

FORM  
4  
Rev 12/05

Page 1

State of Colorado  
Oil and Gas Conservation Commission  
1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

RECEIVED  
6/15/2012

1. OGCC Operator Number: 96850	4. Contact Name: Karolina Blaney	Complete the Attachment Checklist OP OGCC
2. Name of Operator: WPX Energy Rocky Mountain, LLC	Phone: 970-683-2285	
3. Address: 1058 County Road 215 City: Parachute State: CO Zip: 81635	Fax:	
5. API Number: N/A	OGCC Facility ID Number: 278696	Survey Plat
6. Well/Facility Name: TR	7. Well/Facility Number: 31-5-697	Directional Survey
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): NWNE Sec 5 T6S R97W		Surface Eqpm Diagram
9. County: Garfield	10. Field Name: Trail Ridge	Technical Info Page
11. Federal, Indian or State Lease Number:		Other

## General Notice

<input type="checkbox"/> <b>CHANGE OF LOCATION:</b> Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNL-FSL <input type="checkbox"/> FUL-FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> attach directional survey
Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest bldg, public rd, utility or RR
Ground Elevation	Distance to nearest lease line
	Is location in a High Density Area (rule 603b)? Yes/No
	Distance to nearest well same formation
	Surface owner consultation date:
<b>GPS DATA:</b>	
Date of Measurement	PDOP Reading
	Instrument Operator's Name
<input type="checkbox"/> <b>CHANGE SPACING UNIT</b>	<input type="checkbox"/> <b>Remove from surface bond</b>
Formation	Signed surface use agreement attached
Formation Code	
Spacing order number	
Unit Acreage	
Unit configuration	
<input type="checkbox"/> <b>CHANGE OF OPERATOR (prior to drilling):</b>	<input type="checkbox"/> <b>CHANGE WELL NAME</b>
Effective Date:	From:
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	To:
	Effective Date:
<input type="checkbox"/> <b>ABANDONED LOCATION:</b>	<input type="checkbox"/> <b>NOTICE OF CONTINUED SHUT IN STATUS</b>
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date well shut in or temporarily abandoned:
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No
Date Ready for Inspection:	MIT required if shut in longer than two years. Date of last MIT
<input type="checkbox"/> <b>SPUD DATE:</b>	<input type="checkbox"/> <b>REQUEST FOR CONFIDENTIAL STATUS</b> (6 mos from date casing set)
<input type="checkbox"/> <b>SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK</b> *submit cbl and cement job summaries	
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
<input type="checkbox"/> <b>RECLAMATION:</b> Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	
<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.	

## Technical Engineering/Environmental Notice

<input type="checkbox"/> <b>Notice of Intent</b>	<input type="checkbox"/> <b>Report of Work Done</b>
Approximate Start Date:	Date Work Completed:
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)	
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested
<input type="checkbox"/> Casing/Cementing Program Change	<input type="checkbox"/> Other:
	<input type="checkbox"/> E&P Waste Disposal
	<input type="checkbox"/> Beneficial Reuse of E&P Waste
	<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans
	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Karolina Blaney Date: 6/15/2012 Email: karolina.blaney@wpxenergy.com  
Print Name: Karolina Blaney Title: Environmental Specialist

COGCC Approved: Chris Canfield Title: FOR Date: 06/20/2012  
CONDITIONS OF APPROVAL, IF ANY:

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number:	96850	API Number:	N/A
2. Name of Operator:	WPX Energy Rocky Mountain, LLC		
	OGCC Facility ID #	278696	
3. Well/Facility Name:	TR	Well/Facility Number:	31-5-697
4. Location (QtrQtr, Sec, Twp, Rng, Meridian):	NWNE Sec 5 T6S R97W 6th pm		

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

Attached with this COGCC Form 4 is the TR 31-5-697 sampling summary report update and proposed monitoring plan. The COGCC remediation number is 5258.

## **Activity and Sampling Summary TR 31-5-697 Production Pit**

### **Project background**

On 6/8/2011 WPX Energy started the TR 31-5-697 (COGCC Facility ID# 278696) pit investigation and closure activities. A Form 27, Pit Investigation and Remediation Workplan was submitted on 9/27/2010 (remediation #5258) and a subsequent Form 19 was submitted on 6/28/2011 (tracking # 2214716).

After the pit contents and the liner were removed from the pit, subliner soils were inspected visually and through the use of PetroFlag to determine whether the soil met the standards set forth in Table 910-1 of the COGCC 900-Series Rule. Based on the field screening results, the pit bottom and the adjacent pit walls exceeded these standards. The contaminated area was excavated and confirmation samples were collected from each of the pit side walls. These samples were collected for confirmation of compliance with COGCC Rule 910 and Table 910-1; as well as verification of field screening analysis. Two (2) additional grab samples were collected from the bottom of the pit, to demonstrate compliance in accordance with Rule 905.b.(1). Analytical data presented in Table 1 provides results for the confirmation soil sampling performed post excavation at various depths of the pit footprint (raw analytical results are available for review in Appendix 1 of this report). The pit bottom sampling points are depicted on Figure 1.

The soils excavated from the pit walls and bottom were placed inside an earthen bermed containment, located at that well pad, and treated with a bioremediation product. The analytical results (Table 2 and Appendix 1) indicate that soil meets COGCC Table 910-1 standards and could be used for re-contouring the pad as long as it is buried under a minimum of three (3) feet of backfill cover. The pit investigation and remediation activities were described in detail in the sundry notice Form 4 submitted on August 24, 2011 and approved by COGCC on September 7, 2011.

During the above mentioned pit closure activities, ground water was encountered while excavating a small area of impacted soil in the very northeastern corner of the pit. The water was flowing from the weathered bedrock along the northern edge of the pit and pad, and possibly in the alluvial sediments in the drainage feature where the pad is constructed. The ground water, when it flowed from the northeastern corner of the pit wall/bottom, did exhibit a sheen indicating that the water has been impacted by hydrocarbons.

On August 24, 2011, WPX Energy proposed, via sundry notice form 4, to install four ground water monitoring which were installed on September 20 and 21, 2011. The locations of the monitoring wells are depicted on Figure 2. Water samples were collected from the wells on October 21, 2011 and were analyzed for the COGCC Table 910-1 analytical suite which includes BTEX, TDS, and Chloride. In addition, samples were collected for the Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Semi-Volatile Organics for Poly Aromatic Hydrocarbons (PAH), Dissolved Metals, and the common Anions. The analytical results for all four monitoring wells are included in Table 2. (Raw analytical results are available for review in Appendix 2 of this report). The August 2011 sampling results along with the wellbore logs were submitted to COGCC with the sundry notice Form 4 on December 5, 2011.

## **Data Interpretation**

### Soil

Analytical results for the pit bottom and walls are below the allowable concentrations specified in COGCC Table 910-1, with the exception of inorganic constituents (EC and SAR) and arsenic. In accordance with COGCC guidance Q31 regarding inorganics, the pit will be backfilled with the minimum of three feet of backfill soil. Arsenic concentrations meet the background levels in accordance with footnote 1 to COGCC Table 910-1.

### Water

Benzene concentrations in the downgradient wells (MW-2, 3, and 4) still exceed the COGCC standard of 5 µg/L. However, based on the most recent analytical results, it appears the benzene concentrations, as well as the other constituents, are attenuating naturally at a reasonable rate.

The chloride and sulfate concentrations in the down gradient wells (MW-2, 3, and 4) are below background levels observed in (MW1) with exception of the most recent chloride sample collected from the MW3 which increased to 300 mg/L. It is unclear at this time why the chloride concentrations increased since the previous quarterly sampling; this will be evaluated with the next sampling which will be conducted in July 2012.

## **Groundwater Monitoring for 2012 and Proposed Activities**

The four monitoring wells were re-sampled on April 9, 2012. Analytical results indicated a substantial drop in the contaminant levels present in the wells. This would be expected as the source of contamination was removed during the pit closure activities completed in June and November of 2011. The analytical results of the April 2012 groundwater sampling are presented in Table 3. The raw analytical data is included as Appendix 2.

WPX is proposing to continue monitoring the down gradient wells and collect samples to confirm benzene concentrations are decreasing with time. The three down gradient wells will be monitored and sampled on a quarterly basis. Groundwater samples will be submitted for analysis as summarized in Table 2. The consolidated analytical data will be submitted to the COGCC on a subsequent form 4. Based on the current analytical data, a period of one year should be sufficient to evaluate the effectiveness of the natural attenuation. WPX will then evaluate the monitoring data to determine if water quality standards can be attained, or if active treatment will be necessary to meet the COGCC allowable concentration for benzene in water.

## **Pit Closure**

The analytical data presented in Table 1 confirms that the pit bottom and walls meet the COGCC Table 910-1 standards. The impacted soil excavated from the pit (source of the groundwater contamination) has been removed and treated on-site to reduce the residual hydrocarbon contamination. WPX would like to backfill the pit with clean material. The excavated material meets the COGCC Table 910-1 requirements and will be used as fill material for pad maintenance and interim reclamation.

Table 1: Post Excavation of Pit Bottom &amp; Walls Analytical Results

Post Excavation of Pit Walls and Bottom	910-1 standards	Units	East Wall @ 4'	South Wall @ 3'	North Wall @ 3'	West Wall @ 3'	Pit Bottom – South @ 5'	Pit Bottom – North @ 5'	N. Half treatment cell	S. Half treatment cell	Background 1	Background 2	Background 3
DRO	500	mg/kg	20	13	10	15	34	300	120	230			
GRO			45	ND	ND	55	ND	86	140	99			
Benzene	0.17	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Toluene	85	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Ethylbenzene	100	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Xylene Total	175	mg/kg	ND	ND	ND	ND	ND	0.38	ND	0.39			
Acenaphthene	1000	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Anthracene	1000	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Benzo(A)Anthracene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Benzo(A)Pyrene	0.022	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Benzo(B)Fluoranthene	0.22	mg/kg	ND	ND	.066	ND	ND	ND	ND	ND			
Benzo(K)Fluoranthene	2.2	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Chrysene	22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Dibenzo(A,H)Anthracene	0.022	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Fluoranthene	1000	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Fluorene	1000	mg/kg	.190	ND	.037	ND	ND	.037	ND	ND			
Indeno(1,2,3-Cd)Pyrene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Naphthalene	23	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Pyrene	1000	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Arsenic	0.39	mg/kg	4.0	5.5	15	3.9	5.1	6.2	6.0	7.1	4.7	5.2	5.5
Barium	15000	mg/kg	280	470	560	290	380	370	450	450			
Cadmium	70	mg/kg	0.42	0.40	0.58	0.39	0.40	0.37	0.4	0.42			
Chromium (Iii)	120	mg/kg	31	39	38	43	42	33	42	40			
Chromium (Iv)	23	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Copper	3100	mg/kg	14	19	26	15	14	15	16	18			
Lead	400	mg/kg	14	17	26	14	16	16	18	18			
Mercury	23	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Nickel	1600	mg/kg	23	26	28	21	22	23	25	24			
Selenium	390	mg/kg	0.93	ND	1.3	0.95	0.98	1.6	ND	ND			
Silver	390	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND			
Zinc	23000	mg/kg	68	74	99	65	69	58	72	75			
Sodium Absorption Ratio	12		212.5	278.2	8.0	344.4	196.5	52.8	86.3	79.4	1.5		
Electric Conductivity	4	mmho/cm	10.45	25.52	0.55	36.20	24.08	1.44	3.09	2.52	0.27		
pH	6-9		7.60	8.10	8.08	7.53	7.24	8.32	8.08	8.05	7.37		

Note: all results are in, mg/kg = milligram per kilogram, unless noted  
Exceedances are highlighted in yellow.

Table 2: Ground Water Analytical Results (Monitor Wells)

Client Sample ID:		910-1 Standards	MW 1	MW 1	MW 2	MW 2	MW 3	MW 3	MW 4	MW 4
Date Sampled:			10/19/11	4/9/12	10/19/11	4/9/12	10/19/11	4/9/12	10/19/11	4/9/12
GC/MS Volatiles (SW846 8260B)										
DRO	mg/L		0.18	ND	1.1	1.6	40	1.1	3.1	0.9
DRO	mg/L		ND	ND	7	4.8	4.8	3	4.7	2.3
Benzene	ug/l	5 ug/l	ND	ND	120	70	55	25	67	17
Ethylbenzene	ug/l	700 ug/l	ND	ND	92	58	97	95	96	72
Toluene	ug/l	560 ug/l	ND	ND	2.2	ND	ND	ND	ND	ND
Xylene (total)	ug/l	1400 ug/l	ND	ND	1600	1200	600	520	470	160
GC/MS Semi-volatiles (SW846 8270C)										
1-Methylnaphthalene	ug/l		ND	ND	7.5	ND	ND	ND	6.6	ND
2-Chloronaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ug/l		ND	ND	13	ND	ND	ND	8.4	ND
Acenaphthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ug/l		ND	ND	13	7	ND	ND	5.9	ND
Phenanthrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND
Metals Analysis										
Calcium	mg/l		87	64	7.7	54	79	99	78	74
Iron	mg/l		0.12	ND	ND	0.13	0.12	1.1	ND	ND
Magnesium	mg/l		43	32	39	28	37	42	37	34
Manganese	mg/l		ND	ND	0.95	0.47	1.7	3.2	1.7	1.6
Potassium	mg/l		1.1	0.64	1.2	0.79	1.1	1.6	1.1	0.84
Sodium	mg/l		68	49	85	59	89	130	100	87
General Chemistry										
Bromide	mg/l		0.34	0.28	0.41	0.34	0.55	2.5	0.47	0.84
Chloride	mg/l	1.25xbkgd	42	52	53	45	72	300	63	75
Nitrogen, Nitrate	mg/l		1.1	1.5	0.047	0.18	ND	ND	ND	ND
Nitrogen, Nitrite	mg/l		ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen, Nitrate-Nitrite			1.1	1.5	0.047	0.1	ND	ND	ND	ND
Sulfate	mg/l	1.25xbkgd	130	110	67	74	61	7.1	2.7	10
Fluoride	mg/l		0.19	0.17	0.19	0.18	0.22	0.15	0.2	0.18
TDS			0.627	0.624	0.618	0.627	0.640	1.19	0.623	0.689



Figure 1: GIS Map of Sampling Locations

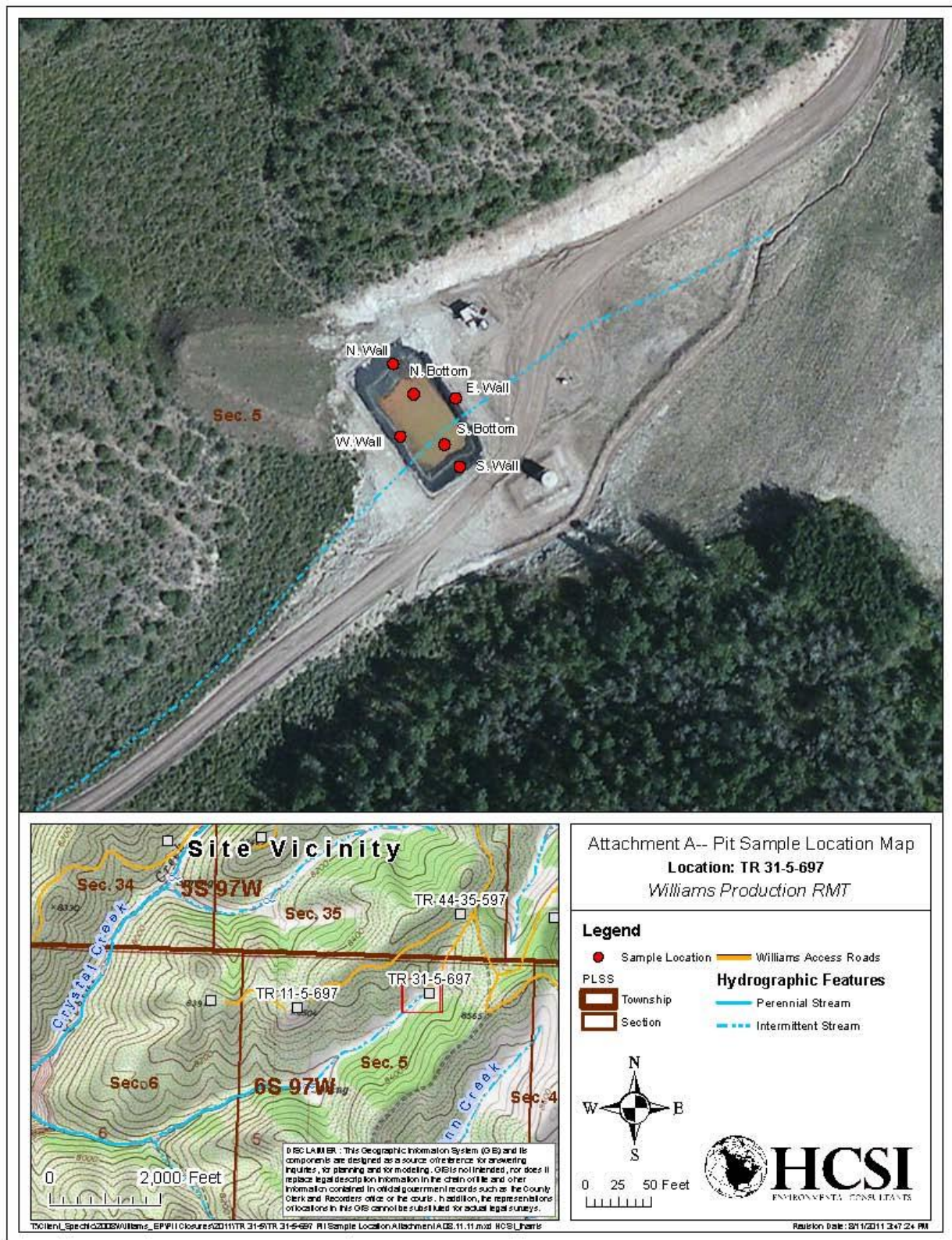
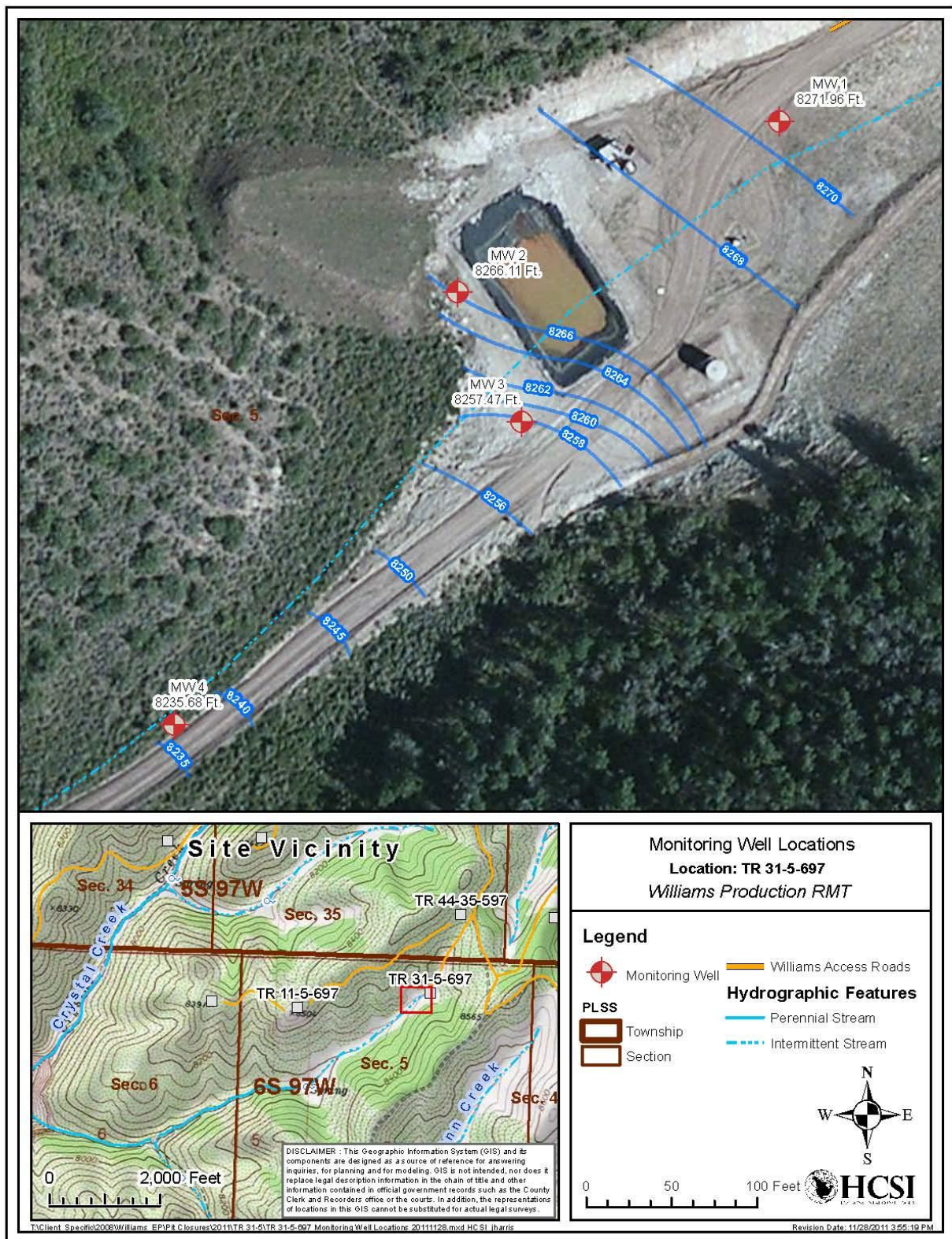




Figure 2: Monitor Well Locations





**Appendix 1: Analytical Report**  
**Pit Bottom, Walls & Treated Excavated Material**



05-Aug-2011

Mark Mumby  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **Williams TR 31-5 Pad LOE 7/26/11**

Work Order: **1107787**

Dear Mark,

ALS Environmental received 6 samples on 29-Jul-2011 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the results received by ALS Environmental and for only the analyses requested. The report from the subcontract laboratory is included in its entirety.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 47.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Joseph Ribar

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental A small icon of the ALS Environmental logo, featuring a blue triangle with a yellow flame.

[www.alsglobal.com](http://www.alsglobal.com)

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**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Work Order:** 1107787

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**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107787-01	S. Wall	Soil		7/26/2011 09:30	7/29/2011 10:00	<input type="checkbox"/>
1107787-02	S. Bottom	Soil		7/26/2011 08:50	7/29/2011 10:00	<input type="checkbox"/>
1107787-03	W. Wall	Soil		7/26/2011 09:20	7/29/2011 10:00	<input type="checkbox"/>
1107787-04	E. Wall	Soil		7/26/2011 09:00	7/29/2011 10:00	<input type="checkbox"/>
1107787-05	N. Bottom	Soil		7/26/2011 08:40	7/29/2011 10:00	<input type="checkbox"/>
1107787-06	N. Wall	Soil		7/26/2011 09:10	7/29/2011 10:00	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Work Order:** 1107787

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**Case Narrative****QC Summary****Diesel Range Organics (C10-C28)**

Batch 34639, Method 8015M, Sample DLCSDS1-34639: The RPD between the LCS and LCSD was outside of control limits. Both the LCS and LCSD recoveries were within control limits exhibiting good instrument accuracy. MS/MSD recoveries were all within control limits.

**Metals by ICP-MS**

Batch 34630, Method 6020A, Sample 1107774-03A MS: The MS and MSD recoveries are out of control for barium; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required.

Batch 34644, Method 6020A, Sample 1107813-03A MS: The MS and MSD recoveries are out of control for barium; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required.

Batch 34644, Method 6020A, Sample 11078002-04B MS: The MS and MSD recoveries are out of control for barium and zinc; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required.



**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**WorkOrder:** 1107787

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry as noted	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** S. Wall  
**Collection Date:** 7/26/2011 09:30 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>13</b>		<b>SW8015M</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RM</b>
			<b>5.4</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 07:14 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>87.6</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	8/2/2011 07:14 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>6.6</b>	<b>mg/Kg-dry</b>	<b>100</b>	8/1/2011 03:31 PM
<i>Surr: Toluene-d8</i>	<i>105</i>		<i>50-150</i>	<i>%REC</i>	<i>100</i>	8/1/2011 03:31 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>ND</b>		<b>SW7471</b>		Prep Date: <b>8/2/2011</b>	Analyst: <b>LR</b>
			<b>0.021</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 12:30 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>5.5</b>		<b>SW6020A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RH</b>
			<b>2.4</b>	<b>mg/Kg-dry</b>	<b>5</b>	8/3/2011 12:04 PM
<b>Barium</b>	<b>470</b>		<b>9.4</b>	<b>mg/Kg-dry</b>	<b>20</b>	8/2/2011 10:51 AM
<b>Cadmium</b>	<b>0.40</b>		<b>0.38</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Chromium</b>	<b>39</b>		<b>0.94</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Copper</b>	<b>19</b>		<b>0.94</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Lead</b>	<b>17</b>		<b>0.94</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Nickel</b>	<b>26</b>		<b>0.94</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Selenium</b>	<b>ND</b>		<b>0.94</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Silver</b>	<b>ND</b>		<b>0.94</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 10:57 AM
<b>Zinc</b>	<b>74</b>		<b>4.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	8/3/2011 12:04 PM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>See Report</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>as noted</b>		<b>1</b>	8/3/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>HL</b>
			<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Anthracene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Chrysene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Fluorene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Naphthalene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<b>Pyrene</b>	<b>ND</b>		<b>39</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 08:53 PM
<i>Surr: 2,4,6-Tribromophenol</i>	<i>69.3</i>		<i>34-140</i>	<i>%REC</i>	<i>1</i>	8/2/2011 08:53 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** S. Wall  
**Collection Date:** 7/26/2011 09:30 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	46.7		12-100	%REC	1	8/2/2011 08:53 PM
<i>Surr: 2-Fluorophenol</i>	72.5		33-117	%REC	1	8/2/2011 08:53 PM
<i>Surr: 4-Terphenyl-d14</i>	79.1		25-137	%REC	1	8/2/2011 08:53 PM
<i>Surr: Nitrobenzene-d5</i>	66.4		37-107	%REC	1	8/2/2011 08:53 PM
<i>Surr: Phenol-d6</i>	75.0		40-106	%REC	1	8/2/2011 08:53 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>MK</b>
Benzene	ND		130	µg/Kg-dry	100	8/5/2011 05:14 AM
Ethylbenzene	ND		130	µg/Kg-dry	100	8/5/2011 05:14 AM
m,p-Xylene	ND		130	µg/Kg-dry	100	8/5/2011 05:14 AM
o-Xylene	ND		130	µg/Kg-dry	100	8/5/2011 05:14 AM
Toluene	ND		130	µg/Kg-dry	100	8/5/2011 05:14 AM
Xylenes, Total	ND		390	µg/Kg-dry	100	8/5/2011 05:14 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	97.2		70-120	%REC	100	8/5/2011 05:14 AM
<i>Surr: 4-Bromofluorobenzene</i>	97.2		75-120	%REC	100	8/5/2011 05:14 AM
<i>Surr: Dibromofluoromethane</i>	95.0		85-115	%REC	100	8/5/2011 05:14 AM
<i>Surr: Toluene-d8</i>	99.1		85-115	%REC	100	8/5/2011 05:14 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	39			mg/L-dry	1	8/3/2011 10:09 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.65	mg/Kg-dry	1	8/2/2011 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	24		0.050	% of sample	1	7/29/2011 02:00 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
pH	8.10			s.u.	1	7/29/2011 02:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** S. Bottom  
**Collection Date:** 7/26/2011 08:50 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>34</b>		<b>SW8015M</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RM</b>
			<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 07:14 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>92.6</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	8/2/2011 07:14 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>6.2</b>	<b>mg/Kg-dry</b>	<b>100</b>	8/1/2011 03:59 PM
<i>Surr: Toluene-d8</i>	<i>107</i>		<i>50-150</i>	<i>%REC</i>	<i>100</i>	8/1/2011 03:59 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>ND</b>		<b>SW7471</b>		Prep Date: <b>8/2/2011</b>	Analyst: <b>LR</b>
			<b>0.021</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 12:32 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>5.1</b>		<b>SW6020A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RH</b>
			<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	8/3/2011 12:09 PM
<b>Barium</b>	<b>380</b>		<b>8.8</b>	<b>mg/Kg-dry</b>	<b>20</b>	8/2/2011 11:03 AM
<b>Cadmium</b>	<b>0.40</b>		<b>0.35</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Chromium</b>	<b>43</b>		<b>0.88</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Copper</b>	<b>14</b>		<b>0.88</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Lead</b>	<b>16</b>		<b>0.88</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Nickel</b>	<b>22</b>		<b>0.88</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Selenium</b>	<b>0.98</b>		<b>0.88</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Silver</b>	<b>ND</b>		<b>0.88</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 11:09 AM
<b>Zinc</b>	<b>69</b>		<b>4.4</b>	<b>mg/Kg-dry</b>	<b>5</b>	8/3/2011 12:09 PM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>See Report</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>as noted</b>		<b>1</b>	8/3/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>HL</b>
			<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Anthracene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Chrysene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Fluorene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Naphthalene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<b>Pyrene</b>	<b>ND</b>		<b>37</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 09:25 PM
<i>Surr: 2,4,6-Tribromophenol</i>	<i>69.8</i>		<i>34-140</i>	<i>%REC</i>	<i>1</i>	8/2/2011 09:25 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** S. Bottom  
**Collection Date:** 7/26/2011 08:50 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	45.9		12-100	%REC	1	8/2/2011 09:25 PM
<i>Surr: 2-Fluorophenol</i>	76.4		33-117	%REC	1	8/2/2011 09:25 PM
<i>Surr: 4-Terphenyl-d14</i>	74.3		25-137	%REC	1	8/2/2011 09:25 PM
<i>Surr: Nitrobenzene-d5</i>	71.0		37-107	%REC	1	8/2/2011 09:25 PM
<i>Surr: Phenol-d6</i>	71.4		40-106	%REC	1	8/2/2011 09:25 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>MK</b>
Benzene	ND		120	µg/Kg-dry	100	8/5/2011 05:39 AM
Ethylbenzene	ND		120	µg/Kg-dry	100	8/5/2011 05:39 AM
m,p-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 05:39 AM
o-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 05:39 AM
Toluene	ND		120	µg/Kg-dry	100	8/5/2011 05:39 AM
Xylenes, Total	ND		370	µg/Kg-dry	100	8/5/2011 05:39 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	97.0		70-120	%REC	100	8/5/2011 05:39 AM
<i>Surr: 4-Bromofluorobenzene</i>	98.8		75-120	%REC	100	8/5/2011 05:39 AM
<i>Surr: Dibromofluoromethane</i>	95.6		85-115	%REC	100	8/5/2011 05:39 AM
<i>Surr: Toluene-d8</i>	98.5		85-115	%REC	100	8/5/2011 05:39 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	42			mg/L-dry	1	8/3/2011 10:09 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.62	mg/Kg-dry	1	8/2/2011 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	20		0.050	% of sample	1	7/29/2011 03:27 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
pH	7.24			s.u.	1	7/29/2011 02:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** W. Wall  
**Collection Date:** 7/26/2011 09:20 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>15</b>		<b>SW8015M</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RM</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>80.5</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	<i>8/2/2011 07:38 PM</i>
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>55</b>		<b>SW8015</b>			Analyst: <b>RM</b>
<i>Surr: Toluene-d8</i>	<i>112</i>		<i>50-150</i>	<i>%REC</i>	<i>100</i>	<i>8/1/2011 04:28 PM</i>
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>	mg/Kg-dry	Prep Date: <b>8/2/2011</b>	Analyst: <b>LR</b>
			0.024		1	8/2/2011 12:34 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>3.9</b>		<b>SW6020A</b>	mg/Kg-dry	Prep Date: <b>8/1/2011</b>	Analyst: <b>CES</b>
<b>Barium</b>	<b>290</b>		<b>0.87</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Cadmium</b>	<b>0.39</b>		<b>0.87</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Chromium</b>	<b>43</b>		<b>0.35</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Copper</b>	<b>15</b>		<b>0.87</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Lead</b>	<b>14</b>		<b>0.87</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Nickel</b>	<b>21</b>		<b>0.87</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Selenium</b>	<b>0.95</b>		<b>0.87</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
Silver	ND		0.87	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>Zinc</b>	<b>65</b>		<b>1.7</b>	mg/Kg-dry	2	8/2/2011 03:07 AM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	See Report		<b>SUBCONTRACT</b>	as noted	1	Analyst: <b>A&amp;LGL</b>
						8/3/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>	µg/Kg-dry	Prep Date: <b>8/1/2011</b>	Analyst: <b>HL</b>
<b>Anthracene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Chrysene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Fluorene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Naphthalene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<b>Pyrene</b>	<b>ND</b>		<b>39</b>	µg/Kg-dry	1	8/2/2011 09:57 PM
<i>Surr: 2,4,6-Tribromophenol</i>	<i>72.8</i>		<i>34-140</i>	<i>%REC</i>	<i>1</i>	<i>8/2/2011 09:57 PM</i>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** W. Wall  
**Collection Date:** 7/26/2011 09:20 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	47.7		12-100	%REC	1	8/2/2011 09:57 PM
<i>Surr: 2-Fluorophenol</i>	74.7		33-117	%REC	1	8/2/2011 09:57 PM
<i>Surr: 4-Terphenyl-d14</i>	78.5		25-137	%REC	1	8/2/2011 09:57 PM
<i>Surr: Nitrobenzene-d5</i>	68.2		37-107	%REC	1	8/2/2011 09:57 PM
<i>Surr: Phenol-d6</i>	74.8		40-106	%REC	1	8/2/2011 09:57 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>MK</b>
Benzene	ND		130	µg/Kg-dry	100	8/5/2011 06:04 AM
Ethylbenzene	ND		130	µg/Kg-dry	100	8/5/2011 06:04 AM
m,p-Xylene	ND		130	µg/Kg-dry	100	8/5/2011 06:04 AM
o-Xylene	ND		130	µg/Kg-dry	100	8/5/2011 06:04 AM
Toluene	ND		130	µg/Kg-dry	100	8/5/2011 06:04 AM
Xylenes, Total	ND		400	µg/Kg-dry	100	8/5/2011 06:04 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	97.2		70-120	%REC	100	8/5/2011 06:04 AM
<i>Surr: 4-Bromofluorobenzene</i>	103		75-120	%REC	100	8/5/2011 06:04 AM
<i>Surr: Dibromofluoromethane</i>	96.2		85-115	%REC	100	8/5/2011 06:04 AM
<i>Surr: Toluene-d8</i>	100		85-115	%REC	100	8/5/2011 06:04 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	43			mg/L-dry	1	8/3/2011 10:09 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.64	mg/Kg-dry	1	8/2/2011 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	25		0.050	% of sample	1	7/29/2011 03:27 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
pH	7.53			s.u.	1	7/29/2011 02:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** E. Wall  
**Collection Date:** 7/26/2011 09:00 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>630</b>		<b>SW8015M</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RM</b>
<i>Surr: 4-Terphenyl-d14</i>	95.5		5.0	mg/Kg-dry	1	8/2/2011 07:38 PM
			39-115	%REC	1	8/2/2011 07:38 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>45</b>		<b>SW8015</b>			Analyst: <b>RM</b>
<i>Surr: Toluene-d8</i>	104		6.0	mg/Kg-dry	100	8/1/2011 04:56 PM
			50-150	%REC	100	8/1/2011 04:56 PM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep Date: <b>8/2/2011</b>	Analyst: <b>LR</b>
			0.022	mg/Kg-dry	1	8/2/2011 12:37 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>4.0</b>		<b>SW6020A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>CES</b>
<b>Barium</b>	<b>280</b>		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Cadmium</b>	<b>0.42</b>		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Chromium</b>	<b>31</b>		0.35	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Copper</b>	<b>14</b>		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Lead</b>	<b>14</b>		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Nickel</b>	<b>23</b>		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Selenium</b>	<b>0.93</b>		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
Silver	ND		0.88	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>Zinc</b>	<b>68</b>		1.8	mg/Kg-dry	2	8/2/2011 03:13 AM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	See Report		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			as noted		1	8/3/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>HL</b>
Anthracene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Benzo(a)anthracene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Benzo(a)pyrene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Benzo(b)fluoranthene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Benzo(g,h,i)perylene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Benzo(k)fluoranthene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Chrysene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Dibenzo(a,h)anthracene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Fluoranthene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
<b>Fluorene</b>	<b>190</b>		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Indeno(1,2,3-cd)pyrene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Naphthalene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
Pyrene	ND		36	µg/Kg-dry	1	8/2/2011 10:28 PM
<i>Surr: 2,4,6-Tribromophenol</i>	76.3		34-140	%REC	1	8/2/2011 10:28 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** E. Wall  
**Collection Date:** 7/26/2011 09:00 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	74.7		12-100	%REC	1	8/2/2011 10:28 PM
<i>Surr: 2-Fluorophenol</i>	58.5		33-117	%REC	1	8/2/2011 10:28 PM
<i>Surr: 4-Terphenyl-d14</i>	73.6		25-137	%REC	1	8/2/2011 10:28 PM
<i>Surr: Nitrobenzene-d5</i>	94.9		37-107	%REC	1	8/2/2011 10:28 PM
<i>Surr: Phenol-d6</i>	59.6		40-106	%REC	1	8/2/2011 10:28 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>MK</b>
Benzene	ND		120	µg/Kg-dry	100	8/5/2011 06:29 AM
Ethylbenzene	ND		120	µg/Kg-dry	100	8/5/2011 06:29 AM
m,p-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 06:29 AM
o-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 06:29 AM
Toluene	ND		120	µg/Kg-dry	100	8/5/2011 06:29 AM
Xylenes, Total	ND		360	µg/Kg-dry	100	8/5/2011 06:29 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	95.4		70-120	%REC	100	8/5/2011 06:29 AM
<i>Surr: 4-Bromofluorobenzene</i>	101		75-120	%REC	100	8/5/2011 06:29 AM
<i>Surr: Dibromofluoromethane</i>	94.0		85-115	%REC	100	8/5/2011 06:29 AM
<i>Surr: Toluene-d8</i>	98.2		85-115	%REC	100	8/5/2011 06:29 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	31			mg/L-dry	1	8/3/2011 10:09 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	8/2/2011 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	17		0.050	% of sample	1	7/29/2011 03:27 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
pH	7.60			s.u.	1	7/29/2011 02:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** N. Bottom  
**Collection Date:** 7/26/2011 08:40 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>300</b>		<b>4.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 08:01 PM
Surr: 4-Terphenyl-d14	100		39-115	%REC	1	8/2/2011 08:01 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>86</b>		<b>6.0</b>	<b>mg/Kg-dry</b>	<b>100</b>	8/1/2011 05:23 PM
Surr: Toluene-d8	111		50-150	%REC	100	8/1/2011 05:23 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>8/2/2011</b>	Analyst: <b>LR</b>
Mercury	ND		0.019	mg/Kg-dry	1	8/2/2011 12:43 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>CES</b>
<b>Arsenic</b>	<b>6.2</b>		<b>0.78</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>Barium</b>	<b>370</b>		<b>7.8</b>	<b>mg/Kg-dry</b>	<b>20</b>	8/2/2011 11:27 AM
<b>Cadmium</b>	<b>0.37</b>		<b>0.31</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>Chromium</b>	<b>34</b>		<b>0.78</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>Copper</b>	<b>15</b>		<b>0.78</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>Lead</b>	<b>16</b>		<b>0.78</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>Nickel</b>	<b>23</b>		<b>0.78</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>Selenium</b>	<b>1.6</b>		<b>0.78</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
Silver	ND		0.78	mg/Kg-dry	2	8/2/2011 03:18 AM
<b>Zinc</b>	<b>58</b>		<b>1.6</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:18 AM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>See Report</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>as noted</b>		<b>1</b>	8/3/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>HL</b>
Acenaphthene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Anthracene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Benzo(a)anthracene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Benzo(a)pyrene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Benzo(b)fluoranthene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Benzo(g,h,i)perylene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Benzo(k)fluoranthene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Chrysene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Dibenzo(a,h)anthracene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Fluoranthene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
<b>Fluorene</b>	<b>37</b>		<b>35</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:00 PM
Indeno(1,2,3-cd)pyrene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Naphthalene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Pyrene	ND		35	µg/Kg-dry	1	8/2/2011 11:00 PM
Surr: 2,4,6-Tribromophenol	78.2		34-140	%REC	1	8/2/2011 11:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** N. Bottom  
**Collection Date:** 7/26/2011 08:40 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	67.0		12-100	%REC	1	8/2/2011 11:00 PM
<i>Surr: 2-Fluorophenol</i>	65.1		33-117	%REC	1	8/2/2011 11:00 PM
<i>Surr: 4-Terphenyl-d14</i>	79.3		25-137	%REC	1	8/2/2011 11:00 PM
<i>Surr: Nitrobenzene-d5</i>	81.4		37-107	%REC	1	8/2/2011 11:00 PM
<i>Surr: Phenol-d6</i>	68.7		40-106	%REC	1	8/2/2011 11:00 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>MK</b>
Benzene	ND		120	µg/Kg-dry	100	8/5/2011 06:55 AM
Ethylbenzene	ND		120	µg/Kg-dry	100	8/5/2011 06:55 AM
<b>m,p-Xylene</b>	<b>330</b>		<b>120</b>	<b>µg/Kg-dry</b>	100	8/5/2011 06:55 AM
o-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 06:55 AM
Toluene	ND		120	µg/Kg-dry	100	8/5/2011 06:55 AM
<b>Xylenes, Total</b>	<b>380</b>		<b>360</b>	<b>µg/Kg-dry</b>	100	8/5/2011 06:55 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	94.8		70-120	%REC	100	8/5/2011 06:55 AM
<i>Surr: 4-Bromofluorobenzene</i>	100		75-120	%REC	100	8/5/2011 06:55 AM
<i>Surr: Dibromofluoromethane</i>	94.2		85-115	%REC	100	8/5/2011 06:55 AM
<i>Surr: Toluene-d8</i>	99.1		85-115	%REC	100	8/5/2011 06:55 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
<b>Chromium, Trivalent</b>	<b>33</b>			<b>mg/L-dry</b>	1	8/3/2011 10:09 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	8/2/2011 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
<b>Moisture</b>	<b>16</b>		<b>0.050</b>	<b>% of sample</b>	1	7/29/2011 03:27 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
<b>pH</b>	<b>8.32</b>			<b>s.u.</b>	1	7/29/2011 02:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** N. Wall  
**Collection Date:** 7/26/2011 09:10 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-06  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>10</b>		<b>SW8015M</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>RM</b>
			<b>4.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 08:01 PM
Surr: 4-Terphenyl-d14	94.0		39-115	%REC	1	8/2/2011 08:01 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>6.1</b>	<b>mg/Kg-dry</b>	<b>100</b>	8/1/2011 05:51 PM
Surr: Toluene-d8	106		50-150	%REC	100	8/1/2011 05:51 PM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep Date: <b>8/2/2011</b>	Analyst: <b>LR</b>
			<b>0.021</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/2/2011 12:45 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>15</b>		<b>SW6020A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>CES</b>
			<b>0.86</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>Barium</b>	<b>560</b>		<b>8.6</b>	<b>mg/Kg-dry</b>	<b>20</b>	8/2/2011 11:33 AM
<b>Cadmium</b>	<b>0.58</b>		<b>0.35</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>Chromium</b>	<b>38</b>		<b>0.86</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>Copper</b>	<b>26</b>		<b>0.86</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>Lead</b>	<b>26</b>		<b>0.86</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>Nickel</b>	<b>28</b>		<b>0.86</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>Selenium</b>	<b>1.3</b>		<b>0.86</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
Silver	ND		0.86	mg/Kg-dry	2	8/2/2011 03:24 AM
<b>Zinc</b>	<b>99</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>2</b>	8/2/2011 03:24 AM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	See Report		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>as noted</b>		<b>1</b>	8/3/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>HL</b>
			<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Anthracene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Benzo(b)fluoranthene</b>	<b>66</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Chrysene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Fluorene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Naphthalene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
<b>Pyrene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	<b>1</b>	8/2/2011 11:31 PM
Surr: 2,4,6-Tribromophenol	73.1		34-140	%REC	1	8/2/2011 11:31 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 05-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5 Pad LOE 7/26/11  
**Sample ID:** N. Wall  
**Collection Date:** 7/26/2011 09:10 AM

**Work Order:** 1107787  
**Lab ID:** 1107787-06  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	63.4		12-100	%REC	1	8/2/2011 11:31 PM
<i>Surr: 2-Fluorophenol</i>	67.5		33-117	%REC	1	8/2/2011 11:31 PM
<i>Surr: 4-Terphenyl-d14</i>	78.3		25-137	%REC	1	8/2/2011 11:31 PM
<i>Surr: Nitrobenzene-d5</i>	66.1		37-107	%REC	1	8/2/2011 11:31 PM
<i>Surr: Phenol-d6</i>	68.6		40-106	%REC	1	8/2/2011 11:31 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>MK</b>
Benzene	ND		120	µg/Kg-dry	100	8/5/2011 07:22 AM
Ethylbenzene	ND		120	µg/Kg-dry	100	8/5/2011 07:22 AM
m,p-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 07:22 AM
o-Xylene	ND		120	µg/Kg-dry	100	8/5/2011 07:22 AM
Toluene	ND		120	µg/Kg-dry	100	8/5/2011 07:22 AM
Xylenes, Total	ND		360	µg/Kg-dry	100	8/5/2011 07:22 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	94.8		70-120	%REC	100	8/5/2011 07:22 AM
<i>Surr: 4-Bromofluorobenzene</i>	99.6		75-120	%REC	100	8/5/2011 07:22 AM
<i>Surr: Dibromofluoromethane</i>	94.8		85-115	%REC	100	8/5/2011 07:22 AM
<i>Surr: Toluene-d8</i>	99.2		85-115	%REC	100	8/5/2011 07:22 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	38			mg/L-dry	1	8/3/2011 10:09 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>8/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	8/2/2011 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	18		0.050	% of sample	1	7/29/2011 03:27 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
pH	8.08			s.u.	1	7/29/2011 02:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Report Number: F11213-0307

Account Number: 91000

# A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4413 • Phone 260-483-4759 • Fax 260-483-5274

www.algreatlakes.com • lab@algreatlakes.com



**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1107787

DATE RECEIVED: 08/01/2011

DATE REPORTED: 08/03/2011

PAGE: 1

P.O. NUMBER: 20-122010486

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
44650	01C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	25.52	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	431	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	41	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	22611	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	278.2	-	USDA Handbook 60
44651	02C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	24.08	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	609	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	70	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	19248	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	196.5	-	USDA Handbook 60
44652	03C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	36.20	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	526	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	59	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	31297	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	344.4	-	USDA Handbook 60
44653	04C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	10.45	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	159	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	17	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	10577	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	212.5	-	USDA Handbook 60

Report Number: F11213-0307

Account Number: 91000

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**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1107787

DATE RECEIVED: 08/01/2011

DATE REPORTED: 08/03/2011

PAGE: 2

P.O. NUMBER: 20-122010486

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
44654	05C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	1.44	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	26	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	8	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	1203	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	52.8	-	USDA Handbook 60
44655	06C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	0.55	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	37	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	16	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	233	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	8.0	-	USDA Handbook 60

# ALS Group USA, Corp

Date: 05-Aug-11

Client: HRL Compliance Solutions

## QC BATCH REPORT

Work Order: 1107787

Project: Williams TR 31-5 Pad LOE 7/26/11

Batch ID: 34639 Instrument ID GC8 Method: SW8015M

<b>MBLK</b>	Sample ID: <b>DBLKS1-34639-34639</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 05:37 PM</b>			
Client ID:	Run ID: <b>GC8_110802A</b>				SeqNo: <b>1694411</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.752	0	2	0	87.6	39-115	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-34639-34639</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 09:35 PM</b>			
Client ID:	Run ID: <b>GC8_110802A</b>				SeqNo: <b>1694392</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	134.6	5.0	200	0	67.3	60-130	0			
Surr: 4-Terphenyl-d14	1.32	0	2	0	66	39-115	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-34639-34639</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 09:35 PM</b>			
Client ID:	Run ID: <b>GC8_110802A</b>				SeqNo: <b>1694421</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	190.4	5.0	200	0	95.2	60-130	134.6	34.4	30	R
Surr: 4-Terphenyl-d14	1.616	0	2	0	80.8	39-115	1.32	20.1	30	

<b>MS</b>	Sample ID: <b>1107774-03A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 09:59 PM</b>			
Client ID:	Run ID: <b>GC8_110802A</b>				SeqNo: <b>1694393</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	245.9	8.2	328	0	75	60-130	0			
Surr: 4-Terphenyl-d14	2.159	0	3.28	0	65.8	39-115	0			

<b>MS</b>	Sample ID: <b>1107813-03A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 10:22 PM</b>			
Client ID:	Run ID: <b>GC8_110802A</b>				SeqNo: <b>1694394</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	261	7.9	316.5	0	82.5	60-130	0			
Surr: 4-Terphenyl-d14	2.389	0	3.165	0	75.5	39-115	0			

<b>MSD</b>	Sample ID: <b>1107774-03A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 09:59 PM</b>			
Client ID:	Run ID: <b>GC8_110802A</b>				SeqNo: <b>1694422</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	260.3	8.0	320.3	0	81.3	60-130	245.9	5.72	30	
Surr: 4-Terphenyl-d14	2.143	0	3.203	0	66.9	39-115	2.159	0.732	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34639** Instrument ID **GC8** Method: **SW8015M**

**MSD** Sample ID: **1107813-03A MSD** Units: **mg/Kg** Analysis Date: **8/2/2011 10:22 PM**

Client ID: Run ID: **GC8\_110802A** SeqNo: **1694423** Prep Date: **8/1/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	253.9	8.0	321	0	79.1	60-130	261	2.78	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>2.261</i>	<i>0</i>	<i>3.21</i>	<i>0</i>	<i>70.4</i>	<i>39-115</i>	<i>2.389</i>	<i>5.5</i>	<i>30</i>	

The following samples were analyzed in this batch:

1107787-01B	1107787-02B	1107787-03B
1107787-04B	1107787-05B	1107787-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **R92898**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MBLK-R92898-R92898</b>					Units: <b>µg/L</b>		Analysis Date: <b>8/1/2011 01:16 PM</b>		
Client ID:	Run ID: <b>GC9_110801B</b>					SeqNo: <b>1693052</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>110.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>110</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>LCS-R92898-R92898</b>					Units: <b>µg/L</b>		Analysis Date: <b>8/1/2011 11:56 AM</b>		
Client ID:	Run ID: <b>GC9_110801B</b>					SeqNo: <b>1693050</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	27020	200	25000	0	108	70-130	0			
<i>Surr: Toluene-d8</i>	<i>111</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>111</i>	<i>70-130</i>	<i>0</i>			

<b>LCSD</b>	Sample ID: <b>LCSD-R92898-R92898</b>					Units: <b>µg/L</b>		Analysis Date: <b>8/1/2011 12:23 PM</b>		
Client ID:	Run ID: <b>GC9_110801B</b>					SeqNo: <b>1693051</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	25990	200	25000	0	104	70-130	27020	3.89	30	
<i>Surr: Toluene-d8</i>	<i>107.1</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>107</i>	<i>70-130</i>	<i>111</i>	<i>3.58</i>	<i>30</i>	

<b>MS</b>	Sample ID: <b>1107813-03B MS</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>8/1/2011 10:23 PM</b>		
Client ID:	Run ID: <b>GC9_110801B</b>					SeqNo: <b>1693075</b>		Prep Date:		DF: <b>50</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1360000	2,500	1250000	0	109	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5546</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>111</i>	<i>50-150</i>	<i>0</i>			

<b>MS</b>	Sample ID: <b>1108002-04A MS</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>8/1/2011 10:49 PM</b>		
Client ID:	Run ID: <b>GC9_110801B</b>					SeqNo: <b>1693076</b>		Prep Date:		DF: <b>50</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1370000	2,500	1250000	0	110	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5323</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>106</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>	Sample ID: <b>1107813-03B MSD</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>8/1/2011 11:15 PM</b>		
Client ID:	Run ID: <b>GC9_110801B</b>					SeqNo: <b>1693077</b>		Prep Date:		DF: <b>50</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1228000	2,500	1250000	0	98.3	70-130	1360000	10.2	30	
<i>Surr: Toluene-d8</i>	<i>5250</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>105</i>	<i>50-150</i>	<i>5546</i>	<i>5.48</i>	<i>30</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **R92898** Instrument ID **GC9** Method: **SW8015**

<b>MSD</b>		Sample ID: <b>1108002-04A MSD</b>			Units: <b>µg/Kg</b>			Analysis Date: <b>8/1/2011 11:42 PM</b>		
Client ID:		Run ID: <b>GC9_110801B</b>			SeqNo: <b>1693078</b>			Prep Date: DF: <b>50</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1253000	2,500	1250000	0	100	70-130	1370000	8.95	30	
<i>Surr: Toluene-d8</i>	<i>5218</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>104</i>	<i>50-150</i>	<i>5323</i>	<i>2</i>	<i>30</i>	

The following samples were analyzed in this batch:

1107787-01A	1107787-02A	1107787-03A
1107787-04A	1107787-05A	1107787-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34651**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-34651-34651</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 12:17 PM</b>			
Client ID:	Run ID: <b>HG1_110802A</b>				SeqNo: <b>1693516</b>		Prep Date: <b>8/2/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

<b>LCS</b>	Sample ID: <b>LCS-34651-34651</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 12:19 PM</b>			
Client ID:	Run ID: <b>HG1_110802A</b>				SeqNo: <b>1693517</b>		Prep Date: <b>8/2/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1635	0.020	0.1665	0	98.2	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-34651-34651</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 12:22 PM</b>			
Client ID:	Run ID: <b>HG1_110802A</b>				SeqNo: <b>1693518</b>		Prep Date: <b>8/2/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1695	0.020	0.1665	0	102	80-120	0.1635	3.6	20	

<b>MS</b>	Sample ID: <b>1108002-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 12:54 PM</b>			
Client ID:	Run ID: <b>HG1_110802A</b>				SeqNo: <b>1693533</b>		Prep Date: <b>8/2/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.175	0.017	0.1442	0.02894	101	75-125	0			

<b>MSD</b>	Sample ID: <b>1108002-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 12:56 PM</b>			
Client ID:	Run ID: <b>HG1_110802A</b>				SeqNo: <b>1693534</b>		Prep Date: <b>8/2/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.172	0.017	0.1421	0.02894	101	75-125	0.175	1.76	35	

The following samples were analyzed in this batch:

1107787-01B	1107787-02B	1107787-03B
1107787-04B	1107787-05B	1107787-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34630** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-34630-34630</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 02:20 PM</b>					
Client ID:	Run ID: <b>ICPMS1_110801A</b>		SeqNo: <b>1692525</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.02936	0.25								J
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	0.00583	0.25								J
Lead	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

<b>MBLK</b>	Sample ID: <b>MBLK-34630-34630</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 04:45 PM</b>					
Client ID:	Run ID: <b>ICPMS1_110801A</b>		SeqNo: <b>1693094</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	0.25								
Nickel	ND	0.25								

<b>LCS</b>	Sample ID: <b>LCS-34630-34630</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 04:27 PM</b>					
Client ID:	Run ID: <b>ICPMS1_110801A</b>		SeqNo: <b>1693092</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.546	0.25	5	0	90.9	80-120	0			
Barium	4.95	0.25	5	0	99	80-120	0			
Cadmium	4.734	0.10	5	0	94.7	80-120	0			
Chromium	5.005	0.25	5	0	100	80-120	0			
Copper	4.926	0.25	5	0	98.5	80-120	0			
Lead	4.766	0.25	5	0	95.3	80-120	0			
Nickel	4.934	0.25	5	0	98.7	80-120	0			
Selenium	4.304	0.25	5	0	86.1	80-120	0			
Silver	4.695	0.25	5	0	93.9	80-120	0			
Zinc	4.605	0.50	5	0	92.1	80-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34630**      Instrument ID **ICPMS1**      Method: **SW6020A**

LCSD		Sample ID: <b>LCSD-34630-34630</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 04:33 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110801A</b>				SeqNo: <b>1693093</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.626	0.25	5	0	92.5	80-120	4.546	1.73	20	
Barium	4.894	0.25	5	0	97.9	80-120	4.95	1.13	20	
Cadmium	4.724	0.10	5	0	94.5	80-120	4.734	0.233	20	
Chromium	4.978	0.25	5	0	99.6	80-120	5.005	0.551	20	
Copper	4.959	0.25	5	0	99.2	80-120	4.926	0.658	20	
Lead	4.764	0.25	5	0	95.3	80-120	4.766	0.0315	20	
Nickel	5.025	0.25	5	0	100	80-120	4.934	1.84	20	
Selenium	4.424	0.25	5	0	88.5	80-120	4.304	2.75	20	
Silver	4.639	0.25	5	0	92.8	80-120	4.695	1.2	20	
Zinc	4.672	0.50	5	0	93.4	80-120	4.605	1.43	20	

MS		Sample ID: <b>1107774-03AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 06:10 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110801A</b>				SeqNo: <b>1693105</b>		Prep Date: <b>8/1/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.925	1.4	7.205	4.405	76.6	80-120	0			S
Barium	43.31	1.4	7.205	37.49	80.8	80-120	0			O
Cadmium	7.323	0.58	7.205	0.3187	97.2	80-120	0			
Chromium	15.3	1.4	7.205	8.972	87.8	80-120	0			
Copper	8.219	1.4	7.205	1.694	90.6	80-120	0			
Lead	9.576	1.4	7.205	3.174	88.9	80-120	0			
Nickel	12.95	1.4	7.205	6.909	83.8	80-120	0			
Selenium	6.85	1.4	7.205	0.8182	83.7	80-120	0			
Silver	6.677	1.4	7.205	0.01512	92.5	80-120	0			
Zinc	30.32	2.9	7.205	23	102	80-120	0			

MSD		Sample ID: <b>1107774-03AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 06:16 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110801A</b>				SeqNo: <b>1693106</b>		Prep Date: <b>8/1/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.69	1.5	7.553	4.405	96.5	80-120	9.925	16.3	25	
Barium	44.68	1.5	7.553	37.49	95.2	80-120	43.31	3.11	25	O
Cadmium	7.68	0.60	7.553	0.3187	97.5	80-120	7.323	4.76	25	
Chromium	16.51	1.5	7.553	8.972	99.8	80-120	15.3	7.61	25	
Copper	9.045	1.5	7.553	1.694	97.3	80-120	8.219	9.57	25	
Lead	10.41	1.5	7.553	3.174	95.9	80-120	9.576	8.38	25	
Nickel	14.04	1.5	7.553	6.909	94.4	80-120	12.95	8.09	25	
Selenium	7.628	1.5	7.553	0.8182	90.2	80-120	6.85	10.8	25	
Silver	6.985	1.5	7.553	0.01512	92.3	80-120	6.677	4.5	25	
Zinc	31.87	3.0	7.553	23	117	80-120	30.32	5	25	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

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Batch ID: **34630** Instrument ID **ICPMS1** Method: **SW6020A**

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The following samples were analyzed in this batch:

1107787-01B	1107787-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

# QC BATCH REPORT

Batch ID: **34644** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-34644-34644</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>8/1/2011 10:17 PM</b>			
Client ID:	Run ID: <b>ICPMS1_110801A</b>			SeqNo: <b>1693136</b>			Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04243	0.25								J
Barium	ND	0.25								
Cadmium	0.001578	0.10								J
Chromium	0.00624	0.25								J
Copper	ND	0.25								
Lead	0.00215	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.04109	0.50								J

<b>LCS</b>	Sample ID: <b>LCS-34644-34644</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>8/1/2011 10:23 PM</b>			
Client ID:	Run ID: <b>ICPMS1_110801A</b>			SeqNo: <b>1693137</b>			Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.618	0.25	5	0	92.4	80-120	0			
Barium	4.924	0.25	5	0	98.5	80-120	0			
Cadmium	4.728	0.10	5	0	94.6	80-120	0			
Chromium	4.956	0.25	5	0	99.1	80-120	0			
Copper	4.947	0.25	5	0	98.9	80-120	0			
Lead	4.961	0.25	5	0	99.2	80-120	0			
Nickel	4.946	0.25	5	0	98.9	80-120	0			
Selenium	4.316	0.25	5	0	86.3	80-120	0			
Silver	4.668	0.25	5	0	93.4	80-120	0			
Zinc	4.815	0.50	5	0	96.3	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-34644-34644</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>8/1/2011 10:29 PM</b>			
Client ID:	Run ID: <b>ICPMS1_110801A</b>			SeqNo: <b>1693138</b>			Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.516	0.25	5	0	90.3	80-120	4.618	2.24	20	
Barium	4.95	0.25	5	0	99	80-120	4.924	0.527	20	
Cadmium	4.684	0.10	5	0	93.7	80-120	4.728	0.956	20	
Chromium	5.015	0.25	5	0	100	80-120	4.956	1.17	20	
Copper	4.982	0.25	5	0	99.6	80-120	4.947	0.695	20	
Lead	5.045	0.25	5	0	101	80-120	4.961	1.68	20	
Nickel	4.948	0.25	5	0	99	80-120	4.946	0.0404	20	
Selenium	4.275	0.25	5	0	85.5	80-120	4.316	0.966	20	
Silver	4.732	0.25	5	0	94.6	80-120	4.668	1.37	20	
Zinc	4.52	0.50	5	0	90.4	80-120	4.815	6.32	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34644**      Instrument ID **ICPMS1**      Method: **SW6020A**

MS		Sample ID: <b>1107813-03AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 10:59 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110801A</b>				SeqNo: <b>1693143</b>		Prep Date: <b>8/1/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.796	1.4	6.887	0.7404	102	80-120	0			
Barium	71.52	1.4	6.887	59.43	176	80-120	0			SO
Cadmium	7.017	0.55	6.887	0.2356	98.5	80-120	0			
Chromium	13.75	1.4	6.887	6.748	102	80-120	0			
Copper	9.625	1.4	6.887	2.609	102	80-120	0			
Lead	9.868	1.4	6.887	2.959	100	80-120	0			
Nickel	9.887	1.4	6.887	3.07	99	80-120	0			
Selenium	7.736	1.4	6.887	1.15	95.6	80-120	0			
Silver	6.427	1.4	6.887	0.01879	93	80-120	0			
Zinc	18.23	2.8	6.887	12.41	84.5	80-120	0			

MS		Sample ID: <b>1108002-04BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 12:35 AM</b>		
Client ID:		Run ID: <b>ICPMS1_110801A</b>				SeqNo: <b>1693155</b>		Prep Date: <b>8/1/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.8	1.3	6.748	9.075	99.6	80-120	0			
Barium	91.66	1.3	6.748	88.35	49	80-120	0			SO
Cadmium	7.636	0.54	6.748	1.043	97.7	80-120	0			
Chromium	29.8	1.3	6.748	24.12	84.2	80-120	0			
Copper	14.83	1.3	6.748	8.543	93.2	80-120	0			
Lead	28.07	1.3	6.748	22.61	81	80-120	0			
Nickel	13.17	1.3	6.748	6.991	91.5	80-120	0			
Selenium	7.606	1.3	6.748	1.114	96.2	80-120	0			
Silver	6.31	1.3	6.748	0.1625	91.1	80-120	0			
Zinc	83.83	2.7	6.748	79.02	71.4	80-120	0			SO

MSD		Sample ID: <b>1107813-03AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/1/2011 11:05 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110801A</b>				SeqNo: <b>1693144</b>		Prep Date: <b>8/1/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.312	1.6	7.8	0.7404	97.1	80-120	7.796	6.41	25	
Barium	75.38	1.6	7.8	59.43	205	80-120	71.52	5.26	25	SO
Cadmium	8.081	0.62	7.8	0.2356	101	80-120	7.017	14.1	25	
Chromium	14.18	1.6	7.8	6.748	95.3	80-120	13.75	3.07	25	
Copper	11.3	1.6	7.8	2.609	111	80-120	9.625	16	25	
Lead	10.9	1.6	7.8	2.959	102	80-120	9.868	9.96	25	
Nickel	10.94	1.6	7.8	3.07	101	80-120	9.887	10.1	25	
Selenium	8.534	1.6	7.8	1.15	94.7	80-120	7.736	9.81	25	
Silver	7.413	1.6	7.8	0.01879	94.8	80-120	6.427	14.3	25	
Zinc	16.7	3.1	7.8	12.41	54.9	80-120	18.23	8.78	25	S

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34644**      Instrument ID **ICPMS1**      Method: **SW6020A**

**MSD**      Sample ID: **1108002-04BMSD**      Units: **mg/Kg**      Analysis Date: **8/2/2011 02:43 AM**

Client ID:      Run ID: **ICPMS1\_110801A**      SeqNo: **1693169**      Prep Date: **8/1/2011**      DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.03	1.4	6.964	9.075	114	80-120	15.8	7.48	25	
Barium	94.12	1.4	6.964	88.35	82.9	80-120	91.66	2.65	25	O
Cadmium	8.128	0.56	6.964	1.043	102	80-120	7.636	6.25	25	
Chromium	30.92	1.4	6.964	24.12	97.7	80-120	29.8	3.69	25	
Copper	15.51	1.4	6.964	8.543	100	80-120	14.83	4.44	25	
Lead	28.8	1.4	6.964	22.61	89	80-120	28.07	2.57	25	
Nickel	13.74	1.4	6.964	6.991	96.8	80-120	13.17	4.21	25	
Selenium	8.259	1.4	6.964	1.114	103	80-120	7.606	8.23	25	
Silver	6.724	1.4	6.964	0.1625	94.2	80-120	6.31	6.35	25	
Zinc	84.07	2.8	6.964	79.02	72.5	80-120	83.83	0.279	25	SO

The following samples were analyzed in this batch:

1107787-03B	1107787-04B	1107787-05B
1107787-06B		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

**MBLK**      Sample ID: **SBLKS1-34638-34638**      Units: **µg/Kg**      Analysis Date: **8/2/2011 10:51 AM**

Client ID:      Run ID: **SVMS6\_110802A**      SeqNo: **1693437**      Prep Date: **8/1/2011**      DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1049</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>62.9</i>	<i>34-140</i>		<i>0</i>		
<i>Surr: 2-Fluorobiphenyl</i>	<i>793.7</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>47.6</i>	<i>12-100</i>		<i>0</i>		
<i>Surr: 2-Fluorophenol</i>	<i>843</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>50.6</i>	<i>33-117</i>		<i>0</i>		
<i>Surr: 4-Terphenyl-d14</i>	<i>1167</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>70</i>	<i>25-137</i>		<i>0</i>		
<i>Surr: Nitrobenzene-d5</i>	<i>746.7</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>44.8</i>	<i>37-107</i>		<i>0</i>		
<i>Surr: Phenol-d6</i>	<i>823.3</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>49.4</i>	<i>40-106</i>		<i>0</i>		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

LCS		Sample ID: <b>SLCSS1-34638-34638</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/2/2011 09:57 AM</b>		
Client ID:		Run ID: <b>SVMS6_110802A</b>				SeqNo: <b>1693435</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1115	30	1333	0	83.6	45-110	0			
Anthracene	1177	30	1333	0	88.3	55-105	0			
Benzo(a)anthracene	1170	30	1333	0	87.7	50-110	0			
Benzo(a)pyrene	1234	30	1333	0	92.6	50-110	0			
Benzo(b)fluoranthene	1257	30	1333	0	94.3	45-115	0			
Benzo(g,h,i)perylene	1328	30	1333	0	99.6	40-125	0			
Benzo(k)fluoranthene	1249	30	1333	0	93.7	45-115	0			
Chrysene	1183	30	1333	0	88.7	55-110	0			
Dibenzo(a,h)anthracene	1300	30	1333	0	97.5	40-125	0			
Fluoranthene	1200	30	1333	0	90	55-115	0			
Fluorene	1111	30	1333	0	83.3	50-110	0			
Indeno(1,2,3-cd)pyrene	1283	30	1333	0	96.2	40-120	0			
Naphthalene	1109	30	1333	0	83.2	40-105	0			
Pyrene	1236	30	1333	0	92.7	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1347</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>80.8</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1070</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>64.2</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1172</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>70.3</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1273</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>76.4</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1165</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>69.9</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1139</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>68.3</i>	<i>40-106</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

LCSD		Sample ID: <b>SLCSDS1-34638-34638</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/2/2011 10:24 AM</b>		
Client ID:		Run ID: <b>SVMS6_110802A</b>				SeqNo: <b>1693436</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1036	30	1333	0	77.7	45-110	1115	7.32	25	
Anthracene	1154	30	1333	0	86.6	55-105	1177	1.97	25	
Benzo(a)anthracene	1139	30	1333	0	85.5	50-110	1170	2.63	25	
Benzo(a)pyrene	1213	30	1333	0	91	50-110	1234	1.69	25	
Benzo(b)fluoranthene	1157	30	1333	0	86.8	45-115	1257	8.29	25	
Benzo(g,h,i)perylene	1347	30	1333	0	101	40-125	1328	1.45	25	
Benzo(k)fluoranthene	1385	30	1333	0	104	45-115	1249	10.3	25	
Chrysene	1185	30	1333	0	88.9	55-110	1183	0.169	25	
Dibenzo(a,h)anthracene	1294	30	1333	0	97.1	40-125	1300	0.463	25	
Fluoranthene	1200	30	1333	0	90	55-115	1200	0.0278	25	
Fluorene	1055	30	1333	0	79.1	50-110	1111	5.2	25	
Indeno(1,2,3-cd)pyrene	1278	30	1333	0	95.9	40-120	1283	0.364	25	
Naphthalene	972	30	1333	0	72.9	40-105	1109	13.2	25	
Pyrene	1227	30	1333	0	92	45-125	1236	0.758	25	
<i>Surr: 2,4,6-Tribromophenol</i>	1296	0	1667	0	77.8	34-140	1347	3.86	40	
<i>Surr: 2-Fluorobiphenyl</i>	965	0	1667	0	57.9	12-100	1070	10.3	40	
<i>Surr: 2-Fluorophenol</i>	1033	0	1667	0	62	33-117	1172	12.5	40	
<i>Surr: 4-Terphenyl-d14</i>	1260	0	1667	0	75.6	25-137	1273	1.03	40	
<i>Surr: Nitrobenzene-d5</i>	1019	0	1667	0	61.1	37-107	1165	13.4	40	
<i>Surr: Phenol-d6</i>	1014	0	1667	0	60.9	40-106	1139	11.6	40	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

MS				Units: µg/Kg			Analysis Date: 8/2/2011 01:21 PM					
Sample ID: 1107675-09A MS				Run ID: SVMS6_110802A			SeqNo: 1693642		Prep Date: 8/1/2011		DF: 1	
Client ID:												
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Acenaphthene	1991	57	2531	0	78.7	45-110	0					
Anthracene	2138	57	2531	0	84.5	55-105	0					
Benzo(a)anthracene	2075	57	2531	19.36	81.2	50-110	0					
Benzo(a)pyrene	2236	57	2531	22.96	87.4	50-110	0					
Benzo(b)fluoranthene	2186	57	2531	22.31	85.5	45-115	0					
Benzo(g,h,i)perylene	2439	57	2531	20.01	95.6	40-125	0					
Benzo(k)fluoranthene	2374	57	2531	0	93.8	45-115	0					
Chrysene	2106	57	2531	19.68	82.4	55-110	0					
Dibenzo(a,h)anthracene	2378	57	2531	0	94	40-125	0					
Fluoranthene	2198	57	2531	22.31	85.9	55-115	0					
Fluorene	2031	57	2531	0	80.2	50-110	0					
Indeno(1,2,3-cd)pyrene	2330	57	2531	0	92.1	40-120	0					
Naphthalene	1881	57	2531	0	74.3	40-105	0					
Pyrene	2210	57	2531	23.95	86.4	45-125	0					
Surr: 2,4,6-Tribromophenol	2427	0	3164	0	76.7	34-140	0					
Surr: 2-Fluorobiphenyl	1715	0	3164	0	54.2	12-100	0					
Surr: 2-Fluorophenol	1934	0	3164	0	61.1	33-117	0					
Surr: 4-Terphenyl-d14	2080	0	3164	0	65.7	25-137	0					
Surr: Nitrobenzene-d5	2044	0	3164	0	64.6	37-107	0					
Surr: Phenol-d6	1952	0	3164	0	61.7	40-106	0					

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

MS				Sample ID: 1107774-03A MS		Units: µg/Kg		Analysis Date: 8/2/2011 04:04 PM		
Client ID:		Run ID: SVMS6_110802A			SeqNo: 1694571		Prep Date: 8/1/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1912	57	2553	0	74.9	45-110	0			
Anthracene	2088	57	2553	0	81.8	55-105	0			
Benzo(a)anthracene	2030	57	2553	0	79.5	50-110	0			
Benzo(a)pyrene	2174	57	2553	0	85.2	50-110	0			
Benzo(b)fluoranthene	2159	57	2553	0	84.6	45-115	0			
Benzo(g,h,i)perylene	2231	57	2553	0	87.4	40-125	0			
Benzo(k)fluoranthene	2286	57	2553	0	89.5	45-115	0			
Chrysene	2094	57	2553	0	82	55-110	0			
Dibenzo(a,h)anthracene	2254	57	2553	0	88.3	40-125	0			
Fluoranthene	2147	57	2553	0	84.1	55-115	0			
Fluorene	1947	57	2553	0	76.3	50-110	0			
Indeno(1,2,3-cd)pyrene	2197	57	2553	0	86.1	40-120	0			
Naphthalene	1838	57	2553	0	72	40-105	0			
Pyrene	2161	57	2553	0	84.6	45-125	0			
Surr: 2,4,6-Tribromophenol	2453	0	3191	0	76.9	34-140	0			
Surr: 2-Fluorobiphenyl	1566	0	3191	0	49.1	12-100	0			
Surr: 2-Fluorophenol	2059	0	3191	0	64.5	33-117	0			
Surr: 4-Terphenyl-d14	1924	0	3191	0	60.3	25-137	0			
Surr: Nitrobenzene-d5	1947	0	3191	0	61	37-107	0			
Surr: Phenol-d6	1994	0	3191	0	62.5	40-106	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

MS				Sample ID: 1107813-03A MS			Units: µg/Kg		Analysis Date: 8/2/2011 04:58 PM		
Client ID:			Run ID: SVMS6_110802A			SeqNo: 1694573		Prep Date: 8/1/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	2020	57	2514	0	80.4	45-110	0				
Anthracene	2155	57	2514	0	85.7	55-105	0				
Benzo(a)anthracene	2092	57	2514	0	83.2	50-110	0				
Benzo(a)pyrene	2247	57	2514	0	89.4	50-110	0				
Benzo(b)fluoranthene	2252	57	2514	0	89.6	45-115	0				
Benzo(g,h,i)perylene	2276	57	2514	0	90.5	40-125	0				
Benzo(k)fluoranthene	2304	57	2514	0	91.7	45-115	0				
Chrysene	2100	57	2514	0	83.5	55-110	0				
Dibenzo(a,h)anthracene	2288	57	2514	0	91	40-125	0				
Fluoranthene	2202	57	2514	0	87.6	55-115	0				
Fluorene	2019	57	2514	0	80.3	50-110	0				
Indeno(1,2,3-cd)pyrene	2240	57	2514	0	89.1	40-120	0				
Naphthalene	1967	57	2514	0	78.3	40-105	0				
Pyrene	2185	57	2514	0	86.9	45-125	0				
Surr: 2,4,6-Tribromophenol	2457	0	3142	0	78.2	34-140	0				
Surr: 2-Fluorobiphenyl	1762	0	3142	0	56.1	12-100	0				
Surr: 2-Fluorophenol	2186	0	3142	0	69.6	33-117	0				
Surr: 4-Terphenyl-d14	2024	0	3142	0	64.4	25-137	0				
Surr: Nitrobenzene-d5	2102	0	3142	0	66.9	37-107	0				
Surr: Phenol-d6	2119	0	3142	0	67.4	40-106	0				

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

MSD				Sample ID: <b>1107675-09A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/2/2011 01:48 PM</b>	
Client ID:				Run ID: <b>SVMS6_110802A</b>			SeqNo: <b>1693643</b>		Prep Date: <b>8/1/2011</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2095	57	2519	0	83.2	45-110	1991	5.09	30	
Anthracene	2189	57	2519	0	86.9	55-105	2138	2.36	30	
Benzo(a)anthracene	2133	57	2519	19.36	83.9	50-110	2075	2.77	30	
Benzo(a)pyrene	2286	57	2519	22.96	89.8	50-110	2236	2.21	30	
Benzo(b)fluoranthene	2331	57	2519	22.31	91.6	45-115	2186	6.41	30	
Benzo(g,h,i)perylene	2523	57	2519	20.01	99.4	40-125	2439	3.4	30	
Benzo(k)fluoranthene	2271	57	2519	0	90.2	45-115	2374	4.44	30	
Chrysene	2173	57	2519	19.68	85.5	55-110	2106	3.13	30	
Dibenzo(a,h)anthracene	2441	57	2519	0	96.9	40-125	2378	2.6	30	
Fluoranthene	2284	57	2519	22.31	89.8	55-115	2198	3.84	30	
Fluorene	2089	57	2519	0	82.9	50-110	2031	2.84	30	
Indeno(1,2,3-cd)pyrene	2394	57	2519	0	95	40-120	2330	2.71	30	
Naphthalene	2024	57	2519	0	80.4	40-105	1881	7.36	30	
Pyrene	2300	57	2519	23.95	90.4	45-125	2210	3.98	30	
<i>Surr: 2,4,6-Tribromophenol</i>	2427	0	3149	0	77.1	34-140	2427	0.00097	40	
<i>Surr: 2-Fluorobiphenyl</i>	1681	0	3149	0	53.4	12-100	1715	1.99	40	
<i>Surr: 2-Fluorophenol</i>	1988	0	3149	0	63.1	33-117	1934	2.78	40	
<i>Surr: 4-Terphenyl-d14</i>	1928	0	3149	0	61.2	25-137	2080	7.59	40	
<i>Surr: Nitrobenzene-d5</i>	2165	0	3149	0	68.7	37-107	2044	5.74	40	
<i>Surr: Phenol-d6</i>	2045	0	3149	0	64.9	40-106	1952	4.68	40	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

MSD				Sample ID: <b>1107774-03A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/2/2011 04:31 PM</b>	
Client ID:				Run ID: <b>SVMS6_110802A</b>			SeqNo: <b>1694572</b>		Prep Date: <b>8/1/2011</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2009	59	2623	0	76.6	45-110	1912	4.92	30	
Anthracene	2190	59	2623	0	83.5	55-105	2088	4.74	30	
Benzo(a)anthracene	2198	59	2623	0	83.8	50-110	2030	7.97	30	
Benzo(a)pyrene	2338	59	2623	0	89.1	50-110	2174	7.27	30	
Benzo(b)fluoranthene	2240	59	2623	0	85.4	45-115	2159	3.71	30	
Benzo(g,h,i)perylene	2400	59	2623	0	91.5	40-125	2231	7.29	30	
Benzo(k)fluoranthene	2580	59	2623	0	98.4	45-115	2286	12.1	30	
Chrysene	2230	59	2623	0	85	55-110	2094	6.3	30	
Dibenzo(a,h)anthracene	2383	59	2623	0	90.8	40-125	2254	5.56	30	
Fluoranthene	2312	59	2623	0	88.2	55-115	2147	7.41	30	
Fluorene	2033	59	2623	0	77.5	50-110	1947	4.34	30	
Indeno(1,2,3-cd)pyrene	2346	59	2623	0	89.4	40-120	2197	6.56	30	
Naphthalene	1969	59	2623	0	75.1	40-105	1838	6.86	30	
Pyrene	2295	59	2623	0	87.5	45-125	2161	6.05	30	
<i>Surr: 2,4,6-Tribromophenol</i>	<i>2482</i>	<i>0</i>	<i>3279</i>	<i>0</i>	<i>75.7</i>	<i>34-140</i>	<i>2453</i>	<i>1.16</i>	<i>40</i>	
<i>Surr: 2-Fluorobiphenyl</i>	<i>1751</i>	<i>0</i>	<i>3279</i>	<i>0</i>	<i>53.4</i>	<i>12-100</i>	<i>1566</i>	<i>11.2</i>	<i>40</i>	
<i>Surr: 2-Fluorophenol</i>	<i>2120</i>	<i>0</i>	<i>3279</i>	<i>0</i>	<i>64.7</i>	<i>33-117</i>	<i>2059</i>	<i>2.93</i>	<i>40</i>	
<i>Surr: 4-Terphenyl-d14</i>	<i>2118</i>	<i>0</i>	<i>3279</i>	<i>0</i>	<i>64.6</i>	<i>25-137</i>	<i>1924</i>	<i>9.59</i>	<i>40</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>2066</i>	<i>0</i>	<i>3279</i>	<i>0</i>	<i>63</i>	<i>37-107</i>	<i>1947</i>	<i>5.94</i>	<i>40</i>	
<i>Surr: Phenol-d6</i>	<i>2080</i>	<i>0</i>	<i>3279</i>	<i>0</i>	<i>63.4</i>	<i>40-106</i>	<i>1994</i>	<i>4.2</i>	<i>40</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34638**      Instrument ID **SVMS6**      Method: **SW8270**

MSD				Sample ID: 1107813-03A MSD			Units: µg/Kg		Analysis Date: 8/2/2011 05:25 PM		
Client ID:		Run ID: SVMS6_110802A			SeqNo: 1694574		Prep Date: 8/1/2011		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1993	57	2522	0	79	45-110	2020	1.36	30		
Anthracene	2168	57	2522	0	86	55-105	2155	0.596	30		
Benzo(a)anthracene	2107	57	2522	0	83.5	50-110	2092	0.693	30		
Benzo(a)pyrene	2251	57	2522	0	89.3	50-110	2247	0.194	30		
Benzo(b)fluoranthene	2227	57	2522	0	88.3	45-115	2252	1.1	30		
Benzo(g,h,i)perylene	2295	57	2522	0	91	40-125	2276	0.83	30		
Benzo(k)fluoranthene	2404	57	2522	0	95.3	45-115	2304	4.24	30		
Chrysene	2155	57	2522	0	85.5	55-110	2100	2.61	30		
Dibenzo(a,h)anthracene	2336	57	2522	0	92.6	40-125	2288	2.05	30		
Fluoranthene	2218	57	2522	0	88	55-115	2202	0.732	30		
Fluorene	2022	57	2522	0	80.2	50-110	2019	0.178	30		
Indeno(1,2,3-cd)pyrene	2267	57	2522	0	89.9	40-120	2240	1.23	30		
Naphthalene	1907	57	2522	0	75.6	40-105	1967	3.11	30		
Pyrene	2177	57	2522	0	86.3	45-125	2185	0.359	30		
Surr: 2,4,6-Tribromophenol	2495	0	3153	0	79.1	34-140	2457	1.55	40		
Surr: 2-Fluorobiphenyl	1579	0	3153	0	50.1	12-100	1762	11	40		
Surr: 2-Fluorophenol	2064	0	3153	0	65.5	33-117	2186	5.77	40		
Surr: 4-Terphenyl-d14	1948	0	3153	0	61.8	25-137	2024	3.82	40		
Surr: Nitrobenzene-d5	1977	0	3153	0	62.7	37-107	2102	6.15	40		
Surr: Phenol-d6	2022	0	3153	0	64.1	40-106	2119	4.71	40		

The following samples were analyzed in this batch:

1107787-01B	1107787-02B	1107787-03B
1107787-04B	1107787-05B	1107787-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

# QC BATCH REPORT

Batch ID: **R93049A**      Instrument ID **VMS7**      Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW2-110804-R93049A</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/5/2011 01:50 AM</b>			
Client ID:	Run ID: <b>VMS7_110804B</b>				SeqNo: <b>1696086</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	97.45	0	100	0	97.4	70-120	0			
Surr: 4-Bromofluorobenzene	97.55	0	100	0	97.6	75-120	0			
Surr: Dibromofluoromethane	97.98	0	100	0	98	85-115	0			
Surr: Toluene-d8	98.47	0	100	0	98.5	85-120	0			

<b>LCS</b>	Sample ID: <b>VLCSW2-110804-R93049A</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/5/2011 12:33 PM</b>			
Client ID:	Run ID: <b>VMS7_110804B</b>				SeqNo: <b>1696087</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.12	1.0	20	0	101	80-120	0			
Ethylbenzene	20.17	1.0	20	0	101	75-125	0			
m,p-Xylene	39.88	2.0	40	0	99.7	75-130	0			
o-Xylene	19.8	1.0	20	0	99	80-120	0			
Toluene	20	1.0	20	0	100	75-120	0			
Xylenes, Total	59.68	2.0	60	0	99.5	75-130	0			
Surr: 1,2-Dichloroethane-d4	94.91	0	100	0	94.9	70-120	0			
Surr: 4-Bromofluorobenzene	99.33	0	100	0	99.3	75-120	0			
Surr: Dibromofluoromethane	99.85	0	100	0	99.8	85-115	0			
Surr: Toluene-d8	99.3	0	100	0	99.3	85-120	0			

<b>LCSD</b>	Sample ID: <b>VLCSDW2-110804-R93049A</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/5/2011 12:59 PM</b>			
Client ID:	Run ID: <b>VMS7_110804B</b>				SeqNo: <b>1696088</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.44	1.0	20	0	97.2	80-120	20.12	3.44	30	
Ethylbenzene	19.25	1.0	20	0	96.2	75-125	20.17	4.67	30	
m,p-Xylene	38.34	2.0	40	0	95.8	75-130	39.88	3.94	30	
o-Xylene	19.2	1.0	20	0	96	80-120	19.8	3.08	30	
Toluene	19.43	1.0	20	0	97.2	75-120	20	2.89	30	
Xylenes, Total	57.54	2.0	60	0	95.9	75-130	59.68	3.65	30	
Surr: 1,2-Dichloroethane-d4	96.19	0	100	0	96.2	70-120	94.91	1.34	30	
Surr: 4-Bromofluorobenzene	100.3	0	100	0	100	75-120	99.33	0.982	30	
Surr: Dibromofluoromethane	100.2	0	100	0	100	85-115	99.85	0.36	30	
Surr: Toluene-d8	99.2	0	100	0	99.2	85-120	99.3	0.101	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

**QC BATCH REPORT**

Batch ID: **R93049A**      Instrument ID **VMS7**      Method: **SW8260**

The following samples were analyzed in this batch:

1107787-01A	1107787-02A	1107787-03A
1107787-04A	1107787-05A	1107787-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **34674**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>	Sample ID: <b>MBLK-34674-34674</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 03:30 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110802F</b>				SeqNo: <b>1693947</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.49								

<b>LCS</b>	Sample ID: <b>LCS-34674-34674</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 03:30 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110802F</b>				SeqNo: <b>1693945</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.992	0.49	1.969	0	101	75-110	0			

<b>LCSD</b>	Sample ID: <b>LCSD-34674-34674</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 03:30 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110802F</b>				SeqNo: <b>1693946</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.954	0.48	1.931	0	101	75-110	1.992	1.95	20	

<b>MS</b>	Sample ID: <b>1107786-03B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 03:30 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110802F</b>				SeqNo: <b>1693936</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.603	0.50	1.984	0	80.8	60-130	0			

<b>MSD</b>	Sample ID: <b>1107786-03B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/2/2011 03:30 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110802F</b>				SeqNo: <b>1693937</b>		Prep Date: <b>8/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.441	0.49	1.969	0	73.2	60-130	1.603	10.7	30	

The following samples were analyzed in this batch:

1107787-01B	1107787-02B	1107787-03B
1107787-04B	1107787-05B	1107787-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **R92807** Instrument ID **WETCHEM** Method: **SW9045D**

<b>DUP</b>	Sample ID: <b>1107778-01A DUP</b>				Units: <b>s.u.</b>			Analysis Date: <b>7/29/2011 08:50 AM</b>		
Client ID:	Run ID: <b>WETCHEM_110729D</b>				SeqNo: <b>1690922</b>			Prep Date: DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.72	0	0	0	0	0-0	8.72	0	20	

<b>DUP</b>	Sample ID: <b>1107792-02B DUP</b>				Units: <b>s.u.</b>			Analysis Date: <b>7/29/2011 02:00 PM</b>		
Client ID:	Run ID: <b>WETCHEM_110729D</b>				SeqNo: <b>1690937</b>			Prep Date: DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.88	0	0	0	0	0-0	8.88	0	20	

The following samples were analyzed in this batch:

1107787-01B	1107787-02B	1107787-03B
1107787-04B	1107787-05B	1107787-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **R92844**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R92844</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_110729B</b>				SeqNo: <b>1691851</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R92844</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_110729B</b>				SeqNo: <b>1691850</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1107774-03ADUP1</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_110729B</b>				SeqNo: <b>1691826</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	39.01	0.050	0	0	0	0-0	39.85	2.13	20	

<b>DUP</b>	Sample ID: <b>1107774-03ADUP2</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_110729B</b>				SeqNo: <b>1691827</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	41.12	0.050	0	0	0	0-0	39.85	3.14	20	

<b>DUP</b>	Sample ID: <b>1107787-01BDUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 02:00 PM</b>		
Client ID: <b>S. Wall</b>	Run ID: <b>MOIST_110729B</b>				SeqNo: <b>1691848</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	24.05	0.050	0	0	0	0-0	23.96	0.375	20	

The following samples were analyzed in this batch:

1107787-01B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1107787  
**Project:** Williams TR 31-5 Pad LOE 7/26/11

## QC BATCH REPORT

Batch ID: **R92848** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R92848</b>			Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 03:27 PM</b>			
Client ID:	Run ID: <b>MOIST_110729C</b>			SeqNo: <b>1691897</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R92848</b>			Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 03:27 PM</b>			
Client ID:	Run ID: <b>MOIST_110729C</b>			SeqNo: <b>1691896</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1107787-02BDUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 03:27 PM</b>			
Client ID: <b>S. Bottom</b>	Run ID: <b>MOIST_110729C</b>			SeqNo: <b>1691881</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.62	0.050	0	0	0	0-0	19.9	1.42	20	

<b>DUP</b>	Sample ID: <b>1107793-04ADUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 03:27 PM</b>			
Client ID:	Run ID: <b>MOIST_110729C</b>			SeqNo: <b>1691892</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	1.04	0.050	0	0	0	0-0	0.97	6.97	20	

<b>DUP</b>	Sample ID: <b>1107795-01ADUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>7/29/2011 03:27 PM</b>			
Client ID:	Run ID: <b>MOIST_110729C</b>			SeqNo: <b>1691894</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	95.51	0.050	0	0	0	0-0	95.49	0.0209	20	

The following samples were analyzed in this batch:

1107787-02B	1107787-03B	1107787-04B
1107787-05B	1107787-06B	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

WORKORDER  
#

1107787

PROJECT NAME		TR 31-5 Pad LOE		SAMPLER		Reed Wold		DATE		7/26/2011		PAGE		1 of 1	
PROJECT No.				SITE ID		TR 31-5		TURNAROUND		5 day		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL COMPLIANCE SOLUTIONS Inc.		BILL TO COMPANY		Williams		BTEX/ GRO DRO/ PAH/ Metals (table 910-1) SAR/ EC/ PH							
SEND REPORT TO		Mark Mumby		INVOICE ATTN TO		Karolia Blaney									
ADDRESS		744 HORIZON CT SUITE 140		ADDRESS		1058 co rd 215									
CITY / STATE / ZIP		GRAND JUNCTION CO 81506		CITY / STATE / ZIP		Parachute CO 81635									
PHONE		970-243-3271		PHONE		970-683-2295									
FAX		970-243-3280		FAX		970-285-9573									
E-MAIL		Mmumby@hrlcomp.com		E-MAIL		Karolia.blaney@williams.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
01	S. Wall	SO	7/26/2011	9:30	3	8		X	X	X					
02	S. Bottom	SO	7/26/2011	8:50	3	8		X	X	X					
03	W. Wall	SO	7/26/2011	9:20	3	8		X	X	X					
04	E. Wall	SO	7/26/2011	9:00	3	8		X	X	X					
05	N. Bottom	SO	7/26/2011	8:40	3	8		X	X	X					
06	N. Wall	SO	7/26/2011	9:10	3	8		X	X	X					

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	7/28/11	4pm
RECEIVED BY	Diane F. Shaw	Diane F. Shaw	7/29/11	1000
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

BBY SEAL

ATURE

QEC

Quality Environmental Containers  
800-255-3950 • 304-255-3900

**edEX** NEW Package  
Express US Airbill

FedEx  
Tracking  
Number

8758 3475 8932

0200 Form  
JQ No.

FedEx Retrieval Copy

lbs.  
1 new  
unit.

FRI - 20 / 11

fedex.com 1.800.GoFedEx 1.800.463.3339

From  
Date 7/29/11 Sender's FedEx  
Account Number  
Sender's Name Reed Wald Phone 970 243-3271

Company HRL compliance  
Address 744 Horizon Ct Suite 190  
City Grand Junction State CO ZIP 81506  
Dept./Floor/Suite/Room

2 Your Internal Billing Reference  
3 To  
Recipient's Name Sample Recipient Phone 616 399 6070  
Company ALS Group

Address 3352 128th Ave  
We cannot deliver to P.O. boxes or P.O. ZIP codes.  
Dept./Floor/Suite/Room  
Address  
Use this line for the HOLD location address or for continuation of your address.  
City Holland State MI ZIP 49424



8758 3932

4 Express Package Service

\* To most locations.  
NOTE: Service order has changed. Please select carefully.

Next Business Day

- 06 ☐ FedEx First Overnight  
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- 01 ☒ FedEx Priority Overnight  
Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- 05 ☐ FedEx Standard Overnight  
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

- 49 ☐ NEW FedEx 2Day A.M.  
Second business morning. Saturday Delivery NOT available.
- 03 ☐ FedEx 2Day  
Second business afternoon. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- 20 ☐ FedEx Express Saver  
Third business day. Saturday Delivery NOT available.

5 Packaging

\* Declared value limit \$500.

- 06 ☐ FedEx Envelope\* 02 ☐ FedEx Pak\* 03 ☐ FedEx Box 04 ☐ FedEx Tube 01 ☐ Other

6 Special Handling and Delivery Signature Options

03 SATURDAY DELIVERY

☒ No Signature Required  
Package may be left without obtaining a signature for delivery.

10 ☐ Direct Signature  
Someone at recipient's address may sign for delivery. Fee applies.

34 ☐ Indirect Signature  
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies. Residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.  
☒ No 04 ☐ Yes  
As per attached Shipper's Declaration. Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

06 ☐ Dry Ice  
Dry Ice 3 UN 1815

☐ Cargo Aircraft Only

7 Payment Bill to:

- 1 ☐ Sender Acct. No. in Section 1 will be billed. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Total Packages 1

Total Weight 6.8 lbs.

Credit Card Auth.

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 29-Jul-11 10:00

Work Order: 1107787

Received by: DS

Checklist completed by Diane Shaw  
eSignature

29-Jul-11

Date

Reviewed by: Ann Preston  
eSignature

29-Jul-11

Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Container/Temp Blank temperature in compliance? Yes ☒ No ☐

Temperature(s)/Thermometer(s): 3.8 c

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt? Yes ☐ No ☐ N/A ☒

pH adjusted? Yes ☐ No ☐ N/A ☒

pH adjusted by: -

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



18-Nov-2011

Mark Mumby  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **Williams TR 31-5-697 11/8/11**

Work Order: **1111575**

Dear Mark,

ALS Environmental received 1 sample on 16-Nov-2011 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental The ALS logo, a small blue triangle with a yellow flame.

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RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 11/8/11  
**Work Order:** 1111575**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1111575-01	East Wall	Soil		11/8/2011 10:20	11/16/2011 10:00	<input type="checkbox"/>

## ALS Group USA, Corp

*Date: 18-Nov-11*

---

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 11/8/11  
**Work Order:** 1111575

---

### Case Narrative

Batch R97862 sample 1111575-01 for % Moisture was received after the hold time had expired.

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 11/8/11  
**WorkOrder:** 1111575

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight



**ALS Group USA, Corp****Date:** 18-Nov-11

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 11/8/11  
**Sample ID:** East Wall  
**Collection Date:** 11/8/2011 10:20 AM

**Work Order:** 1111575  
**Lab ID:** 1111575-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: 11/17/2011	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>20</b>		<b>5.2</b>	<b>mg/Kg-dry</b>	1	11/18/2011 03:38 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>52.4</i>		<i>39-115</i>	<i>%REC</i>	1	11/18/2011 03:38 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
<b>Moisture</b>	<b>20</b>	H	<b>0.050</b>	<b>% of sample</b>	1	11/16/2011 02:34 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions  
 Work Order: 1111575  
 Project: Williams TR 31-5-697 11/8/11

QC BATCH REPORT

Batch ID: **R97862** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS1-R97862</b>				Units: <b>% of sample</b>		Analysis Date: <b>11/16/2011 02:34 PM</b>		
Client ID:		Run ID: <b>MOIST_111116B</b>				SeqNo: <b>1823914</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>		Sample ID: <b>LCS-R97862</b>				Units: <b>% of sample</b>		Analysis Date: <b>11/16/2011 02:34 PM</b>		
Client ID:		Run ID: <b>MOIST_111116B</b>				SeqNo: <b>1823913</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>		Sample ID: <b>1111558-02BDUP</b>				Units: <b>% of sample</b>		Analysis Date: <b>11/16/2011 02:34 PM</b>		
Client ID:		Run ID: <b>MOIST_111116B</b>				SeqNo: <b>1823897</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.84	0.050	0	0	0	0-0	14.8	0.27	20	

<b>DUP</b>		Sample ID: <b>1111566-01ADUP</b>				Units: <b>% of sample</b>		Analysis Date: <b>11/16/2011 02:34 PM</b>		
Client ID:		Run ID: <b>MOIST_111116B</b>				SeqNo: <b>1823904</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.06	0.050	0	0	0	0-0	16.97	5.51	20	H

The following samples were analyzed in this batch: 1111575-01A



**Environmental**

# Chain of Custody Form

Page 1 of 1

COC ID: 02387

☐ Cincinnati, OH  
+1 513 733 5336

☐ Everett, WA  
+1 425 356 2600

☐ Fort Collins, CO  
+1 970 490 1511

☒ Holland, MI  
+1 616 399 6070

☐ Houston, TX  
+1 281 530 5656

☐ Middletown, PA  
+1 717 944 5541

☐ Salt Lake City, UT  
+1 801 266 7700

☐ Spring City, PA  
+1 610 948 4903

☐ York, PA  
+1 717 505 5280

ALS Project Manager:

ALS Work Order #: 1111575

## Customer Information

Purchase Order	
Work Order	
Company Name	HRL
Send Report To	Mark Mumby
Address	744 Horizon Ct. Ste 140
City/State/Zip	Grand Junction CO 81506
Phone	970 243 3271
Fax	970 243 3280
e-Mail Address	mumby@hrl.com

## Project Information

Project Name	TR 31-5-697
Project Number	
Bill To Company	Williams
Invoice Attn	
Address	
City/State/Zip	
Phone	
Fax	
e-Mail Address	

## Parameter/Method Request for Analysis

A	DRO
B	
C	
D	
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	East Wall	11/8/11	1020	Soil	None	1	X										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <u>Client</u>		Shipment Method <u>FedEx</u>		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Other <u>3 day</u> <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Results Due Date:	
Relinquished by: <u>[Signature]</u>	Date: <u>11/6/11</u>	Time:	Received by:	Notes:			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp <u>5.8°C</u>	QC Package: (Check One Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): <u>[Signature]</u>			<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other _____	
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035							

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 16-Nov-11 10:00

Work Order: 1111575

Received by: DS

Checklist completed by Alex Csaszar  
eSignature

16-Nov-11  
Date

Reviewed by: Alex Csaszar  
eSignature

16-Nov-11  
Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.8 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

fedex.com 1.800.GoFedEx 1.800.463.3339

CUSTODY SEAL

DATE

11/14/2011

SIGNATURE

*[Signature]*

Quality Environmental Containers  
800-255-3950 • 304-255-3900

Express **US AIRMAIL**

Number **010 1 777 3623**

**UCUU**

FedEx Retrieval Code

1 From

Date

11/14/11

Sender's FedEx Account Number

Sender's Name

*Boyd D. B...*

Phone

72 242 371

Company

*UCSD*

Address

*744 H... St*

City

*San Diego*

State

*CA*

ZIP

*92166*

2 Your Internal Billing Reference

3 To

Recipient's Name

*UCSD*

Phone

*619 594 602*

Company

*UCSD*

Address

*2252 La Jolla Ave*

Address

Use this line for the HOLD location address or for continuation of your shipping address

City

*San Diego*

State

*CA*

ZIP

*92161*

HOLD Weekday  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight

HOLD Saturday  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations

4 Express Package Service

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.  
For packages over 150 lbs., use the new  
FedEx Express Freight US Airmail

06

FedEx First Overnight  
Fastest next business morning delivery to select  
locations. Monday-Friday, delivery cutoff for next-day  
Monday service is 11:00 PM. Delivery cutoff for next-day  
Tuesday service is 12:00 PM.

01

FedEx Priority Overnight  
Next business morning delivery to select locations. Monday-Friday, delivery cutoff for next-day  
Monday service is 11:00 PM. Delivery cutoff for next-day  
Tuesday service is 12:00 PM.

05

FedEx Standard Overnight  
Next business day delivery to select locations. Monday-Friday, delivery cutoff for next-day  
Monday service is 11:00 PM. Delivery cutoff for next-day  
Tuesday service is 12:00 PM.

07

NEW FedEx 2Day A.M.  
Second business morning delivery to select locations. Monday-Friday, delivery cutoff for next-day  
Monday service is 11:00 PM. Delivery cutoff for next-day  
Tuesday service is 12:00 PM.

00

FedEx 2Day  
Second business day delivery to select locations. Monday-Friday, delivery cutoff for next-day  
Monday service is 11:00 PM. Delivery cutoff for next-day  
Tuesday service is 12:00 PM.

20

FedEx Express Saver  
Third business day delivery to select locations. Monday-Friday, delivery cutoff for next-day  
Monday service is 11:00 PM. Delivery cutoff for next-day  
Tuesday service is 12:00 PM.

5 Packaging

Each box must be sealed.

06

Standard

07

Self-Pack

03

FedEx Box

04

FedEx Tube

05

Other

6 Special Handling and Delivery Signature Options

03 SATURDAY DELIVERY

No Signature Required

Direct Signature

Indirect Signature

Does this shipment contain dangerous goods?

06

Yes

07

No

08

Yes

09

No

10

Yes

11

No

12

Carrier Aircraft Only

7 Payment Method

01

Sender's Account

02

Third Party

03

Credit Card

04

Cash/Check

05

Other

Total Packages

Total Weight

Cost Code



8769 1479 5625

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612

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23-Aug-2011

Kris Rowe  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **Williams TR 31-5-697 Treatment Cell 8/12/11**

Work Order: **1108495**

Dear Kris,

ALS Environmental received 3 samples on 16-Aug-2011 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 15.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental The ALS logo, a stylized blue triangle with a yellow flame.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11  
**Work Order:** 1108495

---

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1108495-01	Background 1	Soil		8/12/2011 13:35	8/16/2011 10:00	<input type="checkbox"/>
1108495-02	Background 2	Soil		8/12/2011 13:45	8/16/2011 10:00	<input type="checkbox"/>
1108495-03	Background 3	Soil		8/12/2011 13:55	8/16/2011 10:00	<input type="checkbox"/>

---

## ALS Group USA, Corp

*Date: 23-Aug-11*

---

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11  
**Work Order:** 1108495

---

### Case Narrative

Batch 34963 MS/MSD data for Arsenic is not related to this project's samples.



**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11  
**WorkOrder:** 1108495

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample as noted	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units

**ALS Group USA, Corp****Date:** 23-Aug-11**Client:** HRL Compliance Solutions**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11**Work Order:** 1108495**Sample ID:** Background 1**Lab ID:** 1108495-01**Collection Date:** 8/12/2011 01:35 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>						
Arsenic	4.7		SW6020A 0.73	mg/Kg-dry	Prep Date: 8/17/2011 2	Analyst: CES 8/18/2011 07:38 AM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 8/22/11		SUBCONTRACT as noted		1	Analyst: A&LGL 8/22/2011
<b>MOISTURE</b>						
Moisture	4.6		A2540 G 0.050	% of sample	1	Analyst: CG 8/17/2011 12:23 PM
<b>PH</b>						
pH	7.37		SW9045D s.u.		1	Analyst: JS 8/16/2011 11:05 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Report Number: F11230-0168

Account Number: 91000

# A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4413 • Phone 260-483-4759 • Fax 260-483-5274

www.algreatlakes.com • lab@algreatlakes.com



**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1108495

DATE RECEIVED: 08/18/2011

DATE REPORTED: 08/22/2011

PAGE: 1

P.O. NUMBER: 20-122010576

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
67906	01B	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	0.27	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	30	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	7	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	36	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	1.5	-	USDA Handbook 60

# ALS Group USA, Corp

Date: 23-Aug-11

**Client:** HRL Compliance Solutions

**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11

**Work Order:** 1108495

**Sample ID:** Background 2

**Lab ID:** 1108495-02

**Collection Date:** 8/12/2011 01:45 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>8/17/2011</b>	Analyst: <b>CES</b>
Arsenic	5.2		0.73	mg/Kg-dry	2	8/18/2011 07:43 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
Moisture	2.7		0.050	% of sample	1	8/17/2011 12:23 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 23-Aug-11

**Client:** HRL Compliance Solutions

**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11

**Work Order:** 1108495

**Sample ID:** Background 3

**Lab ID:** 1108495-03

**Collection Date:** 8/12/2011 01:55 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>8/17/2011</b>	Analyst: <b>CES</b>
Arsenic	5.5		0.74	mg/Kg-dry	2	8/18/2011 07:49 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
Moisture	2.5		0.050	% of sample	1	8/17/2011 12:23 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions

Work Order: 1108495

Project: Williams TR 31-5-697 Treatment Cell 8/12/11

# QC BATCH REPORT

Batch ID: **34963** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-34963-34963</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/18/2011 03:51 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110817A</b>				SeqNo: <b>1708512</b>		Prep Date: <b>8/17/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

<b>LCS</b>	Sample ID: <b>LCS-34963-34963</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/18/2011 03:56 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110817A</b>				SeqNo: <b>1708513</b>		Prep Date: <b>8/17/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.907	0.50	5	0	98.1	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-34963-34963</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/18/2011 04:01 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110817A</b>				SeqNo: <b>1708514</b>		Prep Date: <b>8/17/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.107	0.50	5	0	102	80-120	4.907	3.99	20	

<b>MS</b>	Sample ID: <b>1108440-10BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/18/2011 06:45 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110817A</b>				SeqNo: <b>1708622</b>		Prep Date: <b>8/17/2011</b>		DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.74	3.3	6.667	4.372	171	80-120	0			S

<b>MSD</b>	Sample ID: <b>1108440-10BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/18/2011 06:51 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110817A</b>				SeqNo: <b>1708623</b>		Prep Date: <b>8/17/2011</b>		DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	14.2	3.6	7.299	4.372	135	80-120	15.74	10.3	25	S

The following samples were analyzed in this batch:

1108495-01A	1108495-02A	1108495-03A
-------------	-------------	-------------

**Client:** HRL Compliance Solutions  
**Work Order:** 1108495  
**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11

## QC BATCH REPORT

Batch ID: **R93460** Instrument ID **WETCHEM** Method: **SW9045D**

**DUP** Sample ID: **1108488-01ADUP** Units: **s.u.** Analysis Date: **8/16/2011 11:05 AM**  
Client ID: Run ID: **WETCHEM\_110816F** SeqNo: **1706832** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.23	0	0	0	0	0-0	8.23	0	20	H

**DUP** Sample ID: **1108502-01ADUP** Units: **s.u.** Analysis Date: **8/16/2011 11:05 AM**  
Client ID: Run ID: **WETCHEM\_110816F** SeqNo: **1706842** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.59	0	0	0	0	0-0	9.58	0.104	20	

The following samples were analyzed in this batch:

1108495-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108495  
**Project:** Williams TR 31-5-697 Treatment Cell 8/12/11

## QC BATCH REPORT

Batch ID: **R93535**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R93535</b>				Units: % of sample			Analysis Date: <b>8/17/2011 12:23 PM</b>		
Client ID:	Run ID: <b>MOIST_110817A</b>				SeqNo: <b>1709098</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R93535</b>				Units: % of sample			Analysis Date: <b>8/17/2011 12:23 PM</b>		
Client ID:	Run ID: <b>MOIST_110817A</b>				SeqNo: <b>1709097</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1108487-01ADUP</b>				Units: % of sample			Analysis Date: <b>8/17/2011 12:23 PM</b>		
Client ID:	Run ID: <b>MOIST_110817A</b>				SeqNo: <b>1709044</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.26	0.050	0	0	0	0-0	10.68	4.01	20	

<b>DUP</b>	Sample ID: <b>1108502-06ADUP</b>				Units: % of sample			Analysis Date: <b>8/17/2011 12:23 PM</b>		
Client ID:	Run ID: <b>MOIST_110817A</b>				SeqNo: <b>1709085</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.06	0.050	0	0	0	0-0	3.36	18.9	20	

The following samples were analyzed in this batch:

1108495-01A	1108495-02A	1108495-03A
-------------	-------------	-------------

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.





**WORKORDER**  
#


Form 202r8



<b>PAGE</b>	<b>1</b>	<b>of</b>	<b>1</b>
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By Lab or Return to Client

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

<b>Comments:</b>  <div style="text-align: center;"> <p>5.2°C</p>  </div>	<b>QC PACKAGE (check below)</b>							
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)						
	<input type="checkbox"/>	LEVEL III (Std QC + forms)						
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)						
	<input type="checkbox"/>							
<b>Preservative Key:</b> 1-HCl    2-HNO3    3-H2SO4    4-NaOH    5-NaHSO4    7-Other    8-4 degrees C    9-5035								

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Dan Pinegar	8/15/2011	5:00 PM
RECEIVED BY		Diane F. Shaw	8/16/11	1000
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

**Subcontractor:**

A &amp; L Great Lakes Agricultural La

3505 Conestoga Dr

TEL: (260) 483-4759

FAX: (260) 483-5274

Ft. Wayne, IN 46808

Acct #: 91000

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

Date: **17-Aug-11**COC ID: **3045**Due Date **22-Aug-11**

Customer Information		Project Information		Parameter/Method Request for Analysis										
Purchase Order		Project Name	1108495	A Subcontracted Analyses (SUBCONTRACT)										
Work Order		Project Number		B										
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	C										
Send Report To	Ann Preston	Inv Attn	Accounts Payable	D										
Address	3352 128th Avenue	Address	3352 128th Avenue	E										
				F										
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	G										
Phone	(616) 399-6070	Phone	(616) 399-6070	H										
Fax	(616) 399-6185	Fax	(616) 399-6185	I										
eMail Address	ann.preston@alsglobal.com	eMail CC		J										
<b>Sample ID</b>	<b>Matrix</b>	<b>Collection Date 24hr</b>	<b>Bottle</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	
1108495-01B (Background 1)	Soil	12/Aug/2011 13:35	(1) 4OZGNEAT	X										

**Comments:**Please analyze for SAR-EC. Email results to Ann Preston.

Relinquished by:

Relinquished by:

Date/Time

Date/Time

Received by:

Received by:

Date/Time

Date/Time

Cooler IDs

Report/QC Level

Std

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 16-Aug-11 10:00

Work Order: 1108495

Received by: DS

Checklist completed by Diane Shaw 16-Aug-11  
eSignature Date

Reviewed by: Ann Preston 23-Aug-11  
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.2 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

CUSTODY SEAL

DATE

SIGNATURE

QEC

Quality Environmental Containers  
800-255-3950 • 304-255-3900FedEx NEW Package  
Express US AirbillFedEx  
Tracking  
Number

8758 3471 3823

Form  
10 No.

FedEx Retrieval Copy

1 From  
Date 8/15/11 Sender's FedEx  
Account Number

Sender's Name DAN PINEGAR Phone 970 243-3271

Company HCSL

Address 794 HORIZON Ct. Ste. 140 Dept./Floor/Suite/Room

City GRAND JUNCTION State CO ZIP 81506

2 Your Internal Billing Reference

3 To  
Recipient's Name SAMPLE RECEIVING Phone 616 399-6070

Company ALS GROUP

Address 3352 128th Ave 01 HOLD Weekday  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.Address 31 HOLD Saturday  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.

City HOLLAND State MI ZIP 49424

4 Express Package Service \*To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.  
For packages over 150 lbs, use the new  
FedEx Express Freight US Airbill.

Next Business Day

06 FedEx First Overnight  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.01 X FedEx Priority Overnight  
Next business morning. \* Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.05 FedEx Standard Overnight  
Next business afternoon. \*  
Saturday Delivery NOT available.

2 or 3 Business Days

49 NEW FedEx 2Day A.M.  
Second business morning. \*  
Saturday Delivery NOT available.03 FedEx 2Day  
Second business afternoon. \* Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.20 FedEx Express Saver  
Third business day. \*  
Saturday Delivery NOT available.

5 Packaging \*Declared value limit \$500.

06 FedEx Envelope\* 02 FedEx Pak\* 03 FedEx  
Box 04 FedEx Tube 01 X Other

6 Special Handling and Delivery Signature Options

03 SATURDAY DELIVERY

X No Signature Required  
Package may be left without  
obtaining a signature for delivery.10 Direct Signature  
Someone at recipient's address  
may sign for delivery. Fee applies.34 Indirect Signature  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

X No 04 Yes  
As per attached  
Shipper's Declaration.Yes  
Shipper's Declaration  
not required.06 Dry Ice  
Dry Ice, 8.1/1N 1845 x kgDangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Drop Box.

Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.  
Acct. No. ☐1 Sender  
Acct. No. in Section  
I will be billed 2 X Recipient 3 Third Party 4 Credit Card 5 Cash/Check

Total Packages

Total Weight

Credit Card Auth.

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

612

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19-Sep-2011

Kris Rowe  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **Williams TR 31-5-697 Pad LOE 9/8/11**

Work Order: **1109292**

Dear Kris,

ALS Environmental received 2 samples on 10-Sep-2011 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 28.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11  
**Work Order:** 1109292

---

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1109292-01	TR 31-5-697 N. Half Treatment Cell Composite	Soil		9/8/2011 13:40	9/10/2011 10:00	<input type="checkbox"/>
1109292-02	TR 31-5-697 S. Half Treatment Cell Composite	Soil		9/8/2011 13:50	9/10/2011 10:00	<input type="checkbox"/>

---

---

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11  
**Work Order:** 1109292

---

**Case Narrative**

Batch 35529 MS/MSD data for Mercury is not related to this project's samples.

Batch 35494 MS/MSD data for Metals is not related to this project's samples.

Batch 35514 MS/MSD data for Hexavalent Chromium is not related to this project's samples.

**Client:** HRL Compliance Solutions  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11  
**WorkOrder:** 1109292

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry as noted	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units



# ALS Group USA, Corp

Date: 19-Sep-11

**Client:** HRL Compliance Solutions

**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

**Work Order:** 1109292

**Sample ID:** TR 31-5-697 N. Half Treatment Cell Composite

**Lab ID:** 1109292-01

**Collection Date:** 9/8/2011 01:40 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>9/12/2011</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>120</b>		<b>5.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	9/13/2011 12:30 PM
Surr: 4-Terphenyl-d14	64.4		39-115	%REC	1	9/13/2011 12:30 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>140</b>		<b>6.2</b>	<b>mg/Kg-dry</b>	<b>100</b>	9/14/2011 06:13 AM
Surr: Toluene-d8	117		50-150	%REC	100	9/14/2011 06:13 AM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>9/14/2011</b>	Analyst: <b>LR</b>
Mercury	ND		0.021	mg/Kg-dry	1	9/15/2011 11:36 AM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>9/13/2011</b>	Analyst: <b>CES</b>
<b>Arsenic</b>	<b>6.0</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
<b>Barium</b>	<b>450</b>		<b>8.4</b>	<b>mg/Kg-dry</b>	<b>20</b>	9/16/2011 03:34 PM
<b>Cadmium</b>	<b>0.40</b>		<b>0.34</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
<b>Chromium</b>	<b>42</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
<b>Copper</b>	<b>16</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
<b>Lead</b>	<b>18</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
<b>Nickel</b>	<b>25</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
Selenium	ND		0.84	mg/Kg-dry	2	9/16/2011 01:49 PM
Silver	ND		0.84	mg/Kg-dry	2	9/16/2011 01:49 PM
<b>Zinc</b>	<b>72</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>2</b>	9/16/2011 01:49 PM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>Rcvd 9/15/11</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>as noted</b>		<b>1</b>	9/15/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>9/12/2011</b>	Analyst: <b>JG</b>
Acenaphthene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Anthracene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Benzo(a)anthracene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Benzo(a)pyrene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Benzo(b)fluoranthene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Benzo(g,h,i)perylene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Benzo(k)fluoranthene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Chrysene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Dibenzo(a,h)anthracene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Fluoranthene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Fluorene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Indeno(1,2,3-cd)pyrene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Naphthalene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Pyrene	ND		37	µg/Kg-dry	1	9/16/2011 01:25 AM
Surr: 2,4,6-Tribromophenol	87.9		34-140	%REC	1	9/16/2011 01:25 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 19-Sep-11

**Client:** HRL Compliance Solutions

**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

**Work Order:** 1109292

**Sample ID:** TR 31-5-697 N. Half Treatment Cell Composite

**Lab ID:** 1109292-01

**Collection Date:** 9/8/2011 01:40 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	54.7		12-100	%REC	1	9/16/2011 01:25 AM
<i>Surr: 2-Fluorophenol</i>	75.6		33-117	%REC	1	9/16/2011 01:25 AM
<i>Surr: 4-Terphenyl-d14</i>	79.1		25-137	%REC	1	9/16/2011 01:25 AM
<i>Surr: Nitrobenzene-d5</i>	69.6		37-107	%REC	1	9/16/2011 01:25 AM
<i>Surr: Phenol-d6</i>	68.0		40-106	%REC	1	9/16/2011 01:25 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		120	µg/Kg-dry	100	9/14/2011 05:19 AM
Ethylbenzene	ND		250	µg/Kg-dry	100	9/14/2011 05:19 AM
m,p-Xylene	ND		250	µg/Kg-dry	100	9/14/2011 05:19 AM
o-Xylene	ND		120	µg/Kg-dry	100	9/14/2011 05:19 AM
Toluene	ND		190	µg/Kg-dry	100	9/14/2011 05:19 AM
Xylenes, Total	ND		370	µg/Kg-dry	100	9/14/2011 05:19 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		70-120	%REC	100	9/14/2011 05:19 AM
<i>Surr: 4-Bromofluorobenzene</i>	107		75-120	%REC	100	9/14/2011 05:19 AM
<i>Surr: Dibromofluoromethane</i>	98.0		85-115	%REC	100	9/14/2011 05:19 AM
<i>Surr: Toluene-d8</i>	96.2		85-115	%REC	100	9/14/2011 05:19 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	42			mg/kg-dry	1	9/16/2011 03:52 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>9/13/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.61	mg/Kg-dry	1	9/15/2011 05:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
Moisture	19		0.050	% of sample	1	9/14/2011 01:15 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>NZ</b>
pH	8.08			s.u.	1	9/12/2011 07:30 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 19-Sep-11

**Client:** HRL Compliance Solutions

**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

**Work Order:** 1109292

**Sample ID:** TR 31-5-697 S. Half Treatment Cell Composite

**Lab ID:** 1109292-02

**Collection Date:** 9/8/2011 01:50 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>9/12/2011</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>230</b>		<b>5.2</b>	<b>mg/Kg-dry</b>	1	9/13/2011 12:30 PM
Surr: 4-Terphenyl-d14	80.1		39-115	%REC	1	9/13/2011 12:30 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>99</b>		<b>6.2</b>	<b>mg/Kg-dry</b>	100	9/14/2011 06:39 AM
Surr: Toluene-d8	107		50-150	%REC	100	9/14/2011 06:39 AM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>9/14/2011</b>	Analyst: <b>LR</b>
Mercury	ND		0.020	mg/Kg-dry	1	9/15/2011 11:39 AM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>9/13/2011</b>	Analyst: <b>CES</b>
Arsenic	7.1		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Barium	450		9.5	mg/Kg-dry	20	9/16/2011 03:40 PM
Cadmium	0.42		0.38	mg/Kg-dry	2	9/16/2011 01:54 PM
Chromium	40		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Copper	18		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Lead	18		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Nickel	24		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Selenium	ND		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Silver	ND		0.95	mg/Kg-dry	2	9/16/2011 01:54 PM
Zinc	75		1.9	mg/Kg-dry	2	9/16/2011 01:54 PM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 9/15/11		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			as noted		1	9/15/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>9/12/2011</b>	Analyst: <b>JG</b>
Acenaphthene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Anthracene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Benzo(a)anthracene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Benzo(a)pyrene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Benzo(b)fluoranthene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Benzo(g,h,i)perylene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Benzo(k)fluoranthene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Chrysene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Dibenzo(a,h)anthracene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Fluoranthene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Fluorene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Indeno(1,2,3-cd)pyrene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Naphthalene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Pyrene	ND		37	µg/Kg-dry	1	9/16/2011 01:56 AM
Surr: 2,4,6-Tribromophenol	93.8		34-140	%REC	1	9/16/2011 01:56 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 19-Sep-11

**Client:** HRL Compliance Solutions

**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

**Work Order:** 1109292

**Sample ID:** TR 31-5-697 S. Half Treatment Cell Composite

**Lab ID:** 1109292-02

**Collection Date:** 9/8/2011 01:50 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	69.1		12-100	%REC	1	9/16/2011 01:56 AM
<i>Surr: 2-Fluorophenol</i>	104		33-117	%REC	1	9/16/2011 01:56 AM
<i>Surr: 4-Terphenyl-d14</i>	85.4		25-137	%REC	1	9/16/2011 01:56 AM
<i>Surr: Nitrobenzene-d5</i>	86.6		37-107	%REC	1	9/16/2011 01:56 AM
<i>Surr: Phenol-d6</i>	90.1		40-106	%REC	1	9/16/2011 01:56 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		120	µg/Kg-dry	100	9/14/2011 05:45 AM
Ethylbenzene	ND		250	µg/Kg-dry	100	9/14/2011 05:45 AM
<b>m,p-Xylene</b>	<b>330</b>		<b>250</b>	<b>µg/Kg-dry</b>	100	9/14/2011 05:45 AM
o-Xylene	ND		120	µg/Kg-dry	100	9/14/2011 05:45 AM
Toluene	ND		190	µg/Kg-dry	100	9/14/2011 05:45 AM
<b>Xylenes, Total</b>	<b>390</b>		<b>370</b>	<b>µg/Kg-dry</b>	100	9/14/2011 05:45 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	104		70-120	%REC	100	9/14/2011 05:45 AM
<i>Surr: 4-Bromofluorobenzene</i>	107		75-120	%REC	100	9/14/2011 05:45 AM
<i>Surr: Dibromofluoromethane</i>	94.8		85-115	%REC	100	9/14/2011 05:45 AM
<i>Surr: Toluene-d8</i>	98.8		85-115	%REC	100	9/14/2011 05:45 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
<b>Chromium, Trivalent</b>	<b>40</b>			<b>mg/kg-dry</b>	1	9/16/2011 03:52 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>9/13/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.61	mg/Kg-dry	1	9/15/2011 05:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
<b>Moisture</b>	<b>19</b>		<b>0.050</b>	<b>% of sample</b>	1	9/14/2011 01:15 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>NZ</b>
<b>pH</b>	<b>8.05</b>			<b>s.u.</b>	1	9/12/2011 07:30 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Report Number: F11256-0098

Account Number: 91000

# A & L GREAT LAKES LABORATORIES, INC.

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**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1109292

DATE RECEIVED: 09/13/2011

DATE REPORTED: 09/15/2011

PAGE: 1

P.O. NUMBER: 20-122010735

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
5665	01C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	3.09	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	57	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	14	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	2812	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	86.3	-	USDA Handbook 60
5666	02C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	2.52	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	46	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	11	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	2315	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	79.4	-	USDA Handbook 60

# ALS Group USA, Corp

Date: 19-Sep-11

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 1109292

**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

Batch ID: **35452**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>DBLKS1-35452-35452</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2011 12:07 PM</b>			
Client ID:	Run ID: <b>GC8_110913A</b>				SeqNo: <b>1733901</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	1.458	0	1.667	0	87.5	39-115	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-35452-35452</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2011 10:58 AM</b>			
Client ID:	Run ID: <b>GC8_110913A</b>				SeqNo: <b>1733899</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	174.2	4.2	166.7	0	105	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	1.299	0	1.667	0	78	39-115	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-35452-35452</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2011 10:58 AM</b>			
Client ID:	Run ID: <b>GC8_110913A</b>				SeqNo: <b>1733910</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	147.9	4.2	166.7	0	88.7	60-130	174.2	16.4	30	
<i>Surr: 4-Terphenyl-d14</i>	1.213	0	1.667	0	72.8	39-115	1.299	6.87	30	

<b>MS</b>	Sample ID: <b>1109299-11A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2011 11:21 AM</b>			
Client ID:	Run ID: <b>GC8_110913A</b>				SeqNo: <b>1733900</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	294.3	8.0	318.2	0	92.5	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	2.201	0	3.182	0	69.2	39-115	0			

<b>MSD</b>	Sample ID: <b>1109299-11A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2011 11:21 AM</b>			
Client ID:	Run ID: <b>GC8_110913A</b>				SeqNo: <b>1733911</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.6	7.9	317.7	0	94.6	60-130	294.3	2.14	30	
<i>Surr: 4-Terphenyl-d14</i>	1.997	0	3.177	0	62.8	39-115	2.201	9.72	30	

The following samples were analyzed in this batch:

1109292-01B 1109292-02B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **R94601**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MBLK-R94601-R94601</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/14/2011 12:10 PM</b>			
Client ID:	Run ID: <b>GC9_110913B</b>				SeqNo: <b>1733802</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>103.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>104</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>LCS-R94601-R94601</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/13/2011 10:52 PM</b>			
Client ID:	Run ID: <b>GC9_110913B</b>				SeqNo: <b>1733800</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	24480	200	25000	0	97.9	70-130	0			
<i>Surr: Toluene-d8</i>	<i>98.29</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>98.3</i>	<i>70-130</i>	<i>0</i>			

<b>LCSD</b>	Sample ID: <b>LCSD-R94601-R94601</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/13/2011 11:18 PM</b>			
Client ID:	Run ID: <b>GC9_110913B</b>				SeqNo: <b>1733801</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	23820	200	25000	0	95.3	70-130	24480	2.74	30	
<i>Surr: Toluene-d8</i>	<i>98.32</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>98.3</i>	<i>70-130</i>	<i>98.29</i>	<i>0.0305</i>	<i>30</i>	

<b>MS</b>	Sample ID: <b>1109330-06A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/14/2011 09:15 AM</b>			
Client ID:	Run ID: <b>GC9_110913B</b>				SeqNo: <b>1733822</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1244000	2,500	1250000	0	99.5	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4944</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>98.9</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>	Sample ID: <b>1109330-06A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/14/2011 09:41 AM</b>			
Client ID:	Run ID: <b>GC9_110913B</b>				SeqNo: <b>1733823</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1261000	2,500	1250000	0	101	70-130	1244000	1.37	30	
<i>Surr: Toluene-d8</i>	<i>5248</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>105</i>	<i>50-150</i>	<i>4944</i>	<i>5.96</i>	<i>30</i>	

The following samples were analyzed in this batch:      1109292-01A      1109292-02A     

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35529** Instrument ID **HG1** Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-35529-35529</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>9/15/2011 11:28 AM</b>		
Client ID:	Run ID: <b>HG1_110915A</b>				SeqNo: <b>1734983</b>			Prep Date: <b>9/14/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

<b>LCS</b>	Sample ID: <b>LCS-35529-35529</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>9/15/2011 11:30 AM</b>		
Client ID:	Run ID: <b>HG1_110915A</b>				SeqNo: <b>1734984</b>			Prep Date: <b>9/14/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1698	0.020	0.1665		0	102	80-120	0		

<b>LCSD</b>	Sample ID: <b>LCSD-35529-35529</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>9/15/2011 11:32 AM</b>		
Client ID:	Run ID: <b>HG1_110915A</b>				SeqNo: <b>1734985</b>			Prep Date: <b>9/14/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.17	0.020	0.1665		0	102	80-120	0.1698	0.147	20

<b>MS</b>	Sample ID: <b>1109376-01AMS</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>9/15/2011 12:22 PM</b>		
Client ID:	Run ID: <b>HG1_110915A</b>				SeqNo: <b>1735020</b>			Prep Date: <b>9/14/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.235	0.019	0.1619	0.1915	26.9	75-125		0		S

<b>MSD</b>	Sample ID: <b>1109376-01AMSD</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>9/15/2011 12:24 PM</b>		
Client ID:	Run ID: <b>HG1_110915A</b>				SeqNo: <b>1735022</b>			Prep Date: <b>9/14/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2187	0.018	0.1509	0.1915	18	75-125	0.235	7.17	35	S

The following samples were analyzed in this batch:

1109292-01B	1109292-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35494**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-35494-35494</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>9/14/2011 10:17 PM</b>			
Client ID:	Run ID: <b>ICPMS1_110914A</b>			SeqNo: <b>1734321</b>			Prep Date: <b>9/13/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.001276	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

<b>LCS</b>	Sample ID: <b>LCS-35494-35494</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>9/14/2011 10:23 PM</b>			
Client ID:	Run ID: <b>ICPMS1_110914A</b>			SeqNo: <b>1734324</b>			Prep Date: <b>9/13/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.402	0.50	5	0	88	80-120	0			
Barium	4.337	0.50	5	0	86.7	80-120	0			
Cadmium	4.387	0.20	5	0	87.7	80-120	0			
Chromium	4.442	0.50	5	0	88.8	80-120	0			
Copper	4.5	0.50	5	0	90	80-120	0			
Lead	4.482	0.50	5	0	89.6	80-120	0			
Nickel	4.566	0.50	5	0	91.3	80-120	0			
Selenium	4.037	0.50	5	0	80.7	80-120	0			
Silver	4.325	0.50	5	0	86.5	80-120	0			
Zinc	4.259	1.0	5	0	85.2	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-35494-35494</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>9/14/2011 10:28 PM</b>			
Client ID:	Run ID: <b>ICPMS1_110914A</b>			SeqNo: <b>1734327</b>			Prep Date: <b>9/13/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.032	0.50	5	0	80.6	80-120	4.402	8.77	20	
Barium	4.187	0.50	5	0	83.7	80-120	4.337	3.52	20	
Cadmium	4.179	0.20	5	0	83.6	80-120	4.387	4.86	20	
Chromium	4.349	0.50	5	0	87	80-120	4.442	2.12	20	
Copper	4.361	0.50	5	0	87.2	80-120	4.5	3.14	20	
Lead	4.267	0.50	5	0	85.3	80-120	4.482	4.91	20	
Nickel	4.338	0.50	5	0	86.8	80-120	4.566	5.12	20	
Selenium	4.013	0.50	5	0	80.3	80-120	4.037	0.596	20	
Silver	4.164	0.50	5	0	83.3	80-120	4.325	3.79	20	
Zinc	4.165	1.0	5	0	83.3	80-120	4.259	2.23	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35494**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MS</b>		Sample ID: <b>1109294-02AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 03:29 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110914A</b>				SeqNo: <b>1735358</b>		Prep Date: <b>9/13/2011</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.2	3.9	7.874	3.504	111	80-120	0			
Barium	282.7	3.9	7.874	302	-246	80-120	0			SO
Cadmium	8.11	1.6	7.874	0.5317	96.2	80-120	0			
Chromium	31.85	3.9	7.874	21	138	80-120	0			S
Copper	25.94	3.9	7.874	14.2	149	80-120	0			S
Lead	21.63	3.9	7.874	13.01	109	80-120	0			
Nickel	25.12	3.9	7.874	19.06	76.9	80-120	0			S
Selenium	7.773	3.9	7.874	0.9547	86.6	80-120	0			
Silver	6.95	3.9	7.874	0.05098	87.6	80-120	0			
Zinc	71.26	7.9	7.874	54.95	207	80-120	0			SO

<b>MSD</b>		Sample ID: <b>1109294-02AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 03:34 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110914A</b>				SeqNo: <b>1735359</b>		Prep Date: <b>9/13/2011</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.822	4.0	8.013	3.504	66.4	80-120	12.2	32.2	25	SR
Barium	263.7	4.0	8.013	302	-478	80-120	282.7	6.95	25	SO
Cadmium	7.583	1.6	8.013	0.5317	88	80-120	8.11	6.71	25	
Chromium	33.17	4.0	8.013	21	152	80-120	31.85	4.04	25	S
Copper	23.89	4.0	8.013	14.2	121	80-120	25.94	8.26	25	S
Lead	19.7	4.0	8.013	13.01	83.4	80-120	21.63	9.36	25	
Nickel	24.85	4.0	8.013	19.06	72.2	80-120	25.12	1.08	25	S
Selenium	6.92	4.0	8.013	0.9547	74.4	80-120	7.773	11.6	25	S
Silver	6.619	4.0	8.013	0.05098	82	80-120	6.95	4.88	25	
Zinc	74.76	8.0	8.013	54.95	247	80-120	71.26	4.79	25	SO

The following samples were analyzed in this batch:

1109292-01B	1109292-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35451**      Instrument ID **SVMS4**      Method: **SW8270**

**MBLK**      Sample ID: **SBLKS1-35451-35451**      Units: **µg/Kg**      Analysis Date: **9/13/2011 01:11 PM**

Client ID:      Run ID: **SVMS4\_110913A**      SeqNo: **1733208**      Prep Date: **9/12/2011**      DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1620</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>97.2</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1105</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>66.3</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1316</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>79</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1705</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>102</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1138</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>68.3</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1260</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>75.6</i>	<i>40-106</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35451**      Instrument ID **SVMS4**      Method: **SW8270**

LCS		Sample ID: <b>SLCSS1-35451-35451</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/13/2011 10:36 AM</b>		
Client ID:		Run ID: <b>SVMS4_110913A</b>				SeqNo: <b>1733203</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1080	30	1333	0	81	45-110	0			
Anthracene	1182	30	1333	0	88.7	55-105	0			
Benzo(a)anthracene	1376	30	1333	0	103	50-110	0			
Benzo(a)pyrene	1294	30	1333	0	97	50-110	0			
Benzo(b)fluoranthene	1221	30	1333	0	91.6	45-115	0			
Benzo(g,h,i)perylene	1417	30	1333	0	106	40-125	0			
Benzo(k)fluoranthene	1213	30	1333	0	91	45-115	0			
Chrysene	1253	30	1333	0	94	55-110	0			
Dibenzo(a,h)anthracene	1278	30	1333	0	95.9	40-125	0			
Fluoranthene	1212	30	1333	0	90.9	55-115	0			
Fluorene	1347	30	1333	0	101	50-110	0			
Indeno(1,2,3-cd)pyrene	1326	30	1333	0	99.5	40-120	0			
Naphthalene	1172	30	1333	0	87.9	40-105	0			
Pyrene	1292	30	1333	0	96.9	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1586</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>95.1</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1266</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>75.9</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1415</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>84.9</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1577</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>94.6</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1347</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>80.8</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1380</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>82.8</i>	<i>40-106</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35451**      Instrument ID **SVMS4**      Method: **SW8270**

LCSD		Sample ID: <b>SLCSDS1-35451-35451</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/13/2011 11:07 AM</b>		
Client ID:		Run ID: <b>SVMS4_110913A</b>				SeqNo: <b>1733204</b>		Prep Date: <b>9/12/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1113	30	1333	0	83.5	45-110	1080	3.01	25	
Anthracene	1232	30	1333	0	92.4	55-105	1182	4.12	25	
Benzo(a)anthracene	1398	30	1333	0	105	50-110	1376	1.59	25	
Benzo(a)pyrene	1313	30	1333	0	98.5	50-110	1294	1.48	25	
Benzo(b)fluoranthene	1221	30	1333	0	91.6	45-115	1221	0.0273	25	
Benzo(g,h,i)perylene	1342	30	1333	0	101	40-125	1417	5.41	25	
Benzo(k)fluoranthene	1250	30	1333	0	93.8	45-115	1213	3	25	
Chrysene	1279	30	1333	0	96	55-110	1253	2.05	25	
Dibenzo(a,h)anthracene	1302	30	1333	0	97.6	40-125	1278	1.81	25	
Fluoranthene	1218	30	1333	0	91.3	55-115	1212	0.466	25	
Fluorene	1388	30	1333	0	104	50-110	1347	3	25	
Indeno(1,2,3-cd)pyrene	1319	30	1333	0	99	40-120	1326	0.504	25	
Naphthalene	1184	30	1333	0	88.8	40-105	1172	1.08	25	
Pyrene	1284	30	1333	0	96.3	45-125	1292	0.621	25	
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1670</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>100</i>	<i>34-140</i>	<i>1586</i>	<i>5.16</i>	<i>40</i>	
<i>Surr: 2-Fluorobiphenyl</i>	<i>1268</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>76.1</i>	<i>12-100</i>	<i>1266</i>	<i>0.184</i>	<i>40</i>	
<i>Surr: 2-Fluorophenol</i>	<i>1412</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>84.7</i>	<i>33-117</i>	<i>1415</i>	<i>0.236</i>	<i>40</i>	
<i>Surr: 4-Terphenyl-d14</i>	<i>1642</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>98.5</i>	<i>25-137</i>	<i>1577</i>	<i>4.06</i>	<i>40</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>1337</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>80.2</i>	<i>37-107</i>	<i>1347</i>	<i>0.795</i>	<i>40</i>	
<i>Surr: Phenol-d6</i>	<i>1377</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>82.6</i>	<i>40-106</i>	<i>1380</i>	<i>0.242</i>	<i>40</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35451**      Instrument ID **SVMS4**      Method: **SW8270**

MS				Sample ID: <b>1109299-11A MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>9/14/2011 05:01 PM</b>	
Client ID:				Run ID: <b>SVMS4_110914A</b>			SeqNo: <b>1735000</b>		Prep Date: <b>9/12/2011</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2250	60	2648	0	85	45-110	0			
Anthracene	2448	60	2648	0	92.5	55-105	0			
Benzo(a)anthracene	2869	60	2648	0	108	50-110	0			
Benzo(a)pyrene	2583	60	2648	0	97.5	50-110	0			
Benzo(b)fluoranthene	2478	60	2648	0	93.6	45-115	0			
Benzo(g,h,i)perylene	3104	60	2648	0	117	40-125	0			
Benzo(k)fluoranthene	2746	60	2648	0	104	45-115	0			
Chrysene	2522	60	2648	0	95.2	55-110	0			
Dibenzo(a,h)anthracene	2636	60	2648	0	99.6	40-125	0			
Fluoranthene	2395	60	2648	0	90.5	55-115	0			
Fluorene	2769	60	2648	0	105	50-110	0			
Indeno(1,2,3-cd)pyrene	2743	60	2648	0	104	40-120	0			
Naphthalene	2408	60	2648	0	91	40-105	0			
Pyrene	2604	60	2648	0	98.4	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3349</i>	<i>0</i>	<i>3310</i>	<i>0</i>	<i>101</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>2567</i>	<i>0</i>	<i>3310</i>	<i>0</i>	<i>77.6</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>2733</i>	<i>0</i>	<i>3310</i>	<i>0</i>	<i>82.6</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3200</i>	<i>0</i>	<i>3310</i>	<i>0</i>	<i>96.7</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>2692</i>	<i>0</i>	<i>3310</i>	<i>0</i>	<i>81.3</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>2694</i>	<i>0</i>	<i>3310</i>	<i>0</i>	<i>81.4</i>	<i>40-106</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **35451**      Instrument ID **SVMS4**      Method: **SW8270**

MSD				Sample ID: <b>1109299-11A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>9/14/2011 05:31 PM</b>	
Client ID:				Run ID: <b>SVMS4_110914A</b>			SeqNo: <b>1735002</b>		Prep Date: <b>9/12/2011</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2118	57	2554	0	82.9	45-110	2250	6.02	30	
Anthracene	2246	57	2554	0	88	55-105	2448	8.59	30	
Benzo(a)anthracene	2618	57	2554	0	103	50-110	2869	9.15	30	
Benzo(a)pyrene	2352	57	2554	0	92.1	50-110	2583	9.35	30	
Benzo(b)fluoranthene	2273	57	2554	0	89	45-115	2478	8.62	30	
Benzo(g,h,i)perylene	2771	57	2554	0	109	40-125	3104	11.3	30	
Benzo(k)fluoranthene	2402	57	2554	0	94	45-115	2746	13.4	30	
Chrysene	2312	57	2554	0	90.5	55-110	2522	8.66	30	
Dibenzo(a,h)anthracene	2415	57	2554	0	94.6	40-125	2636	8.76	30	
Fluoranthene	2186	57	2554	0	85.6	55-115	2395	9.11	30	
Fluorene	2591	57	2554	0	101	50-110	2769	6.64	30	
Indeno(1,2,3-cd)pyrene	2496	57	2554	0	97.7	40-120	2743	9.46	30	
Naphthalene	2296	57	2554	0	89.9	40-105	2408	4.8	30	
Pyrene	2378	57	2554	0	93.1	45-125	2604	9.09	30	
<i>Surr: 2,4,6-Tribromophenol</i>	<i>3243</i>	<i>0</i>	<i>3193</i>	<i>0</i>	<i>102</i>	<i>34-140</i>	<i>3349</i>	<i>3.19</i>	<i>40</i>	
<i>Surr: 2-Fluorobiphenyl</i>	<i>2477</i>	<i>0</i>	<i>3193</i>	<i>0</i>	<i>77.6</i>	<i>12-100</i>	<i>2567</i>	<i>3.58</i>	<i>40</i>	
<i>Surr: 2-Fluorophenol</i>	<i>2660</i>	<i>0</i>	<i>3193</i>	<i>0</i>	<i>83.3</i>	<i>33-117</i>	<i>2733</i>	<i>2.72</i>	<i>40</i>	
<i>Surr: 4-Terphenyl-d14</i>	<i>2901</i>	<i>0</i>	<i>3193</i>	<i>0</i>	<i>90.9</i>	<i>25-137</i>	<i>3200</i>	<i>9.81</i>	<i>40</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>2602</i>	<i>0</i>	<i>3193</i>	<i>0</i>	<i>81.5</i>	<i>37-107</i>	<i>2692</i>	<i>3.44</i>	<i>40</i>	
<i>Surr: Phenol-d6</i>	<i>2607</i>	<i>0</i>	<i>3193</i>	<i>0</i>	<i>81.7</i>	<i>40-106</i>	<i>2694</i>	<i>3.29</i>	<i>40</i>	

The following samples were analyzed in this batch:

1109292-01B

1109292-02B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **R94565A**      Instrument ID **VMS6**      Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW2-110913-R94565A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/13/2011 11:52 PM</b>			
Client ID:	Run ID: <b>VMS6_110913B</b>				SeqNo: <b>1732675</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	98.67	0	100	0	98.7	70-120	0			
Surr: 4-Bromofluorobenzene	97.24	0	100	0	97.2	75-120	0			
Surr: Dibromofluoromethane	100.2	0	100	0	100	85-115	0			
Surr: Toluene-d8	97.7	0	100	0	97.7	85-120	0			

<b>LCS</b>	Sample ID: <b>VLCSW2-110913-R94565A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/13/2011 10:34 PM</b>			
Client ID:	Run ID: <b>VMS6_110913B</b>				SeqNo: <b>1732673</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.42	1.0	20	0	102	80-120	0			
Ethylbenzene	20.49	1.0	20	0	102	75-125	0			
m,p-Xylene	41.04	2.0	40	0	103	75-130	0			
o-Xylene	21.01	1.0	20	0	105	80-120	0			
Toluene	19.66	1.0	20	0	98.3	75-120	0			
Xylenes, Total	62.05	2.0	60	0	103	75-130	0			
Surr: 1,2-Dichloroethane-d4	101.7	0	100	0	102	70-120	0			
Surr: 4-Bromofluorobenzene	101	0	100	0	101	75-120	0			
Surr: Dibromofluoromethane	103.6	0	100	0	104	85-115	0			
Surr: Toluene-d8	96.99	0	100	0	97	85-120	0			

<b>LCSD</b>	Sample ID: <b>VLCSDW2-110913-R94565A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/13/2011 10:59 PM</b>			
Client ID:	Run ID: <b>VMS6_110913B</b>				SeqNo: <b>1732674</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.17	1.0	20	0	101	80-120	20.42	1.23	30	
Ethylbenzene	19.78	1.0	20	0	98.9	75-125	20.49	3.53	30	
m,p-Xylene	38.61	2.0	40	0	96.5	75-130	41.04	6.1	30	
o-Xylene	20.14	1.0	20	0	101	80-120	21.01	4.23	30	
Toluene	19.3	1.0	20	0	96.5	75-120	19.66	1.85	30	
Xylenes, Total	58.75	2.0	60	0	97.9	75-130	62.05	5.46	30	
Surr: 1,2-Dichloroethane-d4	105.4	0	100	0	105	70-120	101.7	3.61	30	
Surr: 4-Bromofluorobenzene	100.5	0	100	0	100	75-120	101	0.556	30	
Surr: Dibromofluoromethane	104.8	0	100	0	105	85-115	103.6	1.1	30	
Surr: Toluene-d8	94.74	0	100	0	94.7	85-120	96.99	2.35	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **R94565A**      Instrument ID **VMS6**      Method: **SW8260**

MS				Sample ID: 1109286-01A MS			Units: µg/L		Analysis Date: 9/14/2011 08:17 AM		
Client ID:		Run ID: VMS6_110913B			SeqNo: 1733641		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	21.08	1.0	20	0	105	80-120		0			
Ethylbenzene	19.22	1.0	20	0	96.1	75-125		0			
m,p-Xylene	38.02	2.0	40	0	95	75-130		0			
o-Xylene	19.54	1.0	20	0	97.7	80-120		0			
Toluene	19.29	1.0	20	0	96.4	75-120		0			
Xylenes, Total	57.56	3.0	60	0	95.9	75-130		0			
Surr: 1,2-Dichloroethane-d4	107.9	0	100	0	108	70-120		0			
Surr: 4-Bromofluorobenzene	99.04	0	100	0	99	75-120		0			
Surr: Dibromofluoromethane	105	0	100	0	105	85-115		0			
Surr: Toluene-d8	100.5	0	100	0	101	85-120		0			

MSD				Sample ID: 1109286-01A MSD		Units: µg/L		Analysis Date: 9/14/2011 08:43 AM		
Client ID:		Run ID: VMS6_110913B			SeqNo:1733642		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.91	1.0	20	0	99.6	80-120	21.08	5.71	30	
Ethylbenzene	18.82	1.0	20	0	94.1	75-125	19.22	2.1	30	
m,p-Xylene	37.19	2.0	40	0	93	75-130	38.02	2.21	30	
o-Xylene	19.3	1.0	20	0	96.5	80-120	19.54	1.24	30	
Toluene	19.02	1.0	20	0	95.1	75-120	19.29	1.41	30	
Xylenes, Total	56.49	3.0	60	0	94.2	75-130	57.56	1.88	30	
Surr: 1,2-Dichloroethane-d4	105.1	0	100	0	105	70-120	107.9	2.66	30	
Surr: 4-Bromofluorobenzene	101.1	0	100	0	101	75-120	99.04	2.08	30	
Surr: Dibromofluoromethane	104.1	0	100	0	104	85-115	105	0.851	30	
Surr: Toluene-d8	98.68	0	100	0	98.7	85-120	100.5	1.87	30	

The following samples were analyzed in this batch:

1109292-01A	1109292-02A
-------------	-------------

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

# QC BATCH REPORT

Batch ID: **35514**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>	Sample ID: <b>MBLK-35514-35514</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735419</b>		Prep Date: <b>9/13/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.50								

<b>LCS</b>	Sample ID: <b>LCS-35514-35514</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735417</b>		Prep Date: <b>9/13/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.872	0.50	2	0	93.6	75-110	0			

<b>LCSD</b>	Sample ID: <b>LCSD-35514-35514</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735418</b>		Prep Date: <b>9/13/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.924	0.50	2	0	96.2	75-110	1.872	2.74	20	

<b>MS</b>	Sample ID: <b>1109202-02BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735401</b>		Prep Date: <b>9/13/2011</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	2.4	1.931	0	0	60-130	0			S

<b>MS</b>	Sample ID: <b>1109202-03BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735404</b>		Prep Date: <b>9/13/2011</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.412	2.5	1.961	0	72	60-130	0			J

<b>MSD</b>	Sample ID: <b>1109202-02BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735402</b>		Prep Date: <b>9/13/2011</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	2.5	1.961	0	0	60-130	0	0	30	S

<b>MSD</b>	Sample ID: <b>1109202-03BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/15/2011 05:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110915F</b>				SeqNo: <b>1735405</b>		Prep Date: <b>9/13/2011</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	2.4	1.916	0	0	60-130	1.412	0	30	S

The following samples were analyzed in this batch:
 

1109292-01B	1109292-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **R94517** Instrument ID **WETCHEM** Method: **SW9045D**

**DUP** Sample ID: **1109292-02B DUP** Units: **s.u.** Analysis Date: **9/12/2011 07:30 PM**  
Client ID: **TR 31-5-697 S. Half Treatment** Run ID: **WETCHEM\_110912I** SeqNo: **1731538** Prep Date: DF: **1**  
**Cell Composite**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.05	0	0	0	0	0-0	8.05	0	20	

**DUP** Sample ID: **1109328-01A DUP** Units: **s.u.** Analysis Date: **9/12/2011 07:30 PM**  
Client ID: Run ID: **WETCHEM\_110912I** SeqNo: **1731553** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.34	0	0	0	0	0-0	7.34	0	20	

The following samples were analyzed in this batch:

1109292-01B	1109292-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1109292  
**Project:** Williams TR 31-5-697 Pad LOE 9/8/11

## QC BATCH REPORT

Batch ID: **R94631** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R94631</b>			Units: <b>% of sample</b>			Analysis Date: <b>9/14/2011 01:15 PM</b>			
Client ID:	Run ID: <b>MOIST_110914B</b>			SeqNo: <b>1734640</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R94631</b>			Units: <b>% of sample</b>			Analysis Date: <b>9/14/2011 01:15 PM</b>			
Client ID:	Run ID: <b>MOIST_110914B</b>			SeqNo: <b>1734639</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

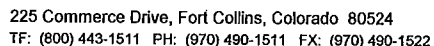
<b>DUP</b>	Sample ID: <b>1109353-03ADUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>9/14/2011 01:15 PM</b>			
Client ID:	Run ID: <b>MOIST_110914B</b>			SeqNo: <b>1734632</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	21.5	0.050	0	0	0	0-0	21.45	0.233	20	

<b>DUP</b>	Sample ID: <b>1109376-01ADUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>9/14/2011 01:15 PM</b>			
Client ID:	Run ID: <b>MOIST_110914B</b>			SeqNo: <b>1734638</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	8.15	0.050	0	0	0	0-0	8.85	8.24	20	

The following samples were analyzed in this batch:

1109292-01B	1109292-02B
-------------	-------------

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.





1109292

Form 202r8

1 of 1

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Reed W. Hale	9/9/11	5:25pm
RECEIVED BY		Diane F. Shaw	9/10/11	1000
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

**Subcontractor:**

A &amp; L Great Lakes Agricultural La

3505 Conestoga Dr

Ft. Wayne, IN 46808

TEL: (260) 483-4759

FAX: (260) 483-5274

Acct #: 91000

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

Date: **11-Sep-11**COC ID: **3096**Due Date **16-Sep-11**

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	1109292	A Subcontracted Analyses (SUBCONTRACT)												
Work Order		Project Number		B												
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	C												
Send Report To	Ann Preston	Inv Attn	Accounts Payable	D												
Address	3352 128th Avenue	Address	3352 128th Avenue	E												
				F												
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	G												
Phone	(616) 399-6070	Phone	(616) 399-6070	H												
Fax	(616) 399-6185	Fax	(616) 399-6185	I												
eMail Address	ann.preston@alsglobal.com	eMail CC		J												
Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J			
1109292-01C (TR 31-5-697 N. Half Treatment Cell Composite)	Soil	8/Sep/2011 13:40	(1) MISC	X												
1109292-02C (TR 31-5-697 S. Half Treatment Cell Composite)	Soil	8/Sep/2011 13:50	(1) MISC	X												

**Comments:**Please analyze for SAR-EC. Email results to Ann Preston.

Relinquished by:

Date/Time

9/12/11

Received by:

Feol Ex

Date/Time

Cooler IDs

Report/QC Level

Std

Relinquished by:

Date/Time

Received by:

Date/Time

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **10-Sep-11 10:00**

Work Order: **1109292**

Received by: **DS**

Checklist completed by Diane Shaw 10-Sep-11  
eSignature Date

Reviewed by: Ann Preston 11-Sep-11  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.6 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

CUSTODY SEAL

DATE

SIGNATURE

Quality

800-255-3950 • 304-255-3900

FedEx NEW Package  
Express US AirbillFedEx  
Tracking  
Number

8758 3471 3915

0200

Form  
ID No.

FedEx National Copy

## 1 From

Date 9/19/11

Sender's FedEx  
Account NumberSender's  
Name Reed Dolo

Phone 970 243 3271

Company HEST

Address 744 Holman Ct Ste 140

Day 1/10/11 State/Room

City Grand Junction State CO ZIP 81506

## 2 Your Internal Billing Reference

## 3 To

Recipient's  
Name Sample Marketing

Phone 616 399 6070

Company ABC Group

Address 3352 1st Ave

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address  
Use this line for the HOLD location address or for continuation of your shipping address.

City Holland State MI ZIP 48124

## 4 Express Package Service

\* To most locations.

NOT: Service order has changed. Please select carefully.

Packages up to 150 lbs.  
For packages over 150 lbs., use the new  
FedEx Express Freight US Airbill.

## NEW BUSINESS ONLY

06 ☐ FedEx First Overnight  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.01 ☒ FedEx Priority Overnight  
Next business morning. Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.05 ☐ FedEx Standard Overnight  
Next business afternoon.  
Saturday Delivery NOT available.

## NEW BUSINESS ONLY

49 ☐ NEW FedEx 2Day A.M.  
Six and business morning.  
Saturday Delivery NOT available.03 ☐ FedEx 2Day  
Second business afternoon. Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.20 ☐ FedEx Express Saver  
Third business day.  
Saturday Delivery NOT available.

## 5 Packaging

\* Declared value limit \$500.

06 ☐ FedEx Envelope\*02 ☐ FedEx Pak\*03 ☐ FedEx  
Box04 ☐ FedEx  
Tube07 ☐ FedEx  
Mailbox

## 6 Special Handling and Delivery Signature Options

03 ☒ SATURDAY DELIVERY4 ☐ No Signature Required  
Package may be left unattended  
obtaining a signature is not required.30 ☐ Direct Signature  
Someone at recipient's address  
must sign for delivery. Fee applies.34 ☐ Indirect Signature  
If you or your FedEx representative  
address someone at a neighbor's  
address, please sign for delivery. Fee  
applies. (Not available for FedEx Home Delivery.)

Does this shipment contain dangerous goods?

One box must be checked.

Yes ☐ No ☒ 04 ☐  
As per label  
Shipper's DeclarationYes ☐ Shipper's Declaration  
not requiredDry Ice ☐ 06 ☐  
Dry Ice, 9 UN 1825Dangerous goods including dry ice must be shipped in FedEx packaging  
or placed in a FedEx Express Dry Ice Box.

Cargo Aircraft Only

## 7 Payment Bill to.

Enter FedEx Acct. No. or Credit Card No. below.

Obtain stamp  
Area 101 ☐ Sender  
Acct. No. in Section  
7 of this bill2 ☒ Recipient3 ☐ Third Party4 ☐ Credit Card5 ☐ Cash/Check

Total Packages

Total Weight

Gross Weight

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

612

fedex.com 1.800.GoFedEx 1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339



8758 3471 3915

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**Appendix 2: Analytical Report**  
**2012 Ground Water Samples**



18-Apr-2012

Mark Mumby  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **WPX Spring Monitor Well Sampling 4/9/12**

Work Order: **1204270**

Dear Mark,

ALS Environmental received 4 samples on 11-Apr-2012 10:40 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 35.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN331938

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Group A Campbell Brothers Limited Company

Environmental The ALS logo, a stylized blue triangle with a yellow flame-like shape inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Work Order:** 1204270

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1204270-01	MW 1	Water		4/9/2012 11:50	4/11/2012 10:40	<input type="checkbox"/>
1204270-02	MW 2	Water		4/9/2012 12:50	4/11/2012 10:40	<input type="checkbox"/>
1204270-03	MW 3	Water		4/9/2012 12:15	4/11/2012 10:40	<input type="checkbox"/>
1204270-04	MW 4	Water		4/9/2012 13:20	4/11/2012 10:40	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Work Order:** 1204270

---

**Case Narrative**

Batch R103445 MS/MSD data for Sulfate is not related to this project's samples.

Batch 40434 MS/MSD data for DRO is not related to this project's samples.

Batch R103629A sample MW 2 MS/MSD recoveries for Calcium, Manganese, and Sodium were above control limits. The amount found in the parent sample for these elements was greater than 4 times the amount spiked. No data requires qualification. The MS/MSD recoveries for Magnesium were above control limits. The result for Magnesium in the parent sample may be biased high due to matrix interference.

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**WorkOrder:** 1204270

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

# ALS Group USA, Corp

Date: 18-Apr-12

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Sample ID:** MW 1  
**Collection Date:** 4/9/2012 11:50 AM

**Work Order:** 1204270  
**Lab ID:** 1204270-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>RM</b>
DRO (C10-C28)	ND		0.10	mg/L	1	4/16/2012 03:50 PM
Surr: 4-Terphenyl-d14	69.0		26-109	%REC	1	4/16/2012 03:50 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
GRO (C6-C10)	ND		0.20	mg/L	1	4/13/2012 12:14 PM
Surr: Toluene-d8	101		70-130	%REC	1	4/13/2012 12:14 PM
<b>METALS BY ICP-MS (DISSOLVED)</b>						
			<b>SW6020A</b>			Analyst: <b>RH</b>
Calcium	64		0.50	mg/L	1	4/17/2012 05:11 PM
Iron	ND		0.080	mg/L	1	4/17/2012 05:11 PM
Magnesium	32		0.20	mg/L	1	4/17/2012 05:11 PM
Manganese	ND		0.0050	mg/L	1	4/17/2012 05:11 PM
Potassium	0.64		0.20	mg/L	1	4/17/2012 05:11 PM
Sodium	49		0.20	mg/L	1	4/17/2012 05:11 PM
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>HL</b>
1-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
2-Chloronaphthalene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Acenaphthene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Acenaphthylene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Anthracene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Benzo(a)anthracene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Benzo(a)pyrene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Chrysene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Fluoranthene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Fluorene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Naphthalene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Phenanthrene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Pyrene	ND		5.0	µg/L	1	4/14/2012 04:58 AM
Surr: 2,4,6-Tribromophenol	72.6		21-125	%REC	1	4/14/2012 04:58 AM
Surr: 2-Fluorobiphenyl	58.7		36-94	%REC	1	4/14/2012 04:58 AM
Surr: 2-Fluorophenol	36.9		10-75	%REC	1	4/14/2012 04:58 AM
Surr: 4-Terphenyl-d14	79.1		26-119	%REC	1	4/14/2012 04:58 AM
Surr: Nitrobenzene-d5	60.8		41-104	%REC	1	4/14/2012 04:58 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 18-Apr-12

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Sample ID:** MW 1  
**Collection Date:** 4/9/2012 11:50 AM

**Work Order:** 1204270  
**Lab ID:** 1204270-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	26.4		11-50	%REC	1	4/14/2012 04:58 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
Benzene	ND		1.0	µg/L	1	4/11/2012 08:06 PM
Ethylbenzene	ND		1.0	µg/L	1	4/11/2012 08:06 PM
m,p-Xylene	ND		2.0	µg/L	1	4/11/2012 08:06 PM
o-Xylene	ND		1.0	µg/L	1	4/11/2012 08:06 PM
Toluene	ND		1.0	µg/L	1	4/11/2012 08:06 PM
Xylenes, Total	ND		3.0	µg/L	1	4/11/2012 08:06 PM
Surr: 1,2-Dichloroethane-d4	98.9		70-120	%REC	1	4/11/2012 08:06 PM
Surr: 4-Bromofluorobenzene	97.6		75-120	%REC	1	4/11/2012 08:06 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	4/11/2012 08:06 PM
Surr: Toluene-d8	97.7		85-120	%REC	1	4/11/2012 08:06 PM
<b>ANIONS BY ION CHROMATOGRAPHY</b>			<b>SW9056</b>			Analyst: <b>ED</b>
Bromide	0.28		0.10	mg/L	1	4/11/2012 01:07 PM
Chloride	52		5.0	mg/L	5	4/11/2012 03:28 PM
Fluoride	0.17		0.10	mg/L	1	4/11/2012 01:07 PM
Nitrogen, Nitrate	1.5		0.10	mg/L	5	4/11/2012 03:28 PM
Nitrogen, Nitrite	ND		0.020	mg/L	1	4/11/2012 01:07 PM
Sulfate	110		5.0	mg/L	5	4/11/2012 03:28 PM
Nitrogen, Nitrate-Nitrite	1.5		0.10	mg/L	5	4/11/2012 03:28 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 18-Apr-12

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Sample ID:** MW 2  
**Collection Date:** 4/9/2012 12:50 PM

**Work Order:** 1204270  
**Lab ID:** 1204270-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>1.6</b>		<b>0.10</b>	<b>mg/L</b>	1	4/16/2012 03:50 PM
Surr: 4-Terphenyl-d14	35.6		26-109	%REC	1	4/16/2012 03:50 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>4.8</b>		<b>0.20</b>	<b>mg/L</b>	1	4/13/2012 12:44 PM
Surr: Toluene-d8	108		70-130	%REC	1	4/13/2012 12:44 PM
<b>METALS BY ICP-MS (DISSOLVED)</b>						
			<b>SW6020A</b>			Analyst: <b>RH</b>
<b>Calcium</b>	<b>54</b>		<b>0.50</b>	<b>mg/L</b>	1	4/17/2012 05:16 PM
<b>Iron</b>	<b>0.13</b>		<b>0.080</b>	<b>mg/L</b>	1	4/17/2012 05:16 PM
<b>Magnesium</b>	<b>28</b>		<b>0.20</b>	<b>mg/L</b>	1	4/17/2012 05:16 PM
<b>Manganese</b>	<b>0.47</b>		<b>0.0050</b>	<b>mg/L</b>	1	4/17/2012 05:16 PM
<b>Potassium</b>	<b>0.79</b>		<b>0.20</b>	<b>mg/L</b>	1	4/17/2012 05:16 PM
<b>Sodium</b>	<b>59</b>		<b>0.20</b>	<b>mg/L</b>	1	4/17/2012 05:16 PM
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>HL</b>
1-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
2-Chloronaphthalene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Acenaphthene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Acenaphthylene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Anthracene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Benzo(a)anthracene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Benzo(a)pyrene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Chrysene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Fluoranthene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Fluorene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
<b>Naphthalene</b>	<b>7.0</b>		<b>5.0</b>	<b>µg/L</b>	1	4/14/2012 05:31 AM
Phenanthrene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Pyrene	ND		5.0	µg/L	1	4/14/2012 05:31 AM
Surr: 2,4,6-Tribromophenol	68.4		21-125	%REC	1	4/14/2012 05:31 AM
Surr: 2-Fluorobiphenyl	47.8		36-94	%REC	1	4/14/2012 05:31 AM
Surr: 2-Fluorophenol	33.6		10-75	%REC	1	4/14/2012 05:31 AM
Surr: 4-Terphenyl-d14	31.2		26-119	%REC	1	4/14/2012 05:31 AM
Surr: Nitrobenzene-d5	50.4		41-104	%REC	1	4/14/2012 05:31 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 18-Apr-12

Client: HRL Compliance Solutions  
 Project: WPX Spring Monitor Well Sampling 4/9/12  
 Sample ID: MW 2  
 Collection Date: 4/9/2012 12:50 PM

Work Order: 1204270  
 Lab ID: 1204270-02  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	23.1		11-50	%REC	1	4/14/2012 05:31 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	70		5.0	µg/L	5	4/13/2012 01:39 AM
Ethylbenzene	58		5.0	µg/L	5	4/13/2012 01:39 AM
m,p-Xylene	1,100		200	µg/L	100	4/11/2012 10:34 PM
o-Xylene	85		5.0	µg/L	5	4/13/2012 01:39 AM
Toluene	ND		5.0	µg/L	5	4/13/2012 01:39 AM
Xylenes, Total	1,200		300	µg/L	100	4/11/2012 10:34 PM
Surr: 1,2-Dichloroethane-d4	97.9		70-120	%REC	5	4/13/2012 01:39 AM
Surr: 1,2-Dichloroethane-d4	101		70-120	%REC	100	4/11/2012 10:34 PM
Surr: 4-Bromofluorobenzene	98.8		75-120	%REC	5	4/13/2012 01:39 AM
Surr: 4-Bromofluorobenzene	98.6		75-120	%REC	100	4/11/2012 10:34 PM
Surr: Dibromofluoromethane	102		85-115	%REC	100	4/11/2012 10:34 PM
Surr: Dibromofluoromethane	97.0		85-115	%REC	5	4/13/2012 01:39 AM
Surr: Toluene-d8	97.8		85-120	%REC	100	4/11/2012 10:34 PM
Surr: Toluene-d8	97.3		85-120	%REC	5	4/13/2012 01:39 AM
<b>ANIONS BY ION CHROMATOGRAPHY</b>			<b>SW9056</b>			Analyst: <b>ED</b>
Bromide	0.34		0.10	mg/L	1	4/11/2012 01:48 PM
Chloride	45		5.0	mg/L	5	4/11/2012 08:29 PM
Fluoride	0.18		0.10	mg/L	1	4/11/2012 01:48 PM
Nitrogen, Nitrate	0.10		0.020	mg/L	1	4/11/2012 01:48 PM
Nitrogen, Nitrite	ND		0.020	mg/L	1	4/11/2012 01:48 PM
Sulfate	74		5.0	mg/L	5	4/11/2012 08:29 PM
Nitrogen, Nitrate-Nitrite	0.10		0.020	mg/L	1	4/11/2012 01:48 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 18-Apr-12

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Sample ID:** MW 3  
**Collection Date:** 4/9/2012 12:15 PM

**Work Order:** 1204270  
**Lab ID:** 1204270-03  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>1.1</b>		<b>0.10</b>	<b>mg/L</b>	<b>1</b>	4/16/2012 04:12 PM
Surr: 4-Terphenyl-d14	59.9		26-109	%REC	1	4/16/2012 04:12 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>3.0</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	4/13/2012 01:14 PM
Surr: Toluene-d8	96.1		70-130	%REC	1	4/13/2012 01:14 PM
<b>METALS BY ICP-MS (DISSOLVED)</b>			<b>SW6020A</b>			Analyst: <b>RH</b>
<b>Calcium</b>	<b>99</b>		<b>0.50</b>	<b>mg/L</b>	<b>1</b>	4/17/2012 05:41 PM
<b>Iron</b>	<b>1.1</b>		<b>0.080</b>	<b>mg/L</b>	<b>1</b>	4/17/2012 05:41 PM
<b>Magnesium</b>	<b>42</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	4/17/2012 05:41 PM
<b>Manganese</b>	<b>3.2</b>		<b>0.050</b>	<b>mg/L</b>	<b>10</b>	4/17/2012 05:01 PM
<b>Potassium</b>	<b>1.6</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	4/17/2012 05:41 PM
<b>Sodium</b>	<b>130</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	4/17/2012 05:41 PM
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8270</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>HL</b>
1-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
2-Chloronaphthalene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Acenaphthene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Acenaphthylene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Anthracene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Benzo(a)anthracene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Benzo(a)pyrene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Chrysene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Fluoranthene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Fluorene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Naphthalene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Phenanthrene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Pyrene	ND		5.0	µg/L	1	4/14/2012 06:03 AM
Surr: 2,4,6-Tribromophenol	73.0		21-125	%REC	1	4/14/2012 06:03 AM
Surr: 2-Fluorobiphenyl	51.0		36-94	%REC	1	4/14/2012 06:03 AM
Surr: 2-Fluorophenol	33.2		10-75	%REC	1	4/14/2012 06:03 AM
Surr: 4-Terphenyl-d14	62.3		26-119	%REC	1	4/14/2012 06:03 AM
Surr: Nitrobenzene-d5	52.0		41-104	%REC	1	4/14/2012 06:03 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 18-Apr-12

Client: HRL Compliance Solutions  
 Project: WPX Spring Monitor Well Sampling 4/9/12  
 Sample ID: MW 3  
 Collection Date: 4/9/2012 12:15 PM

Work Order: 1204270  
 Lab ID: 1204270-03  
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	22.4		11-50	%REC	1	4/14/2012 06:03 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	25		1.0	µg/L	1	4/14/2012 05:33 AM
Ethylbenzene	95		1.0	µg/L	1	4/14/2012 05:33 AM
m,p-Xylene	520		200	µg/L	100	4/13/2012 09:10 AM
o-Xylene	7.5		1.0	µg/L	1	4/14/2012 05:33 AM
Toluene	ND		1.0	µg/L	1	4/14/2012 05:33 AM
Xylenes, Total	520		300	µg/L	100	4/13/2012 09:10 AM
Surr: 1,2-Dichloroethane-d4	100		70-120	%REC	100	4/13/2012 09:10 AM
Surr: 1,2-Dichloroethane-d4	99.9		70-120	%REC	1	4/14/2012 05:33 AM
Surr: 4-Bromofluorobenzene	96.1		75-120	%REC	100	4/13/2012 09:10 AM
Surr: 4-Bromofluorobenzene	103		75-120	%REC	1	4/14/2012 05:33 AM
Surr: Dibromofluoromethane	101		85-115	%REC	1	4/14/2012 05:33 AM
Surr: Dibromofluoromethane	98.5		85-115	%REC	100	4/13/2012 09:10 AM
Surr: Toluene-d8	109		85-120	%REC	1	4/14/2012 05:33 AM
Surr: Toluene-d8	98.2		85-120	%REC	100	4/13/2012 09:10 AM
<b>ANIONS BY ION CHROMATOGRAPHY</b>			<b>SW9056</b>			Analyst: <b>ED</b>
Bromide	2.5		0.10	mg/L	1	4/11/2012 01:28 PM
Chloride	300		20	mg/L	20	4/11/2012 08:09 PM
Fluoride	0.15		0.10	mg/L	1	4/11/2012 01:28 PM
Nitrogen, Nitrate	ND		0.020	mg/L	1	4/11/2012 01:28 PM
Nitrogen, Nitrite	ND		0.020	mg/L	1	4/11/2012 01:28 PM
Sulfate	7.1		1.0	mg/L	1	4/11/2012 01:28 PM
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	4/11/2012 01:28 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 18-Apr-12

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Sample ID:** MW 4  
**Collection Date:** 4/9/2012 01:20 PM

**Work Order:** 1204270  
**Lab ID:** 1204270-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>0.90</b>		<b>0.10</b>	<b>mg/L</b>	1	4/16/2012 04:12 PM
Surr: 4-Terphenyl-d14	72.0		26-109	%REC	1	4/16/2012 04:12 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>2.3</b>		<b>0.20</b>	<b>mg/L</b>	1	4/13/2012 04:51 PM
Surr: Toluene-d8	92.8		70-130	%REC	1	4/13/2012 04:51 PM
<b>METALS BY ICP-MS (DISSOLVED)</b>						
			<b>SW6020A</b>			Analyst: <b>RH</b>
<b>Calcium</b>	<b>74</b>		<b>0.50</b>	<b>mg/L</b>	1	4/17/2012 05:46 PM
Iron	ND		0.080	mg/L	1	4/17/2012 05:46 PM
<b>Magnesium</b>	<b>34</b>		<b>0.20</b>	<b>mg/L</b>	1	4/17/2012 05:46 PM
<b>Manganese</b>	<b>1.6</b>		<b>0.0050</b>	<b>mg/L</b>	1	4/17/2012 05:46 PM
<b>Potassium</b>	<b>0.84</b>		<b>0.20</b>	<b>mg/L</b>	1	4/17/2012 05:46 PM
<b>Sodium</b>	<b>87</b>		<b>0.20</b>	<b>mg/L</b>	1	4/17/2012 05:46 PM
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>4/12/2012</b>	Analyst: <b>HL</b>
1-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
2-Chloronaphthalene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Acenaphthene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Acenaphthylene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Anthracene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Benzo(a)anthracene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Benzo(a)pyrene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Chrysene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Fluoranthene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Fluorene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Naphthalene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Phenanthrene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Pyrene	ND		5.0	µg/L	1	4/14/2012 06:35 AM
Surr: 2,4,6-Tribromophenol	77.0		21-125	%REC	1	4/14/2012 06:35 AM
Surr: 2-Fluorobiphenyl	55.8		36-94	%REC	1	4/14/2012 06:35 AM
Surr: 2-Fluorophenol	36.2		10-75	%REC	1	4/14/2012 06:35 AM
Surr: 4-Terphenyl-d14	75.8		26-119	%REC	1	4/14/2012 06:35 AM
Surr: Nitrobenzene-d5	56.3		41-104	%REC	1	4/14/2012 06:35 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 18-Apr-12

**Client:** HRL Compliance Solutions  
**Project:** WPX Spring Monitor Well Sampling 4/9/12  
**Sample ID:** MW 4  
**Collection Date:** 4/9/2012 01:20 PM

**Work Order:** 1204270  
**Lab ID:** 1204270-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Phenol-d6	25.1		11-50	%REC	1	4/14/2012 06:35 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	17		1.0	µg/L	1	4/14/2012 05:59 AM
Ethylbenzene	72		1.0	µg/L	1	4/14/2012 05:59 AM
m,p-Xylene	160		120	µg/L	100	4/13/2012 09:35 AM
o-Xylene	3.3		1.0	µg/L	1	4/14/2012 05:59 AM
Toluene	ND		1.0	µg/L	1	4/14/2012 05:59 AM
Xylenes, Total	160		120	µg/L	100	4/13/2012 09:35 AM
Surr: 1,2-Dichloroethane-d4	98.1		70-120	%REC	100	4/13/2012 09:35 AM
Surr: 1,2-Dichloroethane-d4	98.2		70-120	%REC	1	4/14/2012 05:59 AM
Surr: 4-Bromofluorobenzene	94.2		75-120	%REC	100	4/13/2012 09:35 AM
Surr: 4-Bromofluorobenzene	114		75-120	%REC	1	4/14/2012 05:59 AM
Surr: Dibromofluoromethane	100		85-115	%REC	1	4/14/2012 05:59 AM
Surr: Dibromofluoromethane	97.0		85-115	%REC	100	4/13/2012 09:35 AM
Surr: Toluene-d8	107		85-120	%REC	1	4/14/2012 05:59 AM
Surr: Toluene-d8	97.9		85-120	%REC	100	4/13/2012 09:35 AM
<b>ANIONS BY ION CHROMATOGRAPHY</b>			<b>SW9056</b>			Analyst: <b>ED</b>
Bromide	0.54		0.10	mg/L	1	4/11/2012 02:08 PM
Chloride	75		5.0	mg/L	5	4/11/2012 08:49 PM
Fluoride	0.18		0.10	mg/L	1	4/11/2012 02:08 PM
Nitrogen, Nitrate	ND		0.020	mg/L	1	4/11/2012 02:08 PM
Nitrogen, Nitrite	ND		0.020	mg/L	1	4/11/2012 02:08 PM
Sulfate	10		1.0	mg/L	1	4/11/2012 02:08 PM
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	4/11/2012 02:08 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 1204270

Project: WPX Spring Monitor Well Sampling 4/9/12

Batch ID: 40434

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKW1-40434-40434</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/13/2012 11:26 AM</b>		
Client ID:		Run ID: <b>GC8_120413A</b>				SeqNo: <b>1947304</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	0.02482	0	0.05	0	49.6	26-109	0			

<b>LCS</b>		Sample ID: <b>DLCSW1-40434-40434</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/13/2012 10:20 AM</b>		
Client ID:		Run ID: <b>GC8_120413A</b>				SeqNo: <b>1947295</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	4.304	0.10	5	0	86.1	60-130	0			
Surr: 4-Terphenyl-d14	0.02855	0	0.05	0	57.1	26-109	0			

<b>LCSD</b>		Sample ID: <b>DLCSDW1-40434-40434</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/13/2012 10:20 AM</b>		
Client ID:		Run ID: <b>GC8_120413A</b>				SeqNo: <b>1947301</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	3.882	0.10	5	0	77.6	60-130	4.304	10.3	30	
Surr: 4-Terphenyl-d14	0.02133	0	0.05	0	42.7	26-109	0.02855	28.9	30	

<b>MS</b>		Sample ID: <b>1204284-01B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/13/2012 10:42 AM</b>		
Client ID:		Run ID: <b>GC8_120413A</b>				SeqNo: <b>1947296</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	42.86	1.0	50	0	85.7	60-130	0			
Surr: 4-Terphenyl-d14	0.3605	0	0.5	0	72.1	26-109	0			

<b>MSD</b>		Sample ID: <b>1204284-01B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/13/2012 10:42 AM</b>		
Client ID:		Run ID: <b>GC8_120413A</b>				SeqNo: <b>1947302</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	38.66	1.0	50	0	77.3	60-130	42.86	10.3	30	
Surr: 4-Terphenyl-d14	0.2342	0	0.5	0	46.8	26-109	0.3605	42.5	30	R

The following samples were analyzed in this batch:

1204270-01B	1204270-02B	1204270-03B
1204270-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103514**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MBLK-R103514-R103514</b>					Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 10:18 AM</b>		
Client ID:	Run ID: <b>GC9_120413A</b>				SeqNo: <b>1947157</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>107.7</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>LCS-R103514-R103514</b>					Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 09:01 AM</b>		
Client ID:	Run ID: <b>GC9_120413A</b>				SeqNo: <b>1947155</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	26060	200	25000	0	104	70-130	0			
<i>Surr: Toluene-d8</i>	<i>99.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.8</i>	<i>70-130</i>	<i>0</i>			

<b>LCSD</b>	Sample ID: <b>LCSD-R103514-R103514</b>					Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 09:27 AM</b>		
Client ID:	Run ID: <b>GC9_120413A</b>				SeqNo: <b>1947156</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	25180	200	25000	0	101	70-130	26060	3.41	30	
<i>Surr: Toluene-d8</i>	<i>100.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>99.8</i>	<i>0.828</i>	<i>30</i>	

<b>MS</b>	Sample ID: <b>1204270-01A MS</b>					Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 10:48 PM</b>		
Client ID: <b>MW 1</b>	Run ID: <b>GC9_120413A</b>				SeqNo: <b>1949939</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	24080	200	25000	0	96.3	70-130	0			
<i>Surr: Toluene-d8</i>	<i>85.21</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>85.2</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>	Sample ID: <b>1204270-01A MSD</b>					Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 11:15 PM</b>		
Client ID: <b>MW 1</b>	Run ID: <b>GC9_120413A</b>				SeqNo: <b>1949940</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	23820	200	25000	0	95.3	70-130	24080	1.05	30	
<i>Surr: Toluene-d8</i>	<i>86.33</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>86.3</i>	<i>70-130</i>	<i>85.21</i>	<i>1.31</i>	<i>30</i>	

**The following samples were analyzed in this batch:**

1204270-01A	1204270-02A	1204270-03A
1204270-04A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103629A** Instrument ID **ICPMS2** Method: **SW6020A** (**Dissolve**)

<b>MBLK</b>	Sample ID: <b>MBLK-R103629A-R103629A</b>					Units: <b>mg/L</b>		Analysis Date: <b>4/17/2012 04:36 PM</b>		
Client ID:	Run ID: <b>ICPMS2_120417A</b>				SeqNo: <b>1950528</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	0.007505	0.50								J
Iron	0.005003	0.080								J
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Potassium	0.02168	0.20								J
Sodium	ND	0.20								

<b>LCS</b>	Sample ID: <b>LCS-R103629A-R103629A</b>					Units: <b>mg/L</b>		Analysis Date: <b>4/17/2012 04:31 PM</b>		
Client ID:	Run ID: <b>ICPMS2_120417A</b>				SeqNo: <b>1950527</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	9.912	0.50	10	0	99.1	80-120	0			
Iron	9.969	0.080	10	0	99.7	80-120	0			
Magnesium	10.03	0.20	10	0	100	80-120	0			
Manganese	0.1004	0.0050	0.1	0	100	80-120	0			
Potassium	10.14	0.20	10	0	101	80-120	0			
Sodium	10.09	0.20	10	0	101	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-R103629A-R103629A</b>					Units: <b>mg/L</b>		Analysis Date: <b>4/17/2012 06:31 PM</b>		
Client ID:	Run ID: <b>ICPMS2_120417A</b>				SeqNo: <b>1950545</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	10.06	0.50	10	0	101	80-120	0			
Iron	10.04	0.080	10	0	100	80-120	0			
Magnesium	10.16	0.20	10	0	102	80-120	0			
Manganese	0.1019	0.0050	0.1	0	102	80-120	0			
Potassium	10.27	0.20	10	0	103	80-120	0			
Sodium	10.23	0.20	10	0	102	80-120	0			

<b>MS</b>	Sample ID: <b>1204270-02CMS</b>					Units: <b>mg/L</b>		Analysis Date: <b>4/17/2012 05:21 PM</b>		
Client ID: <b>MW 2</b>	Run ID: <b>ICPMS2_120417A</b>				SeqNo: <b>1950538</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	83.05	0.50	10	54.15	289	80-120	0			SO
Iron	10.95	0.080	10	0.128	108	80-120	0			
Magnesium	47.21	0.20	10	28.04	192	80-120	0			S
Manganese	0.7229	0.0050	0.1	0.4704	252	80-120	0			SO
Potassium	12.06	0.20	10	0.7913	113	80-120	0			
Sodium	83.59	0.20	10	58.67	249	80-120	0			SO

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103629A** Instrument ID **ICPMS2** Method: **SW6020A (Dissolve)**

<b>MSD</b>		Sample ID: <b>1204270-02CMSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/17/2012 05:26 PM</b>		
Client ID: <b>MW 2</b>		Run ID: <b>ICPMS2_120417A</b>				SeqNo: <b>1950539</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	80.64	0.50	10	54.15	265	80-120	83.05	2.94	20	SO
Iron	11.19	0.080	10	0.128	111	80-120	10.95	2.17	20	
Magnesium	45.55	0.20	10	28.04	175	80-120	47.21	3.58	20	S
Manganese	0.6994	0.0050	0.1	0.4704	229	80-120	0.7229	3.3	20	SO
Potassium	12.18	0.20	10	0.7913	114	80-120	12.06	0.99	20	
Sodium	81.38	0.20	10	58.67	227	80-120	83.59	2.68	20	SO

The following samples were analyzed in this batch:

1204270-01C	1204270-02C	1204270-03C
1204270-04C		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **40435**      Instrument ID **SVMS4**      Method: **SW8270**

<b>MBLK</b>		Sample ID: <b>SBLKW1-40435-40435</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/14/2012 04:26 AM</b>		
Client ID:		Run ID: <b>SVMS4_120413A</b>				SeqNo: <b>1948432</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	5.0								
2-Chloronaphthalene	ND	5.0								
2-Methylnaphthalene	ND	5.0								
Acenaphthene	ND	5.0								
Acenaphthylene	ND	5.0								
Anthracene	ND	5.0								
Benzo(a)anthracene	ND	5.0								
Benzo(a)pyrene	ND	5.0								
Benzo(b)fluoranthene	ND	5.0								
Benzo(g,h,i)perylene	ND	5.0								
Benzo(k)fluoranthene	ND	5.0								
Chrysene	ND	5.0								
Dibenzo(a,h)anthracene	ND	5.0								
Fluoranthene	ND	5.0								
Fluorene	ND	5.0								
Indeno(1,2,3-cd)pyrene	ND	5.0								
Naphthalene	ND	5.0								
Phenanthrene	ND	5.0								
Pyrene	ND	5.0								
<i>Surr: 2,4,6-Tribromophenol</i>										
	39.22	0	50	0	78.4	21-125		0		
<i>Surr: 2-Fluorobiphenyl</i>										
	34.26	0	50	0	68.5	36-94		0		
<i>Surr: 2-Fluorophenol</i>										
	24.02	0	50	0	48	10-75		0		
<i>Surr: 4-Terphenyl-d14</i>										
	36	0	50	0	72	26-119		0		
<i>Surr: Nitrobenzene-d5</i>										
	35.79	0	50	0	71.6	41-104		0		
<i>Surr: Phenol-d6</i>										
	14.19	0	50	0	28.4	11-50		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **40435**      Instrument ID **SVMS4**      Method: **SW8270**

LCS      Sample ID: <b>SLCSW1-40435-40435</b>				Units: <b>µg/L</b>			Analysis Date: <b>4/14/2012 01:44 AM</b>			
Client ID:		Run ID: <b>SVMS4_120413A</b>		SeqNo: <b>1948423</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	15.27	5.0	20	0	76.4	30-100	0			
2-Chloronaphthalene	15.17	5.0	20	0	75.8	50-105	0			
2-Methylnaphthalene	14.93	5.0	20	0	74.6	45-105	0			
Acenaphthene	15.7	5.0	20	0	78.5	45-110	0			
Acenaphthylene	16.32	5.0	20	0	81.6	50-105	0			
Anthracene	17.44	5.0	20	0	87.2	55-110	0			
Benzo(a)anthracene	16.81	5.0	20	0	84	55-110	0			
Benzo(a)pyrene	18.4	5.0	20	0	92	55-110	0			
Benzo(b)fluoranthene	16.57	5.0	20	0	82.8	45-120	0			
Benzo(g,h,i)perylene	18.93	5.0	20	0	94.6	40-125	0			
Benzo(k)fluoranthene	20.21	5.0	20	0	101	45-125	0			
Chrysene	17.44	5.0	20	0	87.2	55-110	0			
Dibenzo(a,h)anthracene	19.07	5.0	20	0	95.4	40-125	0			
Fluoranthene	17.78	5.0	20	0	88.9	55-115	0			
Fluorene	16.59	5.0	20	0	83	50-110	0			
Indeno(1,2,3-cd)pyrene	18.74	5.0	20	0	93.7	45-125	0			
Naphthalene	14.64	5.0	20	0	73.2	40-100	0			
Phenanthrene	17.11	5.0	20	0	85.6	50-115	0			
Pyrene	17.71	5.0	20	0	88.6	50-130	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>42.57</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>85.1</i>	<i>21-125</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>35.48</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>71</i>	<i>36-94</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>24.34</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>48.7</i>	<i>10-75</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>36.52</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>73</i>	<i>26-119</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>36.03</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>72.1</i>	<i>41-104</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>14.7</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>29.4</i>	<i>11-50</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **40435**      Instrument ID **SVMS4**      Method: **SW8270**

LCSD		Sample ID: <b>SLCSDW1-40435-40435</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/14/2012 02:16 AM</b>		
Client ID:		Run ID: <b>SVMS4_120413A</b>				SeqNo: <b>1948426</b>		Prep Date: <b>4/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	15.51	5.0	20	0	77.6	30-100	15.27	1.56	30	
2-Chloronaphthalene	15.46	5.0	20	0	77.3	50-105	15.17	1.89	30	
2-Methylnaphthalene	15.11	5.0	20	0	75.6	45-105	14.93	1.2	30	
Acenaphthene	15.82	5.0	20	0	79.1	45-110	15.7	0.761	30	
Acenaphthylene	16.59	5.0	20	0	83	50-105	16.32	1.64	30	
Anthracene	17.73	5.0	20	0	88.6	55-110	17.44	1.65	30	
Benzo(a)anthracene	17.26	5.0	20	0	86.3	55-110	16.81	2.64	30	
Benzo(a)pyrene	19.2	5.0	20	0	96	55-110	18.4	4.26	30	
Benzo(b)fluoranthene	17.33	5.0	20	0	86.6	45-120	16.57	4.48	30	
Benzo(g,h,i)perylene	19.61	5.0	20	0	98	40-125	18.93	3.53	30	
Benzo(k)fluoranthene	18.58	5.0	20	0	92.9	45-125	20.21	8.4	30	
Chrysene	17.89	5.0	20	0	89.4	55-110	17.44	2.55	30	
Dibenzo(a,h)anthracene	19.74	5.0	20	0	98.7	40-125	19.07	3.45	30	
Fluoranthene	18.38	5.0	20	0	91.9	55-115	17.78	3.32	30	
Fluorene	16.8	5.0	20	0	84	50-110	16.59	1.26	30	
Indeno(1,2,3-cd)pyrene	19.51	5.0	20	0	97.6	45-125	18.74	4.03	30	
Naphthalene	14.9	5.0	20	0	74.5	40-100	14.64	1.76	30	
Phenanthrene	17.4	5.0	20	0	87	50-115	17.11	1.68	30	
Pyrene	18.37	5.0	20	0	91.8	50-130	17.71	3.66	30	
Surr: 2,4,6-Tribromophenol	44.16	0	50	0	88.3	21-125	42.57	3.67	40	
Surr: 2-Fluorobiphenyl	35.65	0	50	0	71.3	36-94	35.48	0.478	40	
Surr: 2-Fluorophenol	23.18	0	50	0	46.4	10-75	24.34	4.88	40	
Surr: 4-Terphenyl-d14	34.66	0	50	0	69.3	26-119	36.52	5.23	40	
Surr: Nitrobenzene-d5	36.41	0	50	0	72.8	41-104	36.03	1.05	40	
Surr: Phenol-d6	13.91	0	50	0	27.8	11-50	14.7	5.52	40	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **40435**      Instrument ID **SVMS4**      Method: **SW8270**

MS				Sample ID: <b>1204283-01B MS</b>			Units: <b>µg/L</b>		Analysis Date: <b>4/14/2012 02:49 AM</b>	
Client ID:				Run ID: <b>SVMS4_120413A</b>			SeqNo: <b>1948429</b>		Prep Date: <b>4/12/2012</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	167.2	50	200	0	83.6	30-100	0			
2-Chloronaphthalene	164.4	50	200	0	82.2	50-105	0			
2-Methylnaphthalene	163.7	50	200	0	81.8	45-105	0			
Acenaphthene	167.1	50	200	0	83.6	45-110	0			
Acenaphthylene	175.9	50	200	0	88	50-105	0			
Anthracene	176.8	50	200	0	88.4	55-110	0			
Benzo(a)anthracene	170.8	50	200	0	85.4	55-110	0			
Benzo(a)pyrene	186.2	50	200	0	93.1	55-110	0			
Benzo(b)fluoranthene	168.8	50	200	0	84.4	45-120	0			
Benzo(g,h,i)perylene	189.7	50	200	0	94.8	40-125	0			
Benzo(k)fluoranthene	206.7	50	200	0	103	45-125	0			
Chrysene	177.4	50	200	0	88.7	55-110	0			
Dibenzo(a,h)anthracene	190.7	50	200	0	95.4	40-125	0			
Fluoranthene	180.5	50	200	0	90.2	55-115	0			
Fluorene	172.8	50	200	0	86.4	50-110	0			
Indeno(1,2,3-cd)pyrene	189.1	50	200	0	94.6	45-125	0			
Naphthalene	160.6	50	200	0	80.3	40-100	0			
Phenanthrene	174	50	200	0	87	50-115	0			
Pyrene	182.6	50	200	0	91.3	50-130	0			
Surr: 2,4,6-Tribromophenol	436.1	0	500	0	87.2	21-125	0			
Surr: 2-Fluorobiphenyl	382.7	0	500	0	76.5	36-94	0			
Surr: 2-Fluorophenol	240.3	0	500	0	48.1	10-75	0			
Surr: 4-Terphenyl-d14	353.1	0	500	0	70.6	26-119	0			
Surr: Nitrobenzene-d5	395	0	500	0	79	41-104	0			
Surr: Phenol-d6	153.9	0	500	0	30.8	11-50	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **40435**      Instrument ID **SVMS4**      Method: **SW8270**

MSD				Sample ID: 1204283-01B MSD			Units: µg/L		Analysis Date: 4/14/2012 03:21 AM		
Client ID:			Run ID: SVMS4_120413A			SeqNo: 1948430		Prep Date: 4/12/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1-Methylnaphthalene	148.8	50	200	0	74.4	30-100	167.2	11.6	30		
2-Chloronaphthalene	147.2	50	200	0	73.6	50-105	164.4	11	30		
2-Methylnaphthalene	145	50	200	0	72.5	45-105	163.7	12.1	30		
Acenaphthene	150.6	50	200	0	75.3	45-110	167.1	10.4	30		
Acenaphthylene	159.2	50	200	0	79.6	50-105	175.9	9.97	30		
Anthracene	170.1	50	200	0	85	55-110	176.8	3.86	30		
Benzo(a)anthracene	169.4	50	200	0	84.7	55-110	170.8	0.823	30		
Benzo(a)pyrene	184.2	50	200	0	92.1	55-110	186.2	1.08	30		
Benzo(b)fluoranthene	168.3	50	200	0	84.2	45-120	168.8	0.297	30		
Benzo(g,h,i)perylene	189	50	200	0	94.5	40-125	189.7	0.37	30		
Benzo(k)fluoranthene	201.9	50	200	0	101	45-125	206.7	2.35	30		
Chrysene	174.8	50	200	0	87.4	55-110	177.4	1.48	30		
Dibenzo(a,h)anthracene	189.1	50	200	0	94.6	40-125	190.7	0.843	30		
Fluoranthene	178.1	50	200	0	89	55-115	180.5	1.34	30		
Fluorene	158.6	50	200	0	79.3	50-110	172.8	8.57	30		
Indeno(1,2,3-cd)pyrene	187.1	50	200	0	93.6	45-125	189.1	1.06	30		
Naphthalene	143.8	50	200	0	71.9	40-100	160.6	11	30		
Phenanthrene	166.2	50	200	0	83.1	50-115	174	4.59	30		
Pyrene	179.7	50	200	0	89.8	50-130	182.6	1.6	30		
Surr: 2,4,6-Tribromophenol	399	0	500	0	79.8	21-125	436.1	8.89	40		
Surr: 2-Fluorobiphenyl	344	0	500	0	68.8	36-94	382.7	10.7	40		
Surr: 2-Fluorophenol	209.5	0	500	0	41.9	10-75	240.3	13.7	40		
Surr: 4-Terphenyl-d14	339.9	0	500	0	68	26-119	353.1	3.81	40		
Surr: Nitrobenzene-d5	354.7	0	500	0	70.9	41-104	395	10.8	40		
Surr: Phenol-d6	133.9	0	500	0	26.8	11-50	153.9	13.9	40		

The following samples were analyzed in this batch:

1204270-01B	1204270-02B	1204270-03B
1204270-04B		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103425**      Instrument ID **VMS6**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW1-120411-R103425</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 02:12 PM</b>		
Client ID:		Run ID: <b>VMS6_120411A</b>				SeqNo: <b>1945818</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	99.78	0	100	0	99.8	70-120	0			
Surr: 4-Bromofluorobenzene	99.18	0	100	0	99.2	75-120	0			
Surr: Dibromofluoromethane	101.7	0	100	0	102	85-115	0			
Surr: Toluene-d8	98.82	0	100	0	98.8	85-120	0			

<b>MBLK</b>		Sample ID: <b>VBLKW1-120411-R103425</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 02:12 PM</b>		
Client ID:		Run ID: <b>VMS6_120411A</b>				SeqNo: <b>1945851</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	99.78	0	100	0	99.8	80-120	0			
Surr: 4-Bromofluorobenzene	99.18	0	100	0	99.2	80-120	0			
Surr: Dibromofluoromethane	101.7	0	100	0	102	80-120	0			
Surr: Toluene-d8	98.82	0	100	0	98.8	80-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-120411-R103425</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 12:58 PM</b>		
Client ID:		Run ID: <b>VMS6_120411A</b>				SeqNo: <b>1945461</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.38	1.0	20	0	96.9	80-120	0			
Ethylbenzene	19.8	1.0	20	0	99	75-125	0			
m,p-Xylene	39.82	2.0	40	0	99.6	75-130	0			
o-Xylene	19.65	1.0	20	0	98.2	80-120	0			
Toluene	19.43	1.0	20	0	97.2	75-120	0			
Xylenes, Total	59.47	3.0	60	0	99.1	75-130	0			
Surr: 1,2-Dichloroethane-d4	97.45	0	100	0	97.4	70-120	0			
Surr: 4-Bromofluorobenzene	98.45	0	100	0	98.4	75-120	0			
Surr: Dibromofluoromethane	105.3	0	100	0	105	85-115	0			
Surr: Toluene-d8	99.68	0	100	0	99.7	85-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103425**      Instrument ID **VMS6**      Method: **SW8260**

LCS Sample ID: <b>VLCSW1-120411-R103425</b>				Units: <b>µg/L</b>			Analysis Date: <b>4/11/2012 12:58 PM</b>			
Client ID:		Run ID: <b>VMS6_120411A</b>			SeqNo: <b>1945848</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.38	1.0	20	0	96.9	40-140	0			
Ethylbenzene	19.8	1.0	20	0	99	75-125	0			
m,p-Xylene	39.82	2.0	40	0	99.6	75-130	0			
o-Xylene	19.65	1.0	20	0	98.2	80-120	0			
Toluene	19.43	1.0	20	0	97.2	75-120	0			
Xylenes, Total	59.47	3.0	60	0	99.1	80-120	0			
Surr: 1,2-Dichloroethane-d4	97.45	0	100	0	97.4	80-120	0			
Surr: 4-Bromofluorobenzene	98.45	0	100	0	98.4	80-120	0			
Surr: Dibromofluoromethane	105.3	0	100	0	105	80-120	0			
Surr: Toluene-d8	99.68	0	100	0	99.7	80-120	0			

LCSD Sample ID: <b>VLCSW1-120411-R103425</b>				Units: <b>µg/L</b>			Analysis Date: <b>4/11/2012 01:23 PM</b>			
Client ID:		Run ID: <b>VMS6_120411A</b>			SeqNo: <b>1945462</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.8	1.0	20	0	94	80-120	19.38	3.04	30	
Ethylbenzene	19.12	1.0	20	0	95.6	75-125	19.8	3.49	30	
m,p-Xylene	38.42	2.0	40	0	96	75-130	39.82	3.58	30	
o-Xylene	19.08	1.0	20	0	95.4	80-120	19.65	2.94	30	
Toluene	18.93	1.0	20	0	94.6	75-120	19.43	2.61	30	
Xylenes, Total	57.5	3.0	60	0	95.8	75-130	59.47	3.37	30	
Surr: 1,2-Dichloroethane-d4	98.23	0	100	0	98.2	70-120	97.45	0.797	30	
Surr: 4-Bromofluorobenzene	99.27	0	100	0	99.3	75-120	98.45	0.829	30	
Surr: Dibromofluoromethane	104.9	0	100	0	105	85-115	105.3	0.381	30	
Surr: Toluene-d8	99.71	0	100	0	99.7	85-120	99.68	0.0301	30	

LCSD Sample ID: <b>VLCSW1-120411-R103425</b>				Units: <b>µg/L</b>			Analysis Date: <b>4/11/2012 01:23 PM</b>			
Client ID:		Run ID: <b>VMS6_120411A</b>			SeqNo: <b>1945850</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.8	1.0	20	0	94	40-140	19.38	3.04	0	
Ethylbenzene	19.12	1.0	20	0	95.6	75-125	19.8	3.49	30	
m,p-Xylene	38.42	2.0	40	0	96	75-130	39.82	3.58	30	
o-Xylene	19.08	1.0	20	0	95.4	80-120	19.65	2.94	30	
Toluene	18.93	1.0	20	0	94.6	75-120	19.43	2.61	30	
Xylenes, Total	57.5	3.0	60	0	95.8	80-120	59.47	3.37	30	
Surr: 1,2-Dichloroethane-d4	98.23	0	100	0	98.2	80-120	97.45	0.797	30	
Surr: 4-Bromofluorobenzene	99.27	0	100	0	99.3	80-120	98.45	0.829	30	
Surr: Dibromofluoromethane	104.9	0	100	0	105	80-120	105.3	0.381	30	
Surr: Toluene-d8	99.71	0	100	0	99.7	80-120	99.68	0.0301	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103425**      Instrument ID **VMS6**      Method: **SW8260**

MS      Sample ID: <b>1204270-02A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 10:59 PM</b>				
Client ID: <b>MW 2</b>		Run ID: <b>VMS6_120411A</b>		SeqNo: <b>1945843</b>		Prep Date:		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1859	100	2000	76	89.2	80-120	0			
Ethylbenzene	1895	100	2000	62	91.6	75-125	0			
m,p-Xylene	4665	200	4000	1116	88.7	75-130	0			
o-Xylene	1896	100	2000	87	90.4	80-120	0			
Toluene	1801	100	2000	0	90	75-120	0			
Xylenes, Total	6561	300	6000	1203	89.3	75-130	0			
Surr: 1,2-Dichloroethane-d4	9879	0	10000	0	98.8	70-120	0			
Surr: 4-Bromofluorobenzene	9827	0	10000	0	98.3	75-120	0			
Surr: Dibromofluoromethane	10400	0	10000	0	104	85-115	0			
Surr: Toluene-d8	9958	0	10000	0	99.6	85-120	0			

MS      Sample ID: <b>1204270-02A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 10:59 PM</b>				
Client ID: <b>MW 2</b>		Run ID: <b>VMS6_120411A</b>		SeqNo: <b>1945855</b>		Prep Date:		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1859	100	2000	76	89.2	40-140	0			
Toluene	1801	100	2000	0	90	75-120	0			
Xylenes, Total	6561	300	6000	1203	89.3	80-120	0			
Surr: 1,2-Dichloroethane-d4	9879	0	10000	0	98.8	80-120	0			
Surr: 4-Bromofluorobenzene	9827	0	10000	0	98.3	80-120	0			
Surr: Dibromofluoromethane	10400	0	10000	0	104	80-120	0			
Surr: Toluene-d8	9958	0	10000	0	99.6	80-120	0			

MSD      Sample ID: <b>1204270-02A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 11:23 PM</b>				
Client ID: <b>MW 2</b>		Run ID: <b>VMS6_120411A</b>		SeqNo: <b>1945845</b>		Prep Date:		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1814	100	2000	76	86.9	80-120	1859	2.45	30	
Ethylbenzene	1844	100	2000	62	89.1	75-125	1895	2.73	30	
m,p-Xylene	4534	200	4000	1116	85.4	75-130	4665	2.85	30	
o-Xylene	1852	100	2000	87	88.2	80-120	1896	2.35	30	
Toluene	1759	100	2000	0	88	75-120	1801	2.36	30	
Xylenes, Total	6386	300	6000	1203	86.4	75-130	6561	2.7	30	
Surr: 1,2-Dichloroethane-d4	9839	0	10000	0	98.4	70-120	9879	0.406	30	
Surr: 4-Bromofluorobenzene	9849	0	10000	0	98.5	75-120	9827	0.224	30	
Surr: Dibromofluoromethane	10390	0	10000	0	104	85-115	10400	0.077	30	
Surr: Toluene-d8	10000	0	10000	0	100	85-120	9958	0.441	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103425**      Instrument ID **VMS6**      Method: **SW8260**

<b>MSD</b>		Sample ID: <b>1204270-02A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/11/2012 11:23 PM</b>		
Client ID: <b>MW 2</b>		Run ID: <b>VMS6_120411A</b>				SeqNo: <b>1945857</b>		Prep Date:		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1814	100	2000	76	86.9	40-140	1859	2.45	30	
Toluene	1759	100	2000	0	88	75-120	1801	2.36	30	
Xylenes, Total	6386	300	6000	1203	86.4	80-120	6561	2.7	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	9839	0	10000	0	98.4	80-120	9879	0.406	30	
<i>Surr: 4-Bromofluorobenzene</i>	9849	0	10000	0	98.5	80-120	9827	0.224	30	
<i>Surr: Dibromofluoromethane</i>	10390	0	10000	0	104	80-120	10400	0.077	30	
<i>Surr: Toluene-d8</i>	10000	0	10000	0	100	80-120	9958	0.441	30	

The following samples were analyzed in this batch:

1204270-01A	1204270-02A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103498A**      Instrument ID **VMS5**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW2-120412-R103498A</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 01:13 AM</b>		
Client ID:		Run ID: <b>VMS5_120412B</b>				SeqNo: <b>1946651</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	97.23	0	100	0	97.2	70-120	0			
Surr: 4-Bromofluorobenzene	95.21	0	100	0	95.2	75-120	0			
Surr: Dibromofluoromethane	99.67	0	100	0	99.7	85-115	0			
Surr: Toluene-d8	98.46	0	100	0	98.5	85-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW2-120412-R103498A</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/12/2012 11:57 PM</b>		
Client ID:		Run ID: <b>VMS5_120412B</b>				SeqNo: <b>1946647</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.27	1.0	20	0	101	80-120	0			
Ethylbenzene	19.9	1.0	20	0	99.5	75-125	0			
m,p-Xylene	38.95	2.0	40	0	97.4	75-130	0			
o-Xylene	19.54	1.0	20	0	97.7	80-120	0			
Toluene	19.55	1.0	20	0	97.8	75-120	0			
Xylenes, Total	58.49	3.0	60	0	97.5	75-130	0			
Surr: 1,2-Dichloroethane-d4	95.97	0	100	0	96	70-120	0			
Surr: 4-Bromofluorobenzene	96.69	0	100	0	96.7	75-120	0			
Surr: Dibromofluoromethane	101.4	0	100	0	101	85-115	0			
Surr: Toluene-d8	96.35	0	100	0	96.4	85-120	0			

<b>LCSD</b>		Sample ID: <b>VLCSDW2-120412-R103498A</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 12:22 PM</b>		
Client ID:		Run ID: <b>VMS5_120412B</b>				SeqNo: <b>1946653</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.63	1.0	20	0	103	80-120	20.27	1.76	30	
Ethylbenzene	20.49	1.0	20	0	102	75-125	19.9	2.92	30	
m,p-Xylene	40.89	2.0	40	0	102	75-130	38.95	4.86	30	
o-Xylene	20.07	1.0	20	0	100	80-120	19.54	2.68	30	
Toluene	20.39	1.0	20	0	102	75-120	19.55	4.21	30	
Xylenes, Total	60.96	3.0	60	0	102	75-130	58.49	4.14	30	
Surr: 1,2-Dichloroethane-d4	96.63	0	100	0	96.6	70-120	95.97	0.685	30	
Surr: 4-Bromofluorobenzene	98.94	0	100	0	98.9	75-120	96.69	2.3	30	
Surr: Dibromofluoromethane	99.82	0	100	0	99.8	85-115	101.4	1.56	30	
Surr: Toluene-d8	97.95	0	100	0	98	85-120	96.35	1.65	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions  
 Work Order: 1204270  
 Project: WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103498A** Instrument ID **VMS5** Method: **SW8260**

MS Sample ID: <b>1204270-03A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 10:02 AM</b>				
Client ID: <b>MW 3</b>		Run ID: <b>VMS5_120412B</b>		SeqNo: <b>1947219</b>		Prep Date:		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1723	100	2000	0	86.2	80-120	0			
Ethylbenzene	1751	100	2000	70	84	75-125	0			
m,p-Xylene	3837	200	4000	521	82.9	75-130	0			
o-Xylene	1669	100	2000	0	83.4	80-120	0			
Toluene	1648	100	2000	0	82.4	75-120	0			
Xylenes, Total	5506	300	6000	521	83.1	75-130	0			
Surr: 1,2-Dichloroethane-d4	9744	0	10000	0	97.4	70-120	0			
Surr: 4-Bromofluorobenzene	9457	0	10000	0	94.6	75-120	0			
Surr: Dibromofluoromethane	9971	0	10000	0	99.7	85-115	0			
Surr: Toluene-d8	9777	0	10000	0	97.8	85-120	0			

MSD Sample ID: <b>1204270-03A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/13/2012 10:28 AM</b>				
Client ID: <b>MW 3</b>		Run ID: <b>VMS5_120412B</b>		SeqNo: <b>1947220</b>		Prep Date:		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1684	100	2000	0	84.2	80-120	1723	2.29	30	
Ethylbenzene	1732	100	2000	70	83.1	75-125	1751	1.09	30	
m,p-Xylene	3760	200	4000	521	81	75-130	3837	2.03	30	
o-Xylene	1625	100	2000	0	81.2	80-120	1669	2.67	30	
Toluene	1651	100	2000	0	82.6	75-120	1648	0.182	30	
Xylenes, Total	5385	300	6000	521	81.1	75-130	5506	2.22	30	
Surr: 1,2-Dichloroethane-d4	9870	0	10000	0	98.7	70-120	9744	1.28	30	
Surr: 4-Bromofluorobenzene	9848	0	10000	0	98.5	75-120	9457	4.05	30	
Surr: Dibromofluoromethane	9881	0	10000	0	98.8	85-115	9971	0.907	30	
Surr: Toluene-d8	9968	0	10000	0	99.7	85-120	9777	1.93	30	

The following samples were analyzed in this batch:

1204270-02A	1204270-03A	1204270-04A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103555A**      Instrument ID **VMS9**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW3-120413-R103555A</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/14/2012 02:11 AM</b>		
Client ID:		Run ID: <b>VMS9_120413B</b>				SeqNo: <b>1948042</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	102.7	0	100	0	103	70-120	0			
Surr: 4-Bromofluorobenzene	99.22	0	100	0	99.2	75-120	0			
Surr: Dibromofluoromethane	103	0	100	0	103	85-115	0			
Surr: Toluene-d8	91.05	0	100	0	91	85-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-120413-R103555A</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/14/2012 12:55 PM</b>		
Client ID:		Run ID: <b>VMS9_120413B</b>				SeqNo: <b>1948043</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.61	1.0	20	0	108	80-120	0			
Ethylbenzene	23.88	1.0	20	0	119	75-125	0			
o-Xylene	22.55	1.0	20	0	113	80-120	0			
Toluene	21.91	1.0	20	0	110	75-120	0			
Surr: 1,2-Dichloroethane-d4	99.58	0	100	0	99.6	70-120	0			
Surr: 4-Bromofluorobenzene	99.8	0	100	0	99.8	75-120	0			
Surr: Dibromofluoromethane	102.6	0	100	0	103	85-115	0			
Surr: Toluene-d8	99.72	0	100	0	99.7	85-120	0			

<b>LCSD</b>		Sample ID: <b>VLCSDW1-120413-R103555A</b>				Units: <b>µg/L</b>		Analysis Date: <b>4/14/2012 01:20 AM</b>		
Client ID:		Run ID: <b>VMS9_120413B</b>				SeqNo: <b>1948041</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.81	1.0	20	0	99	80-120	21.61	8.69	30	
Ethylbenzene	21.85	1.0	20	0	109	75-125	23.88	8.88	30	
o-Xylene	20.74	1.0	20	0	104	80-120	22.55	8.36	30	
Toluene	20.23	1.0	20	0	101	75-120	21.91	7.97	30	
Surr: 1,2-Dichloroethane-d4	99.43	0	100	0	99.4	70-120	99.58	0.151	30	
Surr: 4-Bromofluorobenzene	99.73	0	100	0	99.7	75-120	99.8	0.0702	30	
Surr: Dibromofluoromethane	101.9	0	100	0	102	85-115	102.6	0.675	30	
Surr: Toluene-d8	99.18	0	100	0	99.2	85-120	99.72	0.543	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions  
 Work Order: 1204270  
 Project: WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103555A** Instrument ID **VMS9** Method: **SW8260**

MS Sample ID: <b>1204290-08A MS</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>4/14/2012 11:03 AM</b>			
Client ID:		Run ID: <b>VMS9_120413B</b>		SeqNo: <b>1948543</b>		Prep Date:		DF: <b>5000</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	101200	5,000	100000	0	101	75-125	0			
Ethylbenzene	113000	10,000	100000	0	113	75-125	0			
o-Xylene	103000	5,000	100000	0	103	75-125	0			
Toluene	102800	7,500	100000	0	103	70-125	0			
Surr: 1,2-Dichloroethane-d4	500400	0	500000	0	100	70-120	0			
Surr: 4-Bromofluorobenzene	515300	0	500000	0	103	75-120	0			
Surr: Dibromofluoromethane	496800	0	500000	0	99.4	85-115	0			
Surr: Toluene-d8	504800	0	500000	0	101	85-115	0			

MSD Sample ID: <b>1204290-08A MSD</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>4/14/2012 11:28 AM</b>			
Client ID:		Run ID: <b>VMS9_120413B</b>		SeqNo: <b>1948544</b>		Prep Date:		DF: <b>5000</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	100400	5,000	100000	0	100	75-125	101200	0.793	30	
Ethylbenzene	113600	10,000	100000	0	114	75-125	113000	0.574	30	
o-Xylene	103800	5,000	100000	0	104	75-125	103000	0.87	30	
Toluene	102600	7,500	100000	0	103	70-125	102800	0.146	30	
Surr: 1,2-Dichloroethane-d4	492800	0	500000	0	98.6	70-120	500400	1.54	30	
Surr: 4-Bromofluorobenzene	504000	0	500000	0	101	75-120	515300	2.21	30	
Surr: Dibromofluoromethane	500600	0	500000	0	100	85-115	496800	0.772	30	
Surr: Toluene-d8	499400	0	500000	0	99.9	85-115	504800	1.09	30	

The following samples were analyzed in this batch:

1204270-03A	1204270-04A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103445** Instrument ID **IC3** Method: **SW9056**

<b>MBLK</b>		Sample ID: <b>CCB/MBLK-R103445</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/11/2012 10:57 AM</b>		
Client ID:		Run ID: <b>IC3_120411A</b>				SeqNo: <b>1945944</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	ND	0.10								
Chloride	0.4829	1.0								J
Fluoride	ND	0.10								
Nitrogen, Nitrate	ND	0.020								
Nitrogen, Nitrite	ND	0.020								
Sulfate	ND	1.0								
Nitrogen, Nitrate-Nitrite	ND	0.020								

<b>LCS</b>		Sample ID: <b>CCV/LCS-R103445</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/11/2012 12:10 PM</b>		
Client ID:		Run ID: <b>IC3_120411A</b>				SeqNo: <b>1945945</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.012	0.10	2	0	101	88-113	0			
Chloride	9.658	1.0	10	0	96.6	88-107	0			
Fluoride	1.948	0.10	2	0	97.4	86-111	0			
Nitrogen, Nitrate	0.2343	0.020	0.25	0	93.7	81-116	0			
Nitrogen, Nitrite	0.2407	0.020	0.25	0	96.3	84-115	0			
Sulfate	9.81	1.0	10	0	98.1	85-110	0			
Nitrogen, Nitrate-Nitrite	0.475	0.020	0.5	0	95	90-110	0			

<b>LCSD</b>		Sample ID: <b>CCV/LCSD-R103445</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/11/2012 10:09 PM</b>		
Client ID:		Run ID: <b>IC3_120411A</b>				SeqNo: <b>1945983</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.016	0.10	2	0	101	88-113	2.012	0.169	20	
Chloride	9.66	1.0	10	0	96.6	88-107	9.658	0.0228	20	
Fluoride	2.112	0.10	2	0	106	86-111	1.948	8.09	20	
Nitrogen, Nitrate	0.2608	0.020	0.25	0	104	81-116	0.2343	10.7	20	
Nitrogen, Nitrite	0.2359	0.020	0.25	0	94.4	84-115	0.2407	2.01	20	
Sulfate	9.953	1.0	10	0	99.5	85-110	9.81	1.45	20	
Nitrogen, Nitrate-Nitrite	0.4967	0.020	0.5	0	99.3	90-110	0.475	4.47	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1204270  
**Project:** WPX Spring Monitor Well Sampling 4/9/12

## QC BATCH REPORT

Batch ID: **R103445**      Instrument ID **IC3**      Method: **SW9056**

MS				Sample ID: 1204271-01A MS			Units: mg/L		Analysis Date: 4/11/2012 02:48 PM		
Client ID:		Run ID: IC3_120411A			SeqNo: 1945952		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Bromide	2.265	0.10	2	0.0942	109	75-125		0			
Chloride	25.43	1.0	10	15.35	101	75-125		0			
Fluoride	2.286	0.10	2	0.3306	97.8	75-125		0			
Nitrogen, Nitrate	0.4642	0.020	0.5	0	92.8	75-125		0			
Nitrogen, Nitrite	0.482	0.020	0.5	0	96.4	75-125		0			
Nitrogen, Nitrate-Nitrite	0.9462	0.020	1	0	94.6	75-125		0			

MS				Sample ID: 1204271-01A MS				Units: mg/L			Analysis Date: 4/11/2012 09:29 PM			
Client ID:				Run ID: IC3_120411A				SeqNo: 1945979			Prep Date:		DF: 2	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Sulfate		66.15	2.0	10	56.54	96.1	75-125	0			O			

MSD				Sample ID: 1204271-01A MSD			Units: mg/L		Analysis Date: 4/11/2012 03:08 PM		
Client ID:			Run ID: IC3_120411A			SeqNo: 1945953		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Bromide	2.338	0.10	2	0.0942	112	75-125	2.265	3.17	20		
Chloride	25.52	1.0	10	15.35	102	75-125	25.43	0.33	20		
Fluoride	2.29	0.10	2	0.3306	98	75-125	2.286	0.166	20		
Nitrogen, Nitrate	0.4964	0.020	0.5	0	99.3	75-125	0.4642	6.7	20		
Nitrogen, Nitrite	0.4917	0.020	0.5	0	98.3	75-125	0.482	1.99	20		
Nitrogen, Nitrate-Nitrite	0.9881	0.020	1	0	98.8	75-125	0.9462	4.33	20		

MSD				Sample ID: 1204271-01A MSD				Units: mg/L			Analysis Date: 4/11/2012 09:49 PM			
Client ID:				Run ID: IC3_120411A				SeqNo: 1945981			Prep Date:		DF: 2	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Sulfate		65.12	2.0	10	56.54	85.8	75-125	66.15	1.57	20	O			

The following samples were analyzed in this batch:

1204270-01D	1204270-02D	1204270-03D
1204270-04D		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.





# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

WORKORDER #

1204270

PROJECT NAME		WPX Spring Monitor Well Sampling		SAMPLER		Reed Wold		DATE		4/10/2012		PAGE		1 of 1			
PROJECT No.				SITE ID		TR 31-5-597		TURNAROUND		5 day		DISPOSAL		By Lab or Return to Client			
COMPANY NAME		HRL Compliance		BILL TO COMPANY		WPX		See Notes Below DRO, PNBs GRO, BTEX Anions, Cations MMJ 4/10/12 as per 1110741									
SEND REPORT TO		Mark Mumby		INVOICE ATTN TO		Karolina Blaney											
ADDRESS		744 Horizon Ct Ste. 140		ADDRESS		1058 Co Rd 215											
CITY / STATE / ZIP		Grand Junction, CO 81506		CITY / STATE / ZIP		Parachure CO 81635											
PHONE		970-243-3271		PHONE		970-683-2295											
FAX		970-243-3280		FAX													
E-MAIL		mmumby@hrlcomp.com		E-MAIL		Karolina.blaney@wpxenergy.com											
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC										
1	MW 1	W	4/9/2012	11:50	8	1, 8		X									
2	MW 2	W	4/9/2012	12:50	8	1, 8		X									
3	MW 3	W	4/9/2012	12:15	8	1, 8		X									
4	MW 4	W	4/9/2012	1:20	8	1, 8		X									

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:  DRO, GRO, Metals Semi Vols PAH, BTEX & Anions (As per work order 1110741)  4.6 g/L	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reed Wold</i>	Reed Wold	4/10/12	5:00
RECEIVED BY	<i>Karla W. Lee</i>	Karla W. Lee	4/11/12	1040
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 11-Apr-12 10:40

Work Order: 1204270

Received by: KRW

Checklist completed by Keith Wurenga 11-Apr-12  
eSignature Date

Reviewed by: Ann Preston 12-Apr-12  
eSignature Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.6 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			
Login Notes:			

=====

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

**FedEx** Express **NEW Package**  
**US Airbill**

FedEx  
Tracking  
Number

8987 5943 7700

0200 Form  
ID No.

FedEx Retrieval Copy

**1 From**  
Date 4/10/12

Sender's Name Reed World Phone 770 243-3271

Company HLST

Address 744 Horizon Ct Ste 140  
Dept./Floor/Suite/Room

City Blair Junction State GA ZIP 31506

**2 Your Internal Billing Reference**

**3 To**  
Recipient's Name Sample Receiving Phone 616 399 6070

Company ALS Group

Address 3352 128th Ave  
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address  
Use this line for the HOLD location address or for continuation of your shipping address.

City Holland State MI ZIP 49424

**01** ☐ **HOLD Weekday**  
FedEx location address  
REQUIRED, NOT available for  
FedEx First Overnight.

**31** ☐ **HOLD Saturday**  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.



8987 5943 7700

**4 Express Package Service** \*To most locations.  
NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.  
For packages over 150 lbs., use the new  
FedEx Express Freight US Airbill.

**Next Business Day**

**06** ☐ **FedEx First Overnight**  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.

**01** ☒ **FedEx Priority Overnight**  
Next business morning. Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.

**05** ☐ **FedEx Standard Overnight**  
Next business afternoon.  
Saturday Delivery NOT available.

**2 or 3 Business Days**

**49** ☐ **NEW FedEx 2Day A.M.**  
Second business morning.  
Saturday Delivery NOT available.

**03** ☐ **FedEx 2Day**  
Second business afternoon. Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.

**20** ☐ **FedEx Express Saver**  
Third business day.  
Saturday Delivery NOT available.

**5 Packaging** \*Declared value limit \$500.

**06** ☐ **FedEx Envelope\*** **02** ☐ **FedEx Pak\*** **03** ☐ **FedEx Box** **04** ☐ **FedEx Tube** **01** ☐ **Other**

**6 Special Handling and Delivery Signature Options**

**03 SATURDAY DELIVERY**

☒ **No Signature Required**  
Package may be left without  
obtaining a signature for delivery.

**10** ☐ **Direct Signature**  
Someone at recipient's address  
may sign for delivery. *Fee applies.*

**34** ☐ **Indirect Signature**  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
residential deliveries only. *Fee applies.*

**Does this shipment contain dangerous goods?**

☒ **No** **04** ☐ **Yes**  
As per attached  
Shipper's Declaration.

☐ **Yes**  
Shipper's Declaration  
not required.

**06** ☐ **Dry Ice**  
Dry ice, 9, UN 1845 \_\_\_\_\_ x \_\_\_\_\_ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Drop Box.

☐ **Cargo Aircraft Only**

**7 Payment Bill to:**

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip.  
Acct. No. ☐  
**1** ☐ **Sender** Acct. No. in Section 1 will be billed. **2** ☒ **Recipient** **3** ☐ **Third Party** **4** ☐ **Credit Card** **5** ☐ **Cash/Check**

Total Packages 1

Total Weight 53 lbs.

Credit Card Auth. 612

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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fedex.com 1800.GoFedEx 1800.463.3339

## Terms And Conditions Summary

For the current FedEx Service Guide, which contains the complete Terms and Conditions, go to [fedex.com](http://fedex.com).

### Definitions

On this Airbill, "we," "our," "us," and "FedEx" refer to Federal Express Corporation, its employees, and agents. "You" and "your" refer to the sender, its employees, and agents.

### Agreement To Terms

By giving us your package to deliver, you agree to all the terms on this Airbill and in the current FedEx Service Guide, which is available at [fedex.com](http://fedex.com) or at a FedEx location. You also agree to those terms on behalf of any third party with an interest in the package. If there is a conflict between the current FedEx Service Guide and this Airbill, the current FedEx Service Guide will control. No one is authorized to change the terms of our Agreement.

### Responsibility For Packaging And Completing Airbill

You are responsible for adequately packaging your goods and properly filling out this Airbill. If you omit the number of packages and/or weight per package, our billing will be based on our best estimate of the number of packages we received and/or an estimated "default" weight per package as determined by us.

### Responsibility For Payment

Even if you give us different payment instructions, you will always be primarily responsible for all delivery costs, as well as any cost we incur in either returning your package to us.

### Limitations

Unless a higher charge for each package declared value liability insurance is purchased, we will not be liable for any damage, whether direct, incidental, special, or consequential, in excess of the declared value of a shipment, whether or not FedEx had knowledge that such damages might be incurred, including but not limited to loss of income or profits.

In any event, we will not be liable for the actual loss or damage, but not limited to loss of income or profits.



Quality Environmental Containers  
800-255-3950 • 304-255-3900

### Declared Value Limits

The maximum declared value allowed for a FedEx Envelope or FedEx Pak shipment is US\$500.  
For other shipments, the maximum declared value allowed is US\$50,000 per package, unless your package contains items of extraordinary value, in which case the maximum declared value allowed is US\$1,000 per package.

For loss of or damage to shipments of prohibited items, including but not limited to acts of God, perils of the air, weather conditions, acts of public authorities, strikes, civil commotions, or acts of public authorities with actual or apparent authority.

### Right To Inspect

We may, at our option, open and inspect your packages before or after you give them to us to deliver. We reserve the right to reject a shipment when such shipment would be likely to cause delay or damage to other shipments, equipment, or personnel, or if the shipment is prohibited by law, or if the shipment would violate any terms of our Airbill or the current FedEx Service Guide.

### Right Of Rejection

You may call our Customer Service department at 1.800.GoFedEx 1.800.463.3339 to report a claim; however, you must still file a timely written claim. We aren't obligated to act on any claim until you have paid all transportation charges, and you may not deduct the amount of your claim from those charges.

### Filing A Claim

YOU MUST MAKE ALL CLAIMS IN WRITING or online at [fedex.com](http://fedex.com) and notify us of your claim within strict time limits set out in the current FedEx Service Guide.

You must make the original shipping cartons and packing available for inspection.

We may, at our option, open and inspect your packages before or after you give them to us to deliver. We reserve the right to reject a shipment when such shipment would be likely to cause delay or damage to other shipments, equipment, or personnel, or if the shipment is prohibited by law, or if the shipment would violate any terms of our Airbill or the current FedEx Service Guide.

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CUSTODY SEAL

DATE

SIGNATURE

TABLE WITH  
a FedEx  
excise  
the air  
by us.

declared value of up to US\$250,000. In that case, our liability is limited to the actual value of the package(s) lost or damaged, but may not exceed the maximum allowable declared value(s) or the total declared value, whichever is less. You are responsible for proving the actual loss or damage.

FedEx will, at your request and with some limitations, refund or credit all transportation charges. See the current FedEx Service Guide for more information.

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