Customer #: 2221277 / 2221287
Document #: 2225324
Date: 10/31/2016

27-Sep-2011

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

Re: **Black Hills Wagon Tracks 12-6 9/15/11** Work Order: **1109509**

Dear Kris,

ALS Environmental received 1 sample on 16-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 27.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: IL100452

ALS Group USA, Corp

Date: 27-Sep-11

Client: HRL Compliance Solutions
Project: Black Hills Wagon Tracks 12-6 9/15/11
Work Order: **1109509**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1109509-01	Treatment Cell	Soil		9/15/2011 13:00	9/16/2011 10:00	☐

ALS Group USA, Corp

Date: 27-Sep-11

Client: HRL Compliance Solutions
Project: Black Hills Wagon Tracks 12-6 9/15/11
Work Order: 1109509

Case Narrative

Batch 35620 MS/MSD data for Metals is not related to this project's samples.

Batch 35640 LCS/LCSD recoveries for several Semi-Volatile compounds were above control limits, but all samples in this quality control batch were ND for these compounds. The MS/MSD data for Semi-Volatiles is not related to this project's samples.

Batch 35708 sample 1109509-01MS/MSD recoveries for Hexavalent Chromium were below the lower control limit. The reporting limit in the parent sample may be biased low for this anlyte.

ALS Group USA, Corp

Date: 27-Sep-11

Client: HRL Compliance Solutions
Project: Black Hills Wagon Tracks 12-6 9/15/11
WorkOrder: **1109509**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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

Acronym	Description
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

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

ALS Group USA, Corp

Date: *27-Sep-11*

Client: HRL Compliance Solutions
Project: Black Hills Wagon Tracks 12-6 9/15/11 **Work Order:** 1109509
Sample ID: Treatment Cell **Lab ID:** 1109509-01
Collection Date: 9/15/2011 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			**SW7471**		Prep Date: **9/19/2011**	Analyst: **LR**
Mercury	ND		0.020	mg/Kg-dry	1	9/19/2011 01:23 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **9/17/2011**	Analyst: **RH**
Arsenic	**1.3**		**0.75**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
Barium	**110**		**0.75**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
Cadmium	ND		0.30	mg/Kg-dry	2	9/18/2011 05:34 AM
Chromium	**5.7**		**0.75**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
Copper	**11**		**0.75**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
Lead	**10**		**0.75**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
Nickel	**5.1**		**0.75**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
Selenium	ND		0.75	mg/Kg-dry	2	9/18/2011 05:34 AM
Silver	ND		0.75	mg/Kg-dry	2	9/18/2011 05:34 AM
Zinc	**25**		**1.5**	**mg/Kg-dry**	2	9/18/2011 05:34 AM
SUBCONTRACTED ANALYSES			**SUBCONTRACT**			Analyst: **A&LGL**
Subcontracted Analyses	**Rcvd 9/27/11**			**as noted**	1	9/26/2011
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **9/19/2011**	Analyst: **CW**
1,2,4-Trichlorobenzene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
1,2-Dichlorobenzene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
1,3-Dichlorobenzene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
1,4-Dichlorobenzene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2,4,5-Trichlorophenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2,4,6-Trichlorophenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2,4-Dichlorophenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2,4-Dimethylphenol	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
2,4-Dinitrophenol	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
2,4-Dinitrotoluene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2,6-Dinitrotoluene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2-Chloronaphthalene	ND		86	µg/Kg-dry	1	9/23/2011 06:26 AM
2-Chlorophenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2-Methylnaphthalene	ND		86	µg/Kg-dry	1	9/23/2011 06:26 AM
2-Methylphenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
2-Nitroaniline	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
2-Nitrophenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
3,3´-Dichlorobenzidine	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
3-Nitroaniline	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
4,6-Dinitro-2-methylphenol	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
4-Bromophenyl phenyl ether	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
4-Chloro-3-methylphenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM

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

ALS Group USA, Corp

Date: *27-Sep-11*

Client: HRL Compliance Solutions
Project: Black Hills Wagon Tracks 12-6 9/15/11 **Work Order:** 1109509
Sample ID: Treatment Cell **Lab ID:** 1109509-01
Collection Date: 9/15/2011 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloroaniline	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
4-Chlorophenyl phenyl ether	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
4-Methylphenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
4-Nitroaniline	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
4-Nitrophenol	ND		710	µg/Kg-dry	1	9/23/2011 06:26 AM
Acenaphthene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Acenaphthylene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Anthracene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Benzo(a)anthracene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Benzo(a)pyrene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Benzo(b)fluoranthene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Benzo(g,h,i)perylene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Benzo(k)fluoranthene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Bis(2-chloroethoxy)methane	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Bis(2-chloroethyl)ether	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Bis(2-chloroisopropyl)ether	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Bis(2-ethylhexyl)phthalate	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
Butyl benzyl phthalate	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Carbazole	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Chrysene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Dibenzo(a,h)anthracene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Dibenzofuran	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Diethyl phthalate	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
Dimethyl phthalate	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
Di-n-butyl phthalate	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
Di-n-octyl phthalate	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Fluoranthene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Fluorene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Hexachlorobenzene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Hexachlorobutadiene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Hexachlorocyclopentadiene	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
Hexachloroethane	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Indeno(1,2,3-cd)pyrene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Isophorone	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Naphthalene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Nitrobenzene	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
N-Nitrosodi-n-propylamine	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
N-Nitrosodiphenylamine	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Pentachlorophenol	ND		360	µg/Kg-dry	1	9/23/2011 06:26 AM
Phenanthrene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM

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

ALS Group USA, Corp

Date: *27-Sep-11*

Client: HRL Compliance Solutions
Project: Black Hills Wagon Tracks 12-6 9/15/11 **Work Order:** 1109509
Sample ID: Treatment Cell **Lab ID:** 1109509-01
Collection Date: 9/15/2011 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Phenol	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Pyrene	ND		32	µg/Kg-dry	1	9/23/2011 06:26 AM
Pyridine	ND		170	µg/Kg-dry	1	9/23/2011 06:26 AM
Surr: 2,4,6-Tribromophenol	*88.1*		*34-140*	*%REC*	1	9/23/2011 06:26 AM
Surr: 2-Fluorobiphenyl	*83.9*		*12-100*	*%REC*	1	9/23/2011 06:26 AM
Surr: 2-Fluorophenol	*87.6*		*33-117*	*%REC*	1	9/23/2011 06:26 AM
Surr: 4-Terphenyl-d14	*93.4*		*25-137*	*%REC*	1	9/23/2011 06:26 AM
Surr: Nitrobenzene-d5	*80.4*		*37-107*	*%REC*	1	9/23/2011 06:26 AM
Surr: Phenol-d6	*86.0*		*40-106*	*%REC*	1	9/23/2011 06:26 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**5.7**			**mg/Kg-dry**	1	9/21/2011 03:59 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **9/20/2011**	Analyst: **MB**
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	9/21/2011 01:20 PM
MOISTURE			**A2540 G**			Analyst: **CG**
Moisture	**8.5**		**0.050**	**% of sample**	1	9/19/2011 03:46 PM
PH			**SW9045D**			Analyst: **JJG**
pH	**8.31**			**s.u.**	1	9/19/2011 12:00 PM

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

Report Number: F11263-0149
Acount 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: 1109509

DATE RECEIVED: 09/20/2011
DATE REPORTED: 09/27/2011
PAGE: 1
P.O. NUMBER: 20-122010823

ATTN: ANN PRESTON

REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
12132	01B	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	1.88	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	79	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	21	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	1672	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	43.1	-	USDA Handbook 60

ALS Group USA, Corp

Date: 27-Sep-11

Client: HRL Compliance Solutions

QC BATCH REPORT

Work Order: 1109509

Project: Black Hills Wagon Tracks 12-6 9/15/11

Batch ID: **35644** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-35644-35644** Units: **mg/Kg** Analysis Date: **9/19/2011 12:52 PM**

Client ID: Run ID: **HG1_110919A** SeqNo: **1739604** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-35644-35644** Units: **mg/Kg** Analysis Date: **9/19/2011 12:55 PM**

Client ID: Run ID: **HG1_110919A** SeqNo: **1739605** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1862	0.020	0.1665	0	112	80-120	0			

LCSD Sample ID: **LCSD-35644-35644** Units: **mg/Kg** Analysis Date: **9/19/2011 12:57 PM**

Client ID: Run ID: **HG1_110919A** SeqNo: **1739606** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1842	0.020	0.1665	0	111	80-120	0.1862	1.08	20	

MS Sample ID: **1109509-01AMS** Units: **mg/Kg** Analysis Date: **9/19/2011 01:26 PM**

Client ID: **Treatment Cell** Run ID: **HG1_110919A** SeqNo: **1739614** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1773	0.018	0.1476	0.01602	109	75-125	0			

MSD Sample ID: **1109509-01AMSD** Units: **mg/Kg** Analysis Date: **9/19/2011 01:28 PM**

Client ID: **Treatment Cell** Run ID: **HG1_110919A** SeqNo: **1739615** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2016	0.019	0.1563	0.01602	119	75-125	0.1773	12.8	35	

The following samples were analyzed in this batch: 1109509-01A

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35620** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-35620-35620** Units: **mg/Kg** Analysis Date: **9/18/2011 05:18 AM**
Client ID: Run ID: **ICPMS1_110917B** SeqNo: **1738336** Prep Date: **9/17/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.02061	0.25								J
Barium	ND	0.25								
Cadmium	0.001612	0.10								J
Chromium	0.00285	0.25								J
Copper	ND	0.25								
Lead	0.001448	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-35620-35620** Units: **mg/Kg** Analysis Date: **9/18/2011 05:23 AM**
Client ID: Run ID: **ICPMS1_110917B** SeqNo: **1738337** Prep Date: **9/17/2011** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.579	0.50	5	0	91.6	80-120	0			
Barium	4.611	0.50	5	0	92.2	80-120	0			
Cadmium	4.591	0.20	5	0	91.8	80-120	0			
Chromium	4.713	0.50	5	0	94.3	80-120	0			
Copper	4.702	0.50	5	0	94	80-120	0			
Lead	4.718	0.50	5	0	94.4	80-120	0			
Nickel	4.707	0.50	5	0	94.1	80-120	0			
Selenium	4.515	0.50	5	0	90.3	80-120	0			
Silver	4.622	0.50	5	0	92.4	80-120	0			
Zinc	4.535	1.0	5	0	90.7	80-120	0			

LCSD Sample ID: **LCSD-35620-35620** Units: **mg/Kg** Analysis Date: **9/18/2011 05:29 AM**
Client ID: Run ID: **ICPMS1_110917B** SeqNo: **1738339** Prep Date: **9/17/2011** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.525	0.50	5	0	90.5	80-120	4.579	1.19	20	
Barium	4.543	0.50	5	0	90.9	80-120	4.611	1.49	20	
Cadmium	4.556	0.20	5	0	91.1	80-120	4.591	0.765	20	
Chromium	4.762	0.50	5	0	95.2	80-120	4.713	1.03	20	
Copper	4.712	0.50	5	0	94.2	80-120	4.702	0.212	20	
Lead	4.704	0.50	5	0	94.1	80-120	4.718	0.297	20	
Nickel	4.758	0.50	5	0	95.2	80-120	4.707	1.08	20	
Selenium	4.483	0.50	5	0	89.7	80-120	4.515	0.711	20	
Silver	4.673	0.50	5	0	93.5	80-120	4.622	1.1	20	
Zinc	4.535	1.0	5	0	90.7	80-120	4.535	0	20	

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35620** Instrument ID **ICPMS1** Method: **SW6020A**

MS Sample ID: **1109541-08BMS** Units: **mg/Kg** Analysis Date: **9/18/2011 07:46 AM**
Client ID: Run ID: **ICPMS1_110917B** SeqNo: **1738364** Prep Date: **9/17/2011** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.8	1.6	7.962	20.61	-10.2	80-120	0			S
Barium	20.27	1.6	7.962	15.52	59.6	80-120	0			S
Cadmium	6.481	0.64	7.962	0.06062	80.6	80-120	0			
Chromium	34.49	1.6	7.962	27.73	84.9	80-120	0			
Copper	13.17	1.6	7.962	7.283	74	80-120	0			S
Lead	8.545	1.6	7.962	2.172	80	80-120	0			
Nickel	27.99	1.6	7.962	21.45	82.1	80-120	0			
Selenium	7.283	1.6	7.962	0.7012	82.7	80-120	0			
Silver	6.201	1.6	7.962	0.009817	77.8	80-120	0			S
Zinc	44.3	3.2	7.962	48.2	-49	80-120	0			SO

MSD Sample ID: **1109541-08BMSD** Units: **mg/Kg** Analysis Date: **9/18/2011 07:51 AM**
Client ID: Run ID: **ICPMS1_110917B** SeqNo: **1738365** Prep Date: **9/17/2011** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	20.14	1.6	7.837	20.61	-5.97	80-120	19.8	1.73	25	S
Barium	24.5	1.6	7.837	15.52	115	80-120	20.27	18.9	25	
Cadmium	6.969	0.63	7.837	0.06062	88.1	80-120	6.481	7.25	25	
Chromium	37.05	1.6	7.837	27.73	119	80-120	34.49	7.16	25	
Copper	14.73	1.6	7.837	7.283	95	80-120	13.17	11.1	25	
Lead	9.201	1.6	7.837	2.172	89.7	80-120	8.545	7.39	25	
Nickel	29.71	1.6	7.837	21.45	105	80-120	27.99	5.94	25	
Selenium	7.376	1.6	7.837	0.7012	85.2	80-120	7.283	1.27	25	
Silver	6.489	1.6	7.837	0.009817	82.7	80-120	6.201	4.55	25	
Zinc	54.39	3.1	7.837	48.2	79	80-120	44.3	20.4	25	SO

The following samples were analyzed in this batch: 1109509-01A

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

MBLK Sample ID: **SBLKS1-35640-35640** Units: **µg/Kg** Analysis Date: **9/22/2011 01:55 PM**

Client ID: Run ID: **SVMS5_110922A** SeqNo: **1744787** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	160								
1,2-Dichlorobenzene	ND	160								
1,3-Dichlorobenzene	ND	160								
1,4-Dichlorobenzene	ND	160								
2,4,5-Trichlorophenol	ND	160								
2,4,6-Trichlorophenol	ND	160								
2,4-Dichlorophenol	ND	160								
2,4-Dimethylphenol	ND	330								
2,4-Dinitrophenol	ND	660								
2,4-Dinitrotoluene	ND	160								
2,6-Dinitrotoluene	ND	160								
2-Chloronaphthalene	ND	80								
2-Chlorophenol	ND	160								
2-Methylnaphthalene	ND	80								
2-Methylphenol	ND	160								
2-Nitroaniline	ND	660								
2-Nitrophenol	ND	160								
3,3´-Dichlorobenzidine	ND	660								
3-Nitroaniline	ND	660								
4,6-Dinitro-2-methylphenol	ND	330								
4-Bromophenyl phenyl ether	ND	160								
4-Chloro-3-methylphenol	ND	160								
4-Chloroaniline	ND	660								
4-Chlorophenyl phenyl ether	ND	160								
4-Methylphenol	ND	160								
4-Nitroaniline	ND	660								
4-Nitrophenol	ND	660								
Acenaphthene	ND	30								
Acenaphthylene	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								
Bis(2-chloroethoxy)methane	ND	160								
Bis(2-chloroethyl)ether	ND	160								
Bis(2-chloroisopropyl)ether	ND	160								
Bis(2-ethylhexyl)phthalate	ND	330								
Butyl benzyl phthalate	ND	160								
Carbazole	ND	160								
Chrysene	ND	30								

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

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

Dibenzo(a,h)anthracene	ND	30					
Dibenzofuran	ND	160					
Diethyl phthalate	ND	330					
Dimethyl phthalate	ND	330					
Di-n-butyl phthalate	ND	330					
Di-n-octyl phthalate	ND	160					
Fluoranthene	ND	30					
Fluorene	ND	30					
Hexachlorobenzene	ND	160					
Hexachlorobutadiene	ND	160					
Hexachlorocyclopentadiene	ND	330					
Hexachloroethane	ND	160					
Indeno(1,2,3-cd)pyrene	ND	30					
Isophorone	ND	160					
Naphthalene	ND	30					
Nitrobenzene	ND	160					
N-Nitrosodi-n-propylamine	ND	160					
N-Nitrosodiphenylamine	ND	160					
Pentachlorophenol	ND	330					
Phenanthrene	ND	30					
Phenol	ND	160					
Pyrene	ND	30					
Pyridine	ND	160					
Surr: 2,4,6-Tribromophenol	*1465*	0	*1667*	0	*87.9*	*34-140*	0
Surr: 2-Fluorobiphenyl	*1367*	0	*1667*	0	*82*	*12-100*	0
Surr: 2-Fluorophenol	*1369*	0	*1667*	0	*82.2*	*33-117*	0
Surr: 4-Terphenyl-d14	*1934*	0	*1667*	0	*116*	*25-137*	0
Surr: Nitrobenzene-d5	*1369*	0	*1667*	0	*82.1*	*37-107*	0
Surr: Phenol-d6	*1481*	0	*1667*	0	*88.9*	*40-106*	0

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

LCS Sample ID: **SLCSS1-35640-35640** Units: **µg/Kg** Analysis Date: **9/22/2011 02:30 PM**
Client ID: Run ID: **SVMS5_110922A** SeqNo: **1744788** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	1296	160	1333	0	97.2	45-110	0			
1,2-Dichlorobenzene	1211	160	1333	0	90.8	45-95	0			
1,3-Dichlorobenzene	1158	160	1333	0	86.8	40-100	0			
1,4-Dichlorobenzene	1132	160	1333	0	84.9	35-105	0			
2,4,5-Trichlorophenol	1222	160	1333	0	91.7	50-110	0			
2,4,6-Trichlorophenol	1227	160	1333	0	92	45-110	0			
2,4-Dichlorophenol	1308	160	1333	0	98.1	45-110	0			
2,4-Dimethylphenol	1178	330	1333	0	88.3	30-105	0			
2,4-Dinitrophenol	727	660	1333	0	54.5	15-130	0			
2,4-Dinitrotoluene	1241	160	1333	0	93.1	50-115	0			
2,6-Dinitrotoluene	1377	160	1333	0	103	50-110	0			
2-Chloronaphthalene	1329	80	1333	0	99.7	45-105	0			
2-Chlorophenol	1141	160	1333	0	85.6	45-105	0			
2-Methylnaphthalene	1371	80	1333	0	103	45-105	0			
2-Methylphenol	1222	160	1333	0	91.7	40-105	0			
2-Nitroaniline	1576	660	1333	0	118	45-120	0			
2-Nitrophenol	1108	160	1333	0	83.1	40-110	0			
3-Nitroaniline	1739	660	1333	0	130	25-150	0			
4-Bromophenyl phenyl ether	1420	160	1333	0	107	45-115	0			
4-Chloro-3-methylphenol	1342	160	1333	0	101	45-115	0			
4-Chloroaniline	3013	660	1333	0	226	15-110	0			SE
4-Chlorophenyl phenyl ether	1255	160	1333	0	94.1	45-110	0			
4-Methylphenol	1240	160	1333	0	93	40-105	0			
4-Nitroaniline	1374	660	1333	0	103	35-150	0			
4-Nitrophenol	1033	660	1333	0	77.5	15-140	0			
Acenaphthene	1343	30	1333	0	101	45-110	0			
Acenaphthylene	1355	30	1333	0	102	45-105	0			
Anthracene	1332	30	1333	0	99.9	55-105	0			
Benzo(a)anthracene	1351	30	1333	0	101	50-110	0			
Benzo(a)pyrene	1484	30	1333	0	111	50-110	0			S
Benzo(b)fluoranthene	1450	30	1333	0	109	45-115	0			
Benzo(g,h,i)perylene	1382	30	1333	0	104	40-125	0			
Benzo(k)fluoranthene	1494	30	1333	0	112	45-115	0			
Bis(2-chloroethoxy)methane	1268	160	1333	0	95.1	45-110	0			
Bis(2-chloroethyl)ether	1127	160	1333	0	84.6	40-105	0			
Bis(2-chloroisopropyl)ether	1166	160	1333	0	87.5	20-115	0			
Bis(2-ethylhexyl)phthalate	1555	330	1333	0	117	45-125	0			
Butyl benzyl phthalate	1453	160	1333	0	109	50-125	0			
Carbazole	2330	160	1333	0	175	50-150	0			SE
Chrysene	1455	30	1333	0	109	55-110	0			
Dibenzo(a,h)anthracene	1492	30	1333	0	112	40-125	0			
Dibenzofuran	1233	160	1333	0	92.5	50-105	0			

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

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

Diethyl phthalate	1397	330	1333	0	105	50-115	0	
Dimethyl phthalate	1336	330	1333	0	100	50-110	0	
Di-n-butyl phthalate	1519	330	1333	0	114	55-110	0	S
Di-n-octyl phthalate	1335	160	1333	0	100	40-130	0	
Fluoranthene	1527	30	1333	0	115	55-115	0	
Fluorene	1252	30	1333	0	93.9	50-110	0	
Hexachlorobenzene	1420	160	1333	0	106	45-120	0	
Hexachlorobutadiene	1298	160	1333	0	97.4	40-115	0	
Hexachlorocyclopentadiene	672	330	1333	0	50.4	40-115	0	
Hexachloroethane	1140	160	1333	0	85.5	35-110	0	
Indeno(1,2,3-cd)pyrene	1442	30	1333	0	108	40-120	0	
Isophorone	1300	160	1333	0	97.5	45-110	0	
Naphthalene	1321	30	1333	0	99.1	40-105	0	
Nitrobenzene	1293	160	1333	0	97	40-115	0	
N-Nitrosodi-n-propylamine	1238	160	1333	0	92.8	40-115	0	
N-Nitrosodiphenylamine	2476	160	1333	0	186	50-115	0	SE
Pentachlorophenol	886.3	330	1333	0	66.5	25-120	0	
Phenanthrene	1463	30	1333	0	110	50-110	0	
Phenol	1199	160	1333	0	89.9	40-100	0	
Pyrene	1544	30	1333	0	116	45-125	0	
Surr: 2,4,6-Tribromophenol	*1588*	0	*1667*	0	*95.3*	*34-140*	0	
Surr: 2-Fluorobiphenyl	*1401*	0	*1667*	0	*84*	*12-100*	0	
Surr: 2-Fluorophenol	*1334*	0	*1667*	0	*80*	*33-117*	0	
Surr: 4-Terphenyl-d14	*1788*	0	*1667*	0	*107*	*25-137*	0	
Surr: Nitrobenzene-d5	*1375*	0	*1667*	0	*82.5*	*37-107*	0	
Surr: Phenol-d6	*1425*	0	*1667*	0	*85.5*	*40-106*	0	

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

LCSD Sample ID: **SLCSDS1-35640-35640** Units: **µg/Kg** Analysis Date: **9/22/2011 03:04 PM**
Client ID: Run ID: **SVMS5_110922A** SeqNo: **1744789** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	1252	160	1333	0	93.9	45-110	1296	3.43	25	
1,2-Dichlorobenzene	1193	160	1333	0	89.5	45-95	1211	1.5	25	
1,3-Dichlorobenzene	1145	160	1333	0	85.9	40-100	1158	1.07	25	
1,4-Dichlorobenzene	1142	160	1333	0	85.6	35-105	1132	0.85	25	
2,4,5-Trichlorophenol	1210	160	1333	0	90.7	50-110	1222	1.01	25	
2,4,6-Trichlorophenol	1208	160	1333	0	90.6	45-110	1227	1.56	25	
2,4-Dichlorophenol	1281	160	1333	0	96.1	45-110	1308	2.09	25	
2,4-Dimethylphenol	1112	330	1333	0	83.4	30-105	1178	5.77	25	
2,4-Dinitrophenol	796.3	660	1333	0	59.7	15-130	727	9.1	25	
2,4-Dinitrotoluene	1205	160	1333	0	90.4	50-115	1241	2.94	25	
2,6-Dinitrotoluene	1358	160	1333	0	102	50-110	1377	1.41	25	
2-Chloronaphthalene	1287	80	1333	0	96.6	45-105	1329	3.19	25	
2-Chlorophenol	1136	160	1333	0	85.2	45-105	1141	0.469	25	
2-Methylnaphthalene	1294	80	1333	0	97	45-105	1371	5.8	25	
2-Methylphenol	1203	160	1333	0	90.2	40-105	1222	1.59	25	
2-Nitroaniline	1526	660	1333	0	114	45-120	1576	3.2	25	
2-Nitrophenol	1068	160	1333	0	80.1	40-110	1108	3.65	25	
3-Nitroaniline	1684	660	1333	0	126	25-110	1739	3.21	25	S
4-Bromophenyl phenyl ether	1383	160	1333	0	104	45-115	1420	2.64	25	
4-Chloro-3-methylphenol	1298	160	1333	0	97.4	45-115	1342	3.36	25	
4-Chloroaniline	2973	660	1333	0	223	15-110	3013	1.33	25	SE
4-Chlorophenyl phenyl ether	1221	160	1333	0	91.6	45-110	1255	2.75	25	
4-Methylphenol	1208	160	1333	0	90.6	40-105	1240	2.59	25	
4-Nitroaniline	1404	660	1333	0	105	35-150	1374	2.16	25	
4-Nitrophenol	1062	660	1333	0	79.6	15-140	1033	2.77	25	
Acenaphthene	1281	30	1333	0	96.1	45-110	1343	4.72	25	
Acenaphthylene	1318	30	1333	0	98.9	45-105	1355	2.72	25	
Anthracene	1312	30	1333	0	98.4	55-105	1332	1.46	25	
Benzo(a)anthracene	1314	30	1333	0	98.5	50-110	1351	2.83	25	
Benzo(a)pyrene	1433	30	1333	0	108	50-110	1484	3.47	25	
Benzo(b)fluoranthene	1444	30	1333	0	108	45-115	1450	0.369	25	
Benzo(g,h,i)perylene	1308	30	1333	0	98.1	40-125	1382	5.48	25	
Benzo(k)fluoranthene	1378	30	1333	0	103	45-115	1494	8.1	25	
Bis(2-chloroethoxy)methane	1227	160	1333	0	92.1	45-110	1268	3.29	25	
Bis(2-chloroethyl)ether	1088	160	1333	0	81.6	40-105	1127	3.55	25	
Bis(2-chloroisopropyl)ether	1136	160	1333	0	85.2	20-115	1166	2.64	25	
Bis(2-ethylhexyl)phthalate	1506	330	1333	0	113	45-125	1555	3.25	25	
Butyl benzyl phthalate	1392	160	1333	0	104	50-125	1453	4.24	25	
Carbazole	2332	160	1333	0	175	50-150	2330	0.0572	25	SE
Chrysene	1386	30	1333	0	104	55-110	1455	4.86	25	
Dibenzo(a,h)anthracene	1435	30	1333	0	108	40-125	1492	3.87	25	
Dibenzofuran	1195	160	1333	0	89.6	50-105	1233	3.16	25	

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

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

Diethyl phthalate	1348	330	1333	0	101	50-115	1397	3.57	25	
Dimethyl phthalate	1289	330	1333	0	96.7	50-110	1336	3.58	25	
Di-n-butyl phthalate	1470	330	1333	0	110	55-110	1519	3.28	25	S
Di-n-octyl phthalate	1291	160	1333	0	96.8	40-130	1335	3.38	25	
Fluoranthene	1469	30	1333	0	110	55-115	1527	3.85	25	
Fluorene	1225	30	1333	0	91.9	50-110	1252	2.15	25	
Hexachlorobenzene	1374	160	1333	0	103	45-120	1420	3.25	25	
Hexachlorobutadiene	1251	160	1333	0	93.8	40-115	1298	3.74	25	
Hexachlorocyclopentadiene	697.7	330	1333	0	52.3	40-115	672	3.75	25	
Hexachloroethane	1127	160	1333	0	84.5	35-110	1140	1.15	25	
Indeno(1,2,3-cd)pyrene	1381	30	1333	0	104	40-120	1442	4.32	25	
Isophorone	1243	160	1333	0	93.2	45-110	1300	4.54	25	
Naphthalene	1269	30	1333	0	95.2	40-105	1321	4.02	25	
Nitrobenzene	1251	160	1333	0	93.9	40-115	1293	3.28	25	
N-Nitrosodi-n-propylamine	1200	160	1333	0	90	40-115	1238	3.12	25	
N-Nitrosodiphenylamine	2455	160	1333	0	184	50-115	2476	0.852	25	SE
Pentachlorophenol	888.3	330	1333	0	66.6	25-120	886.3	0.225	25	
Phenanthrene	1415	30	1333	0	106	50-110	1463	3.36	25	
Phenol	1168	160	1333	0	87.6	40-100	1199	2.62	25	
Pyrene	1485	30	1333	0	111	45-125	1544	3.89	25	
Surr: 2,4,6-Tribromophenol	*1607*	0	*1667*	0	*96.4*	*34-140*	1588	*1.21*	*40*	
Surr: 2-Fluorobiphenyl	*1381*	0	*1667*	0	*82.9*	*12-100*	1401	*1.39*	*40*	
Surr: 2-Fluorophenol	*1365*	0	*1667*	0	*81.9*	*33-117*	1334	*2.32*	*40*	
Surr: 4-Terphenyl-d14	*1775*	0	*1667*	0	*107*	*25-137*	1788	*0.692*	*40*	
Surr: Nitrobenzene-d5	*1368*	0	*1667*	0	*82.1*	*37-107*	1375	*0.535*	*40*	
Surr: Phenol-d6	*1430*	0	*1667*	0	*85.8*	*40-106*	1425	*0.35*	*40*	

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

MS Sample ID: **1109568-03B MS** Units: **µg/Kg** Analysis Date: **9/24/2011 01:38 PM**
Client ID: Run ID: **SVMS5_110924A** SeqNo: **1747118** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	2100	300	2523	0	83.2	45-110	0			
1,2-Dichlorobenzene	2129	300	2523	0	84.4	45-95	0			
1,3-Dichlorobenzene	2023	300	2523	0	80.2	40-100	0			
1,4-Dichlorobenzene	2049	300	2523	0	81.2	35-105	0			
2,4,5-Trichlorophenol	2072	300	2523	0	82.1	50-110	0			
2,4,6-Trichlorophenol	2109	300	2523	0	83.6	45-110	0			
2,4-Dichlorophenol	1938	300	2523	0	76.8	45-110	0			
2,4-Dimethylphenol	1851	620	2523	0	73.4	30-105	0			
2,4-Dinitrophenol	1170	1,200	2523	0	46.4	15-130	0			J
2,4-Dinitrotoluene	2304	300	2523	0	91.3	50-115	0			
2,6-Dinitrotoluene	2247	300	2523	0	89.1	50-110	0			
2-Chloronaphthalene	2272	150	2523	0	90.1	45-105	0			
2-Chlorophenol	2124	300	2523	0	84.2	45-105	0			
2-Methylnaphthalene	1936	150	2523	0	76.7	45-105	0			
2-Methylphenol	2184	300	2523	0	86.6	40-105	0			
2-Nitroaniline	2835	1,200	2523	0	112	45-120	0			
2-Nitrophenol	1969	300	2523	0	78.1	40-110	0			
3-Nitroaniline	3163	1,200	2523	0	125	25-110	0			S
4-Bromophenyl phenyl ether	2285	300	2523	0	90.6	45-115	0			
4-Chloro-3-methylphenol	2051	300	2523	0	81.3	45-115	0			
4-Chloroaniline	5698	1,200	2523	0	226	15-110	0			SE
4-Chlorophenyl phenyl ether	2051	300	2523	0	81.3	45-110	0			
4-Methylphenol	2179	300	2523	0	86.4	40-105	0			
4-Nitroaniline	541.2	1,200	2523	0	21.5	35-150	0			JS
4-Nitrophenol	2150	1,200	2523	0	85.2	15-140	0			
Acenaphthene	2267	57	2523	0	89.9	45-110	0			
Acenaphthylene	2408	57	2523	0	95.4	45-105	0			
Anthracene	2095	57	2523	0	83.1	55-105	0			
Benzo(a)anthracene	2148	57	2523	0	85.2	50-110	0			
Benzo(a)pyrene	2382	57	2523	0	94.4	50-110	0			
Benzo(b)fluoranthene	2418	57	2523	0	95.9	45-115	0			
Benzo(g,h,i)perylene	1909	57	2523	0	75.7	40-125	0			
Benzo(k)fluoranthene	2346	57	2523	0	93	45-115	0			
Bis(2-chloroethoxy)methane	2266	300	2523	0	89.8	45-110	0			
Bis(2-chloroethyl)ether	2274	300	2523	0	90.1	40-105	0			
Bis(2-chloroisopropyl)ether	2073	300	2523	0	82.2	20-115	0			
Bis(2-ethylhexyl)phthalate	2092	620	2523	14.28	82.3	45-125	0			
Butyl benzyl phthalate	2153	300	2523	0	85.3	50-125	0			
Carbazole	4707	300	2523	0	187	50-150	0			SE
Chrysene	2412	57	2523	0	95.6	55-110	0			
Dibenzo(a,h)anthracene	2009	57	2523	0	79.6	40-125	0			
Dibenzofuran	2059	300	2523	0	81.6	50-105	0			

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

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

Diethyl phthalate	2541	620	2523	0	101	50-115	0	
Dimethyl phthalate	2491	620	2523	0	98.7	50-110	0	
Di-n-butyl phthalate	2140	620	2523	47.49	82.9	55-110	0	
Di-n-octyl phthalate	2357	300	2523	0	93.4	40-130	0	
Fluoranthene	2543	57	2523	0	101	55-115	0	
Fluorene	2133	57	2523	0	84.5	50-110	0	
Hexachlorobenzene	2273	300	2523	0	90.1	45-120	0	
Hexachlorobutadiene	2007	300	2523	0	79.6	40-115	0	
Hexachlorocyclopentadiene	1369	620	2523	0	54.3	40-115	0	
Hexachloroethane	1906	300	2523	0	75.6	35-110	0	
Indeno(1,2,3-cd)pyrene	1960	57	2523	0	77.7	40-120	0	
Isophorone	2280	300	2523	0	90.4	45-110	0	
Naphthalene	1931	57	2523	0	76.5	40-105	0	
Nitrobenzene	2287	300	2523	0	90.7	40-115	0	
N-Nitrosodi-n-propylamine	2305	300	2523	0	91.4	40-115	0	
N-Nitrosodiphenylamine	4820	300	2523	0	191	50-115	0	SE
Pentachlorophenol	1950	620	2523	0	77.3	25-120	0	
Phenanthrene	2404	57	2523	0	95.3	50-110	0	
Phenol	2136	300	2523	0	84.7	40-100	0	
Pyrene	1980	57	2523	0	78.5	45-125	0	
Surr: 2,4,6-Tribromophenol	*2523*	0	*3154*	0	*80*	*34-140*	0	
Surr: 2-Fluorobiphenyl	*2220*	0	*3154*	0	*70.4*	*12-100*	0	
Surr: 2-Fluorophenol	*2620*	0	*3154*	0	*83.1*	*33-117*	0	
Surr: 4-Terphenyl-d14	*1872*	0	*3154*	0	*59.4*	*25-137*	0	
Surr: Nitrobenzene-d5	*2534*	0	*3154*	0	*80.4*	*37-107*	0	
Surr: Phenol-d6	*2695*	0	*3154*	0	*85.5*	*40-106*	0	

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

MSD Sample ID: **1109568-03B MSD** Units: **µg/Kg** Analysis Date: **9/24/2011 02:14 PM**

Client ID: Run ID: **SVMS5_110924A** SeqNo: **1747124** Prep Date: **9/19/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	2274	320	2628	0	86.5	45-110	2100	7.95	30	
1,2-Dichlorobenzene	2346	320	2628	0	89.3	45-95	2129	9.68	30	
1,3-Dichlorobenzene	2231	320	2628	0	84.9	40-100	2023	9.76	30	
1,4-Dichlorobenzene	2254	320	2628	0	85.8	35-105	2049	9.54	30	
2,4,5-Trichlorophenol	2144	320	2628	0	81.6	50-110	2072	3.43	30	
2,4,6-Trichlorophenol	2157	320	2628	0	82.1	45-110	2109	2.26	30	
2,4-Dichlorophenol	2038	320	2628	0	77.6	45-110	1938	5.01	30	
2,4-Dimethylphenol	2168	650	2628	0	82.5	30-105	1851	15.8	30	
2,4-Dinitrophenol	735.8	1,300	2628	0	28	15-130	1170	0	30	J
2,4-Dinitrotoluene	2467	320	2628	0	93.9	50-115	2304	6.85	30	
2,6-Dinitrotoluene	2393	320	2628	0	91.1	50-110	2247	6.29	30	
2-Chloronaphthalene	2509	160	2628	0	95.5	45-105	2272	9.91	30	
2-Chlorophenol	2293	320	2628	0	87.3	45-105	2124	7.65	30	
2-Methylnaphthalene	2107	160	2628	0	80.2	45-105	1936	8.49	30	
2-Methylphenol	2371	320	2628	0	90.2	40-105	2184	8.22	30	
2-Nitroaniline	2958	1,300	2628	0	113	45-120	2835	4.22	30	
2-Nitrophenol	2071	320	2628	0	78.8	40-110	1969	5.05	30	
3-Nitroaniline	3313	1,300	2628	0	126	25-110	3163	4.64	30	S
4-Bromophenyl phenyl ether	2559	320	2628	0	97.4	45-115	2285	11.3	30	
4-Chloro-3-methylphenol	2107	320	2628	0	80.2	45-115	2051	2.67	30	
4-Chloroaniline	6113	1,300	2628	0	233	15-110	5698	7.03	30	SE
4-Chlorophenyl phenyl ether	2271	320	2628	0	86.4	45-110	2051	10.2	30	
4-Methylphenol	2349	320	2628	0	89.4	40-105	2179	7.51	30	
4-Nitroaniline	603.7	1,300	2628	0	23	35-150	541.2	0	30	JS
4-Nitrophenol	1868	1,300	2628	0	71.1	15-140	2150	14	30	
Acenaphthene	2492	59	2628	0	94.9	45-110	2267	9.48	30	
Acenaphthylene	2569	59	2628	0	97.8	45-105	2408	6.47	30	
Anthracene	2305	59	2628	0	87.7	55-105	2095	9.54	30	
Benzo(a)anthracene	2483	59	2628	0	94.5	50-110	2148	14.4	30	
Benzo(a)pyrene	2640	59	2628	0	100	50-110	2382	10.3	30	
Benzo(b)fluoranthene	2932	59	2628	0	112	45-115	2418	19.2	30	
Benzo(g,h,i)perylene	2044	59	2628	0	77.8	40-125	1909	6.8	30	
Benzo(k)fluoranthene	2343	59	2628	0	89.2	45-115	2346	0.16	30	
Bis(2-chloroethoxy)methane	2418	320	2628	0	92	45-110	2266	6.49	30	
Bis(2-chloroethyl)ether	2420	320	2628	0	92.1	40-105	2274	6.23	30	
Bis(2-chloroisopropyl)ether	2284	320	2628	0	86.9	20-115	2073	9.68	30	
Bis(2-ethylhexyl)phthalate	2476	650	2628	14.28	93.7	45-125	2092	16.8	30	
Butyl benzyl phthalate	2374	320	2628	0	90.3	50-125	2153	9.75	30	
Carbazole	4905	320	2628	0	187	50-150	4707	4.11	30	SE
Chrysene	2559	59	2628	0	97.4	55-110	2412	5.93	30	
Dibenzo(a,h)anthracene	2173	59	2628	0	82.7	40-125	2009	7.85	30	
Dibenzofuran	2242	320	2628	0	85.3	50-105	2059	8.5	30	

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35640** Instrument ID **SVMS5** Method: **SW8270**

Diethyl phthalate	2745	650	2628	0	104	50-115	2541	7.74	30	
Dimethyl phthalate	2638	650	2628	0	100	50-110	2491	5.75	30	
Di-n-butyl phthalate	2390	650	2628	47.49	89.1	55-110	2140	11.1	30	
Di-n-octyl phthalate	2656	320	2628	0	101	40-130	2357	12	30	
Fluoranthene	2823	59	2628	0	107	55-115	2543	10.4	30	
Fluorene	2329	59	2628	0	88.6	50-110	2133	8.8	30	
Hexachlorobenzene	2467	320	2628	0	93.9	45-120	2273	8.17	30	
Hexachlorobutadiene	2243	320	2628	0	85.4	40-115	2007	11.1	30	
Hexachlorocyclopentadiene	1451	650	2628	0	55.2	40-115	1369	5.8	30	
Hexachloroethane	2155	320	2628	0	82	35-110	1906	12.2	30	
Indeno(1,2,3-cd)pyrene	2117	59	2628	0	80.6	40-120	1960	7.73	30	
Isophorone	2446	320	2628	0	93.1	45-110	2280	7.04	30	
Naphthalene	2099	59	2628	0	79.9	40-105	1931	8.35	30	
Nitrobenzene	2440	320	2628	0	92.9	40-115	2287	6.46	30	
N-Nitrosodi-n-propylamine	2475	320	2628	0	94.2	40-115	2305	7.11	30	
N-Nitrosodiphenylamine	4966	320	2628	0	189	50-115	4820	2.99	30	SE
Pentachlorophenol	1756	650	2628	0	66.8	25-120	1950	10.5	30	
Phenanthrene	2664	59	2628	0	101	50-110	2404	10.2	30	
Phenol	2287	320	2628	0	87	40-100	2136	6.83	30	
Pyrene	2185	59	2628	0	83.2	45-125	1980	9.85	30	
Surr: 2,4,6-Tribromophenol	*2698*	0	*3285*	0	*82.1*	*34-140*	2523	*6.71*	*40*	
Surr: 2-Fluorobiphenyl	*2698*	0	*3285*	0	*82.1*	*12-100*	2220	*19.5*	*40*	
Surr: 2-Fluorophenol	*2798*	0	*3285*	0	*85.2*	*33-117*	2620	*6.59*	*40*	
Surr: 4-Terphenyl-d14	*2545*	0	*3285*	0	*77.5*	*25-137*	1872	*30.5*	*40*	
Surr: Nitrobenzene-d5	*2690*	0	*3285*	0	*81.9*	*37-107*	2534	*5.96*	*40*	
Surr: Phenol-d6	*2799*	0	*3285*	0	*85.2*	*40-106*	2695	*3.76*	*40*	

The following samples were analyzed in this batch: 1109509-01A

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **35708** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-35708-35708** Units: **mg/Kg** Analysis Date: **9/21/2011 01:20 PM**
Client ID: Run ID: **WETCHEM_110921B** SeqNo: **1742408** Prep Date: **9/20/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.50								

LCS Sample ID: **LCS-35708-35708** Units: **mg/Kg** Analysis Date: **9/21/2011 01:20 PM**
Client ID: Run ID: **WETCHEM_110921B** SeqNo: **1742406** Prep Date: **9/20/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.024	0.50	2	0	101	75-110	0			

LCSD Sample ID: **LCSD-35708-35708** Units: **mg/Kg** Analysis Date: **9/21/2011 01:20 PM**
Client ID: Run ID: **WETCHEM_110921B** SeqNo: **1742407** Prep Date: **9/20/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.024	0.50	2	0	101	75-110	2.024	0	20	

MS Sample ID: **1109509-01A MS** Units: **mg/Kg** Analysis Date: **9/21/2011 01:20 PM**
Client ID: **Treatment Cell** Run ID: **WETCHEM_110921B** SeqNo: **1742399** Prep Date: **9/20/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.50	1.984	0	0	60-130	0			S

MSD Sample ID: **1109509-01A MSD** Units: **mg/Kg** Analysis Date: **9/21/2011 01:20 PM**
Client ID: **Treatment Cell** Run ID: **WETCHEM_110921B** SeqNo: **1742400** Prep Date: **9/20/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.50	1.992	0	0	60-130	0	0	30	S

The following samples were analyzed in this batch: 1109509-01A

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **R94812** Instrument ID **WETCHEM** Method: **SW9040**

DUP Sample ID: **1109572-01A DUP** Units: **s.u.** Analysis Date: **9/19/2011 12:00 PM**
Client ID: Run ID: **WETCHEM_110919F** SeqNo: **1739775** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.96	0	0	0	0	0-0	6.96	0	20	

DUP Sample ID: **1109509-01A DUP** Units: **s.u.** Analysis Date: **9/19/2011 12:00 PM**
Client ID: **Treatment Cell** Run ID: **WETCHEM_110919F** SeqNo: **1739781** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.31	0	0	0	0	0-0	8.31	0	20	

DUP Sample ID: **1109515-01C DUP** Units: **s.u.** Analysis Date: **9/19/2011 12:00 PM**
Client ID: Run ID: **WETCHEM_110919F** SeqNo: **1739789** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.85	0	0	0	0	0-0	7.85	0	20	

The following samples were analyzed in this batch: 1109509-01A

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

Client: HRL Compliance Solutions
Work Order: 1109509
Project: Black Hills Wagon Tracks 12-6 9/15/11

QC BATCH REPORT

Batch ID: **R94847** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS1-R94847** Units: **% of sample** Analysis Date: **9/19/2011 03:46 PM**
Client ID: Run ID: **MOIST_110919B** SeqNo: **1740751** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R94847** Units: **% of sample** Analysis Date: **9/19/2011 03:46 PM**
Client ID: Run ID: **MOIST_110919B** SeqNo: **1740730** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.99	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1109525-02BDUP** Units: **% of sample** Analysis Date: **9/19/2011 03:46 PM**
Client ID: Run ID: **MOIST_110919B** SeqNo: **1740724** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.91	0.050	0	0	0	0-0	7.19	3.97	20	

DUP Sample ID: **1109559-01CDUP** Units: **% of sample** Analysis Date: **9/19/2011 03:46 PM**
Client ID: Run ID: **MOIST_110919B** SeqNo: **1740728** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	20.01	0.050	0	0	0	0-0	20.38	1.83	20	

The following samples were analyzed in this batch: 1109509-01A

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 # 1109509

		SAMPLER	Dan Pinegar	DATE	9/15/2011	PAGE 1 of 1
PROJECT NAME	Black Hills Wagon Tracks 12-6	SITE ID		TURNAROUND	Standard 5 DAY	DISPOSAL By Lab or Return to Client
PROJECT No.		EDD FORMAT				
		PURCHASE ORDER				
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY				
SEND REPORT TO	Kris Rowe	INVOICE ATTN TO				
ADDRESS	744 Horizon Ct. Suite 140	ADDRESS				
CITY / STATE / ZIP	Grand Junction, CO. 81506	CITY / STATE / ZIP				
PHONE	970-243-3271	PHONE				
FAX	970-243-3280	FAX				
E-MAIL	krowe@hrlcomp.com	E-MAIL				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	SAR, EC, Ph	Total Metals (table 910.1)	Semi Volatiles
01	Treatment Cell	Soil	9/15/2011	1:00 PM	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)	
2.8°	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		Dan Pinegar	9/15/2011	5:00 PM
RECEIVED BY		Alex J Lonstad	9/16/11	1033
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Subcontractor:
A & 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

Date: 19-Sep-11
COC ID: 3145
Due Date 22-Sep-11

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	1109509	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
1109509-01B (Treatment Cell)	Soil	15/Sep/2011 13:00	(1) MISC	X									

Comments:

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

Relinquished by:	Date/Time	Received by:	Date/Time	Cooler IDs	Report/QC Level
					Std
Relinquished by:	Date/Time	Received by:	Date/Time		

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **16-Sep-11 10:00**

Work Order: **1109509** Received by: **AC**

Checklist completed by Alex Csaszar (eSignature) 16-Sep-11 (Date) Reviewed by: Ann Preston (eSignature) 19-Sep-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):	2.8 degrees 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: