From:	Dean Malte
To:	"Myers, Dale - TCP (ECY)"
Cc:	Ty Schreiner
Subject:	Meeting Notes Jan 24th 2019 Chevron Brooklyn Site
Date:	Monday, January 28, 2019 11:20:00 AM
Attachments:	Meeting_Summary_Notes_1-24-2019_Chevron_Brooklyn_Site.docx

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Dale-

Our summary notes for January 24th, 2019 meeting for the Chevon Brooklyn site are attached (MS Word version; let us know if you need a PDF also). Please let us know if you have any questions or comments.

Also, are you still available Wednesday or Thursday for our site visits?

Thank you.

Dean K. Malte | Geologist
Kennedy/Jenks Consultants
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From:	Dean Malte
To:	"Myers, Dale - TCP (ECY)"
Cc:	Ty Schreiner
Subject:	January 30th, 2019 Site Visits Summary
Date:	Tuesday, February 5, 2019 9:40:00 AM
Attachments:	Brooklyn_01_20190130.jpg Brooklyn_02_20190130.jpg Chev209335_01_20190130.jpg Site_Visit_Summary_20190130.docx Site_Visit_Summary_20190130.pdf Stickland_01_20190130.jpg Strickland_02_20190130.jpg

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Dale-

Our summary notes for the January 30th, 2019 site visits for Brooklyn Chevron, Chevron 209335, and Texaco Strickland are attached. The PDF file includes summary notes and copies of select photos. The native MS Word and photo jpeg files are also attached. We will compile all of our photographs (mine and Ty's) separately for each site and forward to Ecology. Please let us know if you have any questions or comments, thank you.

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From:	Dean Malte
To:	"Myers, Dale - TCP (ECY)"
Cc:	Ty Schreiner
Subject:	Title and Property Review Tech Memo - Chevron Brooklyn Site
Date:	Friday, February 1, 2019 10:49:00 AM
Attachments:	Title_Review_Table_1_Brooklyn_Chevron_02-01-2019.xlsx Tilte_Review_Tech_Memo_Brooklyn_Chevron_02-01-2019.docx Tilte_Review_Tech_Memo_Brooklyn_Chevron_02-01-2019.pdf

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Dale-

Our Technical Memorandum summarizing property ownership for King County tax parcel 8817400125 (4701 Brooklyn Ave NE, Seattle, WA) is attached. The attached PDF file includes the Memorandum text, summary table, and attachments. Native file formats for the text (MS Word) and summary table (MS Excel) are also attached.

Please let us know if you have any questions or comments, thank you.

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From: Dean Malte
To: "Myers, Dale - TCP (ECY)"
Cc: Ty Schreiner
Subject: Brooklyn Chevron Off-Property HVOC Analyses
Date: Wednesday, February 6, 2019 2:26:00 PM
Attachments: Groundwater_Map_and_Data_Tables_Brooklyn_Chervon_HVOC.pdf

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Dale-

As you requested during our site visit last week to the Chevron Brooklyn site (4700 Brooklyn Avenue, Seattle, WA), recent reports documenting HVOC analyses in off-property groundwater are summarized below. The referenced reports include the most recent sampling data (samples collected after the recent remedial action), and sampling data for analyses performed prior to the remedial action. The information presented below is based on a review of previous reports included in the site file materials recently provided electronically by Ecology (a review of Ecology's hard-copy files for the Site was not performed).

The most recent off-property groundwater sampling data for HVOCs (multiple samples collected during August 2018) are presented in the January 4th 2019 Interim Action Report prepared by Aspect Consulting (Aspect, 2019). The sampled wells included four wells installed in January 2018 (MW-17, -18, -25, and -26). Wells MW-27 and MW-28, located in the sidewalk south of the main property, were not sampled due to dewatering drawdown and presence of LNAPL. Well locations are shown on the site map from Aspect's January 2019 report included in the attached PDF file. Additional sampling (possibly including additional wells) may have been performed but not yet reported to Ecology; we recommend that Ecology request any recent data from Aspect.

Prior to the remedial action, analysis of HVOCs in groundwater samples was performed by the Riley Group (Riley, 2016) in January 2016 and by Aspect (Aspect, 2017) in November 2016. The wells sampled in 2016 included perimeter wells located near the margin of the property which have since been abandoned (wells MW-3, -6, -9, -13 by Riley and wells MW-9, -11, and -13 by Aspect; see attached location map), and are not the same wells as the off-property wells sampled in 2018, which were installed in January 2018 (analysis of perimeter/off-property groundwater samples for HVOCs does not appear to have been performed prior to 2016 based on the records we have).

The referenced reports are listed below. Copies of the groundwater data summary table from each report are provided in the attached PDF for reference.

- Aspect Consulting. 2019. Interim Action Report, Former Chevron Service Station No. 90129, 4700 Brooklyn Avenue NE, Seattle, WA. Prepared for FH Brooklyn, LLC, and Chevron Environmental Management Company. Dated January 4th, 2019.
- Aspect Consulting. 2017. On-Property Remedial Investigation Data Report, 4700 Brooklyn Avenue NE, Seattle, WA. Memorandum to Dale Myers, Washington State Department of Ecology. Dated January 17th, 2017.
- Riley Group Inc. 2016. Summary of Recent Groundwater Sampling and Summary of Groundwater Data, Chevron Station No. 90129, 4700 Brooklyn Avenue NE, Seattle, WA. Technical Memorandum to Mr. Eran Fields of Fields Holdings, LLC. Dated January 18th, 2016.

Please contact us with any questions or comments. Thank you.

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From: Dean Malte
To: Myers, Dale - TCP (ECY)
Subject: RE: Chevron 90129 File Schema - 03-05-2019
Date: Tuesday, March 5, 2019 2:03:00 PM
Attachments: Chevron 90129 File Schema Updated - 03-05-2019.docx

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Dale-The updated Schema is attached

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P: 253.835.6400 | F: 253.952.3435 | Direct: 253.835.6463

From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Tuesday, March 05, 2019 9:09 AM
To: Dean Malte <DeanMalte@KennedyJenks.com>
Cc: Ty Schreiner <TySchreiner@KennedyJenks.com>; Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Subject: Chevron 90129 File Schema - 03-05-2019

Morning Dean
This is the Site File Schema we will start with
We may or may not be making further edits
Dale

DRAFT

N

0 20' 40'

76 STATION BULIDING

76 STATION DISPENSER ISLANDS

CARSON CLEANERS

APARTMENT BUILDING

APARTMENT BUILDING

WEAVING WORKS

BROOKLYN FRAME SHOP

APARTMENT BUILDING

Sidewalk

MW-20

BROOKLYN AVENUE

MW-17 MW-18 MW-19

Driveway

Driveway

AB-04 MW-9 P-05 AB-03 MW-6 MW-3 AB-07 SB-01 P-01 AB-01

TANK-SW-4-7

TANK-SW-2-8 TANK-SW-3-7

MW-5 P-02 MW-2 MW-12 MW-29

MW-13 MW-10 P-06 TANK-B3-12 AB-08

MW-28 TANK-B2-12 TANK-B1-12 P-04

MW-1

Underground Storage Tanks

MW-4 P-03

Dispenser Islands

TANK-SW-1-8 RW-1

MW-27 MW-11 P-07 MW-8

Vent Line

AB-05 MW-7

Station Building

SVP-2 MW-26 MW-16 MW-14 AB-09 P-09 P-08 AB-02 MW-15

ALLEY

SVP-2

MW-25

Bank of America Property Line

NE 47TH STREET

Driveway

Sidewalk

CHRIST EPISCOPAL CHURCH

MW-21

MIXED APARTMENTS/ RETAIL

MW-22

RETAIL STORES

RETAIL STORES

MW-23

Sidewalk

Sidewalk

Sidewalk

SAFEWAY PARKING LOT

SAFEWAY

LEGEND

MW-6	Groundwater Monitoring Well
RW-1	Recovery Well
SB-1	Soil Boring (SAIC, 2010)
TANK-SW-1-8	Soil Confirmation Sample Location (Aspect 2016)
SVP-1	Soil Vapor Probe Location
MW-20	August 2019 Groundwater Monitoring Well
SVP-2	August 2019 Soil Vapor Probe Location

UNIVERSITY WAY NE

leidos

Former Chevron Service Station No. 90129
4700 Brooklyn Avenue
Seattle, Washington

FIGURE1
Groundwater Monitoring Well Locations and Soil Vapor Probe installed August 2019

DATE: 10/28/19 DRAWING:

Kennedy Jenks

Table 1 - 2019 Soil Results

			Location Code	MW-20	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-21	MW-21
			Depth	10.5	18.0	28.0	30.0	10.0	15.0	20.0	25.0	26.5
			Sample Name	MW-20-S-10.5-190810	MW-20-S-18.0-190810	MW-20-28.0-190810	MW-20-S-30.0-190810	MW-21-S-10.0-190809	MW-21-S-15.0-190809	MW-21-20.0-190809	MW-21-25.0-190809	MW-21-S-26.5-190809
			Date	8/10/2019	8/10/2019	8/10/2019	8/10/2019	8/9/2019	8/9/2019	8/9/2019	8/9/2019	8/9/2019
Chemical	Unit	MTCA A Then B	MTCA A Then B note									
Total Petroleum Hydrocarbons												
Gasoline-Range Organics	mg/kg	30/100	Method A	**0.8**	**0.4**	**0.6**	**1**	**0.9**	**1**	**1.7**	**0.5**	**0.9**
Total Petroleum Hydrocarbons - Diesel - without silica gel cleanup												
Diesel-Range Organics	mg/kg	2000	Method A	< 4.4	< 4.5	< 4.9	< 5.2	< 4.3	< 4.3	< 4.7	< 4.6	< 4.6
Oil-Range Organics	mg/kg	2000	Method A	< 11	< 11	**18**	< 13	< 11	< 11	< 12	< 11	< 11
Semi Volatile Organic Compounds using SIM												
Benzo(a)anthracene	mg/kg	1.37	B Cancer	--	--	--	--	--	--	--	<0.0008	--
Benzo(a)pyrene	mg/kg	0.1	Method A	--	--	--	--	--	--	--	**0.0008**	--
Benzo(b)Fluoranthene	mg/kg	1.37	B Cancer	--	--	--	--	--	--	--	**0.001**	--
Benzo(k)Fluoranthene	mg/kg	13.7	B Cancer	--	--	--	--	--	--	--	<0.0008	--
Chrysene	mg/kg	137	B Cancer	--	--	--	--	--	--	--	**0.001**	--
Dibenz(a,h)Anthracene	mg/kg	0.137	B Cancer	--	--	--	--	--	--	--	<0.0008	--
Indeno(1,2,3-c,d)Pyrene	mg/kg	1.37	B Cancer	--	--	--	--	--	--	--	<0.0008	--
Volatile Organic Compounds												
Benzene	mg/kg	0.03	Method A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0004	**0.0008**	**0.003**
cis-1,2-Dichloroethene	mg/kg	160	B Non Cancer	< 0.0005	< 0.0005	< 0.0005	**0.0007**	--	--	--	**0.003**	**0.019**
trans-1,2-Dichloroethene	mg/kg	1600	B Non Cancer	< 0.0005	< 0.0005	< 0.0005	< 0.0005	--	--	--	< 0.0004	**0.0007**
Ethylbenzene	mg/kg	6	Method A	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0003	< 0.0003	< 0.0004
Tetrachloroethene (PCE)	mg/kg	**0.05**	Method A	**0.068**	**0.075**	**0.030**	**0.06**	--	--	--	**0.032**	**0.18**
Toluene	mg/kg	7	Method A	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0005	< 0.0006	< 0.0005	< 0.0005	**0.0006**
Trichloroethene (TCE)	mg/kg	**0.03**	Method A	< 0.0005	< 0.0005	**0.025**	**0.003**	--	--	--	**0.063**	**0.38 E**
Vinyl Chloride	mg/kg	0.670	B Cancer	< 0.0006	< 0.0006	< 0.0006	< 0.0006	--	--	--	< 0.0005	< 0.0006
Xylene, total	mg/kg	9	Method A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Metals												
Lead	mg/kg	250	Method A	**4.18**	**3.59**	**5.42**	**2.83**	**8.7**	**3.64**	**4.16**	**4.49**	**7.44**
Moisture												
Percent Moisture	%			9.4	12.9	19.7	23.0	7.7	7.6	14.5	13.5	13.9

751	Detected concentrations above the cleanup level are shaded yellow and bolded.
< --	Non-detect values above the cleanup level are shaded gray and italicized.
0.436	Detected concentrations at or above the method detection limit are shown in bold.

Notes:

Table was prepared in December 2019 at the request of the Ecology PM.

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.

" < " denotes not detected at or above the indicated method detection limit.

E = Concentrations are estimated since they exceed the calibration range of the instrument. Results of a further diluted analysis performed outside of method holding time is shown in parenthesis.

mg/kg = milligrams per kilogram

Cleanup Levels (CUL)

Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for unrestricted land use (Method A) based on Washington State Administrative Code (WAC) 173-340-740 Table 740-1. Where MTCA Method A values are not available, the lowest of MTCA Method B values (B Cancer or B Non Cancer) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (Accessed January 2017).

Table 1 - Soil Results

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Table 1 - 2019 Soil Results

			Location Code	MW-22	MW-22	MW-22	MW-23	MW-23	MW-23	MW-29	MW-29	MW-29
			Depth	10.0	23.0	28.5	10.0	25.0	30.0	10.5	20.0	31.5
			Sample Name	MW-22-S-10.0-190808	MW-22-S-23.0-190808	MW-22-S-28.5-190808	MW-23-S-10.0-190808	MW-23-S-25.0-190808	MW-23-S-30.0-190808	MW-29-S-10.5-190810	MW-29-S-20.0-190810	MW-29-S-31.5-190810
			Date	8/8/2019	8/8/2019	8/8/2019	8/8/2019	8/8/2019	8/8/2019	8/10/2019	8/10/2019	8/10/2019
Chemical	Unit	MTCA A Then B	MTCA A Then B note									
Total Petroleum Hydrocarbons												
Gasoline-Range Organics	mg/kg	30/100	Method A	< 0.2	< 0.2	< 0.3	**4.0**	< 0.3	< 0.4	< 0.2	**0.7**	**0.6**
Total Petroleum Hydrocarbons - Diesel - without silica gel cleanup												
Diesel-Range Organics	mg/kg	2000	Method A	< 4.2	< 4.7	< 5.2	**4.5**	< 4.7	< 5.4	< 4.5	< 4.6	< 4.8
Oil-Range Organics	mg/kg	2000	Method A	< 10	< 12	< 13	**32**	< 12	< 40	**16**	**13**	< 12
Semi Volatile Organic Compounds using SIM												
Benzo(a)anthracene	mg/kg	1.37	B Cancer	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	0.1	Method A	--	--	--	--	--	--	--	--	--
Benzo(b)Fluoranthene	mg/kg	1.37	B Cancer	--	--	--	--	--	--	--	--	--
Benzo(k)Fluoranthene	mg/kg	13.7	B Cancer	--	--	--	--	--	--	--	--	--
Chrysene	mg/kg	137	B Cancer	--	--	--	--	--	--	--	--	--
Dibenz(a,h)Anthracene	mg/kg	0.137	B Cancer	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)Pyrene	mg/kg	1.37	B Cancer	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds												
Benzene	mg/kg	0.03	Method A	< 0.0004	**0.001**	< 0.0006	< 0.0005	**0.015**	< 0.0006	< 0.0005	< 0.0005	**0.002**
cis-1,2-Dichloroethene	mg/kg	160	B Non Cancer	--	**0.087**	< 0.0006	--	**0.15**	--	--	--	--
trans-1,2-Dichloroethene	mg/kg	1600	B Non Cancer	--	< 0.0004	< 0.0006	--	**0.0008**	--	--	--	--
Ethylbenzene	mg/kg	6	Method A	< 0.0004	< 0.0003	< 0.0004	< 0.0004	< 0.0004	< 0.0005	< 0.0004	< 0.0004	**0.0004**
Tetrachloroethene (PCE)	mg/kg	**0.05**	Method A	--	**0.001**	< 0.0006	--	< 0.0005	--	--	--	--
Toluene	mg/kg	7	Method A	< 0.0005	< 0.0005	< 0.0007	< 0.0005	<0.0006	< 0.0007	< 0.0006	< 0.0006	**0.0007**
Trichloroethene (TCE)	mg/kg	**0.03**	Method A	--	**0.006**	< 0.0006	--	<0.0005	--	--	--	--
Vinyl Chloride	mg/kg	0.670	B Cancer	--	<0.0005	< 0.0007	--	**0.005**	--	--	--	--
Xylene, total	mg/kg	9	Method A	< 0.001	<0.001	< 0.002	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001
Metals												
Lead	mg/kg	250	Method A	**2.89**	**3.18**	**9.79**	**4.40**	**3.17**	**13.0**	--	--	--
Moisture												
Percent Moisture	%			5.3	16.5	24.0	8.3	14.7	26.8	11.6	13.0	17.2

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Table 1 - 2019 Soil Results

			Location Code	DUP-1-S-190810	SUP-1-1-S-6.5-190810
			Depth		6.5
			Sample Name	DUP-1-S-190810	SUP-1-1-S-6.5-190810
			Date	8/10/2019	8/10/2019
Chemical	Unit	MTCA A Then B	MTCA A Then B note		
Total Petroleum Hydrocarbons					
Gasoline-Range Organics	mg/kg	30/100	Method A	< 0.3	< 0.3
Total Petroleum Hydrocarbons - Diesel - without silica gel cleanup					
Diesel-Range Organics	mg/kg	2000	Method A	< 4.5	< 4.4
Oil-Range Organics	mg/kg	2000	Method A	< 11	< 11
Semi Volatile Organic Compounds using SIM					
Benzo(a)anthracene	mg/kg	1.37	B Cancer	--	--
Benzo(a)pyrene	mg/kg	0.1	Method A	--	--
Benzo(b)Fluoranthene	mg/kg	1.37	B Cancer	--	--
Benzo(k)Fluoranthene	mg/kg	13.7	B Cancer	--	--
Chrysene	mg/kg	137	B Cancer	--	--
Dibenz(a,h)Anthracene	mg/kg	0.137	B Cancer	--	--
Indeno(1,2,3-c,d)Pyrene	mg/kg	1.37	B Cancer	--	--
Volatile Organic Compounds					
Benzene	mg/kg	0.03	Method A	< 0.0004	< 0.0005
cis-1,2-Dichloroethene	mg/kg	160	B Non Cancer	--	--
trans-1,2-Dichloroethene	mg/kg	1600	B Non Cancer	--	--
Ethylbenzene	mg/kg	6	Method A	< 0.0004	< 0.0004
Tetrachloroethene (PCE)	mg/kg	**0.05**	Method A	--	--
Toluene	mg/kg	7	Method A	< 0.0005	< 0.0006
Trichloroethene (TCE)	mg/kg	**0.03**	Method A	--	--
Vinyl Chloride	mg/kg	0.670	B Cancer	--	--
Xylene, total	mg/kg	9	Method A	< 0.001	< 0.001
Metals					
Lead	mg/kg	250	Method A	--	--
Moisture					
Percent Moisture	%			11.1	9.6

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Table 2 - 2019 Groundwater Results

Location Code				**QA-T1**	**QA-T2**	**QA-T3**	**QA-T4**	**QA-T5**	**QA-T6**	**QA-O1**	**QA-1-T**	**QA-O2**	**QA-2-T**	**MW-17-W**	**MW-18-W**	**MW-19-W**	**MW-20-W**	**MW-21-W**
Sample Type																		
Date				**8/12/2019**	**8/12/2019**	**8/12/2019**	**8/12/2019**	**8/12/2019**	**8/12/2019**	**8/8/2019**	**8/13/2019**	**8/9/2019**	**8/14/2019**	**8/15/2019**	**8/13/2019**	**8/13/2019**	**8/15/2019**	**8/15/2019**
Sample ID				**QA-T1-190812 NA WATER**	**QA-T2-190812 NA WATER**	**QA-T3-190812 NA WATER**	**QA-T4-190812 NA WATER**	**QA-T5-190812 NA WATER**	**QA-T6-190812 NA WATER**	**QA-O1-190808 Grab Water**	**QA-1-T-190813 NA Water**	**QA-O2-190808 Grab Water**	**QA-2-T-190814 NA Water**	**MW-17-W-190815 Grab Groundwater**	**MW-18-W-190813 Grab Groundwater**	**MW-19-W-190813 Grab Groundwater**	**MW-20-W-190815 Grab Groundwater**	**MW-21-W-190815 Grab Groundwater**
Parent ID																		
Chemical	Unit	MTCA A Then B	MTCA A Then B Note															
Metals																		
Lead	ug/l	15		--	--	--	--	--	--	--	--	--	--	< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T
TPH																		
Gasoline Range Organics-NWTPH	ug/l	**800**		< 19	< 19*	< 19	< 19	< 19	< 19*	< 19	< 19*	< 19	< 19*	**500**	< 19*	**26**	**30**	< 19
Total Petroleum Hydrocarbons - Diesel - without silica gel cleanup																		
Diesel-Range Organics	ug/l	**500**		--	--	--	--	--	--	--	--	--	--	**710**	< 46	< 47	< 45	< 46
Oil-Range Organics	ug/l	500		--	--	--	--	--	--	--	--	--	--	< 100	< 100	< 100	< 100	< 100
VOCs																		
Benzene	ug/l	**5**	B Cancer	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2*	< 0.2	< 0.2	**6**	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichloroethane	ug/l	**5**	B Cancer	--	--	--	--	--	--	--	--	--	--	**0.5**	< 0.3	< 0.3	< 0.3	< 0.3
cis-1,2-Dichloroethene	ug/l		B Non Cancer	--	--	--	--	--	--	--	--	--	--	**52**	< 0.2	< 0.2	**7**	**0.4**
trans-1,2-Dichloroethene	ug/l		B Non Cancer	--	--	--	--	--	--	--	--	--	--	**0.8**	< 0.2	< 0.2	**0.5**	< 0.2
Ethylbenzene	ug/l	700	B Non Cancer	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4*	< 0.4	< 0.4	**14**	< 0.4	< 0.4	< 0.4	< 0.4
Methyl tert-Butyl ether	ug/l	20	B Cancer	--	--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Tetrachloroethene (PCE)	ug/l	**5**	B Cancer	--	--	--	--	--	--	--	--	--	--	**7**	**3**	< 0.2	**64**	**2**
Toluene	ug/l	1000	B Non Cancer	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.2***	< 0.2	**0.3**	**0.2**	< 0.2	< 0.2	< 0.2	< 0.2
Trichloroethene (TCE)	ug/l	**5**	B Cancer	--	--	--	--	--	--	--	--	--	--	**3**	< 0.2	< 0.2	**13**	**4**
Vinyl Chloride	ug/l	**0.2**	B Cancer, When children may be exposed, see guidance. Federal MCL = 2 ug/L.	--	--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Xylene, total	ug/l	1000	B Non Cancer	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1*	< 1	< 1	**6**	< 1	< 1	< 1	< 1
1,2-Dibromoethane	ug/l	**0.01**	B Cancer	--	--	--	--	--	--	--	--	--	--	< 0.0095 D1	< 0.0096 D1	< 0.0095 D1	< 0.0095 D2	< 0.0095 D1

751	Detected concentrations above the cleanup level are shaded yellow and bolded.
< --	Non-detect values above the cleanup level are shaded gray and italicized.
0.436	Detected concentrations at or above the method detection limit are shown in bold.

Notes:

Table was prepared in December 2019 at the request of the Ecology PM.

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.

" < " denotes not detected at or above the indicated method detection limit.

µg/l = micrograms per liter

* = The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Concentrations are estimated ˘ time was not met for dissolved sample filtration.

D1 = Indicates for dual column analyses that the result is reported from column 1.

D2 = Indicates for dual column analyses that the result is reported from column 2.

Cleanup Levels (CUL)

Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for unrestricted land use (Method A) based on Washington State Administrative Code (WAC) 173-340-740 Table 740-1. Where MTCA Method A values are not available, the lowest of MTCA Method B values (B Cancer or B Non Cancer) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (Accessed January 2017).

Kennedy Jenks

Table 2 - 2019 Groundwater Results

			Location Code	**MW-22-W**	**MW-23-W**	**MW-25-W**	**MW-26-W**	**MW-27-W**	**MW-28-W**	**DUP-1-WD-190813 Grab Groundwater**	**MW-29-W**
			Sample Type							**DUP**	
			Date	**8/14/2019**	**8/15/2019**	**8/16/2019**	**8/13/2019**	**8/13/2019**	**8/13/2019**	**8/13/2019**	**8/16/2019**
			Sample ID	**MW-22-W-190814 Grab Groundwater**	**MW-23-W-190815 Grab Groundwater**	**MW-25-W-190816 Grab Groundwater**				**DUP-1-WD-190813 Grab Groundwater**	**MW-29-W-190816 Grab Groundwater**
			Parent ID							**Unknown**	
Chemical	Unit	MTCA A Then B	MTCA A Then B Note								
Metals											
Lead	ug/l	15		< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T	< 7.1 T
TPH											
Gasoline Range Organics-NWTPH	ug/l	**800**		**39**	< 19	**250**	**150**	**2900**	**3700**	**3800***	< 19
Total Petroleum Hydrocarbons - Diesel - without silica gel cleanup											
Diesel-Range Organics	ug/l	**500**		< 45	< 49	< 47	< 45	**1400**	**770**	**840**	< 46
Oil-Range Organics	ug/l	500		< 100	< 110	< 100	< 100	< 100	< 100	< 100	< 100
VOCs											
Benzene	ug/l	**5**	B Cancer	**10**	**19**	**57**	**24**	**9**	**14**	**15**	< 0.2
1,2-Dichloroethane	ug/l	**5**	B Cancer	< 3	**1**	**3**	**0.4**	< 6	< 6	< 6	**4**
cis-1,2-Dichloroethene	ug/l		B Non Cancer	**740**	**340**	**1200**	**820 E (720)**	**700**	**250**	**270**	< 0.2
trans-1,2-Dichloroethene	ug/l		B Non Cancer	**6**	**2**	**82**	**230**	**55**	**6**	**5**	< 0.2
Ethylbenzene	ug/l	700	B Non Cancer	< 4	< 0.4	**10**	**8**	**84**	**220**	**210**	< 0.4
Methyl tert-Butyl ether	ug/l	20	B Cancer	< 2	< 0.2	< 0.2	< 0.2	< 4	< 4	< 4	< 0.2
Tetrachloroethene (PCE)	ug/l	**5**	B Cancer	< 2	< 0.2	**24**	**5**	< 4	**260**	**300**	< 0.2
Toluene	ug/l	1000	B Non Cancer	< 2	**0.2**	**4**	**2**	< 4	< 4	< 4	< 0.2
Trichloroethene (TCE)	ug/l	**5**	B Cancer	**370**	**23**	**320**	**2200 E (1700)**	**780**	**770**	**820**	< 0.2
Vinyl Chloride	ug/l	**0.2**	B Cancer, When children may be exposed, see guidance. Federal MCL = 2 ug/L.	**5**	**16**	**150**	**38**	**23**	**8**	**8**	< 0.2
Xylene, total	ug/l	1000	B Non Cancer	< 14	< 1	**2**	< 1	**30**	**90**	**86**	< 1
1,2-Dibromoethane	ug/l	**0.01**	B Cancer	< 0.0094 D1	< 0.0095 D1	< 0.0095 D2	< 0.0094 D2	< 0.0094 D1	< 0.0096 D2	< 0.0095 D1	< 0.0095 D1

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

Report Date: October 17, 2019 13:20

Project: 90129

Account #: 11255
Group Number: 2059029
PO Number: 0015324185
Release Number: BISHOP
State of Sample Origin: WA

Electronic Copy To Leidos

Attn: Ruth Otteman

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-20-S-10.5-190810 Grab Soil	08/10/2019 08:50	1126287
SUP-1-1-S-6.5-190810 Grab Soil	08/10/2019 08:50	1126288
MW-20-S-18.0-190810 Grab Soil	08/10/2019 09:15	1126289
MW-20-S-28.0-190810 Grab Soil	08/10/2019 09:30	1126290
MW-20-S-30.0-190810 Grab Soil	08/10/2019 10:00	1126291
MW-29-S-20.0-190810 Grab Soil	08/10/2019 13:13	1126292
MW-29-S-31.5-190810 Grab Soil	08/10/2019 13:52	1126293
DUP-1-S-190810 Grab Soil	08/10/2019 14:00	1126294
MW-29-S-10.5-190810 Grab Soil	08/10/2019 13:30	1126295
QA-T1-190812 NA Water	08/12/2019 14:00	1126296
QA-T2-190812 NA Water	08/12/2019 14:05	1126297
QA-T3-190812 NA Water	08/12/2019 14:30	1126298
QA-T4-190812 NA Water	08/12/2019 14:40	1126299
QA-T5-190812 NA Water	08/12/2019 15:40	1126300
QA-T6-190812 NA Water	08/12/2019 15:50	1126301
MW-23-S-10.0-190808 Grab Soil	08/08/2019 11:30	1126302
MW-23-S-25.0-190808 Grab Soil	08/08/2019 12:05	1126303
MW-23-S-30.0-190808 Grab Soil	08/08/2019 12:20	1126304
MW-22-S-10.0-190808 Grab Soil	08/08/2019 15:20	1126305
MW-22-S-23.0-190808 Grab Soil	08/08/2019 15:30	1126306
MW-22-S-28.5-190808 Grab Soil	08/08/2019 15:45	1126307
QA-O1-190808 Grab Water	08/08/2019 17:20	1126308
QA-O2-190809 Grab Water	08/09/2019 08:10	1126309
MW-21-S-10.0-190809 Grab Soil	08/09/2019 09:30	1126310
MW-21-S-15.0-190809 Grab Soil	08/09/2019 09:45	1126311
MW-21-S-20.0-190809 Grab Soil	08/09/2019 10:00	1126312
MW-21-S-25.0-190809 Grab Soil	08/09/2019 10:15	1126313
MW-21-S-26.5-190809 Grab Soil	08/09/2019 10:30	1126314

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MW-20-S-10.5-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 08:50

Chevron
ELLE Sample #: SW 1126287
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.88
11995	cis-1,2-Dichloroethene	156-59-2	N.D.	0.0005	0.88
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0005	0.88
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.88
11995	Tetrachloroethene	127-18-4	0.068	0.0005	0.88
11995	Toluene	108-88-3	N.D.	0.0006	0.88
11995	Trichloroethene	79-01-6	N.D.	0.0005	0.88
11995	Vinyl Chloride	75-01-4	N.D.	0.0006	0.88
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.88
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.8	0.3	26.3
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.4	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	4.18	0.534	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	9.4	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 13:23	Linda C Pape	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 08:50	Client Supplied	1

Sample Description: **MW-20-S-10.5-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 08:50

Chevron
ELLE Sample #: SW 1126287
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 08:50	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/21/2019 23:44	Jeremy C Giffin	26.3
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 05:13	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 05:55	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **SUP-1-1-S-6.5-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126288
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 08:50

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.93
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.93
11995	Toluene	108-88-3	N.D.	0.0006	0.93
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.93
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.3	28.54
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.4	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.6	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 18:16	Linda C Pape	0.93
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 08:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 00:19	Jeremy C Giffin	28.54
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 08:50	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 05:35	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-20-S-18.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 09:15

Chevron
ELLE Sample #: SW 1126289
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.91
11995	cis-1,2-Dichloroethene	156-59-2	N.D.	0.0005	0.91
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0005	0.91
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.91
11995	Tetrachloroethene	127-18-4	0.075	0.0005	0.91
11995	Toluene	108-88-3	N.D.	0.0006	0.91
11995	Trichloroethene	79-01-6	N.D.	0.0005	0.91
11995	Vinyl Chloride	75-01-4	N.D.	0.0006	0.91
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.91
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.4	0.3	25.47
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.5	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	3.59	0.478	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	12.9	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 13:45	Linda C Pape	0.91
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 09:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 09:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 09:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 09:15	Client Supplied	1

Sample Description: **MW-20-S-18.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 09:15

Chevron
ELLE Sample #: SW 1126289
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 09:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 09:15	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 00:54	Jeremy C Giffin	25.47
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 09:15	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 05:56	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 09:35	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-20-S-28.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 09:30

Chevron
ELLE Sample #: SW 1126290
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.81
11995	cis-1,2-Dichloroethene	156-59-2	N.D.	0.0005	0.81
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0005	0.81
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.81
11995	Tetrachloroethene	127-18-4	0.030	0.0005	0.81
11995	Toluene	108-88-3	N.D.	0.0006	0.81
11995	Trichloroethene	79-01-6	0.025	0.0005	0.81
11995	Vinyl Chloride	75-01-4	N.D.	0.0006	0.81
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.81
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.6	0.3	26.03
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.9	1
08272	Heavy Range Organics C24-C40	n.a.	18	12	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	5.42	0.519	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	19.7	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 14:08	Linda C Pape	0.81
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 09:30	Client Supplied	1

Sample Description: **MW-20-S-28.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 09:30

Chevron
ELLE Sample #: SW 1126290
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 09:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 09:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 12:00	Jeremy C Giffin	26.03
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 09:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 07:01	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:15	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-20-S-30.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 10:00

Chevron
ELLE Sample #: SW 1126291
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.74
11995	cis-1,2-Dichloroethene	156-59-2	0.0007	0.0005	0.74
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0005	0.74
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.74
11995	Tetrachloroethene	127-18-4	0.060	0.0005	0.74
11995	Toluene	108-88-3	N.D.	0.0006	0.74
11995	Trichloroethene	79-01-6	0.003	0.0005	0.74
11995	Vinyl Chloride	75-01-4	N.D.	0.0006	0.74
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.74
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: cis-1,2-Dichloroethene				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	1	0.3	24.97
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	5.2	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	13	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	2.83	0.639	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	23.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 14:30	Linda C Pape	0.74
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 10:00	Client Supplied	1

Sample Description: **MW-20-S-30.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 10:00

Chevron
ELLE Sample #: SW 1126291
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/10/2019 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/10/2019 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/10/2019 10:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 01:30	Jeremy C Giffin	24.97
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 10:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 07:23	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:18	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-29-S-20.0-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 13:13

Chevron
ELLE Sample #: SW 1126292
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.88
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.88
11995	Toluene	108-88-3	N.D.	0.0006	0.88
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.88
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.7	0.3	25.72
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.6	1
08272	Heavy Range Organics C24-C40	n.a.	13	11	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	13.0	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 14:53	Linda C Pape	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 13:13	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 13:13	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 13:13	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 02:05	Jeremy C Giffin	25.72
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 13:13	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 07:44	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-29-S-31.5-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126293
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 13:52

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.002	0.0005	0.86
11995	Ethylbenzene	100-41-4	0.0004	0.0004	0.86
11995	Toluene	108-88-3	0.0007	0.0006	0.86
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.86
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.6	0.3	23.08
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.8	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	12	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	17.2	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 15:16	Linda C Pape	0.86
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 13:52	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 13:52	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 13:52	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 02:40	Jeremy C Giffin	23.08
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 13:52	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 08:06	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **DUP-1-S-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 14:00

Chevron
ELLE Sample #: SW 1126294
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.79
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.79
11995	Toluene	108-88-3	N.D.	0.0005	0.79
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.79
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.3	24.4
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.5	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.1	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 15:38	Linda C Pape	0.79
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 14:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 14:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 14:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 03:15	Jeremy C Giffin	24.4
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 14:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 08:28	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-29-S-10.5-190810 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/10/2019 13:30

Chevron
ELLE Sample #: SW 1126295
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.84
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.84
11995	Toluene	108-88-3	N.D.	0.0006	0.84
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.84
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.2	23.2
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.5	1
08272	Heavy Range Organics C24-C40	n.a.	16	11	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.6	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 16:01	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/10/2019 13:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/10/2019 13:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/10/2019 13:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 03:50	Jeremy C Giffin	23.2
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/10/2019 13:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 08:50	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **QA-T1-190812 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126296
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/12/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 16:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 16:00	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 02:38	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 02:37	Jeremy C Giffin	1

Sample Description: **QA-T2-190812 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126297
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/12/2019 14:05

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 16:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 16:23	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 03:05	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 03:04	Jeremy C Giffin	1

Sample Description: **QA-T3-190812 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126298
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/12/2019 14:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 16:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 16:44	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 03:32	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 03:31	Jeremy C Giffin	1

Sample Description: **QA-T4-190812 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126299
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/12/2019 14:40

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192331AA	08/21/2019 17:08	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192331AA	08/21/2019 17:07	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 04:00	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 03:59	Jeremy C Giffin	1

Sample Description: **QA-T5-190812 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126300
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/12/2019 15:40

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles		**SW-846 8260C**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles		**ECY 97-602 NWTPH-Gx**	**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 16:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 16:32	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 04:27	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 04:26	Jeremy C Giffin	1

Sample Description: **QA-T6-190812 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126301
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/12/2019 15:50

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 16:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 16:54	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 04:54	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 04:53	Jeremy C Giffin	1

Sample Description: **MW-23-S-10.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126302
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.83
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.83
11995	Toluene	108-88-3	N.D.	0.0005	0.83
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.83
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	4.0	0.3	25.01
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	4.5	4.3	1
08272	Heavy Range Organics C24-C40	n.a.	32	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	4.40	0.461	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.3	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 17:01	Linda C Pape	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 11:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 11:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 11:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 04:25	Jeremy C Giffin	25.01
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 11:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280023A	08/20/2019 09:12	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280023A	08/16/2019 22:50	Karen L Beyer	1

Sample Description: **MW-23-S-10.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 11:30

Chevron
ELLE Sample #: SW 1126302
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:40	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013A	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-23-S-25.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 12:05

Chevron
ELLE Sample #: SW 1126303
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.015	0.0005	0.8
11995	cis-1,2-Dichloroethene	156-59-2	0.15	0.0005	0.8
11995	trans-1,2-Dichloroethene	156-60-5	0.0008	0.0005	0.8
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.8
11995	Tetrachloroethene	127-18-4	N.D.	0.0005	0.8
11995	Toluene	108-88-3	N.D.	0.0006	0.8
11995	Trichloroethene	79-01-6	N.D.	0.0005	0.8
11995	Vinyl Chloride	75-01-4	0.005	0.0006	0.8
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.8
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.3	23.83
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.7	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	12	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	3.17	0.617	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	14.7	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 17:23	Linda C Pape	0.8
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/08/2019 12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/08/2019 12:05	Client Supplied	1

Sample Description: **MW-23-S-25.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 12:05

Chevron
ELLE Sample #: SW 1126303
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 12:05	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/08/2019 12:05	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 05:35	Jeremy C Giffin	23.83
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 12:05	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 14:03	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:43	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-23-S-30.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126304
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 12:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0006	0.85
11995	Ethylbenzene	100-41-4	N.D.	0.0005	0.85
11995	Toluene	108-88-3	N.D.	0.0007	0.85
11995	Xylene (Total)	1330-20-7	N.D.	0.002	0.85
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.4	29.5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	5.4	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	40	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	13.0	2.77	5
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	26.8	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 17:46	Linda C Pape	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 12:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 12:20	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 06:10	Jeremy C Giffin	29.5
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 12:20	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192340018A	08/24/2019 02:51	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	2	192340018A	08/22/2019 23:00	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:46	Lisa J Cooke	5

Sample Description: **MW-23-S-30.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 12:20

Chevron
ELLE Sample #: SW 1126304
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-22-S-10.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126305
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 15:20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.84
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.84
11995	Toluene	108-88-3	N.D.	0.0005	0.84
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.84
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.2	24.7
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.2	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	10	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	2.89	0.598	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.3	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 18:09	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 15:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 15:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 15:20	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 06:45	Jeremy C Giffin	24.7
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 15:20	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 14:49	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1

Sample Description: **MW-22-S-10.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 15:20

Chevron
ELLE Sample #: SW 1126305
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:49	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-22-S-23.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 15:30

Chevron
ELLE Sample #: SW 1126306
ELLE Group #: 2059029
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.001	0.0004	0.73
11995	cis-1,2-Dichloroethene	156-59-2	0.087	0.0004	0.73
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0004	0.73
11995	Ethylbenzene	100-41-4	N.D.	0.0003	0.73
11995	Tetrachloroethene	127-18-4	0.001	0.0004	0.73
11995	Toluene	108-88-3	N.D.	0.0005	0.73
11995	Trichloroethene	79-01-6	0.006	0.0004	0.73
11995	Vinyl Chloride	75-01-4	N.D.	0.0005	0.73
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.73
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.2	22.6
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.7	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	12	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	3.18	0.584	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	16.5	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 18:31	Linda C Pape	0.73
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 15:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 15:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/08/2019 15:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/08/2019 15:30	Client Supplied	1

Sample Description: **MW-22-S-23.0-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 15:30

Chevron
ELLE Sample #: SW 1126306
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 15:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/08/2019 15:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 07:20	Jeremy C Giffin	22.6
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 15:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 15:11	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:53	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-22-S-28.5-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126307
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 15:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0006	0.85
11995	cis-1,2-Dichloroethene	156-59-2	N.D.	0.0006	0.85
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0006	0.85
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.85
11995	Tetrachloroethene	127-18-4	N.D.	0.0006	0.85
11995	Toluene	108-88-3	N.D.	0.0007	0.85
11995	Trichloroethene	79-01-6	N.D.	0.0006	0.85
11995	Vinyl Chloride	75-01-4	N.D.	0.0007	0.85
11995	Xylene (Total)	1330-20-7	N.D.	0.002	0.85
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	0.3	26.13
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	5.2	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	13	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	9.79	2.69	5
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	24.0	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192331AA	08/21/2019 18:54	Linda C Pape	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/08/2019 15:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/08/2019 15:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/08/2019 15:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/08/2019 15:45	Client Supplied	1

Sample Description: **MW-22-S-28.5-190808 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 15:45

Chevron
ELLE Sample #: SW 1126307
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/08/2019 15:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/08/2019 15:45	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 07:55	Jeremy C Giffin	26.13
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/08/2019 15:45	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 16:19	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:56	Lisa J Cooke	5
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **QA-O1-190808 Grab Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126308
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/08/2019 17:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 17:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 17:16	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 05:22	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 05:21	Jeremy C Giffin	1

Sample Description: **QA-O2-190809 Grab Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: WW 1126309
ELLE Group #: 2059029
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 08:10

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	N.D.	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192332AA	08/21/2019 17:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192332AA	08/21/2019 17:38	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19228A20A	08/20/2019 05:49	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19228A20A	08/20/2019 05:48	Jeremy C Giffin	1

Sample Description: **MW-21-S-10.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126310
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 09:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.84
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.84
11995	Toluene	108-88-3	N.D.	0.0005	0.84
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.84
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.9	0.2	23.67
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.3	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	8.70	0.570	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	7.7	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 16:23	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 09:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 09:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 09:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 08:30	Jeremy C Giffin	23.67
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 09:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 16:42	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1

Sample Description: **MW-21-S-10.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 09:30

Chevron
ELLE Sample #: SW 1126310
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 06:59	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-21-S-15.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126311
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 09:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.95
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.95
11995	Toluene	108-88-3	N.D.	0.0006	0.95
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.95
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	1	0.3	27.35
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.3	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	3.64	0.451	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.6	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 16:46	Linda C Pape	0.95
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 09:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 09:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 09:45	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 09:05	Jeremy C Giffin	27.35
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 09:45	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 17:04	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1

Sample Description: **MW-21-S-15.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 09:45

Chevron
ELLE Sample #: SW 1126311
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:08	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-21-S-20.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126312
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 10:00

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.7
11995	Ethylbenzene	100-41-4	N.D.	0.0003	0.7
11995	Toluene	108-88-3	N.D.	0.0005	0.7
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.7
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	1.7	0.2	23.04
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.7	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	12	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	4.16	0.644	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	14.5	0.50	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 17:09	Linda C Pape	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 10:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 09:40	Jeremy C Giffin	23.04
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 10:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 17:26	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1

Sample Description: **MW-21-S-20.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 10:00

Chevron
ELLE Sample #: SW 1126312
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:12	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-21-S-25.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126313
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 10:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.0008	0.0004	0.75
11995	cis-1,2-Dichloroethene	156-59-2	0.003	0.0004	0.75
11995	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0004	0.75
11995	Ethylbenzene	100-41-4	N.D.	0.0003	0.75
11995	Tetrachloroethene	127-18-4	0.032	0.0004	0.75
11995	Toluene	108-88-3	N.D.	0.0005	0.75
11995	Trichloroethene	79-01-6	0.063	0.0004	0.75
11995	Vinyl Chloride	75-01-4	N.D.	0.0005	0.75
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.75
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: cis-1,2-Dichloroethene				
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	
12969	Benzo(a)anthracene	56-55-3	N.D.	0.0008	1
12969	Benzo(a)pyrene	50-32-8	0.0008	0.0008	1
12969	Benzo(b)fluoranthene	205-99-2	0.001	0.0008	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.0008	1
12969	Chrysene	218-01-9	0.001	0.0004	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0008	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0008	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.5	0.2	22.61
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.6	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	4.49	0.569	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	13.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

State of Washington Lab Certification No. C457

Sample Description: **MW-21-S-25.0-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 10:15

Chevron
ELLE Sample #: SW 1126313
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 17:31	Linda C Pape	0.75
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 10:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 10:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/09/2019 10:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/09/2019 10:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 10:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/09/2019 10:15	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	19231SLE026	08/21/2019 00:47	Ashley R Transue	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	19231SLE026	08/20/2019 07:00	Joshua S Ruth	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 10:15	Jeremy C Giffin	22.61
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 10:15	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 17:48	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:15	Lisa J Cooke	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

Sample Description: **MW-21-S-26.5-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: SW 1126314
ELLE Group #: 2059029
Matrix: Soil

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 10:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.003	0.0005	0.84
11995	cis-1,2-Dichloroethene	156-59-2	0.019	0.0005	0.84
11995	trans-1,2-Dichloroethene	156-60-5	0.0007	0.0005	0.84
11995	Ethylbenzene	100-41-4	N.D.	0.0004	0.84
11995	Tetrachloroethene	127-18-4	0.18	0.0005	0.84
11995	Toluene	108-88-3	N.D.	0.0006	0.84
11995	Trichloroethene	79-01-6	0.38 E	0.0005	0.84
11995	Vinyl Chloride	75-01-4	N.D.	0.0006	0.84
11995	Xylene (Total)	1330-20-7	N.D.	0.001	0.84
	The concentration reported for Trichloroethene is estimated since it exceeds the calibration range of the instrument. A further diluted analysis was performed from a previously opened container with headspace and/or outside of the method holding time. The result for Trichloroethene is 1.3mg/kg.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	0.9	0.3	23.79
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	N.D.	4.6	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	7.44	2.62	5
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	13.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid by 8260C/D	SW-846 8260C	1	A192351AA	08/23/2019 17:54	Linda C Pape	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201923154590	08/09/2019 10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201923154590	08/09/2019 10:30	Client Supplied	1

Sample Description: **MW-21-S-26.5-190809 Grab Soil**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/14/2019 10:05
Collection Date/Time: 08/09/2019 10:30

Chevron
ELLE Sample #: SW 1126314
ELLE Group #: 2059029
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201923154590	08/09/2019 10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201923154590	08/09/2019 10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201923154590	08/09/2019 10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	2	201923154590	08/09/2019 10:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	19233A34A	08/22/2019 10:50	Jeremy C Giffin	23.79
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201923154590	08/09/2019 10:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	192280034A	08/20/2019 18:10	Bridget Kovacs	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	192280034A	08/18/2019 21:10	Karen L Beyer	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192311404903	08/22/2019 07:18	Lisa J Cooke	5
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192311404903	08/19/2019 06:25	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19232820013B	08/22/2019 10:41	William C Schwebel	1

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Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Matrix QC may not be reported if insufficient sample or 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.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	mg/kg	mg/kg
Batch number: A192331AA	Sample number(s): 1126302-1126307	
Benzene	N.D.	0.0005
cis-1,2-Dichloroethene	N.D.	0.0005
trans-1,2-Dichloroethene	N.D.	0.0005
Ethylbenzene	N.D.	0.0004
Tetrachloroethene	N.D.	0.0005
Toluene	N.D.	0.0006
Trichloroethene	N.D.	0.0005
Vinyl Chloride	N.D.	0.0006
Xylene (Total)	N.D.	0.001
Batch number: A192351AA	Sample number(s): 1126287-1126295,1126310-1126314	
Benzene	N.D.	0.0005
cis-1,2-Dichloroethene	N.D.	0.0005
trans-1,2-Dichloroethene	N.D.	0.0005
Ethylbenzene	N.D.	0.0004
Tetrachloroethene	N.D.	0.0005
Toluene	N.D.	0.0006
Trichloroethene	N.D.	0.0005
Vinyl Chloride	N.D.	0.0006
Xylene (Total)	N.D.	0.001
	ug/l	ug/l
Batch number: F192331AA	Sample number(s): 1126296-1126299	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Toluene	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: F192332AA	Sample number(s): 1126300-1126301,1126308-1126309	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Toluene	N.D.	0.2
Xylene (Total)	N.D.	1
	mg/kg	mg/kg
Batch number: 19231SLE026	Sample number(s): 1126313	
Benzo(a)anthracene	N.D.	0.0007
Benzo(a)pyrene	N.D.	0.0007
Benzo(b)fluoranthene	N.D.	0.0007
Benzo(k)fluoranthene	N.D.	0.0007

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Method Blank (continued)

Analysis Name	Result	MDL
	mg/kg	mg/kg
Chrysene	N.D.	0.0003
Dibenz(a,h)anthracene	N.D.	0.0007
Indeno(1,2,3-cd)pyrene	N.D.	0.0007
Batch number: 19233A34A	Sample number(s): 1126287-1126295,1126302-1126307,1126310-1126314	
NWTPH-GX Soil C7-C12	N.D.	0.2
	ug/l	ug/l
Batch number: 19228A20A	Sample number(s): 1126296-1126301,1126308-1126309	
NWTPH-Gx water C7-C12	N.D.	19
	mg/kg	mg/kg
Batch number: 192280023A	Sample number(s): 1126287-1126295,1126302	
Diesel Range Organics C12-C24	N.D.	4.0
Heavy Range Organics C24-C40	N.D.	10
Batch number: 192280034A	Sample number(s): 1126303,1126305-1126307,1126310-1126314	
Diesel Range Organics C12-C24	N.D.	4.0
Heavy Range Organics C24-C40	35	10
Batch number: 192340018A	Sample number(s): 1126304	
Diesel Range Organics C12-C24	N.D.	4.0
Heavy Range Organics C24-C40	N.D.	30
Batch number: 192311404903	Sample number(s): 1126287,1126289-1126291,1126302-1126307,1126310-1126314	
Lead	N.D.	0.600

LCS/LCSD

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A192331AA	Sample number(s): 1126302-1126307								
Benzene	0.0200	0.0219	0.0200	0.0218	109	109	80-120	0	30
cis-1,2-Dichloroethene	0.0200	0.0232	0.0200	0.0230	116	115	80-125	1	30
trans-1,2-Dichloroethene	0.0200	0.0228	0.0200	0.0228	114	114	80-126	0	30
Ethylbenzene	0.0200	0.0217	0.0200	0.0219	108	109	78-120	1	30
Tetrachloroethene	0.0200	0.0229	0.0200	0.0229	114	115	73-120	0	30
Toluene	0.0200	0.0215	0.0200	0.0218	107	109	80-120	1	30
Trichloroethene	0.0200	0.0221	0.0200	0.0221	111	111	80-120	0	30
Vinyl Chloride	0.0200	0.0202	0.0200	0.0198	101	99	52-120	2	30
Xylene (Total)	0.0600	0.0658	0.0600	0.0660	110	110	75-120	0	30
Batch number: A192351AA	Sample number(s): 1126287-1126295,1126310-1126314								
Benzene	0.0200	0.0224	0.0200	0.0224	112	112	80-120	0	30

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
cis-1,2-Dichloroethene	0.0200	0.0250	0.0200	0.0251	125	126*	80-125	0	30
trans-1,2-Dichloroethene	0.0200	0.0222	0.0200	0.0221	111	110	80-126	1	30
Ethylbenzene	0.0200	0.0223	0.0200	0.0228	112	114	78-120	2	30
Tetrachloroethene	0.0200	0.0234	0.0200	0.0239	117	120	73-120	2	30
Toluene	0.0200	0.0219	0.0200	0.0220	109	110	80-120	1	30
Trichloroethene	0.0200	0.0225	0.0200	0.0224	112	112	80-120	0	30
Vinyl Chloride	0.0200	0.0200	0.0200	0.0202	100	101	52-120	1	30
Xylene (Total)	0.0600	0.0685	0.0600	0.0692	114	115	75-120	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: F192331AA	Sample number(s): 1126296-1126299								
Benzene	20	19.08			95		80-120		
Ethylbenzene	20	19.18			96		80-120		
Toluene	20	19.47			97		80-120		
Xylene (Total)	60	57.17			95		80-120		
Batch number: F192332AA	Sample number(s): 1126300-1126301,1126308-1126309								
Benzene	20	19.52			98		80-120		
Ethylbenzene	20	19.06			95		80-120		
Toluene	20	19.59			98		80-120		
Xylene (Total)	60	56.85			95		80-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 19231SLE026	Sample number(s): 1126313								
Benzo(a)anthracene	0.0333	0.0265			79		61-116		
Benzo(a)pyrene	0.0333	0.0286			86		67-124		
Benzo(b)fluoranthene	0.0333	0.0275			82		68-128		
Benzo(k)fluoranthene	0.0333	0.0279			84		61-119		
Chrysene	0.0333	0.0266			80		63-105		
Dibenz(a,h)anthracene	0.0333	0.0298			89		49-143		
Indeno(1,2,3-cd)pyrene	0.0333	0.0301			90		53-144		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 19233A34A	Sample number(s): 1126287-1126295,1126302-1126307,1126310-1126314								
NWTPH-GX Soil C7-C12	11	10.26	11	10.22	93	93	55-145	0	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19228A20A	Sample number(s): 1126296-1126301,1126308-1126309								
NWTPH-Gx water C7-C12	1100	1112.16	1100	1131.65	101	103	64-131	2	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192280023A	Sample number(s): 1126287-1126295,1126302								
Diesel Range Organics C12-C24	133.4	107.12			80		61-115		

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 192280034A	Sample number(s): 1126303,1126305-1126307,1126310-1126314								
Diesel Range Organics C12-C24	133.4	100.17			75		61-115		
Batch number: 192340018A	Sample number(s): 1126304								
Diesel Range Organics C12-C24	133.4	102.41			77		61-115		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192311404903	Sample number(s): 1126287,1126289-1126291,1126302-1126307,1126310-1126314								
Lead	15	16.27			108		90-115		
	%	%	%	%					
Batch number: 19232820013A	Sample number(s): 1126287-1126295,1126302								
Moisture	89.5	89.46			100		99-101		
Batch number: 19232820013B	Sample number(s): 1126303-1126307,1126310-1126314								
Moisture	89.5	89.46			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 192280023A	Sample number(s): 1126287-1126295,1126302 UNSPK: 1126289									
Diesel Range Organics C12-C24	N.D.	132.51	103.3			78		61-115		
Batch number: 192280034A	Sample number(s): 1126303,1126305-1126307,1126310-1126314 UNSPK: 1126306									
Diesel Range Organics C12-C24	N.D.	132.95	100.7			76		61-115		
Batch number: 192340018A	Sample number(s): 1126304 UNSPK: 1126304									
Diesel Range Organics C12-C24	N.D.	132.95	93.83			71		61-115		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192311404903	Sample number(s): 1126287,1126289-1126291,1126302-1126307,1126310-1126314 UNSPK: 1126287									
Lead	3.78	13.89	16.65	11.28	13.23	93	84	75-125	23*	20

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/kg	mg/kg		
Batch number: 192280023A	Sample number(s): 1126287-1126295,1126302 BKG: 1126289			
Diesel Range Organics C12-C24	N.D.	N.D.	0 (1)	20
Heavy Range Organics C24-C40	N.D.	N.D.	0 (1)	20
Batch number: 192280034A	Sample number(s): 1126303,1126305-1126307,1126310-1126314 BKG: 1126306			
Diesel Range Organics C12-C24	N.D.	N.D.	0 (1)	20
Heavy Range Organics C24-C40	N.D.	N.D.	0 (1)	20
Batch number: 192340018A	Sample number(s): 1126304 BKG: 1126304			
Diesel Range Organics C12-C24	N.D.	N.D.	0 (1)	20
Heavy Range Organics C24-C40	N.D.	N.D.	0 (1)	20
	mg/kg	mg/kg		
Batch number: 192311404903	Sample number(s): 1126287,1126289-1126291,1126302-1126307,1126310-1126314 BKG: 1126287			
Lead	3.78	2.77	31* (1)	20
	%	%		
Batch number: 19232820013A	Sample number(s): 1126287-1126295,1126302 BKG: 1126293			
Moisture	17.24	15.61	10*	5
Batch number: 19232820013B	Sample number(s): 1126303-1126307,1126310-1126314 BKG: 1126305			
Moisture	5.32	6.01	12*	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- Solid by 8260C/D
Batch number: A192331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126302	102	111	99	98
1126303	102	108	99	97
1126304	102	106	108	83
1126305	101	108	98	98
1126306	102	111	98	97
1126307	103	113	97	100
Blank	101	102	98	100
LCS	103	103	99	100
LCSD	101	104	99	100

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- Solid by 8260C/D
Batch number: A192331AA

Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260C/D
Batch number: A192351AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126287	102	109	97	97
1126288	104	108	97	92
1126289	102	107	97	96
1126290	103	109	101	89
1126291	103	107	97	95
1126292	104	111	96	97
1126293	103	109	101	90
1126294	103	109	96	96
1126295	103	108	97	96
1126310	103	108	97	97
1126311	102	105	97	95
1126312	105	114	95	99
1126313	103	108	97	94
1126314	104	108	97	93
Blank	102	105	96	97
LCS	102	104	97	98
LCSD	102	102	98	99
Limits:	50-141	54-135	52-141	50-131

Analysis Name: BTEX 8260C
Batch number: F192331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126296	91	94	102	98
1126297	92	97	102	100
1126298	92	97	102	98
1126299	92	94	101	98
Blank	93	94	101	98
LCS	92	97	103	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX 8260C
Batch number: F192332AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126300	92	95	103	98
1126301	91	98	102	98

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX 8260C
Batch number: F192332AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1126308	91	97	102	99
1126309	90	96	103	99
Blank	92	94	103	99
LCS	91	99	104	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: SIM SVOAs 8270D (microwave)
Batch number: 19231SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1126313	66	62	60
Blank	57	57	50
LCS	66	62	62
Limits:	34-135	28-124	27-107

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 19228A20A

	Trifluorotoluene-F
1126296	85
1126297	86
1126298	87
1126299	86
1126300	84
1126301	85
1126308	87
1126309	86
Blank	87
LCS	96
LCSD	95
Limits:	50-150

Analysis Name: NWTPH-GX Soil C7-C12
Batch number: 19233A34A

	Trifluorotoluene-F
1126287	70
1126288	74
1126289	77
1126290	60
1126291	59
1126292	68

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-GX Soil C7-C12
Batch number: 19233A34A

	Trifluorotoluene-F
1126293	72
1126294	72
1126295	77
1126302	88
1126303	69
1126304	62
1126305	71
1126306	74
1126307	61
1126310	71
1126311	88
1126312	75
1126313	72
1126314	75
Blank	93
LCS	104
LCSD	98
Limits:	50-150

Analysis Name: NWTPH-Dx soil
Batch number: 192280023A

	Orthoterphenyl
1126287	110
1126288	111
1126289	114
1126290	106
1126291	105
1126292	104
1126293	106
1126294	110
1126295	112
1126302	114
Blank	111
DUP	113
LCS	117
MS	113
Limits:	50-150

Analysis Name: NWTPH-Dx soil
Batch number: 192280034A

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:20

Group Number: 2059029

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Dx soil
Batch number: 192280034A

	Orthoterphenyl
1126303	109
1126305	108
1126306	108
1126307	81
1126310	100
1126311	107
1126312	106
1126313	108
1126314	98
Blank	111
DUP	105
LCS	113
MS	112
Limits:	50-150

Analysis Name: NWTPH-Dx soil
Batch number: 192340018A

	Orthoterphenyl
1126304	98
Blank	105
DUP	94
LCS	114
MS	103
Limits:	50-150

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

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 11258 For Eurofins Lancaster Laboratories Environmental use only Group # 205 9029 Sample # 1126283-314

Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # 90129 WBS

Site Address 4700 Brooklyn Ave, Seattle, WA

Chevron PM Tim Bishop Lead Consultant

Consultant/Office Cardno, Bothell, WA

Consultant Project Mgr. Ruth Otterman

Consultant Phone # 425-482-5328

Sampler R. Otterman

2 Sample Identification

3 Grab / Composite

4 Matrix

Soil / Sediment / Water (Potable / Ground / NPDES / Surface) / Oil / Air

5 Analyses Requested

Total Number of Containers; BTEX + MTBE; 8021; 8260 + Naphth; 8260 full scan; Oxygenates ____; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup; NWTPH-Dx without Silica Gel Cleanup; WA VPH; WA EPH; Lead; Total / Diss.; Method GRO, DRO, 8260

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Water	Potable	Ground	NPDES	Surface	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260 + Naphth	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total / Diss.	Method GRO, DRO, 8260
MW-20-S-10.5-190810	8/10/19	0850	X		X									11	/					/		X				X	
SVP-1-S-6.5-190810		0850	X		X									7	/					/		X					
MW-20-S-18.0-190810		0915	X		X									11	/					/		X				X	
MW-20-S-28.0-190810		0930	X		X									11	/					/		X				X	
MW-20-S-30.0-190810		1000	X		X									11	/					/		X				X	
MW-29-S-20.0-190810		1313	X		X									7	/					/		X					
MW-29-S-31.5-190810		1352	X		X									7	/					/		X					
~~DUP-1~~ DUP-1-S-190810		1400	X		X									6	/					/							
MW-29-S-10.5-190810		1330	X		X									6	/					/							
TB-1-190812	8.12.19	1400	/				X							4	/					/							
TB-2-190812	8.12.19	1405	/				X							4	/					/							
TB-3-190812		1430	/				X							4	/					/							
TB-4-190812		1440	/				X							4	/					/							

6 Remarks

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day

72 hour 48 hour 24 hour

8 Data Package (circle if required)

(Type I - Full)

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8/12/19	1400	[signature]		
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____

Temperature Upon Receipt 0.5-1.3 °C

Received by	Date	Time
[signature]	8/14/19	1005

Custody Seals Intact? (Yes) No

9

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 11255 For Eurofins Lancaster Laboratories Environmental use only Group # 2059029 Sample # 1126287-314
Instructions on reverse side correspond with circled numbers.

SCR #: 243490

1 Client Information

Facility # 90129 WBS
Site Address 4700 Brooklyn Ave, Seattle, WA
Chevron PM Tom Bishop Lead Consultant
Consultant/Office Leidos Bothell, WA
Consultant Project Mgr. Ruth Otterman
Consultant Phone # 425-482-3328
Sampler R.Otterman

4 Matrix: Soil ☐ Sediment ☐ Water ☐ Ground ☐ Potable ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method
TB-5-190812	8.12.19	1540	X		4															
TB-6-190812	8.12.19	1550	X		4															

Results in Dry Weight ☐
J value reporting needed ☐
Must meet lowest detection limits possible for 8260 compounds ☐
8021 MTBE Confirmation ☐
Confirm MTBE + Naphthalene ☐
Confirm highest hit by 8260 ☐
Confirm all hits by 8260 ☐
Run _____ oxy's on highest hit ☐
Run _____ oxy's on all hits ☐

6 Remarks

7 Turnaround Time Requested (TAT) (please circle)
Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5-31-19	1330			
[signature]	8/12/19	1400			
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			[signature]	8/13/19	1005

Temperature Upon Receipt 0.5, 1.3 °C
Custody Seals Intact? (Yes) No

9

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 11255 — For Eurofins Lancaster Laboratories Environmental use only — Group # 2059029 — Sample # 112628-7-314

Instructions on reverse side correspond with circled numbers.

SCR #: 246377

1 Client Information

Facility # 90129 — WBS

Site Address: 4700 Brooklyn Ave, Seattle, WA

Chevron PM: Tim Bishop — Lead Consultant

Consultant/Office: Leidos / Bothell, WA

Consultant Project Mgr.: Ruth Otteman

Consultant Phone #: 425-482-3328

Sampler: R. Otteman

4 Matrix

Soil ☐ Sediment ☐ Water ☐ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	Total Number of Containers	BTEX + ~~MTBE~~ Naphth.	8021 ☐ 8260	8260 full scan	Oxygenates ___	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☐	NWTPH-Dx without Silica Gel Cleanup	WA VPH ☐ WA EPH ☐	Lead Total	Diss. ☐ Method 6010B	CVOCs 8270 SIM	Carcinogenic PAHs (8270)
MW-23-S-10.0-190808	8/8/19	1130	X		7	/				/		/		/			
MW-23-S-25.0-190808		1205	X		11	/				/		/		/	/		
MW-23-S-30.0-190808		1220	X		7	/				/		/		/			
MW-22-S-10.0-190808		1520	X		7	/				/		/		/			
MW-22-S-23.0-190808		1530	X		11	/				/		/		/	/		
MW-22-S-28.5-190808		1545	X		11	/				/		/		/	/		
ER-1-190808	↓	1720	X		6	/				/				/			
ER-2-190809	8/9/19	0810	X		6	/				/				/			
MW-21-S-10.0-190809		0930	X		7	/				/		/		/			
MW-21-S-15.0-190809		0945	X		7	/				/		/		/			
MW-21-S-20.0-190809		1000	X		7	/				/		/		/			
MW-21-S-25.0-190809		1015	X		12	/				/		/		/	/	/	
MW-21-S-26.5-190809	↓	1030	X		10	/				/		/		/	/		

6 Remarks

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard — 5 day — 4 day — 72 hour — 48 hour — 24 hour

8 Data Package (circle if required)

Type I - Full — Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default) — Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
Amanda Demaio	7-23-19	1133			
	8/12/19	1400			
Relinquished by Commercial Carrier: UPS X FedEx ___ Other ___			Received by	8/19/19	1005

Temperature Upon Receipt 0.5-1.3 °C

Custody Seals Intact? (Yes) No

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Sample Administration Receipt Documentation Log

Doc Log ID: 256810

Group Number(s): 205 9029

Client: Leidos

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	08/13/2019 9:50
Number of Packages:	4	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	N/A
Custody Seal Present:	Yes	Sample Date/Times match COC:	N/A
Custody Seal Intact:	Yes	Total Trip Blank Qty:	16
Samples Chilled:	Yes	Trip Blank Type:	HCl
Paperwork Enclosed:	No	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	N/A		

Unpacked by Simon Nies (25 112) at 13:29 on 08/13/2019

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	0.5	DT	Wet	Y	Bagged	N
2	DT131	0.8	DT	Wet	Y	Bagged	N
3	DT131	1.2	DT	Wet	Y	Bagged	N
4	DT131	0.9	DT	Wet	Y	Bagged	N

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Sample Administration Receipt Documentation Log

Doc Log ID: 256810

Group Number(s): 2059029

Client: Leidos

Paperwork Not Enclosed Details

Sample ID on Label	No. of Containers	Date on Label	Comments
MW-21-S-10.0-190809	7	8/09/2019 09:30	
MW-21-S-15.0-190809	7	8/09/2019 09:45	
MW-21-S-20.0-190809	7	8/09/2019 10:00	
MW-21-S-25.0-190809	12	8/09/2019 10:15	
MW-21-S-26.5-190809	10	8/09/2019 10:30	
MW-22-S-10.0-190808	7	8/08/2019 15:20	
MW-22-S-23.0-190808	11	8/08/2019 15:30	
MW-22-S-28.5-190808	7	8/08/2019 15:45	
MW-23-S-10.0-190808	7	8/08/2019 11:30	
MW-23-S-25.0-190808	11	8/08/2019 12:05	
MW-22-S-28.5-190808	5	8/08/2019 15:45	
MW-23-S-30.0-190808	7	8/08/2019 12:20	
MW-20-S-10.5-190810	2	8/10/2019 08:50	
MW-20-S-18.0-190810	2	8/10/2019 09:15	
ER-1-190808	6	8/08/2019 17:20	
ER-2-190809	6	8/09/2019 08:10	
TB-1-190812	4	8/12/2019 14:00	
TB-2-190812	4	8/12/2019 14:05	
TB-3-190812	4	8/12/2019 14:30	
TB-4-190812	4	8/12/2019 14:40	

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Sample Administration Receipt Documentation Log

Doc Log ID: 257013

Group Number(s): 2059029

Client: Leidos

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	08/14/2019 10:05
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	WA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	24
Samples Chilled:	Yes	Trip Blank Type:	HCl
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Simon Nies (25 112) at 17:44 on 08/14/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	1.3	DT	Wet	Y	Bagged	N
2	DT131	0.8	DT	Wet	Y	Bagged	N

General Comments: Received missing coolers from 8/13/19

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

Report Date: October 17, 2019 13:14

Project: 90129

Account #: 11255
Group Number: 2059759
PO Number: 0015324185
Release Number: BISHOP
State of Sample Origin: WA

Electronic Copy To Leidos

Attn: Ruth Otteman

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-26-W-190813 Grab Groundwater	08/13/2019 09:50	1130871
MW-27-W-190813 Grab Groundwater	08/13/2019 11:15	1130872
MW-28-W-190813 Grab Groundwater	08/13/2019 12:10	1130873
DUP-1-WD-190813 Grab Groundwater	08/13/2019 14:00	1130874
MW-18-W-190813 Grab Groundwater	08/13/2019 16:10	1130875
MW-19-W-190813 Grab Groundwater	08/13/2019 17:00	1130876
MW-22-W-190814 Grab Groundwater	08/14/2019 13:30	1130877
MW-20-W-190815 Grab Groundwater	08/15/2019 10:10	1130878
MW-23-W-190815 Grab Groundwater	08/15/2019 11:15	1130879
MW-21-W-190815 Grab Groundwater	08/15/2019 13:00	1130880
MW-17-W-190815 Grab Groundwater	08/15/2019 14:00	1130881
MW-29-W-190816 Grab Groundwater	08/16/2019 08:46	1130882
MW-25-W-190816 Grab Groundwater	08/16/2019 10:30	1130883
QA-1-T-190813 NA Water	08/13/2019 08:00	1130884
QA-2-T-190814 NA Water	08/14/2019 08:00	1130885

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MW-26-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 09:50

Chevron
ELLE Sample #: GW 1130871
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	24	0.2	1
11997	1,2-Dichloroethane	107-06-2	0.4	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	820 E	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	230	0.2	1
11997	Ethylbenzene	100-41-4	8	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	5	0.2	1
11997	Toluene	108-88-3	2	0.2	1
11997	Trichloroethene	79-01-6	2,200 E	0.2	1
11997	Vinyl Chloride	75-01-4	38	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1

The concentrations reported for cis-1,2-Dichloroethene and Trichloroethene are estimated since they exceeds the calibration range of the instrument. A further diluted analysis was performed outside of the method holding time. The result for cis-1,2-Dichloroethene was 720 ug/l. The result for Trichloroethene was 1700 ug/l.

GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	150	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D2	0.0094	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	45	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Sample Description: **MW-26-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 09:50

Chevron
ELLE Sample #: GW 1130871
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 23:35	Kathrine K Muramatsu	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 23:34	Kathrine K Muramatsu	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 03:35	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 03:34	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 07:57	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192340012A	08/25/2019 03:41	Nicholas R Rossi	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192340012A	08/22/2019 16:30	Osvaldo R Sanchez	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 06:53	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-27-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 11:15

Chevron
ELLE Sample #: GW 1130872
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	9	4	20
11997	1,2-Dichloroethane	107-06-2	N.D.	6	20
11997	cis-1,2-Dichloroethene	156-59-2	700	4	20
11997	trans-1,2-Dichloroethene	156-60-5	55	4	20
11997	Ethylbenzene	100-41-4	84	8	20
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	4	20
11997	Tetrachloroethene	127-18-4	N.D.	4	20
11997	Toluene	108-88-3	N.D.	4	20
11997	Trichloroethene	79-01-6	780	4	20
11997	Vinyl Chloride	75-01-4	23	4	20
11997	Xylene (Total)	1330-20-7	30	28	20
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	2,900	95	5
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	1,400	45	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 22:33	Kathrine K Muramatsu	20
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 22:32	Kathrine K Muramatsu	20
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 03:58	Marie D Beamenderfer	5

Sample Description: **MW-27-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 11:15

Chevron
ELLE Sample #: GW 1130872
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 03:57	Marie D Beamenderfer	5
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 08:29	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192340012A	08/25/2019 04:04	Nicholas R Rossi	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192340012A	08/22/2019 16:30	Osvaldo R Sanchez	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 06:56	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-28-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 12:10

Chevron
ELLE Sample #: GW 1130873
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	14	4	20
11997	1,2-Dichloroethane	107-06-2	N.D.	6	20
11997	cis-1,2-Dichloroethene	156-59-2	250	4	20
11997	trans-1,2-Dichloroethene	156-60-5	6	4	20
11997	Ethylbenzene	100-41-4	220	8	20
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	4	20
11997	Tetrachloroethene	127-18-4	260	4	20
11997	Toluene	108-88-3	N.D.	4	20
11997	Trichloroethene	79-01-6	770	4	20
11997	Vinyl Chloride	75-01-4	8	4	20
11997	Xylene (Total)	1330-20-7	90	28	20
	The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,700	95	5
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D2	0.0096	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	770	45	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 22:54	Kathrine K Muramatsu	20
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 22:53	Kathrine K Muramatsu	20

Sample Description: **MW-28-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 12:10

Chevron
ELLE Sample #: GW 1130873
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 04:20	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 04:19	Marie D Beamenderfer	5
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 09:01	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192340012A	08/25/2019 04:27	Nicholas R Rossi	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192340012A	08/22/2019 16:30	Osvaldo R Sanchez	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:08	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **DUP-1-WD-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 14:00

Chevron
ELLE Sample #: GW 1130874
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	15	4	20
11997	1,2-Dichloroethane	107-06-2	N.D.	6	20
11997	cis-1,2-Dichloroethene	156-59-2	270	4	20
11997	trans-1,2-Dichloroethene	156-60-5	5	4	20
11997	Ethylbenzene	100-41-4	210	8	20
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	4	20
11997	Tetrachloroethene	127-18-4	300	4	20
11997	Toluene	108-88-3	N.D.	4	20
11997	Trichloroethene	79-01-6	820	4	20
11997	Vinyl Chloride	75-01-4	8	4	20
11997	Xylene (Total)	1330-20-7	86	28	20
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,800	95	5
	The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.				
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	840	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 23:15	Kathrine K Muramatsu	20
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 23:14	Kathrine K Muramatsu	20

Sample Description: **DUP-1-WD-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 14:00

Chevron
ELLE Sample #: GW 1130874
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 04:42	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 04:41	Marie D Beamenderfer	5
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 09:48	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 02:24	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:11	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-18-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 16:10

Chevron
ELLE Sample #: GW 1130875
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	3	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
	The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.				
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 21:52	Kathrine K Muramatsu	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 21:51	Kathrine K Muramatsu	1

Sample Description: **MW-18-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 16:10

Chevron
ELLE Sample #: GW 1130875
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/23/2019 23:52	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/23/2019 23:51	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 10:04	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 02:47	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:14	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-19-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 17:00

Chevron
ELLE Sample #: GW 1130876
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	26	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	47	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	5192392AA	08/27/2019 22:12	Kathrine K Muramatsu	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5192392AA	08/27/2019 22:11	Kathrine K Muramatsu	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 00:15	Marie D Beamenderfer	1

Sample Description: **MW-19-W-190813 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 17:00

Chevron
ELLE Sample #: GW 1130876
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 00:14	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 10:19	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 03:10	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:18	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-22-W-190814 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/14/2019 13:30

Chevron
ELLE Sample #: GW 1130877
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	10	2	10
11997	1,2-Dichloroethane	107-06-2	N.D.	3	10
11997	cis-1,2-Dichloroethene	156-59-2	740	2	10
11997	trans-1,2-Dichloroethene	156-60-5	6	2	10
11997	Ethylbenzene	100-41-4	N.D.	4	10
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	10
11997	Tetrachloroethene	127-18-4	N.D.	2	10
11997	Toluene	108-88-3	N.D.	2	10
11997	Trichloroethene	79-01-6	370	2	10
11997	Vinyl Chloride	75-01-4	5	2	10
11997	Xylene (Total)	1330-20-7	N.D.	14	10
	The reporting limits for the GC/MS volatile compounds were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	39	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	45	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	L192403AA	08/28/2019 22:00	Kevin A Sposito	10

Sample Description: **MW-22-W-190814 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/14/2019 13:30

Chevron
ELLE Sample #: GW 1130877
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L192403AA	08/28/2019 21:59	Kevin A Sposito	10
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 00:37	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 00:36	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 10:35	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 03:33	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:21	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-20-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 10:10

Chevron
ELLE Sample #: GW 1130878
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	7	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	0.5	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	64	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	13	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	30	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D2	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	45	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 09:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 09:07	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 00:59	Marie D Beamenderfer	1

Sample Description: **MW-20-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 10:10

Chevron
ELLE Sample #: GW 1130878
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 00:58	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 10:51	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 03:55	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:24	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-23-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 11:15

Chevron
ELLE Sample #: GW 1130879
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	19	0.2	1
11997	1,2-Dichloroethane	107-06-2	1	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	340	2	10
11997	trans-1,2-Dichloroethene	156-60-5	2	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1
11997	Toluene	108-88-3	0.2	0.2	1
11997	Trichloroethene	79-01-6	23	0.2	1
11997	Vinyl Chloride	75-01-4	16	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	49	1
12899	DX HRO C24-C40	n.a.	N.D.	110	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 07:25	Anita M Dale	1
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192411AA	08/29/2019 15:30	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 07:24	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	P192411AA	08/29/2019 15:29	Anita M Dale	10

Sample Description: **MW-23-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 11:15

Chevron
ELLE Sample #: GW 1130879
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 01:21	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 01:20	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 11:07	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 04:18	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:27	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-21-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 13:00

Chevron
ELLE Sample #: GW 1130880
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	0.4	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	2	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	4	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 07:51	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 07:50	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 01:44	Marie D Beamenderfer	1

Sample Description: **MW-21-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 13:00

Chevron
ELLE Sample #: GW 1130880
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 01:43	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 11:23	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 04:41	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:30	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-17-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 14:00

Chevron
ELLE Sample #: GW 1130881
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	6	0.2	1
11997	1,2-Dichloroethane	107-06-2	0.5	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	52	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	0.8	0.2	1
11997	Ethylbenzene	100-41-4	14	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	7	0.2	1
11997	Toluene	108-88-3	0.2	0.2	1
11997	Trichloroethene	79-01-6	3	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	6	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	500	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	710	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 09:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 09:33	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 02:06	Marie D Beamenderfer	1

Sample Description: **MW-17-W-190815 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/15/2019 14:00

Chevron
ELLE Sample #: GW 1130881
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 02:05	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 11:39	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 05:04	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:33	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-29-W-190816 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/16/2019 08:46

Chevron
ELLE Sample #: GW 1130882
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	N.D.	0.2	1
11997	1,2-Dichloroethane	107-06-2	4	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1
11997	Toluene	108-88-3	N.D.	0.2	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1
11997	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	46	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 10:00	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 09:59	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 02:28	Marie D Beamenderfer	1

Sample Description: **MW-29-W-190816 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/16/2019 08:46

Chevron
ELLE Sample #: GW 1130882
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 02:27	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 11:54	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 05:27	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:36	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **MW-25-W-190816 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/16/2019 10:30

Chevron
ELLE Sample #: GW 1130883
ELLE Group #: 2059759
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
11997	Benzene	71-43-2	57	0.2	1
11997	1,2-Dichloroethane	107-06-2	3	0.3	1
11997	cis-1,2-Dichloroethene	156-59-2	1,200	2	10
11997	trans-1,2-Dichloroethene	156-60-5	82	0.2	1
11997	Ethylbenzene	100-41-4	10	0.4	1
11997	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
11997	Tetrachloroethene	127-18-4	24	0.2	1
11997	Toluene	108-88-3	4	0.2	1
11997	Trichloroethene	79-01-6	320	2	10
11997	Vinyl Chloride	75-01-4	150	0.2	1
11997	Xylene (Total)	1330-20-7	2	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	250	19	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D2	0.0095	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	47	1
12899	DX HRO C24-C40	n.a.	N.D.	100	1
Metals Dissolved	**SW-846 6010D Rev.4, July 2014**		**ug/l**	**ug/l**	
07055	Lead	7439-92-1	N.D.	7.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 10:26	Anita M Dale	1
11997	CVOCs+BTEX/MTBE/EDC	SW-846 8260C	1	P192401AA	08/28/2019 10:52	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	P192401AA	08/28/2019 10:25	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	P192401AA	08/28/2019 10:51	Anita M Dale	10

Sample Description: **MW-25-W-190816 Grab Groundwater**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/16/2019 10:30

Chevron
ELLE Sample #: GW 1130883
ELLE Group #: 2059759
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/24/2019 03:13	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/24/2019 03:12	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	192340021A	08/24/2019 12:10	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	192340021A	08/23/2019 04:00	Mathias Okpo	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	192350031A	08/28/2019 05:50	Heather E Williams	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	192350031A	08/26/2019 03:00	Mathias Okpo	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	192351404401	08/25/2019 07:46	Cindy M Gehman	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192351404401	08/23/2019 15:30	Barbara A Kane	1

Sample Description: **QA-1-T-190813 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/13/2019 08:00

Chevron
ELLE Sample #: GW 1130884
ELLE Group #: 2059759
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	0.2	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
	The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1
	The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.				

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192352AA	08/23/2019 18:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192352AA	08/23/2019 18:45	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/23/2019 23:08	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/23/2019 23:07	Marie D Beamenderfer	1

Sample Description: **QA-2-T-190814 NA Water**
Facility# 90129
4700 Brooklyn Ave - Seattle, WA

Chevron
ELLE Sample #: GW 1130885
ELLE Group #: 2059759
Matrix: Water

Project Name: **90129**

Submittal Date/Time: 08/20/2019 10:10
Collection Date/Time: 08/14/2019 08:00

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	0.2	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1
13130	Toluene	108-88-3	0.3	0.2	1
13130	Xylene (Total)	1330-20-7	N.D.	1	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	1

The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F192392AA	08/27/2019 12:32	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F192392AA	08/27/2019 12:31	Alexander D Sechrist	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19235B20A	08/23/2019 23:30	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030C	1	19235B20A	08/23/2019 23:29	Marie D Beamenderfer	1

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Matrix QC may not be reported if insufficient sample or 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.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: 5192392AA	Sample number(s): 1130871-1130876	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	0.3
cis-1,2-Dichloroethene	N.D.	0.2
trans-1,2-Dichloroethene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Methyl Tertiary Butyl Ether	N.D.	0.2
Tetrachloroethene	N.D.	0.2
Toluene	N.D.	0.2
Trichloroethene	N.D.	0.2
Vinyl Chloride	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: F192352AA	Sample number(s): 1130884	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Toluene	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: F192392AA	Sample number(s): 1130885	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Toluene	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: L192403AA	Sample number(s): 1130877	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	0.3
cis-1,2-Dichloroethene	N.D.	0.2
trans-1,2-Dichloroethene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Methyl Tertiary Butyl Ether	N.D.	0.2
Tetrachloroethene	N.D.	0.2
Toluene	N.D.	0.2
Trichloroethene	N.D.	0.2
Vinyl Chloride	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: P192401AA	Sample number(s): 1130878-1130883	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	0.3

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
cis-1,2-Dichloroethene	N.D.	0.2
trans-1,2-Dichloroethene	N.D.	0.2
Ethylbenzene	N.D.	0.4
Methyl Tertiary Butyl Ether	N.D.	0.2
Tetrachloroethene	N.D.	0.2
Toluene	N.D.	0.2
Trichloroethene	N.D.	0.2
Vinyl Chloride	N.D.	0.2
Xylene (Total)	N.D.	1
Batch number: P192411AA	Sample number(s): 1130879	
cis-1,2-Dichloroethene	N.D.	0.2
Batch number: 19235B20A	Sample number(s): 1130871-1130885	
NWTPH-Gx water C7-C12	N.D.	19
Batch number: 192340021A	Sample number(s): 1130871-1130883	
Ethylene dibromide	N.D.	0.010
Batch number: 192340012A	Sample number(s): 1130871-1130873	
DX DRO C12-C24	N.D.	45
DX HRO C24-C40	N.D.	100
Batch number: 192350031A	Sample number(s): 1130874-1130883	
DX DRO C12-C24	N.D.	45
DX HRO C24-C40	N.D.	100
Batch number: 192351404401	Sample number(s): 1130871-1130883	
Lead	N.D.	7.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5192392AA	Sample number(s): 1130871-1130876								
Benzene	20	20.27	20	20.54	101	103	80-120	1	30
1,2-Dichloroethane	20	19.1	20	18.74	96	94	73-124	2	30
cis-1,2-Dichloroethene	20	21.4	20	21.36	107	107	80-125	0	30
trans-1,2-Dichloroethene	20	19.6	20	19.83	98	99	80-126	1	30
Ethylbenzene	20	20.24	20	20.4	101	102	80-120	1	30
Methyl Tertiary Butyl Ether	20	18.19	20	17.87	91	89	69-122	2	30
Tetrachloroethene	20	19.58	20	19.79	98	99	80-120	1	30
Toluene	20	20.64	20	20.95	103	105	80-120	1	30
Trichloroethene	20	19.84	20	19.76	99	99	80-120	0	30

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	20	19.37	20	19.33	97	97	56-120	0	30
Xylene (Total)	60	62.04	60	62.62	103	104	80-120	1	30
Batch number: F192352AA	Sample number(s): 1130884								
Benzene	20	19.12			96		80-120		
Ethylbenzene	20	18.19			91		80-120		
Toluene	20	18.59			93		80-120		
Xylene (Total)	60	53.72			90		80-120		
Batch number: F192392AA	Sample number(s): 1130885								
Benzene	20	19.73	20	19.61	99	98	80-120	1	30
Ethylbenzene	20	18.94	20	18.94	95	95	80-120	0	30
Toluene	20	19.32	20	19.16	97	96	80-120	1	30
Xylene (Total)	60	55.74	60	55.62	93	93	80-120	0	30
Batch number: L192403AA	Sample number(s): 1130877								
Benzene	20	21.02			105		80-120		
1,2-Dichloroethane	20	21.2			106		73-124		
cis-1,2-Dichloroethene	20	23.64			118		80-125		
trans-1,2-Dichloroethene	20	19.98			100		80-126		
Ethylbenzene	20	20.69			103		80-120		
Methyl Tertiary Butyl Ether	20	19.77			99		69-122		
Tetrachloroethene	20	21.42			107		80-120		
Toluene	20	21.11			106		80-120		
Trichloroethene	20	20.9			104		80-120		
Vinyl Chloride	20	20.32			102		56-120		
Xylene (Total)	60	62.98			105		80-120		
Batch number: P192401AA	Sample number(s): 1130878-1130883								
Benzene	20	21.47			107		80-120		
1,2-Dichloroethane	20	23.42			117		73-124		
cis-1,2-Dichloroethene	20	22.35			112		80-125		
trans-1,2-Dichloroethene	20	19.2			96		80-126		
Ethylbenzene	20	21.18			106		80-120		
Methyl Tertiary Butyl Ether	20	20.28			101		69-122		
Tetrachloroethene	20	20.68			103		80-120		
Toluene	20	21.84			109		80-120		
Trichloroethene	20	20.43			102		80-120		
Vinyl Chloride	20	16.12			81		56-120		
Xylene (Total)	60	60.13			100		80-120		
Batch number: P192411AA	Sample number(s): 1130879								
cis-1,2-Dichloroethene	20	23.39			117		80-125		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19235B20A	Sample number(s): 1130871-1130885								

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
NWTPH-Gx water C7-C12	1100	1162.84	1100	1157.27	106	105	64-131	0	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 192340021A	Sample number(s): 1130871-1130883								
Ethylene dibromide	0.128	0.167	0.128	0.173	131	135	60-140	3	20
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 192340012A	Sample number(s): 1130871-1130873								
DX DRO C12-C24	600.1	227.3	600.1	255.9	38	43	11-115	12	20
Batch number: 192350031A	Sample number(s): 1130874-1130883								
DX DRO C12-C24	600.1	371	600.1	416.69	62	69	11-115	12	20
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 192351404401	Sample number(s): 1130871-1130883								
Lead	150	146.69			98		87-113		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: P192401AA	Sample number(s): 1130878-1130883 UNSPK: 1130880									
Benzene	N.D.	20	22.75	20	22.61	114	113	80-120	1	30
1,2-Dichloroethane	N.D.	20	22.74	20	23.86	114	119	73-124	5	30
cis-1,2-Dichloroethene	0.448	20	23.69	20	23.78	116	117	80-120	0	30
trans-1,2-Dichloroethene	N.D.	20	19.44	20	20.13	97	101	80-120	3	30
Ethylbenzene	N.D.	20	22.38	20	22.32	112	112	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	20	18.8	20	20.34	94	102	69-122	8	30
Tetrachloroethene	1.57	20	24.39	20	23.68	114	111	80-120	3	30
Toluene	N.D.	20	23.18	20	23.2	116	116	80-120	0	30
Trichloroethene	3.78	20	25.21	20	24.86	107	105	80-120	1	30
Vinyl Chloride	N.D.	20	17.38	20	18.38	87	92	56-120	6	30
Xylene (Total)	N.D.	60	64.32	60	63.34	107	106	80-120	2	30
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 192340021A	Sample number(s): 1130871-1130883 UNSPK: 1130871									
Ethylene dibromide	N.D.	0.122	0.124			102		60-140		

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 192340021A	Sample number(s): 1130871-1130883 BKG: 1130872			
Ethylene dibromide	N.D.	N.D.	0 (1)	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: CVOCs+BTEX/MTBE/EDC
Batch number: 5192392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130871	96	99	102	99
1130872	95	102	101	100
1130873	95	101	100	99
1130874	95	101	101	100
1130875	94	102	101	99
1130876	95	102	101	99
Blank	94	100	101	99
LCS	97	100	101	99
LCSD	96	102	101	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX 8260C
Batch number: F192352AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130884	91	95	102	98
Blank	91	93	102	99
LCS	91	99	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX 8260C
Batch number: F192392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130885	91	93	99	99
Blank	91	95	100	98
LCS	90	99	100	103
LCSD	90	98	100	102

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX 8260C
Batch number: F192392AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: CVOCs+BTEX/MTBE/EDC
Batch number: L192403AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130877	97	99	101	98
Blank	96	98	102	98
LCS	100	101	101	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: CVOCs+BTEX/MTBE/EDC
Batch number: P192401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1130878	97	106	105	99
1130879	96	104	105	100
1130880	98	104	104	98
1130881	98	107	103	102
1130882	98	105	104	100
1130883	98	106	105	103
Blank	97	105	104	100
LCS	99	109	106	105
MS	94	107	106	105
MSD	99	109	105	104
Limits:	80-120	80-120	80-120	80-120

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 19235B20A

	Trifluorotoluene-F
1130871	86
1130872	93
1130873	94
1130874	91
1130875	71
1130876	88
1130877	88
1130878	86
1130879	73
1130880	82
1130881	90
1130882	85

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 19235B20A

	Trifluorotoluene-F
1130883	77
1130884	90
1130885	94
Blank	88
LCS	93
LCSD	101
Limits:	50-150

Analysis Name: EDB by 8011
Batch number: 192340021A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1130871	86	94
1130872	102	124
1130873	107	123
1130874	105	123
1130875	96	100
1130876	96	99
1130877	96	100
1130878	95	98
1130879	89	91
1130880	87	90
1130881	89	99
1130882	92	94
1130883	94	95
Blank	106	107
DUP	100	120
LCS	118	120
LCSD	115	119
MS	104	110
Limits:	46-136	46-136

Analysis Name: NWTPH-Dx water
Batch number: 192340012A

	Orthoterphenyl
1130871	84
1130872	86
1130873	80
Blank	78
LCS	75
LCSD	77

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

Quality Control Summary

Client Name: Chevron
Reported: 10/17/2019 13:14

Group Number: 2059759

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Dx water
Batch number: 192340012A

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 192350031A

	Orthoterphenyl
1130874	93
1130875	85
1130876	88
1130877	88
1130878	88
1130879	88
1130880	88
1130881	90
1130882	88
1130883	88
Blank	90
LCS	90
LCSD	98
Limits:	50-150

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

Chevron Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 11255 For Eurofins Lancaster Laboratories Environmental use only Group # 2059759 Sample # 113087-95

Client Information

Facility # 90129 WBS

Site Address 4700 Brooklyn Ave

Chevron PM Tim Bishop Lead Consultant Leidos

Consultant/Office Leidos / Bothell, WA

Consultant Project Mgr. Ruth Otteman

Sampler R. Otteman and C. Wildt

State where samples were collected: Washington For Compliance: Yes ☒ No ☐

SCR #: _____

Matrix

Soil ☐ Sediment ☐ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ Oil ☐ Air ☐

Analyses Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers
MW-26-W-190813	8/13/19	0950	X		11
MW-27-W-190813		1115	X		11
MW-28-W-190813		1210	X		11
DUP-1-W-190813		1400	X		11
MW-18-W-190813		1610	X		11
MW-19-W-190813	↓	1700	X		11
MW-22-W-190814	8/14/19	1330	X		11
MW-20-W-190815	8/15/19	1010	X		11
MW-23-W-190815	8/15/19	1115	X		11
MW-21-W-190815	8/15/19	1300	X		11

BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☒ — 8260 full scan CVOCs by 8260B — Oxygenates ____ — TPH-GRO 8015 ☐ 8260 ☐ NWTPH — TPH-DRO without Silica Gel Cleanup NWTPH — TPH-DRO with Silica Gel Cleanup ☐ — VPH ☐ EPH ☐ Method ____ — Lead Total ☐ Diss. ☒ Method 6010B — EDC by 8260 — EDB by EPA 8011

Preservation Codes

H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 P = H_3PO_4
F = Field Filtered O = Other

☐ Results in Dry Weight

☐ J value reporting needed

☐ Must meet lowest detection limits possible for 8260 compounds

Remarks

lab filtered lead

Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day
72 hour 48 hour 24 hour

Data Package (circle if required)

Type I - Full Type III Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default) Other: _____

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8/1/19	1400			
Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____			Received by [signature]	8-20-19	1010

Temperature Upon Receipt 17.5 °C

Custody Seals Intact? Yes No

Chevron Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 11255 — For Eurofins Lancaster Laboratories Environmental use only — Group # 2059759 — Sample # 113087-85

SCR #: _____

Client Information

Facility # 90129 — WBS

Site Address: 4700 Brooklyn Ave

Chevron PM: Tim Bishop — Lead Consultant: Leidos

Consultant/Office: Leidos / Bothell, WA

Consultant Project Mgr.: Ruth Otterman

Sampler: Rotterman and C. Waldt

State where samples were collected: Washington — For Compliance: Yes ☒ No ☐

Matrix

Soil ☐ Sediment ☐ Water ☒ Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Oil ☐ Air ☐

Preservation Codes

H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, F = Field Filtered, O = Other

☐ Results in Dry Weight

☐ J value reporting needed

☐ Must meet lowest detection limits possible for 8260 compounds

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth	8260 full scan	Oxygenates	TPH-GRO 8015 ☐ 8260 ☐ NWTPH	TPH-DRO without Silica Gel Cleanup ☒	TPH-DRO with Silica Gel Cleanup ☐	VPH ☐ EPH ☐ Method	Lead Total ☐ Diss. ☒ Method 6010B	EDC by 8260	EDB by EPA 8011	BTEX by EPA 8260
MW-17-W-190815	8/15/19	1400	X		11	X	X		X	X			X	X	X	X
MW-29-W-190816	8/16/19	0846	X		11	X	X		X	X			X	X	X	X
MW-25-W-190816	8/16/19	1030	X		11	X	X		X	X			X	X	X	X
TB-1-190813	8/13/19	0800	X		4	X			X							X
~~TB-2~~ TB-2-190814	8/14/19	0800	X		4	X			X							X

Ruth Otterman 8/19/19

Remarks

lab filtered lead

Turnaround Time Requested (TAT) (please circle)

Standard — 5 day — 4 day — 72 hour — 48 hour — 24 hour

Data Package (circle if required)

Type I - Full — Type III — Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default) — Other: _____

Relinquished by	Date	Time	Received by	Date	Time
Ruth Otterman	8/19/19	1400			

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____

Temperature Upon Receipt 12.5 °C

Received by — Date 8-20-19 — Time 1010

Custody Seals Intact? Yes No

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 257650

Group Number(s): 2059759

Client: Chevron

Delivery and Receipt Information

Delivery Method:	Fed-Ex 3	Arrival Timestamp:	08/20/2019 10:10
Number of Packages:	4	Number of Projects:	1
State/Province of Origin:	WA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	8
Samples Chilled:	Yes	Trip Blank Type:	HCl
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	No		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Darian Jaynes (29 952) at 15:39 on 08/20/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	0.5	DT	Wet	Y	Bagged	N
2	DT42-03	0.1	DT	Wet	Y	Bagged	N
3	DT42-03	0.1	DT	Wet	Y	Bagged	N
4	DT42-03	0.2	DT	Wet	Y	Bagged	N

Samples Not Intact Details

Sample ID on Label	Bottle Code	Bottle Quantity	Container Salvageable?	Comments
MW-28-W-190813	40 ml glass vial (GC/MS) - HCl	4	N	

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

From: Julia Schwarz
To: Myers, Dale - TCP (ECY)
Cc: Alice Robinson
Subject: RE: EIM Data Submission - Study ID AODE13815
Date: Monday, July 20, 2020 12:46:00 PM
Attachments: image001.png
image002.jpg

Dale,

We had several comments on the EIM data submission. Please see below. Please note that these comments were generated prior to receipt of the work plan and some may not be relevant now that we have added context.

- MW-27 and MW-28 have the same coordinates in EIMLocation. These should be fixed.
- MW-29 February 2020 results and duplicate (DUP-1_200218) are outside of usual RPD limits. Please verify results and/or parent and duplicate samples.
- Certain wells were resampled multiple times within the same month (MW-18 in December 2018, MW-25 in December 2018) – please check the dates on these entries.
- The water level measuring point file is included in the EIM upload, but the water levels as measured from those points (e.g. EIM_WellWaterLevelTemplate) is not included. Please include groundwater level measurement data in the EIM upload.

Without water level data, we cannot verify groundwater flow direction. Based on the EIM upload data alone, impacts to groundwater have not been fully delineated.

We will continue with our review of the work plan as well.

Thanks,
Julia

Julia Schwarz, L.G. | Project Manager
32001 32nd Ave S, Suite 100, Federal Way, WA 98001
Direct: (253) 835-6424
Teams: JuliaSchwarz@kennedyjenks.com

SERVICE | PURPOSE | TRUST KennedyJenks.com

From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Monday, June 22, 2020 11:20 AM
To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com>
Subject: FW: EIM Data Submission - Study ID AODE13815

Julia
Please have a look at the EIM data
I am looking for data gaps that would prevent us from defining the extent of TPH and benzene especially towards University Way
Dale

From: Sinclair, Gaylen (ECY)
Sent: Monday, June 22, 2020 9:01 AM
To: riku.kusakabe@arcadis.com
Cc: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Subject: EIM Data Submission - Study ID AODE13815

Good Morning Riku,

Thank you for submitting data for Former Chevron Station 90129. Submitted data for this study loaded into EIM successfully. The Ecology Project Manager will verify the data on study, locations, and results.

Below is further information on the loaded data.

Facility Site ID: 81966648

Study ID: AODE13815

Study Name: Former Chevron Service Station No. 90129

Date Range: Aug 2019, Dec 2019, Feb 2020, Apr 2020, May 2020

New Locations: 9

New Results: 982

Information for data submitter:

- You can view the data by using the following link. https://apps.ecology.wa.gov/eim/search/Map/Map.aspx?MapType=EIM&StudyUserIdSearchType=Contains&StudyUserIds=AODE13815&MapLocationExtent=-13615970.0419451%2c6050976.56175084%2c-13615851.7489737%2c6051079.89499462

Information for Ecology employees:

- You can view the data by using the following link. http://ecyeim/search/Map/Map.aspx?MapType=EIM&StudyUserIdSearchType=Contains&StudyUserIds=AODE13815&MapLocationExtent=-13615970.0419451%2c6050976.56175084%2c-13615851.7489737%2c6051079.89499462

- You should verify study, location, and result information.

- The EIM Data Entry Review Checklist, updated May 2018, can be found in the EIM Help Center.

- There is a video training on how to review the data.

Thanks,
Gaylen

Gaylen Sinclair, PhD
EIM Data Coordinator
Washington State Department of Ecology
300 Desmond Dr. SE, P.O. Box 47600
Olympia, WA 98504
e-mail: gsin461@ecy.wa.gov
Pronouns: She/her/hers

From: Julia Schwarz
To: Myers, Dale - TCP (ECY)
Cc: Ryan Hultgren
Subject: RE: Chevron 90129 4700 Brooklyn
Date: Tuesday, July 28, 2020 8:14:00 AM
Attachments: image002.png
image003.png
90129 Supplemental Investigation Work Plan_DRAFT_07142020_KJComments.pdf

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Dale,

Please find attached our comments on the Chevron 90129 Work Plan. In general, the work plan would benefit from additional discussion of the existing data and data gaps that the work plan and proposed activities will address, and additional detail explaining the reasoning for the well and SVP locations is necessary. Additional delineation in the up- and cross-gradient direction may also be warranted; if Chevron/Arcadis do not believe data gaps exist other than in the downgradient direction, evidence of that should be included in the work plan.

Also, should soil vapor samples be analyzed for HVOCs, or is delineation of HVOC the responsibility of the Carson Cleaners release? Currently HVOCs are not listed in the soil vapor analyte list, though they are for groundwater.

Please let us know any questions.

Thanks,
Julia

Julia Schwarz, L.G. | Project Manager
32001 32nd Ave S, Suite 100, Federal Way, WA 98001
Direct: (253) 835-6424
Teams: JuliaSchwarz@kennedyjenks.com

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From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Wednesday, July 15, 2020 7:01 AM
To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com>
Subject: FW: Chevron 90129 4700 Brooklyn

Julia
Please review and comment on the attached supplemental Investigation Work Plan.

In your opinion will this Work Plan accomplish the goal of completing the off-property RI
Thank you
Dale

From: Hamilton, Ada [mailto:Ada.Hamilton@arcadis.com]
Sent: Tuesday, July 14, 2020 5:28 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Cc: timbishop@chevron.com; Dotson, Christopher <Christopher.Dotson@arcadis.com>
Subject: Chevron 90129 4700 Brooklyn

Hello,

On behalf of Chevron, please find attached Draft Supplemental Investigation Work Plan for Chevron site 90129 located at 4700 Brooklyn Avenue NE in Seattle, Washington.

Please let me know if you have any questions, or if you would like to schedule a call to discuss.

Thank you,

-Ada

Ada Hamilton | Project Manager | ada.hamilton@arcadis.com
Arcadis | Arcadis U.S., Inc.
1100 Olive Way, Suite 800, Seattle, WA | 98101 | USA
T. +1 206 413 6430 | M. +1 206 321 3782

From: Julia Schwarz
To: Myers, Dale - TCP (ECY)
Cc: Katie Haskins
Subject: RE: Request assistance with Chevron 90129 figure
Date: Friday, January 15, 2021 8:04:00 AM
Attachments: image004.png
OffPropHVOC.jpg
image001.png

Dale,

Please find attached a draft map for Chevron 90129. Please let us know if you have any requested changes.

Thanks,
Julia

Julia Schwarz, LHG | Project Manager
32001 32nd Ave S, Suite 100, Federal Way, WA 98001
Direct: (253) 835-6424
Teams: JuliaSchwarz@kennedyjenks.com

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From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Wednesday, January 13, 2021 12:49 PM
To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com>
Subject: RE: Request assistance with Chevron 90129 figure

I believe those were borings made during the drilling of the wells
In the legend of the map just state wells and borings

From: Julia Schwarz [mailto:JuliaSchwarz@kennedyjenks.com]
Sent: Wednesday, January 13, 2021 12:41 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Cc: Katie Haskins <KatieHaskins@kennedyjenks.com>
Subject: RE: Request assistance with Chevron 90129 figure

Dale,

On the map that you sent us, the results boxes below each monitoring well list a boring/location

name different from the monitoring well - it appears that the results are for borings, not wells? What are these B- names and how to they relate to these wells? For example, the result below well MW-23 (bottom left corner) says, "**B-19**, cis - 340, TCE - 23, VC - 16".

Thanks,
Julia

Julia Schwarz, LHG | Project Manager
32001 32nd Ave S, Suite 100, Federal Way, WA 98001
Direct: (253) 835-6424
Teams: JuliaSchwarz@kennedyjenks.com

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From: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Sent: Tuesday, January 12, 2021 10:19 AM
To: Julia Schwarz <JuliaSchwarz@kennedyjenks.com>
Subject: Request assistance with Chevron 90129 figure

Julia
Time a little work on Chevron 90129
I would like to request assistance with Chevron 90129 figure

Dale Myers
Project Manager
Department of Ecology
Northwest Regional Office
Toxics Cleanup Program
Cell No.: 425-389-2521

From: Ryan Hultgren
To: Myers, Dale - TCP (ECY)
Cc: Joshua Sales
Subject: FW: Chevron 90129 (Brooklyn) draft Supplemental RI
Date: Friday, January 13, 2023 2:32:00 PM
Attachments: image002.png
DRAFT_Figures 1 and 2.pdf
90129 Supplemental Investigation Report_Draft_for_Regulatory_Review_KJ.docx
90129 Supplemental Investigation Report_Draft_for_Agency_Review_KJ.pdf

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Hi Dale,

Please find attached our tracked changes review of the Chevron 90129 (Brooklyn) Supplemental RI and comments to the tables and appendices. Also included are the draft figures I sent last week showing estimated extents of impacts. Please let me know when you would like to discuss the comments.

Thank you,
Ryan

Kennedy Jenks

Ryan Hultgren, P.E. | Project Manager

32001 32nd Avenue South, Suite 100
Federal Way, WA 98001
Direct: 253-835-6432
Mobile: 253-549-9725
Teams: RyanHultgren@KennedyJenks.com

From: Ryan Hultgren
Sent: Friday, January 6, 2023 4:40 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Hello Dale,

I wanted to provide an update on the status of KJ's review of the Chevron 90129 (Brooklyn) Supplemental RI. Due to staff holiday / vacation time, my goal is to get our comments and mapped data to you by Tuesday/Wednesday next week.

The Supplemental RI data is not available in EIM still – as such, we pulled data from the analytical tables in the report PDF and drafted impacts extents maps using data since December 2019 (with inset concentration trend graphs, concentrations on a logarithmic scale). Attached are draft maps for Benzene and GRO results – can you please review these and let me know if these are what you are looking for and if you have any changes / need additional information? For wells with mostly ND results, a concentration chart is not shown. The inferred extents are based on data for existing wells as well as consideration of results for former wells within the property extent.

Thank you,
Ryan

Ryan Hultgren, P.E. | Project Manager
32001 32nd Avenue South, Suite 100
Federal Way, WA 98001
Direct: 253-835-6432
Mobile: 253-549-9725
Teams: RyanHultgren@KennedyJenks.com

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From: Ryan Hultgren
Sent: Monday, December 12, 2022 1:50 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Good afternoon Dale,

I just checked EIM - the most recent data on EIM for Chevron 90129 (Brooklyn) is for groundwater sampling from December 2020. Can you please request the data from the Supplemental Investigation?

Study Details
Study ID: AODE13815

Download Study Data

Study Basics

Study ID	AODE13815
Study Name	Former Chevron Service Station No. 90129
EIM Data Entry Review Status	Not Reviewed
Study Type	Contaminated site investigation (characterization, includes RI/FS and remedial design)
Study Purpose	Removal of petroleum impacted soil, long term groundwater monitoring and soil borings to determine extent of impact.
Field Collection Date Range	11/7/2016 - 12/9/2020
Data First/Last Loaded Date	5/5/2017 - 2/3/2021
Data Last Updated Date	2/3/2021
Ecology Contact	Dale Myers
Ecology Program or Other Responsible Entity	Ecy Toxics Cleanup Program, Northwest Region
Ecology Monitoring Program	
Submitting Organization	Aspect Consulting LLC - Seattle WA
Study QA Planning Level	LEVEL 3: QAPP, SAP, or Equivalent.
Study QA Project Plan Description	
Study QA Assessment Level	Level 4: Data Verified and Assessed for Usability in a Formal Study Report
Study Result Description	
Study Comment	
Ecology Funding Number	
Ecology Facility/Site ID	81966648
Ecology Cleanup Site ID	5046
Study ID Aliases (Alias Type)	

Thank you,
Ryan

Ryan Hultgren, P.E. | Project Manager

32001 32nd Avenue South, Suite 100
Federal Way, WA 98001
Direct: 253-835-6432
Mobile: 253-549-9725
Teams: RyanHultgren@KennedyJenks.com

From: Ryan Hultgren
To: Myers, Dale - TCP (ECY)
Cc: Joshua Sales
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI
Date: Friday, February 10, 2023 6:17:00 AM
Attachments: image002.png
Draft_Figures_GWData_20230210.pdf

Good morning Dale,

Attached are revised draft figures (Figures 1, 2 and 3) presenting groundwater concentration data for benzene, TPH-GRO, and chlorinated VOCs (PCE, TCE, and VC on the same map).

Key edits –

- The aerial photograph is a more current view, circa June 2021
- The locations of monitoring wells have been revised based on review of well location data in EIM, Supplemental RI line drawing maps, and inspection in Google Earth in street view (some well monuments are visible). Please note that spatial data in the EIM database for several of the current wells is estimated and/or likely not accurate (for example, the latitude / longitude data for wells MW-27 and MW-28 are the same values). It is not clear if the location XY data in EIM is based on surveyed coordinates or estimated (GPS) locations.
- Inferred extents of benzene on Figure 1 and TPH-GRO on Figure 2 have been revised to reflect the excavation extent of the former Chevron site.
- Figure 3 for CVOCs is new –
    - The map uses pie chart symbols to present the magnitude of the total sum of PCE, TCE, and VC concentrations (higher total concentrations result in larger circle diameter), and the relative size of the pie wedges is based on the concentrations of PCE, TCE, and VC.
    - Note that the dominant CVOC changes from PCE near the suspected source, to TCE in the middle of the inferred plume (e.g., near MW-28 and MW-27), and to VC near the distal end of the plume (to the east), reflecting degradation from the source to plume end.
    - The most recent data available for each well is shown, except for MW-20 (June 2022 data shown). PCE and TCE concentrations decreased from above CULs between December 2019 and June 2022, to non-detect in August 2022.

Please let me know if you would like to discuss the figures (we could squeeze it into our call on Monday).

Thank you,
Ryan

Kennedy Jenks

Ryan Hultgren, P.E. | Project Manager

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Federal Way, WA 98001
Direct: 253-835-6432
Mobile: 253-549-9725
Teams: RyanHultgren@KennedyJenks.com

From: Ryan Hultgren
Sent: Friday, January 13, 2023 2:33 PM
To: Myers, Dale - TCP (ECY) <damy461@ecy.wa.gov>
Cc: Joshua Sales <JoshuaSales@KennedyJenks.com>
Subject: FW: Chevron 90129 (Brooklyn) draft Supplemental RI

Hi Dale,

Please find attached our tracked changes review of the Chevron 90129 (Brooklyn) Supplemental RI and comments to the tables and appendices. Also included are the draft figures I sent last week showing estimated extents of impacts. Please let me know when you would like to discuss the comments.

Thank you,
Ryan

Kennedy Jenks

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Direct: 253-835-6432
Mobile: 253-549-9725
Teams: RyanHultgren@KennedyJenks.com

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Sent: Friday, January 6, 2023 4:40 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
Subject: RE: Chevron 90129 (Brooklyn) draft Supplemental RI

Hello Dale,

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Ryan

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From: Ryan Hultgren
Sent: Monday, December 12, 2022 1:50 PM
To: Myers, Dale - TCP (ECY) <DAMY461@ECY.WA.GOV>
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Ecology Program or Other Responsible Entity	Ecy Toxics Cleanup Program, Northwest Region
Ecology Monitoring Program	
Submitting Organization	Aspect Consulting LLC - Seattle WA
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Study QA Project Plan Description	
Study QA Assessment Level	Level 4: Data Verified and Assessed for Usability in a Formal Study Report
Study Result Description	
Study Comment	
Ecology Funding Number	
Ecology Facility/Site ID	81966648
Ecology Cleanup Site ID	5046
Study ID Aliases (Alias Type)	

Thank you,
Ryan

Kennedy Jenks

Ryan Hultgren, P.E. | Project Manager

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Direct: 253-835-6432
Mobile: 253-549-9725
Teams: RyanHultgren@KennedyJenks.com

From:	Hamilton, Ada
To:	Myers, Dale - TCP (ECY)
Cc:	Kiernan, James; Bowring, Amanda; Ryan Hultgren
Subject:	Chevron 90129 4700 Brooklyn - Status Update 04172023
Date:	Monday, April 17, 2023 6:18:22 PM
Attachments:	Chevron Brooklyn 90129 - Status Update_04172023.pdf

Hello Dale,

On behalf of Chevron Environmental Management Company (CEMC), the following is a progress update for Chevron site 90129 ("Brooklyn") located at 4700 Brooklyn Avenue NE in Seattle, Washington. This update satisfies the requirements of Agreed Order No. 13815 associated with the site which indicates that quarterly progress reports be submitted to the Washington State Department of Ecology by the 15th of the month following the reporting period. This update summarizes activities completed from January 1 through March 31, 2023.

Description of Actions Taken to Comply with Agreed Order

- Quarterly groundwater monitoring was scheduled for December 21, 2022; however, due to inclement winter weather conditions, it was rescheduled to take place January 4, 2023.
- Q1 2023 groundwater monitoring event was conducted on March 15, 2023
- Arcadis received comments from Ecology on the Supplemental Remedial Investigation Report in January 2023
- Arcadis submitted groundwater data to EIM

Summary of Deviations from Approved Work Plans

- No deviations from approved work plans to report.

Description of Work Planned for the Second Quarter Reporting Period

- Arcadis will submit the revised Supplemental Remedial Investigation Report with responses to Ecology's comments
- Arcadis will continue to prepare and submit quarterly updates to Ecology.
- Arcadis will coordinate and conduct the second quarter 2023 groundwater monitoring event

Please let me know if you have any questions.

Thank you

-Ada

Ada Hamilton

Project Manager
Arcadis U.S., Inc.
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M +1 206 321 3782
www.arcadis.com