

KAISER-FRANCIS OIL COMPANY

P. O. BOX 21468

TULSA, OKLAHOMA 74121-1468

6733 South Yale Avenue, 74136  
(918) 494-0000

State of New Mexico  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505


Re: Williams Fee 2524 LBC 1H Spill Report  
Tracking Number NRM2010460118  
Form C-141 Site Assessment/Characterization and Remediation Plan

Kaiser-Francis Oil Company is submitting the attached Portion of Form C-141 on Site Assessment/Characterization and the section on Remediation Plan. The spill area has been delineated both vertically and horizontally. Attached are the report from the Environmental Consultant along with the laboratory report on the samples collected. We have included the required topo, maps, and data table.

There is a flare and flare line that runs through the spill area so we are asking to defer clean up immediately around the flare and flare line until site is reclaimed as shown in the enclosed Figure 3. Part of the surrounding contaminated soils were dug up and hauled to R360 during the initial response. The remaining soils will be cleaned up by insitu method using the Micro-Blaze product. Our plan is to inject the Micro-Blaze to the depth necessary based on the site plan showing the contaminant levels. Once the product is put in place we will come back in 6-months and resample to determine the level of bioremediation that has occurred. Future sampling events or additional injection of the product will be determined on those lab results.

We have included a map showing the requested deferral area and the remaining treatment area. Please let us know if this plan is acceptable.

Sincerely,



Charles W. Lock

Kaiser-Francis Oil Company

Cc: Mike Bratcher  
District 2 – Artesia  
811 S. First St.  
Artesia, NM 88210

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	~42 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist:** *Each of the following items must be included in the report.*

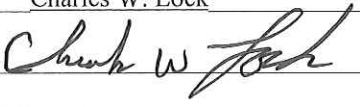
- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Charles W. Lock Title: EH&S Manager  
 Signature:  Date: 6-30-2020  
 email: Charlesl@kfoc.net Telephone: 918-491-4337

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_



State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Charles Lock Title: EH&S Manager

Signature:  Date: 6-30-2020

email: Charlesl@kfoc.net Telephone: 918-491-4337

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Memo

**To:** Charles Lock, Kaiser-Francis Oil Company

**From:** Sharlene Harvester, Wescom Inc.

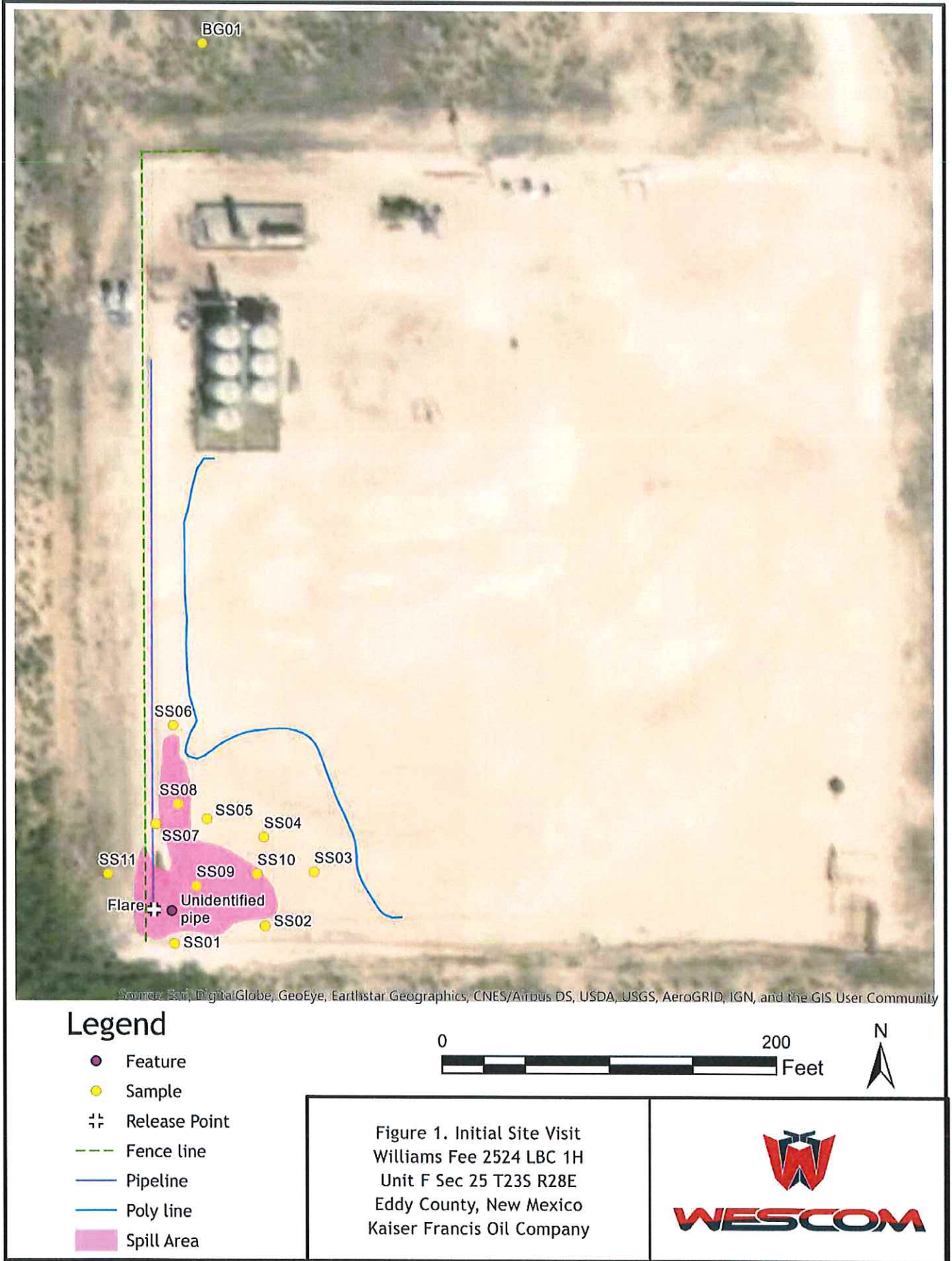
**CC:** Aaron Daniels, Kaiser-Francis Oil Company; Kevin Waliezer, Wescom Inc.; Shane Stolp, Wescom Inc.

**Date:** May 25, 2020

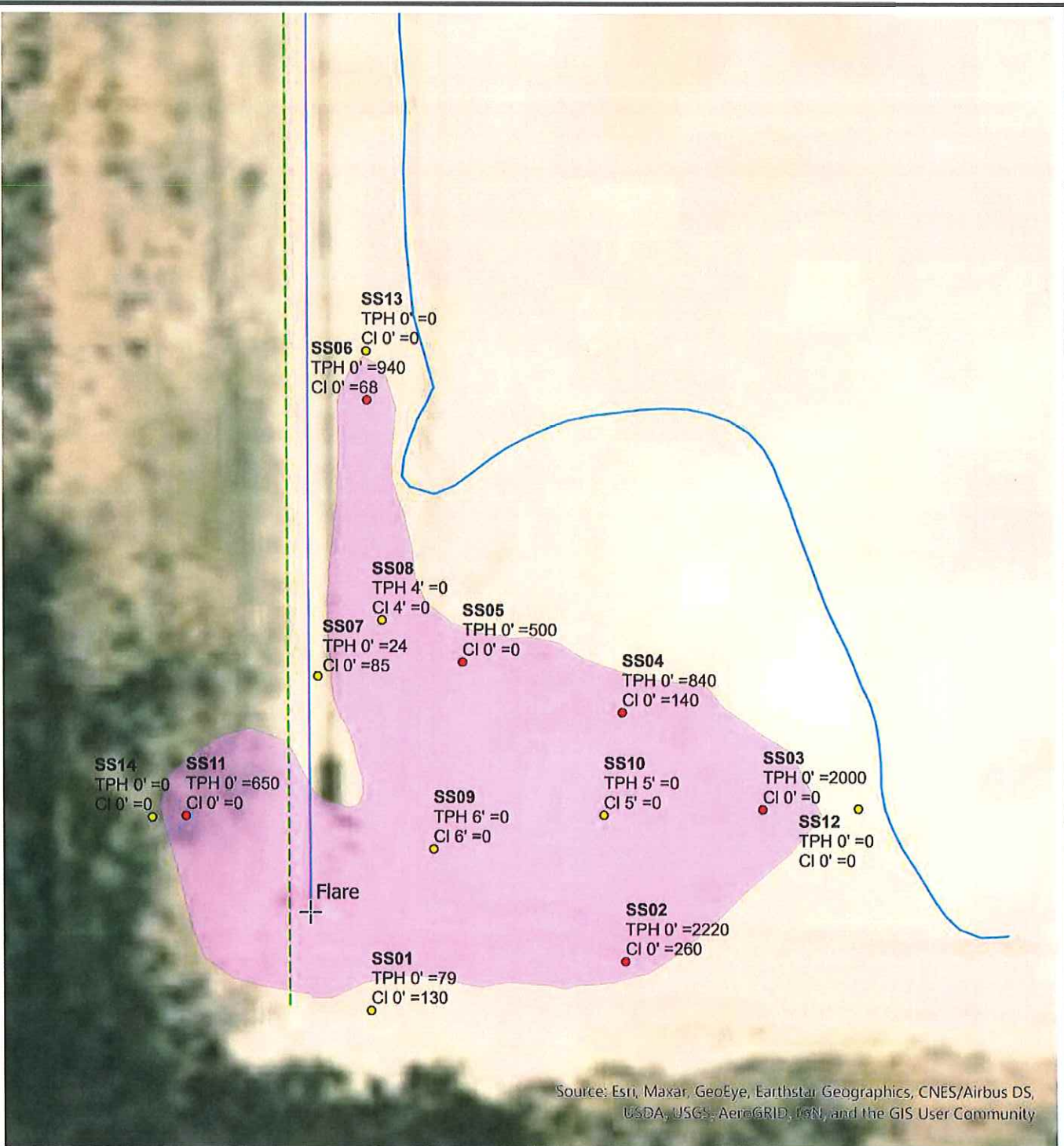
**Re:** Williams Fee 2524 LBC 1H Heater Treater Spill - Delineation

Delineation of the heater treater backflow spill that occurred on April 4, 2020 at Williams Fee 2524 LBC 1H was completed on Friday May 15, 2020. Laboratory analysis results were received May 19, 2020. Horizontal and vertical extent of the original spill area is indicated on the attached Figure 2 as yellow highlighted sample points. Greatest vertical depth is at six feet below ground surface at sample point SS09. An estimated volume of 1,500 cubic yards of impacted soil will need to be removed, or otherwise remediated, to comply with New Mexico Oil Conservation District (NMOCD) regulation 19.15.29.11(B) and 19.15.29.12(C) NMAC, which would impact current infrastructure of the flare and gas lines within the spill area.

Attachments: Figure 1. Initial Site Visit  
Figure 2. Delineation  
Table 1. Laboratory Analysis Results: Spill Delineation







### Legend

- +— Point of Release
- Approx. Area of Impact = 9,900 sq. ft.
- Fence line
- Pipeline
- Poly line
- TPH ≤100 ppm
- TPH >100 ppm

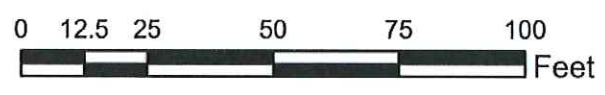


Figure 2. Delineation  
Williams Fee 2524 LBC 1H  
Unit F Sec 25 T23S R28E  
GPS Coord.: 32.276667, -104.0427778  
Eddy County, New Mexico  
Kaiser Francis Oil Company



Carlsbad, NM  
Duluth, MN  
New Town Williston, ND



(575) 840-3940  
(218) 724-1322  
(701) 225-7847  
wescominc.com

Williams Fee 2524 LBC 1H - Heater Treater Spill Kaiser-Francis Oil Company May 20th, 2020						
Table 1. Laboratory Analysis Results: Spill Delineation						
Sample Description			Petroleum Hydrocarbons		Inorganic	
Sample ID	Depth (ft.)	Date	Volatile		Extractable	Chloride
			Benzene (mg/kg)	BTEX (total) (mg/kg)	TPH (mg/kg)	
Closure Criteria			10	50	100	600
Lab Order: 2004C22 Hall Environmental Analysis Laboratory Inc.						
SS01	0-0.5	4/28/2020	ND	ND	79	130
SS02	0-0.5	4/28/2020	ND	0.57	2220	260
SS03	0-0.5	4/28/2020	ND	0.13	2000	ND
SS04	0-0.5	4/28/2020	ND	0.16	840	140
SS05	0-0.5	4/28/2020	ND	ND	500	ND
SS06	0-0.5	4/28/2020	ND	ND	940	68
SS07	0-0.5	4/28/2020	ND	ND	24	85
SS08	2	4/28/2020	ND	4.63	4500	120
SS08	6	5/15/2020	ND	ND	ND	ND
SS09	3	4/28/2020	ND	8.79	3670	ND
SS09	4	5/15/2020	ND	ND	ND	ND
SS10	1	4/28/2020	ND	0.46	1640	61
SS10	5	5/15/2020	ND	ND	ND	ND
SS11	0-0.5	4/28/2020	ND	0.323	650	ND
SS12	0-0.5	5/15/2020	ND	ND	ND	ND
SS13	0-0.5	5/15/2020	ND	ND	ND	ND
SS14	0-0.5	5/15/2020	ND	ND	ND	ND
BG01	2	4/28/2020	ND	ND	ND	ND



**Carlsbad, NM**  
**New Town & Williston, ND**  
**Duluth, MN**



**(218) 724-1322**  
**(701) 225-7847**  
**wescominc.com**

5/15/2020  
WILLIAMS FEE ITT

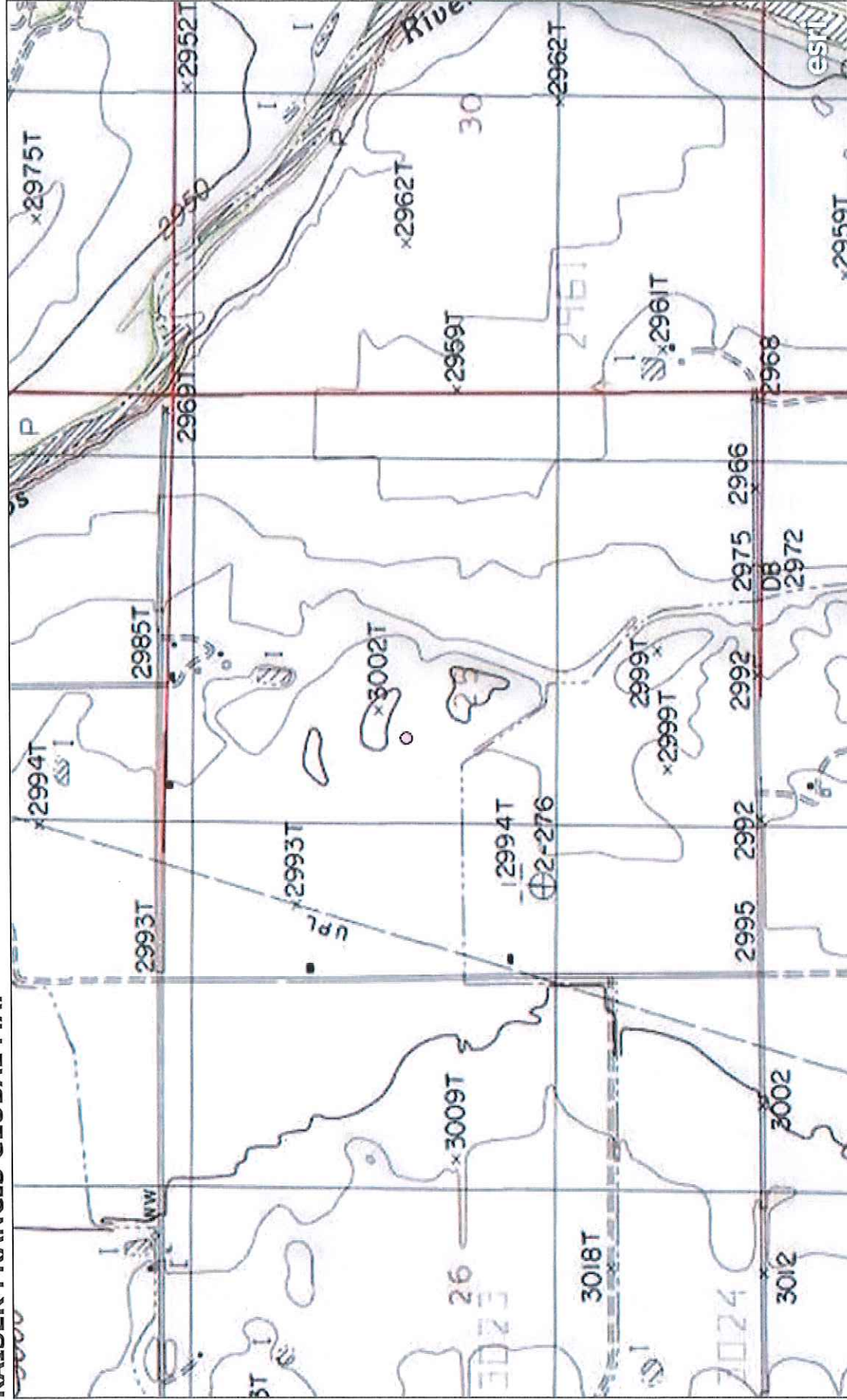
[illegible]

*Safely serving the best companies with unmatched quality and service*

4/8/2020

KAISER FRANCIS GLOBAL MAP

# KAISER FRANCIS GLOBAL MAP

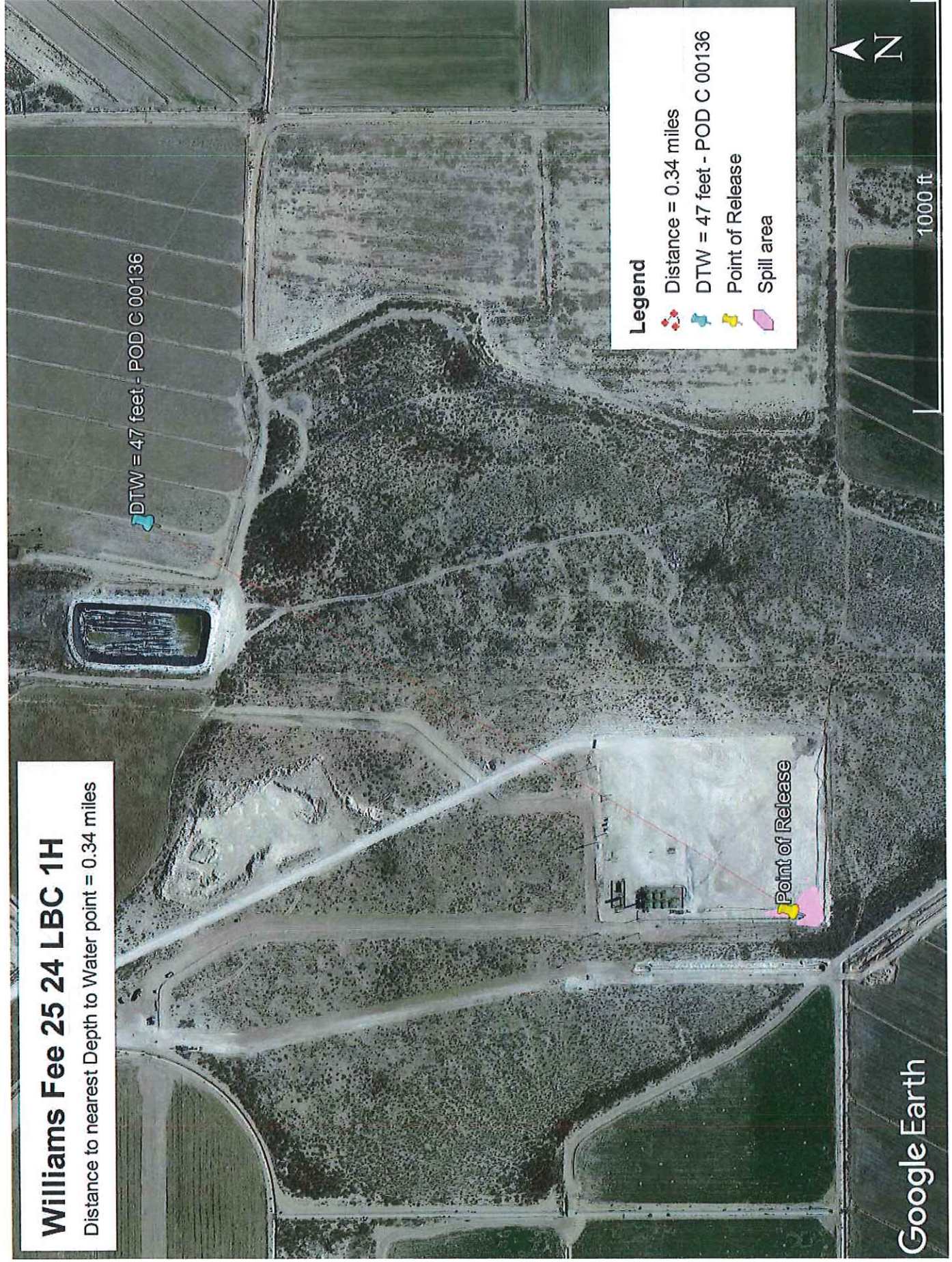


KAISER FRANCIS GLOBAL MAP AS OF 3-31-2020

0.3mi

Copyright: © 2013 National Geographic Society, i-cubed









## New Mexico Office of the State Engineer

# Wells with Well Log Information

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

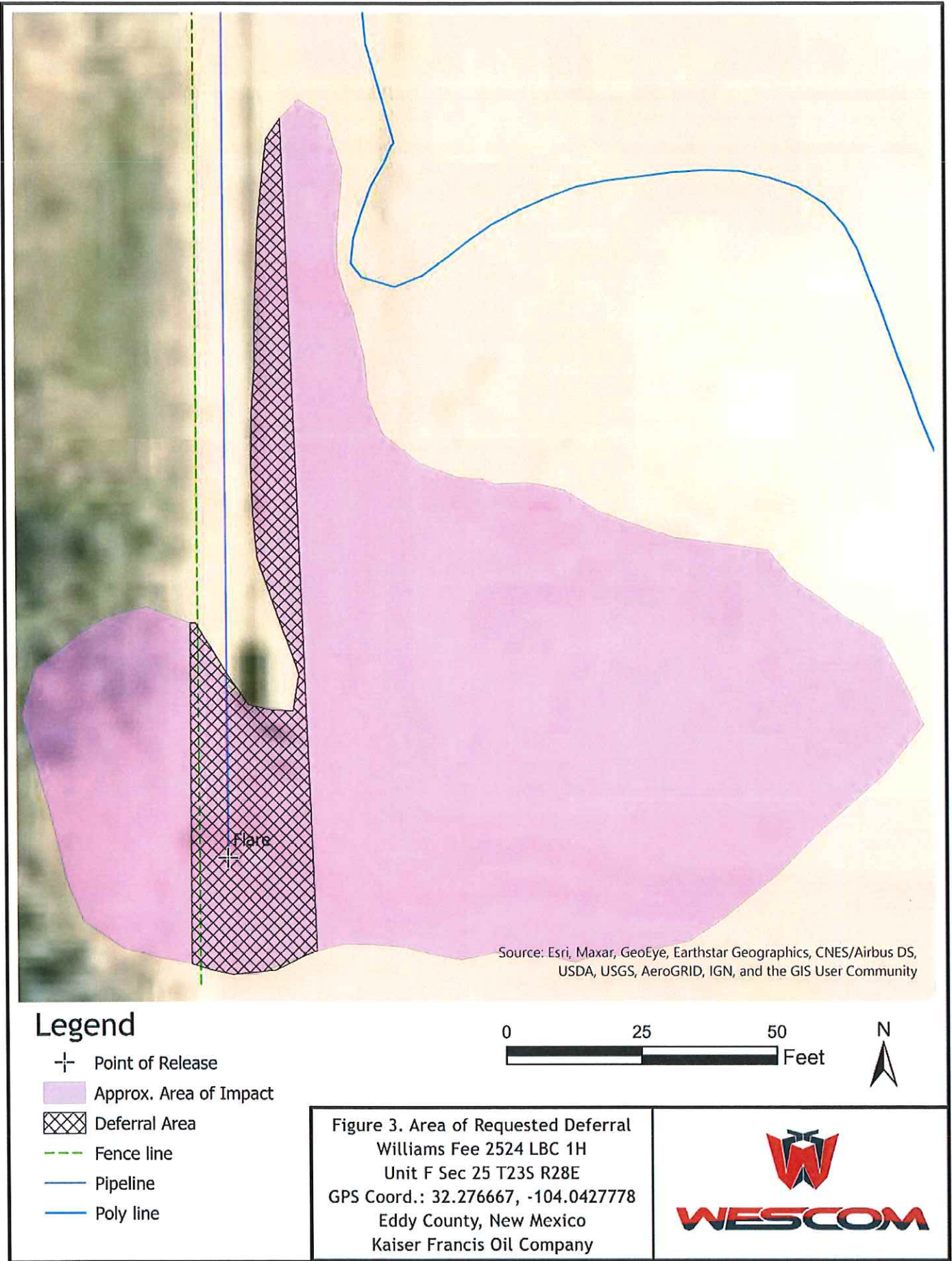
POD	Sub-	Code	basin	County	Source	q	q	q	q	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File	Depth	Depth	Driller	License
POD Number																			Well	Water		Number
<a href="#">C 03001 EXPLORE</a>	CUB	ED	Shallow	1	1	4	25	23S	28E				590430	3571355*	332	09/10/2003	09/24/2003	10/20/2003	140		HAMMOND, JOHN B.	1227
<a href="#">C 00136</a>	CUB	ED	Shallow	3	1	2	25	23S	28E				590426	3571967*	444	06/20/2002	07/09/2002	08/19/2002	200	42	BEHUNIN,KEITH	1227
<a href="#">C 01443</a>	C	ED	Shallow	2	1	25	23S	28E					590123	3572064*	480	10/27/1970	11/08/1970	11/17/1970	50	27	BARRON, EMMETT	30
<a href="#">C 00136 S</a>	CUB	ED	Shallow	1	1	2	25	23S	28E				590426	3572167*	623	04/05/1976	08/24/1964	05/28/1976	122	45	HOWARD HEMLER.	24
<a href="#">C 03535 POD1</a>	C	ED	Shallow	4	3	3	25	23S	28E				589860	3570751	901	04/06/2012	04/08/2012	04/26/2012	210	25	TAYLOR, ROY ALLEN	1626
<a href="#">C 00136 A</a>	CUB	ED	Shallow	4	4	4	25	23S	28E				591037	3570753*	1187	09/25/2003	09/27/2003	10/27/2003	100	60	EXISTING WELL	
<a href="#">C 00571</a>	CUB	ED	Shallow	1	3	3	30	23S	29E				591241	3570957*	1223	07/25/1954	07/30/1954	09/14/1954	90	38	EXISTING WELL	171
<a href="#">C 00571 CLW241602</a>	O	CUB	ED	Shallow	3	3	30	23S	29E				591241	3570757*	1338	07/25/1954	07/30/1954	09/14/1954	89	38	J.R. JOLLY	171
<a href="#">C 03146</a>	C	ED	Shallow	1	1	3	24	23S	28E				589613	3572970*	1497	02/14/2005	02/15/2005	03/21/2005	82	36		1348
<a href="#">C 03965 POD4</a>	CUB	ED	Shallow	1	4	24	23S	28E					589918	3573381	1813	07/18/2016	07/18/2016	08/18/2016	40	31	BRYAN, EDWARD	1711
<a href="#">C 03965 POD5</a>	CUB	ED	Shallow	4	1	24	23S	28E					589864	3573534	1973	07/18/2016	07/18/2016	08/18/2016	35	31	BRYAN, EDWARD	1711
<a href="#">C 02182</a>	C	ED	Shallow	4	30	23S	29E						592328	3571048*	2202	09/26/1989	09/26/1989	10/05/1989	75	30		1184
<a href="#">C 01122</a>	CUB	ED	Shallow	1	1	26	23S	28E					587999	3572138*	2261	12/04/1964	01/05/1965	02/05/1965	175	30	SAM S. SMITH	108
<a href="#">C 00869 S-2</a>	O	CUB	ED	Shallow	3	3	23	23S	28E				588097	3572444*	2263	10/10/1974	10/15/1974	11/26/1974	150	58	M.D. BRININSTOOL	24
<a href="#">C 03587 POD2</a>	CUB	ED	Shallow	1	2	4	19	23S	29E				592213	3572706	2308	04/11/2013	04/13/2013	05/07/2013	77	16	TAYLOR, CLINTON E. (LD)	1348
<a href="#">C 02704</a>	C	ED	Shallow	1	19	23S	29E						591531	3573493*	2327	05/18/2000	05/19/2000	08/28/2000	174			1348

\*UTM location was derived from PLSS - see Help

4/29/20 4:20 PM

Page 1 of 5

WELLS WITH WELL LOG INFORMATION







Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 06, 2020

Shar Harvester

Wescom Inc

1907 San Jose Blvd. Apt. 425

Carlsbad, NM 88220

TEL: (575) 499-6831

FAX:

RE: Williams FEE 25 24 LBC 1H

OrderNo.: 2004C22

Dear Shar Harvester:

Hall Environmental Analysis Laboratory received 12 sample(s) on 4/30/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



## Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS01 0-0.5'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 1:00:00 PM

Lab ID: 2004C22-001

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	33	8.9		mg/Kg	1	5/1/2020 8:30:19 PM
Motor Oil Range Organics (MRO)	46	44		mg/Kg	1	5/1/2020 8:30:19 PM
Surr: DNOP	95.3	55.1-146		%Rec	1	5/1/2020 8:30:19 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2020 2:08:45 PM
Surr: BFB	102	66.6-105		%Rec	1	5/1/2020 2:08:45 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/1/2020 2:08:45 PM
Toluene	ND	0.050		mg/Kg	1	5/1/2020 2:08:45 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2020 2:08:45 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/1/2020 2:08:45 PM
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	5/1/2020 2:08:45 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	130	60		mg/Kg	20	5/2/2020 2:16:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 18

## Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS02 0-0.5'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 1:10:00 PM

Lab ID: 2004C22-002

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	1400	98		mg/Kg	10	5/1/2020 1:58:50 PM
Motor Oil Range Organics (MRO)	820	490		mg/Kg	10	5/1/2020 1:58:50 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	5/1/2020 1:58:50 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/1/2020 3:19:05 PM
Surr: BFB	111	66.6-105	S	%Rec	1	5/1/2020 3:19:05 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	5/1/2020 3:19:05 PM
Toluene	0.11	0.047		mg/Kg	1	5/1/2020 3:19:05 PM
Ethylbenzene	0.076	0.047		mg/Kg	1	5/1/2020 3:19:05 PM
Xylenes, Total	0.38	0.093		mg/Kg	1	5/1/2020 3:19:05 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/1/2020 3:19:05 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	260	60		mg/Kg	20	5/2/2020 2:29:07 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS03 0-0.5'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 1:20:00 PM

Lab ID: 2004C22-003

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	1300	86		mg/Kg	10	5/1/2020 2:23:10 PM
Motor Oil Range Organics (MRO)	700	430		mg/Kg	10	5/1/2020 2:23:10 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	5/1/2020 2:23:10 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2020 4:29:27 PM
Surr: BFB	111	66.6-105	S	%Rec	1	5/1/2020 4:29:27 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/1/2020 4:29:27 PM
Toluene	ND	0.050		mg/Kg	1	5/1/2020 4:29:27 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2020 4:29:27 PM
Xylenes, Total	0.13	0.10		mg/Kg	1	5/1/2020 4:29:27 PM
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	5/1/2020 4:29:27 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/2/2020 2:41:28 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS04 0-0.5'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 1:25:00 PM

Lab ID: 2004C22-004

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	570	9.7		mg/Kg	1	5/1/2020 9:18:58 PM
Motor Oil Range Organics (MRO)	270	48		mg/Kg	1	5/1/2020 9:18:58 PM
Surr: DNOP	92.9	55.1-146		%Rec	1	5/1/2020 9:18:58 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/1/2020 4:53:01 PM
Surr: BFB	109	66.6-105	S	%Rec	1	5/1/2020 4:53:01 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/1/2020 4:53:01 PM
Toluene	ND	0.047		mg/Kg	1	5/1/2020 4:53:01 PM
Ethylbenzene	ND	0.047		mg/Kg	1	5/1/2020 4:53:01 PM
Xylenes, Total	0.16	0.095		mg/Kg	1	5/1/2020 4:53:01 PM
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	5/1/2020 4:53:01 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	140	60		mg/Kg	20	5/2/2020 2:53:48 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D		Sample Diluted Due to Matrix	E	Value above quantitation range
	H		Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND		Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL		Practical Quantitative Limit	RL	Reporting Limit
	S		% Recovery outside of range due to dilution or matrix		

Analytical Report  
 Lab Order 2004C22  
 Date Reported: 5/6/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc Client Sample ID: SS05 0-0.5'  
 Project: Williams FEE 25 24 LBC 1H Collection Date: 4/28/2020 1:35:00 PM  
 Lab ID: 2004C22-005 Matrix: SOIL Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	310	9.2		mg/Kg	1	5/1/2020 10:07:32 PM
Motor Oil Range Organics (MRO)	190	46		mg/Kg	1	5/1/2020 10:07:32 PM
Surr: DNOP	96.8	55.1-146		%Rec	1	5/1/2020 10:07:32 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/1/2020 6:27:07 PM
Surr: BFB	102	66.6-105		%Rec	1	5/1/2020 6:27:07 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/1/2020 6:27:07 PM
Toluene	ND	0.049		mg/Kg	1	5/1/2020 6:27:07 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2020 6:27:07 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/1/2020 6:27:07 PM
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	5/1/2020 6:27:07 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/2/2020 3:06:10 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL Reporting Limit
	S	% Recovery outside of range due to dilution or matrix	

Analytical Report  
Lab Order 2004C22  
Date Reported: 5/6/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Wescom Inc **Client Sample ID:** SS06 0-0.5'  
**Project:** Williams FEE 25 24 LBC 1H **Collection Date:** 4/28/2020 1:45:00 PM  
**Lab ID:** 2004C22-006 **Matrix:** SOIL **Received Date:** 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	640	43		mg/Kg	5	5/4/2020 9:51:42 AM
Motor Oil Range Organics (MRO)	300	220		mg/Kg	5	5/4/2020 9:51:42 AM
Surr: DNOP	87.5	55.1-146		%Rec	5	5/4/2020 9:51:42 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/1/2020 6:50:41 PM
Surr: BFB	103	66.6-105		%Rec	1	5/1/2020 6:50:41 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/1/2020 6:50:41 PM
Toluene	ND	0.049		mg/Kg	1	5/1/2020 6:50:41 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2020 6:50:41 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/1/2020 6:50:41 PM
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	5/1/2020 6:50:41 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	68	60		mg/Kg	20	5/2/2020 3:43:13 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL Reporting Limit
	S	% Recovery outside of range due to dilution or matrix	



# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc Client Sample ID: SS07 0-0.5'  
Project: Williams FEE 25 24 LBC 1H Collection Date: 4/28/2020 1:50:00 PM  
Lab ID: 2004C22-007 Matrix: SOIL Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	24	9.7		mg/Kg	1	5/1/2020 10:56:06 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2020 10:56:06 PM
Surr: DNOP	70.5	55.1-146		%Rec	1	5/1/2020 10:56:06 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2020 7:14:17 PM
Surr: BFB	103	66.6-105		%Rec	1	5/1/2020 7:14:17 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/1/2020 7:14:17 PM
Toluene	ND	0.048		mg/Kg	1	5/1/2020 7:14:17 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2020 7:14:17 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/1/2020 7:14:17 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	5/1/2020 7:14:17 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	85	60		mg/Kg	20	5/2/2020 3:55:33 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL Reporting Limit
	S	% Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS08 2.0'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 2:05:00 PM

Lab ID: 2004C22-008

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	3100	99		mg/Kg	10	5/1/2020 3:11:51 PM
Motor Oil Range Organics (MRO)	1300	500		mg/Kg	10	5/1/2020 3:11:51 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	5/1/2020 3:11:51 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	100	24		mg/Kg	5	5/1/2020 7:37:45 PM
Surr: BFB	227	66.6-105	S	%Rec	5	5/1/2020 7:37:45 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	5/1/2020 7:37:45 PM
Toluene	0.30	0.24		mg/Kg	5	5/1/2020 7:37:45 PM
Ethylbenzene	0.63	0.24		mg/Kg	5	5/1/2020 7:37:45 PM
Xylenes, Total	3.7	0.49		mg/Kg	5	5/1/2020 7:37:45 PM
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	5	5/1/2020 7:37:45 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	120	60		mg/Kg	20	5/2/2020 4:07:54 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS09 3.0'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 2:15:00 PM

Lab ID: 2004C22-009

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JME
Diesel Range Organics (DRO)	2400	95		mg/Kg	10	5/1/2020 3:36:13 PM
Motor Oil Range Organics (MRO)	1100	480		mg/Kg	10	5/1/2020 3:36:13 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	5/1/2020 3:36:13 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	170	24		mg/Kg	5	5/1/2020 8:01:08 PM
Surr: BFB	270	66.6-105	S	%Rec	5	5/1/2020 8:01:08 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	5/1/2020 8:01:08 PM
Toluene	0.99	0.24		mg/Kg	5	5/1/2020 8:01:08 PM
Ethylbenzene	1.2	0.24		mg/Kg	5	5/1/2020 8:01:08 PM
Xylenes, Total	6.6	0.47		mg/Kg	5	5/1/2020 8:01:08 PM
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	5	5/1/2020 8:01:08 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/2/2020 4:20:15 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL Reporting Limit
	S	% Recovery outside of range due to dilution or matrix	



Analytical Report  
Lab Order 2004C22  
Date Reported: 5/6/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Wescom Inc **Client Sample ID:** SS10 1.0'  
**Project:** Williams FEE 25 24 LBC 1H **Collection Date:** 4/28/2020 2:25:00 PM  
**Lab ID:** 2004C22-010 **Matrix:** SOIL **Received Date:** 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: CLP
Diesel Range Organics (DRO)	1100	95		mg/Kg	10	5/5/2020 5:07:35 PM
Motor Oil Range Organics (MRO)	540	480		mg/Kg	10	5/5/2020 5:07:35 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	5/5/2020 5:07:35 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2020 8:24:52 PM
Surr: BFB	138	66.6-105	S	%Rec	1	5/1/2020 8:24:52 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/1/2020 8:24:52 PM
Toluene	0.058	0.048		mg/Kg	1	5/1/2020 8:24:52 PM
Ethylbenzene	0.066	0.048		mg/Kg	1	5/1/2020 8:24:52 PM
Xylenes, Total	0.34	0.097		mg/Kg	1	5/1/2020 8:24:52 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/1/2020 8:24:52 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	61	60		mg/Kg	20	5/2/2020 7:00:47 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL Reporting Limit
	S	% Recovery outside of range due to dilution or matrix	

# Analytical Report

Lab Order 2004C22

Date Reported: 5/6/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Wescom Inc

Client Sample ID: SS11 0-0.5'

Project: Williams FEE 25 24 LBC 1H

Collection Date: 4/28/2020 1:55:00 PM

Lab ID: 2004C22-011

Matrix: SOIL

Received Date: 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: BRM
Diesel Range Organics (DRO)	420	9.5		mg/Kg	1	5/5/2020 9:53:36 PM
Motor Oil Range Organics (MRO)	230	48		mg/Kg	1	5/5/2020 9:53:36 PM
Surr: DNOP	90.4	55.1-146		%Rec	1	5/5/2020 9:53:36 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/1/2020 8:48:15 PM
Surr: BFB	110	66.6-105	S	%Rec	1	5/1/2020 8:48:15 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/1/2020 8:48:15 PM
Toluene	0.065	0.047		mg/Kg	1	5/1/2020 8:48:15 PM
Ethylbenzene	0.048	0.047		mg/Kg	1	5/1/2020 8:48:15 PM
Xylenes, Total	0.21	0.095		mg/Kg	1	5/1/2020 8:48:15 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	5/1/2020 8:48:15 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/2/2020 7:37:49 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix		E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
	PQL	Practical Quantitative Limit		RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix			

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Wescom Inc **Client Sample ID:** BG01 2.0'  
**Project:** Williams FEE 25 24 LBC 1H **Collection Date:** 4/28/2020 2:49:00 PM  
**Lab ID:** 2004C22-012 **Matrix:** SOIL **Received Date:** 4/30/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/5/2020 11:30:24 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/5/2020 11:30:24 PM
Surr: DNOP	88.2	55.1-146		%Rec	1	5/5/2020 11:30:24 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/1/2020 9:12:14 PM
Surr: BFB	103	66.6-105		%Rec	1	5/1/2020 9:12:14 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	5/1/2020 9:12:14 PM
Toluene	ND	0.047		mg/Kg	1	5/1/2020 9:12:14 PM
Ethylbenzene	ND	0.047		mg/Kg	1	5/1/2020 9:12:14 PM
Xylenes, Total	ND	0.093		mg/Kg	1	5/1/2020 9:12:14 PM
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	5/1/2020 9:12:14 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	5/2/2020 7:50:09 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix		E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
	PQL	Practical Quantitative Limit		RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix			



## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004C22

06-May-20

Client: Wescom Inc

Project: Williams FEE 25 24 LBC 1H

Sample ID: MB-52226	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52226	RunNo: 68615								
Prep Date: 5/2/2020	Analysis Date: 5/2/2020	SeqNo: 2374419 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52226		SampType: lcs			TestCode: EPA Method 300.0: Anions					
Client ID: LCSS		Batch ID: 52226			RunNo: 68615					
Prep Date: 5/2/2020		Analysis Date: 5/2/2020			SeqNo: 2374420		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

Sample ID: MB-52229		SampType: mblk		TestCode: EPA Method 300.0: Anions						
Client ID: PBS		Batch ID: 52229		RunNo: 68615						
Prep Date: 5/2/2020		Analysis Date: 5/2/2020		SeqNo: 2374449		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52229		SampType: lcs		TestCode: EPA Method 300.0: Anions						
Client ID: LCSS		Batch ID: 52229		RunNo: 68615						
Prep Date: 5/2/2020		Analysis Date: 5/2/2020		SeqNo: 2374450		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 13 of 18

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004C22

06-May-20

Client: Wescom Inc

Project: Williams FEE 25 24 LBC 1H

Sample ID: MB-52197	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52197	RunNo: 68568								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373953 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.1	55.1	146			

Sample ID: LCS-52197	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52197	RunNo: 68568								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373954 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.7	70	130			
Surr: DNOP	4.4		5.000		87.0	55.1	146			

Sample ID: LCS-52267	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52267	RunNo: 68633								
Prep Date: 5/5/2020	Analysis Date: 5/5/2020	SeqNo: 2375273 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.7	55.1	146			

Sample ID: MB-52267	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52267	RunNo: 68633								
Prep Date: 5/5/2020	Analysis Date: 5/5/2020	SeqNo: 2375274 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.0	55.1	146			

Sample ID: LCS-52254	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52254	RunNo: 68634								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375312 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.5	70	130			
Surr: DNOP	3.8		5.000		75.0	55.1	146			

Sample ID: MB-52254	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52254	RunNo: 68634								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375313 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004C22

06-May-20

Client: Wescom Inc

Project: Williams FEE 25 24 LBC 1H

Sample ID: MB-52254	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52254	RunNo: 68634								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375313 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.4	55.1	146			

Sample ID: MB-52242	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52242	RunNo: 68637								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375356 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		109	55.1	146			

Sample ID: LCS-52242	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52242	RunNo: 68637								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375357 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	70	130			
Surr: DNOP	5.3		5.000		107	55.1	146			

Sample ID: 2004C22-011AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SS11 0-0.5'	Batch ID: 52254	RunNo: 68633								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375997 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	690	9.6	47.80	420.1	565	47.4	136			S
Surr: DNOP	4.9		4.780		103	55.1	146			

Sample ID: 2004C22-011AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SS11 0-0.5'	Batch ID: 52254	RunNo: 68633								
Prep Date: 5/4/2020	Analysis Date: 5/5/2020	SeqNo: 2375998 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	410	9.3	46.34	420.1	-26.7	47.4	136	51.5	43.4	RS
Surr: DNOP	4.2		4.634		90.1	55.1	146	0	0	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 15 of 18



## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004C22

06-May-20

Client: Wescom Inc  
Project: Williams FEE 25 24 LBC 1H

Sample ID: lcs-52195	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2372944 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	80	120			
Surr: BFB	1100		1000		105	66.6	105			S

Sample ID: mb-52195	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2372945 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	66.6	105			

Sample ID: 2004c22-002ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SS02 0-0.5'	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373034 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.32	2.893	106	80	120			
Surr: BFB	1100		972.8		116	66.6	105			S

Sample ID: 2004c22-002amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SS02 0-0.5'	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373035 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	24.88	2.893	104	80	120	0.135	20	
Surr: BFB	1200		995.0		116	66.6	105	0	0	S

Sample ID: lcs-52191	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 52191	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373046 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	66.6	105			S

Sample ID: mb-52191	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 52191	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373048 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	66.6	105			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 16 of 18

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004C22

06-May-20

Client: Wescom Inc  
 Project: Williams FEE 25 24 LBC 1H

Sample ID: LCS-52195	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2372949 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.6	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.0	80	120			

Sample ID: mb-52195	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2372950 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.2	80	120			

Sample ID: 2004c22-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SS01 0-0.5'	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373068 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9881	0	105	78.5	119			
Toluene	1.1	0.049	0.9881	0.02040	108	75.7	123			
Ethylbenzene	1.1	0.049	0.9881	0.01781	109	74.3	126			
Xylenes, Total	3.3	0.099	2.964	0.03224	110	72.9	130			
Surr: 4-Bromofluorobenzene	0.98		0.9881		98.7	80	120			

Sample ID: 2004c22-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SS01 0-0.5'	Batch ID: 52195	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373069 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9862	0	102	78.5	119	3.09	20	
Toluene	1.1	0.049	0.9862	0.02040	106	75.7	123	2.46	20	
Ethylbenzene	1.1	0.049	0.9862	0.01781	106	74.3	126	2.45	20	
Xylenes, Total	3.2	0.099	2.959	0.03224	107	72.9	130	3.24	20	
Surr: 4-Bromofluorobenzene	0.99		0.9862		101	80	120	0	0	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
 D Sample Diluted Due to Matrix  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 PQL Practical Quantitative Limit  
 S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH Not In Range  
 RL Reporting Limit

Page 17 of 18

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004C22

06-May-20

**Client:** Wescom Inc  
**Project:** Williams FEE 25 24 LBC 1H

Sample ID: LCS-52191	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 52191	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373083 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: mb-52191	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 52191	RunNo: 68583								
Prep Date: 4/30/2020	Analysis Date: 5/1/2020	SeqNo: 2373085 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 18 of 18





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: WESCOM INC

Work Order Number: 2004C22

RcptNo: 1

Received By: Juan Rojas

4/30/2020 9:00:00 AM

Completed By: Isaiah Ortiz

4/30/2020 9:20:02 AM

Reviewed By: DAD 4/30/20

### Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: JR 4/29/20

JR 4/30/20

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Not Present			

