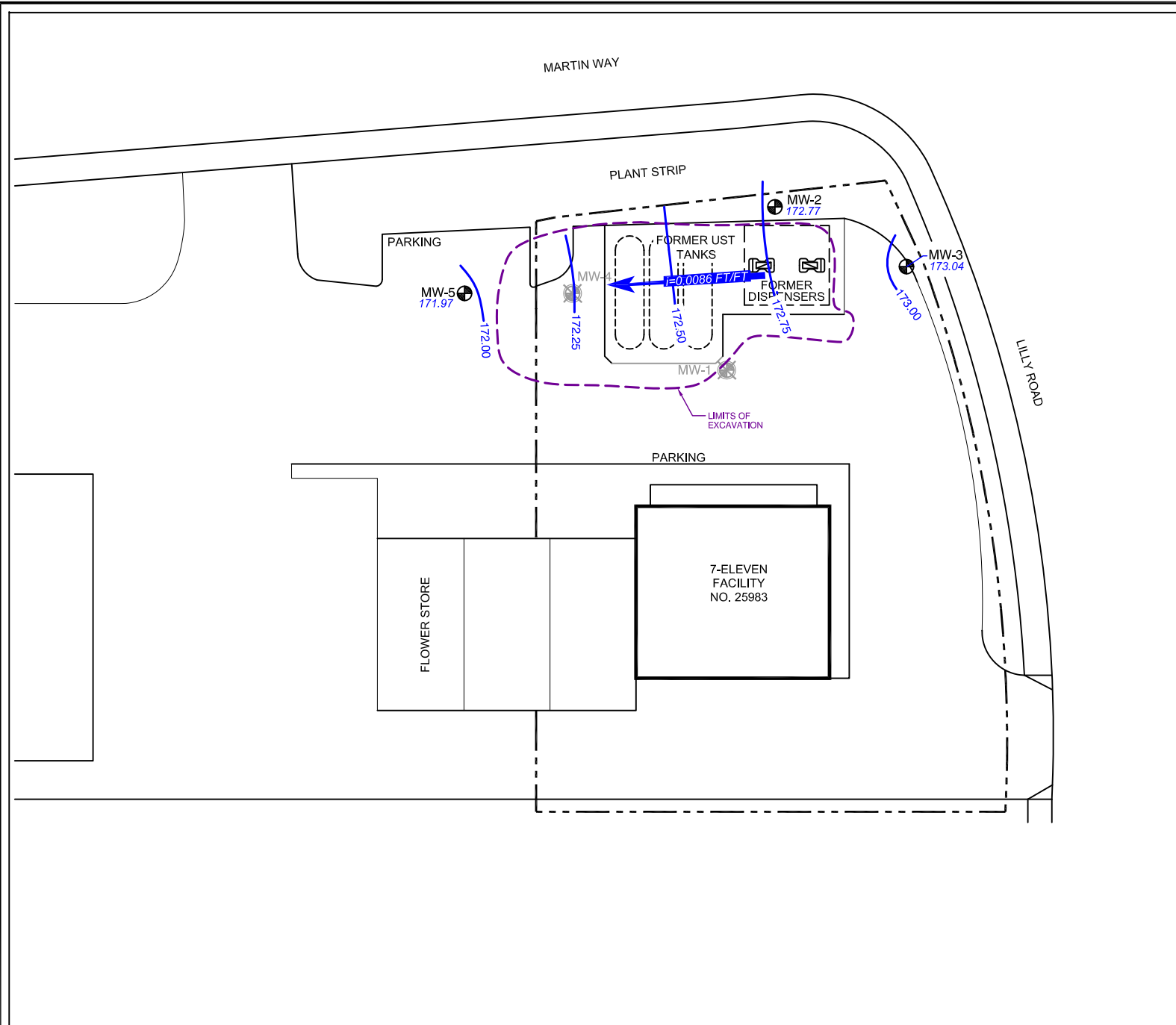
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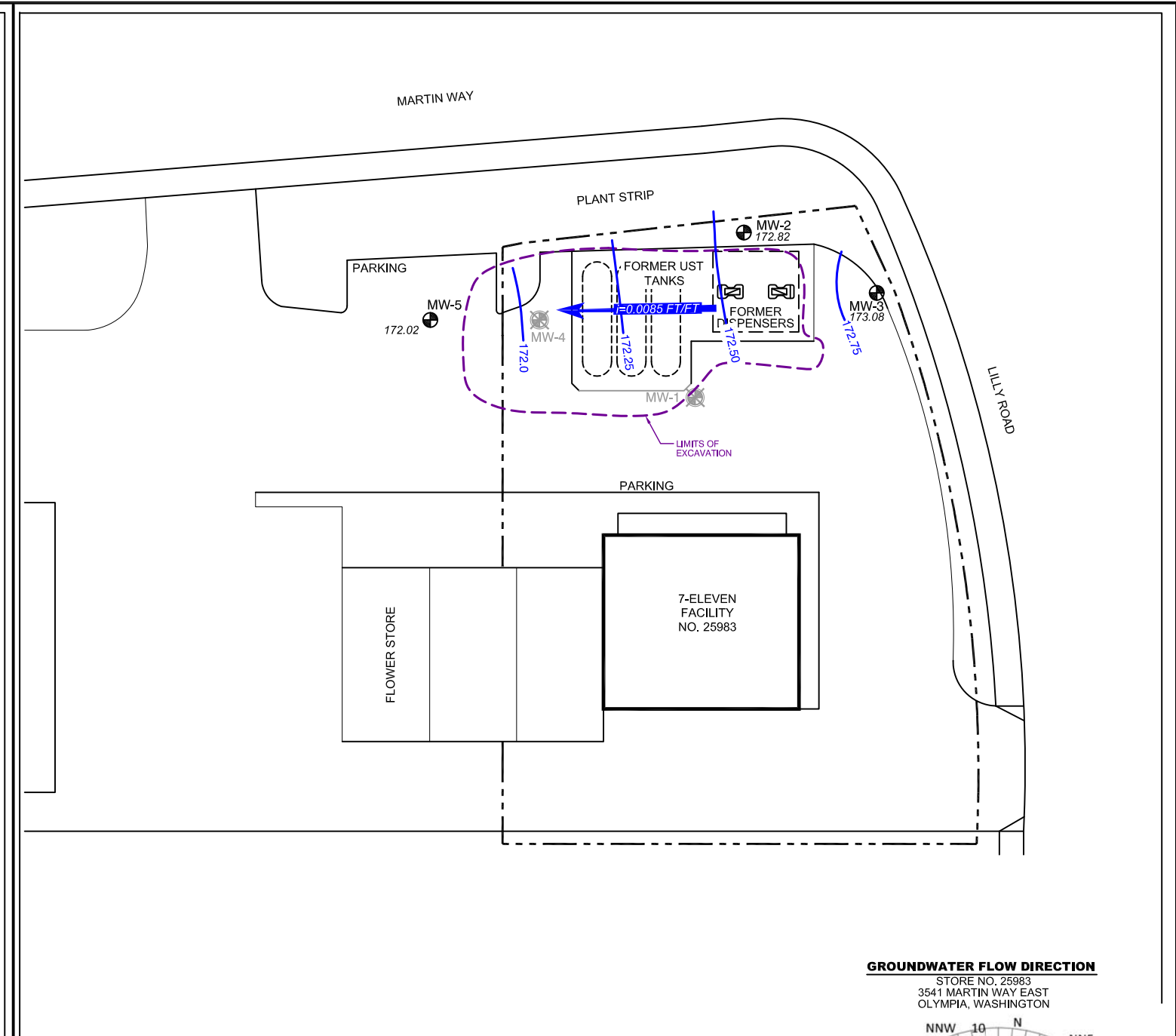
- - - SUBJECT PROPERTY

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 11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR:	 STORE NO. 25983 3541 MARTIN WAY EAST OLYMPIA, WASHINGTON	SITE VICINITY MAP		FIGURE: 2
	JOB NUMBER: 185750040	DRAWN BY: MDR	CHECKED BY: EWB	APPROVED BY: PF	DATE: JUNE 2013



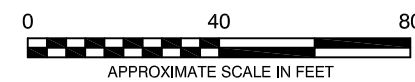
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CONTOURS GENERATED BY SURFER BRAND SOFTWARE

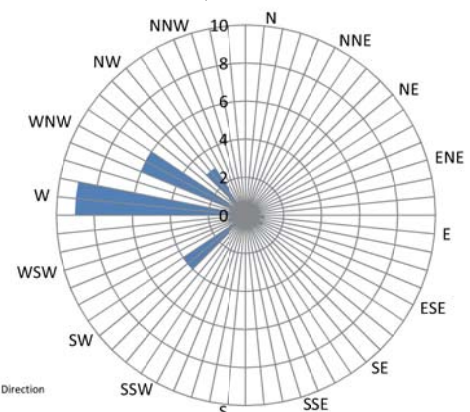
LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 GROUNDWATER MONITORING WELL LOCATION
- GROUNDWATER MONITORING ABANDON IN PLACE
- INFERRED GROUNDWATER FLOW DIRECTION
- 172.50 ELEVATION CONTOUR (FEET)
INFERRED GROUNDWATER
- CONTOUR INTERVAL = 0.25 FT
- 172.82 RELATIVE GROUNDWATER ELEVATION (FEET)
- NM NOT MEASURED



GROUNDWATER FLOW DIRECTION

STORE NO. 25983
3541 MARTIN WAY EAST
OLYMPIA, WASHINGTON



■ Groundwater Flow Direction
LEGEND:
CONCENTRIC CIRCLES REPRESENT QUARTERLY MONITORING EVENTS SECOND QUARTER 2003 THROUGH FIRST QUARTER 2015
27 DATA POINTS SHOWN

**GROUNDWATER ELEVATION CONTOUR MAP
DECEMBER 8, 2014**



11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR:



STORE NO. 25983
3541 MARTIN WAY EAST
OLYMPIA, WASHINGTON

JOB NUMBER:
185750040

DRAWN BY:
MDR

**GROUNDWATER ELEVATION CONTOUR MAP FOR
MARCH 9, 2015**

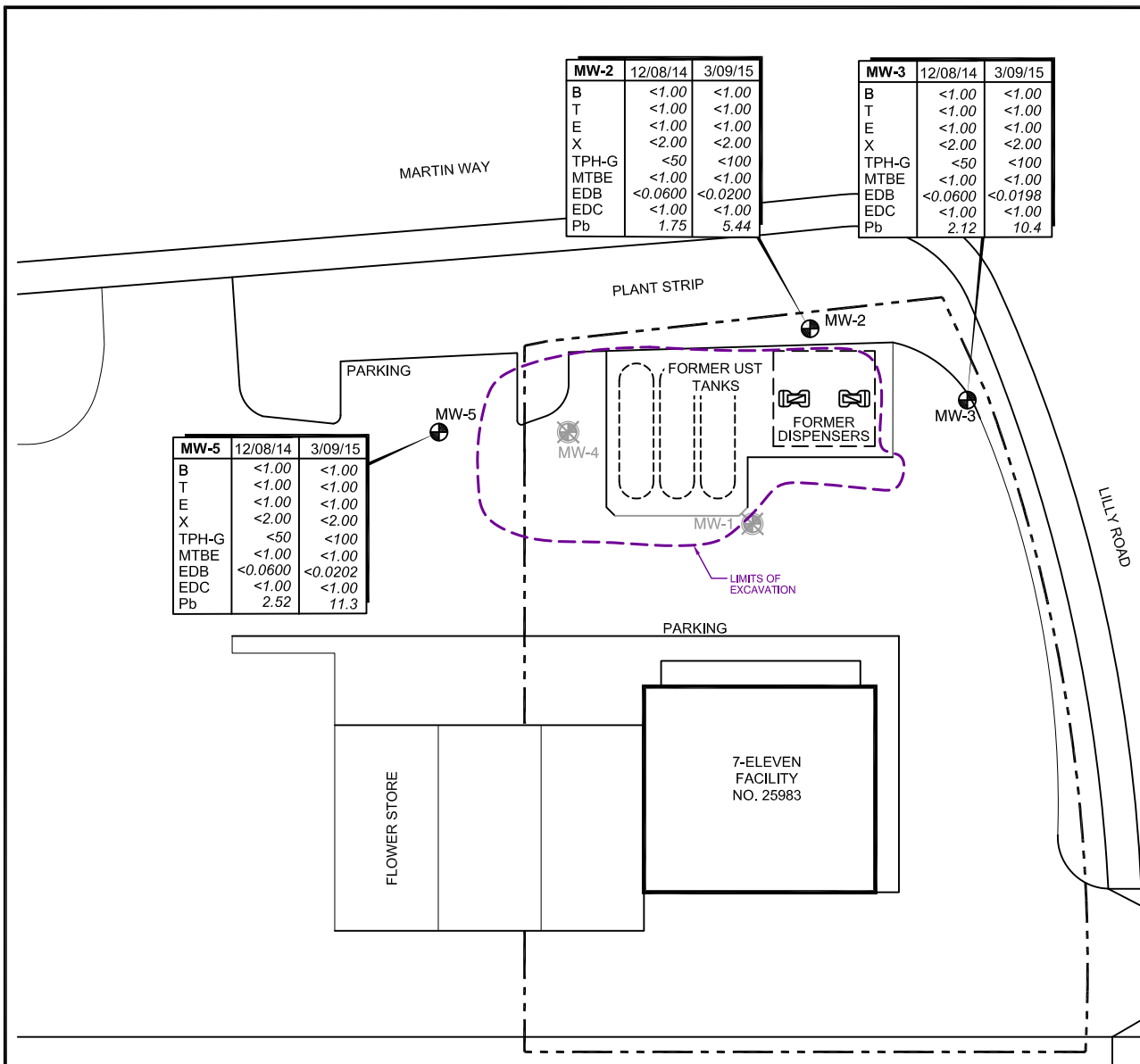
CHECKED BY:
EH

APPROVED BY:
PF

FIGURE:

3

DATE:
APRIL 2014



MW-2	12/08/14	3/09/15
B	<1.00	<1.00
T	<1.00	<1.00
E	<1.00	<1.00
X	<2.00	<2.00
TPH-G	<50	<100
MTBE	<1.00	<1.00
EDB	<0.0600	<0.0200
EDC	<1.00	<1.00
Pb	1.75	5.44

MW-3	12/08/14	3/09/15
B	<1.00	<1.00
T	<1.00	<1.00
E	<1.00	<1.00
X	<2.00	<2.00
TPH-G	<50	<100
MTBE	<1.00	<1.00
EDB	<0.0600	<0.0198
EDC	<1.00	<1.00
Pb	2.12	10.4

MW-5	12/08/14	3/09/15
B	<1.00	<1.00
T	<1.00	<1.00
E	<1.00	<1.00
X	<2.00	<2.00
TPH-G	<50	<100
MTBE	<1.00	<1.00
EDB	<0.0600	<0.0202
EDC	<1.00	<1.00
Pb	2.52	11.3

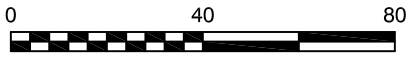
- LEGEND:**
- SUBJECT PROPERTY LINE BOUNDARY
 - MW-1 GROUNDWATER MONITORING WELL LOCATION
 - MW-4 MONITORING WELL ABANDONED (DESTROYED IN PLACE SEPTEMBER 23, 2014)

SAMPLE ID	SAMPLE DATE		
MW-5	12/08/14	3/09/15	
B	<1.00	<1.00	μg/L
T	<1.00	<1.00	
E	<1.00	<1.00	
X	<2.00	<2.00	
TPH-G	<50	<100	
MTBE	<1.00	<1.00	
EDB	<0.0600	<0.0202	
EDC	<1.00	<1.00	
Pb	2.52	11.3	

< NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
 μg/L MICROGRAMS PER LITER
BOLD VALUES EXCEED MTCA METHOD A CLEANUP LEVELS

- ANALYTES:**
- B BENZENE
 - T TOLUENE
 - E ETHYLBENZENE
 - X TOTAL XYLENES
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - MTBE METHYL TERTIARY BUTYL ETHER
 - EDB 1,2-DIBROMOETHANE
 - EDC 1,2-DICHLOROETHANE
 - Pb TOTAL LEAD IN WATER

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 BELLEVUE, WASHINGTON
 PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: STORE NO. 25983
 3541 MARTIN WAY EAST
 OLYMPIA, WASHINGTON

JOB NUMBER: 185750040 DRAWN BY: MDR

**GROUNDWATER ANALYTICAL RESULTS
 DECEMBER 8, 2014 AND MARCH 9, 2015**

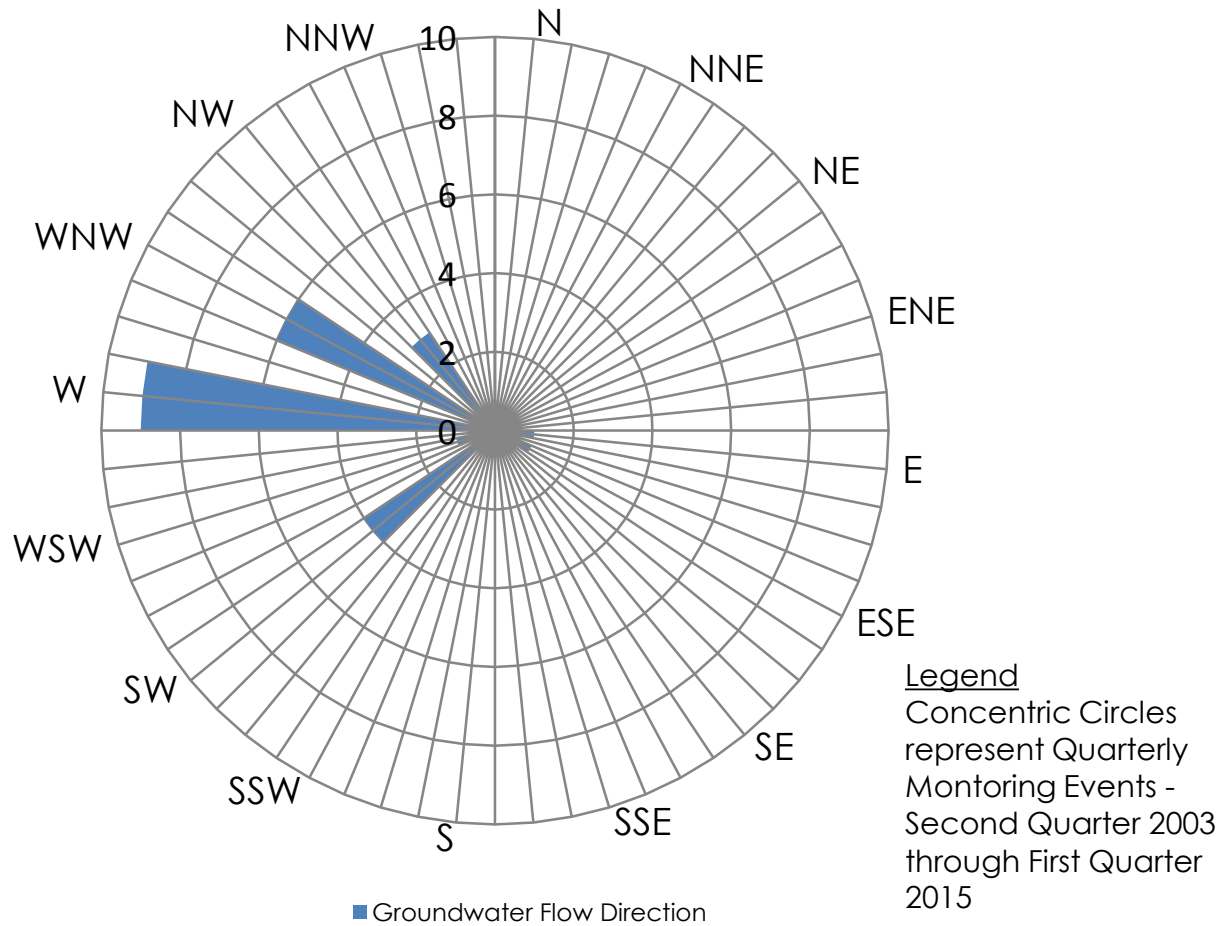
CHECKED BY: EWB APPROVED BY: PF

FIGURE: **4**

DATE: APRIL 2015

Graph 1 Groundwater Flow Direction Rose Diagram

7-Eleven Store No. 25983
3541 Martin Way East
Olympia, Washington



**TABLE 1
GROUNDWATER MONITORING AND ANALYTICAL RESULTS**

7-Eleven Store No. 25983
3541 Martin Way East, Olympia, Washington
All results in micrograms per liter (µg/L), except where noted.

Well ID (TOC)	Sample Date	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	EDC	EDB	Total Lead	Depth To Groundwater	Groundwater Elevation (feet)
MW-1	07/08/99	--	--	--	--	--	--	--	--	--	26.00	172.33
198.33	07/15/99	--	<0.3	<0.3	<0.5	<0.6	<100	--	--	<5	26.02	172.31
	03/14/00	--	<0.3	<0.3	<0.5	<0.6	<100	--	--	--	25.38	172.95
	06/27/00	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	25.97	172.36
	09/25/00	--	<0.5	2.90	0.56	2.8	100	--	--	--	26.52	171.81
	11/13/00	--	<0.5	<0.5	<0.5	<1.5	<100	--	--	--	26.30	172.03
	02/14/01	--	<0.5	<0.5	0.56 ^a	<1.0	<100	--	--	--	26.09	172.24
	06/07/01	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	26.13	172.20
	08/01/01	--	<0.5	<0.5	<0.5	<1.0	<50	--	--	--	26.29	172.04
	11/15/01	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	26.36	171.97
	03/25/02	--	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	25.34	172.99
	06/21/02	--	--	--	--	--	--	--	--	--	--	--
	09/23/02	--	<0.5	<1.0	<1.0	1.01	<100	--	--	--	26.20	172.13
	12/10/02	--	--	--	--	--	--	--	--	--	26.37	171.96
	04/02/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.41	172.92
	06/11/03	--	--	--	--	--	--	--	--	--	26.05	172.28
	09/15/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.34	170.99
	12/04/03	--	--	--	--	--	--	--	--	--	25.51	172.82
	03/04/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.64	171.69
	05/10/04	--	--	--	--	--	--	--	--	--	27.02	171.31
	08/11/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.27	171.06
	11/17/04	--	--	--	--	--	--	--	--	--	27.16	171.17
	02/21/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.94	171.39
	05/16/05	--	--	--	--	--	--	--	--	--	28.96	169.37
	08/19/05	--	--	--	--	--	--	--	--	--	27.03	171.30
	10/26/05	--	--	--	--	--	--	--	--	--	27.16	171.17
	01/26/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.79	172.54
	05/11/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--
	07/26/06	--	--	--	--	--	--	--	--	--	--	--
	11/09/06	--	--	--	--	--	--	--	--	--	24.18	174.15
	04/11/07	--	--	--	--	--	--	--	--	--	25.36	172.97
	08/27/07	--	--	--	--	--	--	--	--	--	26.15	172.18
	02/06/08	--	--	--	--	--	--	--	--	--	26.35	171.98
	08/18/08	--	--	--	--	--	--	--	--	--	25.05	173.28
	11/12/08	--	--	--	--	--	--	--	--	--	24.28	174.05
	02/05/09	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.56	172.77
	01/12/10	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.30	173.03
	02/14/11	--	<0.5	<0.5	<0.5	<0.5	<250	--	--	--	25.48	172.85
	02/09/12	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	25.23	173.10
	01/18/13	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	24.51	173.82
	04/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.00922	1.77	25.25	173.08
	09/23/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	26.14	172.19
Well Abandoned 9/23/14												
MTCA Method A Cleanup Level		20	5	1,000	700	1,000	800/1,000^b	5	0.01	15		

**TABLE 1
GROUNDWATER MONITORING AND ANALYTICAL RESULTS**

7-Eleven Store No. 25983
3541 Martin Way East, Olympia, Washington
All results in micrograms per liter (µg/L), except where noted.

Well ID (TOC)	Sample Date	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	EDC	EDB	Total Lead	Depth To Groundwater	Groundwater Elevation (feet)
MW-2	07/08/99	--	--	--	--	--	--	--	--	--	25.89	172.42
198.31	07/15/99	--	<0.3	<0.3	<0.5	44	725	--	--	<5	26.00	172.31
	03/14/00	--	<0.3	<0.3	0.78	1.12	104	--	--	--	25.34	172.97
	06/27/00	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	25.94	172.37
	09/25/00	--	<0.5	2.70	0.58	2.3	<100	--	--	--	26.33	171.98
	11/13/00	--	<0.5	<0.5	<0.5	2.2	<100	--	--	--	26.32	171.99
	02/14/01	--	<0.5	<0.5	0.58 ^a	<1.0	<100	--	--	--	26.33	171.98
	06/07/01	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	26.21	172.10
	08/01/01	--	<0.5	<0.5	<0.5	<1.0	<50	--	--	--	26.37	171.94
	11/15/01	--	<0.5	5.7 ^a	12 ^a	43 ^a	1,900	--	--	--	26.50	171.81
	03/25/02	--	<0.5	<1.0	<1.0	1.66	<100	--	--	--	25.29	173.02
	06/21/02	--	--	--	--	--	--	--	--	--	--	--
	09/23/02	--	0.317	<1.0	<1.0	1.01	<100	--	--	--	26.25	172.06
	12/10/02	--	--	--	--	--	--	--	--	--	26.41	171.90
	04/02/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.40	172.91
	06/11/03	--	--	--	--	--	--	--	--	--	26.05	172.26
	09/15/03	--	<1.0	<1.0	<1.0	<1.0	<100	--	--	--	27.40	170.91
	12/04/03	--	--	--	--	--	--	--	--	--	25.51	172.80
	03/04/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.64	171.67
	05/10/04	--	--	--	--	--	--	--	--	--	27.05	171.26
	08/11/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.34	170.97
	11/17/04	--	--	--	--	--	--	--	--	--	27.23	171.08
	02/21/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.95	171.36
	05/17/05	--	--	--	--	--	--	--	--	--	29.21	169.10
	08/19/05	--	--	--	--	--	--	--	--	--	28.91	169.40
	10/26/05	--	--	--	--	--	--	--	--	--	29.68	168.63
	01/26/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.72	172.59
	05/11/06	--	--	--	--	--	--	--	--	--	25.90	172.41
	07/26/06	--	--	--	--	--	--	--	--	--	--	--
	11/09/06	--	--	--	--	--	--	--	--	--	22.96	175.35
	04/11/07	--	--	--	--	--	--	--	--	--	23.35	174.96
	08/27/07	--	--	--	--	--	--	--	--	--	26.22	172.09
	02/06/08	--	--	--	--	--	--	--	--	--	26.38	171.93
	08/18/08	--	--	--	--	--	--	--	--	--	25.12	173.19
	11/12/08	--	--	--	--	--	--	--	--	--	23.06	175.25
	02/05/09	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	24.98	173.33
	01/12/10	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.23	173.08
	02/14/11	--	<0.5	<0.5	<0.5	<0.5	<250	--	--	--	25.45	172.86
	02/09/12	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	25.18	173.13
	01/18/13	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	25.13	173.18
	04/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.00932	13.2	25.25	173.06
	09/23/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	26.18	172.13
	12/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.0600	1.75	25.54	172.77
	03/09/15	<1.00	<1.00	<1.00	<1.00	<2.00	<100	<1.00	<0.0200	5.44	25.49	172.82
MTCA Method A Cleanup Level		20	5	1,000	700	1,000	800/1,000^b	5	0.01	15		

**TABLE 1
GROUNDWATER MONITORING AND ANALYTICAL RESULTS**

7-Eleven Store No. 25983
3541 Martin Way East, Olympia, Washington
All results in micrograms per liter (µg/L), except where noted.

Well ID (TOC)	Sample Date	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	EDC	EDB	Total Lead	Depth To Groundwater	Groundwater Elevation (feet)	
MW-3	07/08/99	--	--	--	--	--	--	--	--	--	25.60	172.59	
198.19	07/15/99	--	<0.3	<0.3	<0.5	<0.6	<100	--	--	<5	26.10	172.09	
	03/14/00	--	<0.3	<0.3	<0.5	<0.6	<100	--	--	--	24.89	173.30	
	06/27/00	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	25.56	172.63	
	09/25/00	--	<0.5	2.10	<0.5	1.7	<100	--	--	--	25.98	172.21	
	11/13/00	--	<0.5	<0.5	<0.5	<1.5	<100	--	--	--	25.94	172.25	
	02/14/01	--	<0.5	<0.5	<0.57 ^a	<1.0	<100	--	--	--	26.15	172.04	
	06/07/01	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	25.87	172.32	
	08/01/01	--	<0.5	<0.5	<0.5	<1.0	<50	--	--	--	26.01	172.18	
	11/15/01	--	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	26.20	171.99	
	03/25/02	--	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	23.89	174.30	
	06/21/02	--	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	25.59	172.60	
	09/23/02	--	0.299	<1.0	<1.0	<1.0	<100	--	--	--	25.88	172.31	
	12/10/02	--	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	26.00	172.19	
	04/02/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.98	172.21	
	06/11/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.68	172.51	
	09/15/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.05	171.14	
	12/04/03	--	--	--	--	--	--	--	--	--	25.09	173.10	
	03/04/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.23	171.96	
	05/10/04	--	--	--	--	--	--	--	--	--	26.68	171.51	
	08/11/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.97	171.22	
	11/17/04	--	--	--	--	--	--	--	--	--	26.84	171.35	
	02/21/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.61	171.58	
	05/17/05	--	--	--	--	--	--	--	--	--	28.46	169.73	
	08/19/05	--	--	--	--	--	--	--	--	--	27.68	170.51	
	10/26/05	--	--	--	--	--	--	--	--	--	24.68	173.51	
	01/26/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.27	172.92	
	05/11/06	--	--	--	--	--	--	--	--	--	25.40	172.79	
	07/26/06	--	--	--	--	--	--	--	--	--	--	--	
	11/09/06	--	--	--	--	--	--	--	--	--	21.14	177.05	
	04/11/07	--	--	--	--	--	--	--	--	--	24.92	173.27	
	08/27/07	--	--	--	--	--	--	--	--	--	25.83	172.36	
	02/06/08	--	--	--	--	--	--	--	--	--	--	--	
	08/18/08	--	--	--	--	--	--	--	--	--	24.73	173.46	
	02/05/09	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.14	173.05	
	01/12/10	Unable to access well										--	--
	02/14/11	Unable to access well										--	--
	02/09/12	Unable to access well										--	--
	01/18/13	Unable to access well										--	--
	04/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.00969	6.10	--	--	
	09/23/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	25.81	172.38	
	12/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.0600	2.12	25.15	173.04	
	03/09/15	<1.00	<1.00	<1.00	<1.00	<2.00	<100	<1.00	<0.0198	10.4	25.11	173.08	
MTCA Method A Cleanup Level		20	5	1,000	700	1,000	800/1,000^b	5	0.01	15			

**TABLE 1
GROUNDWATER MONITORING AND ANALYTICAL RESULTS**

7-Eleven Store No. 25983
3541 Martin Way East, Olympia, Washington
All results in micrograms per liter (µg/L), except where noted.

Well ID (TOC)	Sample Date	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	EDC	EDB	Total Lead	Depth To Groundwater	Groundwater Elevation (feet)
MW-4	07/08/99	--	--	--	--	--	--	--	--	--	26.12	172.43
198.55	07/15/99	--	<30	5,150	<50	23,900	90,800	--	--	<5	26.10	172.45
	03/14/00	--	<30	1,870	3,030	27,500	67,000	--	--	--	25.41	173.14
	06/27/00	--	100	2,500	3,400	27,000	91,000	--	--	--	26.81	171.74
	09/25/00	--	10,000	4,800	4,200	4,200	68,000	--	--	--	26.70	171.85
	11/13/00	--	<120	780	1,800	17,000	70,000	--	--	--	26.77	171.78
	02/14/01	--	<120	660	1,300 ^a	21,000	99,000	--	--	--	25.74	172.81
	06/07/01	--	<25	97	360	4,800	23,000	--	--	--	26.34	172.21
	08/01/01	--	20.5	329	300	12,100	39,900	--	--	--	26.53	172.02
	11/15/01	--	<10	97 ^a	350 ^a	4,700 ^a	30,000	--	--	--	27.37	171.18
	03/25/02	--	1.7	74.8	143	1,489	34,100	--	--	--	25.45	173.10
	06/21/02	--	<0.5	5.28	349	1,867	22,600	--	--	--	26.54	172.01
	09/23/02	--	1.0	7.97	77.3	438	6,090	--	--	--	26.65	171.90
	12/10/02	--	<5.0	7.38	225.0	1,788	14,500	--	--	--	26.67	171.88
	04/02/03	--	7.7	7.9	350	1,950	30,000	--	--	--	26.44	172.11
	06/11/03	--	5.9	6.5	160	580	7,600	--	--	--	26.54	172.01
	09/15/03	--	<5.0	<5.0	76.0	460	5,800	--	--	--	27.67	170.88
	12/04/03	--	4.9	2.1	140	332	5,200	--	--	--	26.41	172.14
	03/04/04	--	4.5	3.2	75	259	3,800	--	--	--	27.11	171.44
	05/10/04	--	1.6	<1.0	24	100	2,300	--	--	--	27.65	170.90
	08/11/04	--	1.7	<1.0	10	38	1,100	--	--	--	27.76	170.79
	11/17/04	--	5.3	15	580	4,500	43,000	--	--	--	27.12	171.43
	02/21/05	--	3.8	1.8	93	630	16,000	--	--	--	27.61	170.94
	05/17/05	--	2.2	<1.0	49	190	6,600	--	--	--	27.51	171.04
	08/19/05	--	1,100	580	1,600	5,330	30,000	--	--	--	29.99	168.56
	10/26/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.10	172.45
	01/26/06	--	1.9	<1.0	120	139	3,400	--	--	--	26.65	171.90
	05/11/06	--	<1.0	<1.0	75	37	2,400	--	--	--	27.40	171.15
	07/26/06	--	350	2,900	750	2,740	24,000	--	--	--	28.56	169.99
	11/09/06	--	170	<4.0	91	55	3,300	--	--	--	26.68	171.87
	04/11/07	--	<4.0	<4.0	59	50	3,100	--	--	--	26.11	172.44
	08/27/07	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.05	171.50
	02/06/08	--	<1.0	<1.0	6.9	<2.0	160	--	--	--	26.28	172.27
	08/18/08	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.95	171.60
	11/12/08	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.78	171.77
	02/05/09	<0.20	<1.0	<1.0	<1.0	<2.0	<100	<0.20	<0.0095	--	26.28	172.27
	01/12/10	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	24.95	173.60
	02/14/11	--	<0.5	<0.5	<0.5	<0.5	<250	--	--	--	26.13	172.42
	02/09/12	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	25.79	172.76
	01/18/13	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	24.32	174.23
	04/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.00952	6.48	26.95	171.60
	09/23/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	26.62	171.93
Well Abandoned 9/23/14												
MTCA Method A Cleanup Level		20	5	1,000	700	1,000	800/1,000 ^b	5	0.01	15		

**TABLE 1
GROUNDWATER MONITORING AND ANALYTICAL RESULTS**

7-Eleven Store No. 25983
3541 Martin Way East, Olympia, Washington
All results in micrograms per liter (µg/L), except where noted.

Well ID (TOC)	Sample Date	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	EDC	EDB	Total Lead	Depth To Groundwater	Groundwater Elevation (feet)
MW-5	06/07/01	--	<0.5	<0.5	2.1	26	950	--	--	--	26.48	171.88
198.36	08/01/01	--	1.4	<0.5	3.0	4.3	899	--	--	--	26.76	171.60
	11/15/01	--	<0.5	<0.5	6.5 ^a	20 ^a	1,500	--	--	--	27.08	171.28
	03/25/02	--	<0.5	<1.0	0.6	1.6	188	--	--	--	26.10	172.26
	06/21/02	--	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	26.59	171.77
	09/23/02	--	0.304	<1.0	<1.0	1.6	<100	--	--	--	26.65	171.71
	12/10/02	--	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	26.70	171.66
	04/02/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.24	172.12
	06/11/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.70	171.66
	09/15/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.67	170.69
	12/04/03	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.32	172.04
	03/04/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.48	170.88
	05/10/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.58	170.78
	08/11/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.71	170.65
	11/17/04	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.68	170.68
	02/21/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	27.31	171.05
	05/17/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	31.26	167.10
	08/19/05	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	28.46	169.90
	10/26/05	--	7.50	<1.0	<1.0	1.1	410	--	--	--	24.25	174.11
	01/26/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.55	171.81
	05/11/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.60	171.76
	07/26/06	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	31.68	166.68
	11/09/06	--	--	--	--	--	--	--	--	--	22.90	175.46
	04/11/07	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.17	172.19
	08/27/07	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.70	171.66
	02/06/08	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.12	172.24
	08/18/08	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	25.65	172.71
	11/12/08	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.65	171.71
	02/05/09	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	26.37	171.99
	01/12/10	--	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	24.90	173.46
	02/14/11	--	<0.5	<0.5	<0.5	<0.5	<250	--	--	--	26.25	172.11
	02/09/12	--	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	26.00	172.36
	01/18/13	--	<0.50	0.60	<0.50	<0.50	<250	--	--	--	26.00	172.36
	04/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.00962	2.51	26.05	172.31
	09/23/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	26.65	171.71
	12/08/14	<1.00	<1.00	<1.00	<1.00	<2.00	<50.0	<1.00	<0.0600	2.52	26.39	171.97
	03/09/15	<1.00	<1.00	<1.00	<1.00	<2.00	<100	<1.00	<0.0202	11.3	26.34	172.02
MTCA Method A Cleanup Level		20	5	1,000	700	1,000	800/1,000^b	5	0.01	15		

Explanation of Abbreviations:

- TOC = top of casing elevation
- MtBE = methyl tertiary butyl ether
- TPH-G = total petroleum hydrocarbons as gasoline
- EDC = 1,2-Dichloroethane
- EDB = 1,2-Dibromoethane
- = not sampled, not measured, or not available
- < = less than the reporting limit
- MTCA = Model Toxics Control Act

Notes:

- ^a Method blank contamination
- ^b The TPH-G cleanup level is reduced from 1,000 µg/L to 800 µg/L if benzene is present in the sample

Bold values exceed the MTCA Method A Cleanup Level



May 15, 2015

Ms. Carol Johnston

**Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014
and First Quarter 2015**

ATTACHMENT A

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY DOCUMENTATION



3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

Stantec Consulting Corporation

Paul Fairbairn
11130 NE 33rd Pl, Suite 200
Bellevue, WA 98004

RE: 4Q14 GWM 25983

Lab ID: 1412090

December 16, 2014

Attention Paul Fairbairn:

Fremont Analytical, Inc. received 3 sample(s) on 12/9/2014 for the analyses presented in the following report.

Gasoline by NWTPH-Gx

Total Metals by EPA Method 200.8

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway".

Mike Ridgeway
President



Date: 12/16/2014

CLIENT: Stantec Consulting Corporation
Project: 4Q14 GWM 25983
Lab Order: 1412090

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1412090-001	MW-2	12/08/2014 5:00 PM	12/09/2014 10:00 AM
1412090-002	MW-3	12/08/2014 4:30 PM	12/09/2014 10:00 AM
1412090-003	MW-5	12/08/2014 4:00 PM	12/09/2014 10:00 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Stantec Consulting Corporation**Project:** 4Q14 GWM 25983

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



Analytical Report

WO#: 1412090

Date Reported: 12/16/2014

Client: Stantec Consulting Corporation
Project: 4Q14 GWM 25983
Lab ID: 1412090-001
Client Sample ID: MW-2

Collection Date: 12/8/2014 5:00:00 PM

Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Gasoline by NWTPH-Gx</u>			Batch ID: R18578 Analyst: AK			
Gasoline	ND	50.0		µg/L	1	12/10/2014 2:32:00 AM
Surr: 4-Bromofluorobenzene	105	65-135		%REC	1	12/10/2014 2:32:00 AM
Surr: Toluene-d8	109	65-135		%REC	1	12/10/2014 2:32:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>			Batch ID: R18502 Analyst: AK			
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
Benzene	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
Toluene	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	12/10/2014 2:32:00 AM
Ethylbenzene	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
m,p-Xylene	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
o-Xylene	ND	1.00		µg/L	1	12/10/2014 2:32:00 AM
Surr: Dibromofluoromethane	117	61.7-130		%REC	1	12/10/2014 2:32:00 AM
Surr: Toluene-d8	111	40.1-139		%REC	1	12/10/2014 2:32:00 AM
Surr: 1-Bromo-4-fluorobenzene	105	76.2-130		%REC	1	12/10/2014 2:32:00 AM
<u>Total Metals by EPA Method 200.8</u>			Batch ID: 9559 Analyst: MW			
Lead	1.75	1.00		µg/L	1	12/11/2014 5:21:06 PM

Qualifiers: B Analyte detected in the associated Method Blank D Dilution was required
 E Value above quantitation range H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits ND Not detected at the Reporting Limit
 RL Reporting Limit S Spike recovery outside accepted recovery limits



Analytical Report

WO#: 1412090

Date Reported: 12/16/2014

Client: Stantec Consulting Corporation

Collection Date: 12/8/2014 4:30:00 PM

Project: 4Q14 GWM 25983

Lab ID: 1412090-002

Matrix: Groundwater

Client Sample ID: MW-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Gasoline by NWTPH-Gx

Batch ID: R18578 Analyst: AK

Gasoline	ND	50.0		µg/L	1	12/10/2014 2:59:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	12/10/2014 2:59:00 AM
Surr: Toluene-d8	108	65-135		%REC	1	12/10/2014 2:59:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R18502 Analyst: AK

Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
Benzene	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
Toluene	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	12/10/2014 2:59:00 AM
Ethylbenzene	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
m,p-Xylene	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
o-Xylene	ND	1.00		µg/L	1	12/10/2014 2:59:00 AM
Surr: Dibromofluoromethane	117	61.7-130		%REC	1	12/10/2014 2:59:00 AM
Surr: Toluene-d8	110	40.1-139		%REC	1	12/10/2014 2:59:00 AM
Surr: 1-Bromo-4-fluorobenzene	103	76.2-130		%REC	1	12/10/2014 2:59:00 AM

Total Metals by EPA Method 200.8

Batch ID: 9559 Analyst: MW

Lead	2.12	1.00		µg/L	1	12/11/2014 5:31:27 PM
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Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits



Analytical Report

WO#: 1412090

Date Reported: 12/16/2014

Client: Stantec Consulting Corporation

Collection Date: 12/8/2014 4:00:00 PM

Project: 4Q14 GWM 25983

Lab ID: 1412090-003

Matrix: Groundwater

Client Sample ID: MW-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Gasoline by NWTPH-Gx

Batch ID: R18578 Analyst: AK

Gasoline	ND	50.0		µg/L	1	12/10/2014 3:54:00 AM
Surr: 4-Bromofluorobenzene	105	65-135		%REC	1	12/10/2014 3:54:00 AM
Surr: Toluene-d8	107	65-135		%REC	1	12/10/2014 3:54:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R18502 Analyst: AK

Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
Benzene	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
Toluene	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	12/10/2014 3:54:00 AM
Ethylbenzene	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
m,p-Xylene	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
o-Xylene	ND	1.00		µg/L	1	12/10/2014 3:54:00 AM
Surr: Dibromofluoromethane	121	61.7-130		%REC	1	12/10/2014 3:54:00 AM
Surr: Toluene-d8	111	40.1-139		%REC	1	12/10/2014 3:54:00 AM
Surr: 1-Bromo-4-fluorobenzene	104	76.2-130		%REC	1	12/10/2014 3:54:00 AM

Total Metals by EPA Method 200.8

Batch ID: 9559 Analyst: MW

Lead	2.52	1.00		µg/L	1	12/11/2014 5:34:53 PM
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Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits



Date: 12/16/2014

Work Order: 1412090
CLIENT: Stantec Consulting Corporation
Project: 4Q14 GWM 25983

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: MB-9559	SampType: MBLK	Units: µg/L	Prep Date: 12/11/2014	RunNo: 18549							
Client ID: MBLKW	Batch ID: 9559		Analysis Date: 12/11/2014	SeqNo: 369975							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 1.00

Sample ID: LCS-9559	SampType: LCS	Units: µg/L	Prep Date: 12/11/2014	RunNo: 18549							
Client ID: LCSW	Batch ID: 9559		Analysis Date: 12/11/2014	SeqNo: 369976							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 48.8 1.00 50.00 0 97.6 85 115

Sample ID: 1412091-002ADUP	SampType: DUP	Units: µg/L	Prep Date: 12/11/2014	RunNo: 18549							
Client ID: BATCH	Batch ID: 9559		Analysis Date: 12/11/2014	SeqNo: 369978							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 1.00 0 30

Sample ID: 1412091-002AMS	SampType: MS	Units: µg/L	Prep Date: 12/11/2014	RunNo: 18549							
Client ID: BATCH	Batch ID: 9559		Analysis Date: 12/11/2014	SeqNo: 369979							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 233 1.00 250.0 0.5915 93.1 70 130

Sample ID: 1412091-002AMSD	SampType: MSD	Units: µg/L	Prep Date: 12/11/2014	RunNo: 18549							
Client ID: BATCH	Batch ID: 9559		Analysis Date: 12/11/2014	SeqNo: 369980							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 236 1.00 250.0 0.5915 94.2 70 130 233.3 1.24 30

Qualifiers: B Analyte detected in the associated Method Blank
 D Dilution was required
 E Value above quantitation range
 H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits
 ND Not detected at the Reporting Limit
 R RPD outside accepted recovery limits
 RL Reporting Limit
 S Spike recovery outside accepted recovery limits

Work Order: 1412090
CLIENT: Stantec Consulting Corporation
Project: 4Q14 GWM 25983

QC SUMMARY REPORT
Gasoline by NWTPH-Gx

Sample ID: LCS-R18578	SampType: LCS	Units: µg/L	Prep Date: 12/9/2014	RunNo: 18578							
Client ID: LCSW	Batch ID: R18578		Analysis Date: 12/9/2014	SeqNo: 370536							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	577	50.0	500.0	0	115	65	135				
Surr: Toluene-d8	56.4		50.00		113	65	135				
Surr: 4-Bromofluorobenzene	56.9		50.00		114	65	135				

Sample ID: 1412090-002BDUP	SampType: DUP	Units: µg/L	Prep Date: 12/10/2014	RunNo: 18578							
Client ID: MW-3	Batch ID: R18578		Analysis Date: 12/10/2014	SeqNo: 370544							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	54.0		50.00		108	65	135		0	0	
Surr: 4-Bromofluorobenzene	52.4		50.00		105	65	135		0	0	

Sample ID: MB-R18578	SampType: MBLK	Units: µg/L	Prep Date: 12/9/2014	RunNo: 18578							
Client ID: MBLKW	Batch ID: R18578		Analysis Date: 12/9/2014	SeqNo: 370552							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	54.6		50.00		109	65	135				
Surr: 4-Bromofluorobenzene	52.9		50.00		106	65	135				

Qualifiers:
B Analyte detected in the associated Method Blank
D Dilution was required
E Value above quantitation range

H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not detected at the Reporting Limit

R RPD outside accepted recovery limits
RL Reporting Limit
S Spike recovery outside accepted recovery limits

Work Order: 1412090
CLIENT: Stantec Consulting Corporation
Project: 4Q14 GWM 25983

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R18502	SampType: LCS	Units: µg/L	Prep Date: 12/9/2014	RunNo: 18502							
Client ID: LCSW	Batch ID: R18502		Analysis Date: 12/9/2014	SeqNo: 368916							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21.4	1.00	20.00	0	107	67.7	131				
1,2-Dichloroethane (EDC)	20.9	1.00	20.00	0	104	70	129				
Benzene	21.4	1.00	20.00	0	107	69.3	132				
Toluene	22.0	1.00	20.00	0	110	61.3	145				
1,2-Dibromoethane (EDB)	20.4	0.0600	20.00	0	102	73.6	125				
Ethylbenzene	20.0	1.00	20.00	0	99.9	72	130				
m,p-Xylene	39.9	1.00	40.00	0	99.8	73	131				
o-Xylene	20.4	1.00	20.00	0	102	72.1	131				
Surr: Dibromofluoromethane	60.3		50.00		121	61.7	130				
Surr: Toluene-d8	56.2		50.00		112	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	62.2		50.00		124	76.2	130				

Sample ID: MB-R18502	SampType: MBLK	Units: µg/L	Prep Date: 12/9/2014	RunNo: 18502							
Client ID: MBLKW	Batch ID: R18502		Analysis Date: 12/9/2014	SeqNo: 368917							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Toluene	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.0600									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Surr: Dibromofluoromethane	57.0		50.00		114	61.7	130				
Surr: Toluene-d8	55.4		50.00		111	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	52.5		50.00		105	76.2	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1412090
CLIENT: Stantec Consulting Corporation
Project: 4Q14 GWM 25983

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1412082-001BMS	SampType: MS	Units: µg/L	Prep Date: 12/9/2014	RunNo: 18502							
Client ID: BATCH	Batch ID: R18502		Analysis Date: 12/9/2014	SeqNo: 369002							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21.1	1.00	20.00	0	105	60.9	132				
1,2-Dichloroethane (EDC)	20.1	1.00	20.00	0	101	63.4	137				
Benzene	21.4	1.00	20.00	0	107	65.4	138				
Toluene	21.6	1.00	20.00	0	108	64	139				
1,2-Dibromoethane (EDB)	20.0	0.0600	20.00	0	99.8	63.2	134				
Ethylbenzene	20.1	1.00	20.00	0	101	64.5	136				
m,p-Xylene	40.9	1.00	40.00	0	102	63.3	135				
o-Xylene	21.1	1.00	20.00	0	106	65.4	134				
Surr: Dibromofluoromethane	59.9		50.00		120	61.7	130				
Surr: Toluene-d8	54.6		50.00		109	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	63.1		50.00		126	76.2	130				

Sample ID: 1412090-002BDUP	SampType: DUP	Units: µg/L	Prep Date: 12/10/2014	RunNo: 18502							
Client ID: MW-3	Batch ID: R18502		Analysis Date: 12/10/2014	SeqNo: 370562							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Surr: Dibromofluoromethane	59.5		50.00		119	61.7	130		0		
Surr: Toluene-d8	55.1		50.00		110	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	51.9		50.00		104	76.2	130		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client Name: **STANTEC**
 Logged by: **Erica Silva**

 Work Order Number: **1412090**
 Date Received: **12/9/2014 10:00:00 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes No NA
4. Shipping container/cooler in good condition? Yes No
5. Custody seals intact on shipping container/cooler? Yes No Not Required
6. Was an attempt made to cool the samples? Yes No NA
7. Were all coolers received at a temperature of >0°C to 10.0°C? Yes No NA
8. Sample(s) in proper container(s)? Yes No
9. Sufficient sample volume for indicated test(s)? Yes No
10. Are samples properly preserved? Yes No
11. Was preservative added to bottles? Yes No NA
12. Is the headspace in the VOA vials? Yes No NA
13. Did all samples containers arrive in good condition(unbroken)? Yes No
14. Does paperwork match bottle labels? Yes No
15. Are matrices correctly identified on Chain of Custody? Yes No
16. Is it clear what analyses were requested? Yes No
17. Were all holding times able to be met? Yes No

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

Item Information

Item #	Temp °C	Condition
Cooler	3.6	Good
Sample	8.8	Good
Temp Blank	2.2	Good

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-74089-1
Client Project/Site: 7-Eleven No. 25983

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn



Authorized for release by:
3/19/2015 4:43:25 PM

Heather Wagner, Project Manager I
(615)301-5763
heather.wagner@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

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Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-74089-1	MW-5	Water	03/09/15 16:15	03/12/15 09:15
490-74089-2	MW-3	Water	03/09/15 16:45	03/12/15 09:15
490-74089-3	MW-2	Water	03/09/15 17:30	03/12/15 09:15

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Case Narrative

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Job ID: 490-74089-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-74089-1

Comments

No additional comments.

Receipt

The samples were received on 3/12/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

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
CFL	Contains Free Liquid
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)

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Client Sample ID: MW-5
Date Collected: 03/09/15 16:15
Date Received: 03/12/15 09:15

Lab Sample ID: 490-74089-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/13/15 18:04	1
Ethylbenzene	ND		1.00		ug/L			03/13/15 18:04	1
Methyl tert-butyl ether	ND		1.00		ug/L			03/13/15 18:04	1
Toluene	ND		1.00		ug/L			03/13/15 18:04	1
Xylenes, Total	ND		2.00		ug/L			03/13/15 18:04	1
1,2-Dichloroethane	ND		1.00		ug/L			03/13/15 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		03/13/15 18:04	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/13/15 18:04	1
Dibromofluoromethane (Surr)	94		70 - 130		03/13/15 18:04	1
Toluene-d8 (Surr)	105		70 - 130		03/13/15 18:04	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/16/15 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		50 - 150		03/16/15 13:11	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0202		ug/L		03/16/15 14:10	03/16/15 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	128		50 - 150	03/16/15 14:10	03/16/15 21:16	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11.3		2.00		ug/L		03/13/15 08:37	03/14/15 12:24	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Client Sample ID: MW-3

Lab Sample ID: 490-74089-2

Date Collected: 03/09/15 16:45

Matrix: Water

Date Received: 03/12/15 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/13/15 18:30	1
Ethylbenzene	ND		1.00		ug/L			03/13/15 18:30	1
Methyl tert-butyl ether	ND		1.00		ug/L			03/13/15 18:30	1
Toluene	ND		1.00		ug/L			03/13/15 18:30	1
Xylenes, Total	ND		2.00		ug/L			03/13/15 18:30	1
1,2-Dichloroethane	ND		1.00		ug/L			03/13/15 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		03/13/15 18:30	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/13/15 18:30	1
Dibromofluoromethane (Surr)	94		70 - 130		03/13/15 18:30	1
Toluene-d8 (Surr)	104		70 - 130		03/13/15 18:30	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/16/15 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		50 - 150		03/16/15 14:16	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0198		ug/L		03/16/15 14:10	03/16/15 21:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	118		50 - 150	03/16/15 14:10	03/16/15 21:33	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10.4		2.00		ug/L		03/13/15 08:37	03/14/15 12:29	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Client Sample ID: MW-2
Date Collected: 03/09/15 17:30
Date Received: 03/12/15 09:15

Lab Sample ID: 490-74089-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/13/15 18:56	1
Ethylbenzene	ND		1.00		ug/L			03/13/15 18:56	1
Methyl tert-butyl ether	ND		1.00		ug/L			03/13/15 18:56	1
Toluene	ND		1.00		ug/L			03/13/15 18:56	1
Xylenes, Total	ND		2.00		ug/L			03/13/15 18:56	1
1,2-Dichloroethane	ND		1.00		ug/L			03/13/15 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		03/13/15 18:56	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/13/15 18:56	1
Dibromofluoromethane (Surr)	94		70 - 130		03/13/15 18:56	1
Toluene-d8 (Surr)	104		70 - 130		03/13/15 18:56	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/16/15 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		50 - 150		03/16/15 14:49	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200		ug/L		03/16/15 14:10	03/16/15 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	119		50 - 150	03/16/15 14:10	03/16/15 21:51	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.44		2.00		ug/L		03/13/15 08:37	03/14/15 12:34	1

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-233499/7

Matrix: Water

Analysis Batch: 233499

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/13/15 16:45	1
Ethylbenzene	ND		1.00		ug/L			03/13/15 16:45	1
Methyl tert-butyl ether	ND		1.00		ug/L			03/13/15 16:45	1
Toluene	ND		1.00		ug/L			03/13/15 16:45	1
Xylenes, Total	ND		2.00		ug/L			03/13/15 16:45	1
1,2-Dichloroethane	ND		1.00		ug/L			03/13/15 16:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		03/13/15 16:45	1
4-Bromofluorobenzene (Surr)	97		70 - 130		03/13/15 16:45	1
Dibromofluoromethane (Surr)	95		70 - 130		03/13/15 16:45	1
Toluene-d8 (Surr)	104		70 - 130		03/13/15 16:45	1

Lab Sample ID: LCS 490-233499/3

Matrix: Water

Analysis Batch: 233499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	51.61		ug/L		103	80 - 121
Ethylbenzene	50.0	52.70		ug/L		105	80 - 130
Methyl tert-butyl ether	50.0	56.27		ug/L		113	72 - 133
Toluene	50.0	52.52		ug/L		105	80 - 126
Xylenes, Total	150	155.4		ug/L		104	80 - 132
1,2-Dichloroethane	50.0	47.11		ug/L		94	77 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 490-233499/4

Matrix: Water

Analysis Batch: 233499

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	50.0	51.24		ug/L		102	80 - 121	1	17
Ethylbenzene	50.0	53.34		ug/L		107	80 - 130	1	15
Methyl tert-butyl ether	50.0	56.38		ug/L		113	72 - 133	0	16
Toluene	50.0	52.68		ug/L		105	80 - 126	0	15
Xylenes, Total	150	159.2		ug/L		106	80 - 132	2	15
1,2-Dichloroethane	50.0	47.56		ug/L		95	77 - 121	1	17

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-233499/4

Matrix: Water

Analysis Batch: 233499

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	103		70 - 130

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-233781/6

Matrix: Water

Analysis Batch: 233781

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/16/15 09:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	108		50 - 150		03/16/15 09:23	1

Lab Sample ID: LCS 490-233781/4

Matrix: Water

Analysis Batch: 233781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	1000	1093		ug/L		109	39 - 143

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	137		50 - 150

Lab Sample ID: LCSD 490-233781/5

Matrix: Water

Analysis Batch: 233781

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
C6-C12	1000	1073		ug/L		107	39 - 143	2	18

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	136		50 - 150

Lab Sample ID: 490-74089-1 DU

Matrix: Water

Analysis Batch: 233781

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
C6-C12	ND		ND		ug/L		NC	18

Surrogate	DU %Recovery	DU Qualifier	Limits
a,a,a-Trifluorotoluene	104		50 - 150

TestAmerica Nashville

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 490-233936/2-A

Matrix: Water

Analysis Batch: 233995

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 233936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200		ug/L		03/16/15 14:10	03/16/15 18:38	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	139		50 - 150				03/16/15 14:10	03/16/15 18:38	1

Lab Sample ID: LCS 490-233936/3-A

Matrix: Water

Analysis Batch: 233995

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	0.286	0.3389		ug/L		119	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,3-Dichlorobenzene	133		50 - 150				

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

GC/MS VOA

Analysis Batch: 233499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74089-1	MW-5	Total/NA	Water	8260B	
490-74089-2	MW-3	Total/NA	Water	8260B	
490-74089-3	MW-2	Total/NA	Water	8260B	
LCS 490-233499/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-233499/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-233499/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 233781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74089-1	MW-5	Total/NA	Water	NWTPH-Gx	
490-74089-1 DU	MW-5	Total/NA	Water	NWTPH-Gx	
490-74089-2	MW-3	Total/NA	Water	NWTPH-Gx	
490-74089-3	MW-2	Total/NA	Water	NWTPH-Gx	
LCS 490-233781/4	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-233781/5	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-233781/6	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 233936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74089-1	MW-5	Total/NA	Water	8011	
490-74089-2	MW-3	Total/NA	Water	8011	
490-74089-3	MW-2	Total/NA	Water	8011	
LCS 490-233936/3-A	Lab Control Sample	Total/NA	Water	8011	
MB 490-233936/2-A	Method Blank	Total/NA	Water	8011	

Analysis Batch: 233995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74089-1	MW-5	Total/NA	Water	8011	233936
490-74089-2	MW-3	Total/NA	Water	8011	233936
490-74089-3	MW-2	Total/NA	Water	8011	233936
LCS 490-233936/3-A	Lab Control Sample	Total/NA	Water	8011	233936
MB 490-233936/2-A	Method Blank	Total/NA	Water	8011	233936

Metals

Prep Batch: 233362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74089-1	MW-5	Total/NA	Water	200.8	
490-74089-2	MW-3	Total/NA	Water	200.8	
490-74089-3	MW-2	Total/NA	Water	200.8	

Analysis Batch: 233797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74089-1	MW-5	Total/NA	Water	200.8	233362
490-74089-2	MW-3	Total/NA	Water	200.8	233362
490-74089-3	MW-2	Total/NA	Water	200.8	233362

TestAmerica Nashville

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Client Sample ID: MW-5

Date Collected: 03/09/15 16:15

Date Received: 03/12/15 09:15

Lab Sample ID: 490-74089-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	233499	03/13/15 18:04	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	233781	03/16/15 13:11	GWM	TAL NSH
Total/NA	Prep	8011			34.6 mL	2 mL	233936	03/16/15 14:10	MWT	TAL NSH
Total/NA	Analysis	8011		1	34.6 mL	2 mL	233995	03/16/15 21:16	MWT	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	233362	03/13/15 08:37	AJD	TAL NSH
Total/NA	Analysis	200.8		1	50 mL	50 mL	233797	03/14/15 12:24	JBD	TAL NSH

Client Sample ID: MW-3

Date Collected: 03/09/15 16:45

Date Received: 03/12/15 09:15

Lab Sample ID: 490-74089-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	233499	03/13/15 18:30	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	233781	03/16/15 14:16	GWM	TAL NSH
Total/NA	Prep	8011			35.4 mL	2 mL	233936	03/16/15 14:10	MWT	TAL NSH
Total/NA	Analysis	8011		1	35.4 mL	2 mL	233995	03/16/15 21:33	MWT	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	233362	03/13/15 08:37	AJD	TAL NSH
Total/NA	Analysis	200.8		1	50 mL	50 mL	233797	03/14/15 12:29	JBD	TAL NSH

Client Sample ID: MW-2

Date Collected: 03/09/15 17:30

Date Received: 03/12/15 09:15

Lab Sample ID: 490-74089-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	233499	03/13/15 18:56	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	233781	03/16/15 14:49	GWM	TAL NSH
Total/NA	Prep	8011			35 mL	2 mL	233936	03/16/15 14:10	MWT	TAL NSH
Total/NA	Analysis	8011		1	35 mL	2 mL	233995	03/16/15 21:51	MWT	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	233362	03/13/15 08:37	AJD	TAL NSH
Total/NA	Analysis	200.8		1	50 mL	50 mL	233797	03/14/15 12:34	JBD	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL NSH
200.8	Metals (ICP/MS)	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

NWTPH = Northwest Total Petroleum Hydrocarbon

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 25983

TestAmerica Job ID: 490-74089-1

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-15

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

COOLER RECEIPT FORM



Cooler Received/Opened On: 3/12/2015 @0915

- 1. Tracking # 9621 (last 4 digits, FedEx)
- Courier: Fed-Ex IR Gun ID: 14740456
- 2. Temperature of rep. sample or temp blank when opened: 4.8 Degrees Celsius
- 3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA
- 4. Were custody seals on outside of cooler? YES...NO...NA
If yes, how many and where: 2 Front

- 5. Were the seals intact, signed, and dated correctly? YES...NO...NA
- 6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) AF

- 7. Were custody seals on containers: YES NO and Intact YES...NO...NA
Were these signed and dated correctly? YES...NO...NA

- 8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

- 9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

- 10. Did all containers arrive in good condition (unbroken)? YES...NO...NA
- 11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA
- 12. Did all container labels and tags agree with custody papers? YES...NO...NA
- 13a. Were VOA vials received? YES...NO...NA
- b. Was there any observable headspace present in any VOA vial? YES...NO...NA
- 14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (initial) A

- 15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA
- b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

- 16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) A

- 17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA
- 18. Did you sign the custody papers in the appropriate place? YES...NO...NA
- 19. Were correct containers used for the analysis requested? YES...NO...NA
- 20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) A

I certify that I attached a label with the unique LIMS number to each container (initial) A

- 21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO..# _____

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-74089-1

Login Number: 74089

List Source: TestAmerica Nashville

List Number: 1

Creator: Huckaba, Jimmy

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





May 15, 2015

Ms. Carol Johnston

**Reference: 7-Eleven Store 25983 Annual Groundwater Monitoring and Sampling Report - Fourth Quarter 2014
and First Quarter 2015**

ATTACHMENT B

SITE VISITATION REPORT/FIELD NOTES

STANTEC MONITORING WELL PURGING AND SAMPLING PROCEDURES



JOB NAME: 7-Eleven 25983

JOB NUMBER: 185750040

SITE ADDRESS: 3541 Martin Way

START DATE: Monday, December 08, 2014

Olympia, Wa

PREPARED FOR: Emily Harper

PREPARED BY: Emily Harper

NOTE:

REVIEWED BY: Paul Fairbairn

WORK DESCRIPTION:

1. Review H&S Plan.
2. Arrive onsite and check in with Station Manager and contact Paul Fairbairn.
3. Review HASP, conduct Health and Safety briefing and perform Site Walk to determine any traffic flow.
4. Gauge all site wells following gauging order on Sampling Request Form.
5. Low-flow purge and sample wells following the sampling order provided.
6. Take a drum for purge water. Store purge water in drums onsite, make sure they are labeled properly and secured.
7. Take an inventory of all waste drums generated by Stantec at the site, and mark locations on site plan.
8. Call Paul Fairbairn in the office prior to leaving the site.

Job Numbers:

All Groundwater Sampling
185750040.400.0700

Contacts Information:

Paul Fairbairn in Stantec Office : (425) 298-1016 or (206) 369-8383

7-Eleven Environmental Manager: Jose Rios

ANALYTICAL REQUIREMENTS:	EQUIPMENT NEEDED:
NWTPH-Gx	H&S plan
BTEX 8260	Safety Equipment
EDB, EDC, MTBE, Total Lead	Delineators
	Mini cooler for product sample
	Low-Flow Purging/Sampling Equipment
	Oil/Water Interface Probe
	Disposable bailers/ Rope
	Peristaltic Pump & Tubing
	Drum and labels

AUTHORIZATION: _____

COMPLETED: 



4th QUARTER 2014 SAMPLING REQUEST

7-Eleven Service Station No. 25983 located at 3541 Martin Way, Olympia, WA

Project No. 185750040	Task 300.0700	Project Manager Paul Fairbairn	Date 12/08/14	Lab: Fremont	Client Contact: Jose Rios					
Well Number	Gaug. Freq.	Gaug. Order	Samp. Freq.	Samp. Order	Analyses	Well Depth	Top of Screen	Casing Dia.	Depth of Pump intake (ft bTOC)	Comments
MW-1	Annual	5	Annual	5	NWTPHG, BTEX 8260, EDB, EDC, MTBE, Total Lead					
MW-2	Annual	4	Annual	4	NWTPHG, BTEX 8260, EDB, EDC, MTBE, Total Lead					
MW-3	Annual	1	Annual	1	NWTPHG, BTEX 8260, EDB, EDC, MTBE, Total Lead					
MW-4	Annual	2	Annual	2	NWTPHG, BTEX 8260, EDB, EDC, MTBE, Total Lead					
MW-5	Annual	3	Annual	3	NWTPHG, BTEX 8260, EDB, EDC, MTBE, Total Lead					
Notes:										
*Review and sign HASP prior to arriving on site. Check in with station manager and Stantec Project Manager Paul Fairbairn: Cell: 206 369 8383; Office: 425 298 1016										
*Implement Stantec low flow purging and sampling procedures.										
*All wells will be sampled for NWTPH-Gx, BTEX 8260										
*The wells are now historically clean, if product or sheen is found, use Stop Work Authority and contact the 7-Eleven Project Manager Paul Fairbairn immediately.										
*Please gauge all selected wells first and proceed to sample all wells unless otherwise noted.										
*Store water in drum on-site. Label drum with contents with a Non Hazardous Waste Drum label and note in the field log										
No. wells gauged without sampling: _____										
Total wells sampled: _____										
Gallons Purged: _____										



SITE VISITATION REPORT

4Q14 - 7-Eleven Service Station No. 25983 - Olympia, WA



Name(s) Emily Harper Date: 12/08/14
Arrival Time: 15:00 Departure Time: 17:35

Time of Arrival Call-In: 15:00
Time of Departure Call-In: 17:30
Who did you call? Paul Fairbairn

DRUM INVENTORY

<u>1</u>	WATER	<u>0</u>	CARBON	TOTAL OPEN TOP	<u>0</u>
<u>0</u>	SOIL	<u>0</u>	EMPTY	TOTAL BUNG TOP	<u>1</u>

left (1) 25 gal bung top onsite

HEALTH AND SAFETY ASSESSMENT

Traffic and delineation	HASP/hospital directions
PPE	first aid kit
Visibility	fire extinguisher
cold stress	pinch points
proper lifting heavy objects	slips, trips, falls/slick surfaces

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES

15:00 ARRIVE ONSITE, met paul
 15:05 talk to clerk
 15:10 set up eq. take site pics.
 15:15 Gauge wells
 16:30 sample wells
 17:10 finished sampling, clear up site
 17:30 call paul
 17:35 depart site

EM

Gauge Date: December 8, 2014

Project Name: 7-Eleven #25983

Field Technician: Emily Harper

Project Number: 185750040

DTP = Depth to Free Product (FP or NAPL) Below TOC
 DTW = Depth to Groundwater Below TOC
 DTB = Depth to Bottom of Well Casing Below TOC

Flow through cell calibrated Y ~~N~~ N/A BAILED wells

Wells checked for product and gauged prior to commencement of bailing or purging the wells Y ~~N~~

WELL OR LOCATION	WELL SCREEN DEPTH	PROPOSED INTAKE RANGE (feet below TOC)	MEASUREMENTS				PURGE? (Y/N)	SHEEN? (Y/N)	SAMPLE? (Y/N)	COMMENTS / PROBE CALIBRATION
			TIME	DTP (feet)	DTW (feet)	DTB (feet)				
MW-1			—	—	—	—	—	—	ABANDONED	
MW-2			15:15		25.54	35.73				
MW-3			15:20		25.15	35.84				
MW-4			—	—	—	—	—	—	ABANDONED	
MW-5			15:25		26.39	34.29				



JOB NAME: 7-Eleven 25983

JOB NUMBER: 185750040

SITE ADDRESS: 3541 Martin Way

START DATE: Monday, March 09, 2015

Olympia, Wa

PREPARED FOR: Emily Harper

PREPARED BY: Emily Harper

NOTE:

REVIEWED BY: Paul Fairbairn

WORK DESCRIPTION:

1. Review H&S Plan.
2. Arrive onsite and check in with Station Manager and contact Paul Fairbairn.
3. Review HASP, conduct Health and Safety briefing and perform Site Walk to determine any traffic flow.
4. Gauge all site wells following gauging order on Sampling Request Form.
5. Low-flow purge and sample wells following the sampling order provided.
6. Take a drum for purge water. Store purge water in drums onsite, make sure they are labeled properly and secured.
7. Take an inventory of all waste drums generated by Stantec at the site, and mark locations on site plan.
8. Call Paul Fairbairn in the office prior to leaving the site.

Job Numbers:

All Groundwater Sampling

185750040.400.0700

Contacts Information:

Paul Fairbairn in Stantec Office : (425) 298-1016 or (206) 369-8383

7-Eleven Environmental Manager: Jose Rios

ANALYTICAL REQUIREMENTS:	EQUIPMENT NEEDED:
NWTPH-Gx	H&S plan
BTEX 8260	Safety Equipment
EDB, EDC, MTBE, Total Lead	Delineators
	Mini cooler for product sample
	Low-Flow Purging/Sampling Equipment
	Oil/Water Interface Probe
	Disposable bailers/ Rope
	Peristaltic Pump & Tubing
	Drum and labels

AUTHORIZATION :

COMPLETED: 



Stantec

SITE VISITATION REPORT

1Q15 - 7-Eleven Service Station No. 25983 - Olympia, WA



Name(s) Emily Harper Date: 03/09/15 Time of Arrival Call-In: 1500
 Arrival Time: 1500 Departure Time: 1800 Time of Departure Call-In: 1800
 Who did you call? Paul Fairbairn

DRUM INVENTORY

<u>1</u>	WATER	<u>0</u>	CARBON	TOTAL OPEN TOP	<u>0</u>
<u>0</u>	SOIL	<u>0</u>	EMPTY	TOTAL BUNG TOP	<u>1</u>

(1) 30 gal bung top still has room

HEALTH AND SAFETY ASSESSMENT

Traffic and delineation	HASP/hospital directions
PPE	first aid kit
Visibility	fire extinguisher
cold stress	pinch points
proper lifting heavy objects	slips, trips, falls/slick surfaces

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES

15:00 ARRIVE ONSITE, TEXT PAW
 15:05 talk to manager, site walk, H & S review
 15:20 Gauge wells
 15:45 Sample wells
 17:45 Clean up site
 18:00 text Paul to depart site

GJA

TestAmerica Nashville
 2960 Foster Creighton Drive
 Nashville, TN 37204
 Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Paul Fairbairn
 Phone: 425-869-9449
 E-Mail: heather.wagner@testamericainc.com
 Lab P.M.: Wagner, Heather
 Carrier Tracking No(s):

Company: Stantec Consulting Corp.
 Address: 11130 NE 33rd Place Suite 200
 City: Bellevue
 State, Zip: WA, 98004-1465
 Phone: 425-298-1000(Tel)
 Email: paul.fairbairn@stanteccom
 Project Name: 7-Eleven No. 25983
 Site: 1815 GWM 25983
 Project #: 185750040
 SSO#:

Sampler: EMILY HARPER
 Due Date Requested:
 TAT Requested (days):
 Purchase Order Requested:
 STANDARD

Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 8260B BTEX
 NWTPH_Gx (MOD) DRO/DRO
 NWTPH_Gx
 MIB
 EDC
 MTBE
 TOTAL LEAD

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code	Matrix (Water, Solid, Over-sat'd)	Analysis Requested	COC No:
NW-5	3/9/15	16:15			Water	8260B BTEX	185750040
NW-3		16:45			Water	NWTPH_Gx (MOD) DRO/DRO	
NW-2		17:30			Water	NWTPH_Gx	
					Water	MIB	
					Water	EDC	
					Water	MTBE	
					Water	TOTAL LEAD	

Special Instructions/Note:
 Total Number of containers

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Anchor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2SO3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4.5
 Z - other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Special Instructions/QC Requirements:
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: 3/11/15 13:30 Company: STANTEC
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks:

STANTEC MONITORING WELL PURGING AND SAMPLING PROCEDURES

Monitoring well purging and sampling was conducted using U.S. Environmental Protection Agency (EPA) approved low-flow sampling techniques.

Purging Procedures

- A. Using a decontaminated instrument (i.e., tape measure, continuity meter, or interface probe) measure the depth to groundwater in reference to the measuring point at the top of the casing. Measure the total depth of the well to calculate the height and volume of water in the borehole.
- B. Based on previously obtained data, if a monitoring well is suspected of containing liquid-phase hydrocarbon (LPH) concentrations, lower a transparent bailer into the well to evaluate the presence of a LPH sheen on the water table.
- C. Decontaminate the purge pump and/or PVC bailers by scrubbing in Alconox detergent solution, followed by a tap water rinse and then a deionized water rinse.
- D. Purge, by low-flow pumping (less than 0.5 liters per minute) for approximately five minutes. If low-flow purging is not possible and bailing is used to purge the well, then a minimum of three well volumes will be removed. If the well goes dry, the procedure listed in step E2 (below) should be followed. Parameters should be measured after each ½-casing volume is removed.
- E. Conduct field measurements (i.e., pH, specific conductivity, temperature, and oxidation-reduction potential) note clarity, color, turbidity, and odor of purge water, and measure depth to groundwater.
 1. If the well has not been purged dry, continue to pump and conduct field measurements (including depth to water) again every five minutes during purging.
 - a) If the first through third series of measurements vary by less than 10 percent, the well has been adequately purged. Allow the well to recover to 80 percent of its static condition and begin the sampling procedure.
 - b) If the measurements vary by 10 percent or greater, repeat Step E1 above.
 - c) If a minimum of three parameters cannot be measured during purging, remove three well volumes prior to sampling.
 2. If the well has been purged dry, measure the water level and allow the well to recharge to 80 percent, or for two hours, whichever occurs first. Calculate the percent recovery, and begin the sampling procedure.

Sampling Procedures

- Use the pump to collect the groundwater sample.
- Transfer the groundwater sample into the appropriate container(s). Where applicable, some containers are completely filled to achieve zero headspace. Label the samples according to location and date of collection.
- Enter the samples into Chain-of-Custody and preserve on ice until delivery to the analytical laboratory. Complete the Well Development or Purging/Sampling Log to be stored in the project file.

When requested by the client, collect a bailer rinsate blank of deionized water to check decontamination procedure. In addition, trip blanks prepared by the laboratory and kept with the samples may be included to check for cross contamination of samples within the cooler. Additional and/or alternate QA/QC samples can be collected and analyzed upon client request.