

# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745  
Artesia ▲ Carlsbad ▲ Durango ▲ Midland

December 21, 2015

**RECEIVED**

*By OCD; Dr. Oberding at 1:16 pm, Jan 11, 2016*

Dr. Tomáš Oberding  
Ms. Kellie Jones  
NMOCD District 1  
1625 French Drive  
Hobbs, New Mexico 88240  
*VIA EMAIL*

RE: Initial Monitoring Report for Paloma State #1 - API # 30-025-31153  
8/25/15 Tank Battery Release, UL O, Section 36, T18S R32E  
Strata Production

Dr. Oberding and Ms. Jones:

On behalf of Strata Production, R.T. Hicks Consultants submits the initial remediation report for the above referenced release. Table 1 presents the results of the initial sampling event. In accordance with the approved workplan, we collected discrete samples at six depth intervals at five locations and evaluated the soil samples for chloride, GRO, DRO and MRO. Figures 1-7 show how the remediation cell was constructed and the locations of the samples.

Samples obtained at 4, 5 and 6 feet below grade were obtained in sample trenches using the excavator prior to construction of the remediation cell. Samples from 0-1, 1-2 and 3 feet were obtained after completion of the cell and characterize the nature of placed material. Note that we obtained one duplicate sample at 155S OE to measure variability of the sampling process.

Table 1 demonstrates that the stained soil mixture placed in the remediation cell is less than the concentration closure limits set by the workplan. This is not surprising as:

1. The stained soil was a thin layer throughout most of the former tank battery and therefore comprised only a small fraction of the total mass of excavated material
2. segregation of stained soil from unstained soil was carefully conducted, but an end loader and excavator will remove significant volumes of clean soil in the process

Chloride concentration exceeds the closure criteria of 800 ppm by 10%. Because of the low chloride concentration, we will seed the remediation cell with a mix acceptable to the SLO at a time recommended by the seed mix supplier.

We propose the following modification to proposed monitoring schedule. Rather than sample on a calendar basis, we propose to

- A. collect the first two sample sets about 7 days after the first and second precipitation events fully saturate the remediation cell.
- B. Collect the third and fourth sample set after June 2016 and
  - a. about 7 days after a precipitation event saturates the remediation cell and
  - b. about 7 days after an event causes an overflow from the remediation cell (or early December if such an event does not occur).

The a total of 15 samples will be obtained from the same general locations as those shown on Table 1 at depths of 0-1, 1-2 and 3 feet. The samples for the next 3 quarters will be tested using field methods for chloride only. For the annual sampling event (after a precipitation event in October, November or December), we propose to collect samples in accordance with the approved workplan at the following locations

- 150S 10E, where chloride exceeds the performance standard and hydrocarbon concentrations are elevated
- 115S 10E, which show a similar pattern as above and
- 110S 10E, due to the chloride concentration observed at 5 and 6 feet below grade

Based upon the results presented herein, we believe all standards will be achieved after the second precipitation event saturates the remediation cell. Please contact me if we need to discuss the proposed modification of the sampling protocol for the first three events.

Thanks for working with us on this pilot project.

Sincerely,  
R.T. Hicks Consultants

A handwritten signature in black ink, appearing to read "Randall Hicks". The signature is written in a cursive, flowing style.

Randall Hicks  
Principal

Copy: Paul Ragsdale, Strata Production  
State Land Office

**Figure 1 – In accordance with the workplan, we first excavated several trenches to clearly define the extent of visible hydrocarbon staining. In this image, the staining is clear above the former caliche pad. The oil and pad were covered with sand after the spill to prevent any impact to cattle.**



**Figure 2 – Segregation of stained soil from clean soil using the best tools available.**



Figure 3 – Stained soil segregated from clean soil in the spoil pile. The foundation of the heater treater lies behind the soil piles.



Figure 4 – Using laser level to determine proper elevation of remediation cell per the mandates of the approved workplan. The gas meter pipeline stub in the lower left corner of the image was used as a zero point to determine locations of samples. Previous sampling programs used the distance south of the heater treater foundation, which is behind the soil piles in the center of the image.



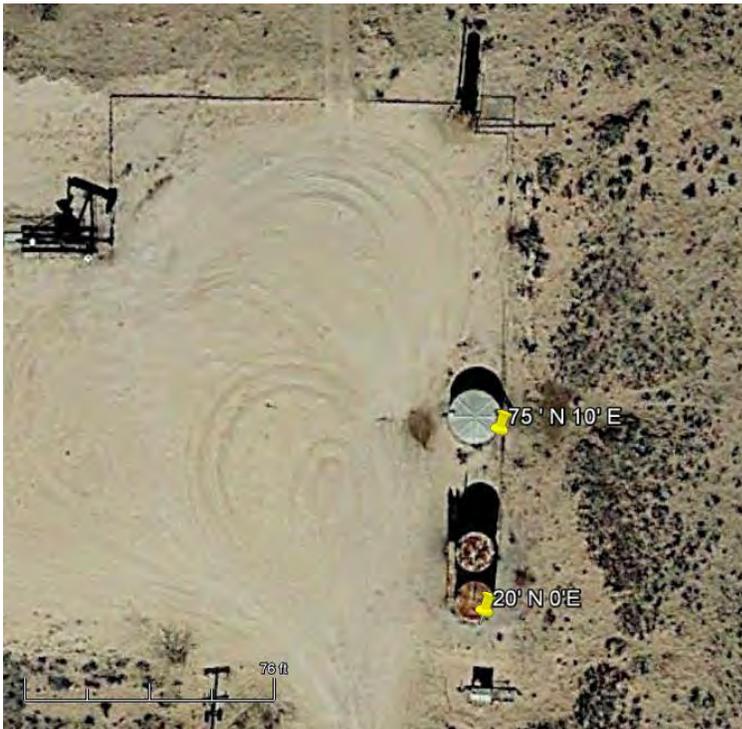
Figure 5 – The last load of suspected salt-impacted soil is placed on the level remediation cell



Figure 6 – As the salt soil was exhausted, a thin layer of clean soil was placed over the salt-impacted soil and stained soil to form a top bed of sand that would be suitable for seeding and growth of native plants. Berms will direct water as shown by the blue arrow from the inlet to the outlet.



Figure 7 – All sample locations are within the footprint of the firewall of the former battery. Rather than measure the distance south of the former heater treater, which was in the area of soil stockpiles, we measured the distance north of the gas pipeline.



Two locations were below the former oil tanks, two locations were between the oil and produced water tanks and one location was beneath the former produced water tank. Trench excavation north of the former battery did not detect oil staining.

Excavation in the area of 94' S 22'E (see previous submission) detected wet soil at a depth of about 3-4 feet below surface (probably due to vertical transport after several rainfall events). We elected to leave this material in-situ to avoid a significantly larger expansion of the remediation area and excavation of more clean soil than necessary.

Table 1 - Laboratory Results of Post Construction Sampling

Sample Footage North	S	E	Depth	Cl	DRO	MRO	GRO	GRO+DRO	TPH
20	155	S 0 E	1	500	190	200	4.7	194.7	394.7
20	155	S 0 E	2	490	350	320	13	363	683
20	155	S 0 E	3a	230	220	200	4.7	224.7	424.7
20	155	S 0 E	3b	30	96	480	4.7	100.7	580.7
20	155	S 0 E	4	30	96	480	4.7	100.7	580.7
20	155	S 0 E	5	30	96	480	4.7	100.7	580.7
20	155	S 0 E	6	34	96	480	4.7	100.7	580.7
25	150	S 10 E	1	550	780	840	48	828	1668
25	150	S 10 E	2	3000	720	1500	4.7	724.7	2224.7
25	150	S 10 E	3	3200	52	64	4.7	56.7	120.7
25	150	S 10 E	4	540	96	480	4.7	100.7	580.7
25	150	S 10 E	5	140	96	480	4.7	100.7	580.7
25	150	S 10 E	6	30	80	230	4.7	84.7	314.7
45	130	S 10 E	1	480	700	630	27	727	1357
45	130	S 10 E	2	580	540	440	23	563	1003
45	130	S 10 E	3	280	98	110	28	126	236
45	130	S 10 E	4	110	52	70	4.7	56.7	126.7
45	130	S 10 E	5	45	51	130	4.7	55.7	185.7
45	130	S 10 E	6	250	130	150	4.7	134.7	284.7
60	115	S 10 E	1	910	880	870	42	922	1792
60	115	S 10 E	2	1400	40	84	4.7	44.7	128.7
60	115	S 10 E	3	510	60	90	4.7	64.7	154.7
60	115	S 10 E	4	91	210	260	4.7	214.7	474.7
60	115	S 10 E	5	210	650	460	6	656	1116
60	115	S 10 E	6	120	120	110	4.7	124.7	234.7
75	100	S 10 E	1	760	770	790	47	817	1607
75	100	S 10 E	2	140	81	84	4.7	85.7	169.7
75	100	S 10 E	3	30	96	480	4.7	100.7	580.7
75	100	S 10 E	4	460	96	480	4.7	100.7	580.7
75	100	S 10 E	5	970	96	480	4.7	100.7	580.7
75	100	S 10 E	6	1100	96	480	4.7	100.7	580.7
Average				556.4516				260.5194	661.5516
Average 0-4 feet				693.05				320.805	744.405
Average 0-2 feet				881					

- The program terminates when two post-construction monitoring events meet the following criteria
  - Average chloride is less than 800 mg/kg for the samples at the five locations above 24-inches
  - Average chloride is less than 20,000 mg/kg for the samples at the five locations below 24 inches
  - Average GRO+DRO+MRO is less than 2,500 mg/kg (averaged over all depths and locations)
  - GRO+DRO is less than 1,000 mg/kg (averaged over all depths and locations)



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)

December 15, 2015

Randall Hicks

R.T. Hicks Consultants, LTD

901 Rio Grande Blvd. NW

Suite F-142

Albuquerque, NM 87104

TEL: (505) 266-5004

FAX (505) 266-0745

RE: Paloma

OrderNo.: 1512256

Dear Randall Hicks:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/4/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 60S 48"

**Project:** Paloma

**Collection Date:** 12/1/2015 11:09:00 AM

**Lab ID:** 1512256-001

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	91	30		mg/Kg	20	12/11/2015 1:53:58 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	210	9.7		mg/Kg	1	12/10/2015 10:10:21 AM	22656
Motor Oil Range Organics (MRO)	260	48		mg/Kg	1	12/10/2015 10:10:21 AM	22656
Surr: DNOP	79.2	70-130		%REC	1	12/10/2015 10:10:21 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 3:22:30 AM	22654
Surr: BFB	84.2	66.2-112		%REC	1	12/9/2015 3:22:30 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 45S 4'

**Project:** Paloma

**Collection Date:** 12/1/2015 12:02:00 PM

**Lab ID:** 1512256-002

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	110	30		mg/Kg	20	12/11/2015 2:18:48 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	52	9.6		mg/Kg	1	12/10/2015 10:37:35 AM	22656
Motor Oil Range Organics (MRO)	70	48		mg/Kg	1	12/10/2015 10:37:35 AM	22656
Surr: DNOP	83.4	70-130		%REC	1	12/10/2015 10:37:35 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 3:46:52 AM	22654
Surr: BFB	88.0	66.2-112		%REC	1	12/9/2015 3:46:52 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 25S 5'

**Project:** Paloma

**Collection Date:** 12/1/2015 11:27:00 AM

**Lab ID:** 1512256-003

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	140	30		mg/Kg	20	12/11/2015 2:43:37 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/10/2015 11:04:37 AM	22656
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/10/2015 11:04:37 AM	22656
Surr: DNOP	85.6	70-130		%REC	1	12/10/2015 11:04:37 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/9/2015 4:11:26 AM	22654
Surr: BFB	84.5	66.2-112		%REC	1	12/9/2015 4:11:26 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 60S 5'

**Project:** Paloma

**Collection Date:** 12/1/2015 11:06:00 AM

**Lab ID:** 1512256-004

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	210	30		mg/Kg	20	12/11/2015 3:33:17 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	650	10		mg/Kg	1	12/10/2015 11:31:35 AM	22656
Motor Oil Range Organics (MRO)	460	51		mg/Kg	1	12/10/2015 11:31:35 AM	22656
Surr: DNOP	80.1	70-130		%REC	1	12/10/2015 11:31:35 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	6.0	4.8		mg/Kg	1	12/9/2015 4:35:59 AM	22654
Surr: BFB	128	66.2-112	S	%REC	1	12/9/2015 4:35:59 AM	22654

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 75S 4'

**Project:** Paloma

**Collection Date:** 12/1/2015 11:11:00 AM

**Lab ID:** 1512256-005

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	460	30		mg/Kg	20	12/11/2015 3:58:06 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/10/2015 11:58:55 AM	22656
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	12/10/2015 11:58:55 AM	22656
Surr: DNOP	80.5	70-130		%REC	1	12/10/2015 11:58:55 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 7:57:50 PM	22654
Surr: BFB	79.7	66.2-112		%REC	1	12/9/2015 7:57:50 PM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 45S 72"

**Project:** Paloma

**Collection Date:** 12/1/2015 9:56:00 AM

**Lab ID:** 1512256-006

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	250	30		mg/Kg	20	12/11/2015 4:22:55 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	130	9.9		mg/Kg	1	12/10/2015 12:26:09 PM	22656
Motor Oil Range Organics (MRO)	150	49		mg/Kg	1	12/10/2015 12:26:09 PM	22656
Surr: DNOP	73.2	70-130		%REC	1	12/10/2015 12:26:09 PM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/9/2015 8:22:24 PM	22654
Surr: BFB	90.0	66.2-112		%REC	1	12/9/2015 8:22:24 PM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512256

Date Reported: 12/15/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 3'

**Project:** Paloma

**Collection Date:** 12/1/2015 9:37:00 AM

**Lab ID:** 1512256-007

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	12/11/2015 4:47:43 PM	22775
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/10/2015 12:53:29 PM	22656
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/10/2015 12:53:29 PM	22656
Surr: DNOP	81.8	70-130		%REC	1	12/10/2015 12:53:29 PM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/9/2015 8:47:01 PM	22654
Surr: BFB	79.5	66.2-112		%REC	1	12/9/2015 8:47:01 PM	22654

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512256

15-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID	<b>MB-22775</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>22775</b>	RunNo:	<b>30809</b>					
Prep Date:	<b>12/14/2015</b>	Analysis Date:	<b>12/11/2015</b>	SeqNo:	<b>941358</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-22775</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>22775</b>	RunNo:	<b>30809</b>					
Prep Date:	<b>12/14/2015</b>	Analysis Date:	<b>12/11/2015</b>	SeqNo:	<b>941359</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	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
- R RPD outside accepted recovery limits
- 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 Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512256

15-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID	<b>MB-22656</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>22656</b>	RunNo:	<b>30680</b>					
Prep Date:	<b>12/7/2015</b>	Analysis Date:	<b>12/8/2015</b>	SeqNo:	<b>936999</b>	Units:	<b>mg/Kg</b>			
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	7.2		10.00		71.8	70	130			

Sample ID	<b>LCS-22656</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>22656</b>	RunNo:	<b>30744</b>					
Prep Date:	<b>12/7/2015</b>	Analysis Date:	<b>12/10/2015</b>	SeqNo:	<b>939171</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	57.4	139			
Surr: DNOP	4.8		5.000		96.5	70	130			

**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                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512256

15-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID <b>MB-22654</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22654</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937719</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.3	66.2	112			

Sample ID <b>LCS-22654</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22654</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937720</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.9	79.6	122			
Surr: BFB	1000		1000		101	66.2	112			

Sample ID <b>MB-22678</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22678</b>		RunNo: <b>30727</b>							
Prep Date: <b>12/8/2015</b>	Analysis Date: <b>12/9/2015</b>		SeqNo: <b>938888</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.4	66.2	112			

Sample ID <b>LCS-22678</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22678</b>		RunNo: <b>30727</b>							
Prep Date: <b>12/8/2015</b>	Analysis Date: <b>12/9/2015</b>		SeqNo: <b>938889</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	66.2	112			

**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                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |   |

**Sample Log-In Check List**

Client Name: **RT HICKS**

Work Order Number: **1512256**

RcptNo: **1**

Received by/date: **AT 12/04/15**  
 Logged By: **Joe Archuleta 12/4/2015 1:00:00 PM**  
 Completed By: **Joe Archuleta 12/7/2015 8:50:15 AM**  
 Reviewed By: **[Signature] 12/07/15**

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Client

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

- 16. 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: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

# Chain-of-Custody Record

Client: R.T. Hicks

Mailing Address:

Phone #: 505-238-9615

email or Fax#: R@rthicksconsult.com

QA/QC Package:  Standard  Level 4 (Full Validation)

Accreditation

NELAP  Other

EDD (Type)

Turn-Around Time:

Standard  Rush

Project Name:

PALOMA

Project #:

Project Manager:

RTA

Sampler:

RTA

On Ice:  Yes  No

Sample Temperature:

1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12-1	11					<u>1512256</u>
12-1	1109	Soil	10E 60S 40"	8 oz jar		-001
2-1	1202	"	10E 45S 4'	"		-002
2-1	1127	"	10E 25S 5'	"		-003
2-1	1106	"	10E 60S 5'	"		-004
2-1	1111	"	10E 75S 4'	"		-005
12-1	956	"	10E 45S 72"	"		-006
12-1	937	"	0E 20S 3'	"		-007

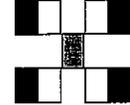
Date: 10/15 Time: 1300

Relinquished by: [Signature]

Date: 12/10/15 Time: 1300

Received by: [Signature] Date: 12/10/15 Time: 1300

Remarks:



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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)

December 11, 2015

Randall Hicks

R.T. Hicks Consultants, LTD

901 Rio Grande Blvd. NW

Suite F-142

Albuquerque, NM 87104

TEL: (505) 266-5004

FAX (505) 266-0745

RE: Paloma

OrderNo.: 1512234

Dear Randall Hicks:

Hall Environmental Analysis Laboratory received 8 sample(s) on 12/4/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 25S 4'

**Project:** Paloma

**Collection Date:** 12/1/2015 10:31:00 AM

**Lab ID:** 1512234-001

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	540	30		mg/Kg	20	12/10/2015 1:44:37 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/10/2015 9:44:37 AM	22656
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/10/2015 9:44:37 AM	22656
Surr: DNOP	93.3	70-130		%REC	1	12/10/2015 9:44:37 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/9/2015 12:06:57 AM	22654
Surr: BFB	84.5	66.2-112		%REC	1	12/9/2015 12:06:57 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 45S 5'

**Project:** Paloma

**Collection Date:** 12/1/2015 9:59:00 AM

**Lab ID:** 1512234-002

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	45	30		mg/Kg	20	12/10/2015 2:09:26 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	51	10		mg/Kg	1	12/10/2015 10:06:08 AM	22656
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	12/10/2015 10:06:08 AM	22656
Surr: DNOP	98.6	70-130		%REC	1	12/10/2015 10:06:08 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 12:31:19 AM	22654
Surr: BFB	87.0	66.2-112		%REC	1	12/9/2015 12:31:19 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 25S 6'

**Project:** Paloma

**Collection Date:** 12/1/2015 10:36:00 AM

**Lab ID:** 1512234-003

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	12/10/2015 2:59:05 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	80	9.7		mg/Kg	1	12/10/2015 10:27:56 AM	22656
Motor Oil Range Organics (MRO)	230	49		mg/Kg	1	12/10/2015 10:27:56 AM	22656
Surr: DNOP	97.2	70-130		%REC	1	12/10/2015 10:27:56 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 12:55:50 AM	22654
Surr: BFB	84.5	66.2-112		%REC	1	12/9/2015 12:55:50 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 5'

**Project:** Paloma

**Collection Date:** 12/1/2015 9:25:00 AM

**Lab ID:** 1512234-004

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	12/10/2015 3:23:53 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/10/2015 10:49:38 AM	22656
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	12/10/2015 10:49:38 AM	22656
Surr: DNOP	99.0	70-130		%REC	1	12/10/2015 10:49:38 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/9/2015 1:20:21 AM	22654
Surr: BFB	86.4	66.2-112		%REC	1	12/9/2015 1:20:21 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 60S 4'

**Project:** Paloma

**Collection Date:** 12/1/2015 11:02:00 AM

**Lab ID:** 1512234-005

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	120	30		mg/Kg	20	12/10/2015 3:48:43 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	120	9.7		mg/Kg	1	12/10/2015 11:11:25 AM	22656
Motor Oil Range Organics (MRO)	110	48		mg/Kg	1	12/10/2015 11:11:25 AM	22656
Surr: DNOP	96.8	70-130		%REC	1	12/10/2015 11:11:25 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 1:44:50 AM	22654
Surr: BFB	96.4	66.2-112		%REC	1	12/9/2015 1:44:50 AM	22654

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 75S 6'

**Project:** Paloma

**Collection Date:** 12/1/2015 11:15:00 AM

**Lab ID:** 1512234-006

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	1100	30		mg/Kg	20	12/10/2015 4:13:32 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/10/2015 11:33:05 AM	22656
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/10/2015 11:33:05 AM	22656
Surr: DNOP	101	70-130		%REC	1	12/10/2015 11:33:05 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2015 2:09:15 AM	22654
Surr: BFB	86.7	66.2-112		%REC	1	12/9/2015 2:09:15 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 4'

**Project:** Paloma

**Collection Date:** 12/1/2015 9:33:00 AM

**Lab ID:** 1512234-007

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	12/10/2015 4:38:21 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/10/2015 11:54:55 AM	22656
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/10/2015 11:54:55 AM	22656
Surr: DNOP	104	70-130		%REC	1	12/10/2015 11:54:55 AM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/9/2015 2:33:41 AM	22654
Surr: BFB	85.4	66.2-112		%REC	1	12/9/2015 2:33:41 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512234

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 6'

**Project:** Paloma

**Collection Date:** 12/1/2015 9:23:00 AM

**Lab ID:** 1512234-008

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	34	30		mg/Kg	20	12/10/2015 5:28:00 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/10/2015 12:16:33 PM	22656
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	12/10/2015 12:16:33 PM	22656
Surr: DNOP	101	70-130		%REC	1	12/10/2015 12:16:33 PM	22656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/9/2015 2:58:08 AM	22654
Surr: BFB	84.0	66.2-112		%REC	1	12/9/2015 2:58:08 AM	22654

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512234

11-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID	<b>MB-22726</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>22726</b>	RunNo:	<b>30760</b>					
Prep Date:	<b>12/9/2015</b>	Analysis Date:	<b>12/9/2015</b>	SeqNo:	<b>939587</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-22726</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>22726</b>	RunNo:	<b>30760</b>					
Prep Date:	<b>12/9/2015</b>	Analysis Date:	<b>12/9/2015</b>	SeqNo:	<b>939588</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	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
- R RPD outside accepted recovery limits
- 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 Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512234

11-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID <b>MB-22656</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22656</b>		RunNo: <b>30680</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>936999</b>		Units: <b>mg/Kg</b>					
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	7.2		10.00		71.8	70	130			

Sample ID <b>LCS-22656</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22656</b>		RunNo: <b>30744</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/10/2015</b>		SeqNo: <b>939171</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	57.4	139			
Surr: DNOP	4.8		5.000		96.5	70	130			

Sample ID <b>MB-22675</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22675</b>		RunNo: <b>30744</b>							
Prep Date: <b>12/9/2015</b>	Analysis Date: <b>12/10/2015</b>		SeqNo: <b>939460</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		109	70	130			

Sample ID <b>LCS-22675</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22675</b>		RunNo: <b>30744</b>							
Prep Date: <b>12/9/2015</b>	Analysis Date: <b>12/10/2015</b>		SeqNo: <b>939461</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		112	70	130			

**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
- R RPD outside accepted recovery limits
- 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 Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512234

11-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID <b>MB-22654</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22654</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937719</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.3	66.2	112			

Sample ID <b>LCS-22654</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22654</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937720</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.9	79.6	122			
Surr: BFB	1000		1000		101	66.2	112			

Sample ID <b>MB-22678</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22678</b>		RunNo: <b>30727</b>							
Prep Date: <b>12/8/2015</b>	Analysis Date: <b>12/9/2015</b>		SeqNo: <b>938888</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.4	66.2	112			

Sample ID <b>LCS-22678</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22678</b>		RunNo: <b>30727</b>							
Prep Date: <b>12/8/2015</b>	Analysis Date: <b>12/9/2015</b>		SeqNo: <b>938889</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	66.2	112			

**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                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |   |

**Sample Log-In Check List**

Client Name: **RT HICKS**

Work Order Number: **1512234**

RcptNo: **1**

Received by/date:

*JA* 12/04/15

Logged By: **Joe Archuleta**

12/4/2015 1:00:00 PM

Completed By: **Joe Archuleta**

12/4/2015 2:17:21 PM

Reviewed By:

*[Signature]* 12/04/15

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Client

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No
- (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No
- (If no, notify customer for authorization.)

# of preserved bottles checked for pH:  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

- 16. 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: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			





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)

December 11, 2015

Randall Hicks

R.T. Hicks Consultants, LTD

901 Rio Grande Blvd. NW

Suite F-142

Albuquerque, NM 87104

TEL: (505) 266-5004

FAX (505) 266-0745

RE: Paloma

OrderNo.: 1512227

Dear Randall Hicks:

Hall Environmental Analysis Laboratory received 16 sample(s) on 12/4/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 60S 12"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-001

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	910	30		mg/Kg	20	12/9/2015 4:26:14 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	880	97		mg/Kg	10	12/8/2015 11:00:40 AM	22655
Motor Oil Range Organics (MRO)	870	480		mg/Kg	10	12/8/2015 11:00:40 AM	22655
Surr: DNOP	0	70-130	S	%REC	10	12/8/2015 11:00:40 AM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	42	4.7		mg/Kg	1	12/8/2015 3:07:40 PM	22652
Surr: BFB	378	66.2-112	S	%REC	1	12/8/2015 3:07:40 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 25S 24"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-002

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	3000	750		mg/Kg	500	12/9/2015 5:28:17 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	720	96		mg/Kg	10	12/8/2015 7:04:38 PM	22655
Motor Oil Range Organics (MRO)	1500	480		mg/Kg	10	12/8/2015 7:04:38 PM	22655
Surr: DNOP	0	70-130	S	%REC	10	12/8/2015 7:04:38 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/8/2015 4:21:02 PM	22652
Surr: BFB	98.8	66.2-112		%REC	1	12/8/2015 4:21:02 PM	22652

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 60S 36"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-003

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	510	30		mg/Kg	20	12/9/2015 5:40:41 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	60	9.7		mg/Kg	1	12/8/2015 7:31:57 PM	22655
Motor Oil Range Organics (MRO)	90	48		mg/Kg	1	12/8/2015 7:31:57 PM	22655
Surr: DNOP	78.6	70-130		%REC	1	12/8/2015 7:31:57 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/8/2015 4:45:27 PM	22652
Surr: BFB	106	66.2-112		%REC	1	12/8/2015 4:45:27 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 75S 5"

**Project:** Paloma

**Collection Date:** 12/2/2015 11:13:00 AM

**Lab ID:** 1512227-004

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	970	30		mg/Kg	20	12/9/2015 6:05:30 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/8/2015 12:21:54 PM	22655
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/8/2015 12:21:54 PM	22655
Surr: DNOP	87.7	70-130		%REC	1	12/8/2015 12:21:54 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/8/2015 5:09:54 PM	22652
Surr: BFB	89.9	66.2-112		%REC	1	12/8/2015 5:09:54 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 75S 10E 12"

**Project:** Paloma

**Collection Date:** 12/2/2015 1:03:00 PM

**Lab ID:** 1512227-005

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	760	30		mg/Kg	20	12/9/2015 6:30:19 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	770	99		mg/Kg	10	12/9/2015 10:03:12 AM	22655
Motor Oil Range Organics (MRO)	790	500		mg/Kg	10	12/9/2015 10:03:12 AM	22655
Surr: DNOP	0	70-130	S	%REC	10	12/9/2015 10:03:12 AM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	47	4.9		mg/Kg	1	12/8/2015 5:34:16 PM	22652
Surr: BFB	354	66.2-112	S	%REC	1	12/8/2015 5:34:16 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 25S 12"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-006

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	550	30		mg/Kg	20	12/9/2015 6:55:08 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	780	98		mg/Kg	10	12/8/2015 7:59:22 PM	22655
Motor Oil Range Organics (MRO)	840	490		mg/Kg	10	12/8/2015 7:59:22 PM	22655
Surr: DNOP	0	70-130	S	%REC	10	12/8/2015 7:59:22 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	48	4.6		mg/Kg	1	12/8/2015 5:58:48 PM	22652
Surr: BFB	385	66.2-112	S	%REC	1	12/8/2015 5:58:48 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 12E 45S 36"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-007

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	280	30		mg/Kg	20	12/9/2015 7:44:46 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	98	9.7		mg/Kg	1	12/8/2015 8:26:37 PM	22655
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	12/8/2015 8:26:37 PM	22655
Surr: DNOP	76.3	70-130		%REC	1	12/8/2015 8:26:37 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	28	4.9		mg/Kg	1	12/8/2015 8:01:54 PM	22652
Surr: BFB	245	66.2-112	S	%REC	1	12/8/2015 8:01:54 PM	22652

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
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 25S 36"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-008

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	3200	750		mg/Kg	500	12/9/2015 8:22:00 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	52	9.5		mg/Kg	1	12/8/2015 8:53:35 PM	22655
Motor Oil Range Organics (MRO)	64	48		mg/Kg	1	12/8/2015 8:53:35 PM	22655
Surr: DNOP	78.8	70-130		%REC	1	12/8/2015 8:53:35 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/8/2015 8:26:23 PM	22652
Surr: BFB	99.6	66.2-112		%REC	1	12/8/2015 8:26:23 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 12"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-009

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	500	30		mg/Kg	20	12/9/2015 8:34:25 PM	22714
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	190	9.7		mg/Kg	1	12/8/2015 9:20:23 PM	22655
Motor Oil Range Organics (MRO)	200	48		mg/Kg	1	12/8/2015 9:20:23 PM	22655
Surr: DNOP	79.7	70-130		%REC	1	12/8/2015 9:20:23 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/8/2015 8:50:47 PM	22652
Surr: BFB	115	66.2-112	S	%REC	1	12/8/2015 8:50:47 PM	22652

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 75S 12"

**Project:** Paloma

**Collection Date:** 12/2/2015 1:00:00 PM

**Lab ID:** 1512227-010

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	140	30		mg/Kg	20	12/9/2015 10:26:04 PM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	81	9.5		mg/Kg	1	12/9/2015 10:57:42 AM	22655
Motor Oil Range Organics (MRO)	84	48		mg/Kg	1	12/9/2015 10:57:42 AM	22655
Surr: DNOP	92.4	70-130		%REC	1	12/9/2015 10:57:42 AM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/8/2015 9:15:24 PM	22652
Surr: BFB	99.5	66.2-112		%REC	1	12/8/2015 9:15:24 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 24"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-011

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	490	30		mg/Kg	20	12/9/2015 10:50:54 PM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	350	10		mg/Kg	1	12/8/2015 10:14:31 PM	22655
Motor Oil Range Organics (MRO)	320	50		mg/Kg	1	12/8/2015 10:14:31 PM	22655
Surr: DNOP	76.8	70-130		%REC	1	12/8/2015 10:14:31 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	13	4.7		mg/Kg	1	12/8/2015 9:40:04 PM	22652
Surr: BFB	176	66.2-112	S	%REC	1	12/8/2015 9:40:04 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 75S 36"

**Project:** Paloma

**Collection Date:** 12/2/2015 1:05:00 PM

**Lab ID:** 1512227-012

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	12/9/2015 11:15:43 PM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/8/2015 3:27:08 PM	22655
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/8/2015 3:27:08 PM	22655
Surr: DNOP	87.5	70-130		%REC	1	12/8/2015 3:27:08 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/8/2015 10:04:35 PM	22652
Surr: BFB	92.9	66.2-112		%REC	1	12/8/2015 10:04:35 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 45S 12"

**Project:** Paloma

**Collection Date:** 12/2/2015 12:38:00 PM

**Lab ID:** 1512227-013

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	480	30		mg/Kg	20	12/9/2015 11:40:32 PM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	700	97		mg/Kg	10	12/9/2015 11:51:52 AM	22655
Motor Oil Range Organics (MRO)	630	490		mg/Kg	10	12/9/2015 11:51:52 AM	22655
Surr: DNOP	0	70-130	S	%REC	10	12/9/2015 11:51:52 AM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	27	4.7		mg/Kg	1	12/8/2015 10:29:11 PM	22652
Surr: BFB	274	66.2-112	S	%REC	1	12/8/2015 10:29:11 PM	22652

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 12E 45S 24"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-014

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	580	30		mg/Kg	20	12/10/2015 12:30:10 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	540	9.4		mg/Kg	1	12/8/2015 3:54:26 PM	22655
Motor Oil Range Organics (MRO)	440	47		mg/Kg	1	12/8/2015 3:54:26 PM	22655
Surr: DNOP	82.6	70-130		%REC	1	12/8/2015 3:54:26 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	23	4.8		mg/Kg	1	12/8/2015 10:53:37 PM	22652
Surr: BFB	244	66.2-112	S	%REC	1	12/8/2015 10:53:37 PM	22652

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 10E 60S 24"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-015

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	1400	750		mg/Kg	500	12/10/2015 1:07:25 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	40	10		mg/Kg	1	12/8/2015 4:21:31 PM	22655
Motor Oil Range Organics (MRO)	84	50		mg/Kg	1	12/8/2015 4:21:31 PM	22655
Surr: DNOP	87.8	70-130		%REC	1	12/8/2015 4:21:31 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/8/2015 11:18:08 PM	22652
Surr: BFB	93.8	66.2-112		%REC	1	12/8/2015 11:18:08 PM	22652

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512227

Date Reported: 12/11/2015

**CLIENT:** R.T. Hicks Consultants, LTD

**Client Sample ID:** 0E 20S 36"

**Project:** Paloma

**Collection Date:** 12/2/2015

**Lab ID:** 1512227-016

**Matrix:** SOIL

**Received Date:** 12/4/2015 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	230	30		mg/Kg	20	12/10/2015 1:19:49 AM	22726
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	220	10		mg/Kg	1	12/9/2015 12:46:11 PM	22655
Motor Oil Range Organics (MRO)	200	50		mg/Kg	1	12/9/2015 12:46:11 PM	22655
Surr: DNOP	81.3	70-130		%REC	1	12/9/2015 12:46:11 PM	22655
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/8/2015 11:42:38 PM	22652
Surr: BFB	113	66.2-112	S	%REC	1	12/8/2015 11:42:38 PM	22652

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512227

11-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID	<b>MB-22714</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>22714</b>	RunNo:	<b>30760</b>					
Prep Date:	<b>12/9/2015</b>	Analysis Date:	<b>12/9/2015</b>	SeqNo:	<b>939545</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-22714</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>22714</b>	RunNo:	<b>30760</b>					
Prep Date:	<b>12/9/2015</b>	Analysis Date:	<b>12/9/2015</b>	SeqNo:	<b>939546</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Sample ID	<b>MB-22726</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>22726</b>	RunNo:	<b>30760</b>					
Prep Date:	<b>12/9/2015</b>	Analysis Date:	<b>12/9/2015</b>	SeqNo:	<b>939587</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-22726</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>22726</b>	RunNo:	<b>30760</b>					
Prep Date:	<b>12/9/2015</b>	Analysis Date:	<b>12/9/2015</b>	SeqNo:	<b>939588</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	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
- R RPD outside accepted recovery limits
- 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 Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512227

11-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID	<b>MB-22655</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>22655</b>	RunNo:	<b>30679</b>					
Prep Date:	<b>12/7/2015</b>	Analysis Date:	<b>12/8/2015</b>	SeqNo:	<b>936997</b>	Units:	<b>mg/Kg</b>			
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	8.9		10.00		89.1	70	130			

Sample ID	<b>LCS-22655</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>22655</b>	RunNo:	<b>30679</b>					
Prep Date:	<b>12/7/2015</b>	Analysis Date:	<b>12/8/2015</b>	SeqNo:	<b>937204</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.4	57.4	139			
Surr: DNOP	4.4		5.000		88.4	70	130			

**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
- R RPD outside accepted recovery limits
- 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 Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512227

11-Dec-15

**Client:** R.T. Hicks Consultants, LTD

**Project:** Paloma

Sample ID <b>MB-22652</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22652</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937695</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		86.9	66.2	112			

Sample ID <b>LCS-22652</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22652</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937696</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.7	79.6	122			
Surr: BFB	1000		1000		104	66.2	112			

Sample ID <b>1512227-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>10E 60S 12"</b>	Batch ID: <b>22652</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937702</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	82	4.7	23.70	41.89	169	62.5	151			S
Surr: BFB	4400		947.9		460	66.2	112			S

Sample ID <b>1512227-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>10E 60S 12"</b>	Batch ID: <b>22652</b>		RunNo: <b>30702</b>							
Prep Date: <b>12/7/2015</b>	Analysis Date: <b>12/8/2015</b>		SeqNo: <b>937703</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	91	4.7	23.70	41.89	209	62.5	151	11.0	22.1	S
Surr: BFB	4700		947.9		500	66.2	112	0	0	S

**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
- R RPD outside accepted recovery limits
- 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 Detection Limit

**Sample Log-In Check List**

Client Name: RT HICKS

Work Order Number: 1512227

RcptNo: 1

Received by/date: *JA* 12/04/15  
 Logged By: Joe Archuleta 12/4/2015 1:00:00 PM  
 Completed By: Joe Archuleta 12/4/2015 1:57:56 PM  
 Reviewed By: *[Signature]* 12/04/15

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Client

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. 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:

**Special Handling (if applicable)**

- 16. 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: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

# Chain-of-Custody Record

Client: RT Hicks

Mailing Address:

Phone #:

Email or Fax#:

QA/QC Package:

- Standard
- Level 4 (Full Validation)
- Accreditation
- NELAP
- Other
- EDD (Type)

Turn-Around Time:

Standard  Rush

Project Name:

Paloma

Project #:

Project Manager:

RT Hicks

Sampler:

On Ice:  Yes  No

Sample Temperature: 10°

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
10/21/15		Soil	10E 605 12"	1 x 4oz	WMP	-001
10/21/15		Soil	10E 255 24"			-002
10/21/15		Soil	10E 405 36"			-003
10/21/15	1113	Soil	10E 755 5'			-004
10/21/15	1303	Soil	755 10E 12"			-005
10/21/15		Soil	10E 255 12"			-006
10/21/15		Soil	12E 455 36"			-007
10/21/15		Soil	10E 255 36"			-008
10/21/15		Soil	0E 205 12"			-009
10/21/15	1300	Soil	10E 755 12"			-010
10/21/15		Soil	0E 205 24"			-011
10/21/15	1305	Soil	10E 755 36"			-012

Date: 2.4 Time: 1300

Relinquished by: [Signature]

Received by: [Signature]

Date: 10/21/15

Time: 1300

## Analysis Request

BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

