

April 14, 2004 Job #386755

Ms. Karen Streich ChevronTexaco Company P.O. Box 6004 San Ramon, CA 94583

RE: Event of March 13, 2004

Groundwater Monitoring & Sampling Report Chevron Service Station #9-0126 12607 NE 85th Street Kirkland, Washington

Dear Ms. Streich:

This report documents the groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

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

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. 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 Project Coordinator

Hagop Kevork Professional Engineer

Figure 1:

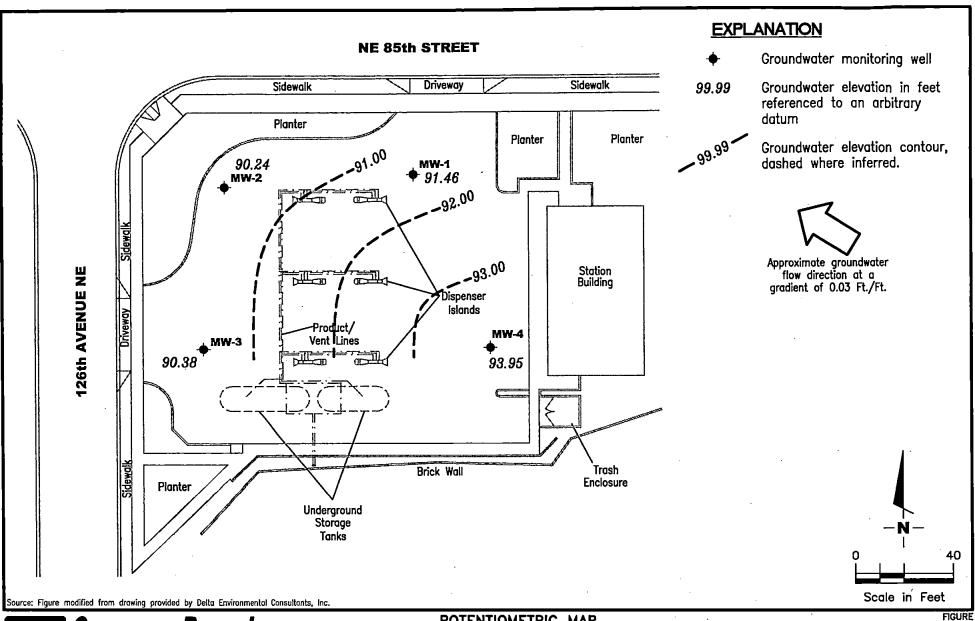
Potentiometric Map

Table 1:
Attachments:

Groundwater Monitoring Data and Analytical Results Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports





POTENTIOMETRIC MAP Chevron Service Station #9-0126 12607 NE 85th Street Kirkland, Washington DATE

March 13, 2004

REVISED DATE

PROJECT NUMBER REVIEWED BY 386755

FILE NAME: P:\ENVIRO\CHEVRON\9-0126\Q04-9-0126.DWG | Layout Tab: Pot1

Table 1
Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0126 12607 NE 85th Street Kirkland, Washington

WELL ID/		TOC*	DTW	GWE	TPH-D	трн-о	ТРН-С	В	T	E	X	MTBE	D. Lead
DATE		(ft.)	(ft.)	(fi.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppm)
MW-1			·										
04/20/01		98.85	6.40	92.45									
06/26/01		98.85	7.19	91.66	559 <sup>1</sup>	<750 <sup>1</sup>	40,800	5,560	759	2,180	8,310	284/<5.00 <sup>2</sup>	$0.00405^3$
09/10/01		98.85	7.41	91.44	573 <sup>1,5</sup>	<500 <sup>1</sup>	28,800	4,240	334	1,820	5,410	<100/<5.00 <sup>6</sup>	
12/04/01		98.85	6.06	92.79	417 <sup>1.5</sup>	<500 <sup>1</sup>	26,100	3,120	514	1,480	5,670	59.6/<5.00 <sup>6</sup>	
03/07/02	NP	98.85	6.75	92.10	1,500 <sup>1</sup>	<750 <sup>1</sup>	39,000	2,500	880	1,500	5,100	<20	
03/03/03	NP	98.85	6.68	92.17	580 <sup>1</sup>	<250 <sup>1</sup>	16,000	1,800	380	1,100	2,900	<10	
03/13/04	NP	98.85	7.39	91.46	840 <sup>1</sup>	<200¹	27,000	3,100	710	1,700	4,400	140/<3 <sup>2</sup>	
							•	• •					
MW-2													
04/20/01		97.68	8.80	88.88									
06/26/01		97.68	7.54	90.14	<250 <sup>1</sup>	<750 <sup>1</sup>	<50.0	0.765	<0.500	1.04	3.74	1.19/<5.00 <sup>2</sup>	$< 0.00100^3$
09/10/01		97.68	7.64	90.04	<250 <sup>1</sup>	<500¹	<50.0	< 0.500	< 0.500	< 0.500	<1.00	2.69/<5.00 <sup>6</sup>	
12/04/01		97.68	7.52	90.16	<250 <sup>1</sup>	<500 <sup>1</sup>	<50.0	< 0.500	< 0.500	<0.500	<1.00	2.08	
03/07/02	NP	97.68	7.42	90.26	<250 <sup>1</sup>	<750¹	<50	6.4	< 0.50	<0.50	<1.5	<2.5	
03/03/03	NP	97.68	7.50	90.18	<250 <sup>1</sup>	<250 <sup>1</sup>	<50	<0.50	< 0.50	<0.50	<1.5	<2.5	
03/13/04	NP	97.68	7.44	90.24	<77 <sup>1</sup>	<96 <sup>1</sup>	<50	<0.2	<0.2	<0.2	<0.6	$0.8 < 0.5^2$	<del></del> ·
34337.2													
<b>MW-3</b> 04/20/01		99.03	DRY										
04/20/01 06/26/01 <sup>4</sup>		99.03	8.52	90.51	<250 <sup>1</sup>	<750 <sup>1</sup>	<50.0	<0.500	<0.500	< 0.500	<1.00	<1.00/<5.00 <sup>2</sup>	<0.00100 <sup>3</sup>
					<250 <sup>1</sup>	<500 <sup>1</sup>	<50.0	<0.500	<0.500	<0.500	<1.00	<1.00	-0.00100
09/10/01		99.03	8.66	90.37 90.32	<250 <sup>1</sup>	<500 <sup>1</sup>	<50.0 <50.0	<0.500 <0.500	<0.500	<0.500	<1.00	<1.00	
12/04/01	Nm	99.03	8.71		<250 <sup>1</sup>	<750 <sup>1</sup>		<0.500 <0.50	<0.50	<0.50	<1.00	<2.5	
03/07/02	NP	99.03	8.56	90.47	<250 <sup>1</sup>	<750 <250 <sup>1</sup>	<50		<0.50	<0.50	<1.5	<2.5 <2.5	
03/03/03	NP	99.03	8.83	90.20	<230 <77 <sup>1</sup>	<230 < <b>96</b> <sup>1</sup>	<50	<0.50		<0.30 < <b>0.2</b>			
03/13/04	NP	99.03	8.65	90.38	1</td <td>&lt;90</td> <td>&lt;50</td> <td>&lt;0.2</td> <td>&lt;0.2</td> <td>&lt;0.2</td> <td>&lt;0.6</td> <td>&lt;0.3</td> <td></td>	<90	<50	<0.2	<0.2	<0.2	<0.6	<0.3	

Table 1 Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0126 12607 NE 85th Street Kirkland, Washington

WELL ID/		TOC*	DTW	GWE	TPH-D	трн-о	TPH-G	В	T	E (ppb)	X (ppb)	MTBE (ppb)	D. Lead (ppm)
DATE		(ft.)	(ft.)	(fi.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(рро)	(рую)	(PP-7)	The Apple of the State of the S
MW-4													
04/20/01		100.00	6.30	93.70		<del></del> .						<1.00/<5.00 <sup>2</sup>	<0.00100 <sup>3</sup>
06/26/01		100.00	6.14	93.86	<250¹	<750 <sup>1</sup>	<50.0	<0.500	< 0.500	<0.500	<1.00		
09/10/01		100.00	6.68	93.32	<250 <sup>1</sup>	<500 <sup>1</sup>	<50.0	<0.500	< 0.500	< 0.500	<1.00	<1.00	
12/04/01		100.00	5.71	94.29	<250 <sup>1</sup>	<500¹	<50.0	<0.500	<0.500	< 0.500	<1.00	<1.00	
03/07/02	NP	100.00	5.82	94.18	<250 <sup>1</sup>	<750 <sup>1</sup>	<50	< 0.50	< 0.50	<0.50	<1.5	<2.5	
03/03/03	NP	100.00	6.15	93.85	<250 <sup>1</sup>	<250 <sup>1</sup>	<50	< 0.50	<0.50	<0.50	<1.5	<2.5	
03/03/03	NP	100.00	6.05	93.95	<75 <sup>1</sup>	<94 <sup>1</sup>	<50	<0.2	<0.2	<0.2	<0.6	<0.3	
						• .			•				
TRIP BLAN	١K								0.500	-0.500	<1.00	<1.00	
06/26/01							<50.0	< 0.500	<0.500	<0.500	<1.00		<b>-</b> -
09/10/01							<50.0	< 0.500	< 0.500	< 0.500	<1.00	<1.00	<b></b> ·
12/04/01							<50.0	<0.500	< 0.500	< 0.500	<1.00	<1.00	
03/07/02				·			<50	<0.50	< 0.50	<0.50	<1.5	<2.5	
03/03/03					·		<50	< 0.50	< 0.50	<0.50	<1.5	<2.5	
QA										-0.0	<0.6	<0.3	
03/13/04							<50	<0.2	<0.2	<0.2	<0.0	<0.5	
			-		TPH-D	ТРН-О	TPH-G	В	Т	E	X	MTBE	D. LEAD

MTCA Method A Cleanup Levels:  Current Method:		+ Extended	800/1,000		<u> </u>	nd EPA 8021			EPA 6020
Standard Laboratory Reporting Limits:			<del></del>	<u> </u>	1,000	700	1,000	20	
Ct. 1 17 1		250	50	0.2	0.2	0.2	0.6	0.3	0.00100
	TPH-D	ТРН-О	TPH-G	В	T	E	X	MTBE	D. LEAD

#### Table 1

#### Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0126 12607 NE 85th Street Kirkland, Washington

#### **EXPLANATIONS:**

Groundwater monitoring data prior to June 26, 2001 was provided by Delta Environmental Consultants, Inc..

TOC = Top of Casing

B = Benzene

(ppm) = Parts per million

(ft.) = Feet

T = Toluene

-- = Not Measured/Not Analyzed

DTW = Depth to Water

E = Ethylbenzene

NP = No purge

GWE = Groundwater Elevation

X = Xylenes

in mo parge

TPH-D = Total Petroleum Hydrocarbons as Diesel

MTBE = Methyl tertiary butyl ether

MTCA = Model Toxics Control Act Cleanup Regulations [WAC 173-340-720(2)(a)(I), as amended 02/01].

TPH-O = Total Petroleum Hydrocarbons as Oil

D. Lead = Dissolved Lead

D. Leau - Dissolved Lea

TPH-G = Total Petroleum Hydrocarbons as Gasoline

(ppb) = Parts per billion

- TPH-D and TPH-O with silica gel cleanup.
- <sup>2</sup> MTBE by EPA Method 8260.
- Laboratory report indicates the sample was laboratory filtered and not in the field as required by the methodology.
- Well re-development performed.
- Laboratory report indicates results in the diesel organics range are primarily due to overlap from a gasoline range product.
- MTBE by EPA Method 8260 was completed outside of the recommended hold time.

<sup>\*</sup> TOC elevations have been surveyed in feet relative to an arbitrary datum.

### 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, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. The measurements are taken 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.



lient/Facility #:	ChevronTexaco	#9-0126	Job Number:	386755	
lite Address:	12607 Ne 8Th S		Event Date:	3-13-04	(inclusiv
City:	Kirkland, WA		Sampler:	Ben Newton	
Vell ID	mw - /	Date Monitored:	313/04	Well Condition: 0. k	
Vell Diameter	2 in.	Volum	e 3/4"= 0.02	1"= 0.04 2"= 0.17 3"= 0.38	<del></del> ].
Total Depth	16.78 ft.	Factor	•	5"= 1.02 6"= 1.50 12"= 5.8	0
Depth to Water	7.39 ft.	=	x3 (case volume) =	Estimated Purge Volume:	gal.
				Time Started:	(2400 hrs)
ourge Equipment:		Sampling Equipm	ent:	Time Bailed:	(2400 hrs)
Disposable Bailer	\ /	Disposable Bailer		_ Depth to Product:	ft_]
Stainless Steel Baile	, ———	Pressure Bailer		Depth to Water:	
Stack Pump		Discrete Bailer		Hydrocarbon Thickness: Visual Confirmation/Description:	_ <del></del> "
Suction Pump	<del></del>	Other:		- Visual Committation Description.	ı
Grundfos		•		Skimmer / Absorbent Sock circl	e one)
Other:		•		Amt Removed from Skimmer:	gal
Outer	<del></del>			Amt Removed/from Well:	gal
,		•		Product Transferred to:	
Sample Time/D Purging Flow R Did well de-wate	ate: gpm.	Sediment Descript f yes, Time:	ion: Volume:		<del></del>
Time (2400 hr.)	Volume (gal.)	pH Conductivity (u mhos/cm)		(mg/L) (mV	
<del></del>			7		
			_ X		<del></del>
	_	$\frac{1}{2}$			
<del></del>		LABORATORY	INFORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG. PRESERV. T			
MW - /	6 x voa vial	YES HCL	LANCASTE		<u>vo</u>
MW - /	2 x amber	YES HCL	LANCASTE	R TPH-Dx w/sg	
· · · · · · · · · · · · · · · · · · ·					
COMMENTS:	<u>no</u>	purge			
	aced Lock:		AddDarlaged	Plug:Size:	



lient/Facility #:	ChevronTexa	CO #9-0126	_ Job Number:	386755	<del></del>	
Site Address:	12607 Ne 8Th	Street	Event Date:	3-13-0	4(	inclusi
City:	Kirkland, WA		Sampler:	Ben A	euton_	
Well ID	mw - 2	Date Monitored	1:3/13/04	Well Condition:	O.K	
Well Diameter Total Depth Depth to Water	15.59 ft. 7.44 ft.	Volur Facto	me 3/4"= 0.02 or (VF) 4"= 0.66	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50	3"= 0.38 12"= 5.80	
Depth to Wate		«VF=	x3 (case volume) = E	Estimated Purge Volume:		
Purge Equipment Disposable Bailer Stainless Steel Ba Stack Pump Suction Pump		Sampling Equipout Disposable Bailer Pressure Bailer Discrete Bailer Other:		Time Started: Time Bailed: Depth to Product: Depth to Water: Hydrocarbon Thicknes Visual Confirmation/D	(24)	00 hrs) 00 hrs) ft ft ft
Grundfos Other:				Skimmer / Absorbant Amt Removed from St Amt Removed from V Product Transferred to	kimmer: /ell:	gal gal
					T	
Start Time (pu Sample Time/ Purging Flow Did well de-w	Date: \$2 5 / 3 Rate: gpm.	<del></del>	color: Clear	Odor:	N	
Sample Time/ Purging Flow	Date: \$\frac{1}{5} \frac{1}{5}\$  Rate: gpm.  ater? Volume	<u>।।3/०५</u> Water C Sediment Descrip	color: Clear otion: Volume:  Temperature	Odor:	ORP (mV)	
Sample Time/ Purging Flow Did well de-water	Date: \$\frac{1}{5} \frac{1}{5}\$  Rate: gpm.  ater? Volume	Sediment Descrip  If yes, Time:  Conductivity	color: Clear otion: Volume:  Temperature	Odor: gal p.o.	ORP	
Sample Time/ Purging Flow Did well de-water	Date: \$\frac{1}{5} \frac{1}{5}\$  Rate: gpm.  ater? Volume	Sediment Descrip  If yes, Time:  Conductivity	color: Clear otion: Volume:  Temperature	Odor: gal p.o.	ORP	
Sample Time/ Purging Flow Did well de-water	Date: \$\frac{1}{5} \frac{1}{5}\$  Rate: gpm.  ater? Volume	Sediment Descrip  If yes, Time:  pH  Conductivit (umhos/cm	color: Clear otion: Volume:  Temperature	Odor: gal.  p.O. (mg/L)	ORP (mV)	
Sample Time/ Purging Flow Did well de-wing Time (2400 hr	Date: \$\frac{1}{2} \frac{5}{3} \frac{1}{3} \text{Rate: gpm.} \text{ater? Volume (gal.)} \text{Volume (yal.)} \text{D (#) CONTAINER } D x voa vis	Sediment Descrip  If yes, Time:  pH  Conductivit (umhos/cm  LABORATOR)  REFRIG. PRESERV.  HCL	VINFORMATION TYPE LABORATOR LANCASTEF	gal.  D.O. (mg/L)  ANAI  R TPH-G/BTEX/MTBE	ORP (mV)	
Sample Time/ Purging Flow Did well de-wind (2400 hr	Date: \$\frac{\partial 1 \sqrt{5} \land 1 \sqrt{3}}{\partial 2 \sqrt{5} \land 1 \sqrt{3}}  Rate: gpm.  Volume (gal.)  (#) CONTAINER	Sediment Descrip  If yes, Time:  pH  Conductivit (umhos/cm  LABORATOR)  REFRIG. PRESERV.  HCL	Volume:  Volume:  Temperature (C/F)  Y INFORMATION  TYPE LABORATOR  LANCASTER	gal.  D.O. (mg/L)  ANAI  R TPH-G/BTEX/MTBE	ORP (mV)	



-		o #9-0126	<del></del>	0 10 -11	
te Address:	12607 Ne 8Th S	Street	Event Date:	3-13-04	(inclusiv
ity:	Kirkland, WA		Sampler:	Ben Hewit	<u></u>
Vell ID Vell Diameter	MW - 3	Date Monitore			OK .
otal Depth epth to Water	13.99 ft. 8.65 ft.	Volu Fact	or (VF) 4"= 0.66	1102	3"= 0.38 12"= 5.80
	xv	/F==	x3 (case volume) = Es	timated Purge Volume:	
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump		Sampling Equip Disposable Baile Pressure Bailer Discrete Bailer	/ 1	Time Bailed:  Depth to Product:  Depth to Water:  Hydrocarbon Thickness  Visual Confirmation/De	(2400 hrs) ft ff :ft
Suction Pump Grundfos Other:		Other:		Skimmer / Absorbart S Amt Removed from Ski Amt Removed from We Product Transferred to:	ock (circle one) mmer: gal ll: gal
Sample Time/Da Purging Flow Ra	ate: 415 /3	Weather Condit  (3 0   Water C  Sediment Descrip  If yes, Time:	Color: <u>Lear</u>	Odor: h	<i>D</i>
Sample Time/Da Purging Flow Ra	ate: <u>915 / 3</u> ate: <u>gpm.</u>	Water C Sediment Descrip	Color: Lear - otion: Volume: ty Temperature		ORP (mV)
Sample Time/Da Purging Flow Ra Did well de-wate Time	ete: 415 / 31 ate: gpm. er? 10	Sediment Description of the Conductivity of th	Color: Lear - otion: Volume: ty Temperature	gal.	ORP
Sample Time/Da Purging Flow Ra Did well de-wate	ete: 415 / 31 ate: gpm. er? 10	Sediment Descrip  If yes, Time:  pH  Conductivi (u mhos/cr	Color: Lear - cotion: Volume:  Temperature (C/F)	gal.	ORP
	ete: 415 / 31 ate: gpm. er? 10	Sediment Descrip  If yes, Time:  pH  Conductivi (u mhos/cr	Color: Lear  Otion: Volume:   Temperature (C/F)  Y INFORMATION  TYPE LABORATORY	gal.  D.O. (mg/L)	ORP (mV)
Sample Time/Da Purging Flow Ra Did well de-wate  Time (2400 hr.)	ete: 4 5 13 gpm. er? No  Volume (gal.)	Sediment Descrip  If yes, Time:  pH  Conductivi (u mhos/cr	y INFORMATION TYPE LABORATORY LANCASTER	gal.  D.O. (mg/L)	ORP (mV)



Client/Facility #:	ChevronTexaco	o #9-012	26	Job Number:	386755	
Site Address:	12607 Ne 8Th S	Street		Event Date:	3-13-04	(inclusiv
City:	Kirkland, WA			Sampler:	Ben Newton	<del></del> .
Well ID	MW - 4	Date	e Monitored:	3/13/04	Well Condition:	O.K.
Well Diameter Total Depth Depth to Water	2 in. 15.0 ft. 6.05 ft.		Volume Factor (VI	3/4"= 0.02 4"= 0.66	1"= 0.04 2"= 0.17 3"= 0 5"= 1.02 6"= 1.50 12"=	
Dopuis to Train		F	_=	x3 (case volume) =	Estimated Purge Volume:	gal.
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump		Dis Pre Dis	npling Equipment posable Baller ssure Baller crete Baller ler:	t:	Time Started: Time Bailed: Depth to Product: Depth to Water: Hydrocarbon Thickness: Visual Confirmation/Descripti	(2400 hrs) (2400 hrs) ft ft ft ft ion:
Grundfos Other:		•			Skimmer / Absorbant Sock (c Amt Removed from Skimmer Amt Removed from Well: Product Transferred to:	circle one) r:gal gal
Start Time (purgo Sample Time/Da		Weat	ther Conditions Water Color		Sony  Odor: W	
Purging Flow Ra Did well de-wate	<del></del>		ent Description ne:		gal.	
Time (2400 hr.)	Volume (gal.)	рН <b>7</b>	Conductivity (u mhos/cm)	Temperature (C/F)		DRP mV)
				<u> </u>		_ <u> </u>
		<u></u>				
			ABORATORY IN	FORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYP			
MW - 4	6 x voa vial	YES	HCL	LANCASTE		-60
MW - 4	x amber	YES	HCL	LANCASTE	R TPH-Dx w/sg	
						;
COMMENTS:		o Pu	rgl			
		<del>,</del>			Disc.	
Add/Repla	aced Lock:			Agg/Replaceg	Plug: Size:	

# Chevron Northwest Region Analysis Request/Chain of Custody

Lancaster Laborator Where quality is a science.	<u>ries</u>					Acc	t. #:	<u> </u>	U(	J <sub>Sa</sub>	Fo mple	#:	HZ	or L	.abo≀ <sub>Q</sub> ()	rator {	3	) 	nly			<u></u>	
W. Wheequally baseare.	Sacarl	MTI Project	# 90126 D	1		· ·	•	Γ	. ·		Α	naly	505 l	Res	ues	ed				Goog	<u>7</u> ₩	888	603
Facility #: SS#9-0126 G-R#3	86755		#. 00120.0	<u>·                                     </u>		Matrix		THE STATE OF THE S		- : ]	И	rese (Ł	rvati	on	Cod	<b>es</b>	_ _			Pres H = HCl N = HNO S = H <sub>2</sub> SC	3	tive Code T = Thios B = NaOl O = Other	ulfate I
Chevron PM: MF  Consultant/Office: C.P. Inc., 6747  Consultant Pri. Mgr. Deanne L. Har  Consultant Phone #925 551 7555  Sampler: B.m. W. New  Service Order #:	Lead ( Sierra Co ding (de	Consultant:c urt, Suite J, I anna@grine	Dublin, Ca.	 899	\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Potable NPDES	Oil ☐ Air ☐ Total Number of Containers	MTBE 802159 8260   Naphth	l scan	Onygenates		다. 교육			NWTPH H HCID   quantification					J value of Must me possible 8021 MTB Confirm	reporti eet low for 82 E Con MTBE highe	ng needed yest detection 260 composition firmation E + Naphthat at hit by 82 b by 8260	on limits inds alene 60
Sample Identification		Date Collected	Time Collected	Grab	į	Water	Oil C	BTEX + MTBE	8260 full scan	3	X	×	Lead T	VPHEPH	NWTP	:	.·			□Run □Run		s on highe s on all hit	
QA /NW-1 /NW-2 /NW-3 /NW-4		3-13-04	815 845 915 945	XXXXX		X X X X	88 8	<i>X X X X</i>			XXXX	XXX				The state of the s				Commen	ius / r	(gilldi ko	
Turnaround Time Requested (TAT STD. TAT 72 hour	48 hou			ished by		wo	<u>/</u> へ				Date Date	<u>H</u> 1	Time 300 Time	5	;	bevio	<u> </u>	<u> </u>	_			Date Date	Time
Data Package Options (please circl QC Summary Type I - Full	5 day e if required)	•		uished by		marcia	l Card		<u>_</u>	$\Box$	Date	+	Time		:	elved		<del></del>			_	Bete	Time
Type VI (Raw Data) Disk / EDD Standard Fo	rmat Other.	.* .	UPS		edEx		Othe	r		a.5	·	3.2,1	<u> </u>	ŀ	<u>.</u>	Sody S	$\theta O$		_	Yes)	es,	3-17.4	0939

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#### ANALYTICAL RESULTS

Prepared for:

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

650-691-0131

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

#### SAMPLE GROUP

The sample group for this submittal is 888603. Samples arrived at the laboratory on Wednesday, March 17, 2004. The PO# for this group is 99011184 and the release number is MTI.

Client Description	<u>Lancaster Labs Number</u>
QA Water Sample	4236041
MW-1 Grab Water Sample	4236042
MW-2 Grab Water Sample	4236043
MW-3 Grab Water Sample	4236044
MW-4 Grab Water Sample	4236045

1 COPY TO **ELECTRONIC** COPY TO **ELECTRONIC** 

COPY TO

Secor Inter. C/O Gettler-Ryan

Gettler-Ryan

SECOR International

Attn: Deanna L. Harding Attn: Cheryl Hansen

Attn: Madeline Montilla



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Questions? Contact your Client Services Representative Teresa L Cunningham at (717) 656-2300.

Respectfully Submitted,

Tina L. Thoman

Senior Chemist, Coordinator

Thria I Monian



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Lancaster Laboratories Sample No. WW 4236041

QA Water Sample Facility# 90126 Job# 386755 MTI# 90126.01 12607 NE 8th Ave. - Kirkland, WA

Collected: 03/13/2004

Submitted: 03/17/2004 09:30 Reported: 03/29/2004 at 16:32

Discard: 04/29/2004

Account Number: 10906

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units .	Dilution Factor
08214	BTEX, MTBE (8021)					I
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	; 1
08274	TPH by NWTPH-Gx waters					}
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	; 1

		Laboratory	Chro	nicle	I		
CAT	,	-		Analysis	•	Dilution	
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor	
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/18/2004 23:16	Steven A Skiles	1	
08274	TPH by NWTPH-Gx waters	TPH by NWTPH-Gx - 8015B Mod.	1	03/18/2004 23:16	Steven A Skiles	1 .	
01146	GC VOA Water Prep	SW-846 5030B	1	03/18/2004 23:16	Steven A Skiles	n.a.	



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Page 1 of 2

4236042 Lancaster Laboratories Sample No.

MW-1 Grab Water Sample

Facility# 90126 Job# 386755 MTI# 90126.01

12607 NE 8th Ave. - Kirkland, WA

Collected: 03/13/2004 08:15 by BWN Account Number: 10906

Submitted: 03/17/2004 09:30 Reported: 03/29/2004 at 16:32

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

As Received

Discard: 04/29/2004

#### KIRK1

			As Received	Method	•	Dilution
CAT No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	840.	160.	ug/l	2
02096	Heavy Range Organics	n.a.	N.D.	200.	ug/l	2
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	3,100.	5.0	ug/l	25
00777		108-88-3	710.	5.0	ug/l	25
00778		100-41-4	1,700.	5.0	ug/l	25
	Total Xylenes	1330-20-7	4,400.	15.	ug/l	25
00779		1634-04-4	140.	7.5	ug/l	25
00780	Methyl tert-Butyl Ether	1034 04 4	2.20	•		•
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	27,000.	1,300.	ug/l	25
02309	MTBE by GC/MS (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	3.	ug/l	5
02010	MTBE was detected on the GC/PID		ives are possibl	e with this		
	detector and GC/MS analysis did	not confirm t	he presence of M	TBE.		
•	Therefore, the positive result	on the GC/PID	is attributed to	the presence		
	of a false positive.			-		
	OI a laise positive.					

The reporting limit for methyl tertiary butyl ether was raised due to the level of non-target compounds.

		Laboratory	Chro			Dilution
CAT No. 02211	Analysis Name TPH by NWTPH-Dx(water)	Method NWTPH-Dx, ECY 97- 602 (modified)	Trial#	Analysis Date and Time 03/25/2004 23:22	Analyst Devin M Hetrick	Factor 2
08214 08274	w/SiGel BTEX, MTBE (8021) TPH by NWTPH-Gx waters	SW-846 8021B TPH by NWTPH-Gx - 8015B Mod.	1 1	03/19/2004 00:21 03/19/2004 00:21	Steven A Skiles Steven A Skiles	25 25



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Page 2 of 2

Lancaster Laboratories Sample No. WW 4236042

MW-1 Grab Water Sample Facility# 90126 Job# 386755 MTI# 90126.01 12607 NE 8th Ave. - Kirkland, WA

Collected: 03/13/2004 08:15 by BWN

Submitted: 03/17/2004 09:30 Reported: 03/29/2004 at 16:32

Discard: 04/29/2004

Account Number: 10906

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

KIRK1 02309 01146 01163 07003	MTBE by GC/MS (water) GC VOA Water Prep GC/MS VOA Water Prep Extraction - DRO (Waters)	SW-846 8260B SW-846 5030B SW-846 5030B NWTPH-Dx, ECY 97-602,	1 1 1 2	03/24/2004 17:58 03/19/2004 00:21 03/24/2004 17:58 03/25/2004 02:15	Carrie J McCullough Steven A Skiles Carrie J McCullough Eryn E Landis	5 n.a. n.a. 1
07003	Extraction - DRO (Waters)	NWTPH-DX, ECY 97-602, 6/97	2	03/25/2004 02:15	Eryn E Dandis	•



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4236043 Lancaster Laboratories Sample No.

MW-2 Grab Water Sample

Facility# 90126 Job# 386755 MTI# 90126.01

12607 NE 8th Ave. - Kirkland, WA

Collected: 03/13/2004 08:45

by BWN

Account Number: 10906

Submitted: 03/17/2004 09:30

ChevronTexaco c/o SECOR 2301 Leghorn Street

Reported: 03/29/2004 at 16:32

Discard: 04/29/2004

Mountainview CA 94043

#### KIRK2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095 02096	Diesel Range Organics Heavy Range Organics The spike recovery of the LCSD a limit. Since the recovery is hi the sample, the results are repo with this sample is within the O	igh and the no orted. The sp	target analytes '	were detected in	ug/l ug/l	1
08214	BTEX, MTBE (8021)					
00776 00777 00778 00779 00780	Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether	71-43-2 108-88-3 100-41-4 1330-20-7 1634-04-4	N.D. N.D. N.D. N.D.	0.2 0.2 0.2 0.6 0.3	ug/l ug/l ug/l ug/l ug/l	1 1 1 1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02309	MTBE by GC/MS (water)					
02010	Methyl Tertiary Butyl Ether MTBE was detected on the GC/PID detector and GC/MS analysis did Therefore, the positive result of a false positive.	l not confirm t	the presence of Mi	BE.	ug/l	1

		Laboratory	Chro:	nicle Analysis		Dilution
CAT No. 02211	Analysis Name TPH by NWTPH-Dx(water)	Method NWTPH-Dx, ECY 97-	Trial# 1	Date and Time 03/20/2004 08:48	Analyst Tracy A Cole	Factor 1
08214	w/SiGel BTEX, MTBE (8021)	602(modified) SW-846 8021B	1	03/19/2004 00:54	Steven A Skiles	1



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Lancaster Laboratories Sample No. WW 4236043

MW-2 Grab Water Sample Facility# 90126 Job# 386755

MTI# 90126.01

12607 NE 8th Ave. - Kirkland, WA Collected: 03/13/2004 08:45

by BWN

Account Number: 10906

Submitted: 03/17/2004 09:30

Reported: 03/29/2004 at 16:32

Discard: 04/29/2004

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

KIRK2						
08274	TPH by NWTPH-Gx waters	TPH by NWTPH-Gx -	1	03/19/2004 00:54	Steven A Skiles	1
		8015B Mod.			وروداه مرجودات	-
02309	MTBE by GC/MS (water)	SW-846 8260B	1	03/24/2004 18:25	Carrie J McCullough	Τ
01146	GC VOA Water Prep	SW-846 5030B	1	03/19/2004 00:54	Steven A Skiles	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/24/2004 18:25	Carrie J McCullough	n.a.
07003	Extraction - DRO (Waters)	NWTPH-Dx, ECY 97-602, 6/97	1	03/19/2004 01:00	Felix C Arroyo	1
	· · · · · · · · · · · · · · · · · · ·	0/3/			ì	



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Page 1 of 1

4236044 Lancaster Laboratories Sample No. WW

MW-3 Grab Water Sample

Facility# 90126 Job# 386755 MTI# 90126.01

12607 NE 8th Ave. - Kirkland, WA

Collected: 03/13/2004 09:15

by BWN

Account Number: 10906

Submitted: 03/17/2004 09:30

Reported: 03/29/2004 at 16:32

Discard: 04/29/2004

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

#### KIRK3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095 02096	Diesel Range Organics Heavy Range Organics The spike recovery of the LCSD slimit. Since the recovery is he the sample, the results are reposith this sample is within the	igh and the no orted. The sp	target analytes	were detected in	ug/l ug/l	1
08214	BTEX, MTBE (8021)					
00776 00777 00778 00779 00780	Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether	71-43-2 108-88-3 100-41-4 1330-20-7 1634-04-4	N.D. N.D. N.D. N.D.	0.2 0.2 0.2 0.6 0.3	ug/l ug/l ug/l ug/l ug/l	1 1 1 1
08274	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1

GN		Laboratory	Chro	nicle Analysis		Dilution
CAT No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
02211	TPH by NWTPH-Dx(water)	NWTPH-Dx, ECY 97-	1	03/20/2004 09:13	Tracy A Cole	1
	w/SiGel	602(modified) SW-846 8021B	1	03/19/2004 01:27	Steven A Skiles	1
08214 08274	BTEX, MTBE (8021) TPH by NWTPH-Gx waters	TPH by NWTPH-Gx -	1	03/19/2004 01:27	Steven A Skiles	1
01146	GC VOA Water Prep	8015B Mod. SW-846 5030B	1	03/19/2004 01:27	Steven A Skiles	n.a.
07003	Extraction - DRO (Waters)	NWTPH-Dx, ECY 97-602, 6/97	1	03/19/2004 01:00	Felix C Arroyo	1



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Lancaster Laboratories Sample No. 4236045

MW-4 Grab Water Sample

Facility# 90126 Job# 386755 MTI# 90126.01

12607 NE 8th Ave. - Kirkland, WA

Collected: 03/13/2004 09:45 by BWN

Account Number: 10906

Submitted: 03/17/2004 09:30 Reported: 03/29/2004 at 16:32

Discard: 04/29/2004

ChevronTexaco c/o SECOR 2301 Leghorn Street Mountainview CA 94043

#### KIRK4

CAT			As Received	As Received Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
02211	TPH by NWTPH-Dx(water) w/SiG	Gel				i
02095	Diesel Range Organics	n.a.	N.D.	75.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	94.	ug/l	1
	The spike recovery of the LC	SD associated wit	th this sample is	s above the QC		
	limit. Since the recovery i	s high and the no	target analytes	were detected i	.n	
	the sample, the results are	reported. The sp	ike recovery of	the LCS associat	.ed	·
	with this sample is within t	the QC limits.				
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.2	ug/l	1
00777	Toluene	108-88-3	N.D.	0.2	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	0.3	ug/l	1
08274	TPH by NWTPH-Gx waters	. •			•	
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	ı
						1

		Laboratory	Chro	nicle		
CAT		_		Analysis	. '	Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	<b>Factor</b>
02211	TPH by NWTPH-Dx(water) w/SiGel	NWTPH-Dx, ECY 97- 602(modified)	1	03/20/2004 09:38	Tracy A Cole	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/19/2004 02:00	Steven A Skiles	1
08274	TPH by NWTPH-Gx waters	TPH by NWTPH-Gx - 8015B Mod.	1	03/19/2004 02:00	Steven A Skiles	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/19/2004 02:00	Steven A Skiles	n.a.
07003	Extraction - DRO (Waters)	NWTPH-Dx, ECY 97-602, 6/97	1	03/19/2004 01:00	Felix C Arroyo	1



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Page 1 of 2

## Quality Control Summary

Client Name: ChevronTexaco c/o SECOR

Reported: 03/29/04 at 04:32 PM

Group Number: 888603

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

#### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD <u>%REC</u>	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 040780005A Diesel Range Organics Heavy Range Organics	Sample nu N.D. N.D.	mber(s): 0.080 0.10	4236043-42 mg/l mg/l	36045 86	115*	53-107	29*	20
Batch number: 04078A55A Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether TPH by NWTPH-Gx waters	Sample nu N.D. N.D. N.D. N.D. N.D. N.D.	mber(s): 0.2 0.2 0.2 0.6 0.3 0.048	4236041-42 ug/1 ug/1 ug/1 ug/1 ug/1 mg/1	36045 94 95 93 95 91	103 104 103 105 98 84	79-123 82-119 81-119 82-120 75-125 70-130	9 9 10 10 7 20	30 30 30 30 30
Batch number: 040840005A Diesel Range Organics Heavy Range Organics	Sample nu N.D. N.D.	umber(s): 0.080 0.10	4236042 mg/l mg/l	80	81	53-107	2	20
Batch number: P040842AA Methyl Tertiary Butyl Ether	Sample nu	mber(s): 0.5	4236042-42 ug/1	36043 101		77-127		

## Sample Matrix Quality Control

		-				-			
	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	<u>Limits</u>	RPD	<u>MAX</u>	Conc	Conc	RPD	Max_
Batch number: 04078A55A Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether TPH by NWTPH-Gx waters	101 103 105 105 94 85		(s): 42360 67-136 78-129 75-133 78-130 59-148 63-154						
Batch number: P040842AA	sampre	e number	(8): 42300	72-72301					

69-134

### Surrogate Quality Control

Analysis Name: TPH by NWTPH-Dx(water) w/SiGel

\*- Outside of specification

Methyl Tertiary Butyl Ether

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

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MAY 17 2004

## DEPT OF ECOLOGY

## Analysis Report

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Page 2 of 2

### Quality Control Summary

Client Name: ChevronTexaco c/o SECOR

Group Number: 888603

Reported: 03/29/04 at 04:32 PM

Surrogate Quality Control

Batch number: 040780005A Orthoterphenyl

4236043 96 4236044 109 4236045 98 Blank 105 LCS 108 LCSD

Limits:

50-150

Analysis Name: BTEX, MTBE (8021)

	Trifluorotoluene-P	Trifluorotoluene-F		
4236041	90	91	: .	<u> </u>
4236042	89	92 '		
4236043	89	92		
4236044	88	92	·	
4236045	88 .	92	i	i
Blank	88	92		
LCS	89	92		
LCSD	89	91		
MS	88	90		
Limits:	66-136	57-146	<del></del>	

Analysis Name: TPH by NWTPH-Dx(water) w/SiGel

Batch number: 040840005A Orthoterphenyl

4236042	99
Blank	81
LCS	85
LCSD	86

Limits:

Analysis Name: MTBE by GC/MS (water)

Batch number: P040842AA

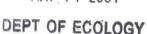
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4236042	101	98	96	95
4236043	103	98	89	95
Blank	101	99	96	96
LCS	102	100	96	97
MS	101	100	96	96
MSD	102	99	96	96
Limits:	81-120	82-112	85-112	83-113

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

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MAY 17 2004





April 16, 2004

G-R #386755

TO:

Ms. Jessica Jenkins

Secor International, Inc. 7730 SW Mohawk Street Tualatin, Oregon 97062

retake 35838 G-R #386 Cherran \$ Station # 9-0126

Kirkland

FROM:

Deanna L. Harding

**Project Coordinator** Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568

**RE:** Chevron Service Station

#9-0126

12607 NE 85th Street Kirkland, Washington

MTI: 90126.01

#### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	April 14, 2004	Groundwater Monitoring and Sampling Report Event of March 13, 2004

#### COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to May 10, 2004, at which time the final report will be distributed to the following:

cc: WDOE, Northwest Regional Office, 3190 160th Ave., SE, Bellevue, WA 98008 Ms. Madelaine Montilla, Secor International Inc, 2301 Leghorn Street, Mountain View CA, 94043

Current Site Check List included.

Enclosure

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trans/9-0126-ks