NELAP CERTIFICATE NUMBER 01955
DOD ELAP CERTIFICATE NUMBER ADE - 1482

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

7979 GSRI Avenue

Baton Rouge, LA 70820

Report Date 08/23/2012

GCAL Report 212081402

Deliver To	Shaw Environmental & Infrastructure, Inc. 9201 East Dry Creek Centennial, CO 80112 720-554-8252
Attn	Pamela Moss

Project Kirtland AFB IDW

CASE NARRATIVE

Client: Shaw E&I **Report:** 212081402

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

In the SW-846 1311/8260B analysis, a dilution factor of 40 was performed for sample 21208140201 (106208IDW1). The reporting limits are at or below the regulatory limits at this dilution.

VOLATILES GAS CHROMATOGRAPHY

In the SW-846 8015C GRO analysis, sample 21208140201 (106208IDW1) was analyzed at a 50 (Methanol extract) dilution. The reporting limit is below the required limit at this dilution.

METALS

In the SW-846 1311/6010C analysis, sample 21208140201 (106208IDW1) was analyzed at a dilution. The reporting limits are at or below the regulatory limits at this dilution.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates the result is between the MDL and RDL
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

IntegriSign

Robyn Migues
Technical Director
GCAL REPORT 212081402

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21208140201	106208IDW1	Solid	08/13/2012 07:20	08/14/2012 09:40

Summary of Compounds Detected

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21208140201	**106208IDW1**	Solid	08/13/2012 07:20	08/14/2012 09:40

SW-846 8015C

CAS#	Parameter	Result	RDL	REG LIMIT	Units
GCSV-00-4	**Diesel Range Organics**	**6.15**	**4.06**		**mg/kg**

SW-846 9045C pH

CAS#	Parameter	Result	RDL	REG LIMIT	Units
pH	**pH**	**8.59**	**1.00**		**pH unit**

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21208140201	**106208IDW1**	Solid	08/13/2012 07:20	08/14/2012 09:40

SW-846 8260B

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	08/15/2012 18:19	EDS	487809

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	0.00512		mg/kg
100-41-4	Ethylbenzene	ND	0.00512		mg/kg
108-88-3	Toluene	ND	0.00512		mg/kg
1330-20-7	Xylene (total)	ND	0.015		mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	.05	.047	mg/kg	95	85 - 120
1868-53-7	Dibromofluoromethane	.05	.052	mg/kg	104	65 - 130
2037-26-5	Toluene d8	.05	.053	mg/kg	106	85 - 115
17060-07-0	1,2-Dichloroethane-d4	.05	.052	mg/kg	105	62 - 125

SW-846 8260B TCLP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			40	08/16/2012 11:15	LBH	487887

CAS#	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.700	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.500	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.500	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.500	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6.00	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.700	mg/L
79-01-6	Trichloroethene	ND	0.200	0.500	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.200	mg/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	2000	1940	ug/L	97	62 - 130
1868-53-7	Dibromofluoromethane	2000	2010	ug/L	101	65 - 127
2037-26-5	Toluene d8	2000	2040	ug/L	102	71 - 134
17060-07-0	1,2-Dichloroethane-d4	2000	2020	ug/L	101	62 - 127

SW-846 8270D TCLP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/16/2012 13:00	487827	SW-846 3510C	1	08/17/2012 17:25	KCB	487999

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-46-7	1,4-Dichlorobenzene	ND	0.0500	7.50	mg/L
95-95-4	2,4,5-Trichlorophenol	ND	0.0500	400	mg/L
88-06-2	2,4,6-Trichlorophenol	ND	0.0500	2.00	mg/L
121-14-2	2,4-Dinitrotoluene	ND	0.0500	0.1300	mg/L
1319-77-3	Cresols	ND	0.1000	200	mg/L
118-74-1	Hexachlorobenzene	ND	0.0500	0.1300	mg/L
87-68-3	Hexachlorobutadiene	ND	0.0500	0.5000	mg/L
67-72-1	Hexachloroethane	ND	0.0500	3.00	mg/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21208140201	**106208IDW1**	Solid	08/13/2012 07:20	08/14/2012 09:40

SW-846 8270D TCLP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/16/2012 13:00	487827	SW-846 3510C	1	08/17/2012 17:25	KCB	487999

CAS#	Parameter	Result	RDL	REG LIMIT	Units
98-95-3	Nitrobenzene	ND	0.0500	2.00	mg/L
87-86-5	Pentachlorophenol	ND	0.2500	100	mg/L
110-86-1	Pyridine	ND	0.0500	5.00	mg/L
1319-77-3MP	m,p-Cresol	ND	0.0500	200	mg/L
95-48-7	o-Cresol	ND	0.0500	200	mg/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
4165-60-0	Nitrobenzene-d5	250	225	ug/L	90	48 - 123
321-60-8	2-Fluorobiphenyl	250	225	ug/L	90	16 - 128
1718-51-0	Terphenyl-d14	250	225	ug/L	90	38 - 167
4165-62-2	Phenol-d5	500	207	ug/L	41	10 - 123
367-12-4	2-Fluorophenol	500	294	ug/L	59	10 - 120
118-79-6	2,4,6-Tribromophenol	500	436	ug/L	87	44 - 121

SW-846 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/16/2012 13:35	487763	3550C	1	08/17/2012 14:28	SMH	488153

CAS#	Parameter	Result	RDL	REG LIMIT	Units
GCSV-00-4	**Diesel Range Organics**	**6.15**	**4.06**		**mg/kg**

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	1.64	1.32	mg/kg	80	67 - 120

SW-846 8015C Modified

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			50	08/22/2012 12:29	JAR	488225

CAS#	Parameter	Result	RDL	REG LIMIT	Units
8006-61-9	Gasoline Range Organics	ND	5.16		mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
106-39-8	Bromochlorobenzene	1.5	1.34	mg/kg	89	47 - 164

SW-846 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/16/2012 13:35	487764	3550C	1	08/17/2012 14:28	SMH	488154

CAS#	Parameter	Result	RDL	REG LIMIT	Units
GCSV-00-44	Oil Range Organics	ND	13.5		mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21208140201	**106208IDW1**	Solid	08/13/2012 07:20	08/14/2012 09:40

SW-846 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/16/2012 13:35	487764	3550C	1	08/17/2012 14:28	SMH	488154

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	1.64	1.39	mg/kg	85	67 - 120

SW-846 7470A TCLP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/15/2012 12:40	487807	SW-846 7470A	1	08/16/2012 11:50	CLB	487888

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7439-97-6	Mercury	ND	0.0020	0.20	mg/L

SW-846 6010C TCLP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/15/2012 12:40	487802	SW-846 3010A	5	08/17/2012 22:32	CLB	487998

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7440-38-2	Arsenic	ND	1.00	5.00	mg/L
7440-39-3	Barium	ND	5.00	100	mg/L
7440-43-9	Cadmium	ND	0.050	1.00	mg/L
7440-47-3	Chromium	ND	0.25	5.00	mg/L
7439-92-1	Lead	ND	0.50	5.00	mg/L
7782-49-2	Selenium	ND	0.50	1.00	mg/L
7440-22-4	Silver	ND	0.25	5.00	mg/L

SW-846 9045C pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	08/16/2012 10:10	OLT	487695

CAS#	Parameter	Result	RDL	REG LIMIT	Units
pH	**pH**	**8.59**	**1.00**		**pH unit**

SW-846 9012A Reactivity CN

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/15/2012 06:30	487749	7.3.3.2	1	08/16/2012 15:32	AEL	487926

CAS#	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21208140201	**106208IDW1**	Solid	08/13/2012 07:20	08/14/2012 09:40

SW-846 9034 Reactivity Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
08/15/2012 06:30	487750	Sec 7.3.4.2	1	08/15/2012 15:30	JEM	487769

CAS#	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

SW-846 1030

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	08/23/2012 10:56	MDT	488357

CAS#	Parameter	Result	RDL	REG LIMIT	Units
000000-01-7	Ignitable	NO			

RESULTS REPORTED ON A DRY WEIGHT BASIS

GC/MS Volatiles Quality Control Summary

Analytical Batch	487809	**Client ID**	MB487809			LCS487809			LCSD487809		
Prep Batch	N/A	**GCAL ID**	1096875			1096876			1096877		
		Sample Type	Method Blank			LCS			LCSD		
		Analytical Date	08/15/2012 14:28			08/15/2012 12:34			08/15/2012 12:58		
		Matrix	Solid			Solid			Solid		
SW-846 8260B		**Units**	mg/kg		**Spike**	**Result**		**Control**	**Result**		**RPD**
		Result	**RDL**		**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
100-41-4	Ethylbenzene	ND	0.00500		0.050	0.052	104	75 - 125	0.050	100	3	30
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	0.00500		0.050	0.062	123	50 - 135	0.064	128	4	30
1330-20-7	Xylene (total)	ND	0.015		0.150	0.164	109	75 - 125	0.157	105	4	30
71-43-2	Benzene	ND	0.00500		0.050	0.053	105	75 - 125	0.052	104	1	30
108-88-3	Toluene	ND	0.00500		0.050	0.049	98	70 - 125	0.048	95	4	30
Surrogate												
460-00-4	4-Bromofluorobenzene	48.3	97		50	50.5	101	85 - 120	50.1	100		
1868-53-7	Dibromofluoromethane	51.7	103		50	50.7	101	65 - 130	51.3	103		
2037-26-5	Toluene d8	52.1	104		50	48.3	97	85 - 115	47.7	95		
17060-07-0	1,2-Dichloroethane-d4	50.2	100		50	54.5	109	62 - 125	55.7	111		

GC/MS Volatiles Quality Control Summary

Analytical Batch 487887		**Client ID**	MB487887			LCS487887			LCSD487887		
Prep Batch N/A		**GCAL ID**	1097122			1097123			1097124		
		Sample Type	Method Blank			LCS			LCSD		
		Analytical Date	08/16/2012 10:15			08/16/2012 09:15			08/16/2012 09:35		
		Matrix	Water			Water			Water		
SW-846 8260B TCLP		**Units**	mg/L	**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
56-23-5	Carbon tetrachloride	ND	0.00500	0.050	0.040	80	76 - 128	0.040	80	0.5	30
67-66-3	Chloroform	ND	0.00500	0.050	0.047	95	75 - 122	0.048	96	1	30
107-06-2	1,2-Dichloroethane	ND	0.00500	0.050	0.047	95	71 - 129	0.049	97	3	30
78-93-3	2-Butanone	ND	0.025	0.050	0.055	110	58 - 137	0.056	112	2	30
127-18-4	Tetrachloroethene	ND	0.00500	0.050	0.044	87	68 - 128	0.043	86	2	30
75-01-4	Vinyl chloride	ND	0.00500	0.050	0.043	85	68 - 132	0.042	84	0.9	30
75-35-4	1,1-Dichloroethene	ND	0.00500	0.050	0.044	88	69 - 129	0.043	86	3	20
71-43-2	Benzene	ND	0.00500	0.050	0.046	92	70 - 129	0.045	91	1	20
79-01-6	Trichloroethene	ND	0.00500	0.050	0.045	90	76 - 129	0.045	90	0.2	20
108-90-7	Chlorobenzene	ND	0.00500	0.050	0.046	92	74 - 123	0.046	93	0.2	20
Surrogate											
460-00-4	4-Bromofluorobenzene	48.4	97	50	50.7	101	62 - 130	50.6	101		
1868-53-7	Dibromofluoromethane	50.5	101	50	51.6	103	65 - 127	51.2	102		
2037-26-5	Toluene d8	50.9	102	50	49.1	98	71 - 134	49.4	99		
17060-07-0	1,2-Dichloroethane-d4	51	102	50	50.9	102	62 - 127	50.5	101		

Analytical Batch 487887		**Client ID**	106208IDW1			1096428MS			1096428MSD		
Prep Batch N/A		**GCAL ID**	21208140201			1097125			1097126		
		Sample Type	SAMPLE			MS			MSD		
		Analytical Date	08/16/2012 11:15			08/16/2012 12:10			08/16/2012 12:32		
		Matrix	Solid			Solid			Solid		
SW-846 8260B TCLP		**Units**	mg/L	**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
56-23-5	Carbon tetrachloride	0.00	0.200	2.00	1.90	95	76 - 128	1.79	90	6	30
67-66-3	Chloroform	0.00	0.200	2.00	2.10	105	75 - 122	1.98	99	6	30
107-06-2	1,2-Dichloroethane	0.00	0.200	2.00	2.07	104	71 - 129	2.02	101	2	30
78-93-3	2-Butanone	0.00	1.00	2.00	2.53	127	58 - 137	2.46	123	3	30
127-18-4	Tetrachloroethene	0.00	0.200	2.00	2.01	101	68 - 128	1.84	92	9	30
75-01-4	Vinyl chloride	0.00	0.200	2.00	2.04	102	68 - 132	1.94	97	5	30
75-35-4	1,1-Dichloroethene	0.00	0.200	2.00	2.08	104	69 - 129	1.98	99	5	30
71-43-2	Benzene	0.00	0.200	2.00	2.04	102	70 - 129	1.95	98	5	30
79-01-6	Trichloroethene	0.00	0.200	2.00	1.97	99	76 - 129	1.90	95	4	30

GC/MS Volatiles Quality Control Summary

Analytical Batch	487887	**Client ID**	106208IDW1			1096428MS			1096428MSD		
Prep Batch	N/A	**GCAL ID**	21208140201			1097125			1097126		
		Sample Type	SAMPLE			MS			MSD		
		Analytical Date	08/16/2012 11:15			08/16/2012 12:10			08/16/2012 12:32		
		Matrix	Solid			Solid			Solid		
SW-846 8260B TCLP		**Units**	mg/L		**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**		**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
108-90-7	Chlorobenzene	0.00	0.200		2.00	2.04	102	74 - 123	1.91	96	7	30
Surrogate												
460-00-4	4-Bromofluorobenzene	1940	97		2000	2040	102	62 - 130	2000	100		
1868-53-7	Dibromofluoromethane	2010	101		2000	2060	103	65 - 127	2050	103		
2037-26-5	Toluene d8	2040	102		2000	1910	96	71 - 134	1930	97		
17060-07-0	1,2-Dichloroethane-d4	2020	101		2000	2040	102	62 - 127	2060	103		

GC/MS Semi-Volatiles Quality Control Summary

Analytical Batch	487999	**Client ID**	MB487827	LCS487827	LCSD487827
Prep Batch	487827	**GCAL ID**	1096942	1096943	1096944
Prep Method	SW-846	**Sample Type**	Method Blank	LCS	LCSD
	3510C	**Prep Date**	08/16/2012 13:00	08/16/2012 13:00	08/16/2012 13:00
		Analytical Date	08/17/2012 16:36	08/17/2012 16:52	08/17/2012 17:09
		Matrix	Water	Water	Water

SW-846 8270D TCLP		**Units**	mg/L	**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
118-74-1	Hexachlorobenzene	ND	0.0500	0.100	0.095	95	61 - 120	0.089	89	6	30
87-68-3	Hexachlorobutadiene	ND	0.0500	0.100	0.095	95	17 - 120	0.091	91	4	30
67-72-1	Hexachloroethane	ND	0.0500	0.100	0.092	92	21 - 120	0.086	86	8	30
95-48-7	o-Cresol	ND	0.0500	0.100	0.072	72	31 - 125	0.068	68	5	30
98-95-3	Nitrobenzene	ND	0.0500	0.100	0.091	91	53 - 120	0.089	89	2	30
95-95-4	2,4,5-Trichlorophenol	ND	0.0500	0.100	0.098	98	60 - 120	0.094	94	4	30
88-06-2	2,4,6-Trichlorophenol	ND	0.0500	0.100	0.096	96	59 - 120	0.094	94	2	30
110-86-1	Pyridine	ND	0.0500	0.100	0.063	63	10 - 120	0.065	65	4	30
1319-77-3	Cresols	ND	0.1000	0.200	0.163	82	24 - 125	0.156	78	4	30
1319-77-3MP	m,p-Cresol	ND	0.0500	0.100	0.090	90	24 - 125	0.087	87	4	30
106-46-7	1,4-Dichlorobenzene	ND	0.0500	0.100	0.092	92	22 - 120	0.087	87	5	30
121-14-2	2,4-Dinitrotoluene	ND	0.0500	0.100	0.094	94	37 - 138	0.088	88	7	30
87-86-5	Pentachlorophenol	ND	0.2500	0.100	0.114	114	25 - 158	0.106	106	7	30
Surrogate											
4165-60-0	Nitrobenzene-d5	43.7	87	50	45.3	91	48 - 123	46.3	93		
321-60-8	2-Fluorobiphenyl	43.6	87	50	48.4	97	16 - 128	45	90		
1718-51-0	Terphenyl-d14	45.6	91	50	43.9	88	38 - 167	44.9	90		
4165-62-2	Phenol-d5	37	37	100	40.1	40	10 - 123	39	39		
367-12-4	2-Fluorophenol	55.5	56	100	58.6	59	10 - 120	56.3	56		
118-79-6	2,4,6-Tribromophenol	83.5	84	100	93	93	44 - 121	88.6	89		

General Chromatography Quality Control Summary

Analytical Batch	488153	**Client ID**	MB487763			LCS487763			LCSD487763		
Prep Batch	487763	**GCAL ID**	1096676			1096677			1096678		
Prep Method	3550C	**Sample Type**	Method Blank			LCS			LCSD		
		Prep Date	08/16/2012 13:35			08/16/2012 13:35			08/16/2012 13:35		
		Analytical Date	08/20/2012 12:18			08/17/2012 10:55			08/17/2012 11:13		
		Matrix	Solid			Solid			Solid		
SW-846 8015C		**Units**	**Result**	mg/kg **RDL**	**Spike Added**	**Result**	**% R**	**Control Limits % R**	**Result**	**% R**	**RPD**	**RPD Limit**
GCSV-00-4	Diesel Range Organics		ND	4.00	33.3	31.4	94	50 - 124	28.3	85	10	40
Surrogate												
84-15-1	o-Terphenyl		1190	71	1670	1530	92	67 - 120	1390	83		

Analytical Batch	488153	**Client ID**	106208IDW1			1096428MS			1096428MSD		
Prep Batch	487763	**GCAL ID**	21208140201			1096679			1096680		
Prep Method	3550C	**Sample Type**	SAMPLE			MS			MSD		
		Prep Date	08/16/2012 13:35			08/16/2012 13:35			08/16/2012 13:35		
		Analytical Date	08/17/2012 14:28			08/17/2012 12:25			08/17/2012 12:43		
		Matrix	Solid			Solid			Solid		
SW-846 8015C		**Units**	**Result**	mg/kg **RDL**	**Spike Added**	**Result**	**% R**	**Control Limits % R**	**Result**	**% R**	**RPD**	**RPD Limit**
GCSV-00-4	Diesel Range Organics		5.98	3.95	33.1	32.3	79	50 - 124	32.6	81	1	30
Surrogate												
84-15-1	o-Terphenyl		1.32	80	1660	1420	86	67 - 120	1450	88		

General Chromatography Quality Control Summary

Analytical Batch 488225		**Client ID**	MB488225		LCS488225		
Prep Batch N/A		**GCAL ID**	1098699		1098700		
		Sample Type	Method Blank		LCS		
		Analytical Date	08/22/2012 09:05		08/22/2012 08:45		
		Matrix	Solid		Solid		
SW-846 8015C Modified		**Units**	mg/kg	**Spike**	**Result**		**Control**
		Result	**RDL**	**Added**		**% R**	**Limits % R**
8006-61-9	Gasoline Range Organics	ND	5.00	25.0	23.1	92	67 - 127
Surrogate							
106-39-8	Bromochlorobenzene	1450	97	1500	1510	101	47 - 164

Analytical Batch 488225		**Client ID**	106208IDW1			1096428MS			1096428MSD			
Prep Batch N/A		**GCAL ID**	21208140201			1098701			1098702			
		Sample Type	SAMPLE			MS			MSD			
		Analytical Date	08/22/2012 12:29			08/22/2012 12:49			08/22/2012 13:09			
		Matrix	Solid			Solid			Solid			
SW-846 8015C Modified		**Units**	mg/kg	**Spike**	**Result**		**Control**	**Result**				**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
8006-61-9	Gasoline Range Organics	0.108	5.01	25.1	27.3	108	67 - 127	27.6	110	1	30
Surrogate											
106-39-8	Bromochlorobenzene	1.34	89	1500	1440	96	47 - 164	1420	94		

General Chromatography Quality Control Summary

Analytical Batch	488154	**Client ID**	MB487764			LCS487764			LCSD487764		
Prep Batch	487764	**GCAL ID**	1096681			1096682			1096683		
Prep Method	3550C	**Sample Type**	Method Blank			LCS			LCSD		
		Prep Date	08/16/2012 13:35			08/16/2012 13:35			08/16/2012 13:35		
		Analytical Date	08/20/2012 12:18			08/17/2012 11:31			08/17/2012 11:49		
		Matrix	Solid			Solid			Solid		
SW-846 8015C		**Units**	mg/kg	**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
GCSV-00-44	Oil Range Organics	ND	13.3	66.7	50.2	75	47 - 120	46.4	70	8	40
Surrogate											
84-15-1	o-Terphenyl	1250	75	1670	1460	88	67 - 120	1320	79		

Analytical Batch	488154	**Client ID**	106208IDW1			1096428MS			1096428MSD		
Prep Batch	487764	**GCAL ID**	21208140201			1096684			1096685		
Prep Method	3550C	**Sample Type**	SAMPLE			MS			MSD		
		Prep Date	08/16/2012 13:35			08/16/2012 13:35			08/16/2012 13:35		
		Analytical Date	08/17/2012 14:28			08/17/2012 13:01			08/20/2012 12:36		
		Matrix	Solid			Solid			Solid		
SW-846 8015C		**Units**	mg/kg	**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
GCSV-00-44	Oil Range Organics	2.94	13.1	65.8	41.4	58	47 - 120	44.3	62	7	30
Surrogate											
84-15-1	o-Terphenyl	1.39	85	1640	1110	67	67 - 120	1110	67		

Inorganics Quality Control Summary

Analytical Batch	487888	**Client ID**	MB487807			LCS487807		
Prep Batch	487807	**GCAL ID**	1096841			1096842		
Prep Method	SW-846	**Sample Type**	Method Blank			LCS		
	7470A	**Prep Date**	08/15/2012 12:40			08/15/2012 12:40		
		Analytical Date	08/16/2012 11:47			08/16/2012 11:49		
		Matrix	Water			Water		
SW-846 7470A TCLP			**Units**	mg/L	**Spike**	**Result**		**Control**
			Result	**RDL**	**Added**		**% R**	**Limits % R**
7439-97-6	Mercury		ND	0.0020	0.00500	0.00511	102	80 - 120

Analytical Batch	487888	**Client ID**	106208IDW1			1096428MS			1096428MSD			
Prep Batch	487807	**GCAL ID**	21208140201			1096843			1096844			
Prep Method	SW-846	**Sample Type**	SAMPLE			MS			MSD			
	7470A	**Prep Date**	08/15/2012 12:40			08/15/2012 12:40			08/15/2012 12:40			
		Analytical Date	08/16/2012 11:50			08/16/2012 11:52			08/16/2012 11:53			
		Matrix	Solid			Solid			Solid			
SW-846 7470A TCLP			**Units**	mg/L	**Spike**	**Result**		**Control**	**Result**			**RPD**
			Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
7439-97-6	Mercury		0.00011	0.0020	0.00500	0.00488	95	75 - 125	0.00477	93	2	20

Inorganics Quality Control Summary

Analytical Batch	487998	**Client ID**	MB487802	LCS487802
Prep Batch	487802	**GCAL ID**	1096815	1096816
Prep Method	SW-846	**Sample Type**	Method Blank	LCS
	3010A	**Prep Date**	08/15/2012 12:40	08/15/2012 12:40
		Analytical Date	08/17/2012 22:19	08/17/2012 22:26
		Matrix	Water	Water

SW-846 6010C TCLP		**Units**	mg/L	**Spike**	**Result**		**Control**
		Result	**RDL**	**Added**		**% R**	**Limits % R**
7440-38-2	Arsenic	ND	0.20	1.00	1.07	107	80 - 120
7440-39-3	Barium	ND	1.00	6.00	5.98	100	80 - 120
7440-43-9	Cadmium	ND	0.010	1.00	0.96	96	80 - 120
7440-47-3	Chromium	ND	0.050	1.00	0.95	95	80 - 120
7439-92-1	Lead	ND	0.10	1.00	0.93	93	80 - 120
7782-49-2	Selenium	ND	0.10	1.00	1.08	108	80 - 120
7440-22-4	Silver	ND	0.050	1.00	1.0	100	80 - 120

Analytical Batch	487998	**Client ID**	106208IDW1	1096428MS	1096428MSD
Prep Batch	487802	**GCAL ID**	21208140201	1096817	1096818
Prep Method	SW-846	**Sample Type**	SAMPLE	MS	MSD
	3010A	**Prep Date**	08/15/2012 12:40	08/15/2012 12:40	08/15/2012 12:40
		Analytical Date	08/17/2012 22:32	08/17/2012 22:39	08/17/2012 22:47
		Matrix	Solid	Solid	Solid

SW-846 6010C TCLP		**Units**	mg/L	**Spike**	**Result**		**Control**	**Result**			**RPD**
		Result	**RDL**	**Added**		**% R**	**Limits % R**		**% R**	**RPD**	**Limit**
7440-38-2	Arsenic	0.0	1.00	1.00	0.95	95	75 - 125	0.98	98	3	20
7440-39-3	Barium	0.73	5.00	6.00	6.56	97	75 - 125	6.68	99	2	20
7440-43-9	Cadmium	0.0	0.050	1.00	0.92	92	75 - 125	0.94	94	2	20
7440-47-3	Chromium	0.0014	0.25	1.00	0.96	96	75 - 125	0.97	97	2	20
7439-92-1	Lead	0.0	0.50	1.00	0.91	91	75 - 125	0.93	93	3	20
7782-49-2	Selenium	0.0062	0.50	1.00	0.96	96	75 - 125	1.0	99	3	20
7440-22-4	Silver	0.0	0.25	1.00	0.96	96	75 - 125	0.98	98	2	20

General Chemistry Quality Control Summary

Analytical Batch 487695	**Client ID**	PROFILE		1096049DUP		
Prep Batch N/A	**GCAL ID**	21208131301		1096418		
	Sample Type	SAMPLE		DUP		
	Analytical Date	08/16/2012 09:00		08/16/2012 09:00		
	Matrix	Solid		Solid		
SW-846 9045C pH		**Units**	pH unit	**Result**		**RPD**
		Result	**RDL**		**RPD**	**Limit**
pH	pH	6.13	1.00	6.14	0.2	1

General Chemistry Quality Control Summary

Analytical Batch 487926	**Client ID**	MB487749			LCS487749		
Prep Batch 487749	**GCAL ID**	1096630			1096631		
Prep Method 7.3.3.2	**Sample Type**	Method Blank			LCS		
	Prep Date	08/15/2012 06:30			08/15/2012 06:30		
	Analytical Date	08/16/2012 15:25			08/16/2012 15:26		
	Matrix	Solid			Solid		
SW-846 9012A Reactivity CN		**Units**	mg/kg	**Spike**	**Result**		**Control**
		Result	**RDL**	**Added**		**% R**	**Limits % R**
57-12-5R Reactivity Cyanide		ND	250	250	20.7	8.3	1 - 25

Analytical Batch 487926	**Client ID**	PROFILE		1096049DUP		
Prep Batch 487749	**GCAL ID**	21208131301		1096632		
Prep Method 7.3.3.2	**Sample Type**	SAMPLE		DUP		
	Prep Date	08/15/2012 06:30		08/15/2012 06:30		
	Analytical Date	08/16/2012 15:27		08/16/2012 15:28		
	Matrix	Solid		Solid		
SW-846 9012A Reactivity CN		**Units**	mg/kg	**Result**		**RPD**
		Result	**RDL**		**RPD**	**Limit**
57-12-5R Reactivity Cyanide		0.0	250	0.0	0.0	25

General Chemistry Quality Control Summary

Analytical Batch	487769	**Client ID**	MB487750		LCS487750		
Prep Batch	487750	**GCAL ID**	1096633		1096634		
Prep Method	Sec 7.3.4.2	**Sample Type**	Method Blank		LCS		
		Prep Date	08/15/2012 06:30		08/15/2012 06:30		
		Analytical Date	08/15/2012 15:30		08/15/2012 15:30		
		Matrix	Solid		Solid		
SW-846 9034 Reactivity Sulfide		**Units**	mg/kg	**Spike**	**Result**		**Control**
		Result	**RDL**	**Added**		**% R**	**Limits % R**
18496-25-8R	Reactivity Sulfide	ND	80	681	481	70.6	20 - 114

Analytical Batch	487769	**Client ID**	PROFILE		1096049DUP		
Prep Batch	487750	**GCAL ID**	21208131301		1096635		
Prep Method	Sec 7.3.4.2	**Sample Type**	SAMPLE		DUP		
		Prep Date	08/15/2012 06:30		08/15/2012 06:30		
		Analytical Date	08/15/2012 15:30		08/15/2012 15:30		
		Matrix	Solid		Solid		
SW-846 9034 Reactivity Sulfide		**Units**	mg/kg		**Result**		**RPD**
		Result	**RDL**			**RPD**	**Limit**
18496-25-8R	Reactivity Sulfide	0	80		0	0	25

Shaw™
Shaw E & I, Inc.

4769 | 212081402 | 8/20/12

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-IDW081312

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time: 10 day TAT

Samples Shipment Date: 13 AUG 2012
Lab Destination: Gulf Coast Analytical Laboratories, Inc.
Lab Contact: ~~Dana Menill~~ Shelley Bourgeois
Project Contact: Pamela Moss
Carrier/Waybill No.: Fed Ex/4883 0661 9022

Bill To: Shaw Environmental, Inc. - Accounts P
PO Box 98519
Baton Rouge LA 70884

Report To: Pamela Moss
7604 Technology Way, Suite 300
Denver CO 80237

Special Instructions: 10 day TAT

Possible Hazard Indentification: Non-hazard [X] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological [ ]

Sample Disposal: Return to Client [ ] Disposal by Lab [X] Archive (mos.)

1. Relinquished By (Signature/Affiliation) Kimberly Kendall Kimberly Kendall	Date: 8/13/12 Time: 0900	1. Received By (Signature/Affiliation) Fedex	Date: Time:
2. Relinquished By (Signature/Affiliation) Fedex	Date: 8/14/12 Time: 0940	2. Received By (Signature/Affiliation) [signature] GCAL	Date: 8/14/12 Time: 0940
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments: IDW Soil from KAFB-106208

2.4°C

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
106208IDW1	KAFB-106208-SO-106208IDW1-REG	13 AUG 2012	07:20	8 oz CWM	1	None except cool to 4 C	TCLP Metals by SW846 1311 6010C, TCLP Mercury by SW846 1311 7470A			N		
106208IDW1	KAFB-106208-SO-106208IDW1-REG	13 AUG 2012	07:20	8 oz CWM	1	None except cool to 4 C	TCLP VOCs by SW846 1311 8260B, BTEX by SW846 8021			N		
106208IDW1	KAFB-106208-SO-106208IDW1-REG	13 AUG 2012	07:20	8 oz CWM	1	None except cool to 4 C	Reactivity, Corrosivity, and Ignitability by SW846 Chapter 7,7.3.4.2, TCLP SVOCs by SW846 1311 8270D			N		

TPH as Gasoline 8015
TPH as Diesel

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP	212081402
Client 4769 - Shaw E&I	**Transport Method** FEDEX
Profile 210418 - Kirtland AFB IDW	**Received By** Pfeifer, Ben J.
Line Item(s) 1 - TCLP/BTEX	**Receive Date(s)** 08/14/12

CHECKLIST			
Were all samples received using proper thermal preservation?	☑ Yes	☐ No	☐ NA
When used, were all custody seals intact?	☑ Yes	☐ No	☐ NA
Were all samples received in proper containers?	☑ Yes	☐ No	☐ NA
Were all samples received using proper chemical preservation?	☑ Yes	☐ No	☐ NA
Was preservative added to any container at the lab?	☐ Yes	☑ No	☐ NA
Were all containers received in good condition?	☑ Yes	☐ No	☐ NA
Were all VOA vials received with no head space?	☐ Yes	☐ No	☑ NA
Do all sample labels match the Chain of Custody?	☑ Yes	☐ No	☐ NA
Did the Chain of Custody list the sampling technician?	☑ Yes	☐ No	☐ NA

COOLERS

Airbill	Temp(oC)
4883 0661 9022	2.4

DISCREPANCIES

None

LABORATORY PRESERVATIONS

None

NOTES