



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Bryan Burns  
Berry Petroleum Company - Denver, CO  
1999 Broadway, Suite 3700  
Denver, CO 80202

## Report Summary

Monday May 24, 2010

Report Number: L459340

Samples Received: 05/15/10

Client Project:

Description: Picance Pit Reclamation Project

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 - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A

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REPORT OF ANALYSIS

Mr. Bryan Burns  
Berry Petroleum Company - Denver, C  
1999 Broadway, Suite 3700  
Denver, CO 80202

May 24, 2010

Date Received : May 15, 2010  
Description : Picance Pit Reclamation Project  
Sample ID : A-21 PIT  
Collected By : Bryan Burns  
Collection Date : 05/13/10 15:14

ESC Sample # : L459340-09

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chloride	37.	10.	mg/kg	9056	05/19/10	1
Sulfate	BDL	50.	mg/kg	9056	05/19/10	1
Chromium, Hexavalent	BDL	50.	mg/kg	3060A/7196A	05/18/10	25
Chromium, Trivalent	16.	0.50	mg/kg	Calc.	05/19/10	1
ORP	120		mV	2580	05/18/10	1
pH	7.9		su	9045D	05/18/10	1
Sodium Adsorption Ratio	1.7			Calc.	05/19/10	1
Specific Conductance	280		umhos/cm	9050AMod	05/18/10	1
Mercury	BDL	0.020	mg/kg	7471	05/18/10	1
Arsenic	4.7	1.0	mg/kg	6010B	05/19/10	1
Barium	220	0.25	mg/kg	6010B	05/19/10	1
Cadmium	0.92	0.25	mg/kg	6010B	05/19/10	1
Chromium	16.	0.50	mg/kg	6010B	05/19/10	1
Copper	9.3	1.0	mg/kg	6010B	05/19/10	1
Lead	10.	0.25	mg/kg	6010B	05/19/10	1
Nickel	8.3	1.0	mg/kg	6010B	05/19/10	1
Selenium	BDL	1.0	mg/kg	6010B	05/19/10	1
Silver	BDL	0.50	mg/kg	6010B	05/19/10	1
Zinc	27.	1.5	mg/kg	6010B	05/19/10	1
Benzene	BDL	0.0025	mg/kg	8021/8015	05/20/10	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/20/10	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	05/20/10	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	05/20/10	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	05/20/10	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.9		% Rec.	8021/8015	05/20/10	5
a,a,a-Trifluorotoluene(PID)	97.5		% Rec.	8021/8015	05/20/10	5
TPH (GC/FID) High Fraction	88.	4.0	mg/kg	3546/DRO	05/21/10	1
Surrogate recovery(%)						
o-Terphenyl	59.7		% Rec.	3546/DRO	05/21/10	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.033	mg/kg	8270C	05/21/10	1
Acenaphthene	BDL	0.033	mg/kg	8270C	05/21/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L459340-09 (CR6) - diluted due to dark sample color following digestion

L459340-09 (PH) - 7.9@20.4c



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# REPORT OF ANALYSIS

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Denver, CO 80202

May 24, 2010

Date Received : May 15, 2010  
Description : Picance Pit Reclamation Project

ESC Sample # : L459340-09

Sample ID : A-21 PIT

Site ID :

Collected By : Bryan Burns  
Collection Date : 05/13/10 15:14

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acenaphthylene	BDL	0.033	mg/kg	8270C	05/21/10	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	05/21/10	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	05/22/10	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	05/22/10	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	05/22/10	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	05/22/10	1
Chrysene	BDL	0.033	mg/kg	8270C	05/21/10	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	05/22/10	1
Fluoranthene	BDL	0.033	mg/kg	8270C	05/21/10	1
Fluorene	BDL	0.033	mg/kg	8270C	05/21/10	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	05/22/10	1
Naphthalene	BDL	0.033	mg/kg	8270C	05/21/10	1
Phenanthrene	BDL	0.033	mg/kg	8270C	05/21/10	1
Pyrene	BDL	0.033	mg/kg	8270C	05/21/10	1
Surrogate Recovery						
Nitrobenzene-d5	58.2		% Rec.	8270C	05/21/10	1
2-Fluorobiphenyl	61.4		% Rec.	8270C	05/21/10	1
p-Terphenyl-d14	74.6		% Rec.	8270C	05/21/10	1

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: 05/24/10 17:20 Printed: 05/24/10 17:20

L459340-09 (CR6) - diluted due to dark sample color following digestion

L459340-09 (PH) - 7.9@20.4c



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May 24, 2010

Date Received : May 15, 2010  
Description : Picance Pit Reclamation Project  
Sample ID : A-21 PIT  
Collected By : Bryan Burns  
Collection Date : 05/13/10 15:14

ESC Sample # : L459340-10

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
SPLP Extraction	-			1312	05/17/10	1
Boron	0.23	0.20	mg/l	6010B	05/17/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 05/24/10 17:20 Printed: 05/24/10 17:20



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Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/kg			WG478823	05/17/10 15:02
Ethylbenzene	< .0005	mg/kg			WG478823	05/17/10 15:02
Toluene	< .005	mg/kg			WG478823	05/17/10 15:02
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG478823	05/17/10 15:02
Total Xylene	< .0015	mg/kg			WG478823	05/17/10 15:02
a,a,a-Trifluorotoluene(FID)		% Rec.	97.80	59-128	WG478823	05/17/10 15:02
a,a,a-Trifluorotoluene(PID)		% Rec.	99.96	54-144	WG478823	05/17/10 15:02
TPH (GC/FID) High Fraction	< 4	ppm			WG478714	05/17/10 19:34
o-Terphenyl		% Rec.	112.6	50-150	WG478714	05/17/10 19:34
Boron	< .2	mg/l			WG478906	05/18/10 01:44
Mercury	< .02	mg/kg			WG478783	05/18/10 10:02
Mercury	< .02	mg/kg			WG478784	05/18/10 11:17
Acenaphthene	< .033	mg/kg			WG478423	05/17/10 15:19
Acenaphthylene	< .033	mg/kg			WG478423	05/17/10 15:19
Anthracene	< .033	mg/kg			WG478423	05/17/10 15:19
Benzo(a)anthracene	< .033	mg/kg			WG478423	05/17/10 15:19
Benzo(a)pyrene	< .033	mg/kg			WG478423	05/17/10 15:19
Benzo(b)fluoranthene	< .033	mg/kg			WG478423	05/17/10 15:19
Benzo(g,h,i)perylene	< .033	mg/kg			WG478423	05/17/10 15:19
Benzo(k)fluoranthene	< .033	mg/kg			WG478423	05/17/10 15:19
Chrysene	< .033	mg/kg			WG478423	05/17/10 15:19
Dibenz(a,h)anthracene	< .033	mg/kg			WG478423	05/17/10 15:19
Fluoranthene	< .033	mg/kg			WG478423	05/17/10 15:19
Fluorene	< .033	mg/kg			WG478423	05/17/10 15:19
Indeno(1,2,3-cd)pyrene	< .033	mg/kg			WG478423	05/17/10 15:19
Naphthalene	< .033	mg/kg			WG478423	05/17/10 15:19
Phenanthrene	< .033	mg/kg			WG478423	05/17/10 15:19
Pyrene	< .033	mg/kg			WG478423	05/17/10 15:19
2-Fluorobiphenyl		% Rec.	87.43	37-123	WG478423	05/17/10 15:19
Nitrobenzene-d5		% Rec.	84.12	19-129	WG478423	05/17/10 15:19
p-Terphenyl-d14		% Rec.	99.04	34-149	WG478423	05/17/10 15:19
Chloride	< 10	mg/kg			WG478945	05/18/10 08:46
Sulfate	< 50	mg/kg			WG478945	05/18/10 08:46
pH	6.70	su			WG478686	05/18/10 13:02
Specific Conductance	5.00	umhos/cm			WG478877	05/18/10 09:05
Chromium,Hexavalent	< 2	mg/kg			WG478949	05/18/10 16:07
Arsenic	< 1	mg/kg			WG478761	05/19/10 09:15
Barium	< .25	mg/kg			WG478761	05/19/10 09:15
Cadmium	< .25	mg/kg			WG478761	05/19/10 09:15

\* 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			
Chromium	< .5	mg/kg			WG478761	05/19/10 09:15
Copper	< 1	mg/kg			WG478761	05/19/10 09:15
Lead	< .25	mg/kg			WG478761	05/19/10 09:15
Nickel	< 1	mg/kg			WG478761	05/19/10 09:15
Selenium	< 1	mg/kg			WG478761	05/19/10 09:15
Silver	< .5	mg/kg			WG478761	05/19/10 09:15
Zinc	< 1.5	mg/kg			WG478761	05/19/10 09:15
Chloride	< 10	mg/kg			WG479071	05/19/10 10:46
Sulfate	< 50	mg/kg			WG479071	05/19/10 10:46
Arsenic	< 1	mg/kg			WG478852	05/19/10 14:36
Barium	< .25	mg/kg			WG478852	05/19/10 14:36
Cadmium	< .25	mg/kg			WG478852	05/19/10 14:36
Chromium	< .5	mg/kg			WG478852	05/19/10 14:36
Copper	< 1	mg/kg			WG478852	05/19/10 14:36
Lead	< .25	mg/kg			WG478852	05/19/10 14:36
Nickel	< 1	mg/kg			WG478852	05/19/10 14:36
Selenium	< 1	mg/kg			WG478852	05/19/10 14:36
Silver	< .5	mg/kg			WG478852	05/19/10 14:36
Zinc	< 1.5	mg/kg			WG478852	05/19/10 14:36
Arsenic	< 1	mg/kg			WG478851	05/20/10 02:39
Barium	< .25	mg/kg			WG478851	05/20/10 02:39
Cadmium	< .25	mg/kg			WG478851	05/20/10 02:39
Chromium	< .5	mg/kg			WG478851	05/20/10 02:39
Copper	< 1	mg/kg			WG478851	05/20/10 02:39
Nickel	< 1	mg/kg			WG478851	05/20/10 02:39
Selenium	< 1	mg/kg			WG478851	05/20/10 02:39
Silver	< .5	mg/kg			WG478851	05/20/10 02:39
Zinc	2.04	mg/kg			WG478851	05/20/10 02:39
Benzene	< .0005	mg/kg			WG478903	05/18/10 17:35
Ethylbenzene	< .0005	mg/kg			WG478903	05/18/10 17:35
Toluene	< .005	mg/kg			WG478903	05/18/10 17:35
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG478903	05/18/10 17:35
Total Xylene	< .0015	mg/kg			WG478903	05/18/10 17:35
a,a,a-Trifluorotoluene(FID)		% Rec.	100.7	59-128	WG478903	05/18/10 17:35
a,a,a-Trifluorotoluene(PID)		% Rec.	102.8	54-144	WG478903	05/18/10 17:35
TPH (GC/FID) High Fraction	< 4	ppm			WG479086	05/20/10 15:13
o-Terphenyl		% Rec.	81.33	50-150	WG479086	05/20/10 15:13
Acenaphthene	< .033	mg/kg			WG479084	05/20/10 09:14
Acenaphthylene	< .033	mg/kg			WG479084	05/20/10 09:14
Anthracene	< .033	mg/kg			WG479084	05/20/10 09:14
Benzo(a)anthracene	< .033	mg/kg			WG479084	05/20/10 09:14
Benzo(a)pyrene	< .033	mg/kg			WG479084	05/20/10 09:14
Benzo(b)fluoranthene	< .033	mg/kg			WG479084	05/20/10 09:14
Benzo(g,h,i)perylene	< .033	mg/kg			WG479084	05/20/10 09:14
Benzo(k)fluoranthene	< .033	mg/kg			WG479084	05/20/10 09:14
Chrysene	< .033	mg/kg			WG479084	05/20/10 09:14
Dibenz(a,h)anthracene	< .033	mg/kg			WG479084	05/20/10 09:14

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Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Fluoranthene	< .033	mg/kg			WG479084	05/20/10 09:14
Fluorene	< .033	mg/kg			WG479084	05/20/10 09:14
Indeno(1,2,3-cd)pyrene	< .033	mg/kg			WG479084	05/20/10 09:14
Naphthalene	< .033	mg/kg			WG479084	05/20/10 09:14
Phenanthrene	< .033	mg/kg			WG479084	05/20/10 09:14
Pyrene	< .033	mg/kg			WG479084	05/20/10 09:14
2-Fluorobiphenyl		% Rec.	82.61	37-123	WG479084	05/20/10 09:14
Nitrobenzene-d5		% Rec.	77.41	19-129	WG479084	05/20/10 09:14
p-Terphenyl-d14		% Rec.	96.89	34-149	WG479084	05/20/10 09:14
Selenium	< 1	mg/kg			WG479495	05/21/10 08:54
Benzene	< .0005	mg/kg			WG479025	05/20/10 15:24
Ethylbenzene	< .0005	mg/kg			WG479025	05/20/10 15:24
Toluene	< .005	mg/kg			WG479025	05/20/10 15:24
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG479025	05/20/10 15:24
Total Xylene	< .0015	mg/kg			WG479025	05/20/10 15:24
a,a,a-Trifluorotoluene(FID)		% Rec.	99.06	59-128	WG479025	05/20/10 15:24
a,a,a-Trifluorotoluene(PID)		% Rec.	101.1	54-144	WG479025	05/20/10 15:24
Lead	< .25	mg/kg			WG478851	05/22/10 14:03

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Boron	mg/l	0	0	0	20	L459340-08	WG478906
Mercury	mg/kg	0	0	0	20	L459184-03	WG478783
Mercury	mg/kg	0	0	0	20	L459380-04	WG478784
pH	su	7.90	7.70	2.56*	1	L459039-01	WG478686
pH	su	8.30	8.20	1.21*	1	L459340-11	WG478686
ORP	mV	140.	140.	1.42	20	L459340-01	WG478875
Specific Conductance	umhos/cm	130.	120.	8.00	20	L459178-01	WG478877
Specific Conductance	umhos/cm	430.	440.	1.37	20	L459340-11	WG478877
Chromium,Hexavalent	mg/kg	0	0	0	20	L459340-03	WG478949
Chromium,Hexavalent	mg/kg	0	0	0	20	L458903-01	WG478949
Arsenic	mg/kg	1.80	1.30	31.2*	20	L459151-01	WG478761
Barium	mg/kg	140.	140.	0.717	20	L459151-01	WG478761
Cadmium	mg/kg	0.900	0.810	10.1	20	L459151-01	WG478761
Chromium	mg/kg	9.00	9.40	3.90	20	L459151-01	WG478761
Copper	mg/kg	26.0	24.7	5.51	20	L459151-01	WG478761
Lead	mg/kg	12.0	18.0	40.8*	20	L459151-01	WG478761
Nickel	mg/kg	4.40	7.86	56.9*	20	L459151-01	WG478761

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Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Selenium	mg/kg	0	0	0	20	L459151-01	WG478761
Silver	mg/kg	0	0	0	20	L459151-01	WG478761
Zinc	mg/kg	81.0	73.6	9.45	20	L459151-01	WG478761
Chloride	mg/kg	84.0	82.0	3.00	20	L459340-11	WG479071
Sulfate	mg/kg	120.	110.	12.0	20	L459340-11	WG479071
Arsenic	mg/kg	10.0	7.50	28.6*	20	L459380-11	WG478852
Barium	mg/kg	65.0	56.0	14.7	20	L459380-11	WG478852
Cadmium	mg/kg	0.850	0.850	0	20	L459380-11	WG478852
Chromium	mg/kg	9.70	8.50	13.4	20	L459380-11	WG478852
Copper	mg/kg	12.0	10.7	7.21	20	L459380-11	WG478852
Lead	mg/kg	19.0	18.0	5.41	20	L459380-11	WG478852
Nickel	mg/kg	6.00	5.90	1.18	20	L459380-11	WG478852
Silver	mg/kg	0	0	0	20	L459380-11	WG478852
Zinc	mg/kg	33.0	31.0	5.64	20	L459380-11	WG478852
Selenium	mg/kg	0	0	0	20	L459380-11	WG478852
Arsenic	mg/kg	1.40	1.80	25.0*	20	L459417-02	WG478851
Barium	mg/kg	54.0	57.3	5.93	20	L459417-02	WG478851
Cadmium	mg/kg	0	0.103	NA	20	L459417-02	WG478851
Chromium	mg/kg	15.0	14.4	3.41	20	L459417-02	WG478851
Copper	mg/kg	5.90	6.35	7.35	20	L459417-02	WG478851
Nickel	mg/kg	13.0	12.4	3.95	20	L459417-02	WG478851
Selenium	mg/kg	0	0	0	20	L459417-02	WG478851
Silver	mg/kg	0	0	0	20	L459417-02	WG478851
Zinc	mg/kg	29.0	31.4	6.92	20	L459417-02	WG478851
Lead	mg/kg	12.0	0	NA	20	L459417-02	WG478851

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.05	0.0543	109.	76-113	WG478823
Ethylbenzene	mg/kg	.05	0.0540	108.	78-115	WG478823
Toluene	mg/kg	.05	0.0527	105.	76-114	WG478823
Total Xylene	mg/kg	.15	0.159	106.	81-118	WG478823
a,a,a-Trifluorotoluene(PID)				100.0	54-144	WG478823
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.05	91.9	67-135	WG478823
a,a,a-Trifluorotoluene(FID)				102.9	59-128	WG478823
TPH (GC/FID) High Fraction	ppm	60	41.5	69.1	50-150	WG478714
o-Terphenyl				104.9	50-150	WG478714
Boron	mg/l	2.26	2.21	97.8	85-115	WG478906
Mercury	mg/kg	8.77	9.88	113.	71.6-127.7	WG478783
Mercury	mg/kg	8.77	9.78	112.	71.6-127.7	WG478784
Acenaphthene	mg/kg	.167	0.144	86.1	44-117	WG478423
Acenaphthylene	mg/kg	.167	0.145	87.0	43-118	WG478423

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Analyte	Units	Laboratory Control	Sample	% Rec	Limit	Batch
		Known Val	Result			
Anthracene	mg/kg	.167	0.152	91.2	42-127	WG478423
Benzo(a)anthracene	mg/kg	.167	0.155	92.6	45-127	WG478423
Benzo(a)pyrene	mg/kg	.167	0.158	94.6	46-123	WG478423
Benzo(b)fluoranthene	mg/kg	.167	0.159	95.1	43-126	WG478423
Benzo(g,h,i)perylene	mg/kg	.167	0.152	91.3	43-128	WG478423
Benzo(k)fluoranthene	mg/kg	.167	0.165	98.9	40-126	WG478423
Chrysene	mg/kg	.167	0.166	99.5	44-129	WG478423
Dibenz(a,h)anthracene	mg/kg	.167	0.148	88.9	43-127	WG478423
Fluoranthene	mg/kg	.167	0.157	94.2	44-125	WG478423
Fluorene	mg/kg	.167	0.151	90.2	45-121	WG478423
Indeno(1,2,3-cd)pyrene	mg/kg	.167	0.154	92.3	43-127	WG478423
Naphthalene	mg/kg	.167	0.149	89.0	32-113	WG478423
Phenanthrene	mg/kg	.167	0.150	89.9	43-124	WG478423
Pyrene	mg/kg	.167	0.157	94.2	47-128	WG478423
2-Fluorobiphenyl				95.47	37-123	WG478423
Nitrobenzene-d5				90.08	19-129	WG478423
p-Terphenyl-d14				107.7	34-149	WG478423
Chloride	mg/kg	200	202.	101.	85-115	WG478945
Sulfate	mg/kg	200	203.	102.	85-115	WG478945
pH	su	9.63	9.50	98.7	97.9-100.8	WG478686
ORP	mV	229	230.	100.	95.6-104.37	WG478875
Specific Conductance	umhos/cm	406	410.	101.	85-115	WG478877
Chromium,Hexavalent	mg/kg	100	88.0	88.0	50-143	WG478949
Arsenic	mg/kg	192	188.	97.9	78.6-120.8	WG478761
Barium	mg/kg	420	417.	99.3	78.8-121.4	WG478761
Cadmium	mg/kg	70.1	69.1	98.6	78.5-121.5	WG478761
Chromium	mg/kg	168	170.	101.	80.4-120.2	WG478761
Copper	mg/kg	122	128.	105.	81.6-119.7	WG478761
Lead	mg/kg	113	114.	101.	77.3-122.1	WG478761
Nickel	mg/kg	74.1	68.8	92.8	78.8-121.2	WG478761
Selenium	mg/kg	176	171.	97.2	75.6-125.0	WG478761
Silver	mg/kg	115	114.	99.1	66-133.9	WG478761
Zinc	mg/kg	437	440.	101.	78.5-121.7	WG478761
Chloride	mg/kg	200	200.	100.	85-115	WG479071
Sulfate	mg/kg	200	201.	101.	85-115	WG479071
Arsenic	mg/kg	192	178.	92.7	78.6-120.8	WG478852
Barium	mg/kg	420	418.	99.5	78.8-121.4	WG478852
Cadmium	mg/kg	70.1	66.8	95.3	78.5-121.5	WG478852
Chromium	mg/kg	168	170.	101.	80.4-120.2	WG478852
Copper	mg/kg	122	131.	107.	81.6-119.7	WG478852
Lead	mg/kg	113	113.	100.	77.3-122.1	WG478852
Nickel	mg/kg	74.1	75.2	101.	78.8-121.2	WG478852
Selenium	mg/kg	176	162.	92.0	75.6-125.0	WG478852

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Silver	mg/kg	115	111.	96.5	66-133.9	WG478852
Zinc	mg/kg	437	418.	95.7	78.5-121.7	WG478852
Arsenic	mg/kg	192	184.	95.8	78.6-120.8	WG478851
Barium	mg/kg	420	414.	98.6	78.8-121.4	WG478851
Cadmium	mg/kg	70.1	67.4	96.1	78.5-121.5	WG478851
Chromium	mg/kg	168	162.	96.4	80.4-120.2	WG478851
Copper	mg/kg	122	131.	107.	81.6-119.7	WG478851
Nickel	mg/kg	74.1	84.8	114.	78.8-121.2	WG478851
Selenium	mg/kg	176	164.	93.2	75.6-125.0	WG478851
Silver	mg/kg	115	118.	103.	66-133.9	WG478851
Zinc	mg/kg	437	420.	96.1	78.5-121.7	WG478851
Benzene	mg/kg	.05	0.0505	101.	76-113	WG478903
Ethylbenzene	mg/kg	.05	0.0515	103.	78-115	WG478903
Toluene	mg/kg	.05	0.0513	103.	76-114	WG478903
Total Xylene	mg/kg	.15	0.152	102.	81-118	WG478903
a,a,a-Trifluorotoluene(PID)				102.0	54-144	WG478903
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.50	100.	67-135	WG478903
a,a,a-Trifluorotoluene(FID)				94.54	59-128	WG478903
TPH (GC/FID) High Fraction	ppm	60	41.9	69.8	50-150	WG479086
o-Terphenyl				85.62	50-150	WG479086
Acenaphthene	mg/kg	.167	0.126	75.7	44-117	WG479084
Acenaphthylene	mg/kg	.167	0.124	74.5	43-118	WG479084
Anthracene	mg/kg	.167	0.132	78.8	42-127	WG479084
Benzo(a)anthracene	mg/kg	.167	0.137	81.9	45-127	WG479084
Benzo(a)pyrene	mg/kg	.167	0.133	79.4	46-123	WG479084
Benzo(b)fluoranthene	mg/kg	.167	0.136	81.7	43-126	WG479084
Benzo(g,h,i)perylene	mg/kg	.167	0.158	94.4	43-128	WG479084
Benzo(k)fluoranthene	mg/kg	.167	0.135	80.9	40-126	WG479084
Chrysene	mg/kg	.167	0.139	83.0	44-129	WG479084
Dibenz(a,h)anthracene	mg/kg	.167	0.142	84.9	43-127	WG479084
Fluoranthene	mg/kg	.167	0.134	80.0	44-125	WG479084
Fluorene	mg/kg	.167	0.131	78.7	45-121	WG479084
Indeno(1,2,3-cd)pyrene	mg/kg	.167	0.144	86.2	43-127	WG479084
Naphthalene	mg/kg	.167	0.127	76.2	32-113	WG479084
Phenanthrene	mg/kg	.167	0.130	78.1	43-124	WG479084
Pyrene	mg/kg	.167	0.137	81.8	47-128	WG479084
2-Fluorobiphenyl				84.91	37-123	WG479084
Nitrobenzene-d5				81.62	19-129	WG479084
p-Terphenyl-d14				95.96	34-149	WG479084
Selenium	mg/kg	176	151.	85.8	75.6-125.0	WG479495
Benzene	mg/kg	.05	0.0530	106.	76-113	WG479025
Ethylbenzene	mg/kg	.05	0.0573	115.	78-115	WG479025
Toluene	mg/kg	.05	0.0545	109.	76-114	WG479025
Total Xylene	mg/kg	.15	0.170	114.	81-118	WG479025
a,a,a-Trifluorotoluene(PID)				99.23	54-144	WG479025
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.07	92.2	67-135	WG479025
a,a,a-Trifluorotoluene(FID)				103.8	59-128	WG479025

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Lead	mg/kg	113	120.	106.	77.3-122.1	WG478851

Analyte	Units	Laboratory Control Result	Sample Ref	Duplicate %Rec	Limit	RPD	Limit	Batch
TPH (GC/FID) Low Fraction	mg/kg	5.04	5.05	92.0	67-135	0.230	20	WG478823
a,a,a-Trifluorotoluene(FID)				102.2	59-128			WG478823
Benzene	mg/kg	0.0549	0.0543	110.	76-113	1.16	20	WG478823
Ethylbenzene	mg/kg	0.0545	0.0540	109.	78-115	0.870	20	WG478823
Toluene	mg/kg	0.0535	0.0527	107.	76-114	1.57	20	WG478823
Total Xylene	mg/kg	0.162	0.159	108.	81-118	1.45	20	WG478823
a,a,a-Trifluorotoluene(PID)				101.2	54-144			WG478823
TPH (GC/FID) High Fraction	ppm	44.7	41.5	74.0	50-150	7.57	25	WG478714
o-Terphenyl				106.2	50-150			WG478714
Acenaphthene	mg/kg	0.141	0.144	84.0	44-117	2.29	21	WG478423
Acenaphthylene	mg/kg	0.135	0.145	81.0	43-118	7.39	20	WG478423
Anthracene	mg/kg	0.143	0.152	85.0	42-127	6.49	21	WG478423
Benzo(a)anthracene	mg/kg	0.146	0.155	88.0	45-127	5.58	21	WG478423
Benzo(a)pyrene	mg/kg	0.147	0.158	88.0	46-123	6.83	20	WG478423
Benzo(b)fluoranthene	mg/kg	0.150	0.159	90.0	43-126	5.52	27	WG478423
Benzo(g,h,i)perylene	mg/kg	0.139	0.152	83.0	43-128	9.28	20	WG478423
Benzo(k)fluoranthene	mg/kg	0.143	0.165	85.0	40-126	14.7	32	WG478423
Chrysene	mg/kg	0.153	0.166	91.0	44-129	8.52	22	WG478423
Dibenz(a,h)anthracene	mg/kg	0.130	0.148	78.0	43-127	13.3	20	WG478423
Fluoranthene	mg/kg	0.152	0.157	91.0	44-125	3.47	22	WG478423
Fluorene	mg/kg	0.145	0.151	86.0	45-121	4.07	20	WG478423
Indeno(1,2,3-cd)pyrene	mg/kg	0.138	0.154	82.0	43-127	11.3	21	WG478423
Naphthalene	mg/kg	0.136	0.149	81.0	32-113	9.06	26	WG478423
Phenanthrene	mg/kg	0.138	0.150	83.0	43-124	8.18	21	WG478423
Pyrene	mg/kg	0.144	0.157	86.0	47-128	8.52	20	WG478423
2-Fluorobiphenyl				90.83	37-123			WG478423
Nitrobenzene-d5				83.70	19-129			WG478423
p-Terphenyl-d14				99.44	34-149			WG478423
Chloride	mg/kg	205.	202.	102.	85-115	1.47	20	WG478945
Sulfate	mg/kg	205.	203.	102.	85-115	0.980	20	WG478945
pH	su	9.60	9.50	100.	97.9-100.8	1.05	20	WG478686
ORP	mV	230.	230.	100.	95.6-104.37	0	20	WG478875
Specific Conductance	umhos/	410.	410.	101.	85-115	0	20	WG478877
Chromium,Hexavalent	mg/kg	87.4	88.0	87.0	50-143	0.684	20	WG478949
Chloride	mg/kg	196.	200.	98.0	85-115	2.02	20	WG479071
Sulfate	mg/kg	197.	201.	98.0	85-115	2.01	20	WG479071

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Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Benzene	mg/kg	0.0516	0.0505	103.		76-113	2.15	20	WG478903
Ethylbenzene	mg/kg	0.0519	0.0515	104.		78-115	0.720	20	WG478903
Toluene	mg/kg	0.0513	0.0513	102.		76-114	0.0800	20	WG478903
Total Xylene	mg/kg	0.153	0.152	102.		81-118	0.100	20	WG478903
a,a,a-Trifluorotoluene(PID)				101.1		54-144			WG478903
TPH (GC/FID) Low Fraction	mg/kg	5.75	5.50	105.		67-135	4.53	20	WG478903
a,a,a-Trifluorotoluene(FID)				93.54		59-128			WG478903
TPH (GC/FID) High Fraction	ppm	40.8	41.9	68.0		50-150	2.63	25	WG479086
o-Terphenyl				85.75		50-150			WG479086
Acenaphthene	mg/kg	0.162	0.126	97.0		44-117	24.8*	21	WG479084
Acenaphthylene	mg/kg	0.155	0.124	93.0		43-118	21.8*	20	WG479084
Anthracene	mg/kg	0.162	0.132	97.0		42-127	20.9	21	WG479084
Benzo(a)anthracene	mg/kg	0.159	0.137	95.0		45-127	14.7	21	WG479084
Benzo(a)pyrene	mg/kg	0.152	0.133	91.0		46-123	13.5	20	WG479084
Benzo(b)fluoranthene	mg/kg	0.144	0.136	86.0		43-126	5.62	27	WG479084
Benzo(g,h,i)perylene	mg/kg	0.177	0.158	106.		43-128	11.8	20	WG479084
Benzo(k)fluoranthene	mg/kg	0.158	0.135	94.0		40-126	15.6	32	WG479084
Chrysene	mg/kg	0.164	0.139	98.0		44-129	16.7	22	WG479084
Dibenz(a,h)anthracene	mg/kg	0.163	0.142	98.0		43-127	13.9	20	WG479084
Fluoranthene	mg/kg	0.166	0.134	100.		44-125	21.8	22	WG479084
Fluorene	mg/kg	0.161	0.131	96.0		45-121	20.0	20	WG479084
Indeno(1,2,3-cd)pyrene	mg/kg	0.171	0.144	102.		43-127	17.4	21	WG479084
Naphthalene	mg/kg	0.159	0.127	95.0		32-113	22.4	26	WG479084
Phenanthrene	mg/kg	0.167	0.130	100.		43-124	24.8*	21	WG479084
Pyrene	mg/kg	0.159	0.137	95.0		47-128	14.9	20	WG479084
2-Fluorobiphenyl				99.54		37-123			WG479084
Nitrobenzene-d5				93.39		19-129			WG479084
p-Terphenyl-d14				104.4		34-149			WG479084
Benzene	mg/kg	0.0518	0.0530	104.		76-113	2.39	20	WG479025
Ethylbenzene	mg/kg	0.0542	0.0573	108.		78-115	5.64	20	WG479025
Toluene	mg/kg	0.0524	0.0545	105.		76-114	4.00	20	WG479025
Total Xylene	mg/kg	0.161	0.170	107.		81-118	5.91	20	WG479025
a,a,a-Trifluorotoluene(PID)				99.27		54-144			WG479025
TPH (GC/FID) Low Fraction	mg/kg	5.42	5.07	98.0		67-135	6.63	20	WG479025
a,a,a-Trifluorotoluene(FID)				104.7		59-128			WG479025

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Benzene	mg/kg	0.260	0	.05	104.	32-137	L459340-07	WG478823
Ethylbenzene	mg/kg	0.235	0.00270	.05	93.0	10-150	L459340-07	WG478823
Toluene	mg/kg	0.245	0	.05	97.9	20-142	L459340-07	WG478823
Total Xylene	mg/kg	0.732	0.0820	.15	86.7	16-141	L459340-07	WG478823
a,a,a-Trifluorotoluene(PID)					98.83	54-144		WG478823
TPH (GC/FID) Low Fraction	mg/kg	17.2	1.20	5.5	58.1	55-109	L459340-07	WG478823
a,a,a-Trifluorotoluene(FID)					98.77	59-128		WG478823
TPH (GC/FID) High Fraction	ppm	40.9	0	60	68.2	50-150	L458681-01	WG478714
o-Terphenyl					103.7	50-150		WG478714
Boron	mg/l	2.34	0	2.26	104.	75-125	L459340-08	WG478906

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Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Mercury	mg/kg	0.274	0	.25	110.	70-130	L459184-03	WG478783
Mercury	mg/kg	0.280	0	.25	112.	70-130	L459380-04	WG478784
Chloride	mg/kg	510.	13.0	500	99.4	80-120	L459249-01	WG478945
Sulfate	mg/kg	661.	180.	500	96.2	80-120	L459249-01	WG478945
Chromium, Hexavalent	mg/kg	14.6	0	20	73.0	50-150	L458903-02	WG478949
Arsenic	mg/kg	49.1	1.30	50	95.6	75-125	L459151-01	WG478761
Barium	mg/kg	173.	140.	50	66.0*	75-125	L459151-01	WG478761
Cadmium	mg/kg	49.3	0.810	50	97.0	75-125	L459151-01	WG478761
Chromium	mg/kg	55.2	9.40	50	91.6	75-125	L459151-01	WG478761
Copper	mg/kg	74.9	24.7	50	100.	75-125	L459151-01	WG478761
Lead	mg/kg	59.7	18.0	50	83.4	75-125	L459151-01	WG478761
Nickel	mg/kg	54.6	7.86	50	93.5	75-125	L459151-01	WG478761
Selenium	mg/kg	45.0	0	50	90.0	75-125	L459151-01	WG478761
Silver	mg/kg	48.2	0	50	96.4	75-125	L459151-01	WG478761
Zinc	mg/kg	121.	73.6	50	94.8	75-125	L459151-01	WG478761
Arsenic	mg/kg	48.1	7.50	50	81.2	75-125	L459380-11	WG478852
Barium	mg/kg	99.0	56.0	50	86.0	75-125	L459380-11	WG478852
Cadmium	mg/kg	38.7	0.850	50	75.7	75-125	L459380-11	WG478852
Chromium	mg/kg	50.0	8.50	50	83.0	75-125	L459380-11	WG478852
Copper	mg/kg	64.7	10.7	50	108.	75-125	L459380-11	WG478852
Lead	mg/kg	59.0	18.0	50	82.0	75-125	L459380-11	WG478852
Nickel	mg/kg	46.7	5.90	50	81.6	75-125	L459380-11	WG478852
Silver	mg/kg	39.3	0	50	78.6	75-125	L459380-11	WG478852
Zinc	mg/kg	70.6	31.0	50	79.2	75-125	L459380-11	WG478852
Selenium	mg/kg	38.7	0	10	77.4	75-125	L459380-11	WG478852
Arsenic	mg/kg	55.9	1.80	50	108.	75-125	L459417-02	WG478851
Barium	mg/kg	138.	57.3	50	161.*	75-125	L459417-02	WG478851
Cadmium	mg/kg	55.6	0.103	50	111.	75-125	L459417-02	WG478851
Chromium	mg/kg	78.1	14.4	50	127.*	75-125	L459417-02	WG478851
Copper	mg/kg	72.1	6.35	50	132.*	75-125	L459417-02	WG478851
Nickel	mg/kg	72.8	12.4	50	121.	75-125	L459417-02	WG478851
Selenium	mg/kg	49.8	0	50	99.6	75-125	L459417-02	WG478851
Silver	mg/kg	60.4	0	50	121.	75-125	L459417-02	WG478851
Zinc	mg/kg	97.1	31.4	50	131.*	75-125	L459417-02	WG478851
Benzene	mg/kg	0.0507	0.0120	.05	77.4	32-137	L458988-03	WG478903
Ethylbenzene	mg/kg	0.0465	0.00710	.05	78.9	10-150	L458988-03	WG478903
Toluene	mg/kg	0.0493	0.0170	.05	64.6	20-142	L458988-03	WG478903
Total Xylene	mg/kg	0.137	0.0190	.15	78.9	16-141	L458988-03	WG478903
a,a,a-Trifluorotoluene (PID)					102.1	54-144		WG478903
TPH (GC/FID) Low Fraction	mg/kg	4.78	0.889	5.5	70.8	55-109	L458988-03	WG478903
a,a,a-Trifluorotoluene (FID)					94.00	59-128		WG478903
TPH (GC/FID) High Fraction	ppm	383.	200.	60	306.*	50-150	L459470-06	WG479086
o-Terphenyl					80.22	50-150		WG479086

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Benzene	mg/kg	0.201	0	.05	80.4	32-137	L459340-05	WG479025
Ethylbenzene	mg/kg	0.167	0	.05	66.9	10-150	L459340-05	WG479025
Toluene	mg/kg	0.188	0	.05	75.2	20-142	L459340-05	WG479025
Total Xylene	mg/kg	0.494	0	.15	65.8	16-141	L459340-05	WG479025
a,a,a-Trifluorotoluene(PID)					97.89	54-144		WG479025
TPH (GC/FID) Low Fraction	mg/kg	12.8	0	5.5	46.6*	55-109	L459340-05	WG479025
a,a,a-Trifluorotoluene(FID)					98.95	59-128		WG479025
Acenaphthene	mg/kg	0.183	0.0440	.167	83.2	38-121	L459170-01	WG479084
Acenaphthylene	mg/kg	0.150	0	.167	89.8	39-120	L459170-01	WG479084
Anthracene	mg/kg	0.187	0	.167	112.	35-133	L459170-01	WG479084
Benzo(a)anthracene	mg/kg	0.140	0	.167	83.8	35-136	L459170-01	WG479084
Benzo(a)pyrene	mg/kg	0.133	0	.167	79.5	37-131	L459170-01	WG479084
Benzo(b)fluoranthene	mg/kg	0.165	0	.167	98.8	29-145	L459170-01	WG479084
Benzo(g,h,i)perylene	mg/kg	0.0483	0	.167	28.9	10-139	L459170-01	WG479084
Benzo(k)fluoranthene	mg/kg	0.154	0	.167	92.3	31-140	L459170-01	WG479084
Chrysene	mg/kg	0.141	0	.167	84.4	34-137	L459170-01	WG479084
Dibenz(a,h)anthracene	mg/kg	0.0550	0	.167	32.9	21-132	L459170-01	WG479084
Fluoranthene	mg/kg	0.156	0	.167	93.4	34-132	L459170-01	WG479084
Fluorene	mg/kg	0.221	0.0640	.167	93.8	38-126	L459170-01	WG479084
Indeno(1,2,3-cd)pyrene	mg/kg	0.0553	0	.167	33.1	17-134	L459170-01	WG479084
Naphthalene	mg/kg	0.640	0.420	.167	132.*	24-122	L459170-01	WG479084
Phenanthrene	mg/kg	0.285	0.120	.167	98.6	38-128	L459170-01	WG479084
Pyrene	mg/kg	0.137	0	.167	81.8	35-141	L459170-01	WG479084
2-Fluorobiphenyl					82.29	37-123		WG479084
Nitrobenzene-d5					85.95	19-129		WG479084
p-Terphenyl-d14					78.81	34-149		WG479084
Lead	mg/kg	73.4	0	50	147.*	75-125	L459417-02	WG478851

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.266	0.260	106.	32-137	2.24	39	L459340-07	WG478823
Ethylbenzene	mg/kg	0.237	0.235	93.7	10-150	0.800	44	L459340-07	WG478823
Toluene	mg/kg	0.248	0.245	99.0	20-142	1.12	42	L459340-07	WG478823
Total Xylene	mg/kg	0.726	0.732	85.9	16-141	0.800	46	L459340-07	WG478823
a,a,a-Trifluorotoluene(PID)				96.74	54-144				WG478823
TPH (GC/FID) Low Fraction	mg/kg	15.0	17.2	50.1*	55-109	13.7	20	L459340-07	WG478823
a,a,a-Trifluorotoluene(FID)				98.87	59-128				WG478823
TPH (GC/FID) High Fraction	ppm	44.3	40.9	73.8	50-150	7.90	25	L458681-01	WG478714
o-Terphenyl				105.8	50-150				WG478714
Boron	mg/l	2.32	2.34	103.	75-125	0.858	20	L459340-08	WG478906
Mercury	mg/kg	0.263	0.274	105.	70-130	4.10	20	L459184-03	WG478783
Mercury	mg/kg	0.271	0.280	108.	70-130	3.27	20	L459380-04	WG478784
Chloride	mg/kg	523.	510.	102.	80-120	2.52	20	L459249-01	WG478945
Sulfate	mg/kg	710.	661.	106.	80-120	7.15	20	L459249-01	WG478945

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Chromium,Hexavalent	mg/kg	15.5	14.6	77.5	50-150	5.98	20	L458903-02	WG478949
Arsenic	mg/kg	48.9	49.1	95.2	75-125	0.408	20	L459151-01	WG478761
Barium	mg/kg	200.	173.	120.	75-125	14.5	20	L459151-01	WG478761
Cadmium	mg/kg	52.7	49.3	104.	75-125	6.67	20	L459151-01	WG478761
Chromium	mg/kg	55.3	55.2	91.8	75-125	0.181	20	L459151-01	WG478761
Copper	mg/kg	77.8	74.9	106.	75-125	3.80	20	L459151-01	WG478761
Lead	mg/kg	61.7	59.7	87.4	75-125	3.29	20	L459151-01	WG478761
Nickel	mg/kg	53.2	54.6	90.7	75-125	2.60	20	L459151-01	WG478761
Selenium	mg/kg	44.9	45.0	89.8	75-125	0.222	20	L459151-01	WG478761
Silver	mg/kg	49.0	48.2	98.0	75-125	1.65	20	L459151-01	WG478761
Zinc	mg/kg	127.	121.	107.	75-125	4.84	20	L459151-01	WG478761
Arsenic	mg/kg	48.1	48.1	81.2	75-125	0	20	L459380-11	WG478852
Barium	mg/kg	104.	99.0	96.0	75-125	4.93	20	L459380-11	WG478852
Cadmium	mg/kg	39.6	38.7	77.5	75-125	2.30	20	L459380-11	WG478852
Chromium	mg/kg	50.3	50.0	83.6	75-125	0.598	20	L459380-11	WG478852
Copper	mg/kg	53.2	64.7	89.0	75-125	15.8	20	L459380-11	WG478852
Lead	mg/kg	59.6	59.0	83.2	75-125	1.01	20	L459380-11	WG478852
Nickel	mg/kg	46.2	46.7	80.6	75-125	1.08	20	L459380-11	WG478852
Silver	mg/kg	40.3	39.3	80.6	75-125	2.51	20	L459380-11	WG478852
Zinc	mg/kg	72.2	70.6	82.4	75-125	2.24	20	L459380-11	WG478852
Selenium	mg/kg	41.4	38.7	82.8	75-125	6.74	20	L459380-11	WG478852
Arsenic	mg/kg	53.2	55.9	103.	75-125	4.95	20	L459417-02	WG478851
Barium	mg/kg	114.	138.	113.	75-125	19.0	20	L459417-02	WG478851
Cadmium	mg/kg	49.9	55.6	99.6	75-125	10.8	20	L459417-02	WG478851
Chromium	mg/kg	70.3	78.1	112.	75-125	10.5	20	L459417-02	WG478851
Copper	mg/kg	63.8	72.1	115.	75-125	12.2	20	L459417-02	WG478851
Nickel	mg/kg	68.5	72.8	112.	75-125	6.09	20	L459417-02	WG478851
Selenium	mg/kg	47.2	49.8	94.4	75-125	5.36	20	L459417-02	WG478851
Silver	mg/kg	53.8	60.4	108.	75-125	11.6	20	L459417-02	WG478851
Zinc	mg/kg	86.5	97.1	110.	75-125	11.5	20	L459417-02	WG478851
Benzene	mg/kg	0.0510	0.0507	78.1	32-137	0.680	39	L458988-03	WG478903
Ethylbenzene	mg/kg	0.0473	0.0465	80.3	10-150	1.53	44	L458988-03	WG478903
Toluene	mg/kg	0.0499	0.0493	65.8	20-142	1.20	42	L458988-03	WG478903
Total Xylene	mg/kg	0.139	0.137	80.1	16-141	1.35	46	L458988-03	WG478903
a,a,a-Trifluorotoluene(PID)				101.4	54-144				WG478903
TPH (GC/FID) Low Fraction	mg/kg	5.03	4.78	75.4	55-109	5.12	20	L458988-03	WG478903
a,a,a-Trifluorotoluene(FID)				95.07	59-128				WG478903
TPH (GC/FID) High Fraction	ppm	360.	383.	267.*	50-150	6.21	25	L459470-06	WG479086
o-Terphenyl				79.96	50-150				WG479086
Benzene	mg/kg	0.221	0.201	88.4	32-137	9.46	39	L459340-05	WG479025
Ethylbenzene	mg/kg	0.189	0.167	75.4	10-150	12.0	44	L459340-05	WG479025
Toluene	mg/kg	0.209	0.188	83.5	20-142	10.4	42	L459340-05	WG479025
Total Xylene	mg/kg	0.552	0.494	73.6	16-141	11.1	46	L459340-05	WG479025
a,a,a-Trifluorotoluene(PID)				98.88	54-144				WG479025
TPH (GC/FID) Low Fraction	mg/kg	13.5	12.8	49.1*	55-109	5.33	20	L459340-05	WG479025
a,a,a-Trifluorotoluene(FID)				100.3	59-128				WG479025

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Acenaphthene	mg/kg	0.169	0.183	74.8	38-121	7.96	23	L459170-01	WG479084
Acenaphthylene	mg/kg	0.152	0.150	90.8	39-120	1.19	22	L459170-01	WG479084
Anthracene	mg/kg	0.167	0.187	99.9	35-133	11.4	23	L459170-01	WG479084
Benzo(a)anthracene	mg/kg	0.138	0.140	82.6	35-136	1.52	23	L459170-01	WG479084
Benzo(a)pyrene	mg/kg	0.142	0.133	85.1	37-131	6.74	22	L459170-01	WG479084
Benzo(b)fluoranthene	mg/kg	0.168	0.165	101.	29-145	2.00	33	L459170-01	WG479084
Benzo(g,h,i)perylene	mg/kg	0.0545	0.0483	32.6	10-139	12.2	26	L459170-01	WG479084
Benzo(k)fluoranthene	mg/kg	0.178	0.154	106.	31-140	14.1	34	L459170-01	WG479084
Chrysene	mg/kg	0.145	0.141	87.1	34-137	3.17	23	L459170-01	WG479084
Dibenz(a,h)anthracene	mg/kg	0.0593	0.0550	35.5	21-132	7.60	25	L459170-01	WG479084
Fluoranthene	mg/kg	0.159	0.156	95.2	34-132	1.97	24	L459170-01	WG479084
Fluorene	mg/kg	0.202	0.221	82.7	38-126	8.75	23	L459170-01	WG479084
Indeno(1,2,3-cd)pyrene	mg/kg	0.0618	0.0553	37.0	17-134	11.1	25	L459170-01	WG479084
Naphthalene	mg/kg	0.489	0.640	41.3	24-122	26.7	29	L459170-01	WG479084
Phenanthrene	mg/kg	0.237	0.285	69.8	38-128	18.4	25	L459170-01	WG479084
Pyrene	mg/kg	0.130	0.137	77.8	35-141	5.13	25	L459170-01	WG479084
2-Fluorobiphenyl				87.04	37-123				WG479084
Nitrobenzene-d5				93.79	19-129				WG479084
p-Terphenyl-d14				78.33	34-149				WG479084
Lead	mg/kg	68.8	73.4	138.*	75-125	6.47	20	L459417-02	WG478851

Batch number /Run number / Sample number cross reference

WG478710: R1223769: L459340-02 04 06 08 10 12  
WG478823: R1225108: L459340-07  
WG478714: R1225188: L459340-07  
WG478906: R1225388: L459340-02 04 06 08 10 12  
WG478783: R1225588: L459340-07  
WG478784: R1225589: L459340-01 03 05 09 11  
WG478423: R1225808: L459340-07  
WG478945: R1226128: L459340-01 03 05 07  
WG478686: R1226348: L459340-01 03 05 07 09 11  
WG478875: R1226409: L459340-01 03 05 07 09 11  
WG478877: R1226428: L459340-01 03 05 07 09 11  
WG478949: R1226609: L459340-01 03 05 07 09 11  
WG478762: R1227136: L459340-01 03 05 07 09 11  
WG478761: R1227848: L459340-07  
WG479071: R1228548: L459340-09 11  
WG478852: R1228751: L459340-05 09 11  
WG478851: R1228828 R1228829: L459340-03 01 03  
WG478903: R1229248: L459340-01 03  
WG479086: R1230008: L459340-01 03 05 09 11  
WG479084: R1230390: L459340-01 03 05 09 11  
WG479495: R1230888: L459340-05  
WG479025: R1230969: L459340-05 09 11

\* \* 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.