



# GETTLER-RYAN INC.

January 12, 2001  
Job #386681

Mr. Brett Hunter  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583

Re: Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-6266  
1554 NE 145<sup>th</sup> Street  
Seattle, Washington

Dear Mr. Hunter:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On December 7, 2000, field personnel monitored and sampled four wells (MW-3, MW-8, MW-9 and MW-10) at the above referenced site. A Vicinity Map is included as Figure 1.

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A Potentiometric Map is included as Figure 2.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). Purge water was treated by filtration through granular activated carbon and was subsequently discharged. The field data sheets for this event are attached. The samples were analyzed by North Creek Analytical, Inc. Analytical results are presented in Tables 1 and 2. A Concentration Map is included as Figure 3. The chain of custody document and laboratory analytical reports are attached.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

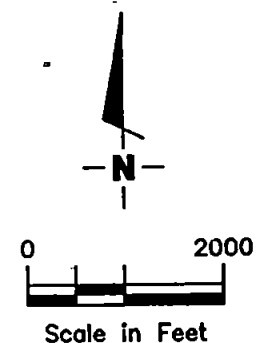
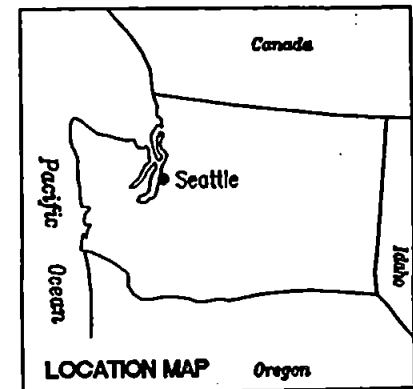
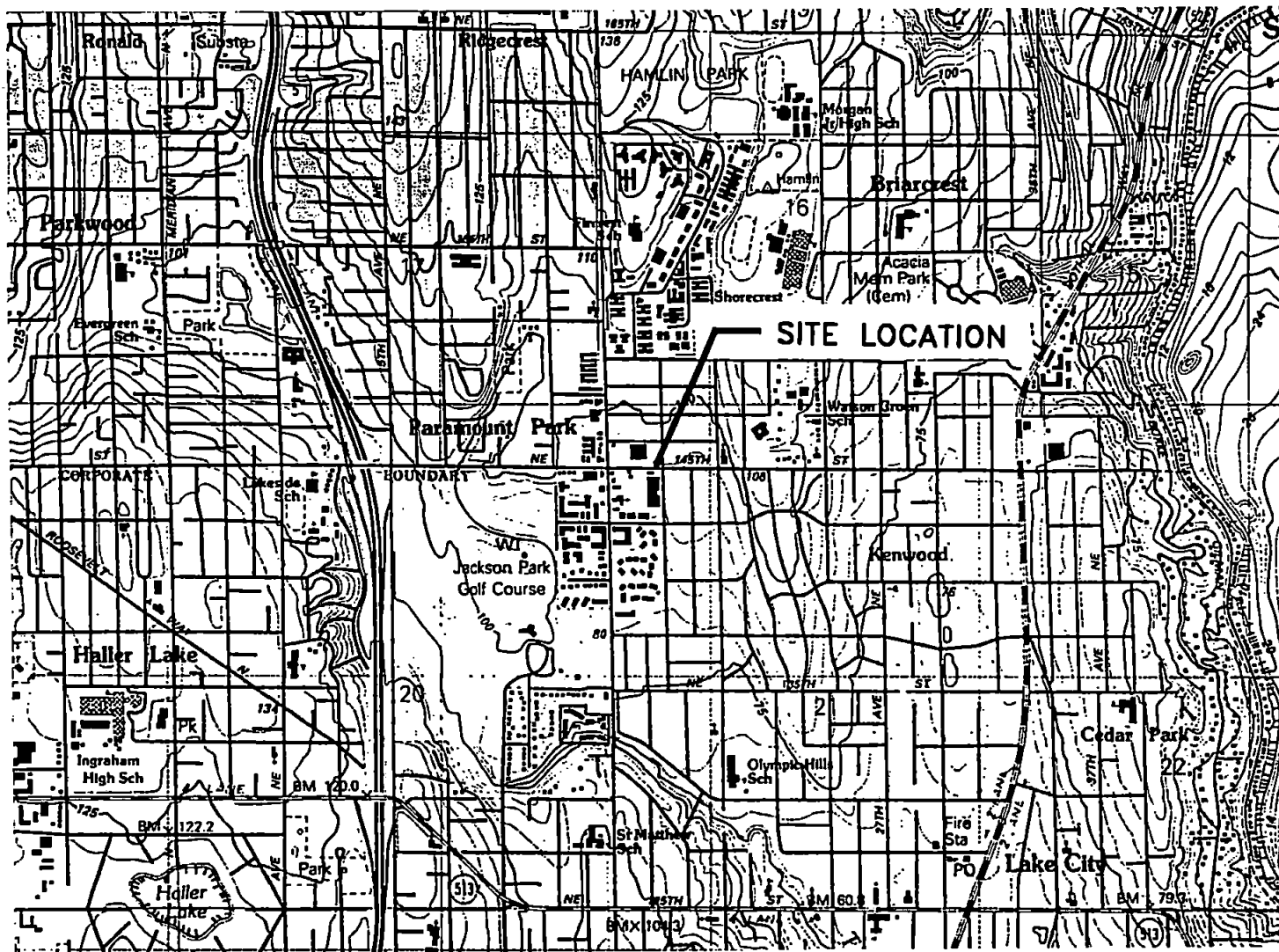
*Deanna L. Harding*  
Deanna L. Harding  
Project Coordinator

*Hagop Kevork*  
Hagop Kevork  
Professional Engineer

Figure 1: Vicinity Map  
Figure 2: Potentiometric Map  
Figure 3: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

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Base Map: USGS Topographic Map



**Gettler - Ryan Inc.**

6747 Sierra Ct., Suite J (925) 551-7555  
Dublin, CA 94568

**VICINITY MAP**

Chevron Service Station No. 9-6266  
1554 NE 145th Street  
Seattle, Washington

JOB NUMBER  
386681

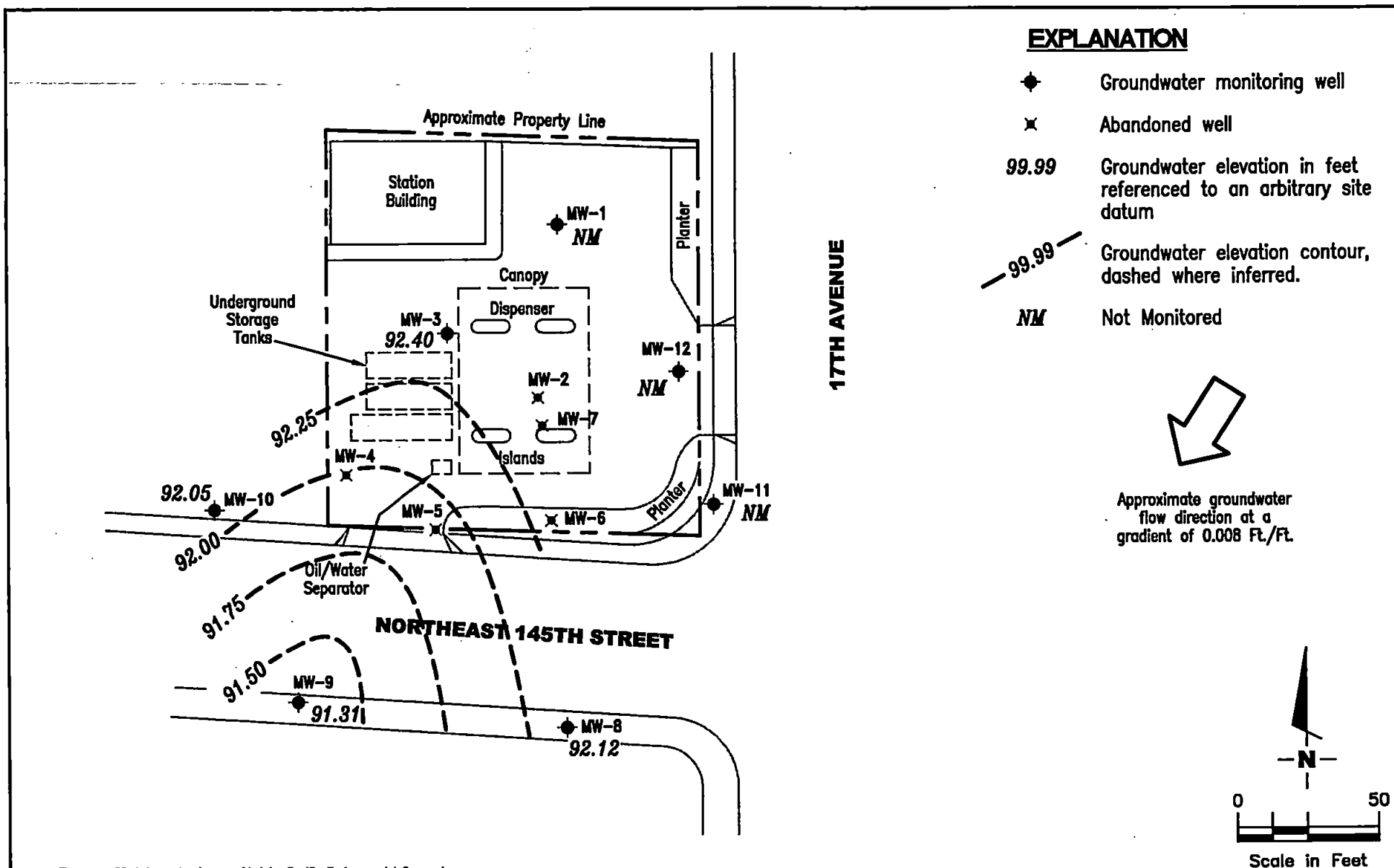
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FIGURE

1



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**POTENTIOMETRIC MAP**  
Chevron Service Station #9-6266  
1554 NE 145th Street  
Seattle, Washington

FIGURE

2

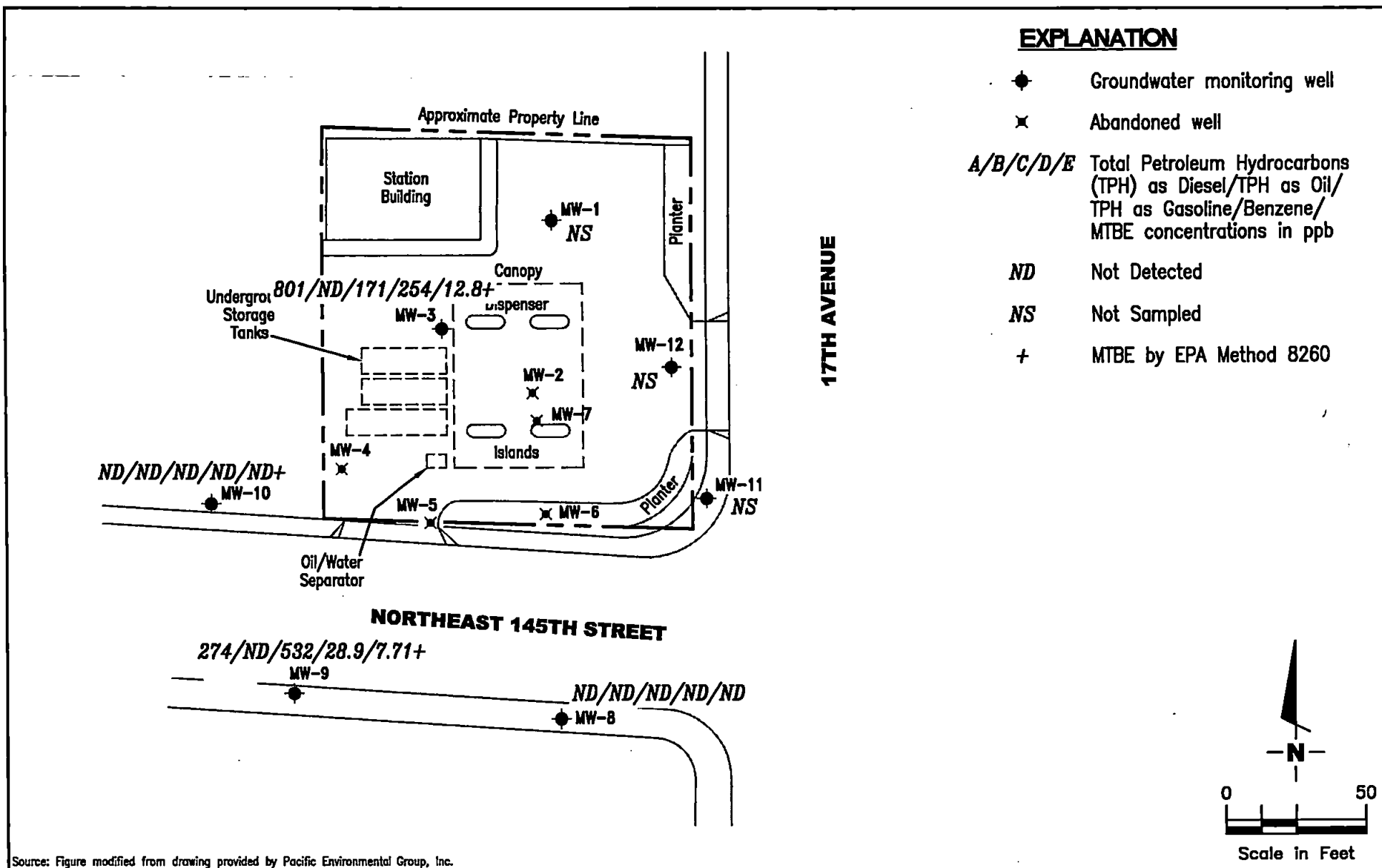
PROJECT NUMBER  
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DATE  
December 7, 2000

REVISED DATE

FILE NAME: P:\Enviro\Chevron\9-6266\Q00-6266.DWG | Layout Tab: Pot4



Source: Figure modified from drawing provided by Pacific Environmental Group, Inc.



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**CONCENTRATION MAP**  
Chevron Service Station #9-6266  
1554 NE 145th Street  
Seattle, Washington

FIGURE

**3**

PROJECT NUMBER  
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DATE  
December 7, 2000

REVISED DATE

FILE NAME: P:\Enviro\Chevron\9-6266\Q00-6266.DWG | Layout Tab: Con4

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6266  
1554 NE 145th Street  
Seattle, Washington

WELL ID TOC*(ft.)	DATE	DTW (ft.)	GWE (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-O (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1												
103.19	01/25/91	5.03	98.16	--	--	--	66	ND	0.8	ND	1	--
	10/17/91	9.67	93.52	--	--	--	ND	ND	ND	ND	ND	--
	04/13/92	7.50	95.69	--	--	--	--	--	--	--	--	--
	07/30/92	9.20	93.99	--	--	--	--	--	--	--	--	--
	11/25/92	9.40	93.79	--	--	--	--	--	--	--	--	--
	02/18/93	8.45	94.74	--	--	--	--	--	--	--	--	--
	05/13/93	6.91	96.28	--	--	--	--	--	--	--	--	--
	08/06/93	--	--	--	--	--	--	--	--	--	--	--
	11/15/93	--	--	--	--	--	--	--	--	--	--	--
	01/27/94	7.70	95.49	--	ND	ND	--	--	--	--	--	--
	04/26/94	6.75	96.44	--	ND	ND	--	--	--	--	--	--
	07/26/94	8.40	94.79	--	580	750	--	--	--	--	--	--
	10/25/94	10.20	92.99	--	<240	<710	ND	ND	ND	ND	ND	--
	04/12/95	--	--	--	--	--	--	--	--	--	--	--
	10/04/95	--	--	--	--	--	--	--	--	--	--	--
	04/09/96	--	--	--	--	--	--	--	--	--	--	--
	04/11/97	--	--	--	--	--	--	--	--	--	--	--
	09/30/00	UNABLE TO LOCATE		--	--	--	--	--	--	--	--	--
NOT MONITORED/SAMPLED												
MW-2												
100.33	01/25/91	4.61	95.72	--	--	--	ND	0.47	1.3	ND	1.4	--
	10/17/91	7.09	93.24	--	--	--	ND	ND	ND	ND	ND	--
	04/13/92	5.18	95.15	--	--	--	--	--	--	--	--	--
	07/30/92	6.34	93.99	--	--	--	--	--	--	--	--	--
	11/25/92	7.24	93.09	--	--	--	--	--	--	--	--	--
	02/18/93	6.34	93.99	--	--	--	--	--	--	--	--	--
	05/13/93	5.29	95.04	--	--	--	--	--	--	--	--	--
	08/06/93	--	--	--	--	--	--	--	--	--	--	--
	11/15/93	--	--	--	--	--	--	--	--	--	--	--
	01/27/94	--	--	--	--	--	--	--	--	--	--	--
	04/26/94	--	--	--	--	--	--	--	--	--	--	--
	07/26/94	6.85	93.48	--	--	--	200	ND	0.8	1.3	8.7	--
	10/25/94	7.65	92.68	--	--	--	ND	ND	ND	ND	ND	--

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Seattle, Washington

WELL ID TOC*(ft.)	DATE	DTW (ft.)	GWE (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-O (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	04/12/95	--	--	--	--	--	--	--	--	--	--	--
(cont)	10/04/95	--	--	--	--	--	--	--	--	--	--	--
	04/09/96	--	--	--	--	--	--	--	--	--	--	--
	04/11/97	--	--	--	--	--	--	--	--	--	--	--
ABANDONED												
<b>MW-3</b>												
100.06	01/25/91	4.48	95.58	--	--	--	44	1.4	5.6	1.30	7.80	--
	10/17/91	7.19	92.87	--	--	--	ND	ND	ND	ND	ND	--
	04/13/92	5.19	94.87	--	--	--	--	--	--	--	--	--
	07/30/92	6.07	93.99	--	--	--	--	--	--	--	--	--
	11/25/92	6.78	93.28	--	--	--	--	--	--	--	--	--
	02/18/93	6.35	93.71	--	--	--	--	--	--	--	--	--
	05/13/93	2.77	97.29	--	--	--	--	--	--	--	--	--
	08/06/93	--	--	--	--	--	--	--	--	--	--	--
	11/15/93	--	--	--	--	--	--	--	--	--	--	--
	01/27/94	5.87	94.19	--	--	--	ND	ND	ND	ND	ND	--
	04/26/94	5.05	95.01	--	--	--	ND	ND	ND	ND	ND	--
	07/26/94	8.57	91.49	--	--	--	ND	ND	ND	ND	ND	--
	10/25/94	--	--	--	--	--	--	--	--	--	--	--
	04/12/95	--	--	--	--	--	--	--	--	--	--	--
	10/04/95	--	--	--	--	--	--	--	--	--	--	--
	04/09/96	--	--	--	--	--	--	--	--	--	--	--
	04/11/97	--	--	--	--	--	--	--	--	--	--	--
	03/23/00	4.88	95.18	0.00	ND	ND	76.7	65.8	9.60	0.772	8.01	7.25 <sup>4</sup>
	09/30/00 <sup>5</sup>	8.02	92.04	0.00	379	ND <sup>3</sup>	1,410	343	185	ND <sup>3</sup>	242	ND <sup>3</sup>
	12/07/00 <sup>7</sup>	7.66	92.40	0.00	801	ND	171	254	31.8	0.636	6.84	39.2/12.8 <sup>2</sup>
<b>MW-8</b>												
98.44	10/17/91	7.15	91.29	--	--	--	65	ND	ND	ND	0.51	--
	04/13/92	4.96	93.48	--	--	--	ND	ND	ND	ND	ND	--
	07/30/92	6.43	92.01	--	--	--	ND	ND	ND	ND	ND	--
	11/25/92	6.92	91.52	--	--	--	ND	ND	ND	ND	ND	--
	02/18/93	5.85	92.59	--	--	--	200	29	1.4	1.8	27	--

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Seattle, Washington

WELL ID TOC*(ft.)	DATE	DTW (ft.)	GWE (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-O (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	05/13/93	4.71	93.73	--	--	--	ND	0.9	ND	ND	ND	--
(cont)	08/06/93	5.68	92.76	--	--	--	ND	ND	ND	ND	ND	--
	11/15/93	7.01	91.43	--	ND	ND	ND	ND	ND	ND	ND	--
	01/27/94	5.54	92.90	--	--	--	ND	ND	ND	ND	ND	--
	04/26/94	4.87	93.57	--	--	--	ND	ND	ND	ND	ND	--
	07/26/94	6.39	92.05	--	--	--	ND	ND	ND	ND	ND	--
	10/25/94	7.50	90.94	--	--	--	ND	ND	ND	ND	ND	--
	04/12/95 <sup>1</sup>	4.11	94.33	--	--	--	ND	ND	ND	ND	ND	--
	10/04/95 <sup>1</sup>	6.41	92.03	--	--	--	ND	ND	ND	ND	ND	--
	04/09/96	4.26	94.18	--	--	--	ND	ND	ND	ND	ND	--
	04/11/97	3.95	94.49	--	--	--	ND	ND	ND	ND	ND	--
	03/23/00	3.94	94.50	0.00	--	--	--	--	--	--	--	--
	09/30/00	6.96	91.48	0.00	ND	ND	ND	ND	ND	ND	ND	ND
	12/07/00	6.32	92.12	0.00	ND	ND	ND	ND	ND	ND	ND	ND
MW-9												
98.34	10/17/91	7.65	90.69	--	--	--	4,200	620	ND	69	380	--
	04/13/92	5.84	92.50	--	--	--	4,700	800	59	210	530	--
	07/30/92	6.98	91.36	--	--	--	3,400	880	22	120	490	--
	11/25/92	7.52	90.82	--	--	--	4,700	1,100	28	140	680	--
	02/18/93	6.86	91.48	--	--	--	2,900	670	37	180	390	--
	05/13/93	5.84	92.50	--	--	--	1,900	390	14	96	260	--
	08/06/93	6.30	92.04	--	--	--	2,300	520	8.9	89	290	--
	11/15/93	7.60	90.74	--	380	ND	2,900	780	13	63	440	--
	01/27/94	6.48	91.86	--	--	--	2,700	480	26	100	340	--
	04/26/94	5.73	92.61	--	--	--	4,400	330	12	65	230	--
	07/26/94	6.89	91.45	--	--	--	2,000	500	9.3	46	380	--
	10/25/94	7.91	90.43	--	--	--	3,000	460	10	29	350	--
	04/12/95 <sup>1</sup>	4.85	93.49	--	--	--	510	55	0.91	3.8	24	--
	10/04/95 <sup>1</sup>	6.97	91.37	--	--	--	4,900	670	15	87	840	--
	04/09/96	5.00	93.34	--	--	--	ND	12	ND	ND	ND	--
	04/11/97	4.40	93.94	--	--	--	ND	ND	ND	ND	ND	--
	03/23/00	4.74	93.60	0.00	ND	ND	198	ND <sup>3</sup>	ND <sup>3</sup>	ND	ND	15.6/10.8 <sup>2</sup>
	09/30/00	7.31	91.03	0.00	258	ND	1,550	42.7	4.05	3.04	122	14.4/14.4 <sup>6</sup>
	12/07/00	7.03	91.31	0.00	274	ND	532	28.9	2.27	ND	45.1	15.0/7.71 <sup>2</sup>

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WELL ID TOC*(ft.)	DATE	DTW (ft.)	GWE (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-O (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-10</b>												
97.80	10/17/91	5.97	91.83	--	--	--	93	ND	ND	ND	ND	--
	04/13/92	4.55	93.25	--	--	--	ND	ND	4.5	ND	ND	--
	07/30/92	5.33	92.47	--	--	--	ND	ND	ND	ND	ND	--
	11/25/92	5.83	91.97	--	--	--	ND	ND	1.0	ND	2.1	--
	02/18/93	5.40	92.40	--	--	--	--	--	--	--	--	--
	05/13/93	4.40	93.40	--	--	--	--	--	--	--	--	--
	08/06/93	--	--	--	--	--	--	--	--	--	--	--
	11/15/93	--	--	--	--	--	--	--	--	--	--	--
	01/27/94	--	--	--	--	--	--	--	--	--	--	--
	04/26/94	--	--	--	--	--	--	--	--	--	--	--
	07/26/94	--	--	--	--	--	--	--	--	--	--	--
	10/25/94	--	--	--	--	--	--	--	--	--	--	--
	04/12/95 <sup>1</sup>	3.92	93.88	--	--	--	ND	ND	ND	ND	ND	--
	10/04/95 <sup>1</sup>	5.20	92.60	--	--	--	ND	ND	ND	ND	ND	--
	04/09/96	3.86	93.94	--	--	--	ND	ND	ND	ND	ND	--
	04/11/97	3.55	94.25	--	--	--	ND	ND	ND	ND	ND	--
	03/23/00	4.78	93.02	0.00	ND	ND	ND	ND	ND	ND	ND	3.83 <sup>4</sup>
	12/07/00	5.75	92.05	0.00	ND	ND	ND	ND	ND	ND	ND	1.79/ND <sup>2</sup>
<b>MW-11</b>												
100.32	10/17/91	8.46	91.86	--	--	--	120	ND	ND	ND	0.67	--
	04/13/92	5.21	95.11	--	--	--	ND	ND	ND	ND	ND	--
	07/30/92	7.06	93.26	--	--	--	ND	ND	ND	ND	ND	--
	11/25/92	7.28	93.04	--	--	--	ND	ND	1.3	ND	2	--
	02/18/93	6.45	93.87	--	--	--	--	--	--	--	--	--
	05/13/93	5.13	95.19	--	--	--	--	--	--	--	--	--
	08/06/93	--	--	--	--	--	--	--	--	--	--	--
	11/15/93	--	--	--	--	--	--	--	--	--	--	--
	01/27/94	5.91	94.41	--	--	--	ND	ND	ND	ND	ND	--
	04/26/94	4.97	95.35	--	--	--	ND	ND	ND	ND	ND	--
	07/26/94	7.29	93.03	--	--	--	ND	ND	ND	ND	ND	--



**Table 1**  
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Seattle, Washington

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MW-11	10/25/94	5.45	94.87	--	--	--	ND	ND	ND	ND	ND	--
(cont)	04/12/95	--	--	--	--	--	--	--	--	--	--	--
	10/04/95	--	--	--	--	--	--	--	--	--	--	--
	04/09/96	--	--	--	--	--	--	--	--	--	--	--
	04/11/97	--	--	--	--	--	--	--	--	--	--	--
NOT MONITORED/SAMPLED												
MW-12												
103.19	10/17/91	10.44	92.75	--	--	--	120	ND	ND	0.65	0.66	--
	04/13/92	7.50	95.69	--	--	--	ND	ND	ND	ND	ND	--
	07/30/92	9.50	93.69	--	--	--	ND	ND	ND	ND	ND	--
	11/25/92	10.20	92.99	--	--	--	ND	ND	7.3	ND	ND	--
	02/18/93	9.12	94.07	--	--	--	--	--	--	--	--	--
	05/13/93	7.84	95.35	--	--	--	--	--	--	--	--	--
	08/06/93	--	--	--	--	--	--	--	--	--	--	--
	11/15/93	--	--	--	--	--	--	--	--	--	--	--
	01/27/94	--	--	--	--	--	--	--	--	--	--	--
	04/26/94	--	--	--	--	--	--	--	--	--	--	--
	07/26/94	--	--	--	--	--	--	--	--	--	--	--
	10/25/94	--	--	--	--	--	--	--	--	--	--	--
	04/12/95	--	--	--	--	--	--	--	--	--	--	--
	10/04/95	--	--	--	--	--	--	--	--	--	--	--
	04/09/96	--	--	--	--	--	--	--	--	--	--	--
	04/11/97	--	--	--	--	--	--	--	--	--	--	--
NOT MONITORED/SAMPLED												

**Table 1**  
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Chevron Service Station #9-6266  
1554 NE 145th Street  
Seattle, Washington

WELL ID	DATE	DTW	GWE	SPHT	TPH-D	TPH-O	TPH-G	B	T	E	X	MTBE
TOC*(ft.)		(ft.)	(ft.)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)

**Trip Blank**

TB-LB	04/11/97	--	--	--	--	--	ND	ND	ND	ND	ND	--
	03/23/00	--	--	--	--	--	ND	ND	ND	ND	ND	ND
	09/30/00	--	--	--	--	--	--	--	--	--	--	--
	12/07/00	--	--	--	--	--	ND	ND	ND	ND	ND	ND

	TPH-D	TPH-O	TPH-G	B	T	E	X	MTBE
<b>Current Laboratory Reporting Limits:</b>	<b>250</b>	<b>750</b>	<b>50.0</b>	<b>0.500</b>	<b>0.500</b>	<b>0.500</b>	<b>1.00</b>	<b>0.500</b>
<b>MTCA Method A Cleanup Levels:</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>5</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>--</b>
<b>Current Method:</b>	<b>WTPH-D + Extended</b>		<b>WTPH-G and EPA 8021B</b>					

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6266  
1554 NE 145th Street  
Seattle, Washington

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to March 23, 2000, were compiled from reports prepared by Pacific Environmental Group, Inc.

TOC = Top of Casing  
DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

SPHT = Separate Phase Hydrocarbon Thickness

TPH-D = Total Petroleum Hydrocarbons as Diesel (Diesel Range Hydrocarbons)

TPH-O = Total Petroleum Hydrocarbons as Oil (Heavy Range Oil Hydrocarbons)

TPH-G = Total Petroleum Hydrocarbons as Gasoline (Gasoline Range Hydrocarbons)

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

MTCA = Model Toxics Control Act Cleanup Regulations

[WAC 173-340-720(2)(a)(I), as amended 12/93].

\* TOC elevations are in feet relative to an arbitrary datum.

<sup>1</sup> Total Lead by EPA Method 7421 was ND.

<sup>2</sup> MTBE by EPA Method 8260.

<sup>3</sup> Detection limit raised. Refer to analytical reports.

<sup>4</sup> MTBE confirmed by EPA Method 8260.

<sup>5</sup> Replaced ORC in well.

<sup>6</sup> MTBE by EPA Method 8260 was analyzed outside of the recommended holding time.

<sup>7</sup> ORC present in well.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-6266  
1554 NE 145th Street  
Seattle, Washington

WELL ID	DATE	METHANOL (ppm)	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-3	12/07/00	ND	ND <sup>1</sup>	ND <sup>1</sup>	12.8	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
MW-8	12/07/00	ND	ND	ND	ND	ND	ND	ND
MW-9	12/07/00	ND	ND	ND	7.71	ND	ND	ND
MW-10	12/07/00	ND	ND	ND	ND	ND	ND	ND

**EXPLANATIONS:**

TBA = Tertiary butyl alcohol  
MTBE = Methyl tertiary butyl ether  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = Tertiary amyl methyl ether  
(ppm) = Parts per million  
(ppb) = Parts per billion  
ND = Not Detected

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds  
EPA Method 8015B Methanol

<sup>1</sup> Detection limit raised. Refer to analytical reports.

## **STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING**

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize. Purge water is treated by filtering the water through granular activated carbon and is subsequently discharged to the ground surface at the site.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used for all samples. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

# WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Chevron

Facility # 9-6266

Job#: 386681

Address: 1554 NE 145th St.

Date: 12-7-00

City: Seattle, WA

Sampler: BWN

Well ID

MW 3

Well Condition: OK Contains ORC

Well Diameter

4 in.

Hydrocarbon

Thickness: 0 (feet)

Amount Bailed

(product/water): 0 (Gallons)

Total Depth

10.11 ft.

Depth to Water

7.66 ft.

Volume  
Factor (VF)

2" = 0.17

3" = 0.38

4" = 0.66

6" = 1.50

12" = 5.80

2.45

X VF

.66

= 1.6

X 3 (case volume)

= Estimated Purge Volume:

5 (gal.)

Purge  
Equipment:

Disposable Bailer

Bailer

Stack

Suction

Grundfos

Other: \_\_\_\_\_

Sampling  
Equipment:

Disposable Bailer

Bailer

Pressure Bailer

Grab Sample

Other: \_\_\_\_\_

Starting Time:

13:20

Weather Conditions: foggy

Sampling Time:

13:40

Water Color: grayish green

Odor: yes

Purging Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: algae

Did well de-water? NO

If yes; Time: \_\_\_\_\_

Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:25</u>	<u>1.7</u>	<u>6.76</u>	<u>344</u>	<u>11.6</u>			
<u>13:30</u>	<u>3.4</u>	<u>6.77</u>	<u>361</u>	<u>11.3</u>			
<u>13:35</u>	<u>5</u>	<u>6.68</u>	<u>384</u>	<u>11.0</u>			

## LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 3</u>	<u>3 VOA/IAL</u>	<u>Y</u>	<u>HCl</u>	<u>SECOTIA N.C.</u>	<u>TPH(GI)/btex/mtbe</u>
<u>MW 3</u>	<u>2 VOA/IAL</u>	<u>Y</u>	<u>HCl</u>	<u>↓</u>	<u>7 Oxy Comp.</u>
<u>MW 3</u>	<u>1 Amber L</u>	<u>Y</u>	<u>NP</u>	<u>↓</u>	<u>TPH(D) + Ext</u>

COMMENTS: \_\_\_\_\_

# WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Chevron

Facility # \_\_\_\_\_

Job#: \_\_\_\_\_

Address: \_\_\_\_\_

Date: 12-7-00

City: Seattle, WA

Sampler: BWN

Well ID MW 8

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: Ø (feet) Amount Bailed Ø (Gallons)

Total Depth 14.28 ft.

Depth to Water 6.32 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

7.96 x VF .17 = 1.35 x 3 (case volume) = Estimated Purge Volume: 4 (gal.)

Purge Equipment:

Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment:

Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 11:50

Weather Conditions: foggy

Sampling Time: 12:10

Water Color: clear Odor: no

Purging Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: \_\_\_\_\_

Did well de-water? no

If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:55</u>	<u>1.35</u>	<u>6.97</u>	<u>305</u>	<u>11.6</u>			
<u>12:00</u>	<u>2.7</u>	<u>6.94</u>	<u>317</u>	<u>11.4</u>			
<u>12:05</u>	<u>4</u>	<u>6.91</u>	<u>338</u>	<u>11.3</u>			

## LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 8</u>	<u>3 VOAIAL</u>	<u>Y</u>	<u>HCl</u>	<u>Seavon North Cr.</u>	<u>TPH(GI)/btex/mtbe</u>
<u>MW 8</u>	<u>2 VOAIAL</u>	<u>↓</u>	<u>HCl</u>	<u>↓</u>	<u>7 oxy's</u>
<u>MW 8</u>	<u>1 Amber L</u>	<u>↓</u>	<u>NP</u>	<u>↓</u>	<u>TPH(ID) + ELY</u>

COMMENTS: \_\_\_\_\_

# WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Chevron  
Facility # 9-6266

Job#: 386681

Address: 1554 NE 145<sup>th</sup> St.

Date: 12-7-00

City: Seattle, WA

Sampler: BWN

Well ID MW 9

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: Ø (feet) Amount Bailed Ø (Gallons)  
(product/water):

Total Depth 13.70 ft.

Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
6" = 1.50 12" = 5.80

Depth to Water 7.03 ft.

6.67 X VF .17 = 1.13 X 3 (case volume) = Estimated Purge Volume: 3.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 12:20

Weather Conditions: foggy

Sampling Time: 12:40

Water Color: clear Odor: yes

Purging Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: \_\_\_\_\_

Did well de-water? no

If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:25</u>	<u>1.2</u>	<u>6.85</u>	<u>382</u>	<u>11.9</u>			
<u>12:30</u>	<u>2.4</u>	<u>6.81</u>	<u>376</u>	<u>11.8</u>			
<u>12:35</u>	<u>3.5</u>	<u>6.78</u>	<u>373</u>	<u>11.6</u>			

## LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 9</u>	<u>3 VOATIAL</u>	<u>Y</u>	<u>HC1</u>	<u>SECONA North Creek</u>	<u>TPH(G)/btex/mtbe</u>
<u>MW 9</u>	<u>2 VOATIAL</u>	<u>↓</u>	<u>HC1</u>	<u>↓</u>	<u>7 oxy's</u>
<u>MW 9</u>	<u>1 Amber L</u>	<u>↓</u>	<u>NP</u>		<u>TPH(CD) + EXT</u>

COMMENTS: \_\_\_\_\_



# WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Chevron  
Facility # 9-6266

Address: 1554 NE 145th St.

City: Seattle, WA

Job#: 386681

Date: 12-7-00

Sampler: BWN

Well ID MW 10 Well Condition: OK

Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (Gallons) Ø

Total Depth 13.40 ft.

Depth to Water 5.75 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

7.65 X VF .17 = 1.3 X 3 (case volume) = Estimated Purge Volume: 4 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 12:50 Weather Conditions: foggy

Sampling Time: 13:10 Water Color: lt. orange (Fe) Odor: no

Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_

Did well de-water? no If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:55</u>	<u>1.3</u>	<u>6.75</u>	<u>411</u>	<u>12.5</u>			
<u>13:00</u>	<u>2.6</u>	<u>6.73</u>	<u>404</u>	<u>12.3</u>			
<u>13:05</u>	<u>4</u>	<u>6.72</u>	<u>393</u>	<u>12.0</u>			

## LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 10</u>	<u>3 VOIAL</u>	<u>Y</u>	<u>ACI</u>	<u>SEQUOIA N.C.</u>	<u>TPH(GI)/btex/mtbe</u>
<u>MW 10</u>	<u>2 VOIAL</u>	<u>↓</u>	<u>ACI</u>	<u>↓</u>	<u>7 Oxy's</u>
<u>MW 10</u>	<u>1 Amber L</u>	<u>↓</u>	<u>NP</u>		<u>TPH (C) + EXT</u>

COMMENTS: \_\_\_\_\_

☐ Yes

☐ No

## Chain-of-Custody-Record

**Chevron Products Co.**  
**P.O. BOX 6004**  
**San Ramon, CA 94583**  
**FAX (925)842-8370**

9-6266

Chevron Facility Number \_\_\_\_\_

Facility Address 1554 NE 145TH STREET, SEATTLE WA

Consultant Project Number 386681

Consultant Name Gettler-Ryan Inc.

Address 6747 Sierra Court, Suite G, Dublin, CA 94568

Project Contact (Name) Deanna L. Harding

(Phone) 925-551-7555 (Fax Number) 925-551-7899

Chevron Contact (Name) MR. BRETT HUNTER  
(Phone) 925-842-8695  
Laboratory Name North Creek Analytical  
Laboratory Service Order \_\_\_\_\_  
Laboratory Service Code \_\_\_\_\_  
Samples Collected by (Name) Ben Newton  
Signature Ben Newton

[illegible]



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8223  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB LB	B0L0234-01	Water	12/07/00 12:00	12/09/00 11:00
MW 3	B0L0234-02	Water	12/07/00 13:40	12/09/00 11:00
MW 8	B0L0234-03	Water	12/07/00 12:10	12/09/00 11:00
MW 9	B0L0234-04	Water	12/07/00 12:40	12/09/00 11:00
MW 10	B0L0234-05	Water	12/07/00 13:10	12/09/00 11:00

North Creek Analytical - Bothell

  
Robert Greer, Project Manager

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Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C36 by WTPH-D (extended))**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 3 (B0L0234-02) Water</b> Sampled: 12/07/00 13:40 Received: 12/09/00 11:00									
Diesel Range Hydrocarbons	0.801	0.250	mg/l	1	0L14006	12/14/00	12/16/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	66.9 %	50-150			"	"	"	"	
Surrogate: Octacosane	73.8 %	50-150			"	"	"	"	
<b>MW 8 (B0L0234-03) Water</b> Sampled: 12/07/00 12:10 Received: 12/09/00 11:00									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	0L14006	12/14/00	12/16/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	69.3 %	50-150			"	"	"	"	
Surrogate: Octacosane	58.7 %	50-150			"	"	"	"	
<b>MW 9 (B0L0234-04) Water</b> Sampled: 12/07/00 12:40 Received: 12/09/00 11:00									
Diesel Range Hydrocarbons	0.274	0.250	mg/l	1	0L14006	12/14/00	12/16/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	76.7 %	50-150			"	"	"	"	
Surrogate: Octacosane	79.7 %	50-150			"	"	"	"	
<b>MW 10 (B0L0234-05) Water</b> Sampled: 12/07/00 13:10 Received: 12/09/00 11:00									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	0L14006	12/14/00	12/16/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	80.2 %	50-150			"	"	"	"	
Surrogate: Octacosane	69.0 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Gasoline Hydrocarbons by EPA 8015 and BTEX, MTBE, Naphthalene by EPA 8020**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB LB (B0L0234-01) Water Sampled: 12/07/00 12:00 Received: 12/09/00 11:00</b>									
GRO as Gasoline	ND	50.0	ug/l	1	1200059	12/20/00	12/20/00	WTPH-G/BTEXMTB E	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	97.2 %	50.0-150			"	"	"	"	
Surrogate: 4-BFB (PID)	100 %	56.0-142			"	"	"	"	
<b>MW 3 (B0L0234-02) Water Sampled: 12/07/00 13:40 Received: 12/09/00 11:00</b>									
GRO as Gasoline	171	50.0	ug/l	1	1200059	12/20/00	12/20/00	WTPH-G/BTEXMTB E	
Benzene	254	0.500	"	"	"	"	"	"	
Toluene	31.8	0.500	"	"	"	"	"	"	
Ethylbenzene	0.636	0.500	"	"	"	"	"	"	
Xylenes (total)	6.84	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	39.2	0.500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	114 %	50.0-150			"	"	"	"	
Surrogate: 4-BFB (PID)	95.2 %	56.0-142			"	"	"	"	
<b>MW 8 (B0L0234-03) Water Sampled: 12/07/00 12:10 Received: 12/09/00 11:00</b>									
GRO as Gasoline	ND	50.0	ug/l	1	1200059	12/20/00	12/20/00	WTPH-G/BTEXMTB E	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	111 %	50.0-150			"	"	"	"	
Surrogate: 4-BFB (PID)	99.6 %	56.0-142			"	"	"	"	

North Creek Analytical / Bothell

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Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
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541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Gasoline Hydrocarbons by EPA 8015 and BTEX, MTBE, Naphthalene by EPA 8020**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW 9 (B0L0234-04) Water Sampled: 12/07/00 12:40 Received: 12/09/00 11:00									
GRO as Gasoline	532	50.0	ug/l	1	1200059	12/20/00	12/20/00	WTPH-G/BTEXMTB E	
Benzene	28.9	0.500	"	"	"	"	"	"	
Toluene	2.27	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	45.1	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	15.0	0.500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	192 %	50.0-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	128 %	56.0-142			"	"	"	"	
MW 10 (B0L0234-05) Water Sampled: 12/07/00 13:10 Received: 12/09/00 11:00									
GRO as Gasoline	ND	50.0	ug/l	1	1200059	12/20/00	12/20/00	WTPH-G/BTEXMTB E	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	1.79	0.500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	121 %	50.0-150			"	"	"	"	
Surrogate: 4-BFB (PID)	114 %	56.0-142			"	"	"	"	

North Creek Analytical - Bothell

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Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
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541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Alcohols by EPA 8015B GC/FID**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 3 (B0L0234-02) Water</b> Sampled: 12/07/00 13:40 Received: 12/09/00 11:00									
Methanol	ND	10.0	mg/l	1	0120492	12/15/00	12/15/00	EPA 8015B	
<b>MW 8 (B0L0234-03) Water</b> Sampled: 12/07/00 12:10 Received: 12/09/00 11:00									
Methanol	ND	10.0	mg/l	1	0120492	12/15/00	12/15/00	EPA 8015B	
<b>MW 9 (B0L0234-04) Water</b> Sampled: 12/07/00 12:40 Received: 12/09/00 11:00									
Methanol	ND	10.0	mg/l	1	0120492	12/15/00	12/15/00	EPA 8015B	
<b>MW 10 (B0L0234-05) Water</b> Sampled: 12/07/00 13:10 Received: 12/09/00 11:00									
Methanol	ND	10.0	mg/l	1	0120492	12/15/00	12/15/00	EPA 8015B	

North Creek Analytical - Bothell

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541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Volatile Organic Oxygenated Compounds by EPA Method 8260B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 3 (B0L0234-02) Water</b> Sampled: 12/07/00 13:40 Received: 12/09/00 11:00									
Ethanol	ND	2500	ug/l	2.5	0120054	12/18/00	12/18/00	EPA 8260B	
Tert-butyl alcohol	ND	250	"	"	"	"	"	"	
Methyl tert-butyl ether	12.8	5.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.00	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.00	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	92.4 %	76.0-114			"	"	"	"	
<b>MW 8 (B0L0234-03) Water</b> Sampled: 12/07/00 12:10 Received: 12/09/00 11:00									
Ethanol	ND	1000	ug/l	1	0120054	12/17/00	12/17/00	EPA 8260B	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	96.2 %	76.0-114			"	"	"	"	
<b>MW 9 (B0L0234-04) Water</b> Sampled: 12/07/00 12:40 Received: 12/09/00 11:00									
Ethanol	ND	1000	ug/l	1	0120054	12/17/00	12/17/00	EPA 8260B	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	7.71	2.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	97.4 %	76.0-114			"	"	"	"	

North Creek Analytical - Bothell

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509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
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Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Volatile Organic Oxygenated Compounds by EPA Method 8260B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW 10 (BOL0234-05) Water Sampled: 12/07/00 13:10 Received: 12/09/00 11:00									
Ethanol	ND	1000	ug/l	1	0120054	12/17/00	12/17/00	EPA 8260B	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	76.0-114			"	"	"	"	

North Creek Analytical - Bothell

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Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
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Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C36 by WTPH-D (extended) - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0L14006: Prepared 12/14/00 Using EPA 3520C/600 Series</b>										
<b>Blank (0L14006-BLK1)</b>										
Diesel Range Hydrocarbons	ND	0.250	mg/l							
Heavy Oil Range Hydrocarbons	ND	0.750	"							
Surrogate: 2-FBP	0.244		"	0.320		76.3	50-150			
Surrogate: Octacosane	0.210		"	0.320		65.6	50-150			
<b>LCS (0L14006-BS1)</b>										
Diesel Range Hydrocarbons	1.43	0.250	mg/l	2.00		71.5	60-140			
Surrogate: 2-FBP	0.223		"	0.320		69.7	50-150			
<b>Duplicate (0L14006-DUP1)</b>										
<b>Source: B0L0234-03</b>										
Diesel Range Hydrocarbons	ND	0.250	mg/l		ND			5.03	44	
Heavy Oil Range Hydrocarbons	ND	0.750	"		ND				44	
Surrogate: 2-FBP	0.530		"	0.640		82.8	50-150			
Surrogate: Octacosane	0.436		"	0.640		68.1	50-150			

North Creek Analytical - Bothell

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509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Gasoline Hydrocarbons by EPA 8015 and BTEX, MTBE, Naphthalene by EPA 8020 - Quality Control**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1200059: Prepared 12/20/00 Using GC Volatiles</b>										
<b>Blank (1200059-BLK1)</b>										
GRO as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	1.00	"							
Methyl tert-butyl ether	ND	0.500	"							
Surrogate: 4-BFB (FID)	26.9		"	25.0		108	50.0-150			
Surrogate: 4-BFB (PID)	24.5		"	25.0		98.0	56.0-142			
<b>LCS (1200059-BS1)</b>										
GRO as Gasoline	927	50.0	ug/l				85.0-115			
Surrogate: 4-BFB (FID)	36.7		"	25.0		147	50.0-150			
<b>LCS (1200059-BS2)</b>										
Benzene	9.35	0.500	ug/l	10.0		93.5	85.0-115			
Toluene	9.66	0.500	"	10.0		96.6	85.0-115			
Ethylbenzene	9.06	0.500	"	10.0		90.6	85.0-115			
Xylenes (total)	28.6	1.00	"	30.0		95.3	85.0-115			
Methyl tert-butyl ether	10.8	0.500	"	10.0		108	70.0-120			
Surrogate: 4-BFB (PID)	26.8		"	25.0		107	56.0-142			
<b>Duplicate (1200059-DUP1)</b>										
<b>Source: S012091-02</b>										
GRO as Gasoline	ND	50.0	ug/l		ND				50.0	
Benzene	ND	0.500	"		ND				50.0	
Toluene	ND	0.500	"		ND				50.0	
Ethylbenzene	ND	0.500	"		ND				50.0	
Xylenes (total)	ND	1.00	"		ND				50.0	
Methyl tert-butyl ether	ND	0.500	"		ND				50.0	
Surrogate: 4-BFB (FID)	23.3		"	25.0		93.2	50.0-150			
Surrogate: 4-BFB (PID)	24.1		"	25.0		96.4	56.0-142			

North Creek Analytical - Bothell

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509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Gasoline Hydrocarbons by EPA 8015 and BTEX, MTBE, Naphthalene by EPA 8020 - Quality Control**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1200059: Prepared 12/20/00 Using GC Volatiles										
Duplicate (1200059-DUP2)					Source: S012092-02					
GRO as Gasoline	81.9	50.0	ug/l		63.2			25.8	50.0	
Benzene	0.856	0.500	"		ND				50.0	Q-06
Toluene	0.688	0.500	"		ND				50.0	Q-06
Ethylbenzene	1.39	0.500	"		ND				50.0	Q-06
Xylenes (total)	7.34	1.00	"		3.97			59.6	50.0	Q-06
Methyl tert-butyl ether	ND	0.500	"		ND				50.0	
Surrogate: 4-BFB (FID)	26.8		"	25.0		107	50.0-150			
Surrogate: 4-BFB (PID)	27.6		"	25.0		110	56.0-142			
Matrix Spike (1200059-MS1)					Source: S012091-02					
GRO as Gasoline	719	50.0	ug/l		ND		70.0-130			
Surrogate: 4-BFB (FID)	35.3		"	25.0		141	50.0-150			
Matrix Spike (1200059-MS2)					Source: S012091-02					
Benzene	8.89	0.500	ug/l	10.0	ND	88.9	54.0-143			
Toluene	9.25	0.500	"	10.0	ND	92.5	48.0-145			
Ethylbenzene	8.82	0.500	"	10.0	ND	88.2	49.0-142			
Xylenes (total)	27.4	1.00	"	30.0	ND	91.3	55.0-140			
Methyl tert-butyl ether	10.4	0.500	"	10.0	ND	104	54.0-143			
Surrogate: 4-BFB (PID)	25.7		"	25.0		103	56.0-142			

North Creek Analytical Bothell

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Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Alcohols by EPA 8015B GC/FID - Quality Control**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0120492: Prepared 12/15/00 Using 3810 Headspace</b>									
<b>Blank (0120492-BLK1)</b>									
Methanol	ND	10.0	mg/l						
<b>LCS (0120492-BS1)</b>									
Methanol	52.2	10.0	mg/l	50.1		104 50-150			
<b>Matrix Spike (0120492-MS1)</b>									
<b>Source: B0L0234-02</b>									
Methanol	58.0	10.0	mg/l	50.1	ND	116 50-150			
<b>Matrix Spike Dup (0120492-MSD1)</b>									
<b>Source: B0L0234-02</b>									
Methanol	61.3	10.0	mg/l	50.1	ND	122 50-150	5.53	25	

North Creek Analytical - Bothell

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509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
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Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Volatile Organic Oxygenated Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0120054: Prepared 12/18/00 Using EPA 5030B [P/T]</b>										
<b>Blank (0120054-BLK2)</b>										
Ethanol	ND	1000	ug/l							
Tert-butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Tert-amyl methyl ether	ND	2.00	"							
Surrogate: 1,2-Dichloroethane-d4	48.0		"	50.0		96.0	76.0-114			
<b>Blank (0120054-BLK3)</b>										
Ethanol	ND	1000	ug/l							
Tert-butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Tert-amyl methyl ether	ND	2.00	"							
Surrogate: 1,2-Dichloroethane-d4	46.9		"	50.0		93.8	76.0-114			
<b>LCS (0120054-BS2)</b>										
Methyl tert-butyl ether	42.0	2.00	ug/l	50.0		84.0	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	49.5		"	50.0		99.0	76.0-114			
<b>LCS (0120054-BS3)</b>										
Methyl tert-butyl ether	45.7	2.00	ug/l	50.0		91.4	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	48.3		"	50.0		96.6	76.0-114			
<b>Matrix Spike (0120054-MS1)</b>										
				<b>Source: L012102-06</b>						
Methyl tert-butyl ether	56.5	2.00	ug/l	50.0	8.36	96.3	60.0-140			
Surrogate: 1,2-Dichloroethane-d4	47.8		"	50.0		95.6	76.0-114			

North Creek Analytical - Bothell

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509.924.9200 fax 509.924.9290  
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Gettler-Ryan Inc. - Dublin  
6747 Sierra Court Suite G  
Dublin CA, 94568

Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

**Volatile Organic Oxygenated Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0120054: Prepared 12/17/00 Using EPA 5030B [P/T]

Matrix Spike Dup (0120054-MSD1)

Source: L012102-06

Methyl tert-butyl ether	56.6	2.00	ug/l	50.0	8.36	96.5	60.0-140	0.207	25.0	
Surrogate: 1,2-Dichloroethane-d4	48.0		"	50.0		96.0	76.0-114			

North Creek Analytical - Bothell

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6747 Sierra Court Suite G  
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Project: Chevron #9-6266  
Project Number: 386681  
Project Manager: Deanna Harding

Reported:  
12/29/00 15:41

### Notes and Definitions

- Q-06 RPD values are not controlled at sample concentrations less than 5 times the reporting limit.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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