



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

Dave Nicholson
Berry Petroleum Company - Denver, CO
1999 Broadway, Suite 3700
Denver, CO 80202

Report Summary

Wednesday June 05, 2013

Report Number: L638181

Samples Received: 05/29/13

Client Project:

Description: Berry Pit Reclamation

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Mark W. Beasley , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Dave Nicholson
Berry Petroleum Company - Denver, C
1999 Broadway, Suite 3700
Denver, CO 80202

June 05, 2013

Date Received : May 29, 2013
Description : Berry Pit Reclamation
Sample ID : O-36B
Collected By : D Nicholson
Collection Date : 05/28/13 08:00

ESC Sample # : L638181-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/04/13	1
ORP	80.		mV	2580 B-2011	06/04/13	1
pH	12.		su	9045D	06/03/13	1
Sodium Adsorption Ratio	27.			Calc.	06/04/13	1
Specific Conductance	3100		umhos/cm	9050AMod	06/04/13	1
Mercury	0.027	0.020	mg/kg	7471	05/31/13	1
Arsenic	11.	1.0	mg/kg	6010B	06/02/13	1
Barium	4700	0.25	mg/kg	6010B	06/02/13	1
Boron	20.	10.	mg/kg	6010B	06/02/13	1
Cadmium	0.54	0.25	mg/kg	6010B	06/02/13	1
Chromium	21.	0.50	mg/kg	6010B	06/02/13	1
Copper	22.	1.0	mg/kg	6010B	06/02/13	1
Iron	15000	5.0	mg/kg	6010B	06/02/13	1
Lead	18.	0.25	mg/kg	6010B	06/02/13	1
Nickel	15.	1.0	mg/kg	6010B	06/02/13	1
Selenium	2.0	1.0	mg/kg	6010B	06/02/13	1
Silver	BDL	0.50	mg/kg	6010B	06/02/13	1
Zinc	76.	1.5	mg/kg	6010B	06/02/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	05/31/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/31/13	5
Ethylbenzene	0.0051	0.0025	mg/kg	8021/8015	05/31/13	5
Total Xylene	0.11	0.0075	mg/kg	8021/8015	05/31/13	5
TPH (GC/FID) Low Fraction	2.5	0.50	mg/kg	GRO	05/31/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	05/31/13	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021/8015	05/31/13	5
TPH (GC/FID) High Fraction	1700	20.	mg/kg	3546/DRO	06/04/13	5
Surrogate recovery(%)						
o-Terphenyl	66.7		% Rec.	3546/DRO	06/04/13	5
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.20	0.060	mg/kg	8270C-SIM	06/03/13	10
Acenaphthene	0.31	0.060	mg/kg	8270C-SIM	06/03/13	10
Acenaphthylene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Benzo(a)anthracene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Benzo(a)pyrene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L638181-03 (PH) - 12@20.9c



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REPORT OF ANALYSIS

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1999 Broadway, Suite 3700
Denver, CO 80202

June 05, 2013

Date Received : May 29, 2013
Description : Berry Pit Reclamation

Sample ID : O-36B

Collected By : D Nicholson
Collection Date : 05/28/13 08:00

ESC Sample # : L638181-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Benzo(g,h,i)perylene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Benzo(k)fluoranthene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Chrysene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Dibenz(a,h)anthracene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Fluoranthene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Fluorene	0.33	0.060	mg/kg	8270C-SIM	06/03/13	10
Indeno(1,2,3-cd)pyrene	BDL	0.060	mg/kg	8270C-SIM	06/03/13	10
Naphthalene	0.84	0.20	mg/kg	8270C-SIM	06/03/13	10
Phenanthrene	1.0	0.060	mg/kg	8270C-SIM	06/03/13	10
Pyrene	0.26	0.060	mg/kg	8270C-SIM	06/03/13	10
1-Methylnaphthalene	1.8	0.20	mg/kg	8270C-SIM	06/03/13	10
2-Methylnaphthalene	2.6	0.20	mg/kg	8270C-SIM	06/03/13	10
2-Chloronaphthalene	BDL	0.20	mg/kg	8270C-SIM	06/03/13	10
Surrogate Recovery						
Nitrobenzene-d5	98.8		% Rec.	8270C-SIM	06/03/13	10
2-Fluorobiphenyl	103.		% Rec.	8270C-SIM	06/03/13	10
p-Terphenyl-d14	82.1		% Rec.	8270C-SIM	06/03/13	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/05/13 12:40 Printed: 06/05/13 13:50
L638181-03 (PH) - 12@20.9c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L638181-03	WG664092	SAMP	Barium	R2693401	V
	WG664092	SAMP	Boron	R2693401	J5
	WG664092	SAMP	Cadmium	R2693401	J3
	WG664092	SAMP	Iron	R2693401	V
	WG664287	SAMP	Anthracene	R2692701	J6
	WG664287	SAMP	Acenaphthene	R2692701	J6
	WG664287	SAMP	Benzo(a)anthracene	R2692701	J6
	WG664287	SAMP	Benzo(a)pyrene	R2692701	J6
	WG664287	SAMP	Benzo(b)fluoranthene	R2692701	J6
	WG664287	SAMP	Benzo(g,h,i)perylene	R2692701	J6
	WG664287	SAMP	Benzo(k)fluoranthene	R2692701	J6
	WG664287	SAMP	Chrysene	R2692701	J6
	WG664287	SAMP	Dibenz(a,h)anthracene	R2692701	J6
	WG664287	SAMP	Fluorene	R2692701	VJ3
	WG664287	SAMP	Indeno(1,2,3-cd)pyrene	R2692701	J6
	WG664287	SAMP	Naphthalene	R2692701	V
	WG664287	SAMP	Phenanthrene	R2692701	V
	WG664287	SAMP	Pyrene	R2692701	J6
	WG664287	SAMP	1-Methylnaphthalene	R2692701	V
	WG664287	SAMP	2-Methylnaphthalene	R2692701	V
	WG663905	SAMP	TPH (GC/FID) High Fraction	R2693222	V
L638181-04	WG664287	SAMP	Nitrobenzene-d5	R2692701	J7
	WG664287	SAMP	2-Fluorobiphenyl	R2692701	J7
	WG664287	SAMP	p-Terphenyl-d14	R2692701	J7
	WG664311	SAMP	Chromium, Hexavalent	R2695300	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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Quality Assurance Report
Level II

L638181

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June 05, 2013

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/kg			WG664087	05/31/13 12:07
Ethylbenzene	< .0005	mg/kg			WG664087	05/31/13 12:07
Toluene	< .005	mg/kg			WG664087	05/31/13 12:07
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG664087	05/31/13 12:07
Total Xylene	< .0015	mg/kg			WG664087	05/31/13 12:07
a,a,a-Trifluorotoluene(FID)		% Rec.	102.8	59-128	WG664087	05/31/13 12:07
a,a,a-Trifluorotoluene(PID)		% Rec.	102.3	54-144	WG664087	05/31/13 12:07
Mercury	< .02	mg/kg			WG663776	05/31/13 09:46
Mercury	< .02	mg/kg			WG663781	05/31/13 12:50
1-Methylnaphthalene	< .02	mg/kg			WG663994	05/31/13 19:30
2-Chloronaphthalene	< .02	mg/kg			WG663994	05/31/13 19:30
2-Methylnaphthalene	< .02	mg/kg			WG663994	05/31/13 19:30
Acenaphthene	< .006	mg/kg			WG663994	05/31/13 19:30
Acenaphthylene	< .006	mg/kg			WG663994	05/31/13 19:30
Anthracene	< .006	mg/kg			WG663994	05/31/13 19:30
Benzo(a)anthracene	< .006	mg/kg			WG663994	05/31/13 19:30
Benzo(a)pyrene	< .006	mg/kg			WG663994	05/31/13 19:30
Benzo(b)fluoranthene	< .006	mg/kg			WG663994	05/31/13 19:30
Benzo(g,h,i)perylene	< .006	mg/kg			WG663994	05/31/13 19:30
Benzo(k)fluoranthene	< .006	mg/kg			WG663994	05/31/13 19:30
Chrysene	< .006	mg/kg			WG663994	05/31/13 19:30
Dibenz(a,h)anthracene	< .006	mg/kg			WG663994	05/31/13 19:30
Fluoranthene	< .006	mg/kg			WG663994	05/31/13 19:30
Fluorene	< .006	mg/kg			WG663994	05/31/13 19:30
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG663994	05/31/13 19:30
Naphthalene	< .02	mg/kg			WG663994	05/31/13 19:30
Phenanthrene	< .006	mg/kg			WG663994	05/31/13 19:30
Pyrene	< .006	mg/kg			WG663994	05/31/13 19:30
2-Fluorobiphenyl		% Rec.	99.60	70-130	WG663994	05/31/13 19:30
Nitrobenzene-d5		% Rec.	96.70	70-130	WG663994	05/31/13 19:30
p-Terphenyl-d14		% Rec.	107.0	70-130	WG663994	05/31/13 19:30
Benzene	< .0005	mg/kg			WG663842	05/31/13 15:58
Ethylbenzene	< .0005	mg/kg			WG663842	05/31/13 15:58
Toluene	< .005	mg/kg			WG663842	05/31/13 15:58
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG663842	05/31/13 15:58
Total Xylene	< .0015	mg/kg			WG663842	05/31/13 15:58
a,a,a-Trifluorotoluene(FID)		% Rec.	94.43	59-128	WG663842	05/31/13 15:58
a,a,a-Trifluorotoluene(PID)		% Rec.	100.4	54-144	WG663842	05/31/13 15:58
TPH (GC/FID) High Fraction	< 4	mg/kg			WG663905	06/03/13 21:02
o-Terphenyl		% Rec.	85.20	50-150	WG663905	06/03/13 21:02
Arsenic	< 1	mg/kg			WG664092	06/02/13 18:53
Barium	< .25	mg/kg			WG664092	06/02/13 18:53
Boron	< 10	mg/kg			WG664092	06/02/13 18:53
Cadmium	< .25	mg/kg			WG664092	06/02/13 18:53
Chromium	< .5	mg/kg			WG664092	06/02/13 18:53
Copper	< 1	mg/kg			WG664092	06/02/13 18:53
Iron	< 5	mg/kg			WG664092	06/02/13 18:53

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Lead	< .25	mg/kg			WG664092	06/02/13 18:53
Nickel	< 1	mg/kg			WG664092	06/02/13 18:53
Selenium	< 1	mg/kg			WG664092	06/02/13 18:53
Silver	< .5	mg/kg			WG664092	06/02/13 18:53
Zinc	< 1.5	mg/kg			WG664092	06/02/13 18:53
TPH (GC/FID) High Fraction	< 4	mg/kg			WG664280	06/04/13 08:49
o-Terphenyl		% Rec.	86.80	50-150	WG664280	06/04/13 08:49
Arsenic	< 1	mg/kg			WG664294	06/03/13 11:35
Barium	< .25	mg/kg			WG664294	06/03/13 11:35
Boron	< 10	mg/kg			WG664294	06/03/13 11:35
Cadmium	< .25	mg/kg			WG664294	06/03/13 11:35
Chromium	< .5	mg/kg			WG664294	06/03/13 11:35
Copper	< 1	mg/kg			WG664294	06/03/13 11:35
Iron	< 5	mg/kg			WG664294	06/03/13 11:35
Lead	< .25	mg/kg			WG664294	06/03/13 11:35
Nickel	< 1	mg/kg			WG664294	06/03/13 11:35
Selenium	< 1	mg/kg			WG664294	06/03/13 11:35
Silver	< .5	mg/kg			WG664294	06/03/13 11:35
Zinc	< 1.5	mg/kg			WG664294	06/03/13 11:35
Specific Conductance	1.40	umhos/cm			WG664514	06/04/13 15:41
TPH (GC/FID) High Fraction	< 4	mg/kg			WG664379	06/04/13 15:49
o-Terphenyl		% Rec.	82.20	50-150	WG664379	06/04/13 15:49
Chromium,Hexavalent	< 2	mg/kg			WG664311	06/04/13 17:17

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Mercury	mg/kg	0	0.0158	0.807	20		L638181-01	WG663776
Mercury	mg/kg	2.50	3.24	25.1*	20		L638312-01	WG663781
pH	su	8.60	8.50	0.820	1		L637918-01	WG664310
pH	su	9.00	9.00	0.222	1		L638452-05	WG664310
Arsenic	mg/kg	11.0	11.0	0	20		L638181-03	WG664092
Barium	mg/kg	4600	4700	2.15	20		L638181-03	WG664092
Boron	mg/kg	20.0	20.0	0	20		L638181-03	WG664092
Cadmium	mg/kg	0.420	0.540	25.0*	20		L638181-03	WG664092
Chromium	mg/kg	20.0	21.0	4.88	20		L638181-03	WG664092
Copper	mg/kg	20.0	22.0	9.52	20		L638181-03	WG664092
Iron	mg/kg	15000	15000	0	20		L638181-03	WG664092
Lead	mg/kg	17.0	18.0	5.71	20		L638181-03	WG664092
Nickel	mg/kg	13.0	15.0	14.3	20		L638181-03	WG664092
Selenium	mg/kg	2.20	2.00	9.52	20		L638181-03	WG664092
Silver	mg/kg	0	0	0	20		L638181-03	WG664092
Zinc	mg/kg	72.0	76.0	5.41	20		L638181-03	WG664092

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
ORP	mV	240.	240.	0.830	20	L638120-01	WG664503
ORP	mV	190.	210.	10.0	20	L638521-04	WG664503
Arsenic	mg/kg	2.20	2.60	16.7	20	L637773-17	WG664294
Barium	mg/kg	130.	142.	8.82	20	L637773-17	WG664294
Boron	mg/kg	0	7.70	NA	20	L637773-17	WG664294
Cadmium	mg/kg	0	0.0470	NA	20	L637773-17	WG664294
Chromium	mg/kg	12.0	12.4	3.28	20	L637773-17	WG664294
Copper	mg/kg	12.0	14.3	17.5	20	L637773-17	WG664294
Iron	mg/kg	8300	8200	1.21	20	L637773-17	WG664294
Lead	mg/kg	11.0	12.0	8.70	20	L637773-17	WG664294
Nickel	mg/kg	7.90	7.87	0.380	20	L637773-17	WG664294
Selenium	mg/kg	1.80	1.61	11.1	20	L637773-17	WG664294
Silver	mg/kg	0	0	0	20	L637773-17	WG664294
Zinc	mg/kg	44.0	40.5	8.28	20	L637773-17	WG664294
Specific Conductance	umhos/cm	1600	1500	6.45	20	L638181-01	WG664514
Specific Conductance	umhos/cm	1900	1800	5.93	20	L638677-20	WG664514
Chromium, Hexavalent	mg/kg	0	0	0	20	L638181-01	WG664311
Chromium, Hexavalent	mg/kg	0	0	0	20	L638554-01	WG664311

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.05	0.0469	93.7	76-113	WG664087
Ethylbenzene	mg/kg	.05	0.0472	94.4	78-115	WG664087
Toluene	mg/kg	.05	0.0475	95.0	76-114	WG664087
Total Xylene	mg/kg	.15	0.145	96.6	81-118	WG664087
a,a,a-Trifluorotoluene(PID)				102.0	54-144	WG664087
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.14	112.	67-135	WG664087
a,a,a-Trifluorotoluene(FID)				104.3	59-128	WG664087
Mercury	mg/kg	12.4	13.2	106.	71.6-128	WG663781
Mercury	mg/kg	12.4	14.0	113.	71.6-128	WG663776
1-Methylnaphthalene	mg/kg	.08	0.0803	100.	70-130	WG663994
2-Chloronaphthalene	mg/kg	.08	0.0783	97.9	70-130	WG663994
2-Methylnaphthalene	mg/kg	.08	0.0802	100.	70-130	WG663994
Acenaphthene	mg/kg	.08	0.0782	97.7	70-130	WG663994
Acenaphthylene	mg/kg	.08	0.0791	98.8	70-130	WG663994
Anthracene	mg/kg	.08	0.0824	103.	70-130	WG663994
Benzo(a)anthracene	mg/kg	.08	0.0802	100.	70-130	WG663994
Benzo(a)pyrene	mg/kg	.08	0.0778	97.3	70-130	WG663994
Benzo(b)fluoranthene	mg/kg	.08	0.0777	97.1	70-130	WG663994
Benzo(g,h,i)perylene	mg/kg	.08	0.0810	101.	70-130	WG663994
Benzo(k)fluoranthene	mg/kg	.08	0.0779	97.4	70-130	WG663994
Chrysene	mg/kg	.08	0.0804	100.	70-130	WG663994
Dibenz(a,h)anthracene	mg/kg	.08	0.0850	106.	70-130	WG663994
Fluoranthene	mg/kg	.08	0.0803	100.	70-130	WG663994
Fluorene	mg/kg	.08	0.0764	95.6	70-130	WG663994
Indeno(1,2,3-cd)pyrene	mg/kg	.08	0.0853	107.	70-130	WG663994

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L638181

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Est. 1970

June 05, 2013

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Naphthalene	mg/kg	.08	0.0774	96.8	70-130	WG663994
Phenanthrene	mg/kg	.08	0.0772	96.5	70-130	WG663994
Pyrene	mg/kg	.08	0.0845	106.	70-130	WG663994
2-Fluorobiphenyl				99.40	70-130	WG663994
Nitrobenzene-d5				98.00	70-130	WG663994
p-Terphenyl-d14				107.0	70-130	WG663994
Benzene	mg/kg	.05	0.0463	92.7	76-113	WG663842
Ethylbenzene	mg/kg	.05	0.0486	97.3	78-115	WG663842
Toluene	mg/kg	.05	0.0481	96.3	76-114	WG663842
Total Xylene	mg/kg	.15	0.150	100.	81-118	WG663842
a,a,a-Trifluorotoluene(PID)				100.0	54-144	WG663842
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.46	99.3	67-135	WG663842
a,a,a-Trifluorotoluene(FID)				100.1	59-128	WG663842
pH	su	5.79	5.86	101.	98.3-101.7	WG664310
TPH (GC/FID) High Fraction	mg/kg	60	50.7	84.4	50-150	WG663905
o-Terphenyl				87.50	50-150	WG663905
Arsenic	mg/kg	237	229.	96.6	83.1-117	WG664092
Barium	mg/kg	252	256.	102.	84.1-116	WG664092
Boron	mg/kg	118	116.	98.3	74-126	WG664092
Cadmium	mg/kg	191	182.	95.3	83.2-117	WG664092
Chromium	mg/kg	128	128.	100.	81.3-118	WG664092
Copper	mg/kg	123	127.	103.	83.7-116	WG664092
Iron	mg/kg	13100	12600	96.2	50.8-150	WG664092
Lead	mg/kg	103	105.	102.	83.1-117	WG664092
Nickel	mg/kg	118	109.	92.4	82-118	WG664092
Selenium	mg/kg	110	108.	98.2	78.7-122	WG664092
Silver	mg/kg	47.3	45.2	95.6	66.2-134	WG664092
Zinc	mg/kg	183	176.	96.2	82-118	WG664092
TPH (GC/FID) High Fraction	mg/kg	60	44.8	74.7	50-150	WG664280
o-Terphenyl				75.10	50-150	WG664280
ORP	mV	228	230.	101.	95.6-104.	WG664503
Arsenic	mg/kg	237	225.	94.9	83.1-117	WG664294
Barium	mg/kg	252	238.	94.4	84.1-116	WG664294
Boron	mg/kg	118	115.	97.5	74-126	WG664294
Cadmium	mg/kg	191	174.	91.1	83.2-117	WG664294
Chromium	mg/kg	128	122.	95.3	81.3-118	WG664294
Copper	mg/kg	123	117.	95.1	83.7-116	WG664294
Iron	mg/kg	13100	11600	88.6	50.8-150	WG664294
Lead	mg/kg	103	97.5	94.7	83.1-117	WG664294
Nickel	mg/kg	118	102.	86.4	82-118	WG664294
Selenium	mg/kg	110	106.	96.4	78.7-122	WG664294
Silver	mg/kg	47.3	44.1	93.2	66.2-134	WG664294
Zinc	mg/kg	183	169.	92.4	82-118	WG664294

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Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch		
		Known Val	Result					
Specific Conductance	umhos/cm	878	890.	101.	85-115	WG664514		
TPH (GC/FID) High Fraction o-Terphenyl	mg/kg	60	51.8	86.4	50-150	WG664379		
				86.20	50-150	WG664379		
Chromium,Hexavalent	mg/kg	146	123.	84.2	80-120	WG664311		
Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/kg	0.0498	0.0469	100.	76-113	6.19	20	WG664087
Ethylbenzene	mg/kg	0.0496	0.0472	99.0	78-115	5.08	20	WG664087
Toluene	mg/kg	0.0496	0.0475	99.0	76-114	4.33	20	WG664087
Total Xylene	mg/kg	0.152	0.145	101.	81-118	4.58	20	WG664087
a,a,a-Trifluorotoluene(PID)	mg/kg	6.20	6.14	102.0	54-144	0.880	20	WG664087
TPH (GC/FID) Low Fraction				113.	67-135			WG664087
a,a,a-Trifluorotoluene(FID)				104.1	59-128			WG664087
1-Methylnaphthalene	mg/kg	0.0785	0.0803	98.0	70-130	2.34	25	WG663994
2-Chloronaphthalene	mg/kg	0.0792	0.0783	99.0	70-130	1.15	25	WG663994
2-Methylnaphthalene	mg/kg	0.0792	0.0802	99.0	70-130	1.22	25	WG663994
Acenaphthene	mg/kg	0.0788	0.0782	98.0	70-130	0.810	25	WG663994
Acenaphthylene	mg/kg	0.0797	0.0791	100.	70-130	0.830	25	WG663994
Anthracene	mg/kg	0.0815	0.0824	102.	70-130	1.09	25	WG663994
Benzo(a)anthracene	mg/kg	0.0804	0.0802	100.	70-130	0.230	25	WG663994
Benzo(a)pyrene	mg/kg	0.0802	0.0778	100.	70-130	2.99	25	WG663994
Benzo(b)fluoranthene	mg/kg	0.0783	0.0777	98.0	70-130	0.790	25	WG663994
Benzo(g,h,i)perylene	mg/kg	0.0818	0.0810	102.	70-130	1.00	25	WG663994
Benzo(k)fluoranthene	mg/kg	0.0785	0.0779	98.0	70-130	0.710	25	WG663994
Chrysene	mg/kg	0.0827	0.0804	103.	70-130	2.89	25	WG663994
Dibenz(a,h)anthracene	mg/kg	0.0856	0.0850	107.	70-130	0.670	25	WG663994
Fluoranthene	mg/kg	0.0803	0.0803	100.	70-130	0.0800	25	WG663994
Fluorene	mg/kg	0.0770	0.0764	96.0	70-130	0.740	25	WG663994
Indeno(1,2,3-cd)pyrene	mg/kg	0.0861	0.0853	108.	70-130	0.910	25	WG663994
Naphthalene	mg/kg	0.0763	0.0774	95.0	70-130	1.49	25	WG663994
Phenanthrene	mg/kg	0.0779	0.0772	97.0	70-130	0.900	25	WG663994
Pyrene	mg/kg	0.0843	0.0845	105.	70-130	0.230	25	WG663994
2-Fluorobiphenyl				100.0	70-130			WG663994
Nitrobenzene-d5				96.80	70-130			WG663994
p-Terphenyl-d14				107.0	70-130			WG663994
Benzene	mg/kg	0.0487	0.0463	97.0	76-113	5.00	20	WG663842
Ethylbenzene	mg/kg	0.0506	0.0486	101.	78-115	4.03	20	WG663842
Toluene	mg/kg	0.0499	0.0481	100.	76-114	3.55	20	WG663842
Total Xylene	mg/kg	0.156	0.150	104.	81-118	3.91	20	WG663842
a,a,a-Trifluorotoluene(PID)	mg/kg	5.25	5.46	100.2	54-144	4.04	20	WG663842
TPH (GC/FID) Low Fraction				95.0	67-135			WG663842
a,a,a-Trifluorotoluene(FID)				97.49	59-128			WG663842
pH	su	5.84	5.86	101.	98.3-101.7	0.342	20	WG664310
TPH (GC/FID) High Fraction o-Terphenyl	mg/kg	46.1	50.7	77.0	50-150	9.39	20	WG663905
				82.50	50-150			WG663905

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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
TPH (GC/FID) High Fraction o-Terphenyl	mg/kg	46.4	44.8	77.0 77.90	50-150 50-150	3.48	20	WG664280 WG664280
ORP	mV	230.	230.	101.	95.6-104.	0	20	WG664503
Specific Conductance	umhos/	890.	890.	101.	85-115	0	20	WG664514
TPH (GC/FID) High Fraction o-Terphenyl	mg/kg	45.2	51.8	75.0 76.70	50-150 50-150	13.7	20	WG664379 WG664379
Chromium, Hexavalent	mg/kg	131.	123.	90.0	80-120	6.30	20	WG664311

Analyte	Units	Matrix Spike				Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec			
Benzene	mg/kg	0.146	0	.05	58.4	32-137	L638181-04	WG664087
Ethylbenzene	mg/kg	0.115	0	.05	45.9	10-150	L638181-04	WG664087
Toluene	mg/kg	0.126	0	.05	50.4	20-142	L638181-04	WG664087
Total Xylene	mg/kg	0.361	0	.15	48.2	16-141	L638181-04	WG664087
a,a,a-Trifluorotoluene(PID)					103.3	54-144		WG664087
TPH (GC/FID) Low Fraction	mg/kg	16.5	0.0601	5.5	59.6	55-109	L638181-04	WG664087
a,a,a-Trifluorotoluene(FID)					99.75	59-128		WG664087
Mercury	mg/kg	0.271	0.0158	.25	102.	80-120	L638181-01	WG663776
Mercury	mg/kg	2.90	3.24	.25	0*	80-120	L638312-01	WG663781
1-Methylnaphthalene	mg/kg	0.0764	0	.08	95.5	70-130	L637991-07	WG663994
2-Chloronaphthalene	mg/kg	0.0770	0	.08	96.3	70-130	L637991-07	WG663994
2-Methylnaphthalene	mg/kg	0.0765	0	.08	95.7	70-130	L637991-07	WG663994
Acenaphthene	mg/kg	0.0767	0	.08	95.8	70-130	L637991-07	WG663994
Acenaphthylene	mg/kg	0.0780	0	.08	97.5	70-130	L637991-07	WG663994
Anthracene	mg/kg	0.0795	0	.08	99.4	70-130	L637991-07	WG663994
Benzo(a)anthracene	mg/kg	0.0763	0	.08	95.4	70-130	L637991-07	WG663994
Benzo(a)pyrene	mg/kg	0.0765	0	.08	95.6	70-130	L637991-07	WG663994
Benzo(b)fluoranthene	mg/kg	0.0775	0	.08	96.9	70-130	L637991-07	WG663994
Benzo(g,h,i)perylene	mg/kg	0.0805	0	.08	101.	70-130	L637991-07	WG663994
Benzo(k)fluoranthene	mg/kg	0.0727	0	.08	90.9	70-130	L637991-07	WG663994
Chrysene	mg/kg	0.0790	0	.08	98.7	70-130	L637991-07	WG663994
Dibenz(a,h)anthracene	mg/kg	0.0825	0	.08	103.	70-130	L637991-07	WG663994
Fluoranthene	mg/kg	0.0771	0	.08	96.4	70-130	L637991-07	WG663994
Fluorene	mg/kg	0.0743	0	.08	92.8	70-130	L637991-07	WG663994
Indeno(1,2,3-cd)pyrene	mg/kg	0.0824	0	.08	103.	70-130	L637991-07	WG663994
Naphthalene	mg/kg	0.0748	0.000930	.08	92.3	70-130	L637991-07	WG663994
Phenanthrene	mg/kg	0.0750	0	.08	93.8	70-130	L637991-07	WG663994
Pyrene	mg/kg	0.0809	0	.08	101.	70-130	L637991-07	WG663994
2-Fluorobiphenyl					98.80	70-130		WG663994
Nitrobenzene-d5					96.20	70-130		WG663994
p-Terphenyl-d14					102.0	70-130		WG663994

Benzene	mg/kg	2.30	0.0109	.05	92.3	32-137	L638208-08	WG663842
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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Ethylbenzene	mg/kg	2.56	0.644	.05	77.3	10-150	L638208-08	WG663842
Toluene	mg/kg	2.42	0.0148	.05	97.0	20-142	L638208-08	WG663842
Total Xylene	mg/kg	8.05	0.514	.15	102.	16-141	L638208-08	WG663842
a,a,a-Trifluorotoluene(PID)					98.50	54-144		WG663842
TPH (GC/FID) Low Fraction	mg/kg	329.	92.8	5.5	86.9	55-109	L638208-08	WG663842
a,a,a-Trifluorotoluene(FID)					97.49	59-128		WG663842
1-Methylnaphthalene	mg/kg	1.53	1.79	.007999	0*	70-130	L638181-03	WG664287
2-Chloronaphthalene	mg/kg	0.0880	0.00674	.007999	102.	70-130	L638181-03	WG664287
2-Methylnaphthalene	mg/kg	2.20	2.65	.007999	0*	70-130	L638181-03	WG664287
Acenaphthene	mg/kg	0.328	0.312	.007999	20.1*	70-130	L638181-03	WG664287
Acenaphthylene	mg/kg	0.124	0.0402	.007999	104.	70-130	L638181-03	WG664287
Anthracene	mg/kg	0.223	0.196	.007999	33.7*	70-130	L638181-03	WG664287
Benzo(a)anthracene	mg/kg	0.0623	0.00827	.007999	67.5*	70-130	L638181-03	WG664287
Benzo(a)pyrene	mg/kg	0.0493	0.00563	.007999	54.6*	70-130	L638181-03	WG664287
Benzo(b)fluoranthene	mg/kg	0.0595	0.0117	.007999	59.7*	70-130	L638181-03	WG664287
Benzo(g,h,i)perylene	mg/kg	0.0580	0.00849	.007999	61.9*	70-130	L638181-03	WG664287
Benzo(k)fluoranthene	mg/kg	0.0508	0	.007999	63.5*	70-130	L638181-03	WG664287
Chrysene	mg/kg	0.0720	0.0269	.007999	56.4*	70-130	L638181-03	WG664287
Dibenz(a,h)anthracene	mg/kg	0.0496	0	.007999	61.9*	70-130	L638181-03	WG664287
Fluoranthene	mg/kg	0.0954	0.0376	.007999	72.3	70-130	L638181-03	WG664287
Fluorene	mg/kg	0.328	0.327	.007999	2.15*	70-130	L638181-03	WG664287
Indeno(1,2,3-cd)pyrene	mg/kg	0.0511	0	.007999	63.9*	70-130	L638181-03	WG664287
Naphthalene	mg/kg	0.636	0.839	.007999	0*	70-130	L638181-03	WG664287
Phenanthrene	mg/kg	0.930	1.02	.007999	0*	70-130	L638181-03	WG664287
Pyrene	mg/kg	0.290	0.261	.007999	37.3*	70-130	L638181-03	WG664287
2-Fluorobiphenyl					98.10	70-130		WG664287
Nitrobenzene-d5					80.60	70-130		WG664287
p-Terphenyl-d14					80.10	70-130		WG664287
TPH (GC/FID) High Fraction	mg/kg	1640	1700	12	0*	50-150	L638181-03	WG663905
o-Terphenyl					72.80	50-150		WG663905
Arsenic	mg/kg	57.0	11.0	50	92.0	75-125	L638181-03	WG664092
Barium	mg/kg	4230	4700	50	0*	75-125	L638181-03	WG664092
Boron	mg/kg	81.6	20.0	50	123.	75-125	L638181-03	WG664092
Cadmium	mg/kg	43.9	0.540	50	86.7	75-125	L638181-03	WG664092
Chromium	mg/kg	64.6	21.0	50	87.2	75-125	L638181-03	WG664092
Copper	mg/kg	67.2	22.0	50	90.4	75-125	L638181-03	WG664092
Iron	mg/kg	14400	15000	50	0*	75-125	L638181-03	WG664092
Lead	mg/kg	61.3	18.0	50	86.6	75-125	L638181-03	WG664092
Nickel	mg/kg	55.6	15.0	50	81.2	75-125	L638181-03	WG664092
Selenium	mg/kg	48.0	2.00	50	92.0	75-125	L638181-03	WG664092
Silver	mg/kg	47.9	0	50	95.8	75-125	L638181-03	WG664092
Zinc	mg/kg	119.	76.0	50	86.0	75-125	L638181-03	WG664092
Arsenic	mg/kg	46.7	2.60	50	88.2	75-125	L637773-17	WG664294
Barium	mg/kg	186.	142.	50	88.0	75-125	L637773-17	WG664294
Boron	mg/kg	67.9	7.70	50	120.	75-125	L637773-17	WG664294
Cadmium	mg/kg	44.7	0.0470	50	89.3	75-125	L637773-17	WG664294
Chromium	mg/kg	59.7	12.4	50	94.6	75-125	L637773-17	WG664294
Copper	mg/kg	61.5	14.3	50	94.4	75-125	L637773-17	WG664294
Iron	mg/kg	8390	8200	50	380.*	75-125	L637773-17	WG664294
Lead	mg/kg	58.0	12.0	50	92.0	75-125	L637773-17	WG664294
Nickel	mg/kg	49.8	7.87	50	83.9	75-125	L637773-17	WG664294

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			Ref Res	TV					
Selenium	mg/kg	45.4	1.61	50		87.6	75-125	L637773-17	WG664294
Silver	mg/kg	43.6	0	50		87.2	75-125	L637773-17	WG664294
Zinc	mg/kg	83.6	40.5	50		86.2	75-125	L637773-17	WG664294
TPH (GC/FID) High Fraction	mg/kg	397.	407.	12		0*	50-150	L637826-04	WG664280
o-Terphenyl						90.50	50-150		WG664280
Chromium, Hexavalent	mg/kg	18.3	0	20		91.5	75-125	L638181-02	WG664311

Analyte	Units	MSD	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec						
Benzene	mg/kg	0.192	0.146	76.8		32-137	27.3	39	L638181-04	WG664087
Ethylbenzene	mg/kg	0.129	0.115	51.7		10-150	11.8	44	L638181-04	WG664087
Toluene	mg/kg	0.148	0.126	59.1		20-142	15.9	42	L638181-04	WG664087
Total Xylene	mg/kg	0.405	0.361	54.0		16-141	11.5	46	L638181-04	WG664087
a,a,a-Trifluorotoluene(PID)				103.4		54-144				WG664087
TPH (GC/FID) Low Fraction	mg/kg	17.7	16.5	64.1		55-109	7.24	20	L638181-04	WG664087
a,a,a-Trifluorotoluene(FID)				101.0		59-128				WG664087
Mercury	mg/kg	0.284	0.271	107.		80-120	4.87	20	L638181-01	WG663776
Mercury	mg/kg	3.34	2.90	2.02*		80-120	13.9	20	L638312-01	WG663781
1-Methylnaphthalene	mg/kg	0.0774	0.0764	96.7		70-130	1.23	25	L637991-07	WG663994
2-Chloronaphthalene	mg/kg	0.0777	0.0770	97.1		70-130	0.900	25	L637991-07	WG663994
2-Methylnaphthalene	mg/kg	0.0775	0.0765	96.9		70-130	1.25	25	L637991-07	WG663994
Acenaphthene	mg/kg	0.0768	0.0767	96.0		70-130	0.200	25	L637991-07	WG663994
Acenaphthylene	mg/kg	0.0780	0.0780	97.5		70-130	0	25	L637991-07	WG663994
Anthracene	mg/kg	0.0811	0.0795	101.		70-130	1.98	25	L637991-07	WG663994
Benzo(a)anthracene	mg/kg	0.0776	0.0763	97.0		70-130	1.65	25	L637991-07	WG663994
Benzo(a)pyrene	mg/kg	0.0777	0.0765	97.1		70-130	1.57	25	L637991-07	WG663994
Benzo(b)fluoranthene	mg/kg	0.0787	0.0775	98.4		70-130	1.47	25	L637991-07	WG663994
Benzo(g,h,i)perylene	mg/kg	0.0826	0.0805	103.		70-130	2.60	25	L637991-07	WG663994
Benzo(k)fluoranthene	mg/kg	0.0768	0.0727	96.0		70-130	5.48	25	L637991-07	WG663994
Chrysene	mg/kg	0.0805	0.0790	100.		70-130	1.87	25	L637991-07	WG663994
Dibenz(a,h)anthracene	mg/kg	0.0845	0.0825	106.		70-130	2.44	25	L637991-07	WG663994
Fluoranthene	mg/kg	0.0790	0.0771	98.7		70-130	2.39	25	L637991-07	WG663994
Fluorene	mg/kg	0.0746	0.0743	93.2		70-130	0.400	25	L637991-07	WG663994
Indeno(1,2,3-cd)pyrene	mg/kg	0.0847	0.0824	106.		70-130	2.72	25	L637991-07	WG663994
Naphthalene	mg/kg	0.0757	0.0748	93.5		70-130	1.27	25	L637991-07	WG663994
Phenanthrene	mg/kg	0.0761	0.0750	95.2		70-130	1.49	25	L637991-07	WG663994
Pyrene	mg/kg	0.0823	0.0809	103.		70-130	1.67	25	L637991-07	WG663994
2-Fluorobiphenyl				97.60		70-130				WG663994
Nitrobenzene-d5				96.50		70-130				WG663994
p-Terphenyl-d14				101.0		70-130				WG663994
Benzene	mg/kg	2.42	2.30	97.3		32-137	5.26	39	L638208-08	WG663842
Ethylbenzene	mg/kg	2.70	2.56	82.9		10-150	5.30	44	L638208-08	WG663842
Toluene	mg/kg	2.53	2.42	102.		20-142	4.60	42	L638208-08	WG663842
Total Xylene	mg/kg	8.48	8.05	107.		16-141	5.22	46	L638208-08	WG663842
a,a,a-Trifluorotoluene(PID)				99.62		54-144				WG663842
TPH (GC/FID) Low Fraction	mg/kg	334.	329.	88.6		55-109	1.36	20	L638208-08	WG663842

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Tax I.D. 62-0814289

Est. 1970

June 05, 2013

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
a,a,a-Trifluorotoluene(FID)				97.55	59-128				
1-Methylnaphthalene	mg/kg	1.65	1.53	0*	70-130	7.44	25	L638181-03	WG664287
2-Chloronaphthalene	mg/kg	0.0878	0.0880	101.	70-130	0.230	25	L638181-03	WG664287
2-Methylnaphthalene	mg/kg	2.43	2.20	0*	70-130	9.97	25	L638181-03	WG664287
Acenaphthene	mg/kg	0.334	0.328	27.3*	70-130	1.74	25	L638181-03	WG664287
Acenaphthylene	mg/kg	0.119	0.124	99.1	70-130	3.56	25	L638181-03	WG664287
Anthracene	mg/kg	0.236	0.223	50.3*	70-130	5.78	25	L638181-03	WG664287
Benzo(a)anthracene	mg/kg	0.0604	0.0623	65.2*	70-130	3.07	25	L638181-03	WG664287
Benzo(a)pyrene	mg/kg	0.0492	0.0493	54.4*	70-130	0.220	25	L638181-03	WG664287
Benzo(b)fluoranthene	mg/kg	0.0522	0.0595	50.6*	70-130	13.0	25	L638181-03	WG664287
Benzo(g,h,i)perylene	mg/kg	0.0565	0.0580	60.0*	70-130	2.74	25	L638181-03	WG664287
Benzo(k)fluoranthene	mg/kg	0.0520	0.0508	65.0*	70-130	2.29	25	L638181-03	WG664287
Chrysene	mg/kg	0.0694	0.0720	53.2*	70-130	3.57	25	L638181-03	WG664287
Dibenz(a,h)anthracene	mg/kg	0.0479	0.0496	59.9*	70-130	3.31	25	L638181-03	WG664287
Fluoranthene	mg/kg	0.0943	0.0954	70.8	70-130	1.22	25	L638181-03	WG664287
Fluorene	mg/kg	0.0277	0.328	0*	70-130	169.*	25	L638181-03	WG664287
Indeno(1,2,3-cd)pyrene	mg/kg	0.0499	0.0511	62.4*	70-130	2.42	25	L638181-03	WG664287
Naphthalene	mg/kg	0.680	0.636	0*	70-130	6.69	25	L638181-03	WG664287
Phenanthrene	mg/kg	0.951	0.930	0*	70-130	2.26	25	L638181-03	WG664287
Pyrene	mg/kg	0.296	0.290	44.4*	70-130	1.96	25	L638181-03	WG664287
2-Fluorobiphenyl				98.50	70-130				WG664287
Nitrobenzene-d5				82.40	70-130				WG664287
p-Terphenyl-d14				75.80	70-130				WG664287
TPH (GC/FID) High Fraction	mg/kg	1690	1640	0*	50-150	2.84	20	L638181-03	WG663905
o-Terphenyl				55.60	50-150				WG663905
Arsenic	mg/kg	59.0	57.0	96.0	75-125	3.45	20	L638181-03	WG664092
Barium	mg/kg	4160	4230	0*	75-125	1.67	20	L638181-03	WG664092
Boron	mg/kg	83.4	81.6	127.*	75-125	2.18	20	L638181-03	WG664092
Cadmium	mg/kg	43.9	43.9	86.7	75-125	0	20	L638181-03	WG664092
Chromium	mg/kg	65.5	64.6	89.0	75-125	1.38	20	L638181-03	WG664092
Copper	mg/kg	70.6	67.2	97.2	75-125	4.93	20	L638181-03	WG664092
Iron	mg/kg	14800	14400	0*	75-125	2.74	20	L638181-03	WG664092
Lead	mg/kg	60.7	61.3	85.4	75-125	0.984	20	L638181-03	WG664092
Nickel	mg/kg	56.2	55.6	82.4	75-125	1.07	20	L638181-03	WG664092
Selenium	mg/kg	49.0	48.0	94.0	75-125	2.06	20	L638181-03	WG664092
Silver	mg/kg	48.8	47.9	97.6	75-125	1.86	20	L638181-03	WG664092
Zinc	mg/kg	116.	119.	80.0	75-125	2.55	20	L638181-03	WG664092
Arsenic	mg/kg	50.5	46.7	95.8	75-125	7.82	20	L637773-17	WG664294
Barium	mg/kg	205.	186.	126.*	75-125	9.72	20	L637773-17	WG664294
Boron	mg/kg	72.6	67.9	130.*	75-125	6.69	20	L637773-17	WG664294
Cadmium	mg/kg	48.9	44.7	97.7	75-125	8.97	20	L637773-17	WG664294
Chromium	mg/kg	63.9	59.7	103.	75-125	6.80	20	L637773-17	WG664294
Copper	mg/kg	63.4	61.5	98.2	75-125	3.04	20	L637773-17	WG664294
Iron	mg/kg	8730	8390	1060*	75-125	3.97	20	L637773-17	WG664294
Lead	mg/kg	62.3	58.0	101.	75-125	7.15	20	L637773-17	WG664294
Nickel	mg/kg	55.7	49.8	95.7	75-125	11.2	20	L637773-17	WG664294
Selenium	mg/kg	49.5	45.4	95.8	75-125	8.64	20	L637773-17	WG664294
Silver	mg/kg	47.6	43.6	95.2	75-125	8.77	20	L637773-17	WG664294
Zinc	mg/kg	93.2	83.6	105.	75-125	10.9	20	L637773-17	WG664294
TPH (GC/FID) High Fraction	mg/kg	476.	417.	9530*	50-150	13.4	20		WG664280
o-Terphenyl				113.0	50-150				WG664280

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Chromium,Hexavalent	mg/kg	18.0	18.3	90.0	75-125	1.65	20	L638181-02		WG664311

Serial Dilution

Batch number /Run number / Sample number cross reference

WG664087: R2690740: L638181-03 04
WG663776: R2690944: L638181-01 02 03
WG663781: R2690946: L638181-04
WG663994: R2691240: L638181-01 02
WG663842: R2691520: L638181-01 02
WG664287: R2692701: L638181-03 04
WG664310: R2692740: L638181-01 02 03 04
WG663905: R2693222: L638181-02 03
WG664092: R2693401: L638181-02 03
WG664280: R2693761: L638181-04
WG664503: R2693962: L638181-01 02 03 04
WG664294: R2694405: L638181-01 04
WG664514: R2694442: L638181-01 02 03 04
WG664413: R2694541: L638181-01 02 03 04
WG664379: R2694760: L638181-01
WG664311: R2695300: L638181-01 02 03 04

* * Calculations are performed prior to rounding of reported values.

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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.