

Your P.O. #: 76493-597247
Your C.O.C. #: 47938

Attention: THOMAS MOORE
REGINA, CITY OF
BOX 5095
2476 VICTORIA AVE
REGINA, SK
CANADA S4P 3M3

Report Date: 2008/11/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A861542
Received: 2008/11/08, 9:05

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
BTEX/F1 by HS GC/MS (MeOH extract)	2	2008/11/10	2008/11/13	CAL SOP-00104	EPA 8260 C
CCME Hydrocarbons (F2-F4 in soil)	1	2008/11/10	2008/11/12	CAL SOP-00086	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in soil)	1	2008/11/10	2008/11/13	CAL SOP-00086	CCME PHC-CWS
Moisture	2	N/A	2008/11/11	CAL SOP-00023	McKeague MSSMA 2.411

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
CCME Hydrocarbons (F2-F4 in water)	1	2008/11/11	2008/11/12	CAL SOP-00087	CCME PHC-CWS

Encryption Key



Jennifer Rispler

14 Nov 2008 16:50:27 -07:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

JENNIFER RISPLER,
Email: Jennifer.Rispler@MaxxamAnalytics.com
Phone# (403) 291-3077

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

REGINA, CITY OF

Maxxam Job #: A861542
Report Date: 2008/11/14

Your P.O. #: 76493-597247

Sample Details/Parameters	Result	RDL	Units	meq/L	meq %	By	Batch
M62895 ADAMS ST. VALVE REPAIR Sampling Date 2008/11/06 Matrix WATER							
PETROLEUM HYDROCARBONS (CCME)							
Extractable Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	<0.1	0.1	mg/L			AM7	2725584
F3 (C16-C34 Hydrocarbons)	<0.1	0.1	mg/L			AM7	2725584
F4 (C34-C50 Hydrocarbons)	<0.1	0.1	mg/L			AM7	2725584
Reached Baseline at C50	YES		mg/L			AM7	2725584
O-TERPHENYL (sur.)	104	50 - 130	%			AM7	2725584
M62897 ADAMS ST. MAT'L UNDER PIPE Sampling Date 2008/11/06 Matrix SOIL							
RESULTS OF CHEMICAL ANALYSES OF SOIL							
Physical Properties							
Moisture	30	0.3	%			RM2	2725856
PETROLEUM HYDROCARBONS (CCME)							
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	2400	10	mg/kg			VM	2726567
F3 (C16-C34 Hydrocarbons)	840	10	mg/kg			VM	2726567
F4 (C34-C50 Hydrocarbons)	37	10	mg/kg			VM	2726567
Reached Baseline at C50	YES		mg/kg			VM	2726567
O-TERPHENYL (sur.)	91	50 - 130	%			VM	2726567
VOLATILE ORGANICS BY GC-MS (SOIL)							
Volatiles							
Benzene	0.36	0.0050	mg/kg			PX	2731014
Toluene	0.19	0.020	mg/kg			PX	2731014
Ethylbenzene	1.2	0.010	mg/kg			PX	2731014
Xylenes (Total)	1.4	0.040	mg/kg			PX	2731014
m & p-Xylene	1.2	0.040	mg/kg			PX	2731014
o-Xylene	0.18	0.020	mg/kg			PX	2731014
F1 (C6-C10) - BTEX	250	12	mg/kg			PX	2731014
(C6-C10)	250	12	mg/kg			PX	2731014
4-BROMOFLUOROBENZENE (sur.)	99	60 - 140	%			PX	2731014
D10-ETHYLBENZENE (sur.)	82	30 - 130	%			PX	2731014
D4-1,2-DICHLOROETHANE (sur.)	90	60 - 140	%			PX	2731014
D8-TOLUENE (sur.)	96	60 - 140	%			PX	2731014
M62898 ADAMS ST. MAT'L AT VALVE Sampling Date 2008/11/06 Matrix SOIL							
RESULTS OF CHEMICAL ANALYSES OF SOIL							
Physical Properties							
Moisture	11	0.3	%			RM2	2725856
PETROLEUM HYDROCARBONS (CCME)							
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	44	10	mg/kg			VM	2726567
F3 (C16-C34 Hydrocarbons)	140	10	mg/kg			VM	2726567
F4 (C34-C50 Hydrocarbons)	120	10	mg/kg			VM	2726567
Reached Baseline at C50	YES		mg/kg			VM	2726567
O-TERPHENYL (sur.)	92	50 - 130	%			VM	2726567
VOLATILE ORGANICS BY GC-MS (SOIL)							
Volatiles							
Benzene	<0.0050	0.0050	mg/kg			PX	2731014
Toluene	<0.020	0.020	mg/kg			PX	2731014
Ethylbenzene	<0.010	0.010	mg/kg			PX	2731014
Xylenes (Total)	<0.040	0.040	mg/kg			PX	2731014

REGINA, CITY OF

Maxxam Job #: A861542
Report Date: 2008/11/14

Your P.O. #: 76493-597247

Sample Details/Parameters	Result	RDL	Units	meq/L	meq %	By	Batch
M62898 ADAMS ST. MAT'L AT VALVE							
Sampling Date 2008/11/06							
Matrix SOIL							
VOLATILE ORGANICS BY GC-MS (SOIL)							
Volatiles							
m & p-Xylene	<0.040	0.040	mg/kg			PX	2731014
o-Xylene	<0.020	0.020	mg/kg			PX	2731014
F1 (C6-C10) - BTEX	<12	12	mg/kg			PX	2731014
(C6-C10)	<12	12	mg/kg			PX	2731014
4-BROMOFLUOROBENZENE (sur.)	100	60 - 140	%			PX	2731014
D10-ETHYLBENZENE (sur.)	77	30 - 130	%			PX	2731014
D4-1,2-DICHLOROETHANE (sur.)	92	60 - 140	%			PX	2731014
D8-TOLUENE (sur.)	99	60 - 140	%			PX	2731014

Maxxam Job #: A861542
Report Date: 2008/11/14

REGINA, CITY OF

Your P.O. #: 76493-597247

Package 1	5.0°C
-----------	-------

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Meq % is based on dissolved calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulphate and chloride

Results relate only to the items tested.

REGINA, CITY OF
Attention: THOMAS MOORE
Client Project #:
P.O. #: 76493-597247
Site Reference:

Quality Assurance Report
Maxxam Job Number: CA861542

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
2725584 AM7	Calibration Check	F2 (C10-C16 Hydrocarbons)	2008/11/12		112	%	80 - 120	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		106	%	80 - 120	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		106	%	80 - 120	
	MATRIX SPIKE	F2 (C10-C16 Hydrocarbons)	2008/11/12		86	%	70 - 130	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		97	%	70 - 130	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		112	%	70 - 130	
		O-TERPHENYL (sur.)	2008/11/12		105	%	50 - 130	
	SPIKE	F2 (C10-C16 Hydrocarbons)	2008/11/12		99	%	70 - 130	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		105	%	70 - 130	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		108	%	70 - 130	
		O-TERPHENYL (sur.)	2008/11/12		105	%	50 - 130	
	BLANK	F2 (C10-C16 Hydrocarbons)	2008/11/12		<0.1		mg/L	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		<0.1		mg/L	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		<0.1		mg/L	
		O-TERPHENYL (sur.)	2008/11/12			108	%	50 - 130
	RPD	F2 (C10-C16 Hydrocarbons)	2008/11/12		NC		%	40
		F3 (C16-C34 Hydrocarbons)	2008/11/12		NC		%	40
		F4 (C34-C50 Hydrocarbons)	2008/11/12		NC		%	40
		Moisture	2008/11/11		2.5		%	20
	2725856 RM2	Calibration Check	F2 (C10-C16 Hydrocarbons)	2008/11/12		106	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2008/11/12		107	%	80 - 120
F4 (C34-C50 Hydrocarbons)			2008/11/12		104	%	80 - 120	
MATRIX SPIKE		O-TERPHENYL (sur.)	2008/11/12		80	%	50 - 130	
		F2 (C10-C16 Hydrocarbons)	2008/11/12		101	%	50 - 130	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		96	%	50 - 130	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		93	%	50 - 130	
SPIKE		O-TERPHENYL (sur.)	2008/11/12		88	%	50 - 130	
		F2 (C10-C16 Hydrocarbons)	2008/11/12		100	%	80 - 120	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		94	%	80 - 120	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		95	%	80 - 120	
BLANK		O-TERPHENYL (sur.)	2008/11/12			75	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2008/11/12		<10		mg/kg	
		F3 (C16-C34 Hydrocarbons)	2008/11/12		<10		mg/kg	
		F4 (C34-C50 Hydrocarbons)	2008/11/12		<10		mg/kg	
RPD		F2 (C10-C16 Hydrocarbons)	2008/11/12		NC		%	50
		F3 (C16-C34 Hydrocarbons)	2008/11/12		NC		%	50
		F4 (C34-C50 Hydrocarbons)	2008/11/12		NC		%	50
2731014 PX		Calibration Check	4-BROMOFLUOROBENZENE (sur.)	2008/11/13		94	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2008/11/13		83	%	30 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2008/11/13		92	%	60 - 140
	D8-TOLUENE (sur.)		2008/11/13		94	%	60 - 140	
	Benzene		2008/11/13		106	%	85 - 115	
	Toluene		2008/11/13		103	%	85 - 115	
	Ethylbenzene		2008/11/13		97	%	85 - 115	
	m & p-Xylene		2008/11/13		115	%	85 - 115	
	o-Xylene		2008/11/13		108	%	85 - 115	
	(C6-C10)		2008/11/13		100	%	70 - 130	
	MATRIX SPIKE	4-BROMOFLUOROBENZENE (sur.)	2008/11/13		89	%	60 - 140	
		D10-ETHYLBENZENE (sur.)	2008/11/13		78	%	30 - 130	
		D4-1,2-DICHLOROETHANE (sur.)	2008/11/13		88	%	60 - 140	
		D8-TOLUENE (sur.)	2008/11/13		94	%	60 - 140	
		Benzene	2008/11/13		99	%	60 - 140	
		Toluene	2008/11/13		97	%	60 - 140	
		Ethylbenzene	2008/11/13		95	%	60 - 140	
		m & p-Xylene	2008/11/13		109	%	60 - 140	

REGINA, CITY OF
Attention: THOMAS MOORE
Client Project #:
P.O. #: 76493-597247
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: CA861542

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2731014 PX	MATRIX SPIKE	o-Xylene	2008/11/13		102	%	60 - 140
		(C6-C10)	2008/11/13		124	%	60 - 140
	SPIKE	4-BROMOFLUOROBENZENE (sur.)	2008/11/13		94	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2008/11/13		84	%	30 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2008/11/13		93	%	60 - 140
		D8-TOLUENE (sur.)	2008/11/13		98	%	60 - 140
		Benzene	2008/11/13		107	%	75 - 125
		Toluene	2008/11/13		104	%	75 - 125
		Ethylbenzene	2008/11/13		97	%	75 - 125
		m & p-Xylene	2008/11/13		119	%	75 - 125
		o-Xylene	2008/11/13		121	%	75 - 125
		(C6-C10)	2008/11/13		100	%	70 - 130
	BLANK	4-BROMOFLUOROBENZENE (sur.)	2008/11/13		89	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2008/11/13		85	%	30 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2008/11/13		91	%	60 - 140
		D8-TOLUENE (sur.)	2008/11/13		99	%	60 - 140
		Benzene	2008/11/13	<0.0050		mg/kg	
		Toluene	2008/11/13	<0.020		mg/kg	
		Ethylbenzene	2008/11/13	<0.010		mg/kg	
		Xylenes (Total)	2008/11/13	<0.040		mg/kg	
		m & p-Xylene	2008/11/13	<0.040		mg/kg	
		o-Xylene	2008/11/13	<0.020		mg/kg	
	RPD	F1 (C6-C10) - BTEX	2008/11/13	<12		mg/kg	
		(C6-C10)	2008/11/13	<12		mg/kg	
		Benzene	2008/11/13	36.5		%	50
		Toluene	2008/11/13	36.6		%	50
		Ethylbenzene	2008/11/13	21.6		%	50
		Xylenes (Total)	2008/11/13	17.6		%	50
		m & p-Xylene	2008/11/13	17.9		%	50
		o-Xylene	2008/11/13	17.2		%	50
		F1 (C6-C10) - BTEX	2008/11/13	NC		%	50
		(C6-C10)	2008/11/13	NC		%	50

NC = Non-calculable
RPD = Relative Percent Difference

Validation Signature Page

Maxxam Job #: A861542

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



JANET GAO,

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

