AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
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Toll Free (888) 263-8686
Fax (801)263-8687
email: awal@awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Jim Harris
Utah DEQ DERR
168 N. 1950 W., 1st Floor
Salt Lake City, Ut 84116
TEL: (801) 536-4145

RE: Red Butte Spill

Dear Jim Harris: Lab Set ID: 1012057

American West Analytical Laboratories received 4 sample(s) on 12/2/2010 for the analyses presented in the following report.

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is certified by The NELAC Institute in Utah and Texas; and is state certified in Colorado and Idaho. Certification document is available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitaion limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Approved by: Kyle F. Gross
Digitally signed by Kyle F. Gross
DN: cn=Kyle F. Gross, o=AWAL, ou=AWAL, email=kyle@awal-labs.com, c=US
Date: 2010.12.07 12:10:46 -07'00'

Laboratory Director or designee

INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Received Date: 12/2/2010 1754h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/3/2010 1030h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/3/2010 1702h	E1664A-SGT	3.00	< 3.00	

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INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Received Date: 12/2/2010 1754h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/3/2010 1030h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/3/2010 1702h	E1664A-SGT	3.00	< 3.00	

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INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Received Date: 12/2/2010 1754h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/3/2010 1030h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/3/2010 1702h	E1664A-SGT	3.00	< 3.00	

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INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Received Date: 12/2/2010 1754h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/3/2010 1030h	HACH 8000	10,000	**1,020,000**	
Total Recoverable Petroleum Hydrocarbons	mg/kg		12/3/2010 1925h	E1664A-SGT	150	**375,000**	[2]

[2] - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001D
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/6/2010 0531h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0843h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		0.0500	< 0.0500	
Surr: C36		10-200	**131**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002D
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/6/2010 0549h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0843h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		0.0500	< 0.0500	
Surr: C36		10-200	**129**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003D
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/6/2010 0607h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0843h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		0.0500	< 0.0500	
Surr: C36		10-200	**132**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004C
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/7/2010 0803h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0845h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3580A

Units: mg/kg
Dilution Factor: 5

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		150	**22,000**	
Surr: C36		10-200	**145**	

The reporting limits were raised due to high analyte concentrations.

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001C
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 2318h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: SW8015D

Analytical Results TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	0.500	< 0.500	
Surr: 4-Bromofluorobenzene	460-00-4	10-190	**89.5**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002C
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 2339h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: SW8015D

Analytical Results TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	0.500	< 0.500	
Surr: 4-Bromofluorobenzene	460-00-4	10-190	**70.5**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003C
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/4/2010 0000h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: SW8015D

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Analytical Results TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	0.500	< 0.500	
Surr: 4-Bromofluorobenzene	460-00-4	10-190	**71.5**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004C
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/3/2010 1617h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0845h
Method Used: SW8015D

Analytical Results TPH (DRO-C10-C28) by GC/FID Method 8015D/3580A

Units: mg/kg
Dilution Factor: 50

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	25,000	**378,000**	²
Surr: 4-Bromofluorobenzene	460-00-4	70-130	**6,510**	S

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.
The reporting limits were raised due to high analyte concentrations.
S - High surrogate recovery attributed to TPH interference. The method is in control as indicated by the method blank and LCS.

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001B
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 0836h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 0923h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**89.3**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002B
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 1216h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**95.1**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003B
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/3/2010 1244h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**73.5**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001B
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 0836h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 0923h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	1
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	@
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	1
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	1
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001B
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 0836h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 0923h
Method Used: EPA625

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results — SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	1
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	1
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001B
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 0836h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 0923h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	1
Fluoranthene	206-44-0	10.0	< 10.0	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001B
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 0836h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 0923h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	1
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	1
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

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ORGANIC ANALYTICAL REPORT

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Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001B
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 0836h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 0923h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	[1]
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	[1]
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	[1]
Quinoline	91-22-5	10.0	< 10.0	[1]
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**54.1**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**64.6**	
Surr: 2-Fluorophenol	367-12-4	14-106	**20.1**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**48.2**	
Surr: Phenol-d6	13127-88-3	10-122	**19.4**	
Surr: Terphenyl-d14	1718-51-0	10-199	**89.3**	

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.
@ - High RPD due to suspected sample non-homogeneity or matrix interference.
The sample was analyzed for TICs and no unknown peaks were detected.

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002B
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h **Analyzed:** 12/3/2010 1216h
Received Date: 12/2/2010 1754h **Extracted:** 12/2/2010 1855h
Method Used: EPA625

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Jose Rocha
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Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002B
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h **Analyzed:** 12/3/2010 1216h
Received Date: 12/2/2010 1754h **Extracted:** 12/2/2010 1855h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
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Lab Sample ID: 1012057-002B
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Collection Date: 12/2/2010 1640h
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Method Used: EPA625

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Analytical Results — SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002B
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 1216h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002B
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 1216h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**55.6**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**61.7**	
Surr: 2-Fluorophenol	367-12-4	14-106	**29.6**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**43.5**	
Surr: Phenol-d6	13127-88-3	10-122	**17.1**	
Surr: Terphenyl-d14	1718-51-0	10-199	**95.1**	

The sample was analyzed for TICs and no unknown peaks were detected.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

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Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003B
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h **Analyzed:** 12/3/2010 1244h
Received Date: 12/2/2010 1754h **Extracted:** 12/2/2010 1855h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003B
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/3/2010 1244h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: EPA625

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QA Officer

Analytical Results — SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003B
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h **Analyzed:** 12/3/2010 1244h
Received Date: 12/2/2010 1754h **Extracted:** 12/2/2010 1855h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	

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Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003B
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/3/2010 1244h
Received Date: 12/2/2010 1754h
Extracted: 12/2/2010 1855h
Method Used: EPA625

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Analytical Results — SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

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Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003B
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h **Analyzed:** 12/3/2010 1244h
Received Date: 12/2/2010 1754h **Extracted:** 12/2/2010 1855h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**56.5**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**57.4**	
Surr: 2-Fluorophenol	367-12-4	14-106	**24.0**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**49.7**	
Surr: Phenol-d6	13127-88-3	10-122	**19.2**	
Surr: Terphenyl-d14	1718-51-0	10-199	**73.5**	

The sample was analyzed for TICs and no unknown peaks were detected.

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004B
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/4/2010 1806h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0844h
Method Used: SW8270D

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Analytical Results SVOA List by GC/MS Method 8270D/3580A

Units: mg/kg
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4,5-Tetrachlorobenzene	95-94-3	50.0	< 50.0	
1,2,4-Trichlorobenzene	120-82-1	50.0	< 50.0	1
1,2-Dichlorobenzene	95-50-1	50.0	< 50.0	
1,3,5-Trinitrobenzene	99-35-4	50.0	< 50.0	
1,4-Naphthoquinone	130-15-4	50.0	< 50.0	
1,3-Dichlorobenzene	541-73-1	50.0	< 50.0	
1,3-Dinitrobenzene	99-65-0	50.0	< 50.0	
1,4-Dichlorobenzene	106-46-7	50.0	< 50.0	
1,4-Phenylenediamine	106-50-3	50.0	< 50.0	
1-Chloronaphthalene	90-13-1	50.0	< 50.0	
1-Methylnaphthalene	90-12-0	50.0	**514**	
1-Naphthylamine	134-32-7	50.0	< 50.0	
2,3,4,6-Tetrachlorophenol	58-90-2	50.0	< 50.0	
2,4,5-Trichlorophenol	95-95-4	50.0	< 50.0	
2,4,6-Trichlorophenol	88-06-2	50.0	< 50.0	
2,4-Dichlorophenol	120-83-2	50.0	< 50.0	
2,4-Dimethylphenol	105-67-9	50.0	< 50.0	
2,4-Dinitrophenol	51-28-5	150	< 150	
2,4-Dinitrotoluene	121-14-2	50.0	< 50.0	
2,6-Dichlorophenol	87-65-0	50.0	< 50.0	
2,6-Dinitrotoluene	606-20-2	50.0	< 50.0	
2-Acetylaminofluorene	53-96-3	50.0	< 50.0	
2-Chloronaphthalene	91-58-7	50.0	< 50.0	
2-Chlorophenol	95-57-8	50.0	< 50.0	
2-Methylnaphthalene	91-57-6	50.0	**1,740**	
2-Methylphenol	95-48-7	50.0	< 50.0	
2-Naphthylamine	91-59-8	50.0	< 50.0	
2-Nitroaniline	88-74-4	50.0	< 50.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004B
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/4/2010 1806h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0844h
Method Used: SW8270D

Analytical Results SVOA List by GC/MS Method 8270D/3580A

Units: mg/kg
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	50.0	< 50.0	
2-Picoline	109-06-8	50.0	< 50.0	
3&4-Methylphenol		50.0	< 50.0	
3,3´-Dichlorobenzidine	91-94-1	50.0	< 50.0	
3,3´-Dimethylbenzidine	119-93-7	50.0	< 50.0	
3-Methylcholanthrene	56-49-5	50.0	< 50.0	
3-Nitroaniline	99-09-2	50.0	< 50.0	
4,6-Dinitro-2-methylphenol	534-52-1	150	< 150	
4-Aminobiphenyl	92-67-1	50.0	< 50.0	
4-Bromophenyl phenyl ether	101-55-3	50.0	< 50.0	
4-Chloro-3-methylphenol	59-50-7	60.0	< 60.0	
4-Chloroaniline	106-47-8	50.0	< 50.0	
4-Chlorophenyl phenyl ether	7005-72-3	50.0	< 50.0	
4-Nitroaniline	100-01-6	50.0	< 50.0	
4-Nitrophenol	100-02-7	150	< 150	
5-Nitro-o-toluidine	99-55-8	50.0	< 50.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	50.0	< 50.0	
a,a-Dimethylphenethylamine	122-09-8	50.0	< 50.0	
Acenaphthene	83-32-9	50.0	< 50.0	
Acenaphthylene	208-96-8	50.0	< 50.0	
Acetophenone	98-86-2	50.0	< 50.0	
alpha-Terpineol	98-55-5	50.0	< 50.0	
Aniline	62-53-3	50.0	< 50.0	
Anthracene	120-12-7	50.0	< 50.0	
Aramite	140-57-8	50.0	< 50.0	
Azobenzene	103-33-3	50.0	< 50.0	
Benz(a)anthracene	56-55-3	50.0	< 50.0	
Benzidine	92-87-5	50.0	< 50.0	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004B
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/4/2010 1806h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0844h
Method Used: SW8270D

Analytical Results SVOA List by GC/MS Method 8270D/3580A

Units: mg/kg
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	50.0	< 50.0	
Benzo(b)fluoranthene	205-99-2	50.0	< 50.0	
Benzo(g,h,i)perylene	191-24-2	50.0	< 50.0	
Benzo(k)fluoranthene	207-08-9	50.0	< 50.0	
Benzoic acid	65-85-0	150	< 150	
Benzyl alcohol	100-51-6	60.0	< 60.0	
Bis(2-chloroethoxy)methane	111-91-1	50.0	< 50.0	
Bis(2-chloroethyl) ether	111-44-4	50.0	< 50.0	
Bis(2-chloroisopropyl) ether	108-60-1	50.0	< 50.0	
Bis(2-ethylhexyl) phthalate	117-81-7	50.0	< 50.0	
bis(2-ethylhexyl)adipate	103-23-1	50.0	< 50.0	
Butyl benzyl phthalate	85-68-7	50.0	< 50.0	
Carbazole	86-74-8	50.0	< 50.0	
Chlorobenzilate	510-15-6	50.0	< 50.0	
Chrysene	218-01-9	50.0	< 50.0	
Di-n-butyl phthalate	84-74-2	50.0	< 50.0	
Di-n-octyl phthalate	117-84-0	50.0	< 50.0	
Diallate (cis or trans)	2303-16-4	50.0	< 50.0	
Dibenz(a,h)anthracene	53-70-3	50.0	< 50.0	
Dibenzofuran	132-64-9	50.0	< 50.0	
Diethyl phthalate	84-66-2	50.0	< 50.0	
Dimethoate	60-51-5	50.0	< 50.0	
Dimethyl phthalate	131-11-3	50.0	< 50.0	
Dimethylaminoazobenzene	60-11-7	50.0	< 50.0	
Dinoseb	88-85-7	50.0	< 50.0	
Diphenylamine	122-39-4	50.0	< 50.0	
Disulfoton	298-04-4	50.0	< 50.0	
Ethyl methanesulfonate	62-50-0	50.0	< 50.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004B
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/4/2010 1806h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0844h
Method Used: SW8270D

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Jose Rocha
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Analytical Results — SVOA List by GC/MS Method 8270D/3580A

Units: mg/kg
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Famphur	52-85-7	50.0	< 50.0	
Fluoranthene	206-44-0	50.0	< 50.0	
Fluorene	86-73-7	50.0	**53.3**	
Hexachlorobenzene	118-74-1	50.0	< 50.0	
Hexachlorobutadiene	87-68-3	50.0	< 50.0	
Hexachlorocyclopentadiene	77-47-4	50.0	< 50.0	
Hexachloroethane	67-72-1	50.0	< 50.0	
Hexachlorophene	70-30-4	120	< 120	
Hexachloropropene	1888-71-7	50.0	< 50.0	
Indene	95-13-6	50.0	< 50.0	
Indeno(1,2,3-cd)pyrene	193-39-5	50.0	< 50.0	
Isodrin	465-73-6	50.0	< 50.0	
Isophorone	78-59-1	50.0	< 50.0	
Isosafrole	120-58-1	50.0	**62.3**	
Kepone	143-50-0	50.0	< 50.0	
Methapyrilene	91-80-5	50.0	< 50.0	
Methyl methanesulfonate	66-27-3	50.0	< 50.0	
n-Decane	124-18-5	500	**15,000**	D
N-Nitrosodi-n-butylamine	924-16-3	50.0	< 50.0	
N-Nitrosodiethylamine	55-18-5	50.0	< 50.0	
N-Nitrosodimethylamine	62-75-9	50.0	< 50.0	
N-Nitrosodiphenylamine	86-30-6	50.0	< 50.0	
N-Nitrosodi-n-propylamine	621-64-7	50.0	< 50.0	1
N-Nitrosomethylethylamine	10595-95-6	50.0	< 50.0	
N-Nitrosomorpholine	59-89-2	50.0	< 50.0	
N-Nitrosopiperidine	100-75-4	50.0	< 50.0	
N-Nitrosopyrrolidine	930-55-2	50.0	< 50.0	
n-Octadecane	593-45-3	50.0	< 50.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004B
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/4/2010 1806h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0844h
Method Used: SW8270D

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Jose Rocha
QA Officer

Analytical Results SVOA List by GC/MS Method 8270D/3580A

Units: mg/kg
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Naphthalene	91-20-3	50.0	**1,010**	
Nitrobenzene	98-95-3	50.0	< 50.0	
Nitroquinoline-1-oxide	56-57-5	100	< 100	
O,O,O-Triethyl phosphorothioate	126-68-1	50.0	< 50.0	
o-Toluidine	95-53-4	50.0	< 50.0	
Parathion	56-38-2	50.0	< 50.0	
Methyl parathion	298-00-0	50.0	< 50.0	
Pentachlorobenzene	608-93-5	50.0	< 50.0	
Pentachloronitrobenzene	82-68-8	50.0	< 50.0	
Pentachlorophenol	87-86-5	150	< 150	
Phenacetin	62-44-2	50.0	< 50.0	
Phenanthrene	85-01-8	50.0	< 50.0	
Phenol	108-95-2	50.0	< 50.0	
Phorate	298-02-2	50.0	< 50.0	
Pronamide	23950-58-5	50.0	< 50.0	
Pyrene	129-00-0	50.0	< 50.0	
Pyridine	110-86-1	150	< 150	
Quinoline	91-22-5	50.0	< 50.0	
Safrole	94-59-7	50.0	< 50.0	
Tetraethyl dithiopyrophosphate	3689-24-5	50.0	< 50.0	
Thionazin	297-97-2	50.0	< 50.0	
C11-C12 Aliphatic hydrocarbons		50.0	**25,500**	
C13-C16 Aliphatic hydrocarbons		50.0	**55,900**	
C17-C21 Aliphatic hydrocarbons		50.0	**25,300**	
C22-C35 Aliphatic hydrocarbons		50.0	**347,000**	
C11-C13 Alkyl Naphthalenes		50.0	**2,250**	
Total C12-C22 PAH**		50.0	**53.3**	
Surr: 2,4,6-Tribromophenol	118-79-6	10-228	**79.9**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004B
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/4/2010 1806h
Received Date: 12/2/2010 1754h
Extracted: 12/3/2010 0844h
Method Used: SW8270D

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Analytical Results SVOA List by GC/MS Method 8270D/3580A

Units: mg/kg
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Surr: 2-Fluorobiphenyl	321-60-8	10-179	**88.2**	
Surr: 2-Fluorophenol	367-12-4	10-178	**28.0**	
Surr: Nitrobenzene-d5	4165-60-0	10-328	**189**	
Surr: Phenol-d6	13127-88-3	10-218	**48.4**	
Surr: Terphenyl-d14	1718-51-0	10-143	**95.6**	

D - This analyte was obtained from a 1:10 dilution.
¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.
*** - This value is a summation of the PAH compounds listed above.*

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001A
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 1153h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	1
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001A
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 1153h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results — VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	**3.04**	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001A
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 1153h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Jose Rocha
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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	**6.70**	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-001A
Client Sample ID: Red Butte Ck Near Greenhouse
Collection Date: 12/2/2010 1615h
Analyzed: 12/3/2010 1153h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results — VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	**9.75**	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	**6.70**	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	**20.9**	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**112**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**104**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**104**	
Surr: Toluene-d8	2037-26-5	80-125	**96.7**	

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002A
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 1212h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002A
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 1212h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	**14.3**	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002A
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h **Analyzed:** 12/3/2010 1212h
Received Date: 12/2/2010 1754h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

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Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-002A
Client Sample ID: Red Butte Ck Ab Gardens 4992095
Collection Date: 12/2/2010 1640h
Analyzed: 12/3/2010 1212h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**114**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**106**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**105**	
Surr: Toluene-d8	2037-26-5	80-125	**95.3**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003A
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/3/2010 1231h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003A
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/3/2010 1231h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003A
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h **Analyzed:** 12/3/2010 1231h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-003A
Client Sample ID: Red Butte Ck @ 1100 E. 4992083
Collection Date: 12/2/2010 1710h
Analyzed: 12/3/2010 1231h
Received Date: 12/2/2010 1754h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**114**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**108**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**104**	
Surr: Toluene-d8	2037-26-5	80-125	**96.7**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004A
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/3/2010 1243h
Received Date: 12/2/2010 1754h
Method Used: SW8260C

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Analytical Results — VOAs by GC/MS Method 8260C

Units: µg/kg
Dilution Factor: 100000

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	200,000	< 200,000	
1,1,1-Trichloroethane	71-55-6	200,000	< 200,000	
1,1,2,2-Tetrachloroethane	79-34-5	200,000	< 200,000	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	200,000	< 200,000	
1,1,2-Trichloroethane	79-00-5	200,000	< 200,000	
1,1-Dichloropropene	563-58-6	200,000	< 200,000	
1,1-Dichloroethane	75-34-3	200,000	< 200,000	
1,1-Dichloroethene	75-35-4	200,000	< 200,000	
1,2,3-Trichlorobenzene	87-61-6	200,000	< 200,000	
1,2,3-Trichloropropane	96-18-4	200,000	< 200,000	
1,2,3-Trimethylbenzene	526-73-8	200,000	**628,000**	
1,2,4-Trichlorobenzene	120-82-1	200,000	< 200,000	
1,2,4-Trimethylbenzene	95-63-6	200,000	**3,420,000**	
1,2-Dibromo-3-chloropropane	96-12-8	500,000	< 500,000	
1,2-Dibromoethane	106-93-4	200,000	< 200,000	
1,2-Dichlorobenzene	95-50-1	200,000	< 200,000	
1,2-Dichloroethane	107-06-2	200,000	< 200,000	
1,2-Dichloropropane	78-87-5	200,000	< 200,000	
1,3,5-Trimethylbenzene	108-67-8	200,000	**2,390,000**	
1,3-Dichlorobenzene	541-73-1	200,000	< 200,000	
1,3-Dichloropropane	142-28-9	200,000	< 200,000	
1,4-Dichlorobenzene	106-46-7	200,000	< 200,000	
1,4-Dioxane	123-91-1	5,000,000	< 5,000,000	
2,2-Dichloropropane	594-20-7	200,000	< 200,000	
2-Butanone	78-93-3	1,000,000	< 1,000,000	
2-Chloroethyl vinyl ether	110-75-8	500,000	< 500,000	
2-Chlorotoluene	95-49-8	200,000	< 200,000	
2-Hexanone	591-78-6	500,000	< 500,000	
2-Nitropropane	79-46-9	500,000	< 500,000	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004A
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/3/2010 1243h
Received Date: 12/2/2010 1754h
Method Used: SW8260C

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Analytical Results — VOAs by GC/MS Method 8260C

Units: µg/kg
Dilution Factor: 100000

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	200,000	< 200,000	
4-Isopropyltoluene	99-87-6	200,000	**464,000**	
4-Methyl-2-pentanone	108-10-1	500,000	< 500,000	
Acetone	67-64-1	1,000,000	< 1,000,000	
Acetonitrile	75-05-8	500,000	< 500,000	
Acrolein	107-02-8	500,000	< 500,000	
Acrylonitrile	107-13-1	1,000,000	< 1,000,000	
Allyl chloride	107-05-1	500,000	< 500,000	
Benzene	71-43-2	200,000	**3,640,000**	
Benzyl chloride	100-44-7	500,000	< 500,000	
Bis(2-chloroisopropyl) ether	108-60-1	500,000	< 500,000	
Bromobenzene	108-86-1	200,000	< 200,000	
Bromochloromethane	74-97-5	200,000	< 200,000	
Bromodichloromethane	75-27-4	200,000	< 200,000	
Bromoform	75-25-2	200,000	< 200,000	
Bromomethane	74-83-9	500,000	< 500,000	
Butyl acetate	123-86-4	1,000,000	< 1,000,000	
Carbon disulfide	75-15-0	200,000	< 200,000	
Carbon tetrachloride	56-23-5	200,000	< 200,000	
Chlorobenzene	108-90-7	200,000	< 200,000	
Chloroethane	75-00-3	200,000	< 200,000	
Chloroform	67-66-3	200,000	< 200,000	
Chloromethane	74-87-3	500,000	< 500,000	
Chloroprene	126-99-8	200,000	< 200,000	
cis-1,2-Dichloroethene	156-59-2	200,000	< 200,000	
cis-1,3-Dichloropropene	10061-01-5	200,000	< 200,000	
Cyclohexane	110-82-7	200,000	**9,170,000**	
Cyclohexanone	108-94-1	5,000,000	< 5,000,000	
Dibromochloromethane	124-48-1	200,000	< 200,000	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004A
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/3/2010 1243h
Received Date: 12/2/2010 1754h
Method Used: SW8260C

Analytical Results VOAs by GC/MS Method 8260C

Units: µg/kg
Dilution Factor: 100000

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	200,000	< 200,000	
Dichlorodifluoromethane	75-71-8	200,000	< 200,000	
Ethyl acetate	141-78-6	1,000,000	< 1,000,000	
Ethyl ether	60-29-7	1,000,000	< 1,000,000	
Ethyl methacrylate	97-63-2	200,000	< 200,000	
Ethylbenzene	100-41-4	200,000	**1,410,000**	
Hexachlorobutadiene	87-68-3	200,000	< 200,000	
Iodomethane	74-88-4	500,000	< 500,000	
Isobutyl alcohol	78-83-1	10,000,000	< 10,000,000	
Isopropyl acetate	108-21-4	1,000,000	< 1,000,000	
Isopropyl alcohol	67-63-0	4,000,000	< 4,000,000	
Isopropylbenzene	98-82-8	200,000	**249,000**	
Isopropyltoluene	99-87-6	200,000	**464,000**	
m,p-Xylene	179601-23-1	200,000	**15,900,000**	
Methacrylonitrile	126-98-7	500,000	< 500,000	
Methyl Acetate	79-20-9	500,000	< 500,000	
Methyl methacrylate	80-62-6	500,000	< 500,000	
Methyl tert-butyl ether	1634-04-4	200,000	< 200,000	
Methylcyclohexane	108-87-2	2,000,000	**18,100,000**	D
Methylene chloride	75-09-2	500,000	< 500,000	
n-Amyl acetate	628-63-7	1,000,000	< 1,000,000	
n-Butyl alcohol	71-36-3	10,000,000	< 10,000,000	
n-Butylbenzene	104-51-8	200,000	**371,000**	
n-Hexane	110-54-3	200,000	**9,720,000**	
n-Octane	111-65-9	200,000	**10,500,000**	
n-Propylbenzene	103-65-1	200,000	**396,000**	
Naphthalene	91-20-3	200,000	**419,000**	
o-Xylene	95-47-6	200,000	**2,830,000**	
Pentachloroethane	76-01-7	200,000	< 200,000	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012057-004A
Client Sample ID: RB Spill from Source (Oil)
Collection Date: 12/2/2010 1620h
Analyzed: 12/3/2010 1243h
Received Date: 12/2/2010 1754h
Method Used: SW8260C

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Analytical Results — VOAs by GC/MS Method 8260C

Units: µg/kg
Dilution Factor: 100000

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	2,500,000	< 2,500,000	
Propyl acetate	109-60-4	1,000,000	< 1,000,000	
sec-Butylbenzene	135-98-8	200,000	< 200,000	
Styrene	100-42-5	200,000	< 200,000	
tert-Butyl alcohol	76-65-0	2,000,000	< 2,000,000	
tert-Butylbenzene	98-06-6	200,000	< 200,000	
Tetrachloroethene	127-18-4	200,000	< 200,000	
Tetrahydrofuran	109-99-9	200,000	< 200,000	
Toluene	108-88-3	200,000	**13,300,000**	
trans-1,2-Dichloroethene	156-60-5	200,000	< 200,000	
trans-1,3-Dichloropropene	10061-02-6	200,000	< 200,000	
trans-1,4-Dichloro-2-butene	110-57-6	200,000	< 200,000	
Trichloroethene	79-01-6	200,000	< 200,000	
Trichlorofluoromethane	75-69-4	200,000	< 200,000	
Vinyl acetate	108-05-4	1,000,000	< 1,000,000	
Vinyl chloride	75-01-4	100,000	< 100,000	
Xylenes, Total	1330-20-7	200,000	**18,800,000**	
TPH C11-C15 (DRO)		2,000,000	**62,200,000**	
TPH C6-C10 (GRO)		2,000,000	**154,000,000**	
Surr: 1,2-Dichloroethane-d4	17060-07-0	68-147	**100**	
Surr: 4-Bromofluorobenzene	460-00-4	71-144	**100**	
Surr: Dibromofluoromethane	1868-53-7	71-129	**96.7**	
Surr: Toluene-d8	2037-26-5	72-129	**96.4**	

D - This analyte was obtained from a 1:1000000 dilution.
The reporting limits were raised due to high analyte concentrations.
Sampling and analytical preparation performed by method 5030C.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9682	Oil Range Organics (ORO) (C28-	mg/kg	SW8015D	292	320.0	0	91.4	10-200				12/6/2010 2238h
LCS-9682	Surr: C36	%REC	SW8015D	2,130	2,000		106	10-200				12/6/2010 2238h
LCS-9681	Diesel Range Organics C10-C28	mg/kg	SW8015D	5,370	5,000	0	107	70-130				12/3/2010 1513h
LCS-9681	Surr: 4-Bromofluorobenzene	%REC	SW8015D	493	400.0		123	70-130				12/3/2010 1513h
LCS-9679	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.149	0.1600	0	93.4	10-200				12/6/2010 0039h
LCS-9679	Surr: C36	%REC	SW8015D	1.25	1.000		125	10-200				12/6/2010 0039h
LCS-9671	Diesel Range Organics C10-C28	mg/L	SW8015D	1.30	2.000	0	65.0	48-118				12/2/2010 1707h
LCS-9671	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.175	0.4000		43.6	18-95				12/2/2010 1707h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9682	Oil Range Organics (ORO) (C28-	mg/kg	SW8015D	< 30.0				-				12/6/2010 2219h
MB-9682	Surr: C36	%REC	SW8015D	2,190	2,000		110	10-200				12/6/2010 2219h
MB-9681	Diesel Range Organics C10-C28	mg/kg	SW8015D	< 500				-				12/3/2010 1451h
MB-9681	Surr: 4-Bromofluorobenzene	%REC	SW8015D	407	400.0		102	70-130				12/3/2010 1451h
MB-9679	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	< 0.0500				-				12/6/2010 0021h
MB-9679	Surr: C36	%REC	SW8015D	1.23	1.000		123	10-200				12/6/2010 0021h
MB-9671	Diesel Range Organics C10-C28	mg/L	SW8015D	< 0.500				-				12/2/2010 1645h
MB-9671	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.173	0.4000		43.2	18-95				12/2/2010 1645h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-004CMS	Oil Range Organics (ORO) (C28-	mg/kg	SW8015D	22,400	320.0	22,000	125	10-200				12/7/2010 0821h
1012057-004CMS	Surr: C36	%REC	SW8015D	3,000	2,000		150	10-200				12/7/2010 0821h
1012057-004CMS	Diesel Range Organics C10-C28	mg/kg	SW8015D	355,000	5,000	377,500	-450	70-130			[2]	12/3/2010 1639h
1012057-004CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	24,600	400.0		6,160	70-130			S	12/3/2010 1639h
1011529-006DMS	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.178	0.1600	0	111	10-200				12/6/2010 0247h
1011529-006DMS	Surr: C36	%REC	SW8015D	1.26	1.000		126	10-200				12/6/2010 0247h
1012039-001FMS	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.174	0.1600	0	109	10-200				12/6/2010 0418h
1012039-001FMS	Surr: C36	%REC	SW8015D	1.24	1.000		124	10-200				12/6/2010 0418h
1012039-001EMS	Diesel Range Organics C10-C28	mg/L	SW8015D	2.12	2.222	0	95.3	60-161				12/2/2010 1914h
1012039-001EMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.380	0.4444		85.5	10-190				12/2/2010 1914h

[2] - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

S - High surrogate recovery attributed to TPH interference. The method is in control as indicated by the method blank and LCS.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-004CMSD	Oil Range Organics (ORO) (C28-	mg/kg	SW8015D	22,500	320.0	22,000	156	10-200	0.445	30		12/7/2010 0840h
1012057-004CMSD	Surr: C36	%REC	SW8015D	2,960	2,000		148	10-200				12/7/2010 0840h
1012057-004CMSD	Diesel Range Organics C10-C28	mg/kg	SW8015D	378,000	5,000	377,500	20.0	70-130	6.41	98	[2]	12/3/2010 1700h
1012057-004CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	25,500	400.0		6,380	70-130			S	12/3/2010 1700h
1011529-006DMSD	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.169	0.1600	0	106	10-200	5.01	30		12/6/2010 0305h
1011529-006DMSD	Surr: C36	%REC	SW8015D	1.22	1.000		122	10-200				12/6/2010 0305h
1012039-001FMSD	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.200	0.1600	0	125	10-200	13.4	30		12/6/2010 0436h
1012039-001FMSD	Surr: C36	%REC	SW8015D	1.42	1.000		142	10-200				12/6/2010 0436h
1012039-001EMSD	Diesel Range Organics C10-C28	mg/L	SW8015D	1.95	2.041	0	95.7	60-161	8.09	25		12/2/2010 1935h
1012039-001EMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.312	0.4082		76.5	10-190				12/2/2010 1935h

[2] - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

S - High surrogate recovery attributed to TPH interference. The method is in control as indicated by the method blank and LCS.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	1,1´-Biphenyl	µg/L	EPA625	49.0	80.00	0	61.3	22-104				12/2/2010 2205h
LCS-9662	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	41.7	80.00	0	52.1	13-102				12/2/2010 2205h
LCS-9662	1,2,4-Trichlorobenzene	µg/L	EPA625	25.4	80.00	0	31.8	10-104				12/2/2010 2205h
LCS-9662	1,2-Dichlorobenzene	µg/L	EPA625	17.9	80.00	0	22.3	10-68				12/2/2010 2205h
LCS-9662	1,3,5-Trinitrobenzene	µg/L	EPA625	133	80.00	0	166	18-209				12/2/2010 2205h
LCS-9662	1,3-Dichlorobenzene	µg/L	EPA625	14.3	80.00	0	17.9	10-60				12/2/2010 2205h
LCS-9662	1,3-Dinitrobenzene	µg/L	EPA625	97.7	80.00	0	122	10-165				12/2/2010 2205h
LCS-9662	1,4-Dichlorobenzene	µg/L	EPA625	15.5	80.00	0	19.3	10-118				12/2/2010 2205h
LCS-9662	1,4-Naphthoquinone	µg/L	EPA625	< 10.0	80.00	0	12.4	10-187				12/2/2010 2205h
LCS-9662	1,4-Phenylenediamine	µg/L	EPA625	35.5	80.00	0	44.4	10-80				12/2/2010 2205h
LCS-9662	1-Chloronaphthalene	µg/L	EPA625	47.3	80.00	0	59.1	13-123				12/2/2010 2205h
LCS-9662	1-Methylnaphthalene	µg/L	EPA625	45.0	80.00	0	56.3	13-105				12/2/2010 2205h
LCS-9662	1-Naphthylamine	µg/L	EPA625	64.7	80.00	0	80.8	32-256				12/2/2010 2205h
LCS-9662	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	85.4	80.00	0	107	44-158				12/2/2010 2205h
LCS-9662	2,4,5-Trichlorophenol	µg/L	EPA625	59.0	80.00	0	73.7	46-142				12/2/2010 2205h
LCS-9662	2,4,6-Trichlorophenol	µg/L	EPA625	49.9	80.00	0	62.3	42-113				12/2/2010 2205h
LCS-9662	2,4-Dichlorophenol	µg/L	EPA625	46.9	80.00	0	58.6	37-102				12/2/2010 2205h
LCS-9662	2,4-Dimethylphenol	µg/L	EPA625	53.7	80.00	0	67.1	37-99				12/2/2010 2205h
LCS-9662	2,4-Dinitrophenol	µg/L	EPA625	68.9	80.00	0	86.2	10-200				12/2/2010 2205h
LCS-9662	2,4-Dinitrotoluene	µg/L	EPA625	96.5	80.00	0	121	15-209				12/2/2010 2205h
LCS-9662	2,6-Dichlorophenol	µg/L	EPA625	53.8	80.00	0	67.2	44-111				12/2/2010 2205h
LCS-9662	2,6-Dinitrotoluene	µg/L	EPA625	78.4	80.00	0	98.0	13-183				12/2/2010 2205h
LCS-9662	2-Acetylaminofluorene	µg/L	EPA625	77.8	80.00	0	97.2	40-131				12/2/2010 2205h
LCS-9662	2-Chloronaphthalene	µg/L	EPA625	43.7	80.00	0	54.7	16-103				12/2/2010 2205h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	2-Chlorophenol	µg/L	EPA625	42.7	80.00	0	53.4	21-98				12/2/2010 2205h
LCS-9662	2-Methylnaphthalene	µg/L	EPA625	38.6	80.00	0	48.2	11-92				12/2/2010 2205h
LCS-9662	2-Methylphenol	µg/L	EPA625	44.5	80.00	0	55.6	24-92				12/2/2010 2205h
LCS-9662	2-Naphthylamine	µg/L	EPA625	59.5	80.00	0	74.4	48-193				12/2/2010 2205h
LCS-9662	2-Nitroaniline	µg/L	EPA625	76.6	80.00	0	95.7	10-216				12/2/2010 2205h
LCS-9662	2-Nitrophenol	µg/L	EPA625	63.7	80.00	0	79.6	10-173				12/2/2010 2205h
LCS-9662	2-Picoline	µg/L	EPA625	19.2	80.00	0	24.1	10-66				12/2/2010 2205h
LCS-9662	3&4-Methylphenol	µg/L	EPA625	27.8	80.00	0	34.8	10-88				12/2/2010 2205h
LCS-9662	3,3´-Dichlorobenzidine	µg/L	EPA625	73.2	80.00	0	91.4	38-131				12/2/2010 2205h
LCS-9662	3,3´-Dimethylbenzidine	µg/L	EPA625	73.3	80.00	0	91.7	10-172				12/2/2010 2205h
LCS-9662	3-Methylcholanthrene	µg/L	EPA625	77.9	80.00	0	97.3	48-206				12/2/2010 2205h
LCS-9662	3-Nitroaniline	µg/L	EPA625	74.4	80.00	0	93.0	31-172				12/2/2010 2205h
LCS-9662	4,6-Dinitro-2-methylphenol	µg/L	EPA625	102	80.00	0	128	10-190				12/2/2010 2205h
LCS-9662	4-Aminobiphenyl	µg/L	EPA625	72.5	80.00	0	90.6	10-202				12/2/2010 2205h
LCS-9662	4-Bromophenyl phenyl ether	µg/L	EPA625	61.7	80.00	0	77.2	55-136				12/2/2010 2205h
LCS-9662	4-Chloro-3-methylphenol	µg/L	EPA625	59.0	80.00	0	73.7	47-113				12/2/2010 2205h
LCS-9662	4-Chloroaniline	µg/L	EPA625	46.7	80.00	0	58.4	24-124				12/2/2010 2205h
LCS-9662	4-Chlorophenyl phenyl ether	µg/L	EPA625	60.5	80.00	0	75.6	41-119				12/2/2010 2205h
LCS-9662	4-Nitroaniline	µg/L	EPA625	70.6	80.00	0	88.3	27-159				12/2/2010 2205h
LCS-9662	4-Nitrophenol	µg/L	EPA625	115	80.00	0	143	10-157				12/2/2010 2205h
LCS-9662	5-Nitro-o-toluidine	µg/L	EPA625	87.9	80.00	0	110	60-168				12/2/2010 2205h
LCS-9662	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	101	80.00	0	126	42-277				12/2/2010 2205h
LCS-9662	a,a-Dimethylphenethylamine	µg/L	EPA625	40.5	80.00	0	50.7	10-160				12/2/2010 2205h
LCS-9662	Acenaphthene	µg/L	EPA625	55.7	80.00	0	69.6	29-112				12/2/2010 2205h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	Acenaphthylene	µg/L	EPA625	56.5	80.00	0	70.6	31-116				12/2/2010 2205h
LCS-9662	Acetophenone	µg/L	EPA625	44.3	80.00	0	55.3	10-105				12/2/2010 2205h
LCS-9662	alpha-Terpineol	µg/L	EPA625	46.8	80.00	0	58.5	14-98				12/2/2010 2205h
LCS-9662	Aniline	µg/L	EPA625	29.0	80.00	0	36.3	10-94				12/2/2010 2205h
LCS-9662	Anthracene	µg/L	EPA625	74.8	80.00	0	93.5	64-145				12/2/2010 2205h
LCS-9662	Aramite	µg/L	EPA625	90.4	80.00	0	113	46-162				12/2/2010 2205h
LCS-9662	Azobenzene	µg/L	EPA625	56.2	80.00	0	70.3	32-117				12/2/2010 2205h
LCS-9662	Benz(a)anthracene	µg/L	EPA625	72.0	80.00	0	90.1	50-134				12/2/2010 2205h
LCS-9662	Benzidine	µg/L	EPA625	62.4	80.00	0	78.0	10-211				12/2/2010 2205h
LCS-9662	Benzo(a)pyrene	µg/L	EPA625	79.7	80.00	0	99.7	39-152				12/2/2010 2205h
LCS-9662	Benzo(b)fluoranthene	µg/L	EPA625	71.3	80.00	0	89.2	46-256				12/2/2010 2205h
LCS-9662	Benzo(g,h,i)perylene	µg/L	EPA625	67.5	80.00	0	84.4	21-288				12/2/2010 2205h
LCS-9662	Benzo(k)fluoranthene	µg/L	EPA625	97.6	80.00	0	122	10-254				12/2/2010 2205h
LCS-9662	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	19.0	10-64				12/2/2010 2205h
LCS-9662	Benzyl alcohol	µg/L	EPA625	23.0	80.00	0	28.8	10-88				12/2/2010 2205h
LCS-9662	Bis(2-chloroethoxy)methane	µg/L	EPA625	33.1	80.00	0	41.4	10-98				12/2/2010 2205h
LCS-9662	Bis(2-chloroethyl) ether	µg/L	EPA625	31.6	80.00	0	39.4	10-99				12/2/2010 2205h
LCS-9662	Bis(2-chloroisopropyl) ether	µg/L	EPA625	30.8	80.00	0	38.6	10-92				12/2/2010 2205h
LCS-9662	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	99.0	80.00	0	124	10-233				12/2/2010 2205h
LCS-9662	bis(2-ethylhexyl)adipate	µg/L	EPA625	90.0	80.00	0	112	10-200				12/2/2010 2205h
LCS-9662	Butyl benzyl phthalate	µg/L	EPA625	85.9	80.00	0	107	10-178				12/2/2010 2205h
LCS-9662	Carbazole	µg/L	EPA625	73.2	80.00	0	91.5	61-140				12/2/2010 2205h
LCS-9662	Chlorobenzilate	µg/L	EPA625	77.9	80.00	0	97.4	10-218				12/2/2010 2205h
LCS-9662	Chrysene	µg/L	EPA625	77.7	80.00	0	97.2	54-130				12/2/2010 2205h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	Diallate (cis or trans)	µg/L	EPA625	60.8	80.00	0	76.1	41-132				12/2/2010 2205h
LCS-9662	Dibenz(a,h)anthracene	µg/L	EPA625	70.6	80.00	0	88.2	27-199				12/2/2010 2205h
LCS-9662	Dibenzofuran	µg/L	EPA625	57.9	80.00	0	72.4	38-117				12/2/2010 2205h
LCS-9662	Diethyl phthalate	µg/L	EPA625	56.8	80.00	0	71.0	20-128				12/2/2010 2205h
LCS-9662	Dimethoate	µg/L	EPA625	< 10.0	80.00	0	12.2	10-60				12/2/2010 2205h
LCS-9662	Dimethyl phthalate	µg/L	EPA625	36.3	80.00	0	45.3	10-105				12/2/2010 2205h
LCS-9662	Dimethylaminoazobenzene	µg/L	EPA625	84.0	80.00	0	105	30-151				12/2/2010 2205h
LCS-9662	Di-n-butyl phthalate	µg/L	EPA625	75.2	80.00	0	94.0	45-131				12/2/2010 2205h
LCS-9662	Di-n-octyl phthalate	µg/L	EPA625	136	80.00	0	170	10-252				12/2/2010 2205h
LCS-9662	Dinoseb	µg/L	EPA625	113	80.00	0	142	10-186				12/2/2010 2205h
LCS-9662	Diphenylamine	µg/L	EPA625	67.5	80.00	0	84.4	46-128				12/2/2010 2205h
LCS-9662	Disulfoton	µg/L	EPA625	51.9	80.00	0	64.9	10-124				12/2/2010 2205h
LCS-9662	Ethyl methanesulfonate	µg/L	EPA625	39.4	80.00	0	49.2	10-105				12/2/2010 2205h
LCS-9662	Famphur	µg/L	EPA625	140	80.00	0	175	10-298				12/2/2010 2205h
LCS-9662	Fluoranthene	µg/L	EPA625	74.0	80.00	0	92.5	61-138				12/2/2010 2205h
LCS-9662	Fluorene	µg/L	EPA625	60.3	80.00	0	75.4	45-116				12/2/2010 2205h
LCS-9662	Hexachlorobenzene	µg/L	EPA625	64.4	80.00	0	80.5	55-135				12/2/2010 2205h
LCS-9662	Hexachlorobutadiene	µg/L	EPA625	18.5	80.00	0	23.2	10-79				12/2/2010 2205h
LCS-9662	Hexachlorocyclopentadiene	µg/L	EPA625	11.1	80.00	0	13.8	10-104				12/2/2010 2205h
LCS-9662	Hexachloroethane	µg/L	EPA625	13.6	80.00	0	17.0	10-58				12/2/2010 2205h
LCS-9662	Hexachlorophene	µg/L	EPA625	82.4	80.00	0	103	10-242				12/2/2010 2205h
LCS-9662	Hexachloropropene	µg/L	EPA625	14.4	80.00	0	18.0	10-79				12/2/2010 2205h
LCS-9662	Indene	µg/L	EPA625	23.9	80.00	0	29.8	10-71				12/2/2010 2205h
LCS-9662	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	69.9	80.00	0	87.3	29-208				12/2/2010 2205h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	Isodrin	µg/L	EPA625	70.1	80.00	0	87.6	58-140				12/2/2010 2205h
LCS-9662	Isophorone	µg/L	EPA625	45.6	80.00	0	57.0	10-105				12/2/2010 2205h
LCS-9662	Isosafrole	µg/L	EPA625	44.3	80.00	0	55.4	12-108				12/2/2010 2205h
LCS-9662	Kepone	µg/L	EPA625	214	80.00	0	268	10-330				12/2/2010 2205h
LCS-9662	Methapyrilene	µg/L	EPA625	85.9	80.00	0	107	17-151				12/2/2010 2205h
LCS-9662	Methyl methanesulfonate	µg/L	EPA625	25.4	80.00	0	31.7	10-107				12/2/2010 2205h
LCS-9662	Naphthalene	µg/L	EPA625	33.2	80.00	0	41.5	10-79				12/2/2010 2205h
LCS-9662	n-Decane	µg/L	EPA625	< 10.0	80.00	0	10.5	10-45				12/2/2010 2205h
LCS-9662	Nitrobenzene	µg/L	EPA625	50.4	80.00	0	63.0	10-104				12/2/2010 2205h
LCS-9662	Nitroquinoline-1-oxide	µg/L	EPA625	29.4	80.00	0	36.8	10-165				12/2/2010 2205h
LCS-9662	N-Nitrosodiethylamine	µg/L	EPA625	36.2	80.00	0	45.2	10-96				12/2/2010 2205h
LCS-9662	N-Nitrosodimethylamine	µg/L	EPA625	16.3	80.00	0	20.4	10-55				12/2/2010 2205h
LCS-9662	N-Nitrosodi-n-butylamine	µg/L	EPA625	52.5	80.00	0	65.6	21-104				12/2/2010 2205h
LCS-9662	N-Nitrosodiphenylamine	µg/L	EPA625	66.1	80.00	0	82.6	45-126				12/2/2010 2205h
LCS-9662	N-Nitrosodi-n-propylamine	µg/L	EPA625	40.9	80.00	0	51.2	10-103				12/2/2010 2205h
LCS-9662	N-Nitrosomethylethylamine	µg/L	EPA625	28.9	80.00	0	36.2	10-84				12/2/2010 2205h
LCS-9662	N-Nitrosomorpholine	µg/L	EPA625	43.4	80.00	0	54.2	15-107				12/2/2010 2205h
LCS-9662	N-Nitrosopiperidine	µg/L	EPA625	50.5	80.00	0	63.1	10-108				12/2/2010 2205h
LCS-9662	N-Nitrosopyrrolidine	µg/L	EPA625	50.8	80.00	0	63.5	19-115				12/2/2010 2205h
LCS-9662	n-Octadecane	µg/L	EPA625	55.0	80.00	0	68.8	27-134				12/2/2010 2205h
LCS-9662	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	48.4	80.00	0	60.5	10-129				12/2/2010 2205h
LCS-9662	o-Toluidine	µg/L	EPA625	84.4	80.00	0	106	21-225				12/2/2010 2205h
LCS-9662	Parathion	µg/L	EPA625	106	80.00	0	132	10-165				12/2/2010 2205h
LCS-9662	Methyl parathion	µg/L	EPA625	98.2	80.00	0	123	10-165				12/2/2010 2205h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	Pentachlorobenzene	µg/L	EPA625	56.8	80.00	0	71.0	41-118				12/2/2010 2205h
LCS-9662	Pentachloronitrobenzene	µg/L	EPA625	75.6	80.00	0	94.5	35-185				12/2/2010 2205h
LCS-9662	Pentachlorophenol	µg/L	EPA625	65.4	80.00	0	81.8	14-144				12/2/2010 2205h
LCS-9662	Phenacetin	µg/L	EPA625	73.0	80.00	0	91.2	42-163				12/2/2010 2205h
LCS-9662	Phenanthrene	µg/L	EPA625	76.0	80.00	0	95.0	25-135				12/2/2010 2205h
LCS-9662	Phenol	µg/L	EPA625	26.5	80.00	0	33.1	10-53				12/2/2010 2205h
LCS-9662	Phorate	µg/L	EPA625	73.0	80.00	0	91.2	36-158				12/2/2010 2205h
LCS-9662	Pronamide	µg/L	EPA625	78.2	80.00	0	97.7	33-137				12/2/2010 2205h
LCS-9662	Pyrene	µg/L	EPA625	85.1	80.00	0	106	42-145				12/2/2010 2205h
LCS-9662	Pyridine	µg/L	EPA625	10.3	80.00	0	12.9	10-37				12/2/2010 2205h
LCS-9662	Quinoline	µg/L	EPA625	53.9	80.00	0	67.4	13-111				12/2/2010 2205h
LCS-9662	Safrole	µg/L	EPA625	49.1	80.00	0	61.4	24-111				12/2/2010 2205h
LCS-9662	Tetraethyl dithiopyrophosphate	µg/L	EPA625	65.9	80.00	0	82.4	52-138				12/2/2010 2205h
LCS-9662	Thionazin	µg/L	EPA625	62.8	80.00	0	78.4	45-123				12/2/2010 2205h
LCS-9662	Surr: 2,4,6-Tribromophenol	%REC	EPA625	66.9	80.00		83.7	64-130				12/2/2010 2205h
LCS-9662	Surr: 2-Fluorobiphenyl	%REC	EPA625	47.6	40.00		119	32-128				12/2/2010 2205h
LCS-9662	Surr: 2-Fluorophenol	%REC	EPA625	25.2	80.00		31.4	10-121				12/2/2010 2205h
LCS-9662	Surr: Nitrobenzene-d5	%REC	EPA625	47.1	40.00		118	17-133				12/2/2010 2205h
LCS-9662	Surr: Phenol-d6	%REC	EPA625	18.7	80.00		23.4	10-124				12/2/2010 2205h
LCS-9662	Surr: Terphenyl-d14	%REC	EPA625	86.5	40.00		216	51-221				12/2/2010 2205h
LCS-9680	1,2,4-Trichlorobenzene	mg/kg	SW8270D	115	100.0	0	115	59-136				12/4/2010 1738h
LCS-9680	1,4-Dichlorobenzene	mg/kg	SW8270D	90.4	100.0	0	90.4	40-116				12/4/2010 1738h
LCS-9680	2,4,6-Trichlorophenol	mg/kg	SW8270D	76.8	100.0	0	76.8	46-141				12/4/2010 1738h
LCS-9680	2,4-Dimethylphenol	mg/kg	SW8270D	97.0	100.0	0	97.0	30-133				12/4/2010 1738h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9680	2,4-Dinitrotoluene	mg/kg	SW8270D	91.5	100.0	0	91.5	54-156				12/4/2010 1738h
LCS-9680	2-Chloronaphthalene	mg/kg	SW8270D	88.7	100.0	0	88.7	45-132				12/4/2010 1738h
LCS-9680	2-Chlorophenol	mg/kg	SW8270D	94.3	100.0	0	94.3	33-119				12/4/2010 1738h
LCS-9680	4,6-Dinitro-2-methylphenol	mg/kg	SW8270D	< 150	100.0	0	148	25-161				12/4/2010 1738h
LCS-9680	4-Chloro-3-methylphenol	mg/kg	SW8270D	90.5	100.0	0	90.5	31-125				12/4/2010 1738h
LCS-9680	4-Nitrophenol	mg/kg	SW8270D	< 150	100.0	0	111	10-136				12/4/2010 1738h
LCS-9680	Acenaphthene	mg/kg	SW8270D	112	100.0	0	112	37-119				12/4/2010 1738h
LCS-9680	Benzo(a)pyrene	mg/kg	SW8270D	113	100.0	0	113	33-135				12/4/2010 1738h
LCS-9680	N-Nitrosodi-n-propylamine	mg/kg	SW8270D	87.8	100.0	0	87.8	32-122				12/4/2010 1738h
LCS-9680	Pentachlorophenol	mg/kg	SW8270D	< 150	100.0	0	87.8	21-131				12/4/2010 1738h
LCS-9680	Phenol	mg/kg	SW8270D	87.0	100.0	0	87.0	31-111				12/4/2010 1738h
LCS-9680	Pyrene	mg/kg	SW8270D	104	100.0	0	104	49-139				12/4/2010 1738h
LCS-9680	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	181	200.0		90.4	10-180				12/4/2010 1738h
LCS-9680	Surr: 2-Fluorobiphenyl	%REC	SW8270D	102	100.0		102	29-152				12/4/2010 1738h
LCS-9680	Surr: 2-Fluorophenol	%REC	SW8270D	158	200.0		79.2	10-168				12/4/2010 1738h
LCS-9680	Surr: Nitrobenzene-d5	%REC	SW8270D	106	100.0		106	23-161				12/4/2010 1738h
LCS-9680	Surr: Phenol-d6	%REC	SW8270D	128	200.0		64.2	10-167				12/4/2010 1738h
LCS-9680	Surr: Terphenyl-d14	%REC	SW8270D	92.0	100.0		92.0	11-148				12/4/2010 1738h
LCS-9662	1,2,4-Trichlorobenzene	µg/L	SW8270D	25.4	80.00	0	31.8	10-104				12/2/2010 2205h
LCS-9662	1,4-Dichlorobenzene	µg/L	SW8270D	15.5	80.00	0	19.3	10-118				12/2/2010 2205h
LCS-9662	2,4,6-Trichlorophenol	µg/L	SW8270D	49.9	80.00	0	62.3	20-117				12/2/2010 2205h
LCS-9662	2,4-Dimethylphenol	µg/L	SW8270D	53.7	80.00	0	67.1	10-131				12/2/2010 2205h
LCS-9662	2,4-Dinitrotoluene	µg/L	SW8270D	96.5	80.00	0	121	42-219				12/2/2010 2205h
LCS-9662	2-Chloronaphthalene	µg/L	SW8270D	43.7	80.00	0	54.7	23-126				12/2/2010 2205h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9662	2-Chlorophenol	µg/L	SW8270D	42.7	80.00	0	53.4	15-114				12/2/2010 2205h
LCS-9662	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	102	80.00	0	128	10-190				12/2/2010 2205h
LCS-9662	4-Chloro-3-methylphenol	µg/L	SW8270D	59.0	80.00	0	73.7	29-148				12/2/2010 2205h
LCS-9662	4-Nitrophenol	µg/L	SW8270D	115	80.00	0	143	10-157				12/2/2010 2205h
LCS-9662	Acenaphthene	µg/L	SW8270D	55.7	80.00	0	69.6	20-116				12/2/2010 2205h
LCS-9662	Benzo(a)pyrene	µg/L	SW8270D	79.7	80.00	0	99.7	39-152				12/2/2010 2205h
LCS-9662	N-Nitrosodi-n-propylamine	µg/L	SW8270D	40.9	80.00	0	51.2	20-148				12/2/2010 2205h
LCS-9662	Pentachlorophenol	µg/L	SW8270D	65.4	80.00	0	81.8	14-144				12/2/2010 2205h
LCS-9662	Phenol	µg/L	SW8270D	26.5	80.00	0	33.1	10-131				12/2/2010 2205h
LCS-9662	Pyrene	µg/L	SW8270D	85.1	80.00	0	106	37-138				12/2/2010 2205h
LCS-9662	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	66.9	80.00		83.7	10-165				12/2/2010 2205h
LCS-9662	Surr: 2-Fluorobiphenyl	%REC	SW8270D	47.6	40.00		119	32-128				12/2/2010 2205h
LCS-9662	Surr: 2-Fluorophenol	%REC	SW8270D	25.2	80.00		31.4	10-121				12/2/2010 2205h
LCS-9662	Surr: Nitrobenzene-d5	%REC	SW8270D	47.1	40.00		118	17-133				12/2/2010 2205h
LCS-9662	Surr: Phenol-d6	%REC	SW8270D	18.7	80.00		23.4	10-124				12/2/2010 2205h
LCS-9662	Surr: Terphenyl-d14	%REC	SW8270D	86.5	40.00		216	51-221				12/2/2010 2205h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	1,1´-Biphenyl	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,2,4-Trichlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,2-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,3,5-Trinitrobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,3-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,3-Dinitrobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,4-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,4-Naphthoquinone	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1,4-Phenylenediamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1-Chloronaphthalene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1-Methylnaphthalene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	1-Naphthylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,4,5-Trichlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,4,6-Trichlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,4-Dichlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,4-Dimethylphenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,4-Dinitrophenol	µg/L	EPA625	< 20.0				-				12/2/2010 2137h
MB-9662	2,4-Dinitrotoluene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,6-Dichlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2,6-Dinitrotoluene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Acetylaminofluorene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Chloronaphthalene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	2-Chlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Methylnaphthalene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Methylphenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Naphthylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Nitroaniline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Nitrophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	2-Picoline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	3&4-Methylphenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	3,3´-Dichlorobenzidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	3,3´-Dimethylbenzidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	3-Methylcholanthrene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	3-Nitroaniline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4,6-Dinitro-2-methylphenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Aminobiphenyl	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Bromophenyl phenyl ether	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Chloro-3-methylphenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Chloroaniline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Chlorophenyl phenyl ether	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Nitroaniline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	4-Nitrophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	5-Nitro-o-toluidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	a,a-Dimethylphenethylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Acenaphthene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h

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QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	Acenaphthylene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Acetophenone	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	alpha-Terpineol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Aniline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Anthracene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Aramite	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Azobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benz(a)anthracene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benzidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(a)pyrene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(b)fluoranthene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(g,h,i)perylene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(k)fluoranthene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Benzoic acid	µg/L	EPA625	< 20.0				-				12/2/2010 2137h
MB-9662	Benzyl alcohol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-chloroethoxy)methane	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-chloroethyl) ether	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-chloroisopropyl) ether	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	bis(2-ethylhexyl)adipate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Butyl benzyl phthalate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Carbazole	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Chlorobenzilate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Chrysene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h

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QC SUMMARY REPORT

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Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	Diallate (cis or trans)	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Dibenz(a,h)anthracene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Dibenzofuran	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Diethyl phthalate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Dimethoate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Dimethyl phthalate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Dimethylaminoazobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Di-n-butyl phthalate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Di-n-octyl phthalate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Dinoseb	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Diphenylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Disulfoton	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Ethyl methanesulfonate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Famphur	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Fluoranthene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Fluorene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorobutadiene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorocyclopentadiene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachloroethane	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorophene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachloropropene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Indene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
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Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	Isodrin	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Isophorone	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Isosafrole	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Kepone	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Methapyrilene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Methyl methanesulfonate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Naphthalene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	n-Decane	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Nitrobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Nitroquinoline-1-oxide	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodiethylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodimethylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodi-n-butylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodiphenylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodi-n-propylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosomethylethylamine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosomorpholine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosopiperidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosopyrrolidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	n-Octadecane	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	o-Toluidine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Parathion	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Methyl parathion	µg/L	EPA625	< 10.0				-				12/2/2010 2137h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	Pentachlorobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Pentachloronitrobenzene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Pentachlorophenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Phenacetin	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Phenanthrene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Phenol	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Phorate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Pronamide	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Pyrene	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Pyridine	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Quinoline	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Safrole	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Tetraethyl dithiopyrophosphate	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Thionazin	µg/L	EPA625	< 10.0				-				12/2/2010 2137h
MB-9662	Surr: 2,4,6-Tribromophenol	%REC	EPA625	52.3	80.00		65.4	10-165				12/2/2010 2137h
MB-9662	Surr: 2-Fluorobiphenyl	%REC	EPA625	22.3	40.00		55.7	18-113				12/2/2010 2137h
MB-9662	Surr: 2-Fluorophenol	%REC	EPA625	32.2	80.00		40.2	10-121				12/2/2010 2137h
MB-9662	Surr: Nitrobenzene-d5	%REC	EPA625	19.7	40.00		49.2	17-133				12/2/2010 2137h
MB-9662	Surr: Phenol-d6	%REC	EPA625	16.0	80.00		20.0	10-124				12/2/2010 2137h
MB-9662	Surr: Terphenyl-d14	%REC	EPA625	45.7	40.00		114	28-163				12/2/2010 2137h
MB-9680	1,1´-Biphenyl	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,2,4,5-Tetrachlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,2,4-Trichlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,2-Dichlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h

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Lab Set ID: 1012057
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9680	1,3,5-Trinitrobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,3-Dichlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,3-Dinitrobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,4-Dichlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,4-Naphthoquinone	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1,4-Phenylenediamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1-Chloronaphthalene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1-Methylnaphthalene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	1-Naphthylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,3,4,6-Tetrachlorophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,4,5-Trichlorophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,4,6-Trichlorophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,4-Dichlorophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,4-Dimethylphenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,4-Dinitrophenol	mg/kg	SW8270D	< 150				-				12/4/2010 1711h
MB-9680	2,4-Dinitrotoluene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,6-Dichlorophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2,6-Dinitrotoluene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Acetylaminofluorene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Chloronaphthalene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Chlorophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Methylnaphthalene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Methylphenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Naphthylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9680	2-Nitroaniline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Nitrophenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	2-Picoline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	3&4-Methylphenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	3,3´-Dichlorobenzidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	3,3´-Dimethylbenzidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	3-Methylcholanthrene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	3-Nitroaniline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	4,6-Dinitro-2-methylphenol	mg/kg	SW8270D	< 150				-				12/4/2010 1711h
MB-9680	4-Aminobiphenyl	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	4-Bromophenyl phenyl ether	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	4-Chloro-3-methylphenol	mg/kg	SW8270D	< 60.0				-				12/4/2010 1711h
MB-9680	4-Chloroaniline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	4-Chlorophenyl phenyl ether	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	4-Nitroaniline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	4-Nitrophenol	mg/kg	SW8270D	< 150				-				12/4/2010 1711h
MB-9680	5-Nitro-o-toluidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	7,12-Dimethylbenz(a)anthracene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	a,a-Dimethylphenethylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Acenaphthene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Acenaphthylene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Acetophenone	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	alpha-Terpineol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Aniline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9680	Anthracene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Aramite	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Azobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benz(a)anthracene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benzidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benzo(a)pyrene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benzo(b)fluoranthene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benzo(g,h,i)perylene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benzo(k)fluoranthene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Benzoic acid	mg/kg	SW8270D	< 150				-				12/4/2010 1711h
MB-9680	Benzyl alcohol	mg/kg	SW8270D	< 60.0				-				12/4/2010 1711h
MB-9680	Bis(2-chloroethoxy)methane	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Bis(2-chloroethyl) ether	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Bis(2-chloroisopropyl) ether	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Bis(2-ethylhexyl) phthalate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	bis(2-ethylhexyl)adipate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Butyl benzyl phthalate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	C11-C12 Aliphatic hydrocarbons	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	C11-C13 Alkyl Naphthalenes	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	C13-C16 Aliphatic hydrocarbons	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	C17-C21 Aliphatic hydrocarbons	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	C22-C35 Aliphatic hydrocarbons	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Carbazole	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Chlorobenzilate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h

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QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9680	Chrysene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Diallate (cis or trans)	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Dibenz(a,h)anthracene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Dibenzofuran	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Diethyl phthalate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Dimethoate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Dimethyl phthalate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Dimethylaminoazobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Di-n-butyl phthalate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Di-n-octyl phthalate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Dinoseb	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Diphenylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Disulfoton	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Ethyl methanesulfonate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Famphur	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Fluoranthene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Fluorene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Hexachlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Hexachlorobutadiene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Hexachlorocyclopentadiene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Hexachloroethane	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Hexachlorophene	mg/kg	SW8270D	< 120				-				12/4/2010 1711h
MB-9680	Hexachloropropene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Indene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h

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QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9680	Indeno(1,2,3-cd)pyrene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Isodrin	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Isophorone	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Isosafrole	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Kepone	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Methapyrilene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Methyl methanesulfonate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Naphthalene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	n-Decane	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Nitrobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Nitroquinoline-1-oxide	mg/kg	SW8270D	< 100				-				12/4/2010 1711h
MB-9680	N-Nitrosodiethylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosodimethylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosodi-n-butylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosodiphenylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosodi-n-propylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosomethylethylamine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosomorpholine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosopiperidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	N-Nitrosopyrrolidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	n-Octadecane	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	O,O,O-Triethyl phosphorothioate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	o-Toluidine	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Parathion	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h

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QC SUMMARY REPORT

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Lab Set ID: 1012057
Project: Red Butte Spill

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Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9680	Methyl parathion	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Pentachlorobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Pentachloronitrobenzene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Pentachlorophenol	mg/kg	SW8270D	< 150				-				12/4/2010 1711h
MB-9680	Phenacetin	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Phenanthrene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Phenol	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Phorate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Pronamide	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Pyrene	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Pyridine	mg/kg	SW8270D	< 150				-				12/4/2010 1711h
MB-9680	Quinoline	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Safrole	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Tetraethyl dithiopyrophosphate	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Thionazin	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Total C12-C22 PAH**	mg/kg	SW8270D	< 50.0				-				12/4/2010 1711h
MB-9680	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	142	200.0		71.1	10-180				12/4/2010 1711h
MB-9680	Surr: 2-Fluorobiphenyl	%REC	SW8270D	94.4	100.0		94.4	29-152				12/4/2010 1711h
MB-9680	Surr: 2-Fluorophenol	%REC	SW8270D	58.9	200.0		29.4	10-168				12/4/2010 1711h
MB-9680	Surr: Nitrobenzene-d5	%REC	SW8270D	50.7	100.0		50.7	23-161				12/4/2010 1711h
MB-9680	Surr: Phenol-d6	%REC	SW8270D	190	200.0		95.2	10-167				12/4/2010 1711h
MB-9680	Surr: Terphenyl-d14	%REC	SW8270D	96.5	100.0		96.5	11-148				12/4/2010 1711h
MB-9662	1,1´-Biphenyl	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h

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QC SUMMARY REPORT

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Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,4-Dinitrophenol	µg/L	SW8270D	< 20.0				-				12/2/2010 2137h
MB-9662	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	2-Methylphenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	2-Picoline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	3,3´-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	3,3´-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Acenaphthene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Acenaphthylene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Acetophenone	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Aniline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Anthracene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Aramite	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Azobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benzidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Benzoic acid	µg/L	SW8270D	< 20.0				-				12/2/2010 2137h
MB-9662	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	C11-C12 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	C11-C13 Alkyl Naphthalenes	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	C13-C16 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	C17-C21 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	C22-C35 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	Carbazole	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Chrysene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Dibenzofuran	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Dimethoate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Dinoseb	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Diphenylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Disulfoton	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Famphur	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Fluoranthene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Fluorene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachloroethane	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Hexachlorophene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h

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MB-9662	Hexachloropropene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Indene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Isodrin	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Isophorone	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Isosafrole	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Kepone	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Methapyrilene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Naphthalene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	n-Decane	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Nitrobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	n-Octadecane	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9662	o-Toluidine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Parathion	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Methyl parathion	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Phenacetin	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Phenanthrene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Phenol	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Phorate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Pronamide	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Pyrene	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Pyridine	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Quinoline	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Safrole	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Thionazin	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Total C12-C22 PAH**	µg/L	SW8270D	< 10.0				-				12/2/2010 2137h
MB-9662	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	52.3	80.00		65.4	10-165				12/2/2010 2137h
MB-9662	Surr: 2-Fluorobiphenyl	%REC	SW8270D	22.3	40.00		55.7	18-113				12/2/2010 2137h
MB-9662	Surr: 2-Fluorophenol	%REC	SW8270D	32.2	80.00		40.2	10-121				12/2/2010 2137h
MB-9662	Surr: Nitrobenzene-d5	%REC	SW8270D	19.7	40.00		49.2	17-133				12/2/2010 2137h
MB-9662	Surr: Phenol-d6	%REC	SW8270D	16.0	80.00		20.0	10-124				12/2/2010 2137h
MB-9662	Surr: Terphenyl-d14	%REC	SW8270D	45.7	40.00		114	28-163				12/2/2010 2137h

** - *This value is a summation of the PAH compounds listed above.*

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QC SUMMARY REPORT

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	1,1´-Biphenyl	µg/L	EPA625	48.3	80.00	0	60.4	27-99				12/3/2010 0117h
1011529-006FMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	39.8	80.00	0	49.8	10-119				12/3/2010 0117h
1011529-006FMS	1,2,4-Trichlorobenzene	µg/L	EPA625	24.1	80.00	0	30.1	10-79				12/3/2010 0117h
1011529-006FMS	1,2-Dichlorobenzene	µg/L	EPA625	18.4	80.00	0	23.0	10-59				12/3/2010 0117h
1011529-006FMS	1,3,5-Trinitrobenzene	µg/L	EPA625	138	80.00	0	172	10-175				12/3/2010 0117h
1011529-006FMS	1,3-Dichlorobenzene	µg/L	EPA625	15.0	80.00	0	18.8	10-56				12/3/2010 0117h
1011529-006FMS	1,3-Dinitrobenzene	µg/L	EPA625	96.8	80.00	0	121	10-175				12/3/2010 0117h
1011529-006FMS	1,4-Dichlorobenzene	µg/L	EPA625	16.4	80.00	0	20.5	10-58				12/3/2010 0117h
1011529-006FMS	1,4-Naphthoquinone	µg/L	EPA625	< 10.0	80.00	0	11.6	10-177				12/3/2010 0117h
1011529-006FMS	1,4-Phenylenediamine	µg/L	EPA625	34.6	80.00	0	43.2	10-124				12/3/2010 0117h
1011529-006FMS	1-Chloronaphthalene	µg/L	EPA625	46.0	80.00	0	57.5	10-106				12/3/2010 0117h
1011529-006FMS	1-Methylnaphthalene	µg/L	EPA625	44.0	80.00	0	55.0	10-83				12/3/2010 0117h
1011529-006FMS	1-Naphthylamine	µg/L	EPA625	63.4	80.00	0	79.2	10-122				12/3/2010 0117h
1011529-006FMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	76.8	80.00	0	96.0	10-157				12/3/2010 0117h
1011529-006FMS	2,4,5-Trichlorophenol	µg/L	EPA625	60.2	80.00	0	75.2	10-148				12/3/2010 0117h
1011529-006FMS	2,4,6-Trichlorophenol	µg/L	EPA625	50.7	80.00	0	63.4	10-136				12/3/2010 0117h
1011529-006FMS	2,4-Dichlorophenol	µg/L	EPA625	50.9	80.00	0	63.6	10-123				12/3/2010 0117h
1011529-006FMS	2,4-Dimethylphenol	µg/L	EPA625	56.5	80.00	0	70.7	10-113				12/3/2010 0117h
1011529-006FMS	2,4-Dinitrophenol	µg/L	EPA625	65.9	80.00	0	82.4	10-175				12/3/2010 0117h
1011529-006FMS	2,4-Dinitrotoluene	µg/L	EPA625	94.7	80.00	0	118	10-175				12/3/2010 0117h
1011529-006FMS	2,6-Dichlorophenol	µg/L	EPA625	57.5	80.00	0	71.9	10-148				12/3/2010 0117h
1011529-006FMS	2,6-Dinitrotoluene	µg/L	EPA625	79.0	80.00	0	98.8	10-175				12/3/2010 0117h
1011529-006FMS	2-Acetylaminofluorene	µg/L	EPA625	78.6	80.00	0	98.3	10-94			1	12/3/2010 0117h
1011529-006FMS	2-Chloronaphthalene	µg/L	EPA625	42.1	80.00	0	52.6	10-93				12/3/2010 0117h

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QC SUMMARY REPORT

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Contact: Jim Harris
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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	2-Chlorophenol	µg/L	EPA625	45.6	80.00	0	57.0	10-92				12/3/2010 0117h
1011529-006FMS	2-Methylnaphthalene	µg/L	EPA625	38.1	80.00	0	47.7	15-78				12/3/2010 0117h
1011529-006FMS	2-Methylphenol	µg/L	EPA625	46.6	80.00	0	58.2	10-83				12/3/2010 0117h
1011529-006FMS	2-Naphthylamine	µg/L	EPA625	59.8	80.00	0	74.8	10-154				12/3/2010 0117h
1011529-006FMS	2-Nitroaniline	µg/L	EPA625	78.5	80.00	0	98.2	10-175				12/3/2010 0117h
1011529-006FMS	2-Nitrophenol	µg/L	EPA625	68.6	80.00	0	85.8	10-175				12/3/2010 0117h
1011529-006FMS	2-Picoline	µg/L	EPA625	22.4	80.00	0	28.0	10-61				12/3/2010 0117h
1011529-006FMS	3&4-Methylphenol	µg/L	EPA625	29.4	80.00	0	36.8	10-80				12/3/2010 0117h
1011529-006FMS	3,3´-Dichlorobenzidine	µg/L	EPA625	73.2	80.00	0	91.5	10-150				12/3/2010 0117h
1011529-006FMS	3,3´-Dimethylbenzidine	µg/L	EPA625	73.3	80.00	0	91.6	10-143				12/3/2010 0117h
1011529-006FMS	3-Methylcholanthrene	µg/L	EPA625	76.8	80.00	0	96.0	32-171				12/3/2010 0117h
1011529-006FMS	3-Nitroaniline	µg/L	EPA625	73.6	80.00	0	92.0	10-175				12/3/2010 0117h
1011529-006FMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	105	80.00	0	131	10-175				12/3/2010 0117h
1011529-006FMS	4-Aminobiphenyl	µg/L	EPA625	73.7	80.00	0	92.1	10-175				12/3/2010 0117h
1011529-006FMS	4-Bromophenyl phenyl ether	µg/L	EPA625	64.1	80.00	0	80.1	16-138				12/3/2010 0117h
1011529-006FMS	4-Chloro-3-methylphenol	µg/L	EPA625	63.5	80.00	0	79.4	10-131				12/3/2010 0117h
1011529-006FMS	4-Chloroaniline	µg/L	EPA625	50.4	80.00	0	63.0	10-98				12/3/2010 0117h
1011529-006FMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	60.2	80.00	0	75.3	31-108				12/3/2010 0117h
1011529-006FMS	4-Nitroaniline	µg/L	EPA625	68.7	80.00	0	85.9	10-175				12/3/2010 0117h
1011529-006FMS	4-Nitrophenol	µg/L	EPA625	110	80.00	0	137	10-97			1	12/3/2010 0117h
1011529-006FMS	5-Nitro-o-toluidine	µg/L	EPA625	86.4	80.00	0	108	10-175				12/3/2010 0117h
1011529-006FMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	99.1	80.00	0	124	26-174				12/3/2010 0117h
1011529-006FMS	a,a-Dimethylphenethylamine	µg/L	EPA625	38.2	80.00	0	47.8	10-175				12/3/2010 0117h
1011529-006FMS	Acenaphthene	µg/L	EPA625	54.7	80.00	0	68.4	29-97				12/3/2010 0117h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	Acenaphthylene	µg/L	EPA625	54.6	80.00	0	68.3	37-87				12/3/2010 0117h
1011529-006FMS	Acetophenone	µg/L	EPA625	48.8	80.00	0	61.0	10-96				12/3/2010 0117h
1011529-006FMS	alpha-Terpineol	µg/L	EPA625	50.0	80.00	0	62.5	10-67				12/3/2010 0117h
1011529-006FMS	Aniline	µg/L	EPA625	33.4	80.00	0	41.8	10-71				12/3/2010 0117h
1011529-006FMS	Anthracene	µg/L	EPA625	76.0	80.00	0	95.0	53-114				12/3/2010 0117h
1011529-006FMS	Aramite	µg/L	EPA625	85.4	80.00	0	107	29-160				12/3/2010 0117h
1011529-006FMS	Azobenzene	µg/L	EPA625	56.8	80.00	0	71.0	15-114				12/3/2010 0117h
1011529-006FMS	Benz(a)anthracene	µg/L	EPA625	72.6	80.00	0	90.8	39-129				12/3/2010 0117h
1011529-006FMS	Benzidine	µg/L	EPA625	59.7	80.00	0	74.6	10-99				12/3/2010 0117h
1011529-006FMS	Benzo(a)pyrene	µg/L	EPA625	79.5	80.00	0	99.4	29-175				12/3/2010 0117h
1011529-006FMS	Benzo(b)fluoranthene	µg/L	EPA625	69.4	80.00	0	86.8	15-140				12/3/2010 0117h
1011529-006FMS	Benzo(g,h,i)perylene	µg/L	EPA625	65.0	80.00	0	81.3	10-182				12/3/2010 0117h
1011529-006FMS	Benzo(k)fluoranthene	µg/L	EPA625	97.9	80.00	0	122	21-154				12/3/2010 0117h
1011529-006FMS	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	19.4	10-71				12/3/2010 0117h
1011529-006FMS	Benzyl alcohol	µg/L	EPA625	24.1	80.00	0	30.2	10-69				12/3/2010 0117h
1011529-006FMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	36.6	80.00	0	45.7	10-94				12/3/2010 0117h
1011529-006FMS	Bis(2-chloroethyl) ether	µg/L	EPA625	37.0	80.00	0	46.3	10-70				12/3/2010 0117h
1011529-006FMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	35.4	80.00	0	44.3	10-71				12/3/2010 0117h
1011529-006FMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	90.6	80.00	0	113	10-175				12/3/2010 0117h
1011529-006FMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	90.6	80.00	0	113	10-175				12/3/2010 0117h
1011529-006FMS	Butyl benzyl phthalate	µg/L	EPA625	87.8	80.00	0	110	10-175				12/3/2010 0117h
1011529-006FMS	Carbazole	µg/L	EPA625	73.8	80.00	0	92.3	10-151				12/3/2010 0117h
1011529-006FMS	Chlorobenzilate	µg/L	EPA625	75.8	80.00	0	94.8	18-175				12/3/2010 0117h
1011529-006FMS	Chrysene	µg/L	EPA625	79.5	80.00	0	99.4	38-133				12/3/2010 0117h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	Diallate (cis or trans)	µg/L	EPA625	62.9	80.00	0	78.6	10-157				12/3/2010 0117h
1011529-006FMS	Dibenz(a,h)anthracene	µg/L	EPA625	67.9	80.00	0	84.9	13-168				12/3/2010 0117h
1011529-006FMS	Dibenzofuran	µg/L	EPA625	56.8	80.00	0	71.0	29-103				12/3/2010 0117h
1011529-006FMS	Diethyl phthalate	µg/L	EPA625	53.9	80.00	0	67.3	10-139				12/3/2010 0117h
1011529-006FMS	Dimethoate	µg/L	EPA625	< 10.0	80.00	0	11.4	10-136				12/3/2010 0117h
1011529-006FMS	Dimethyl phthalate	µg/L	EPA625	31.4	80.00	0	39.2	10-122				12/3/2010 0117h
1011529-006FMS	Dimethylaminoazobenzene	µg/L	EPA625	85.0	80.00	0	106	34-142				12/3/2010 0117h
1011529-006FMS	Di-n-butyl phthalate	µg/L	EPA625	75.1	80.00	0	93.8	44-124				12/3/2010 0117h
1011529-006FMS	Di-n-octyl phthalate	µg/L	EPA625	134	80.00	0	167	10-175				12/3/2010 0117h
1011529-006FMS	Dinoseb	µg/L	EPA625	119	80.00	0	149	10-175				12/3/2010 0117h
1011529-006FMS	Diphenylamine	µg/L	EPA625	67.8	80.00	0	84.8	13-110				12/3/2010 0117h
1011529-006FMS	Disulfoton	µg/L	EPA625	50.6	80.00	0	63.3	10-121				12/3/2010 0117h
1011529-006FMS	Ethyl methanesulfonate	µg/L	EPA625	44.2	80.00	0	55.2	10-99				12/3/2010 0117h
1011529-006FMS	Famphur	µg/L	EPA625	140	80.00	0	174	10-71			1	12/3/2010 0117h
1011529-006FMS	Fluoranthene	µg/L	EPA625	74.9	80.00	0	93.6	23-135				12/3/2010 0117h
1011529-006FMS	Fluorene	µg/L	EPA625	60.4	80.00	0	75.5	34-108				12/3/2010 0117h
1011529-006FMS	Hexachlorobenzene	µg/L	EPA625	65.1	80.00	0	81.4	26-131				12/3/2010 0117h
1011529-006FMS	Hexachlorobutadiene	µg/L	EPA625	19.3	80.00	0	24.1	10-110				12/3/2010 0117h
1011529-006FMS	Hexachlorocyclopentadiene	µg/L	EPA625	11.2	80.00	0	14.0	10-45				12/3/2010 0117h
1011529-006FMS	Hexachloroethane	µg/L	EPA625	14.7	80.00	0	18.3	10-58				12/3/2010 0117h
1011529-006FMS	Hexachlorophene	µg/L	EPA625	81.4	80.00	0	102	10-168				12/3/2010 0117h
1011529-006FMS	Hexachloropropene	µg/L	EPA625	15.4	80.00	0	19.2	10-72				12/3/2010 0117h
1011529-006FMS	Indene	µg/L	EPA625	23.1	80.00	0	28.9	10-35				12/3/2010 0117h
1011529-006FMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	68.6	80.00	0	85.7	10-176				12/3/2010 0117h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	Isodrin	µg/L	EPA625	69.6	80.00	0	87.1	15-165				12/3/2010 0117h
1011529-006FMS	Isophorone	µg/L	EPA625	50.6	80.00	0	63.2	10-99				12/3/2010 0117h
1011529-006FMS	Isosafrole	µg/L	EPA625	43.6	80.00	0	54.6	10-167				12/3/2010 0117h
1011529-006FMS	Kepone	µg/L	EPA625	217	80.00	0	272	10-175			1	12/3/2010 0117h
1011529-006FMS	Methapyrilene	µg/L	EPA625	85.0	80.00	0	106	10-149				12/3/2010 0117h
1011529-006FMS	Methyl methanesulfonate	µg/L	EPA625	29.7	80.00	0	37.2	10-132				12/3/2010 0117h
1011529-006FMS	Naphthalene	µg/L	EPA625	30.5	80.00	0	38.1	10-82				12/3/2010 0117h
1011529-006FMS	n-Decane	µg/L	EPA625	10.4	80.00	0	13.0	10-27				12/3/2010 0117h
1011529-006FMS	Nitrobenzene	µg/L	EPA625	56.0	80.00	0	70.0	10-119				12/3/2010 0117h
1011529-006FMS	Nitroquinoline-1-oxide	µg/L	EPA625	31.1	80.00	0	38.9	10-170				12/3/2010 0117h
1011529-006FMS	N-Nitrosodiethylamine	µg/L	EPA625	41.3	80.00	0	51.6	10-91				12/3/2010 0117h
1011529-006FMS	N-Nitrosodimethylamine	µg/L	EPA625	17.6	80.00	0	22.1	10-42				12/3/2010 0117h
1011529-006FMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	56.1	80.00	0	70.1	10-175				12/3/2010 0117h
1011529-006FMS	N-Nitrosodiphenylamine	µg/L	EPA625	67.0	80.00	0	83.7	12-112				12/3/2010 0117h
1011529-006FMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	45.4	80.00	0	56.7	10-77				12/3/2010 0117h
1011529-006FMS	N-Nitrosomethylethylamine	µg/L	EPA625	33.1	80.00	0	41.4	10-75				12/3/2010 0117h
1011529-006FMS	N-Nitrosomorpholine	µg/L	EPA625	48.0	80.00	0	60.0	10-175				12/3/2010 0117h
1011529-006FMS	N-Nitrosopiperidine	µg/L	EPA625	54.2	80.00	0	67.7	10-105				12/3/2010 0117h
1011529-006FMS	N-Nitrosopyrrolidine	µg/L	EPA625	54.4	80.00	0	68.0	10-88				12/3/2010 0117h
1011529-006FMS	n-Octadecane	µg/L	EPA625	57.6	80.00	0	72.0	10-121				12/3/2010 0117h
1011529-006FMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	51.3	80.00	0	64.1	10-93				12/3/2010 0117h
1011529-006FMS	o-Toluidine	µg/L	EPA625	96.4	80.00	0	120	10-107			1	12/3/2010 0117h
1011529-006FMS	Parathion	µg/L	EPA625	105	80.00	0	131	10-175				12/3/2010 0117h
1011529-006FMS	Methyl parathion	µg/L	EPA625	96.9	80.00	0	121	10-175				12/3/2010 0117h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	Pentachlorobenzene	µg/L	EPA625	55.7	80.00	0	69.6	25-134				12/3/2010 0117h
1011529-006FMS	Pentachloronitrobenzene	µg/L	EPA625	77.6	80.00	0	97.0	10-175				12/3/2010 0117h
1011529-006FMS	Pentachlorophenol	µg/L	EPA625	49.2	80.00	0	61.5	10-163				12/3/2010 0117h
1011529-006FMS	Phenacetin	µg/L	EPA625	72.3	80.00	0	90.4	10-175				12/3/2010 0117h
1011529-006FMS	Phenanthrene	µg/L	EPA625	78.6	80.00	0	98.2	31-126				12/3/2010 0117h
1011529-006FMS	Phenol	µg/L	EPA625	28.1	80.00	0	35.1	10-175				12/3/2010 0117h
1011529-006FMS	Phorate	µg/L	EPA625	74.7	80.00	0	93.4	10-175				12/3/2010 0117h
1011529-006FMS	Pronamide	µg/L	EPA625	77.1	80.00	0	96.4	10-95			1	12/3/2010 0117h
1011529-006FMS	Pyrene	µg/L	EPA625	87.9	80.00	0	110	51-139				12/3/2010 0117h
1011529-006FMS	Pyridine	µg/L	EPA625	11.7	80.00	0	14.6	10-25				12/3/2010 0117h
1011529-006FMS	Quinoline	µg/L	EPA625	57.8	80.00	0	72.3	10-63			1	12/3/2010 0117h
1011529-006FMS	Safrole	µg/L	EPA625	48.2	80.00	0	60.3	10-120				12/3/2010 0117h
1011529-006FMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	69.1	80.00	0	86.4	13-160				12/3/2010 0117h
1011529-006FMS	Thionazin	µg/L	EPA625	61.8	80.00	0	77.3	10-139				12/3/2010 0117h
1011529-006FMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	66.3	80.00		82.9	21-154				12/3/2010 0117h
1011529-006FMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	45.7	40.00		114	10-106			S	12/3/2010 0117h
1011529-006FMS	Surr: 2-Fluorophenol	%REC	EPA625	25.6	80.00		32.0	10-56				12/3/2010 0117h
1011529-006FMS	Surr: Nitrobenzene-d5	%REC	EPA625	50.7	40.00		127	10-101			S	12/3/2010 0117h
1011529-006FMS	Surr: Phenol-d6	%REC	EPA625	19.0	80.00		23.8	10-45				12/3/2010 0117h
1011529-006FMS	Surr: Terphenyl-d14	%REC	EPA625	90.9	40.00		227	10-160			S	12/3/2010 0117h
1012039-001DMS	1,1´-Biphenyl	µg/L	EPA625	64.4	81.63	0	78.8	27-99				12/3/2010 0932h
1012039-001DMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	59.0	81.63	0	72.2	10-119				12/3/2010 0932h
1012039-001DMS	1,2,4-Trichlorobenzene	µg/L	EPA625	46.3	81.63	0	56.7	10-79				12/3/2010 0932h
1012039-001DMS	1,2-Dichlorobenzene	µg/L	EPA625	33.9	81.63	0	41.6	10-59				12/3/2010 0932h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	1,3,5-Trinitrobenzene	µg/L	EPA625	148	81.63	0	182	10-175			1	12/3/2010 0932h
1012039-001DMS	1,3-Dichlorobenzene	µg/L	EPA625	28.5	81.63	0	34.9	10-56				12/3/2010 0932h
1012039-001DMS	1,3-Dinitrobenzene	µg/L	EPA625	94.8	81.63	0	116	10-175				12/3/2010 0932h
1012039-001DMS	1,4-Dichlorobenzene	µg/L	EPA625	30.6	81.63	0	37.5	10-58				12/3/2010 0932h
1012039-001DMS	1,4-Naphthoquinone	µg/L	EPA625	24.3	81.63	0	29.7	10-177				12/3/2010 0932h
1012039-001DMS	1,4-Phenylenediamine	µg/L	EPA625	52.0	81.63	0	63.7	10-124				12/3/2010 0932h
1012039-001DMS	1-Chloronaphthalene	µg/L	EPA625	55.2	81.63	0	67.6	10-106				12/3/2010 0932h
1012039-001DMS	1-Methylnaphthalene	µg/L	EPA625	65.7	81.63	0	80.5	10-83				12/3/2010 0932h
1012039-001DMS	1-Naphthylamine	µg/L	EPA625	70.1	81.63	0	85.9	10-122				12/3/2010 0932h
1012039-001DMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	77.9	81.63	0	95.4	10-157				12/3/2010 0932h
1012039-001DMS	2,4,5-Trichlorophenol	µg/L	EPA625	66.3	81.63	0	81.2	10-148				12/3/2010 0932h
1012039-001DMS	2,4,6-Trichlorophenol	µg/L	EPA625	53.5	81.63	0	65.5	10-136				12/3/2010 0932h
1012039-001DMS	2,4-Dichlorophenol	µg/L	EPA625	56.8	81.63	0	69.6	10-123				12/3/2010 0932h
1012039-001DMS	2,4-Dimethylphenol	µg/L	EPA625	63.6	81.63	0	77.9	10-113				12/3/2010 0932h
1012039-001DMS	2,4-Dinitrophenol	µg/L	EPA625	57.1	81.63	0	70.0	10-175				12/3/2010 0932h
1012039-001DMS	2,4-Dinitrotoluene	µg/L	EPA625	98.9	81.63	0	121	10-175				12/3/2010 0932h
1012039-001DMS	2,6-Dichlorophenol	µg/L	EPA625	66.1	81.63	0	81.0	10-148				12/3/2010 0932h
1012039-001DMS	2,6-Dinitrotoluene	µg/L	EPA625	88.4	81.63	0	108	10-175				12/3/2010 0932h
1012039-001DMS	2-Acetylaminofluorene	µg/L	EPA625	73.9	81.63	0	90.5	10-94				12/3/2010 0932h
1012039-001DMS	2-Chloronaphthalene	µg/L	EPA625	64.6	81.63	0	79.2	10-93				12/3/2010 0932h
1012039-001DMS	2-Chlorophenol	µg/L	EPA625	54.0	81.63	0	66.1	10-92				12/3/2010 0932h
1012039-001DMS	2-Methylnaphthalene	µg/L	EPA625	56.4	81.63	0	69.1	15-78				12/3/2010 0932h
1012039-001DMS	2-Methylphenol	µg/L	EPA625	49.9	81.63	0	61.1	10-83				12/3/2010 0932h
1012039-001DMS	2-Naphthylamine	µg/L	EPA625	64.5	81.63	0	79.0	10-154				12/3/2010 0932h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	2-Nitroaniline	µg/L	EPA625	83.8	81.63	0	103	10-175				12/3/2010 0932h
1012039-001DMS	2-Nitrophenol	µg/L	EPA625	80.6	81.63	0	98.7	10-175				12/3/2010 0932h
1012039-001DMS	2-Picoline	µg/L	EPA625	37.1	81.63	0	45.5	10-61				12/3/2010 0932h
1012039-001DMS	3&4-Methylphenol	µg/L	EPA625	35.2	81.63	0	43.1	10-80				12/3/2010 0932h
1012039-001DMS	3,3´-Dichlorobenzidine	µg/L	EPA625	67.1	81.63	0	82.2	10-150				12/3/2010 0932h
1012039-001DMS	3,3´-Dimethylbenzidine	µg/L	EPA625	71.2	81.63	0	87.2	10-143				12/3/2010 0932h
1012039-001DMS	3-Methylcholanthrene	µg/L	EPA625	70.1	81.63	0	85.8	32-171				12/3/2010 0932h
1012039-001DMS	3-Nitroaniline	µg/L	EPA625	78.1	81.63	0	95.6	10-175				12/3/2010 0932h
1012039-001DMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	112	81.63	0	137	10-175				12/3/2010 0932h
1012039-001DMS	4-Aminobiphenyl	µg/L	EPA625	79.0	81.63	0	96.8	10-175				12/3/2010 0932h
1012039-001DMS	4-Bromophenyl phenyl ether	µg/L	EPA625	73.7	81.63	0	90.3	16-138				12/3/2010 0932h
1012039-001DMS	4-Chloro-3-methylphenol	µg/L	EPA625	66.9	81.63	0	82.0	10-131				12/3/2010 0932h
1012039-001DMS	4-Chloroaniline	µg/L	EPA625	56.8	81.63	0	69.6	10-98				12/3/2010 0932h
1012039-001DMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	69.2	81.63	0	84.8	31-108				12/3/2010 0932h
1012039-001DMS	4-Nitroaniline	µg/L	EPA625	67.2	81.63	0	82.3	10-175				12/3/2010 0932h
1012039-001DMS	4-Nitrophenol	µg/L	EPA625	121	81.63	0	148	10-97			1	12/3/2010 0932h
1012039-001DMS	5-Nitro-o-toluidine	µg/L	EPA625	90.2	81.63	0	111	10-175				12/3/2010 0932h
1012039-001DMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	94.5	81.63	0	116	26-174				12/3/2010 0932h
1012039-001DMS	a,a-Dimethylphenethylamine	µg/L	EPA625	42.1	81.63	0	51.6	10-175				12/3/2010 0932h
1012039-001DMS	Acenaphthene	µg/L	EPA625	68.3	81.63	0	83.7	29-97				12/3/2010 0932h
1012039-001DMS	Acenaphthylene	µg/L	EPA625	67.4	81.63	0	82.6	37-87				12/3/2010 0932h
1012039-001DMS	Acetophenone	µg/L	EPA625	57.9	81.63	0	71.0	10-96				12/3/2010 0932h
1012039-001DMS	alpha-Terpineol	µg/L	EPA625	55.9	81.63	0	68.5	10-67			1	12/3/2010 0932h
1012039-001DMS	Aniline	µg/L	EPA625	45.7	81.63	0	55.9	10-71				12/3/2010 0932h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	Anthracene	µg/L	EPA625	83.3	81.63	0	102	53-114				12/3/2010 0932h
1012039-001DMS	Aramite	µg/L	EPA625	90.6	81.63	0	111	29-160				12/3/2010 0932h
1012039-001DMS	Azobenzene	µg/L	EPA625	66.0	81.63	0	80.8	15-114				12/3/2010 0932h
1012039-001DMS	Benz(a)anthracene	µg/L	EPA625	65.8	81.63	0	80.6	39-129				12/3/2010 0932h
1012039-001DMS	Benzidine	µg/L	EPA625	59.5	81.63	0	72.9	10-99				12/3/2010 0932h
1012039-001DMS	Benzo(a)pyrene	µg/L	EPA625	73.9	81.63	0	90.5	29-175				12/3/2010 0932h
1012039-001DMS	Benzo(b)fluoranthene	µg/L	EPA625	76.4	81.63	0	93.6	15-140				12/3/2010 0932h
1012039-001DMS	Benzo(g,h,i)perylene	µg/L	EPA625	61.1	81.63	0	74.9	10-182				12/3/2010 0932h
1012039-001DMS	Benzo(k)fluoranthene	µg/L	EPA625	85.4	81.63	0	105	21-154				12/3/2010 0932h
1012039-001DMS	Benzoic acid	µg/L	EPA625	< 20.4	81.63	0	17.8	10-71				12/3/2010 0932h
1012039-001DMS	Benzyl alcohol	µg/L	EPA625	25.8	81.63	0	31.6	10-69				12/3/2010 0932h
1012039-001DMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	41.2	81.63	0	50.5	10-94				12/3/2010 0932h
1012039-001DMS	Bis(2-chloroethyl) ether	µg/L	EPA625	40.9	81.63	0	50.1	10-70				12/3/2010 0932h
1012039-001DMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	43.6	81.63	0	53.4	10-71				12/3/2010 0932h
1012039-001DMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	85.2	81.63	0	104	10-175				12/3/2010 0932h
1012039-001DMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	85.6	81.63	0	105	10-175				12/3/2010 0932h
1012039-001DMS	Butyl benzyl phthalate	µg/L	EPA625	84.9	81.63	0	104	10-175				12/3/2010 0932h
1012039-001DMS	Carbazole	µg/L	EPA625	77.0	81.63	0	94.3	10-151				12/3/2010 0932h
1012039-001DMS	Chlorobenzilate	µg/L	EPA625	81.5	81.63	0	99.8	18-175				12/3/2010 0932h
1012039-001DMS	Chrysene	µg/L	EPA625	73.5	81.63	0	90.0	38-133				12/3/2010 0932h
1012039-001DMS	Diallate (cis or trans)	µg/L	EPA625	71.1	81.63	0	87.1	10-157				12/3/2010 0932h
1012039-001DMS	Dibenz(a,h)anthracene	µg/L	EPA625	61.8	81.63	0	75.7	13-168				12/3/2010 0932h
1012039-001DMS	Dibenzofuran	µg/L	EPA625	66.6	81.63	0	81.6	29-103				12/3/2010 0932h
1012039-001DMS	Diethyl phthalate	µg/L	EPA625	72.7	81.63	0	89.1	10-139				12/3/2010 0932h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	Dimethoate	µg/L	EPA625	33.8	81.63	0	41.4	10-136				12/3/2010 0932h
1012039-001DMS	Dimethyl phthalate	µg/L	EPA625	65.3	81.63	0	80.0	10-122				12/3/2010 0932h
1012039-001DMS	Dimethylaminoazobenzene	µg/L	EPA625	80.6	81.63	0	98.7	34-142				12/3/2010 0932h
1012039-001DMS	Di-n-butyl phthalate	µg/L	EPA625	82.8	81.63	0	101	44-124				12/3/2010 0932h
1012039-001DMS	Di-n-octyl phthalate	µg/L	EPA625	123	81.63	0	150	10-175				12/3/2010 0932h
1012039-001DMS	Dinoseb	µg/L	EPA625	125	81.63	0	153	10-175				12/3/2010 0932h
1012039-001DMS	Diphenylamine	µg/L	EPA625	76.8	81.63	0	94.1	13-110				12/3/2010 0932h
1012039-001DMS	Disulfoton	µg/L	EPA625	67.5	81.63	0	82.7	10-121				12/3/2010 0932h
1012039-001DMS	Ethyl methanesulfonate	µg/L	EPA625	51.5	81.63	0	63.1	10-99				12/3/2010 0932h
1012039-001DMS	Famphur	µg/L	EPA625	123	81.63	0	150	10-71			1	12/3/2010 0932h
1012039-001DMS	Fluoranthene	µg/L	EPA625	76.3	81.63	0	93.5	23-135				12/3/2010 0932h
1012039-001DMS	Fluorene	µg/L	EPA625	70.8	81.63	0	86.7	34-108				12/3/2010 0932h
1012039-001DMS	Hexachlorobenzene	µg/L	EPA625	74.8	81.63	0	91.7	26-131				12/3/2010 0932h
1012039-001DMS	Hexachlorobutadiene	µg/L	EPA625	41.6	81.63	0	51.0	10-110				12/3/2010 0932h
1012039-001DMS	Hexachlorocyclopentadiene	µg/L	EPA625	27.2	81.63	0	33.4	10-45				12/3/2010 0932h
1012039-001DMS	Hexachloroethane	µg/L	EPA625	30.2	81.63	0	37.0	10-58				12/3/2010 0932h
1012039-001DMS	Hexachlorophene	µg/L	EPA625	75.1	81.63	0	92.0	10-168				12/3/2010 0932h
1012039-001DMS	Hexachloropropene	µg/L	EPA625	38.1	81.63	0	46.7	10-72				12/3/2010 0932h
1012039-001DMS	Indene	µg/L	EPA625	40.8	81.63	0	50.0	10-35			1	12/3/2010 0932h
1012039-001DMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	63.4	81.63	0	77.7	10-176				12/3/2010 0932h
1012039-001DMS	Isodrin	µg/L	EPA625	76.9	81.63	0	94.2	15-165				12/3/2010 0932h
1012039-001DMS	Isophorone	µg/L	EPA625	58.2	81.63	0	71.3	10-99				12/3/2010 0932h
1012039-001DMS	Isosafrole	µg/L	EPA625	59.8	81.63	0	73.3	10-167				12/3/2010 0932h
1012039-001DMS	Kepone	µg/L	EPA625	205	81.63	0	252	10-175			1	12/3/2010 0932h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	Methapyrilene	µg/L	EPA625	88.4	81.63	0	108	10-149				12/3/2010 0932h
1012039-001DMS	Methyl methanesulfonate	µg/L	EPA625	36.0	81.63	0	44.1	10-132				12/3/2010 0932h
1012039-001DMS	Naphthalene	µg/L	EPA625	53.1	81.63	0	65.0	10-82				12/3/2010 0932h
1012039-001DMS	n-Decane	µg/L	EPA625	19.2	81.63	0	23.5	10-27				12/3/2010 0932h
1012039-001DMS	Nitrobenzene	µg/L	EPA625	67.8	81.63	0	83.0	10-119				12/3/2010 0932h
1012039-001DMS	Nitroquinoline-1-oxide	µg/L	EPA625	30.3	81.63	0	37.1	10-170				12/3/2010 0932h
1012039-001DMS	N-Nitrosodiethylamine	µg/L	EPA625	50.0	81.63	0	61.2	10-91				12/3/2010 0932h
1012039-001DMS	N-Nitrosodimethylamine	µg/L	EPA625	20.1	81.63	0	24.6	10-42				12/3/2010 0932h
1012039-001DMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	63.7	81.63	0	78.1	10-175				12/3/2010 0932h
1012039-001DMS	N-Nitrosodiphenylamine	µg/L	EPA625	75.6	81.63	0	92.7	12-112				12/3/2010 0932h
1012039-001DMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	53.9	81.63	0	66.1	10-77				12/3/2010 0932h
1012039-001DMS	N-Nitrosomethylethylamine	µg/L	EPA625	39.8	81.63	0	48.8	10-75				12/3/2010 0932h
1012039-001DMS	N-Nitrosomorpholine	µg/L	EPA625	55.8	81.63	0	68.3	10-175				12/3/2010 0932h
1012039-001DMS	N-Nitrosopiperidine	µg/L	EPA625	61.2	81.63	0	75.0	10-105				12/3/2010 0932h
1012039-001DMS	N-Nitrosopyrrolidine	µg/L	EPA625	63.3	81.63	0	77.6	10-88				12/3/2010 0932h
1012039-001DMS	n-Octadecane	µg/L	EPA625	67.9	81.63	0	83.2	10-121				12/3/2010 0932h
1012039-001DMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	63.9	81.63	0	78.2	10-93				12/3/2010 0932h
1012039-001DMS	o-Toluidine	µg/L	EPA625	114	81.63	0	140	10-107			1	12/3/2010 0932h
1012039-001DMS	Parathion	µg/L	EPA625	110	81.63	0	134	10-175				12/3/2010 0932h
1012039-001DMS	Methyl parathion	µg/L	EPA625	100	81.63	0	123	10-175				12/3/2010 0932h
1012039-001DMS	Pentachlorobenzene	µg/L	EPA625	66.5	81.63	0	81.4	25-134				12/3/2010 0932h
1012039-001DMS	Pentachloronitrobenzene	µg/L	EPA625	83.7	81.63	0	103	10-175				12/3/2010 0932h
1012039-001DMS	Pentachlorophenol	µg/L	EPA625	44.1	81.63	0	54.1	10-163				12/3/2010 0932h
1012039-001DMS	Phenacetin	µg/L	EPA625	72.1	81.63	0	88.3	10-175				12/3/2010 0932h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	Phenanthrene	µg/L	EPA625	88.6	81.63	0	109	31-126				12/3/2010 0932h
1012039-001DMS	Phenol	µg/L	EPA625	32.6	81.63	0	40.0	10-175				12/3/2010 0932h
1012039-001DMS	Phorate	µg/L	EPA625	83.9	81.63	0	103	10-175				12/3/2010 0932h
1012039-001DMS	Pronamide	µg/L	EPA625	78.9	81.63	0	96.6	10-95			1	12/3/2010 0932h
1012039-001DMS	Pyrene	µg/L	EPA625	84.4	81.63	0	103	51-139				12/3/2010 0932h
1012039-001DMS	Pyridine	µg/L	EPA625	20.9	81.63	0	25.6	10-25			1	12/3/2010 0932h
1012039-001DMS	Quinoline	µg/L	EPA625	65.0	81.63	0	79.6	10-63			1	12/3/2010 0932h
1012039-001DMS	Safrole	µg/L	EPA625	58.6	81.63	0	71.8	10-120				12/3/2010 0932h
1012039-001DMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	77.9	81.63	0	95.5	13-160				12/3/2010 0932h
1012039-001DMS	Thionazin	µg/L	EPA625	69.5	81.63	0	85.1	10-139				12/3/2010 0932h
1012039-001DMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	66.9	81.63		82.0	21-154				12/3/2010 0932h
1012039-001DMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	61.7	40.82		151	10-106			S	12/3/2010 0932h
1012039-001DMS	Surr: 2-Fluorophenol	%REC	EPA625	29.2	81.63		35.8	10-56				12/3/2010 0932h
1012039-001DMS	Surr: Nitrobenzene-d5	%REC	EPA625	61.3	40.82		150	10-101			S	12/3/2010 0932h
1012039-001DMS	Surr: Phenol-d6	%REC	EPA625	19.8	81.63		24.2	10-45				12/3/2010 0932h
1012039-001DMS	Surr: Terphenyl-d14	%REC	EPA625	84.2	40.82		206	10-160			S	12/3/2010 0932h
1012057-001BMS	1,1´-Biphenyl	µg/L	EPA625	51.8	80.00	0	64.8	27-99				12/3/2010 1121h
1012057-001BMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	47.4	80.00	0	59.2	10-119				12/3/2010 1121h
1012057-001BMS	1,2,4-Trichlorobenzene	µg/L	EPA625	37.8	80.00	0	47.2	10-79				12/3/2010 1121h
1012057-001BMS	1,2-Dichlorobenzene	µg/L	EPA625	29.2	80.00	0	36.5	10-59				12/3/2010 1121h
1012057-001BMS	1,3,5-Trinitrobenzene	µg/L	EPA625	134	80.00	0	167	10-175				12/3/2010 1121h
1012057-001BMS	1,3-Dichlorobenzene	µg/L	EPA625	24.6	80.00	0	30.8	10-56				12/3/2010 1121h
1012057-001BMS	1,3-Dinitrobenzene	µg/L	EPA625	75.9	80.00	0	94.9	10-175				12/3/2010 1121h
1012057-001BMS	1,4-Dichlorobenzene	µg/L	EPA625	25.5	80.00	0	31.9	10-58				12/3/2010 1121h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	1,4-Naphthoquinone	µg/L	EPA625	20.5	80.00	0	25.6	10-177				12/3/2010 1121h
1012057-001BMS	1,4-Phenylenediamine	µg/L	EPA625	41.7	80.00	0	52.1	10-124				12/3/2010 1121h
1012057-001BMS	1-Chloronaphthalene	µg/L	EPA625	42.7	80.00	0	53.3	10-106				12/3/2010 1121h
1012057-001BMS	1-Methylnaphthalene	µg/L	EPA625	52.8	80.00	0	66.0	10-83				12/3/2010 1121h
1012057-001BMS	1-Naphthylamine	µg/L	EPA625	59.5	80.00	0	74.4	10-122				12/3/2010 1121h
1012057-001BMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	79.2	80.00	0	99.0	10-157				12/3/2010 1121h
1012057-001BMS	2,4,5-Trichlorophenol	µg/L	EPA625	59.8	80.00	0	74.8	10-148				12/3/2010 1121h
1012057-001BMS	2,4,6-Trichlorophenol	µg/L	EPA625	47.0	80.00	0	58.8	10-136				12/3/2010 1121h
1012057-001BMS	2,4-Dichlorophenol	µg/L	EPA625	49.0	80.00	0	61.3	10-123				12/3/2010 1121h
1012057-001BMS	2,4-Dimethylphenol	µg/L	EPA625	55.3	80.00	0	69.1	10-113				12/3/2010 1121h
1012057-001BMS	2,4-Dinitrophenol	µg/L	EPA625	50.2	80.00	0	62.8	10-175				12/3/2010 1121h
1012057-001BMS	2,4-Dinitrotoluene	µg/L	EPA625	86.3	80.00	0	108	10-175				12/3/2010 1121h
1012057-001BMS	2,6-Dichlorophenol	µg/L	EPA625	60.4	80.00	0	75.6	10-148				12/3/2010 1121h
1012057-001BMS	2,6-Dinitrotoluene	µg/L	EPA625	74.4	80.00	0	93.0	10-175				12/3/2010 1121h
1012057-001BMS	2-Acetylaminofluorene	µg/L	EPA625	68.9	80.00	0	86.1	10-94				12/3/2010 1121h
1012057-001BMS	2-Chloronaphthalene	µg/L	EPA625	46.3	80.00	0	57.8	10-93				12/3/2010 1121h
1012057-001BMS	2-Chlorophenol	µg/L	EPA625	45.1	80.00	0	56.4	10-92				12/3/2010 1121h
1012057-001BMS	2-Methylnaphthalene	µg/L	EPA625	45.3	80.00	0	56.6	15-78				12/3/2010 1121h
1012057-001BMS	2-Methylphenol	µg/L	EPA625	36.6	80.00	0	45.7	10-83				12/3/2010 1121h
1012057-001BMS	2-Naphthylamine	µg/L	EPA625	54.0	80.00	0	67.5	10-154				12/3/2010 1121h
1012057-001BMS	2-Nitroaniline	µg/L	EPA625	72.1	80.00	0	90.2	10-175				12/3/2010 1121h
1012057-001BMS	2-Nitrophenol	µg/L	EPA625	74.9	80.00	0	93.6	10-175				12/3/2010 1121h
1012057-001BMS	2-Picoline	µg/L	EPA625	24.2	80.00	0	30.3	10-61				12/3/2010 1121h
1012057-001BMS	3&4-Methylphenol	µg/L	EPA625	19.9	80.00	0	24.9	10-80				12/3/2010 1121h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	3,3´-Dichlorobenzidine	µg/L	EPA625	63.0	80.00	0	78.7	10-150				12/3/2010 1121h
1012057-001BMS	3,3´-Dimethylbenzidine	µg/L	EPA625	71.7	80.00	0	89.7	10-143				12/3/2010 1121h
1012057-001BMS	3-Methylcholanthrene	µg/L	EPA625	66.4	80.00	0	83.0	32-171				12/3/2010 1121h
1012057-001BMS	3-Nitroaniline	µg/L	EPA625	67.7	80.00	0	84.7	10-175				12/3/2010 1121h
1012057-001BMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	101	80.00	0	127	10-175				12/3/2010 1121h
1012057-001BMS	4-Aminobiphenyl	µg/L	EPA625	67.1	80.00	0	83.9	10-175				12/3/2010 1121h
1012057-001BMS	4-Bromophenyl phenyl ether	µg/L	EPA625	59.5	80.00	0	74.4	16-138				12/3/2010 1121h
1012057-001BMS	4-Chloro-3-methylphenol	µg/L	EPA625	56.9	80.00	0	71.1	10-131				12/3/2010 1121h
1012057-001BMS	4-Chloroaniline	µg/L	EPA625	47.4	80.00	0	59.3	10-98				12/3/2010 1121h
1012057-001BMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	57.6	80.00	0	72.1	31-108				12/3/2010 1121h
1012057-001BMS	4-Nitroaniline	µg/L	EPA625	59.8	80.00	0	74.7	10-175				12/3/2010 1121h
1012057-001BMS	4-Nitrophenol	µg/L	EPA625	101	80.00	0	126	10-97			1	12/3/2010 1121h
1012057-001BMS	5-Nitro-o-toluidine	µg/L	EPA625	78.7	80.00	0	98.4	10-175				12/3/2010 1121h
1012057-001BMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	89.1	80.00	0	111	26-174				12/3/2010 1121h
1012057-001BMS	a,a-Dimethylphenethylamine	µg/L	EPA625	39.1	80.00	0	48.9	10-175				12/3/2010 1121h
1012057-001BMS	Acenaphthene	µg/L	EPA625	56.0	80.00	0	70.0	29-97				12/3/2010 1121h
1012057-001BMS	Acenaphthylene	µg/L	EPA625	56.1	80.00	0	70.1	37-87				12/3/2010 1121h
1012057-001BMS	Acetophenone	µg/L	EPA625	46.5	80.00	0	58.1	10-96				12/3/2010 1121h
1012057-001BMS	alpha-Terpineol	µg/L	EPA625	46.2	80.00	0	57.8	10-67				12/3/2010 1121h
1012057-001BMS	Aniline	µg/L	EPA625	32.0	80.00	0	40.0	10-71				12/3/2010 1121h
1012057-001BMS	Anthracene	µg/L	EPA625	69.5	80.00	0	86.9	53-114				12/3/2010 1121h
1012057-001BMS	Aramite	µg/L	EPA625	76.1	80.00	0	95.2	29-160				12/3/2010 1121h
1012057-001BMS	Azobenzene	µg/L	EPA625	55.7	80.00	0	69.6	15-114				12/3/2010 1121h
1012057-001BMS	Benz(a)anthracene	µg/L	EPA625	63.0	80.00	0	78.7	39-129				12/3/2010 1121h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	Benzidine	µg/L	EPA625	56.9	80.00	0	71.1	10-99				12/3/2010 1121h
1012057-001BMS	Benzo(a)pyrene	µg/L	EPA625	71.0	80.00	0	88.7	29-175				12/3/2010 1121h
1012057-001BMS	Benzo(b)fluoranthene	µg/L	EPA625	61.1	80.00	0	76.3	15-140				12/3/2010 1121h
1012057-001BMS	Benzo(g,h,i)perylene	µg/L	EPA625	57.9	80.00	0	72.4	10-182				12/3/2010 1121h
1012057-001BMS	Benzo(k)fluoranthene	µg/L	EPA625	86.7	80.00	0	108	21-154				12/3/2010 1121h
1012057-001BMS	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	17.5	10-71				12/3/2010 1121h
1012057-001BMS	Benzyl alcohol	µg/L	EPA625	18.5	80.00	0	23.2	10-69				12/3/2010 1121h
1012057-001BMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	34.3	80.00	0	42.9	10-94				12/3/2010 1121h
1012057-001BMS	Bis(2-chloroethyl) ether	µg/L	EPA625	34.9	80.00	0	43.6	10-70				12/3/2010 1121h
1012057-001BMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	33.5	80.00	0	41.9	10-71				12/3/2010 1121h
1012057-001BMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	77.8	80.00	0	97.2	10-175				12/3/2010 1121h
1012057-001BMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	80.9	80.00	0	101	10-175				12/3/2010 1121h
1012057-001BMS	Butyl benzyl phthalate	µg/L	EPA625	81.1	80.00	0	101	10-175				12/3/2010 1121h
1012057-001BMS	Carbazole	µg/L	EPA625	66.5	80.00	0	83.1	10-151				12/3/2010 1121h
1012057-001BMS	Chlorobenzilate	µg/L	EPA625	77.8	80.00	0	97.2	18-175				12/3/2010 1121h
1012057-001BMS	Chrysene	µg/L	EPA625	69.8	80.00	0	87.2	38-133				12/3/2010 1121h
1012057-001BMS	Diallate (cis or trans)	µg/L	EPA625	58.5	80.00	0	73.1	10-157				12/3/2010 1121h
1012057-001BMS	Dibenz(a,h)anthracene	µg/L	EPA625	59.0	80.00	0	73.8	13-168				12/3/2010 1121h
1012057-001BMS	Dibenzofuran	µg/L	EPA625	55.4	80.00	0	69.3	29-103				12/3/2010 1121h
1012057-001BMS	Diethyl phthalate	µg/L	EPA625	60.1	80.00	0	75.1	10-139				12/3/2010 1121h
1012057-001BMS	Dimethoate	µg/L	EPA625	21.6	80.00	0	27.0	10-136				12/3/2010 1121h
1012057-001BMS	Dimethyl phthalate	µg/L	EPA625	52.8	80.00	0	66.0	10-122				12/3/2010 1121h
1012057-001BMS	Dimethylaminoazobenzene	µg/L	EPA625	74.2	80.00	0	92.8	34-142				12/3/2010 1121h
1012057-001BMS	Di-n-butyl phthalate	µg/L	EPA625	70.7	80.00	0	88.4	44-124				12/3/2010 1121h

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Laboratory Director
Jose Rocha
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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	Di-n-octyl phthalate	µg/L	EPA625	116	80.00	0	145	10-175				12/3/2010 1121h
1012057-001BMS	Dinoseb	µg/L	EPA625	114	80.00	0	142	10-175				12/3/2010 1121h
1012057-001BMS	Diphenylamine	µg/L	EPA625	64.9	80.00	0	81.2	13-110				12/3/2010 1121h
1012057-001BMS	Disulfoton	µg/L	EPA625	48.5	80.00	0	60.7	10-121				12/3/2010 1121h
1012057-001BMS	Ethyl methanesulfonate	µg/L	EPA625	41.2	80.00	0	51.5	10-99				12/3/2010 1121h
1012057-001BMS	Famphur	µg/L	EPA625	119	80.00	0	149	10-71			1	12/3/2010 1121h
1012057-001BMS	Fluoranthene	µg/L	EPA625	66.9	80.00	0	83.6	23-135				12/3/2010 1121h
1012057-001BMS	Fluorene	µg/L	EPA625	57.6	80.00	0	72.0	34-108				12/3/2010 1121h
1012057-001BMS	Hexachlorobenzene	µg/L	EPA625	61.0	80.00	0	76.2	26-131				12/3/2010 1121h
1012057-001BMS	Hexachlorobutadiene	µg/L	EPA625	33.6	80.00	0	41.9	10-110				12/3/2010 1121h
1012057-001BMS	Hexachlorocyclopentadiene	µg/L	EPA625	21.2	80.00	0	26.4	10-45				12/3/2010 1121h
1012057-001BMS	Hexachloroethane	µg/L	EPA625	26.9	80.00	0	33.6	10-58				12/3/2010 1121h
1012057-001BMS	Hexachlorophene	µg/L	EPA625	75.1	80.00	0	93.8	10-168				12/3/2010 1121h
1012057-001BMS	Hexachloropropene	µg/L	EPA625	31.6	80.00	0	39.6	10-72				12/3/2010 1121h
1012057-001BMS	Indene	µg/L	EPA625	33.0	80.00	0	41.2	10-35			1	12/3/2010 1121h
1012057-001BMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	60.1	80.00	0	75.2	10-176				12/3/2010 1121h
1012057-001BMS	Isodrin	µg/L	EPA625	65.4	80.00	0	81.7	15-165				12/3/2010 1121h
1012057-001BMS	Isophorone	µg/L	EPA625	45.9	80.00	0	57.4	10-99				12/3/2010 1121h
1012057-001BMS	Isosafrole	µg/L	EPA625	46.4	80.00	0	58.0	10-167				12/3/2010 1121h
1012057-001BMS	Kepone	µg/L	EPA625	211	80.00	0	264	10-175			1	12/3/2010 1121h
1012057-001BMS	Methapyrilene	µg/L	EPA625	73.9	80.00	0	92.4	10-149				12/3/2010 1121h
1012057-001BMS	Methyl methanesulfonate	µg/L	EPA625	25.8	80.00	0	32.2	10-132				12/3/2010 1121h
1012057-001BMS	Naphthalene	µg/L	EPA625	41.3	80.00	0	51.7	10-82				12/3/2010 1121h
1012057-001BMS	n-Decane	µg/L	EPA625	17.4	80.00	0	21.8	10-27				12/3/2010 1121h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	Nitrobenzene	µg/L	EPA625	53.9	80.00	0	67.4	10-119				12/3/2010 1121h
1012057-001BMS	Nitroquinoline-1-oxide	µg/L	EPA625	29.3	80.00	0	36.6	10-170				12/3/2010 1121h
1012057-001BMS	N-Nitrosodiethylamine	µg/L	EPA625	40.5	80.00	0	50.6	10-91				12/3/2010 1121h
1012057-001BMS	N-Nitrosodimethylamine	µg/L	EPA625	15.3	80.00	0	19.2	10-42				12/3/2010 1121h
1012057-001BMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	52.5	80.00	0	65.7	10-175				12/3/2010 1121h
1012057-001BMS	N-Nitrosodiphenylamine	µg/L	EPA625	63.9	80.00	0	79.9	12-112				12/3/2010 1121h
1012057-001BMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	41.3	80.00	0	51.6	10-77				12/3/2010 1121h
1012057-001BMS	N-Nitrosomethylethylamine	µg/L	EPA625	30.7	80.00	0	38.4	10-75				12/3/2010 1121h
1012057-001BMS	N-Nitrosomorpholine	µg/L	EPA625	43.8	80.00	0	54.8	10-175				12/3/2010 1121h
1012057-001BMS	N-Nitrosopiperidine	µg/L	EPA625	51.9	80.00	0	64.9	10-105				12/3/2010 1121h
1012057-001BMS	N-Nitrosopyrrolidine	µg/L	EPA625	49.6	80.00	0	62.0	10-88				12/3/2010 1121h
1012057-001BMS	n-Octadecane	µg/L	EPA625	53.7	80.00	0	67.1	10-121				12/3/2010 1121h
1012057-001BMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	51.2	80.00	0	64.0	10-93				12/3/2010 1121h
1012057-001BMS	o-Toluidine	µg/L	EPA625	92.1	80.00	0	115	10-107			1	12/3/2010 1121h
1012057-001BMS	Parathion	µg/L	EPA625	94.6	80.00	0	118	10-175				12/3/2010 1121h
1012057-001BMS	Methyl parathion	µg/L	EPA625	87.4	80.00	0	109	10-175				12/3/2010 1121h
1012057-001BMS	Pentachlorobenzene	µg/L	EPA625	55.0	80.00	0	68.8	25-134				12/3/2010 1121h
1012057-001BMS	Pentachloronitrobenzene	µg/L	EPA625	71.5	80.00	0	89.3	10-175				12/3/2010 1121h
1012057-001BMS	Pentachlorophenol	µg/L	EPA625	45.1	80.00	0	56.3	10-163				12/3/2010 1121h
1012057-001BMS	Phenacetin	µg/L	EPA625	63.4	80.00	0	79.2	10-175				12/3/2010 1121h
1012057-001BMS	Phenanthrene	µg/L	EPA625	69.6	80.00	0	87.0	31-126				12/3/2010 1121h
1012057-001BMS	Phenol	µg/L	EPA625	21.3	80.00	0	26.6	10-175				12/3/2010 1121h
1012057-001BMS	Phorate	µg/L	EPA625	71.4	80.00	0	89.2	10-175				12/3/2010 1121h
1012057-001BMS	Pronamide	µg/L	EPA625	71.3	80.00	0	89.1	10-95				12/3/2010 1121h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	Pyrene	µg/L	EPA625	77.6	80.00	0	97.0	51-139				12/3/2010 1121h
1012057-001BMS	Pyridine	µg/L	EPA625	13.5	80.00	0	16.8	10-25				12/3/2010 1121h
1012057-001BMS	Quinoline	µg/L	EPA625	54.5	80.00	0	68.1	10-63			1	12/3/2010 1121h
1012057-001BMS	Safrole	µg/L	EPA625	46.6	80.00	0	58.3	10-120				12/3/2010 1121h
1012057-001BMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	62.3	80.00	0	77.9	13-160				12/3/2010 1121h
1012057-001BMS	Thionazin	µg/L	EPA625	59.2	80.00	0	74.0	10-139				12/3/2010 1121h
1012057-001BMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	63.0	80.00		78.8	21-154				12/3/2010 1121h
1012057-001BMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	51.7	40.00		129	10-106			S	12/3/2010 1121h
1012057-001BMS	Surr: 2-Fluorophenol	%REC	EPA625	20.1	80.00		25.2	10-56				12/3/2010 1121h
1012057-001BMS	Surr: Nitrobenzene-d5	%REC	EPA625	49.2	40.00		123	10-101			S	12/3/2010 1121h
1012057-001BMS	Surr: Phenol-d6	%REC	EPA625	12.4	80.00		15.5	10-45				12/3/2010 1121h
1012057-001BMS	Surr: Terphenyl-d14	%REC	EPA625	80.2	40.00		200	10-160			S	12/3/2010 1121h
1012057-004BMS	1,2,4-Trichlorobenzene	mg/kg	SW8270D	173	100.0	0	173	43-117			1	12/4/2010 1833h
1012057-004BMS	1,4-Dichlorobenzene	mg/kg	SW8270D	101	100.0	0	101	42-118				12/4/2010 1833h
1012057-004BMS	2,4,6-Trichlorophenol	mg/kg	SW8270D	104	100.0	0	104	11-215				12/4/2010 1833h
1012057-004BMS	2,4-Dimethylphenol	mg/kg	SW8270D	204	100.0	0	204	10-206				12/4/2010 1833h
1012057-004BMS	2,4-Dinitrotoluene	mg/kg	SW8270D	207	100.0	0	207	10-270				12/4/2010 1833h
1012057-004BMS	2-Chloronaphthalene	mg/kg	SW8270D	86.2	100.0	0	86.2	70-130				12/4/2010 1833h
1012057-004BMS	2-Chlorophenol	mg/kg	SW8270D	73.3	100.0	0	73.3	46-114				12/4/2010 1833h
1012057-004BMS	4,6-Dinitro-2-methylphenol	mg/kg	SW8270D	< 150	100.0	0	103	70-130				12/4/2010 1833h
1012057-004BMS	4-Chloro-3-methylphenol	mg/kg	SW8270D	110	100.0	0	110	21-125				12/4/2010 1833h
1012057-004BMS	4-Nitrophenol	mg/kg	SW8270D	< 150	100.0	0	27.1	10-127				12/4/2010 1833h
1012057-004BMS	Acenaphthene	mg/kg	SW8270D	96.3	100.0	0	96.3	45-123				12/4/2010 1833h
1012057-004BMS	Benzo(a)pyrene	mg/kg	SW8270D	108	100.0	0	108	70-130				12/4/2010 1833h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-004BMS	N-Nitrosodi-n-propylamine	mg/kg	SW8270D	966	100.0	0	966	21-155			1	12/4/2010 1833h
1012057-004BMS	Pentachlorophenol	mg/kg	SW8270D	< 150	100.0	0	85.7	10-148				12/4/2010 1833h
1012057-004BMS	Phenol	mg/kg	SW8270D	87.3	100.0	0	87.3	37-119				12/4/2010 1833h
1012057-004BMS	Pyrene	mg/kg	SW8270D	105	100.0	0	105	33-129				12/4/2010 1833h
1012057-004BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	182	200.0		91.2	10-228				12/4/2010 1833h
1012057-004BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	88.3	100.0		88.3	10-179				12/4/2010 1833h
1012057-004BMS	Surr: 2-Fluorophenol	%REC	SW8270D	62.7	200.0		31.4	10-178				12/4/2010 1833h
1012057-004BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	27.0	100.0		27.0	10-328				12/4/2010 1833h
1012057-004BMS	Surr: Phenol-d6	%REC	SW8270D	109	200.0		54.6	10-218				12/4/2010 1833h
1012057-004BMS	Surr: Terphenyl-d14	%REC	SW8270D	97.5	100.0		97.5	10-143				12/4/2010 1833h
1011529-006FMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	24.1	80.00	0	30.1	20-107				12/3/2010 0117h
1011529-006FMS	1,4-Dichlorobenzene	µg/L	SW8270D	16.4	80.00	0	20.5	11-90				12/3/2010 0117h
1011529-006FMS	2,4,6-Trichlorophenol	µg/L	SW8270D	50.7	80.00	0	63.4	10-223				12/3/2010 0117h
1011529-006FMS	2,4-Dimethylphenol	µg/L	SW8270D	56.5	80.00	0	70.7	10-176				12/3/2010 0117h
1011529-006FMS	2,4-Dinitrotoluene	µg/L	SW8270D	94.7	80.00	0	118	21-191				12/3/2010 0117h
1011529-006FMS	2-Chloronaphthalene	µg/L	SW8270D	42.1	80.00	0	52.6	12-132				12/3/2010 0117h
1011529-006FMS	2-Chlorophenol	µg/L	SW8270D	45.6	80.00	0	57.0	20-107				12/3/2010 0117h
1011529-006FMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	105	80.00	0	131	20-250				12/3/2010 0117h
1011529-006FMS	4-Chloro-3-methylphenol	µg/L	SW8270D	63.5	80.00	0	79.4	10-136				12/3/2010 0117h
1011529-006FMS	4-Nitrophenol	µg/L	SW8270D	110	80.00	0	137	10-135			1	12/3/2010 0117h
1011529-006FMS	Acenaphthene	µg/L	SW8270D	54.7	80.00	0	68.4	21-113				12/3/2010 0117h
1011529-006FMS	Benzo(a)pyrene	µg/L	SW8270D	79.5	80.00	0	99.4	15-169				12/3/2010 0117h
1011529-006FMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	45.4	80.00	0	56.7	10-133				12/3/2010 0117h
1011529-006FMS	Pentachlorophenol	µg/L	SW8270D	49.2	80.00	0	61.5	10-131				12/3/2010 0117h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMS	Phenol	µg/L	SW8270D	28.1	80.00	0	35.1	10-71				12/3/2010 0117h
1011529-006FMS	Pyrene	µg/L	SW8270D	87.9	80.00	0	110	23-150				12/3/2010 0117h
1011529-006FMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	66.3	80.00		82.9	14-159				12/3/2010 0117h
1011529-006FMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	45.7	40.00		114	10-124				12/3/2010 0117h
1011529-006FMS	Surr: 2-Fluorophenol	%REC	SW8270D	25.6	80.00		32.0	10-106				12/3/2010 0117h
1011529-006FMS	Surr: Nitrobenzene-d5	%REC	SW8270D	50.7	40.00		127	10-180				12/3/2010 0117h
1011529-006FMS	Surr: Phenol-d6	%REC	SW8270D	19.0	80.00		23.8	10-122				12/3/2010 0117h
1011529-006FMS	Surr: Terphenyl-d14	%REC	SW8270D	90.9	40.00		227	10-199			S	12/3/2010 0117h
1012039-001DMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	46.3	81.63	0	56.7	20-107				12/3/2010 0932h
1012039-001DMS	1,4-Dichlorobenzene	µg/L	SW8270D	30.6	81.63	0	37.5	11-90				12/3/2010 0932h
1012039-001DMS	2,4,6-Trichlorophenol	µg/L	SW8270D	53.5	81.63	0	65.5	10-223				12/3/2010 0932h
1012039-001DMS	2,4-Dimethylphenol	µg/L	SW8270D	63.6	81.63	0	77.9	10-176				12/3/2010 0932h
1012039-001DMS	2,4-Dinitrotoluene	µg/L	SW8270D	98.9	81.63	0	121	21-191				12/3/2010 0932h
1012039-001DMS	2-Chloronaphthalene	µg/L	SW8270D	64.6	81.63	0	79.2	12-132				12/3/2010 0932h
1012039-001DMS	2-Chlorophenol	µg/L	SW8270D	54.0	81.63	0	66.1	20-107				12/3/2010 0932h
1012039-001DMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	112	81.63	0	137	20-250				12/3/2010 0932h
1012039-001DMS	4-Chloro-3-methylphenol	µg/L	SW8270D	66.9	81.63	0	82.0	10-136				12/3/2010 0932h
1012039-001DMS	4-Nitrophenol	µg/L	SW8270D	121	81.63	0	148	10-135			1	12/3/2010 0932h
1012039-001DMS	Acenaphthene	µg/L	SW8270D	68.3	81.63	0	83.7	21-113				12/3/2010 0932h
1012039-001DMS	Benzo(a)pyrene	µg/L	SW8270D	73.9	81.63	0	90.5	15-169				12/3/2010 0932h
1012039-001DMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	53.9	81.63	0	66.1	10-133				12/3/2010 0932h
1012039-001DMS	Pentachlorophenol	µg/L	SW8270D	44.1	81.63	0	54.1	10-131				12/3/2010 0932h
1012039-001DMS	Phenol	µg/L	SW8270D	32.6	81.63	0	40.0	10-71				12/3/2010 0932h
1012039-001DMS	Pyrene	µg/L	SW8270D	84.4	81.63	0	103	23-150				12/3/2010 0932h

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	66.9	81.63		82.0	14-159				12/3/2010 0932h
1012039-001DMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	61.7	40.82		151	10-124			S	12/3/2010 0932h
1012039-001DMS	Surr: 2-Fluorophenol	%REC	SW8270D	29.2	81.63		35.8	10-106				12/3/2010 0932h
1012039-001DMS	Surr: Nitrobenzene-d5	%REC	SW8270D	61.3	40.82		150	10-180				12/3/2010 0932h
1012039-001DMS	Surr: Phenol-d6	%REC	SW8270D	19.8	81.63		24.2	10-122				12/3/2010 0932h
1012039-001DMS	Surr: Terphenyl-d14	%REC	SW8270D	84.2	40.82		206	10-199			S	12/3/2010 0932h
1012057-001BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	37.8	80.00	0	47.2	20-107				12/3/2010 1121h
1012057-001BMS	1,4-Dichlorobenzene	µg/L	SW8270D	25.5	80.00	0	31.9	11-90				12/3/2010 1121h
1012057-001BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	47.0	80.00	0	58.8	10-223				12/3/2010 1121h
1012057-001BMS	2,4-Dimethylphenol	µg/L	SW8270D	55.3	80.00	0	69.1	10-176				12/3/2010 1121h
1012057-001BMS	2,4-Dinitrotoluene	µg/L	SW8270D	86.3	80.00	0	108	21-191				12/3/2010 1121h
1012057-001BMS	2-Chloronaphthalene	µg/L	SW8270D	46.3	80.00	0	57.8	12-132				12/3/2010 1121h
1012057-001BMS	2-Chlorophenol	µg/L	SW8270D	45.1	80.00	0	56.4	20-107				12/3/2010 1121h
1012057-001BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	101	80.00	0	127	20-250				12/3/2010 1121h
1012057-001BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	56.9	80.00	0	71.1	10-136				12/3/2010 1121h
1012057-001BMS	4-Nitrophenol	µg/L	SW8270D	101	80.00	0	126	10-135				12/3/2010 1121h
1012057-001BMS	Acenaphthene	µg/L	SW8270D	56.0	80.00	0	70.0	21-113				12/3/2010 1121h
1012057-001BMS	Benzo(a)pyrene	µg/L	SW8270D	71.0	80.00	0	88.7	15-169				12/3/2010 1121h
1012057-001BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	41.3	80.00	0	51.6	10-133				12/3/2010 1121h
1012057-001BMS	Pentachlorophenol	µg/L	SW8270D	45.1	80.00	0	56.3	10-131				12/3/2010 1121h
1012057-001BMS	Phenol	µg/L	SW8270D	21.3	80.00	0	26.6	10-71				12/3/2010 1121h
1012057-001BMS	Pyrene	µg/L	SW8270D	77.6	80.00	0	97.0	23-150				12/3/2010 1121h
1012057-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	63.0	80.00		78.8	14-159				12/3/2010 1121h
1012057-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	51.7	40.00		129	10-124			S	12/3/2010 1121h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	20.1	80.00		25.2	10-106				12/3/2010 1121h
1012057-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	49.2	40.00		123	10-180				12/3/2010 1121h
1012057-001BMS	Surr: Phenol-d6	%REC	SW8270D	12.4	80.00		15.5	10-122				12/3/2010 1121h
1012057-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	80.2	40.00		200	10-199			S	12/3/2010 1121h

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

S - Surrogate recoveries outside the control limits. Repreparation and reanalysis and/or MS samples yielded similar results indicating matrix interference.

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QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	1,1´-Biphenyl	µg/L	EPA625	51.6	80.00	0	64.5	27-99	6.64	49		12/3/2010 0144h
1011529-006FMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	45.1	80.00	0	56.3	10-119	12.4	52		12/3/2010 0144h
1011529-006FMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	28.8	80.00	0	36.0	10-79	17.9	49		12/3/2010 0144h
1011529-006FMSD	1,2-Dichlorobenzene	µg/L	EPA625	22.0	80.00	0	27.6	10-59	17.9	46		12/3/2010 0144h
1011529-006FMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	150	80.00	0	188	10-175	8.61	33	1	12/3/2010 0144h
1011529-006FMSD	1,3-Dichlorobenzene	µg/L	EPA625	18.2	80.00	0	22.8	10-56	19.2	49		12/3/2010 0144h
1011529-006FMSD	1,3-Dinitrobenzene	µg/L	EPA625	96.6	80.00	0	121	10-175	0.269	29		12/3/2010 0144h
1011529-006FMSD	1,4-Dichlorobenzene	µg/L	EPA625	19.8	80.00	0	24.7	10-58	18.6	51		12/3/2010 0144h
1011529-006FMSD	1,4-Naphthoquinone	µg/L	EPA625	12.6	80.00	0	15.8	10-177	30.3	99		12/3/2010 0144h
1011529-006FMSD	1,4-Phenylenediamine	µg/L	EPA625	38.8	80.00	0	48.5	10-124	11.5	48		12/3/2010 0144h
1011529-006FMSD	1-Chloronaphthalene	µg/L	EPA625	45.1	80.00	0	56.3	10-106	2.11	47		12/3/2010 0144h
1011529-006FMSD	1-Methylnaphthalene	µg/L	EPA625	47.6	80.00	0	59.6	10-83	7.92	44		12/3/2010 0144h
1011529-006FMSD	1-Naphthylamine	µg/L	EPA625	67.7	80.00	0	84.7	10-122	6.62	57		12/3/2010 0144h
1011529-006FMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	90.7	80.00	0	113	10-157	16.6	39		12/3/2010 0144h
1011529-006FMSD	2,4,5-Trichlorophenol	µg/L	EPA625	65.9	80.00	0	82.4	10-148	9.07	56		12/3/2010 0144h
1011529-006FMSD	2,4,6-Trichlorophenol	µg/L	EPA625	53.4	80.00	0	66.7	10-136	5.11	52		12/3/2010 0144h
1011529-006FMSD	2,4-Dichlorophenol	µg/L	EPA625	53.8	80.00	0	67.2	10-123	5.58	67		12/3/2010 0144h
1011529-006FMSD	2,4-Dimethylphenol	µg/L	EPA625	57.2	80.00	0	71.5	10-113	1.18	32		12/3/2010 0144h
1011529-006FMSD	2,4-Dinitrophenol	µg/L	EPA625	73.0	80.00	0	91.2	10-175	10.2	78		12/3/2010 0144h
1011529-006FMSD	2,4-Dinitrotoluene	µg/L	EPA625	98.4	80.00	0	123	10-175	3.85	26		12/3/2010 0144h
1011529-006FMSD	2,6-Dichlorophenol	µg/L	EPA625	60.0	80.00	0	75.0	10-148	4.31	56		12/3/2010 0144h
1011529-006FMSD	2,6-Dinitrotoluene	µg/L	EPA625	84.2	80.00	0	105	10-175	6.33	74		12/3/2010 0144h
1011529-006FMSD	2-Acetylaminofluorene	µg/L	EPA625	82.4	80.00	0	103	10-94	4.69	52	1	12/3/2010 0144h
1011529-006FMSD	2-Chloronaphthalene	µg/L	EPA625	49.6	80.00	0	62.0	10-93	16.3	49		12/3/2010 0144h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	2-Chlorophenol	µg/L	EPA625	48.7	80.00	0	60.9	10-92	6.60	58		12/3/2010 0144h
1011529-006FMSD	2-Methylnaphthalene	µg/L	EPA625	41.6	80.00	0	52.0	15-78	8.68	39		12/3/2010 0144h
1011529-006FMSD	2-Methylphenol	µg/L	EPA625	48.3	80.00	0	60.4	10-83	3.63	49		12/3/2010 0144h
1011529-006FMSD	2-Naphthylamine	µg/L	EPA625	60.7	80.00	0	75.9	10-154	1.46	37		12/3/2010 0144h
1011529-006FMSD	2-Nitroaniline	µg/L	EPA625	80.6	80.00	0	101	10-175	2.64	87		12/3/2010 0144h
1011529-006FMSD	2-Nitrophenol	µg/L	EPA625	71.5	80.00	0	89.3	10-175	4.05	64		12/3/2010 0144h
1011529-006FMSD	2-Picoline	µg/L	EPA625	26.3	80.00	0	32.9	10-61	16.3	63		12/3/2010 0144h
1011529-006FMSD	3&4-Methylphenol	µg/L	EPA625	33.6	80.00	0	42.0	10-80	13.2	99		12/3/2010 0144h
1011529-006FMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	78.5	80.00	0	98.2	10-150	6.98	63		12/3/2010 0144h
1011529-006FMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	81.0	80.00	0	101	10-143	10.0	99		12/3/2010 0144h
1011529-006FMSD	3-Methylcholanthrene	µg/L	EPA625	81.8	80.00	0	102	32-171	6.34	46		12/3/2010 0144h
1011529-006FMSD	3-Nitroaniline	µg/L	EPA625	76.7	80.00	0	95.8	10-175	4.03	29		12/3/2010 0144h
1011529-006FMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	117	80.00	0	146	10-175	10.4	70		12/3/2010 0144h
1011529-006FMSD	4-Aminobiphenyl	µg/L	EPA625	74.1	80.00	0	92.6	10-175	0.501	79		12/3/2010 0144h
1011529-006FMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	67.1	80.00	0	83.9	16-138	4.65	31		12/3/2010 0144h
1011529-006FMSD	4-Chloro-3-methylphenol	µg/L	EPA625	65.1	80.00	0	81.4	10-131	2.46	37		12/3/2010 0144h
1011529-006FMSD	4-Chloroaniline	µg/L	EPA625	51.9	80.00	0	64.8	10-98	2.93	41		12/3/2010 0144h
1011529-006FMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	63.8	80.00	0	79.7	31-108	5.77	30		12/3/2010 0144h
1011529-006FMSD	4-Nitroaniline	µg/L	EPA625	71.6	80.00	0	89.5	10-175	4.15	99		12/3/2010 0144h
1011529-006FMSD	4-Nitrophenol	µg/L	EPA625	128	80.00	0	160	10-97	15.6	69	1	12/3/2010 0144h
1011529-006FMSD	5-Nitro-o-toluidine	µg/L	EPA625	90.6	80.00	0	113	10-175	4.70	26		12/3/2010 0144h
1011529-006FMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	107	80.00	0	133	26-174	7.27	40		12/3/2010 0144h
1011529-006FMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	41.5	80.00	0	51.8	10-175	8.18	99		12/3/2010 0144h
1011529-006FMSD	Acenaphthene	µg/L	EPA625	59.1	80.00	0	73.9	29-97	7.73	38		12/3/2010 0144h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	Acenaphthylene	µg/L	EPA625	57.8	80.00	0	72.3	37-87	5.62	37		12/3/2010 0144h
1011529-006FMSD	Acetophenone	µg/L	EPA625	51.4	80.00	0	64.2	10-96	5.05	48		12/3/2010 0144h
1011529-006FMSD	alpha-Terpineol	µg/L	EPA625	50.7	80.00	0	63.4	10-67	1.37	46		12/3/2010 0144h
1011529-006FMSD	Aniline	µg/L	EPA625	35.8	80.00	0	44.8	10-71	6.91	48		12/3/2010 0144h
1011529-006FMSD	Anthracene	µg/L	EPA625	81.4	80.00	0	102	53-114	6.85	26		12/3/2010 0144h
1011529-006FMSD	Aramite	µg/L	EPA625	89.8	80.00	0	112	29-160	5.00	30		12/3/2010 0144h
1011529-006FMSD	Azobenzene	µg/L	EPA625	61.4	80.00	0	76.7	15-114	7.67	36		12/3/2010 0144h
1011529-006FMSD	Benz(a)anthracene	µg/L	EPA625	75.8	80.00	0	94.8	39-129	4.31	32		12/3/2010 0144h
1011529-006FMSD	Benzidine	µg/L	EPA625	66.5	80.00	0	83.1	10-99	10.7	99		12/3/2010 0144h
1011529-006FMSD	Benzo(a)pyrene	µg/L	EPA625	85.0	80.00	0	106	29-175	6.66	45		12/3/2010 0144h
1011529-006FMSD	Benzo(b)fluoranthene	µg/L	EPA625	78.8	80.00	0	98.5	15-140	12.7	44		12/3/2010 0144h
1011529-006FMSD	Benzo(g,h,i)perylene	µg/L	EPA625	69.3	80.00	0	86.7	10-182	6.36	48		12/3/2010 0144h
1011529-006FMSD	Benzo(k)fluoranthene	µg/L	EPA625	100	80.00	0	126	21-154	2.64	52		12/3/2010 0144h
1011529-006FMSD	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	17.8	10-71	0	78		12/3/2010 0144h
1011529-006FMSD	Benzyl alcohol	µg/L	EPA625	24.6	80.00	0	30.7	10-69	1.68	52		12/3/2010 0144h
1011529-006FMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	36.9	80.00	0	46.1	10-94	0.844	45		12/3/2010 0144h
1011529-006FMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	36.0	80.00	0	45.0	10-70	2.71	47		12/3/2010 0144h
1011529-006FMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	37.5	80.00	0	46.8	10-71	5.63	49		12/3/2010 0144h
1011529-006FMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	164	80.00	0	204	10-175	57.5	28	[1]@	12/3/2010 0144h
1011529-006FMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	94.3	80.00	0	118	10-175	4.07	25		12/3/2010 0144h
1011529-006FMSD	Butyl benzyl phthalate	µg/L	EPA625	90.3	80.00	0	113	10-175	2.75	99		12/3/2010 0144h
1011529-006FMSD	Carbazole	µg/L	EPA625	78.3	80.00	0	97.9	10-151	5.93	30		12/3/2010 0144h
1011529-006FMSD	Chlorobenzilate	µg/L	EPA625	80.8	80.00	0	101	18-175	6.31	25		12/3/2010 0144h
1011529-006FMSD	Chrysene	µg/L	EPA625	81.6	80.00	0	102	38-133	2.53	28		12/3/2010 0144h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	Diallate (cis or trans)	µg/L	EPA625	66.2	80.00	0	82.7	10-157	5.16	29		12/3/2010 0144h
1011529-006FMSD	Dibenz(a,h)anthracene	µg/L	EPA625	72.4	80.00	0	90.5	13-168	6.37	51		12/3/2010 0144h
1011529-006FMSD	Dibenzofuran	µg/L	EPA625	58.8	80.00	0	73.5	29-103	3.46	34		12/3/2010 0144h
1011529-006FMSD	Diethyl phthalate	µg/L	EPA625	57.0	80.00	0	71.2	10-139	5.65	32		12/3/2010 0144h
1011529-006FMSD	Dimethoate	µg/L	EPA625	< 10.0	80.00	0	11.9	10-136	0	45		12/3/2010 0144h
1011529-006FMSD	Dimethyl phthalate	µg/L	EPA625	35.1	80.00	0	43.9	10-122	11.2	57		12/3/2010 0144h
1011529-006FMSD	Dimethylaminoazobenzene	µg/L	EPA625	89.8	80.00	0	112	34-142	5.50	26		12/3/2010 0144h
1011529-006FMSD	Di-n-butyl phthalate	µg/L	EPA625	79.7	80.00	0	99.6	44-124	5.93	25		12/3/2010 0144h
1011529-006FMSD	Di-n-octyl phthalate	µg/L	EPA625	143	80.00	0	178	10-175	6.36	50	1	12/3/2010 0144h
1011529-006FMSD	Dinoseb	µg/L	EPA625	128	80.00	0	159	10-175	6.61	42		12/3/2010 0144h
1011529-006FMSD	Diphenylamine	µg/L	EPA625	76.5	80.00	0	95.7	13-110	12.0	34		12/3/2010 0144h
1011529-006FMSD	Disulfoton	µg/L	EPA625	56.9	80.00	0	71.1	10-121	11.7	25		12/3/2010 0144h
1011529-006FMSD	Ethyl methanesulfonate	µg/L	EPA625	46.0	80.00	0	57.4	10-99	3.99	46		12/3/2010 0144h
1011529-006FMSD	Famphur	µg/L	EPA625	139	80.00	0	173	10-71	0.546	25	1	12/3/2010 0144h
1011529-006FMSD	Fluoranthene	µg/L	EPA625	77.3	80.00	0	96.6	23-135	3.17	25		12/3/2010 0144h
1011529-006FMSD	Fluorene	µg/L	EPA625	63.4	80.00	0	79.2	34-108	4.86	28		12/3/2010 0144h
1011529-006FMSD	Hexachlorobenzene	µg/L	EPA625	70.4	80.00	0	88.0	26-131	7.83	28		12/3/2010 0144h
1011529-006FMSD	Hexachlorobutadiene	µg/L	EPA625	23.2	80.00	0	29.0	10-110	18.5	68		12/3/2010 0144h
1011529-006FMSD	Hexachlorocyclopentadiene	µg/L	EPA625	14.7	80.00	0	18.4	10-45	27.4	79		12/3/2010 0144h
1011529-006FMSD	Hexachloroethane	µg/L	EPA625	18.8	80.00	0	23.5	10-58	24.6	42		12/3/2010 0144h
1011529-006FMSD	Hexachlorophene	µg/L	EPA625	89.6	80.00	0	112	10-168	9.60	25		12/3/2010 0144h
1011529-006FMSD	Hexachloropropene	µg/L	EPA625	19.9	80.00	0	24.9	10-72	25.7	63		12/3/2010 0144h
1011529-006FMSD	Indene	µg/L	EPA625	28.2	80.00	0	35.2	10-35	19.7	35	1	12/3/2010 0144h
1011529-006FMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	73.0	80.00	0	91.2	10-176	6.20	48		12/3/2010 0144h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	Isodrin	µg/L	EPA625	76.2	80.00	0	95.2	15-165	8.94	25		12/3/2010 0144h
1011529-006FMSD	Isophorone	µg/L	EPA625	50.0	80.00	0	62.6	10-99	1.01	41		12/3/2010 0144h
1011529-006FMSD	Isosafrole	µg/L	EPA625	47.8	80.00	0	59.8	10-167	9.18	50		12/3/2010 0144h
1011529-006FMSD	Kepone	µg/L	EPA625	215	80.00	0	269	10-175	1.01	46	1	12/3/2010 0144h
1011529-006FMSD	Methapyrilene	µg/L	EPA625	86.3	80.00	0	108	10-149	1.48	51		12/3/2010 0144h
1011529-006FMSD	Methyl methanesulfonate	µg/L	EPA625	30.8	80.00	0	38.6	10-132	3.70	45		12/3/2010 0144h
1011529-006FMSD	Naphthalene	µg/L	EPA625	35.3	80.00	0	44.1	10-82	14.6	43		12/3/2010 0144h
1011529-006FMSD	n-Decane	µg/L	EPA625	12.8	80.00	0	16.0	10-27	21.1	32		12/3/2010 0144h
1011529-006FMSD	Nitrobenzene	µg/L	EPA625	59.5	80.00	0	74.4	10-119	5.96	49		12/3/2010 0144h
1011529-006FMSD	Nitroquinoline-1-oxide	µg/L	EPA625	36.1	80.00	0	45.1	10-170	14.9	97		12/3/2010 0144h
1011529-006FMSD	N-Nitrosodiethylamine	µg/L	EPA625	43.4	80.00	0	54.3	10-91	5.08	54		12/3/2010 0144h
1011529-006FMSD	N-Nitrosodimethylamine	µg/L	EPA625	19.1	80.00	0	23.9	10-42	8.05	66		12/3/2010 0144h
1011529-006FMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	57.2	80.00	0	71.5	10-175	1.91	80		12/3/2010 0144h
1011529-006FMSD	N-Nitrosodiphenylamine	µg/L	EPA625	75.2	80.00	0	94.0	12-112	11.5	30		12/3/2010 0144h
1011529-006FMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	47.1	80.00	0	58.9	10-77	3.80	47		12/3/2010 0144h
1011529-006FMSD	N-Nitrosomethylethylamine	µg/L	EPA625	33.4	80.00	0	41.8	10-75	0.781	60		12/3/2010 0144h
1011529-006FMSD	N-Nitrosomorpholine	µg/L	EPA625	47.8	80.00	0	59.8	10-175	0.313	73		12/3/2010 0144h
1011529-006FMSD	N-Nitrosopiperidine	µg/L	EPA625	55.9	80.00	0	69.8	10-105	3.11	44		12/3/2010 0144h
1011529-006FMSD	N-Nitrosopyrrolidine	µg/L	EPA625	56.7	80.00	0	70.9	10-88	4.28	40		12/3/2010 0144h
1011529-006FMSD	n-Octadecane	µg/L	EPA625	59.2	80.00	0	74.0	10-121	2.81	40		12/3/2010 0144h
1011529-006FMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	53.7	80.00	0	67.1	10-93	4.50	44		12/3/2010 0144h
1011529-006FMSD	o-Toluidine	µg/L	EPA625	95.2	80.00	0	119	10-107	1.22	46	1	12/3/2010 0144h
1011529-006FMSD	Parathion	µg/L	EPA625	111	80.00	0	139	10-175	5.99	28		12/3/2010 0144h
1011529-006FMSD	Methyl parathion	µg/L	EPA625	102	80.00	0	128	10-175	5.65	26		12/3/2010 0144h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	Pentachlorobenzene	µg/L	EPA625	58.5	80.00	0	73.2	25-134	4.99	35		12/3/2010 0144h
1011529-006FMSD	Pentachloronitrobenzene	µg/L	EPA625	81.0	80.00	0	101	10-175	4.27	25		12/3/2010 0144h
1011529-006FMSD	Pentachlorophenol	µg/L	EPA625	64.0	80.00	0	80.0	10-163	26.3	58		12/3/2010 0144h
1011529-006FMSD	Phenacetin	µg/L	EPA625	77.3	80.00	0	96.6	10-175	6.69	38		12/3/2010 0144h
1011529-006FMSD	Phenanthrene	µg/L	EPA625	83.0	80.00	0	104	31-126	5.53	32		12/3/2010 0144h
1011529-006FMSD	Phenol	µg/L	EPA625	29.8	80.00	0	37.3	10-175	6.08	71		12/3/2010 0144h
1011529-006FMSD	Phorate	µg/L	EPA625	81.0	80.00	0	101	10-175	8.08	42		12/3/2010 0144h
1011529-006FMSD	Pronamide	µg/L	EPA625	79.6	80.00	0	99.5	10-95	3.18	26	1	12/3/2010 0144h
1011529-006FMSD	Pyrene	µg/L	EPA625	91.5	80.00	0	114	51-139	4.01	27		12/3/2010 0144h
1011529-006FMSD	Pyridine	µg/L	EPA625	11.6	80.00	0	14.5	10-25	0.601	61		12/3/2010 0144h
1011529-006FMSD	Quinoline	µg/L	EPA625	59.5	80.00	0	74.4	10-63	2.95	99	1	12/3/2010 0144h
1011529-006FMSD	Safrole	µg/L	EPA625	51.5	80.00	0	64.4	10-120	6.59	51		12/3/2010 0144h
1011529-006FMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	73.6	80.00	0	92.0	13-160	6.27	35		12/3/2010 0144h
1011529-006FMSD	Thionazin	µg/L	EPA625	66.2	80.00	0	82.8	10-139	6.93	25		12/3/2010 0144h
1011529-006FMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	68.2	80.00		85.2	21-154				12/3/2010 0144h
1011529-006FMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	49.3	40.00		123	10-106			S	12/3/2010 0144h
1011529-006FMSD	Surr: 2-Fluorophenol	%REC	EPA625	26.8	80.00		33.6	10-56				12/3/2010 0144h
1011529-006FMSD	Surr: Nitrobenzene-d5	%REC	EPA625	53.9	40.00		135	10-101			S	12/3/2010 0144h
1011529-006FMSD	Surr: Phenol-d6	%REC	EPA625	19.7	80.00		24.6	10-45				12/3/2010 0144h
1011529-006FMSD	Surr: Terphenyl-d14	%REC	EPA625	92.3	40.00		231	10-160			S	12/3/2010 0144h
1012039-001DMSD	1,1´-Biphenyl	µg/L	EPA625	64.2	83.33	0	77.1	27-99	0.183	49		12/3/2010 0959h
1012039-001DMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	58.8	83.33	0	70.5	10-119	0.302	52		12/3/2010 0959h
1012039-001DMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	44.5	83.33	0	53.4	10-79	4.00	49		12/3/2010 0959h
1012039-001DMSD	1,2-Dichlorobenzene	µg/L	EPA625	32.6	83.33	0	39.1	10-59	4.05	46		12/3/2010 0959h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	159	83.33	0	191	10-175	6.83	33	1	12/3/2010 0959h
1012039-001DMSD	1,3-Dichlorobenzene	µg/L	EPA625	25.7	83.33	0	30.9	10-56	10.2	49		12/3/2010 0959h
1012039-001DMSD	1,3-Dinitrobenzene	µg/L	EPA625	108	83.33	0	130	10-175	13.1	29		12/3/2010 0959h
1012039-001DMSD	1,4-Dichlorobenzene	µg/L	EPA625	27.5	83.33	0	33.0	10-58	10.6	51		12/3/2010 0959h
1012039-001DMSD	1,4-Naphthoquinone	µg/L	EPA625	19.9	83.33	0	23.9	10-177	19.6	99		12/3/2010 0959h
1012039-001DMSD	1,4-Phenylenediamine	µg/L	EPA625	51.9	83.33	0	62.3	10-124	0.201	48		12/3/2010 0959h
1012039-001DMSD	1-Chloronaphthalene	µg/L	EPA625	67.4	83.33	0	80.9	10-106	20.0	47		12/3/2010 0959h
1012039-001DMSD	1-Methylnaphthalene	µg/L	EPA625	65.2	83.33	0	78.2	10-83	0.758	44		12/3/2010 0959h
1012039-001DMSD	1-Naphthylamine	µg/L	EPA625	71.6	83.33	0	85.9	10-122	2.11	57		12/3/2010 0959h
1012039-001DMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	87.7	83.33	0	105	10-157	11.8	39		12/3/2010 0959h
1012039-001DMSD	2,4,5-Trichlorophenol	µg/L	EPA625	75.2	83.33	0	90.3	10-148	12.7	56		12/3/2010 0959h
1012039-001DMSD	2,4,6-Trichlorophenol	µg/L	EPA625	60.2	83.33	0	72.3	10-136	11.8	52		12/3/2010 0959h
1012039-001DMSD	2,4-Dichlorophenol	µg/L	EPA625	60.4	83.33	0	72.5	10-123	6.16	67		12/3/2010 0959h
1012039-001DMSD	2,4-Dimethylphenol	µg/L	EPA625	62.9	83.33	0	75.5	10-113	1.05	32		12/3/2010 0959h
1012039-001DMSD	2,4-Dinitrophenol	µg/L	EPA625	75.0	83.33	0	90.0	10-175	27.1	78		12/3/2010 0959h
1012039-001DMSD	2,4-Dinitrotoluene	µg/L	EPA625	105	83.33	0	126	10-175	5.54	26		12/3/2010 0959h
1012039-001DMSD	2,6-Dichlorophenol	µg/L	EPA625	70.2	83.33	0	84.3	10-148	6.04	56		12/3/2010 0959h
1012039-001DMSD	2,6-Dinitrotoluene	µg/L	EPA625	88.7	83.33	0	106	10-175	0.304	74		12/3/2010 0959h
1012039-001DMSD	2-Acetylaminofluorene	µg/L	EPA625	78.0	83.33	0	93.6	10-94	5.43	52		12/3/2010 0959h
1012039-001DMSD	2-Chloronaphthalene	µg/L	EPA625	56.6	83.33	0	67.9	10-93	13.3	49		12/3/2010 0959h
1012039-001DMSD	2-Chlorophenol	µg/L	EPA625	57.1	83.33	0	68.5	10-92	5.61	58		12/3/2010 0959h
1012039-001DMSD	2-Methylnaphthalene	µg/L	EPA625	55.7	83.33	0	66.8	15-78	1.25	39		12/3/2010 0959h
1012039-001DMSD	2-Methylphenol	µg/L	EPA625	53.3	83.33	0	63.9	10-83	6.62	49		12/3/2010 0959h
1012039-001DMSD	2-Naphthylamine	µg/L	EPA625	67.4	83.33	0	80.8	10-154	4.39	37		12/3/2010 0959h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	2-Nitroaniline	µg/L	EPA625	89.1	83.33	0	107	10-175	6.12	87		12/3/2010 0959h
1012039-001DMSD	2-Nitrophenol	µg/L	EPA625	83.2	83.33	0	99.8	10-175	3.14	64		12/3/2010 0959h
1012039-001DMSD	2-Picoline	µg/L	EPA625	37.9	83.33	0	45.5	10-61	2.06	63		12/3/2010 0959h
1012039-001DMSD	3&4-Methylphenol	µg/L	EPA625	30.8	83.33	0	36.9	10-80	13.5	99		12/3/2010 0959h
1012039-001DMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	71.2	83.33	0	85.5	10-150	5.97	63		12/3/2010 0959h
1012039-001DMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	80.9	83.33	0	97.1	10-143	12.8	99		12/3/2010 0959h
1012039-001DMSD	3-Methylcholanthrene	µg/L	EPA625	72.0	83.33	0	86.4	32-171	2.77	46		12/3/2010 0959h
1012039-001DMSD	3-Nitroaniline	µg/L	EPA625	83.1	83.33	0	99.8	10-175	6.27	29		12/3/2010 0959h
1012039-001DMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	115	83.33	0	138	10-175	2.73	70		12/3/2010 0959h
1012039-001DMSD	4-Aminobiphenyl	µg/L	EPA625	82.3	83.33	0	98.7	10-175	4.00	79		12/3/2010 0959h
1012039-001DMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	74.7	83.33	0	89.7	16-138	1.40	31		12/3/2010 0959h
1012039-001DMSD	4-Chloro-3-methylphenol	µg/L	EPA625	70.9	83.33	0	85.0	10-131	5.70	37		12/3/2010 0959h
1012039-001DMSD	4-Chloroaniline	µg/L	EPA625	59.4	83.33	0	71.3	10-98	4.42	41		12/3/2010 0959h
1012039-001DMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	70.9	83.33	0	85.1	31-108	2.41	30		12/3/2010 0959h
1012039-001DMSD	4-Nitroaniline	µg/L	EPA625	73.3	83.33	0	88.0	10-175	8.71	99		12/3/2010 0959h
1012039-001DMSD	4-Nitrophenol	µg/L	EPA625	148	83.33	0	177	10-97	20.1	69	1	12/3/2010 0959h
1012039-001DMSD	5-Nitro-o-toluidine	µg/L	EPA625	93.4	83.33	0	112	10-175	3.39	26		12/3/2010 0959h
1012039-001DMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	97.1	83.33	0	117	26-174	2.79	40		12/3/2010 0959h
1012039-001DMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	47.2	83.33	0	56.6	10-175	11.5	99		12/3/2010 0959h
1012039-001DMSD	Acenaphthene	µg/L	EPA625	67.6	83.33	0	81.2	29-97	0.972	38		12/3/2010 0959h
1012039-001DMSD	Acenaphthylene	µg/L	EPA625	69.1	83.33	0	82.9	37-87	2.41	37		12/3/2010 0959h
1012039-001DMSD	Acetophenone	µg/L	EPA625	57.4	83.33	0	68.9	10-96	0.816	48		12/3/2010 0959h
1012039-001DMSD	alpha-Terpineol	µg/L	EPA625	57.1	83.33	0	68.5	10-67	2.03	46	1	12/3/2010 0959h
1012039-001DMSD	Aniline	µg/L	EPA625	46.6	83.33	0	55.9	10-71	1.93	48		12/3/2010 0959h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	Anthracene	µg/L	EPA625	84.9	83.33	0	102	53-114	1.99	26		12/3/2010 0959h
1012039-001DMSD	Aramite	µg/L	EPA625	92.0	83.33	0	110	29-160	1.47	30		12/3/2010 0959h
1012039-001DMSD	Azobenzene	µg/L	EPA625	67.3	83.33	0	80.7	15-114	1.94	36		12/3/2010 0959h
1012039-001DMSD	Benz(a)anthracene	µg/L	EPA625	70.2	83.33	0	84.2	39-129	6.43	32		12/3/2010 0959h
1012039-001DMSD	Benzidine	µg/L	EPA625	65.9	83.33	0	79.1	10-99	10.2	99		12/3/2010 0959h
1012039-001DMSD	Benzo(a)pyrene	µg/L	EPA625	76.3	83.33	0	91.6	29-175	3.31	45		12/3/2010 0959h
1012039-001DMSD	Benzo(b)fluoranthene	µg/L	EPA625	65.8	83.33	0	79.0	15-140	14.8	44		12/3/2010 0959h
1012039-001DMSD	Benzo(g,h,i)perylene	µg/L	EPA625	61.8	83.33	0	74.2	10-182	1.12	48		12/3/2010 0959h
1012039-001DMSD	Benzo(k)fluoranthene	µg/L	EPA625	93.6	83.33	0	112	21-154	9.10	52		12/3/2010 0959h
1012039-001DMSD	Benzoic acid	µg/L	EPA625	< 20.8	83.33	0	13.5	10-71	0	78		12/3/2010 0959h
1012039-001DMSD	Benzyl alcohol	µg/L	EPA625	28.7	83.33	0	34.4	10-69	10.7	52		12/3/2010 0959h
1012039-001DMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	42.7	83.33	0	51.2	10-94	3.46	45		12/3/2010 0959h
1012039-001DMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	46.5	83.33	0	55.8	10-70	12.8	47		12/3/2010 0959h
1012039-001DMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	43.3	83.33	0	52.0	10-71	0.689	49		12/3/2010 0959h
1012039-001DMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	85.3	83.33	0	102	10-175	0.187	28		12/3/2010 0959h
1012039-001DMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	88.4	83.33	0	106	10-175	3.20	25		12/3/2010 0959h
1012039-001DMSD	Butyl benzyl phthalate	µg/L	EPA625	86.8	83.33	0	104	10-175	2.15	99		12/3/2010 0959h
1012039-001DMSD	Carbazole	µg/L	EPA625	79.2	83.33	0	95.1	10-151	2.88	30		12/3/2010 0959h
1012039-001DMSD	Chlorobenzilate	µg/L	EPA625	84.3	83.33	0	101	18-175	3.44	25		12/3/2010 0959h
1012039-001DMSD	Chrysene	µg/L	EPA625	77.4	83.33	0	92.8	38-133	5.19	28		12/3/2010 0959h
1012039-001DMSD	Diallate (cis or trans)	µg/L	EPA625	71.6	83.33	0	85.9	10-157	0.703	29		12/3/2010 0959h
1012039-001DMSD	Dibenz(a,h)anthracene	µg/L	EPA625	63.5	83.33	0	76.2	13-168	2.79	51		12/3/2010 0959h
1012039-001DMSD	Dibenzofuran	µg/L	EPA625	69.3	83.33	0	83.2	29-103	3.91	34		12/3/2010 0959h
1012039-001DMSD	Diethyl phthalate	µg/L	EPA625	72.8	83.33	0	87.4	10-139	0.0783	32		12/3/2010 0959h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	Dimethoate	µg/L	EPA625	32.1	83.33	0	38.6	10-136	4.94	45		12/3/2010 0959h
1012039-001DMSD	Dimethyl phthalate	µg/L	EPA625	64.5	83.33	0	77.4	10-122	1.26	57		12/3/2010 0959h
1012039-001DMSD	Dimethylaminoazobenzene	µg/L	EPA625	83.0	83.33	0	99.6	34-142	2.96	26		12/3/2010 0959h
1012039-001DMSD	Di-n-butyl phthalate	µg/L	EPA625	82.0	83.33	0	98.4	44-124	1.04	25		12/3/2010 0959h
1012039-001DMSD	Di-n-octyl phthalate	µg/L	EPA625	124	83.33	0	149	10-175	1.28	50		12/3/2010 0959h
1012039-001DMSD	Dinoseb	µg/L	EPA625	135	83.33	0	162	10-175	7.70	42		12/3/2010 0959h
1012039-001DMSD	Diphenylamine	µg/L	EPA625	78.0	83.33	0	93.6	13-110	1.53	34		12/3/2010 0959h
1012039-001DMSD	Disulfoton	µg/L	EPA625	59.1	83.33	0	71.0	10-121	13.3	25		12/3/2010 0959h
1012039-001DMSD	Ethyl methanesulfonate	µg/L	EPA625	54.1	83.33	0	64.9	10-99	4.85	46		12/3/2010 0959h
1012039-001DMSD	Famphur	µg/L	EPA625	123	83.33	0	148	10-71	0.671	25	1	12/3/2010 0959h
1012039-001DMSD	Fluoranthene	µg/L	EPA625	78.7	83.33	0	94.5	23-135	3.14	25		12/3/2010 0959h
1012039-001DMSD	Fluorene	µg/L	EPA625	70.9	83.33	0	85.0	34-108	0.140	28		12/3/2010 0959h
1012039-001DMSD	Hexachlorobenzene	µg/L	EPA625	75.2	83.33	0	90.3	26-131	0.496	28		12/3/2010 0959h
1012039-001DMSD	Hexachlorobutadiene	µg/L	EPA625	39.2	83.33	0	47.1	10-110	5.79	68		12/3/2010 0959h
1012039-001DMSD	Hexachlorocyclopentadiene	µg/L	EPA625	28.0	83.33	0	33.6	10-45	2.73	79		12/3/2010 0959h
1012039-001DMSD	Hexachloroethane	µg/L	EPA625	26.3	83.33	0	31.6	10-58	13.7	42		12/3/2010 0959h
1012039-001DMSD	Hexachlorophene	µg/L	EPA625	84.6	83.33	0	101	10-168	11.9	25		12/3/2010 0959h
1012039-001DMSD	Hexachloropropene	µg/L	EPA625	35.3	83.33	0	42.4	10-72	7.54	63		12/3/2010 0959h
1012039-001DMSD	Indene	µg/L	EPA625	38.3	83.33	0	46.0	10-35	6.28	35	1	12/3/2010 0959h
1012039-001DMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	65.1	83.33	0	78.1	10-176	2.58	48		12/3/2010 0959h
1012039-001DMSD	Isodrin	µg/L	EPA625	77.3	83.33	0	92.7	15-165	0.537	25		12/3/2010 0959h
1012039-001DMSD	Isophorone	µg/L	EPA625	58.0	83.33	0	69.6	10-99	0.281	41		12/3/2010 0959h
1012039-001DMSD	Isosafrole	µg/L	EPA625	58.8	83.33	0	70.6	10-167	1.64	50		12/3/2010 0959h
1012039-001DMSD	Kepone	µg/L	EPA625	217	83.33	0	261	10-175	5.68	46	1	12/3/2010 0959h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	Methapyrilene	µg/L	EPA625	90.9	83.33	0	109	10-149	2.76	51		12/3/2010 0959h
1012039-001DMSD	Methyl methanesulfonate	µg/L	EPA625	38.9	83.33	0	46.6	10-132	7.74	45		12/3/2010 0959h
1012039-001DMSD	Naphthalene	µg/L	EPA625	51.0	83.33	0	61.2	10-82	3.96	43		12/3/2010 0959h
1012039-001DMSD	n-Decane	µg/L	EPA625	15.5	83.33	0	18.6	10-27	21.4	32		12/3/2010 0959h
1012039-001DMSD	Nitrobenzene	µg/L	EPA625	68.1	83.33	0	81.8	10-119	0.530	49		12/3/2010 0959h
1012039-001DMSD	Nitroquinoline-1-oxide	µg/L	EPA625	36.8	83.33	0	44.2	10-170	19.4	97		12/3/2010 0959h
1012039-001DMSD	N-Nitrosodiethylamine	µg/L	EPA625	51.5	83.33	0	61.8	10-91	3.04	54		12/3/2010 0959h
1012039-001DMSD	N-Nitrosodimethylamine	µg/L	EPA625	21.6	83.33	0	25.9	10-42	7.11	66		12/3/2010 0959h
1012039-001DMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	64.5	83.33	0	77.4	10-175	1.24	80		12/3/2010 0959h
1012039-001DMSD	N-Nitrosodiphenylamine	µg/L	EPA625	77.1	83.33	0	92.5	12-112	1.87	30		12/3/2010 0959h
1012039-001DMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	54.2	83.33	0	65.1	10-77	0.613	47		12/3/2010 0959h
1012039-001DMSD	N-Nitrosomethylethylamine	µg/L	EPA625	43.3	83.33	0	52.0	10-75	8.36	60		12/3/2010 0959h
1012039-001DMSD	N-Nitrosomorpholine	µg/L	EPA625	58.9	83.33	0	70.6	10-175	5.41	73		12/3/2010 0959h
1012039-001DMSD	N-Nitrosopiperidine	µg/L	EPA625	63.0	83.33	0	75.6	10-105	2.81	44		12/3/2010 0959h
1012039-001DMSD	N-Nitrosopyrrolidine	µg/L	EPA625	65.7	83.33	0	78.9	10-88	3.74	40		12/3/2010 0959h
1012039-001DMSD	n-Octadecane	µg/L	EPA625	68.0	83.33	0	81.6	10-121	0.0591	40		12/3/2010 0959h
1012039-001DMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	60.5	83.33	0	72.6	10-93	5.35	44		12/3/2010 0959h
1012039-001DMSD	o-Toluidine	µg/L	EPA625	121	83.33	0	145	10-107	5.43	46	1	12/3/2010 0959h
1012039-001DMSD	Parathion	µg/L	EPA625	111	83.33	0	134	10-175	1.55	28		12/3/2010 0959h
1012039-001DMSD	Methyl parathion	µg/L	EPA625	103	83.33	0	123	10-175	2.57	26		12/3/2010 0959h
1012039-001DMSD	Pentachlorobenzene	µg/L	EPA625	67.7	83.33	0	81.3	25-134	1.88	35		12/3/2010 0959h
1012039-001DMSD	Pentachloronitrobenzene	µg/L	EPA625	84.8	83.33	0	102	10-175	1.38	25		12/3/2010 0959h
1012039-001DMSD	Pentachlorophenol	µg/L	EPA625	47.5	83.33	0	57.0	10-163	7.31	58		12/3/2010 0959h
1012039-001DMSD	Phenacetin	µg/L	EPA625	78.0	83.33	0	93.6	10-175	7.89	38		12/3/2010 0959h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	Phenanthrene	µg/L	EPA625	88.2	83.33	0	106	31-126	0.433	32		12/3/2010 0959h
1012039-001DMSD	Phenol	µg/L	EPA625	33.7	83.33	0	40.5	10-175	3.30	71		12/3/2010 0959h
1012039-001DMSD	Phorate	µg/L	EPA625	86.5	83.33	0	104	10-175	3.13	42		12/3/2010 0959h
1012039-001DMSD	Pronamide	µg/L	EPA625	85.7	83.33	0	103	10-95	8.30	26	1	12/3/2010 0959h
1012039-001DMSD	Pyrene	µg/L	EPA625	86.5	83.33	0	104	51-139	2.39	27		12/3/2010 0959h
1012039-001DMSD	Pyridine	µg/L	EPA625	21.9	83.33	0	26.2	10-25	4.47	61	1	12/3/2010 0959h
1012039-001DMSD	Quinoline	µg/L	EPA625	67.3	83.33	0	80.8	10-63	3.53	99	1	12/3/2010 0959h
1012039-001DMSD	Safrole	µg/L	EPA625	60.7	83.33	0	72.9	10-120	3.53	51		12/3/2010 0959h
1012039-001DMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	77.3	83.33	0	92.8	13-160	0.833	35		12/3/2010 0959h
1012039-001DMSD	Thionazin	µg/L	EPA625	71.5	83.33	0	85.8	10-139	2.92	25		12/3/2010 0959h
1012039-001DMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	70.6	83.33		84.7	21-154				12/3/2010 0959h
1012039-001DMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	63.1	41.67		152	10-106			S	12/3/2010 0959h
1012039-001DMSD	Surr: 2-Fluorophenol	%REC	EPA625	30.6	83.33		36.8	10-56				12/3/2010 0959h
1012039-001DMSD	Surr: Nitrobenzene-d5	%REC	EPA625	60.8	41.67		146	10-101			S	12/3/2010 0959h
1012039-001DMSD	Surr: Phenol-d6	%REC	EPA625	20.9	83.33		25.1	10-45				12/3/2010 0959h
1012039-001DMSD	Surr: Terphenyl-d14	%REC	EPA625	88.3	41.67		212	10-160			S	12/3/2010 0959h
1012057-001BMSD	1,1´-Biphenyl	µg/L	EPA625	65.5	80.00	0	81.9	27-99	23.3	49		12/3/2010 1149h
1012057-001BMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	63.2	80.00	0	79.0	10-119	28.7	52		12/3/2010 1149h
1012057-001BMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	47.4	80.00	0	59.2	10-79	22.5	49		12/3/2010 1149h
1012057-001BMSD	1,2-Dichlorobenzene	µg/L	EPA625	36.0	80.00	0	45.0	10-59	20.7	46		12/3/2010 1149h
1012057-001BMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	155	80.00	0	193	10-175	14.4	33	1	12/3/2010 1149h
1012057-001BMSD	1,3-Dichlorobenzene	µg/L	EPA625	29.5	80.00	0	36.9	10-56	18.2	49		12/3/2010 1149h
1012057-001BMSD	1,3-Dinitrobenzene	µg/L	EPA625	107	80.00	0	134	10-175	34.0	29	@	12/3/2010 1149h
1012057-001BMSD	1,4-Dichlorobenzene	µg/L	EPA625	31.7	80.00	0	39.6	10-58	21.7	51		12/3/2010 1149h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	1,4-Naphthoquinone	µg/L	EPA625	17.2	80.00	0	21.5	10-177	17.4	99		12/3/2010 1149h
1012057-001BMSD	1,4-Phenylenediamine	µg/L	EPA625	54.6	80.00	0	68.3	10-124	26.9	48		12/3/2010 1149h
1012057-001BMSD	1-Chloronaphthalene	µg/L	EPA625	64.8	80.00	0	81.0	10-106	41.2	47		12/3/2010 1149h
1012057-001BMSD	1-Methylnaphthalene	µg/L	EPA625	66.8	80.00	0	83.5	10-83	23.4	44	1	12/3/2010 1149h
1012057-001BMSD	1-Naphthylamine	µg/L	EPA625	70.8	80.00	0	88.5	10-122	17.2	57		12/3/2010 1149h
1012057-001BMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	84.8	80.00	0	106	10-157	6.87	39		12/3/2010 1149h
1012057-001BMSD	2,4,5-Trichlorophenol	µg/L	EPA625	71.6	80.00	0	89.6	10-148	18.0	56		12/3/2010 1149h
1012057-001BMSD	2,4,6-Trichlorophenol	µg/L	EPA625	57.2	80.00	0	71.6	10-136	19.6	52		12/3/2010 1149h
1012057-001BMSD	2,4-Dichlorophenol	µg/L	EPA625	58.1	80.00	0	72.6	10-123	17.0	67		12/3/2010 1149h
1012057-001BMSD	2,4-Dimethylphenol	µg/L	EPA625	63.7	80.00	0	79.6	10-113	14.1	32		12/3/2010 1149h
1012057-001BMSD	2,4-Dinitrophenol	µg/L	EPA625	73.7	80.00	0	92.1	10-175	37.9	78		12/3/2010 1149h
1012057-001BMSD	2,4-Dinitrotoluene	µg/L	EPA625	103	80.00	0	128	10-175	17.2	26		12/3/2010 1149h
1012057-001BMSD	2,6-Dichlorophenol	µg/L	EPA625	67.8	80.00	0	84.8	10-148	11.5	56		12/3/2010 1149h
1012057-001BMSD	2,6-Dinitrotoluene	µg/L	EPA625	87.3	80.00	0	109	10-175	15.9	74		12/3/2010 1149h
1012057-001BMSD	2-Acetylaminofluorene	µg/L	EPA625	79.2	80.00	0	99.0	10-94	14.0	52	1	12/3/2010 1149h
1012057-001BMSD	2-Chloronaphthalene	µg/L	EPA625	59.3	80.00	0	74.1	10-93	24.7	49		12/3/2010 1149h
1012057-001BMSD	2-Chlorophenol	µg/L	EPA625	55.1	80.00	0	68.9	10-92	20.0	58		12/3/2010 1149h
1012057-001BMSD	2-Methylnaphthalene	µg/L	EPA625	55.8	80.00	0	69.7	15-78	20.7	39		12/3/2010 1149h
1012057-001BMSD	2-Methylphenol	µg/L	EPA625	44.7	80.00	0	55.8	10-83	19.9	49		12/3/2010 1149h
1012057-001BMSD	2-Naphthylamine	µg/L	EPA625	64.4	80.00	0	80.5	10-154	17.5	37		12/3/2010 1149h
1012057-001BMSD	2-Nitroaniline	µg/L	EPA625	87.8	80.00	0	110	10-175	19.6	87		12/3/2010 1149h
1012057-001BMSD	2-Nitrophenol	µg/L	EPA625	82.1	80.00	0	103	10-175	9.21	64		12/3/2010 1149h
1012057-001BMSD	2-Picoline	µg/L	EPA625	40.8	80.00	0	51.0	10-61	51.0	63		12/3/2010 1149h
1012057-001BMSD	3&4-Methylphenol	µg/L	EPA625	26.9	80.00	0	33.6	10-80	29.9	99		12/3/2010 1149h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	73.6	80.00	0	92.0	10-150	15.6	63		12/3/2010 1149h
1012057-001BMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	82.1	80.00	0	103	10-143	13.5	99		12/3/2010 1149h
1012057-001BMSD	3-Methylcholanthrene	µg/L	EPA625	78.3	80.00	0	97.8	32-171	16.4	46		12/3/2010 1149h
1012057-001BMSD	3-Nitroaniline	µg/L	EPA625	80.6	80.00	0	101	10-175	17.4	29		12/3/2010 1149h
1012057-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	119	80.00	0	149	10-175	15.8	70		12/3/2010 1149h
1012057-001BMSD	4-Aminobiphenyl	µg/L	EPA625	78.6	80.00	0	98.3	10-175	15.9	79		12/3/2010 1149h
1012057-001BMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	70.5	80.00	0	88.2	16-138	17.0	31		12/3/2010 1149h
1012057-001BMSD	4-Chloro-3-methylphenol	µg/L	EPA625	65.1	80.00	0	81.4	10-131	13.5	37		12/3/2010 1149h
1012057-001BMSD	4-Chloroaniline	µg/L	EPA625	59.3	80.00	0	74.1	10-98	22.2	41		12/3/2010 1149h
1012057-001BMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	70.9	80.00	0	88.6	31-108	20.6	30		12/3/2010 1149h
1012057-001BMSD	4-Nitroaniline	µg/L	EPA625	71.7	80.00	0	89.7	10-175	18.2	99		12/3/2010 1149h
1012057-001BMSD	4-Nitrophenol	µg/L	EPA625	139	80.00	0	174	10-97	31.7	69	1	12/3/2010 1149h
1012057-001BMSD	5-Nitro-o-toluidine	µg/L	EPA625	92.1	80.00	0	115	10-175	15.7	26		12/3/2010 1149h
1012057-001BMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	106	80.00	0	132	26-174	17.0	40		12/3/2010 1149h
1012057-001BMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	43.4	80.00	0	54.2	10-175	10.4	99		12/3/2010 1149h
1012057-001BMSD	Acenaphthene	µg/L	EPA625	68.6	80.00	0	85.7	29-97	20.2	38		12/3/2010 1149h
1012057-001BMSD	Acenaphthylene	µg/L	EPA625	69.5	80.00	0	86.9	37-87	21.5	37		12/3/2010 1149h
1012057-001BMSD	Acetophenone	µg/L	EPA625	61.2	80.00	0	76.5	10-96	27.2	48		12/3/2010 1149h
1012057-001BMSD	alpha-Terpineol	µg/L	EPA625	56.7	80.00	0	70.8	10-67	20.3	46	1	12/3/2010 1149h
1012057-001BMSD	Aniline	µg/L	EPA625	46.7	80.00	0	58.4	10-71	37.5	48		12/3/2010 1149h
1012057-001BMSD	Anthracene	µg/L	EPA625	81.8	80.00	0	102	53-114	16.2	26		12/3/2010 1149h
1012057-001BMSD	Aramite	µg/L	EPA625	89.0	80.00	0	111	29-160	15.6	30		12/3/2010 1149h
1012057-001BMSD	Azobenzene	µg/L	EPA625	65.8	80.00	0	82.2	15-114	16.6	36		12/3/2010 1149h
1012057-001BMSD	Benz(a)anthracene	µg/L	EPA625	73.2	80.00	0	91.5	39-129	15.0	32		12/3/2010 1149h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	Benzidine	µg/L	EPA625	66.6	80.00	0	83.2	10-99	15.7	99		12/3/2010 1149h
1012057-001BMSD	Benzo(a)pyrene	µg/L	EPA625	84.4	80.00	0	105	29-175	17.2	45		12/3/2010 1149h
1012057-001BMSD	Benzo(b)fluoranthene	µg/L	EPA625	73.3	80.00	0	91.7	15-140	18.2	44		12/3/2010 1149h
1012057-001BMSD	Benzo(g,h,i)perylene	µg/L	EPA625	68.3	80.00	0	85.4	10-182	16.6	48		12/3/2010 1149h
1012057-001BMSD	Benzo(k)fluoranthene	µg/L	EPA625	101	80.00	0	127	21-154	15.6	52		12/3/2010 1149h
1012057-001BMSD	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	18.2	10-71	0	78		12/3/2010 1149h
1012057-001BMSD	Benzyl alcohol	µg/L	EPA625	26.0	80.00	0	32.5	10-69	33.4	52		12/3/2010 1149h
1012057-001BMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	44.0	80.00	0	54.9	10-94	24.7	45		12/3/2010 1149h
1012057-001BMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	50.5	80.00	0	63.1	10-70	36.5	47		12/3/2010 1149h
1012057-001BMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	47.3	80.00	0	59.2	10-71	34.2	49		12/3/2010 1149h
1012057-001BMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	88.0	80.00	0	110	10-175	12.3	28		12/3/2010 1149h
1012057-001BMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	89.9	80.00	0	112	10-175	10.5	25		12/3/2010 1149h
1012057-001BMSD	Butyl benzyl phthalate	µg/L	EPA625	89.7	80.00	0	112	10-175	10.0	99		12/3/2010 1149h
1012057-001BMSD	Carbazole	µg/L	EPA625	77.4	80.00	0	96.8	10-151	15.2	30		12/3/2010 1149h
1012057-001BMSD	Chlorobenzilate	µg/L	EPA625	87.0	80.00	0	109	18-175	11.2	25		12/3/2010 1149h
1012057-001BMSD	Chrysene	µg/L	EPA625	80.0	80.00	0	100	38-133	13.6	28		12/3/2010 1149h
1012057-001BMSD	Diallate (cis or trans)	µg/L	EPA625	69.2	80.00	0	86.5	10-157	16.8	29		12/3/2010 1149h
1012057-001BMSD	Dibenz(a,h)anthracene	µg/L	EPA625	70.3	80.00	0	87.9	13-168	17.4	51		12/3/2010 1149h
1012057-001BMSD	Dibenzofuran	µg/L	EPA625	69.1	80.00	0	86.4	29-103	22.0	34		12/3/2010 1149h
1012057-001BMSD	Diethyl phthalate	µg/L	EPA625	69.6	80.00	0	87.0	10-139	14.7	32		12/3/2010 1149h
1012057-001BMSD	Dimethoate	µg/L	EPA625	26.7	80.00	0	33.3	10-136	21.2	45		12/3/2010 1149h
1012057-001BMSD	Dimethyl phthalate	µg/L	EPA625	61.8	80.00	0	77.3	10-122	15.8	57		12/3/2010 1149h
1012057-001BMSD	Dimethylaminoazobenzene	µg/L	EPA625	87.7	80.00	0	110	34-142	16.7	26		12/3/2010 1149h
1012057-001BMSD	Di-n-butyl phthalate	µg/L	EPA625	79.0	80.00	0	98.8	44-124	11.1	25		12/3/2010 1149h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	Di-n-octyl phthalate	µg/L	EPA625	137	80.00	0	172	10-175	16.5	50		12/3/2010 1149h
1012057-001BMSD	Dinoseb	µg/L	EPA625	128	80.00	0	160	10-175	11.6	42		12/3/2010 1149h
1012057-001BMSD	Diphenylamine	µg/L	EPA625	76.0	80.00	0	95.0	13-110	15.7	34		12/3/2010 1149h
1012057-001BMSD	Disulfoton	µg/L	EPA625	56.3	80.00	0	70.4	10-121	14.9	25		12/3/2010 1149h
1012057-001BMSD	Ethyl methanesulfonate	µg/L	EPA625	55.8	80.00	0	69.8	10-99	30.1	46		12/3/2010 1149h
1012057-001BMSD	Famphur	µg/L	EPA625	126	80.00	0	158	10-71	5.66	25	1	12/3/2010 1149h
1012057-001BMSD	Fluoranthene	µg/L	EPA625	77.3	80.00	0	96.6	23-135	14.4	25		12/3/2010 1149h
1012057-001BMSD	Fluorene	µg/L	EPA625	69.7	80.00	0	87.1	34-108	19.0	28		12/3/2010 1149h
1012057-001BMSD	Hexachlorobenzene	µg/L	EPA625	72.0	80.00	0	90.1	26-131	16.7	28		12/3/2010 1149h
1012057-001BMSD	Hexachlorobutadiene	µg/L	EPA625	41.9	80.00	0	52.4	10-110	22.2	68		12/3/2010 1149h
1012057-001BMSD	Hexachlorocyclopentadiene	µg/L	EPA625	31.7	80.00	0	39.6	10-45	39.8	79		12/3/2010 1149h
1012057-001BMSD	Hexachloroethane	µg/L	EPA625	30.4	80.00	0	38.0	10-58	12.1	42		12/3/2010 1149h
1012057-001BMSD	Hexachlorophene	µg/L	EPA625	84.3	80.00	0	105	10-168	11.6	25		12/3/2010 1149h
1012057-001BMSD	Hexachloropropene	µg/L	EPA625	40.2	80.00	0	50.3	10-72	23.9	63		12/3/2010 1149h
1012057-001BMSD	Indene	µg/L	EPA625	41.9	80.00	0	52.4	10-35	23.8	35	1	12/3/2010 1149h
1012057-001BMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	71.3	80.00	0	89.2	10-176	17.1	48		12/3/2010 1149h
1012057-001BMSD	Isodrin	µg/L	EPA625	76.2	80.00	0	95.2	15-165	15.3	25		12/3/2010 1149h
1012057-001BMSD	Isophorone	µg/L	EPA625	58.2	80.00	0	72.8	10-99	23.6	41		12/3/2010 1149h
1012057-001BMSD	Isosafrole	µg/L	EPA625	60.5	80.00	0	75.6	10-167	26.4	50		12/3/2010 1149h
1012057-001BMSD	Kepone	µg/L	EPA625	212	80.00	0	265	10-175	0.383	46	1	12/3/2010 1149h
1012057-001BMSD	Methapyrilene	µg/L	EPA625	84.3	80.00	0	105	10-149	13.1	51		12/3/2010 1149h
1012057-001BMSD	Methyl methanesulfonate	µg/L	EPA625	35.2	80.00	0	44.0	10-132	31.1	45		12/3/2010 1149h
1012057-001BMSD	Naphthalene	µg/L	EPA625	53.0	80.00	0	66.3	10-82	24.8	43		12/3/2010 1149h
1012057-001BMSD	n-Decane	µg/L	EPA625	17.0	80.00	0	21.2	10-27	2.67	32		12/3/2010 1149h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	Nitrobenzene	µg/L	EPA625	72.7	80.00	0	90.9	10-119	29.7	49		12/3/2010 1149h
1012057-001BMSD	Nitroquinoline-1-oxide	µg/L	EPA625	36.9	80.00	0	46.1	10-170	22.9	97		12/3/2010 1149h
1012057-001BMSD	N-Nitrosodiethylamine	µg/L	EPA625	56.2	80.00	0	70.2	10-91	32.4	54		12/3/2010 1149h
1012057-001BMSD	N-Nitrosodimethylamine	µg/L	EPA625	21.8	80.00	0	27.2	10-42	34.8	66		12/3/2010 1149h
1012057-001BMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	63.8	80.00	0	79.8	10-175	19.4	80		12/3/2010 1149h
1012057-001BMSD	N-Nitrosodiphenylamine	µg/L	EPA625	75.1	80.00	0	93.8	12-112	16.1	30		12/3/2010 1149h
1012057-001BMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	54.4	80.00	0	68.0	10-77	27.4	47		12/3/2010 1149h
1012057-001BMSD	N-Nitrosomethylethylamine	µg/L	EPA625	44.0	80.00	0	55.0	10-75	35.5	60		12/3/2010 1149h
1012057-001BMSD	N-Nitrosomorpholine	µg/L	EPA625	56.8	80.00	0	71.0	10-175	25.7	73		12/3/2010 1149h
1012057-001BMSD	N-Nitrosopiperidine	µg/L	EPA625	64.5	80.00	0	80.6	10-105	21.7	44		12/3/2010 1149h
1012057-001BMSD	N-Nitrosopyrrolidine	µg/L	EPA625	61.2	80.00	0	76.5	10-88	21.0	40		12/3/2010 1149h
1012057-001BMSD	n-Octadecane	µg/L	EPA625	65.2	80.00	0	81.5	10-121	19.4	40		12/3/2010 1149h
1012057-001BMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	64.1	80.00	0	80.1	10-93	22.3	44		12/3/2010 1149h
1012057-001BMSD	o-Toluidine	µg/L	EPA625	125	80.00	0	157	10-107	30.7	46	1	12/3/2010 1149h
1012057-001BMSD	Parathion	µg/L	EPA625	110	80.00	0	138	10-175	15.5	28		12/3/2010 1149h
1012057-001BMSD	Methyl parathion	µg/L	EPA625	101	80.00	0	126	10-175	14.0	26		12/3/2010 1149h
1012057-001BMSD	Pentachlorobenzene	µg/L	EPA625	68.0	80.00	0	85.1	25-134	21.1	35		12/3/2010 1149h
1012057-001BMSD	Pentachloronitrobenzene	µg/L	EPA625	82.9	80.00	0	104	10-175	14.8	25		12/3/2010 1149h
1012057-001BMSD	Pentachlorophenol	µg/L	EPA625	45.7	80.00	0	57.2	10-163	1.45	58		12/3/2010 1149h
1012057-001BMSD	Phenacetin	µg/L	EPA625	75.2	80.00	0	94.0	10-175	17.1	38		12/3/2010 1149h
1012057-001BMSD	Phenanthrene	µg/L	EPA625	84.6	80.00	0	106	31-126	19.4	32		12/3/2010 1149h
1012057-001BMSD	Phenol	µg/L	EPA625	27.3	80.00	0	34.2	10-175	25.0	71		12/3/2010 1149h
1012057-001BMSD	Phorate	µg/L	EPA625	82.6	80.00	0	103	10-175	14.7	42		12/3/2010 1149h
1012057-001BMSD	Pronamide	µg/L	EPA625	81.6	80.00	0	102	10-95	13.5	26	1	12/3/2010 1149h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	Pyrene	µg/L	EPA625	89.0	80.00	0	111	51-139	13.7	27		12/3/2010 1149h
1012057-001BMSD	Pyridine	µg/L	EPA625	23.1	80.00	0	28.9	10-25	52.6	61	1	12/3/2010 1149h
1012057-001BMSD	Quinoline	µg/L	EPA625	67.0	80.00	0	83.7	10-63	20.5	99	1	12/3/2010 1149h
1012057-001BMSD	Safrole	µg/L	EPA625	61.5	80.00	0	76.9	10-120	27.6	51		12/3/2010 1149h
1012057-001BMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	74.2	80.00	0	92.8	13-160	17.4	35		12/3/2010 1149h
1012057-001BMSD	Thionazin	µg/L	EPA625	68.5	80.00	0	85.6	10-139	14.5	25		12/3/2010 1149h
1012057-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	67.9	80.00		84.8	21-154				12/3/2010 1149h
1012057-001BMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	64.6	40.00		161	10-106			S	12/3/2010 1149h
1012057-001BMSD	Surr: 2-Fluorophenol	%REC	EPA625	25.0	80.00		31.3	10-56				12/3/2010 1149h
1012057-001BMSD	Surr: Nitrobenzene-d5	%REC	EPA625	64.0	40.00		160	10-101			S	12/3/2010 1149h
1012057-001BMSD	Surr: Phenol-d6	%REC	EPA625	15.0	80.00		18.8	10-45				12/3/2010 1149h
1012057-001BMSD	Surr: Terphenyl-d14	%REC	EPA625	89.1	40.00		223	10-160			S	12/3/2010 1149h
1012057-004BMSD	1,2,4-Trichlorobenzene	mg/kg	SW8270D	172	100.0	0	172	43-117	0.637	35	1	12/4/2010 1901h
1012057-004BMSD	1,4-Dichlorobenzene	mg/kg	SW8270D	107	100.0	0	107	42-118	5.69	35		12/4/2010 1901h
1012057-004BMSD	2,4,6-Trichlorophenol	mg/kg	SW8270D	99.4	100.0	0	99.4	11-215	4.23	35		12/4/2010 1901h
1012057-004BMSD	2,4-Dimethylphenol	mg/kg	SW8270D	201	100.0	0	201	10-206	1.63	35		12/4/2010 1901h
1012057-004BMSD	2,4-Dinitrotoluene	mg/kg	SW8270D	210	100.0	0	210	10-270	1.39	35		12/4/2010 1901h
1012057-004BMSD	2-Chloronaphthalene	mg/kg	SW8270D	79.0	100.0	0	79.0	70-130	8.72	35		12/4/2010 1901h
1012057-004BMSD	2-Chlorophenol	mg/kg	SW8270D	73.9	100.0	0	73.9	46-114	0.815	35		12/4/2010 1901h
1012057-004BMSD	4,6-Dinitro-2-methylphenol	mg/kg	SW8270D	< 150	100.0	0	128	70-130	0	35		12/4/2010 1901h
1012057-004BMSD	4-Chloro-3-methylphenol	mg/kg	SW8270D	< 60.0	100.0	0	34.4	21-125	0	35		12/4/2010 1901h
1012057-004BMSD	4-Nitrophenol	mg/kg	SW8270D	< 150	100.0	0	14.8	10-127	0	35		12/4/2010 1901h
1012057-004BMSD	Acenaphthene	mg/kg	SW8270D	98.3	100.0	0	98.3	45-123	2.06	35		12/4/2010 1901h
1012057-004BMSD	Benzo(a)pyrene	mg/kg	SW8270D	109	100.0	0	109	70-130	1.39	35		12/4/2010 1901h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-004BMSD	N-Nitrosodi-n-propylamine	mg/kg	SW8270D	988	100.0	0	988	21-155	2.26	35	1	12/4/2010 1901h
1012057-004BMSD	Pentachlorophenol	mg/kg	SW8270D	< 150	100.0	0	74.6	10-148	0	35		12/4/2010 1901h
1012057-004BMSD	Phenol	mg/kg	SW8270D	87.3	100.0	0	87.3	37-119	0	35		12/4/2010 1901h
1012057-004BMSD	Pyrene	mg/kg	SW8270D	111	100.0	0	111	33-129	5.28	35		12/4/2010 1901h
1012057-004BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	176	200.0		87.9	10-228				12/4/2010 1901h
1012057-004BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	85.0	100.0		85.0	10-179				12/4/2010 1901h
1012057-004BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	64.5	200.0		32.2	10-178				12/4/2010 1901h
1012057-004BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	25.2	100.0		25.2	10-328				12/4/2010 1901h
1012057-004BMSD	Surr: Phenol-d6	%REC	SW8270D	124	200.0		61.8	10-218				12/4/2010 1901h
1012057-004BMSD	Surr: Terphenyl-d14	%REC	SW8270D	98.1	100.0		98.1	10-143				12/4/2010 1901h
1011529-006FMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	28.8	80.00	0	36.0	20-107	17.9	25		12/3/2010 0144h
1011529-006FMSD	1,4-Dichlorobenzene	µg/L	SW8270D	19.8	80.00	0	24.7	11-90	18.6	25		12/3/2010 0144h
1011529-006FMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	53.4	80.00	0	66.7	10-223	5.11	25		12/3/2010 0144h
1011529-006FMSD	2,4-Dimethylphenol	µg/L	SW8270D	57.2	80.00	0	71.5	10-176	1.18	25		12/3/2010 0144h
1011529-006FMSD	2,4-Dinitrotoluene	µg/L	SW8270D	98.4	80.00	0	123	21-191	3.85	25		12/3/2010 0144h
1011529-006FMSD	2-Chloronaphthalene	µg/L	SW8270D	49.6	80.00	0	62.0	12-132	16.3	25		12/3/2010 0144h
1011529-006FMSD	2-Chlorophenol	µg/L	SW8270D	48.7	80.00	0	60.9	20-107	6.60	25		12/3/2010 0144h
1011529-006FMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	117	80.00	0	146	20-250	10.4	25		12/3/2010 0144h
1011529-006FMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	65.1	80.00	0	81.4	10-136	2.46	25		12/3/2010 0144h
1011529-006FMSD	4-Nitrophenol	µg/L	SW8270D	128	80.00	0	160	10-135	15.6	25	1	12/3/2010 0144h
1011529-006FMSD	Acenaphthene	µg/L	SW8270D	59.1	80.00	0	73.9	21-113	7.73	25		12/3/2010 0144h
1011529-006FMSD	Benzo(a)pyrene	µg/L	SW8270D	85.0	80.00	0	106	15-169	6.66	25		12/3/2010 0144h
1011529-006FMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	47.1	80.00	0	58.9	10-133	3.80	25		12/3/2010 0144h
1011529-006FMSD	Pentachlorophenol	µg/L	SW8270D	64.0	80.00	0	80.0	10-131	26.3	25	@	12/3/2010 0144h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1011529-006FMSD	Phenol	µg/L	SW8270D	29.8	80.00	0	37.3	10-71	6.08	25		12/3/2010 0144h
1011529-006FMSD	Pyrene	µg/L	SW8270D	91.5	80.00	0	114	23-150	4.01	25		12/3/2010 0144h
1011529-006FMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	68.2	80.00		85.2	14-159				12/3/2010 0144h
1011529-006FMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	49.3	40.00		123	10-124				12/3/2010 0144h
1011529-006FMSD	Surr: 2-Fluorophenol	%REC	SW8270D	26.8	80.00		33.6	10-106				12/3/2010 0144h
1011529-006FMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	53.9	40.00		135	10-180				12/3/2010 0144h
1011529-006FMSD	Surr: Phenol-d6	%REC	SW8270D	19.7	80.00		24.6	10-122				12/3/2010 0144h
1011529-006FMSD	Surr: Terphenyl-d14	%REC	SW8270D	92.3	40.00		231	10-199			S	12/3/2010 0144h
1012039-001DMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	44.5	83.33	0	53.4	20-107	4.00	25		12/3/2010 0959h
1012039-001DMSD	1,4-Dichlorobenzene	µg/L	SW8270D	27.5	83.33	0	33.0	11-90	10.6	25		12/3/2010 0959h
1012039-001DMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	60.2	83.33	0	72.3	10-223	11.8	25		12/3/2010 0959h
1012039-001DMSD	2,4-Dimethylphenol	µg/L	SW8270D	62.9	83.33	0	75.5	10-176	1.05	25		12/3/2010 0959h
1012039-001DMSD	2,4-Dinitrotoluene	µg/L	SW8270D	105	83.33	0	126	21-191	5.54	25		12/3/2010 0959h
1012039-001DMSD	2-Chloronaphthalene	µg/L	SW8270D	56.6	83.33	0	67.9	12-132	13.3	25		12/3/2010 0959h
1012039-001DMSD	2-Chlorophenol	µg/L	SW8270D	57.1	83.33	0	68.5	20-107	5.61	25		12/3/2010 0959h
1012039-001DMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	115	83.33	0	138	20-250	2.73	25		12/3/2010 0959h
1012039-001DMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	70.9	83.33	0	85.0	10-136	5.70	25		12/3/2010 0959h
1012039-001DMSD	4-Nitrophenol	µg/L	SW8270D	148	83.33	0	177	10-135	20.1	25	1	12/3/2010 0959h
1012039-001DMSD	Acenaphthene	µg/L	SW8270D	67.6	83.33	0	81.2	21-113	0.972	25		12/3/2010 0959h
1012039-001DMSD	Benzo(a)pyrene	µg/L	SW8270D	76.3	83.33	0	91.6	15-169	3.31	25		12/3/2010 0959h
1012039-001DMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	54.2	83.33	0	65.1	10-133	0.613	25		12/3/2010 0959h
1012039-001DMSD	Pentachlorophenol	µg/L	SW8270D	47.5	83.33	0	57.0	10-131	7.31	25		12/3/2010 0959h
1012039-001DMSD	Phenol	µg/L	SW8270D	33.7	83.33	0	40.5	10-71	3.30	25		12/3/2010 0959h
1012039-001DMSD	Pyrene	µg/L	SW8270D	86.5	83.33	0	104	23-150	2.39	25		12/3/2010 0959h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012039-001DMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	70.6	83.33		84.7	14-159				12/3/2010 0959h
1012039-001DMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	63.1	41.67		152	10-124			S	12/3/2010 0959h
1012039-001DMSD	Surr: 2-Fluorophenol	%REC	SW8270D	30.6	83.33		36.8	10-106				12/3/2010 0959h
1012039-001DMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	60.8	41.67		146	10-180				12/3/2010 0959h
1012039-001DMSD	Surr: Phenol-d6	%REC	SW8270D	20.9	83.33		25.1	10-122				12/3/2010 0959h
1012039-001DMSD	Surr: Terphenyl-d14	%REC	SW8270D	88.3	41.67		212	10-199			S	12/3/2010 0959h
1012057-001BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	47.4	80.00	0	59.2	20-107	22.5	25		12/3/2010 1149h
1012057-001BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	31.7	80.00	0	39.6	11-90	21.7	25		12/3/2010 1149h
1012057-001BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	57.2	80.00	0	71.6	10-223	19.6	25		12/3/2010 1149h
1012057-001BMSD	2,4-Dimethylphenol	µg/L	SW8270D	63.7	80.00	0	79.6	10-176	14.1	25		12/3/2010 1149h
1012057-001BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	103	80.00	0	128	21-191	17.2	25		12/3/2010 1149h
1012057-001BMSD	2-Chloronaphthalene	µg/L	SW8270D	59.3	80.00	0	74.1	12-132	24.7	25		12/3/2010 1149h
1012057-001BMSD	2-Chlorophenol	µg/L	SW8270D	55.1	80.00	0	68.9	20-107	20.0	25		12/3/2010 1149h
1012057-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	119	80.00	0	149	20-250	15.8	25		12/3/2010 1149h
1012057-001BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	65.1	80.00	0	81.4	10-136	13.5	25		12/3/2010 1149h
1012057-001BMSD	4-Nitrophenol	µg/L	SW8270D	139	80.00	0	174	10-135	31.7	25	[1]@	12/3/2010 1149h
1012057-001BMSD	Acenaphthene	µg/L	SW8270D	68.6	80.00	0	85.7	21-113	20.2	25		12/3/2010 1149h
1012057-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	84.4	80.00	0	105	15-169	17.2	25		12/3/2010 1149h
1012057-001BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	54.4	80.00	0	68.0	10-133	27.4	25	@	12/3/2010 1149h
1012057-001BMSD	Pentachlorophenol	µg/L	SW8270D	45.7	80.00	0	57.2	10-131	1.45	25		12/3/2010 1149h
1012057-001BMSD	Phenol	µg/L	SW8270D	27.3	80.00	0	34.2	10-71	25.0	25		12/3/2010 1149h
1012057-001BMSD	Pyrene	µg/L	SW8270D	89.0	80.00	0	111	23-150	13.7	25		12/3/2010 1149h
1012057-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	67.9	80.00		84.8	14-159				12/3/2010 1149h
1012057-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	64.6	40.00		161	10-124			S	12/3/2010 1149h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	25.0	80.00		31.3	10-106				12/3/2010 1149h
1012057-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	64.0	40.00		160	10-180				12/3/2010 1149h
1012057-001BMSD	Surr: Phenol-d6	%REC	SW8270D	15.0	80.00		18.8	10-122				12/3/2010 1149h
1012057-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	89.1	40.00		223	10-199			S	12/3/2010 1149h

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

S - Surrogate recoveries outside the control limits. Repreparation and reanalysis and/or MS samples yielded similar results indicating matrix interference.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120310A	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.8	20.00	0	89.0	74-117				12/3/2010 1134h
LCS VOC 120310A	1,1,1-Trichloroethane	µg/L	EPA624	21.7	20.00	0	108	49-140				12/3/2010 1134h
LCS VOC 120310A	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.1	20.00	0	80.6	67-119				12/3/2010 1134h
LCS VOC 120310A	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	23.4	20.00	0	117	21-206				12/3/2010 1134h
LCS VOC 120310A	1,1,2-Trichloroethane	µg/L	EPA624	17.3	20.00	0	86.3	80-123				12/3/2010 1134h
LCS VOC 120310A	1,1-Dichloropropene	µg/L	EPA624	43.2	40.00	0	108	10-140				12/3/2010 1134h
LCS VOC 120310A	1,1-Dichloroethane	µg/L	EPA624	19.6	20.00	0	98.2	70-130				12/3/2010 1134h
LCS VOC 120310A	1,1-Dichloroethene	µg/L	EPA624	24.2	20.00	0	121	52-171				12/3/2010 1134h
LCS VOC 120310A	1,2,3-Trichlorobenzene	µg/L	EPA624	16.1	20.00	0	80.6	67-131				12/3/2010 1134h
LCS VOC 120310A	1,2,3-Trichloropropane	µg/L	EPA624	18.1	20.00	0	90.7	62-116				12/3/2010 1134h
LCS VOC 120310A	1,2,3-Trimethylbenzene	µg/L	EPA624	18.6	20.00	0	93.2	76-140				12/3/2010 1134h
LCS VOC 120310A	1,2,4-Trichlorobenzene	µg/L	EPA624	15.2	20.00	0	76.1	58-133				12/3/2010 1134h
LCS VOC 120310A	1,2,4-Trimethylbenzene	µg/L	EPA624	17.7	20.00	0	88.6	79-151				12/3/2010 1134h
LCS VOC 120310A	1,2-Dibromo-3-chloropropane	µg/L	EPA624	17.0	20.00	0	85.0	64-129				12/3/2010 1134h
LCS VOC 120310A	1,2-Dibromoethane	µg/L	EPA624	18.0	20.00	0	90.0	70-126				12/3/2010 1134h
LCS VOC 120310A	1,2-Dichlorobenzene	µg/L	EPA624	17.7	20.00	0	88.4	67-135				12/3/2010 1134h
LCS VOC 120310A	1,2-Dichloroethane	µg/L	EPA624	20.9	20.00	0	105	60-137				12/3/2010 1134h
LCS VOC 120310A	1,2-Dichloropropane	µg/L	EPA624	17.9	20.00	0	89.7	59-135				12/3/2010 1134h
LCS VOC 120310A	1,3,5-Trimethylbenzene	µg/L	EPA624	17.7	20.00	0	88.4	77-151				12/3/2010 1134h
LCS VOC 120310A	1,3-Dichlorobenzene	µg/L	EPA624	17.2	20.00	0	86.2	78-134				12/3/2010 1134h
LCS VOC 120310A	1,3-Dichloropropane	µg/L	EPA624	17.3	20.00	0	86.6	78-116				12/3/2010 1134h
LCS VOC 120310A	1,4-Dichlorobenzene	µg/L	EPA624	17.0	20.00	0	84.8	72-139				12/3/2010 1134h
LCS VOC 120310A	1,4-Dioxane	µg/L	EPA624	194	200.0	0	96.8	33-149				12/3/2010 1134h
LCS VOC 120310A	2,2-Dichloropropane	µg/L	EPA624	19.9	30.00	0	66.5	13-180				12/3/2010 1134h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120310A	2-Butanone	µg/L	EPA624	26.0	20.00	0	130	10-217				12/3/2010 1134h
LCS VOC 120310A	2-Chloroethyl vinyl ether	µg/L	EPA624	40.9	40.00	0	102	32-163				12/3/2010 1134h
LCS VOC 120310A	2-Chlorotoluene	µg/L	EPA624	17.4	20.00	0	86.9	79-142				12/3/2010 1134h
LCS VOC 120310A	2-Hexanone	µg/L	EPA624	16.6	20.00	0	82.9	50-156				12/3/2010 1134h
LCS VOC 120310A	2-Nitropropane	µg/L	EPA624	21.1	20.00	0	105	10-243				12/3/2010 1134h
LCS VOC 120310A	4-Chlorotoluene	µg/L	EPA624	17.3	20.00	0	86.5	68-128				12/3/2010 1134h
LCS VOC 120310A	4-Isopropyltoluene	µg/L	EPA624	16.8	20.00	0	84.0	73-156				12/3/2010 1134h
LCS VOC 120310A	4-Methyl-2-pentanone	µg/L	EPA624	17.6	20.00	0	88.2	10-214				12/3/2010 1134h
LCS VOC 120310A	Acetone	µg/L	EPA624	17.6	20.00	0	88.1	10-313				12/3/2010 1134h
LCS VOC 120310A	Acetonitrile	µg/L	EPA624	37.8	40.00	0	94.6	37-159				12/3/2010 1134h
LCS VOC 120310A	Acrolein	µg/L	EPA624	66.9	40.00	0	167	10-325				12/3/2010 1134h
LCS VOC 120310A	Acrylonitrile	µg/L	EPA624	17.7	20.00	0	88.6	53-134				12/3/2010 1134h
LCS VOC 120310A	Allyl chloride	µg/L	EPA624	18.8	20.00	0	94.1	10-243				12/3/2010 1134h
LCS VOC 120310A	Benzene	µg/L	EPA624	20.4	20.00	0	102	62-127				12/3/2010 1134h
LCS VOC 120310A	Benzyl chloride	µg/L	EPA624	16.4	20.00	0	82.2	40-146				12/3/2010 1134h
LCS VOC 120310A	Bis(2-chloroisopropyl) ether	µg/L	EPA624	18.8	20.00	0	94.2	54-146				12/3/2010 1134h
LCS VOC 120310A	Bromobenzene	µg/L	EPA624	17.0	20.00	0	84.8	78-148				12/3/2010 1134h
LCS VOC 120310A	Bromochloromethane	µg/L	EPA624	19.6	20.00	0	97.9	75-134				12/3/2010 1134h
LCS VOC 120310A	Bromodichloromethane	µg/L	EPA624	19.5	20.00	0	97.4	74-121				12/3/2010 1134h
LCS VOC 120310A	Bromoform	µg/L	EPA624	17.9	20.00	0	89.6	68-131				12/3/2010 1134h
LCS VOC 120310A	Bromomethane	µg/L	EPA624	13.0	20.00	0	64.8	10-185				12/3/2010 1134h
LCS VOC 120310A	Butyl acetate	µg/L	EPA624	18.3	20.00	0	91.6	46-178				12/3/2010 1134h
LCS VOC 120310A	Carbon disulfide	µg/L	EPA624	30.7	20.00	0	153	21-224				12/3/2010 1134h
LCS VOC 120310A	Carbon tetrachloride	µg/L	EPA624	22.8	20.00	0	114	60-157				12/3/2010 1134h

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120310A	Chlorobenzene	µg/L	EPA624	17.3	20.00	0	86.7	63-140				12/3/2010 1134h
LCS VOC 120310A	Chloroethane	µg/L	EPA624	18.3	20.00	0	91.6	41-173				12/3/2010 1134h
LCS VOC 120310A	Chloroform	µg/L	EPA624	19.3	20.00	0	96.6	67-132				12/3/2010 1134h
LCS VOC 120310A	Chloromethane	µg/L	EPA624	14.5	20.00	0	72.6	10-138				12/3/2010 1134h
LCS VOC 120310A	Chloroprene	µg/L	EPA624	19.8	20.00	0	99.2	10-161				12/3/2010 1134h
LCS VOC 120310A	cis-1,2-Dichloroethene	µg/L	EPA624	19.1	20.00	0	95.6	72-137				12/3/2010 1134h
LCS VOC 120310A	cis-1,3-Dichloropropene	µg/L	EPA624	19.2	40.00	0	48.0	10-134				12/3/2010 1134h
LCS VOC 120310A	Cyclohexane	µg/L	EPA624	23.7	20.00	0	118	35-230				12/3/2010 1134h
LCS VOC 120310A	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	57.8	10-374				12/3/2010 1134h
LCS VOC 120310A	Dibromochloromethane	µg/L	EPA624	17.7	20.00	0	88.3	68-135				12/3/2010 1134h
LCS VOC 120310A	Dibromomethane	µg/L	EPA624	19.1	20.00	0	95.3	74-120				12/3/2010 1134h
LCS VOC 120310A	Dichlorodifluoromethane	µg/L	EPA624	14.0	20.00	0	70.0	10-150				12/3/2010 1134h
LCS VOC 120310A	Ethyl acetate	µg/L	EPA624	41.1	40.00	0	103	50-155				12/3/2010 1134h
LCS VOC 120310A	Ethyl ether	µg/L	EPA624	20.4	20.00	0	102	45-146				12/3/2010 1134h
LCS VOC 120310A	Ethyl methacrylate	µg/L	EPA624	16.6	20.00	0	83.2	64-113				12/3/2010 1134h
LCS VOC 120310A	Ethylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	55-133				12/3/2010 1134h
LCS VOC 120310A	Hexachlorobutadiene	µg/L	EPA624	15.3	20.00	0	76.7	35-213				12/3/2010 1134h
LCS VOC 120310A	Iodomethane	µg/L	EPA624	15.3	20.00	0	76.6	10-233				12/3/2010 1134h
LCS VOC 120310A	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	99.6	12-202				12/3/2010 1134h
LCS VOC 120310A	Isopropyl acetate	µg/L	EPA624	19.9	20.00	0	99.4	55-145				12/3/2010 1134h
LCS VOC 120310A	Isopropyl alcohol	µg/L	EPA624	64.1	80.00	0	80.1	12-250				12/3/2010 1134h
LCS VOC 120310A	Isopropylbenzene	µg/L	EPA624	17.7	20.00	0	88.5	60-147				12/3/2010 1134h
LCS VOC 120310A	Isopropyltoluene	µg/L	EPA624	16.8	20.00	0	84.0	73-156				12/3/2010 1134h
LCS VOC 120310A	m,p-Xylene	µg/L	EPA624	36.1	40.00	0	90.3	70-130				12/3/2010 1134h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120310A	Methacrylonitrile	µg/L	EPA624	17.4	20.00	0	87.1	79-123				12/3/2010 1134h
LCS VOC 120310A	Methyl Acetate	µg/L	EPA624	38.0	20.00	0	190	5-398				12/3/2010 1134h
LCS VOC 120310A	Methyl methacrylate	µg/L	EPA624	17.1	20.00	0	85.7	55-128				12/3/2010 1134h
LCS VOC 120310A	Methyl tert-butyl ether	µg/L	EPA624	19.0	20.00	0	95.2	37-189				12/3/2010 1134h
LCS VOC 120310A	Methylcyclohexane	µg/L	EPA624	23.0	20.00	0	115	65-175				12/3/2010 1134h
LCS VOC 120310A	Methylene chloride	µg/L	EPA624	17.9	20.00	0	89.7	55-138				12/3/2010 1134h
LCS VOC 120310A	n-Amyl acetate	µg/L	EPA624	11.7	20.00	0	58.6	10-187				12/3/2010 1134h
LCS VOC 120310A	Naphthalene	µg/L	EPA624	16.3	20.00	0	81.3	41-131				12/3/2010 1134h
LCS VOC 120310A	n-Butyl alcohol	µg/L	EPA624	62.9	80.00	0	78.7	10-226				12/3/2010 1134h
LCS VOC 120310A	n-Butylbenzene	µg/L	EPA624	16.2	20.00	0	81.2	40-158				12/3/2010 1134h
LCS VOC 120310A	n-Hexane	µg/L	EPA624	22.9	20.00	0	115	10-277				12/3/2010 1134h
LCS VOC 120310A	n-Octane	µg/L	EPA624	15.4	20.00	0	77.1	45-158				12/3/2010 1134h
LCS VOC 120310A	n-Propylbenzene	µg/L	EPA624	17.3	20.00	0	86.6	67-131				12/3/2010 1134h
LCS VOC 120310A	o-Xylene	µg/L	EPA624	17.4	20.00	0	86.8	70-130				12/3/2010 1134h
LCS VOC 120310A	Pentachloroethane	µg/L	EPA624	11.2	20.00	0	56.0	10-314				12/3/2010 1134h
LCS VOC 120310A	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	88.7	60-132				12/3/2010 1134h
LCS VOC 120310A	Propyl acetate	µg/L	EPA624	18.9	20.00	0	94.3	48-143				12/3/2010 1134h
LCS VOC 120310A	sec-Butylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	72-157				12/3/2010 1134h
LCS VOC 120310A	Styrene	µg/L	EPA624	17.3	20.00	0	86.4	81-125				12/3/2010 1134h
LCS VOC 120310A	tert-Butyl alcohol	µg/L	EPA624	38.7	40.00	0	96.7	50-286				12/3/2010 1134h
LCS VOC 120310A	tert-Butylbenzene	µg/L	EPA624	16.8	20.00	0	83.8	75-157				12/3/2010 1134h
LCS VOC 120310A	Tetrachloroethene	µg/L	EPA624	23.3	20.00	0	117	49-163				12/3/2010 1134h
LCS VOC 120310A	Tetrahydrofuran	µg/L	EPA624	16.7	20.00	0	83.7	43-146				12/3/2010 1134h
LCS VOC 120310A	Toluene	µg/L	EPA624	17.7	20.00	0	88.4	67-128				12/3/2010 1134h

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QC SUMMARY REPORT

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QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120310A	trans-1,2-Dichloroethene	µg/L	EPA624	21.7	20.00	0	109	47-146				12/3/2010 1134h
LCS VOC 120310A	trans-1,3-Dichloropropene	µg/L	EPA624	19.6	20.00	0	98.1	29-143				12/3/2010 1134h
LCS VOC 120310A	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.9	20.00	0	94.6	20-214				12/3/2010 1134h
LCS VOC 120310A	Trichloroethene	µg/L	EPA624	20.3	20.00	0	102	54-152				12/3/2010 1134h
LCS VOC 120310A	Trichlorofluoromethane	µg/L	EPA624	19.3	20.00	0	96.5	56-166				12/3/2010 1134h
LCS VOC 120310A	Vinyl acetate	µg/L	EPA624	25.7	40.00	0	64.3	38-121				12/3/2010 1134h
LCS VOC 120310A	Vinyl chloride	µg/L	EPA624	16.6	20.00	0	83.0	13-155				12/3/2010 1134h
LCS VOC 120310A	Xylenes, Total	µg/L	EPA624	53.5	60.00	0	89.1	52-130				12/3/2010 1134h
LCS VOC 120310A	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	56.6	50.00		113	69-132				12/3/2010 1134h
LCS VOC 120310A	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.7	50.00		97.3	85-118				12/3/2010 1134h
LCS VOC 120310A	Surr: Dibromofluoromethane	%REC	EPA624	52.1	50.00		104	80-120				12/3/2010 1134h
LCS VOC 120310A	Surr: Toluene-d8	%REC	EPA624	46.8	50.00		93.6	81-120				12/3/2010 1134h
LCS-9691	1,1,1-Trichloroethane	µg/kg	SW8260C	1,220	1,000	0	122	64-144				12/3/2010 1200h
LCS-9691	1,1-Dichloroethene	µg/kg	SW8260C	1,130	1,000	0	113	36-184				12/3/2010 1200h
LCS-9691	1,2-Dichlorobenzene	µg/kg	SW8260C	1,160	1,000	0	116	70-134				12/3/2010 1200h
LCS-9691	1,2-Dichloroethane	µg/kg	SW8260C	1,010	1,000	0	101	55-146				12/3/2010 1200h
LCS-9691	1,2-Dichloropropane	µg/kg	SW8260C	1,130	1,000	0	113	56-133				12/3/2010 1200h
LCS-9691	Benzene	µg/kg	SW8260C	1,190	1,000	0	119	60-130				12/3/2010 1200h
LCS-9691	Chlorobenzene	µg/kg	SW8260C	1,160	1,000	0	116	75-130				12/3/2010 1200h
LCS-9691	Chloroform	µg/kg	SW8260C	1,020	1,000	0	102	61-130				12/3/2010 1200h
LCS-9691	Ethylbenzene	µg/kg	SW8260C	1,220	1,000	0	122	69-147				12/3/2010 1200h
LCS-9691	Isopropylbenzene	µg/kg	SW8260C	1,270	1,000	0	127	65-147				12/3/2010 1200h
LCS-9691	Methyl tert-butyl ether	µg/kg	SW8260C	986	1,000	0	98.6	33.1-139				12/3/2010 1200h
LCS-9691	Methylene chloride	µg/kg	SW8260C	1,070	1,000	0	107	39-164				12/3/2010 1200h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9691	Naphthalene	µg/kg	SW8260C	943	1,000	0	94.3	40-131				12/3/2010 1200h
LCS-9691	Tetrahydrofuran	µg/kg	SW8260C	658	1,000	0	65.8	43-146				12/3/2010 1200h
LCS-9691	Toluene	µg/kg	SW8260C	1,180	1,000	0	118	61-140				12/3/2010 1200h
LCS-9691	Trichloroethene	µg/kg	SW8260C	1,210	1,000	0	121	51-154				12/3/2010 1200h
LCS-9691	Xylenes, Total	µg/kg	SW8260C	3,700	3,000	0	123	72-147				12/3/2010 1200h
LCS-9691	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	2,300	2,500		91.9	73-132				12/3/2010 1200h
LCS-9691	Surr: 4-Bromofluorobenzene	%REC	SW8260C	2,450	2,500		98.0	85-115				12/3/2010 1200h
LCS-9691	Surr: Dibromofluoromethane	%REC	SW8260C	2,360	2,500		94.6	84-121				12/3/2010 1200h
LCS-9691	Surr: Toluene-d8	%REC	SW8260C	2,440	2,500		97.5	85-115				12/3/2010 1200h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120310A	1,1,1,2-Tetrachloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1,1-Trichloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1,2,2-Tetrachloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1,2-Trichloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1-Dichloropropene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1-Dichloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,1-Dichloroethene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2,3-Trichlorobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2,3-Trichloropropane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2,3-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2,4-Trichlorobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2,4-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2-Dibromo-3-chloropropane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2-Dibromoethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2-Dichloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,2-Dichloropropane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,3,5-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,3-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,3-Dichloropropane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,4-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	1,4-Dioxane	µg/L	EPA624	< 40.0				-				12/3/2010 0819h
MB VOC 120310A	2,2-Dichloropropane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120310A	2-Butanone	µg/L	EPA624	< 10.0				-				12/3/2010 0819h
MB VOC 120310A	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	2-Chlorotoluene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	2-Hexanone	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	2-Nitropropane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	4-Chlorotoluene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	4-Isopropyltoluene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	4-Methyl-2-pentanone	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Acetone	µg/L	EPA624	< 10.0				-				12/3/2010 0819h
MB VOC 120310A	Acetonitrile	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Acrolein	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Acrylonitrile	µg/L	EPA624	< 10.0				-				12/3/2010 0819h
MB VOC 120310A	Allyl chloride	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Benzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Benzyl chloride	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Bis(2-chloroisopropyl) ether	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Bromobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Bromochloromethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Bromodichloromethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Bromoform	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Bromomethane	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Butyl acetate	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Carbon disulfide	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Carbon tetrachloride	µg/L	EPA624	< 2.00				-				12/3/2010 0819h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120310A	Chlorobenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Chloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Chloroform	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Chloromethane	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Chloroprene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	cis-1,2-Dichloroethene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	cis-1,3-Dichloropropene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Cyclohexane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Cyclohexanone	µg/L	EPA624	< 50.0				-				12/3/2010 0819h
MB VOC 120310A	Dibromochloromethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Dibromomethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Dichlorodifluoromethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Ethyl acetate	µg/L	EPA624	< 10.0				-				12/3/2010 0819h
MB VOC 120310A	Ethyl ether	µg/L	EPA624	< 10.0				-				12/3/2010 0819h
MB VOC 120310A	Ethyl methacrylate	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Ethylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Hexachlorobutadiene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Iodomethane	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Isobutyl alcohol	µg/L	EPA624	< 100				-				12/3/2010 0819h
MB VOC 120310A	Isopropyl acetate	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Isopropyl alcohol	µg/L	EPA624	< 25.0				-				12/3/2010 0819h
MB VOC 120310A	Isopropylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Isopropyltoluene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	m,p-Xylene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h

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QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120310A	Methacrylonitrile	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Methyl Acetate	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Methyl methacrylate	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Methyl tert-butyl ether	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Methylcyclohexane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Methylene chloride	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	n-Amyl acetate	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Naphthalene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	n-Butyl alcohol	µg/L	EPA624	< 25.0				-				12/3/2010 0819h
MB VOC 120310A	n-Butylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	n-Hexane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	n-Octane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	n-Propylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	o-Xylene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Pentachloroethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Propionitrile	µg/L	EPA624	< 25.0				-				12/3/2010 0819h
MB VOC 120310A	Propyl acetate	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	sec-Butylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Styrene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	tert-Butyl alcohol	µg/L	EPA624	< 20.0				-				12/3/2010 0819h
MB VOC 120310A	tert-Butylbenzene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Tetrachloroethene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Tetrahydrofuran	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Toluene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h

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Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120310A	TPH C11-C15 (DRO)	µg/L	EPA624	< 20.0				-				12/3/2010 0819h
MB VOC 120310A	TPH C6-C10 (GRO)	µg/L	EPA624	< 20.0				-				12/3/2010 0819h
MB VOC 120310A	trans-1,2-Dichloroethene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	trans-1,3-Dichloropropene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	trans-1,4-Dichloro-2-butene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Trichloroethene	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Trichlorofluoromethane	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Vinyl acetate	µg/L	EPA624	< 5.00				-				12/3/2010 0819h
MB VOC 120310A	Vinyl chloride	µg/L	EPA624	< 1.00				-				12/3/2010 0819h
MB VOC 120310A	Xylenes, Total	µg/L	EPA624	< 2.00				-				12/3/2010 0819h
MB VOC 120310A	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	55.8	50.00		112	69-132				12/3/2010 0819h
MB VOC 120310A	Surr: 4-Bromofluorobenzene	%REC	EPA624	52.9	50.00		106	85-118				12/3/2010 0819h
MB VOC 120310A	Surr: Dibromofluoromethane	%REC	EPA624	51.9	50.00		104	80-120				12/3/2010 0819h
MB VOC 120310A	Surr: Toluene-d8	%REC	EPA624	48.9	50.00		97.9	81-120				12/3/2010 0819h
MB-9691	1,1,1,2-Tetrachloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1,1-Trichloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1,2,2-Tetrachloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1,2-Trichloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1-Dichloropropene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1-Dichloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,1-Dichloroethene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2,3-Trichlorobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2,3-Trichloropropane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h

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QC SUMMARY REPORT

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Project: Red Butte Spill

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9691	1,2,3-Trimethylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2,4-Trichlorobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2,4-Trimethylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2-Dibromo-3-chloropropane	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	1,2-Dibromoethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2-Dichlorobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2-Dichloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,2-Dichloropropane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,3,5-Trimethylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,3-Dichlorobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,3-Dichloropropane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,4-Dichlorobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	1,4-Dioxane	µg/kg	SW8260C	< 2,500				-				12/3/2010 1138h
MB-9691	2,2-Dichloropropane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	2-Butanone	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	2-Chloroethyl vinyl ether	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	2-Chlorotoluene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	2-Hexanone	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	2-Nitropropane	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	4-Chlorotoluene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	4-Isopropyltoluene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	4-Methyl-2-pentanone	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Acetone	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Acetonitrile	µg/kg	SW8260C	< 250				-				12/3/2010 1138h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9691	Acrolein	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Acrylonitrile	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Allyl chloride	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Benzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Benzyl chloride	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Bis(2-chloroisopropyl) ether	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Bromobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Bromochloromethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Bromodichloromethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Bromoform	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Bromomethane	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Butyl acetate	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Carbon disulfide	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Carbon tetrachloride	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Chlorobenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Chloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Chloroform	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Chloromethane	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Chloroprene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	cis-1,2-Dichloroethene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	cis-1,3-Dichloropropene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Cyclohexane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Cyclohexanone	µg/kg	SW8260C	< 2,500				-				12/3/2010 1138h
MB-9691	Dibromochloromethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9691	Dibromomethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Dichlorodifluoromethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Ethyl acetate	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Ethyl ether	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Ethyl methacrylate	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Ethylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Hexachlorobutadiene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Iodomethane	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Isobutyl alcohol	µg/kg	SW8260C	< 5,000				-				12/3/2010 1138h
MB-9691	Isopropyl acetate	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Isopropyl alcohol	µg/kg	SW8260C	< 2,000				-				12/3/2010 1138h
MB-9691	Isopropylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Isopropyltoluene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	m,p-Xylene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Methacrylonitrile	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Methyl Acetate	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Methyl methacrylate	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	Methyl tert-butyl ether	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Methylcyclohexane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Methylene chloride	µg/kg	SW8260C	< 250				-				12/3/2010 1138h
MB-9691	n-Amyl acetate	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Naphthalene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	n-Butyl alcohol	µg/kg	SW8260C	< 5,000				-				12/3/2010 1138h
MB-9691	n-Butylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9691	n-Hexane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	n-Octane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	n-Propylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	o-Xylene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Pentachloroethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Propionitrile	µg/kg	SW8260C	< 1,250				-				12/3/2010 1138h
MB-9691	Propyl acetate	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	sec-Butylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Styrene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	tert-Butyl alcohol	µg/kg	SW8260C	< 1,000				-				12/3/2010 1138h
MB-9691	tert-Butylbenzene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Tetrachloroethene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Tetrahydrofuran	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Toluene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	TPH C11-C15 (DRO)	µg/kg	SW8260C	< 1,000				-				12/3/2010 1138h
MB-9691	TPH C6-C10 (GRO)	µg/kg	SW8260C	< 1,000				-				12/3/2010 1138h
MB-9691	trans-1,2-Dichloroethene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	trans-1,3-Dichloropropene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	trans-1,4-Dichloro-2-butene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Trichloroethene	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Trichlorofluoromethane	µg/kg	SW8260C	< 100				-				12/3/2010 1138h
MB-9691	Vinyl acetate	µg/kg	SW8260C	< 500				-				12/3/2010 1138h
MB-9691	Vinyl chloride	µg/kg	SW8260C	< 50.0				-				12/3/2010 1138h
MB-9691	Xylenes, Total	µg/kg	SW8260C	< 100				-				12/3/2010 1138h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9691	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	2,280	2,500		91.4	73-132				12/3/2010 1138h
MB-9691	Surr: 4-Bromofluorobenzene	%REC	SW8260C	2,500	2,500		100	85-115				12/3/2010 1138h
MB-9691	Surr: Dibromofluoromethane	%REC	SW8260C	2,300	2,500		91.9	84-121				12/3/2010 1138h
MB-9691	Surr: Toluene-d8	%REC	SW8260C	2,500	2,500		99.9	85-115				12/3/2010 1138h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMS	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.8	20.00	0	88.9	74-117				12/3/2010 1250h
1012057-001AMS	1,1,1-Trichloroethane	µg/L	EPA624	22.6	20.00	0	113	67-147				12/3/2010 1250h
1012057-001AMS	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.0	20.00	0	80.1	67-119				12/3/2010 1250h
1012057-001AMS	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	24.8	20.00	0	124	21-206				12/3/2010 1250h
1012057-001AMS	1,1,2-Trichloroethane	µg/L	EPA624	17.2	20.00	0	86.1	80-123				12/3/2010 1250h
1012057-001AMS	1,1-Dichloropropene	µg/L	EPA624	46.4	40.00	0	116	10-140				12/3/2010 1250h
1012057-001AMS	1,1-Dichloroethane	µg/L	EPA624	20.5	20.00	0	102	70-130				12/3/2010 1250h
1012057-001AMS	1,1-Dichloroethene	µg/L	EPA624	26.1	20.00	0	131	62-152				12/3/2010 1250h
1012057-001AMS	1,2,3-Trichlorobenzene	µg/L	EPA624	15.7	20.00	0	78.4	67-131				12/3/2010 1250h
1012057-001AMS	1,2,3-Trichloropropane	µg/L	EPA624	17.5	20.00	0	87.7	62-116				12/3/2010 1250h
1012057-001AMS	1,2,3-Trimethylbenzene	µg/L	EPA624	19.2	20.00	0	96.1	76-140				12/3/2010 1250h
1012057-001AMS	1,2,4-Trichlorobenzene	µg/L	EPA624	15.0	20.00	0	75.2	58-133				12/3/2010 1250h
1012057-001AMS	1,2,4-Trimethylbenzene	µg/L	EPA624	18.9	20.00	0	94.6	79-151				12/3/2010 1250h
1012057-001AMS	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.5	20.00	0	82.5	64-129				12/3/2010 1250h
1012057-001AMS	1,2-Dibromoethane	µg/L	EPA624	17.3	20.00	0	86.3	70-126				12/3/2010 1250h
1012057-001AMS	1,2-Dichlorobenzene	µg/L	EPA624	17.6	20.00	0	87.8	70-130				12/3/2010 1250h
1012057-001AMS	1,2-Dichloroethane	µg/L	EPA624	21.1	20.00	0	106	39-162				12/3/2010 1250h
1012057-001AMS	1,2-Dichloropropane	µg/L	EPA624	18.3	20.00	0	91.7	59-135				12/3/2010 1250h
1012057-001AMS	1,3,5-Trimethylbenzene	µg/L	EPA624	18.7	20.00	0	93.5	77-151				12/3/2010 1250h
1012057-001AMS	1,3-Dichlorobenzene	µg/L	EPA624	17.5	20.00	0	87.4	78-134				12/3/2010 1250h
1012057-001AMS	1,3-Dichloropropane	µg/L	EPA624	17.4	20.00	0	87.0	78-116				12/3/2010 1250h
1012057-001AMS	1,4-Dichlorobenzene	µg/L	EPA624	17.1	20.00	0	85.6	72-139				12/3/2010 1250h
1012057-001AMS	1,4-Dioxane	µg/L	EPA624	187	200.0	0	93.5	33-149				12/3/2010 1250h
1012057-001AMS	2,2-Dichloropropane	µg/L	EPA624	22.2	30.00	0	74.1	13-180				12/3/2010 1250h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMS	2-Butanone	µg/L	EPA624	26.6	20.00	0	133	10-217				12/3/2010 1250h
1012057-001AMS	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163			1	12/3/2010 1250h
1012057-001AMS	2-Chlorotoluene	µg/L	EPA624	18.0	20.00	0	89.8	79-142				12/3/2010 1250h
1012057-001AMS	2-Hexanone	µg/L	EPA624	15.9	20.00	0	79.6	50-156				12/3/2010 1250h
1012057-001AMS	2-Nitropropane	µg/L	EPA624	20.3	20.00	0	101	10-243				12/3/2010 1250h
1012057-001AMS	4-Chlorotoluene	µg/L	EPA624	17.7	20.00	0	88.6	68-128				12/3/2010 1250h
1012057-001AMS	4-Isopropyltoluene	µg/L	EPA624	17.5	20.00	0	87.5	73-156				12/3/2010 1250h
1012057-001AMS	4-Methyl-2-pentanone	µg/L	EPA624	17.3	20.00	0	86.6	10-214				12/3/2010 1250h
1012057-001AMS	Acetone	µg/L	EPA624	15.6	20.00	0	78.1	10-313				12/3/2010 1250h
1012057-001AMS	Acetonitrile	µg/L	EPA624	39.3	40.00	0	98.3	37-159				12/3/2010 1250h
1012057-001AMS	Acrolein	µg/L	EPA624	70.1	40.00	0	175	10-325				12/3/2010 1250h
1012057-001AMS	Acrylonitrile	µg/L	EPA624	17.6	20.00	0	87.9	53-134				12/3/2010 1250h
1012057-001AMS	Allyl chloride	µg/L	EPA624	20.5	20.00	0	103	10-243				12/3/2010 1250h
1012057-001AMS	Benzene	µg/L	EPA624	24.2	20.00	3.040	106	66-145				12/3/2010 1250h
1012057-001AMS	Benzyl chloride	µg/L	EPA624	17.4	20.00	0	87.1	40-146				12/3/2010 1250h
1012057-001AMS	Bis(2-chloroisopropyl) ether	µg/L	EPA624	16.7	20.00	0	83.5	54-146				12/3/2010 1250h
1012057-001AMS	Bromobenzene	µg/L	EPA624	17.4	20.00	0	87.2	78-148				12/3/2010 1250h
1012057-001AMS	Bromochloromethane	µg/L	EPA624	20.0	20.00	0	100	75-134				12/3/2010 1250h
1012057-001AMS	Bromodichloromethane	µg/L	EPA624	19.6	20.00	0	98.2	74-121				12/3/2010 1250h
1012057-001AMS	Bromoform	µg/L	EPA624	17.2	20.00	0	86.0	68-131				12/3/2010 1250h
1012057-001AMS	Bromomethane	µg/L	EPA624	14.6	20.00	0	73.0	10-185				12/3/2010 1250h
1012057-001AMS	Butyl acetate	µg/L	EPA624	17.6	20.00	0	87.8	46-178				12/3/2010 1250h
1012057-001AMS	Carbon disulfide	µg/L	EPA624	33.2	20.00	0	166	21-224				12/3/2010 1250h
1012057-001AMS	Carbon tetrachloride	µg/L	EPA624	24.1	20.00	0	120	60-157				12/3/2010 1250h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMS	Chlorobenzene	µg/L	EPA624	17.8	20.00	0	89.0	63-140				12/3/2010 1250h
1012057-001AMS	Chloroethane	µg/L	EPA624	19.5	20.00	0	97.4	41-173				12/3/2010 1250h
1012057-001AMS	Chloroform	µg/L	EPA624	20.1	20.00	0	101	50-146				12/3/2010 1250h
1012057-001AMS	Chloromethane	µg/L	EPA624	15.7	20.00	0	78.4	10-138				12/3/2010 1250h
1012057-001AMS	Chloroprene	µg/L	EPA624	21.2	20.00	0	106	10-161				12/3/2010 1250h
1012057-001AMS	cis-1,2-Dichloroethene	µg/L	EPA624	19.8	20.00	0	99.2	72-137				12/3/2010 1250h
1012057-001AMS	cis-1,3-Dichloropropene	µg/L	EPA624	19.2	40.00	0	48.0	10-134				12/3/2010 1250h
1012057-001AMS	Cyclohexane	µg/L	EPA624	25.4	20.00	0	127	35-230				12/3/2010 1250h
1012057-001AMS	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	51.8	10-374				12/3/2010 1250h
1012057-001AMS	Dibromochloromethane	µg/L	EPA624	17.6	20.00	0	87.8	68-135				12/3/2010 1250h
1012057-001AMS	Dibromomethane	µg/L	EPA624	19.2	20.00	0	96.0	74-120				12/3/2010 1250h
1012057-001AMS	Dichlorodifluoromethane	µg/L	EPA624	15.2	20.00	0	76.2	10-150				12/3/2010 1250h
1012057-001AMS	Ethyl acetate	µg/L	EPA624	40.5	40.00	0	101	50-155				12/3/2010 1250h
1012057-001AMS	Ethyl ether	µg/L	EPA624	20.4	20.00	0	102	45-146				12/3/2010 1250h
1012057-001AMS	Ethyl methacrylate	µg/L	EPA624	16.5	20.00	0	82.4	77-151				12/3/2010 1250h
1012057-001AMS	Ethylbenzene	µg/L	EPA624	19.0	20.00	0	95.0	69-133				12/3/2010 1250h
1012057-001AMS	Hexachlorobutadiene	µg/L	EPA624	16.4	20.00	0	81.8	35-213				12/3/2010 1250h
1012057-001AMS	Iodomethane	µg/L	EPA624	18.5	20.00	0	92.6	10-233				12/3/2010 1250h
1012057-001AMS	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	104	12-202				12/3/2010 1250h
1012057-001AMS	Isopropyl acetate	µg/L	EPA624	19.7	20.00	0	98.3	55-145				12/3/2010 1250h
1012057-001AMS	Isopropyl alcohol	µg/L	EPA624	66.8	80.00	0	83.6	12-250				12/3/2010 1250h
1012057-001AMS	Isopropylbenzene	µg/L	EPA624	18.7	20.00	0	93.5	60-147				12/3/2010 1250h
1012057-001AMS	Isopropyltoluene	µg/L	EPA624	17.5	20.00	0	87.5	73-156				12/3/2010 1250h
1012057-001AMS	m,p-Xylene	µg/L	EPA624	44.8	40.00	6.700	95.3	70-130				12/3/2010 1250h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMS	Methacrylonitrile	µg/L	EPA624	17.6	20.00	0	87.9	79-123				12/3/2010 1250h
1012057-001AMS	Methyl Acetate	µg/L	EPA624	26.1	20.00	0	130	5-398				12/3/2010 1250h
1012057-001AMS	Methyl methacrylate	µg/L	EPA624	16.7	20.00	0	83.7	55-128				12/3/2010 1250h
1012057-001AMS	Methyl tert-butyl ether	µg/L	EPA624	18.7	20.00	0	93.6	37-189				12/3/2010 1250h
1012057-001AMS	Methylcyclohexane	µg/L	EPA624	25.7	20.00	0	128	65-175				12/3/2010 1250h
1012057-001AMS	Methylene chloride	µg/L	EPA624	14.7	20.00	0	73.4	55-138				12/3/2010 1250h
1012057-001AMS	n-Amyl acetate	µg/L	EPA624	11.3	20.00	0	56.6	10-187				12/3/2010 1250h
1012057-001AMS	Naphthalene	µg/L	EPA624	15.9	20.00	0	79.4	41-131				12/3/2010 1250h
1012057-001AMS	n-Butyl alcohol	µg/L	EPA624	64.2	80.00	0	80.3	10-226				12/3/2010 1250h
1012057-001AMS	n-Butylbenzene	µg/L	EPA624	17.1	20.00	0	85.4	40-158				12/3/2010 1250h
1012057-001AMS	n-Hexane	µg/L	EPA624	19.4	20.00	0	96.9	10-277				12/3/2010 1250h
1012057-001AMS	n-Octane	µg/L	EPA624	16.1	20.00	0	80.6	45-158				12/3/2010 1250h
1012057-001AMS	n-Propylbenzene	µg/L	EPA624	18.0	20.00	0	89.8	67-131				12/3/2010 1250h
1012057-001AMS	o-Xylene	µg/L	EPA624	19.5	20.00	1.370	90.4	70-130				12/3/2010 1250h
1012057-001AMS	Pentachloroethane	µg/L	EPA624	12.2	20.00	0	61.2	10-314				12/3/2010 1250h
1012057-001AMS	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	89.7	60-132				12/3/2010 1250h
1012057-001AMS	Propyl acetate	µg/L	EPA624	19.0	20.00	0	95.0	48-143				12/3/2010 1250h
1012057-001AMS	sec-Butylbenzene	µg/L	EPA624	18.3	20.00	0	91.7	72-157				12/3/2010 1250h
1012057-001AMS	Styrene	µg/L	EPA624	17.5	20.00	0	87.6	81-125				12/3/2010 1250h
1012057-001AMS	tert-Butyl alcohol	µg/L	EPA624	38.9	40.00	0	97.3	50-286				12/3/2010 1250h
1012057-001AMS	tert-Butylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	75-157				12/3/2010 1250h
1012057-001AMS	Tetrachloroethene	µg/L	EPA624	23.4	20.00	0	117	49-163				12/3/2010 1250h
1012057-001AMS	Tetrahydrofuran	µg/L	EPA624	16.6	20.00	0	83.0	43-146				12/3/2010 1250h
1012057-001AMS	Toluene	µg/L	EPA624	27.6	20.00	9.750	89.2	18-192				12/3/2010 1250h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMS	trans-1,2-Dichloroethene	µg/L	EPA624	20.6	20.00	0	103	47-146				12/3/2010 1250h
1012057-001AMS	trans-1,3-Dichloropropene	µg/L	EPA624	19.7	20.00	0	98.6	29-143				12/3/2010 1250h
1012057-001AMS	trans-1,4-Dichloro-2-butene	µg/L	EPA624	19.6	20.00	0	98.1	20-214				12/3/2010 1250h
1012057-001AMS	Trichloroethene	µg/L	EPA624	21.1	20.00	0	106	61-153				12/3/2010 1250h
1012057-001AMS	Trichlorofluoromethane	µg/L	EPA624	21.6	20.00	0	108	56-166				12/3/2010 1250h
1012057-001AMS	Vinyl acetate	µg/L	EPA624	25.7	40.00	0	64.3	38-121				12/3/2010 1250h
1012057-001AMS	Vinyl chloride	µg/L	EPA624	18.0	20.00	0	90.3	13-155				12/3/2010 1250h
1012057-001AMS	Xylenes, Total	µg/L	EPA624	64.3	60.00	8.070	93.7	42-167				12/3/2010 1250h
1012057-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	57.4	50.00		115	77-144				12/3/2010 1250h
1012057-001AMS	Surr: 4-Bromofluorobenzene	%REC	EPA624	47.3	50.00		94.6	80-123				12/3/2010 1250h
1012057-001AMS	Surr: Dibromofluoromethane	%REC	EPA624	52.6	50.00		105	80-124				12/3/2010 1250h
1012057-001AMS	Surr: Toluene-d8	%REC	EPA624	46.9	50.00		93.8	80-125				12/3/2010 1250h
1012057-004AMS	1,1,1-Trichloroethane	µg/kg	SW8260C	17,900,000	20,000,000	0	89.4	20-144				12/3/2010 1306h
1012057-004AMS	1,1-Dichloroethene	µg/kg	SW8260C	17,800,000	20,000,000	0	89.2	24-174				12/3/2010 1306h
1012057-004AMS	1,2-Dichlorobenzene	µg/kg	SW8260C	18,300,000	20,000,000	0	91.3	10-148				12/3/2010 1306h
1012057-004AMS	1,2-Dichloroethane	µg/kg	SW8260C	17,700,000	20,000,000	0	88.7	54-133				12/3/2010 1306h
1012057-004AMS	1,2-Dichloropropane	µg/kg	SW8260C	18,100,000	20,000,000	0	90.7	28-140				12/3/2010 1306h
1012057-004AMS	Benzene	µg/kg	SW8260C	21,300,000	20,000,000	3,642,000	88.2	17-138				12/3/2010 1306h
1012057-004AMS	Chlorobenzene	µg/kg	SW8260C	17,800,000	20,000,000	0	89.0	13-150				12/3/2010 1306h
1012057-004AMS	Chloroform	µg/kg	SW8260C	16,800,000	20,000,000	0	83.8	21-147				12/3/2010 1306h
1012057-004AMS	Ethylbenzene	µg/kg	SW8260C	19,200,000	20,000,000	1,414,000	88.8	10-164				12/3/2010 1306h
1012057-004AMS	Isopropylbenzene	µg/kg	SW8260C	18,700,000	20,000,000	249,000	92.3	26-146				12/3/2010 1306h
1012057-004AMS	Methyl tert-butyl ether	µg/kg	SW8260C	18,100,000	20,000,000	0	90.3	28-137				12/3/2010 1306h
1012057-004AMS	Methylene chloride	µg/kg	SW8260C	17,200,000	20,000,000	0	85.8	10-217				12/3/2010 1306h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-004AMS	Naphthalene	µg/kg	SW8260C	19,600,000	20,000,000	419,000	95.9	13-156				12/3/2010 1306h
1012057-004AMS	Tetrahydrofuran	µg/kg	SW8260C	15,200,000	20,000,000	0	75.8	70-130				12/3/2010 1306h
1012057-004AMS	Toluene	µg/kg	SW8260C	29,400,000	20,000,000	13,350,000	80.3	23-168				12/3/2010 1306h
1012057-004AMS	Trichloroethene	µg/kg	SW8260C	17,800,000	20,000,000	0	89.2	14-161				12/3/2010 1306h
1012057-004AMS	Xylenes, Total	µg/kg	SW8260C	70,100,000	60,000,000	18,760,000	85.6	10-160				12/3/2010 1306h
1012057-004AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	50,100,000	50,000,000		100	68-147				12/3/2010 1306h
1012057-004AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49,500,000	50,000,000		99.0	71-144				12/3/2010 1306h
1012057-004AMS	Surr: Dibromofluoromethane	%REC	SW8260C	49,700,000	50,000,000		99.5	71-129				12/3/2010 1306h
1012057-004AMS	Surr: Toluene-d8	%REC	SW8260C	48,400,000	50,000,000		96.8	72-129				12/3/2010 1306h

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMSD	1,1,1,2-Tetrachloroethane	µg/L	EPA624	18.4	20.00	0	92.2	74-117	3.70	25		12/3/2010 1309h
1012057-001AMSD	1,1,1-Trichloroethane	µg/L	EPA624	23.6	20.00	0	118	67-147	4.21	25		12/3/2010 1309h
1012057-001AMSD	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.7	20.00	0	83.5	67-119	4.16	25		12/3/2010 1309h
1012057-001AMSD	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	25.8	20.00	0	129	21-206	4.11	25		12/3/2010 1309h
1012057-001AMSD	1,1,2-Trichloroethane	µg/L	EPA624	18.0	20.00	0	89.9	80-123	4.38	25		12/3/2010 1309h
1012057-001AMSD	1,1-Dichloropropene	µg/L	EPA624	48.1	40.00	0	120	10-140	3.49	25		12/3/2010 1309h
1012057-001AMSD	1,1-Dichloroethane	µg/L	EPA624	21.2	20.00	0	106	70-130	3.46	25		12/3/2010 1309h
1012057-001AMSD	1,1-Dichloroethene	µg/L	EPA624	27.2	20.00	0	136	62-152	4.27	25		12/3/2010 1309h
1012057-001AMSD	1,2,3-Trichlorobenzene	µg/L	EPA624	17.1	20.00	0	85.4	67-131	8.67	25		12/3/2010 1309h
1012057-001AMSD	1,2,3-Trichloropropane	µg/L	EPA624	18.7	20.00	0	93.6	62-116	6.46	25		12/3/2010 1309h
1012057-001AMSD	1,2,3-Trimethylbenzene	µg/L	EPA624	20.1	20.00	0	101	76-140	4.48	25		12/3/2010 1309h
1012057-001AMSD	1,2,4-Trichlorobenzene	µg/L	EPA624	15.8	20.00	0	79.2	58-133	5.11	25		12/3/2010 1309h
1012057-001AMSD	1,2,4-Trimethylbenzene	µg/L	EPA624	19.7	20.00	0	98.4	79-151	3.89	25		12/3/2010 1309h
1012057-001AMSD	1,2-Dibromo-3-chloropropane	µg/L	EPA624	17.4	20.00	0	87.0	64-129	5.31	25		12/3/2010 1309h
1012057-001AMSD	1,2-Dibromoethane	µg/L	EPA624	18.4	20.00	0	91.8	70-126	6.18	25		12/3/2010 1309h
1012057-001AMSD	1,2-Dichlorobenzene	µg/L	EPA624	18.4	20.00	0	91.9	70-130	4.51	25		12/3/2010 1309h
1012057-001AMSD	1,2-Dichloroethane	µg/L	EPA624	21.7	20.00	0	109	39-162	2.80	25		12/3/2010 1309h
1012057-001AMSD	1,2-Dichloropropane	µg/L	EPA624	18.9	20.00	0	94.6	59-135	3.11	25		12/3/2010 1309h
1012057-001AMSD	1,3,5-Trimethylbenzene	µg/L	EPA624	19.5	20.00	0	97.7	77-151	4.39	25		12/3/2010 1309h
1012057-001AMSD	1,3-Dichlorobenzene	µg/L	EPA624	18.1	20.00	0	90.7	78-134	3.71	25		12/3/2010 1309h
1012057-001AMSD	1,3-Dichloropropane	µg/L	EPA624	18.1	20.00	0	90.4	78-116	3.95	25		12/3/2010 1309h
1012057-001AMSD	1,4-Dichlorobenzene	µg/L	EPA624	17.8	20.00	0	89.2	72-139	4.23	25		12/3/2010 1309h
1012057-001AMSD	1,4-Dioxane	µg/L	EPA624	183	200.0	0	91.6	33-149	2.12	25		12/3/2010 1309h
1012057-001AMSD	2,2-Dichloropropane	µg/L	EPA624	22.8	30.00	0	76.2	13-180	2.80	25		12/3/2010 1309h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMSD	2-Butanone	µg/L	EPA624	28.7	20.00	0	143	10-217	7.71	25		12/3/2010 1309h
1012057-001AMSD	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163	0	25	1	12/3/2010 1309h
1012057-001AMSD	2-Chlorotoluene	µg/L	EPA624	18.7	20.00	0	93.6	79-142	4.14	25		12/3/2010 1309h
1012057-001AMSD	2-Hexanone	µg/L	EPA624	17.2	20.00	0	86.2	50-156	7.84	25		12/3/2010 1309h
1012057-001AMSD	2-Nitropropane	µg/L	EPA624	21.2	20.00	0	106	10-243	4.67	25		12/3/2010 1309h
1012057-001AMSD	4-Chlorotoluene	µg/L	EPA624	18.4	20.00	0	92.0	68-128	3.88	25		12/3/2010 1309h
1012057-001AMSD	4-Isopropyltoluene	µg/L	EPA624	18.0	20.00	0	90.0	73-156	2.82	25		12/3/2010 1309h
1012057-001AMSD	4-Methyl-2-pentanone	µg/L	EPA624	18.6	20.00	0	92.9	10-214	7.02	25		12/3/2010 1309h
1012057-001AMSD	Acetone	µg/L	EPA624	16.3	20.00	0	81.4	10-313	4.20	25		12/3/2010 1309h
1012057-001AMSD	Acetonitrile	µg/L	EPA624	40.6	40.00	0	102	37-159	3.23	25		12/3/2010 1309h
1012057-001AMSD	Acrolein	µg/L	EPA624	73.4	40.00	0	183	10-325	4.59	25		12/3/2010 1309h
1012057-001AMSD	Acrylonitrile	µg/L	EPA624	19.0	20.00	0	95.1	53-134	7.87	25		12/3/2010 1309h
1012057-001AMSD	Allyl chloride	µg/L	EPA624	21.1	20.00	0	106	10-243	2.93	25		12/3/2010 1309h
1012057-001AMSD	Benzene	µg/L	EPA624	24.9	20.00	3.040	109	66-145	2.89	25		12/3/2010 1309h
1012057-001AMSD	Benzyl chloride	µg/L	EPA624	18.2	20.00	0	91.0	40-146	4.38	25		12/3/2010 1309h
1012057-001AMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA624	19.1	20.00	0	95.4	54-146	13.3	25		12/3/2010 1309h
1012057-001AMSD	Bromobenzene	µg/L	EPA624	17.7	20.00	0	88.5	78-148	1.42	25		12/3/2010 1309h
1012057-001AMSD	Bromochloromethane	µg/L	EPA624	20.4	20.00	0	102	75-134	1.88	25		12/3/2010 1309h
1012057-001AMSD	Bromodichloromethane	µg/L	EPA624	20.1	20.00	0	100	74-121	2.32	25		12/3/2010 1309h
1012057-001AMSD	Bromoform	µg/L	EPA624	17.8	20.00	0	89.0	68-131	3.49	25		12/3/2010 1309h
1012057-001AMSD	Bromomethane	µg/L	EPA624	16.5	20.00	0	82.7	10-185	12.4	25		12/3/2010 1309h
1012057-001AMSD	Butyl acetate	µg/L	EPA624	18.7	20.00	0	93.3	46-178	6.07	25		12/3/2010 1309h
1012057-001AMSD	Carbon disulfide	µg/L	EPA624	34.7	20.00	0	174	21-224	4.66	25		12/3/2010 1309h
1012057-001AMSD	Carbon tetrachloride	µg/L	EPA624	25.1	20.00	0	125	60-157	4.19	25		12/3/2010 1309h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMSD	Chlorobenzene	µg/L	EPA624	18.5	20.00	0	92.7	63-140	4.07	25		12/3/2010 1309h
1012057-001AMSD	Chloroethane	µg/L	EPA624	20.4	20.00	0	102	41-173	4.86	25		12/3/2010 1309h
1012057-001AMSD	Chloroform	µg/L	EPA624	20.9	20.00	0	105	50-146	3.85	25		12/3/2010 1309h
1012057-001AMSD	Chloromethane	µg/L	EPA624	16.6	20.00	0	82.8	10-138	5.46	25		12/3/2010 1309h
1012057-001AMSD	Chloroprene	µg/L	EPA624	22.1	20.00	0	110	10-161	4.30	25		12/3/2010 1309h
1012057-001AMSD	cis-1,2-Dichloroethene	µg/L	EPA624	20.2	20.00	0	101	72-137	1.90	25		12/3/2010 1309h
1012057-001AMSD	cis-1,3-Dichloropropene	µg/L	EPA624	19.8	40.00	0	49.5	10-134	3.13	25		12/3/2010 1309h
1012057-001AMSD	Cyclohexane	µg/L	EPA624	25.9	20.00	0	129	35-230	1.68	25		12/3/2010 1309h
1012057-001AMSD	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	55.8	10-374	0	25		12/3/2010 1309h
1012057-001AMSD	Dibromochloromethane	µg/L	EPA624	18.4	20.00	0	92.2	68-135	4.95	25		12/3/2010 1309h
1012057-001AMSD	Dibromomethane	µg/L	EPA624	19.8	20.00	0	99.2	74-120	3.38	25		12/3/2010 1309h
1012057-001AMSD	Dichlorodifluoromethane	µg/L	EPA624	16.0	20.00	0	80.1	10-150	4.93	25		12/3/2010 1309h
1012057-001AMSD	Ethyl acetate	µg/L	EPA624	42.5	40.00	0	106	50-155	4.68	25		12/3/2010 1309h
1012057-001AMSD	Ethyl ether	µg/L	EPA624	21.7	20.00	0	108	45-146	6.23	25		12/3/2010 1309h
1012057-001AMSD	Ethyl methacrylate	µg/L	EPA624	17.3	20.00	0	86.5	77-151	4.92	25		12/3/2010 1309h
1012057-001AMSD	Ethylbenzene	µg/L	EPA624	19.8	20.00	0	99.1	69-133	4.28	25		12/3/2010 1309h
1012057-001AMSD	Hexachlorobutadiene	µg/L	EPA624	16.8	20.00	0	84.2	35-213	2.95	25		12/3/2010 1309h
1012057-001AMSD	Iodomethane	µg/L	EPA624	19.8	20.00	0	98.9	10-233	6.58	25		12/3/2010 1309h
1012057-001AMSD	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	80.2	12-202	0	25		12/3/2010 1309h
1012057-001AMSD	Isopropyl acetate	µg/L	EPA624	20.5	20.00	0	102	55-145	4.13	25		12/3/2010 1309h
1012057-001AMSD	Isopropyl alcohol	µg/L	EPA624	63.6	80.00	0	79.5	12-250	4.97	25		12/3/2010 1309h
1012057-001AMSD	Isopropylbenzene	µg/L	EPA624	19.2	20.00	0	95.8	60-147	2.43	25		12/3/2010 1309h
1012057-001AMSD	Isopropyltoluene	µg/L	EPA624	18.0	20.00	0	90.0	73-156	2.82	25		12/3/2010 1309h
1012057-001AMSD	m,p-Xylene	µg/L	EPA624	46.8	40.00	6.700	100	70-130	4.24	25		12/3/2010 1309h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMSD	Methacrylonitrile	µg/L	EPA624	18.5	20.00	0	92.6	79-123	5.26	25		12/3/2010 1309h
1012057-001AMSD	Methyl Acetate	µg/L	EPA624	27.1	20.00	0	136	5-398	4.06	25		12/3/2010 1309h
1012057-001AMSD	Methyl methacrylate	µg/L	EPA624	17.5	20.00	0	87.4	55-128	4.32	25		12/3/2010 1309h
1012057-001AMSD	Methyl tert-butyl ether	µg/L	EPA624	16.6	20.00	0	82.8	37-189	12.2	25		12/3/2010 1309h
1012057-001AMSD	Methylcyclohexane	µg/L	EPA624	25.8	20.00	0	129	65-175	0.466	25		12/3/2010 1309h
1012057-001AMSD	Methylene chloride	µg/L	EPA624	15.0	20.00	0	75.0	55-138	2.16	25		12/3/2010 1309h
1012057-001AMSD	n-Amyl acetate	µg/L	EPA624	12.0	20.00	0	60.0	10-187	5.84	25		12/3/2010 1309h
1012057-001AMSD	Naphthalene	µg/L	EPA624	17.3	20.00	0	86.4	41-131	8.44	25		12/3/2010 1309h
1012057-001AMSD	n-Butyl alcohol	µg/L	EPA624	61.0	80.00	0	76.2	10-226	5.21	25		12/3/2010 1309h
1012057-001AMSD	n-Butylbenzene	µg/L	EPA624	17.8	20.00	0	88.8	40-158	3.79	25		12/3/2010 1309h
1012057-001AMSD	n-Hexane	µg/L	EPA624	19.2	20.00	0	95.9	10-277	0.986	25		12/3/2010 1309h
1012057-001AMSD	n-Octane	µg/L	EPA624	16.5	20.00	0	82.4	45-158	2.27	25		12/3/2010 1309h
1012057-001AMSD	n-Propylbenzene	µg/L	EPA624	18.5	20.00	0	92.7	67-131	3.18	25		12/3/2010 1309h
1012057-001AMSD	o-Xylene	µg/L	EPA624	20.2	20.00	1.370	94.3	70-130	3.88	25		12/3/2010 1309h
1012057-001AMSD	Pentachloroethane	µg/L	EPA624	12.9	20.00	0	64.6	10-314	5.49	25		12/3/2010 1309h
1012057-001AMSD	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	85.6	60-132	0	25		12/3/2010 1309h
1012057-001AMSD	Propyl acetate	µg/L	EPA624	19.4	20.00	0	96.9	48-143	1.93	25		12/3/2010 1309h
1012057-001AMSD	sec-Butylbenzene	µg/L	EPA624	19.1	20.00	0	95.4	72-157	3.90	25		12/3/2010 1309h
1012057-001AMSD	Styrene	µg/L	EPA624	18.1	20.00	0	90.6	81-125	3.25	25		12/3/2010 1309h
1012057-001AMSD	tert-Butyl alcohol	µg/L	EPA624	40.7	40.00	0	102	50-286	4.35	25		12/3/2010 1309h
1012057-001AMSD	tert-Butylbenzene	µg/L	EPA624	18.2	20.00	0	90.8	75-157	3.08	25		12/3/2010 1309h
1012057-001AMSD	Tetrachloroethene	µg/L	EPA624	24.2	20.00	0	121	49-163	3.58	25		12/3/2010 1309h
1012057-001AMSD	Tetrahydrofuran	µg/L	EPA624	17.3	20.00	0	86.6	43-146	4.13	25		12/3/2010 1309h
1012057-001AMSD	Toluene	µg/L	EPA624	28.7	20.00	9.750	94.6	18-192	3.84	25		12/3/2010 1309h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001AMSD	trans-1,2-Dichloroethene	µg/L	EPA624	21.5	20.00	0	107	47-146	3.99	25		12/3/2010 1309h
1012057-001AMSD	trans-1,3-Dichloropropene	µg/L	EPA624	20.4	20.00	0	102	29-143	3.14	25		12/3/2010 1309h
1012057-001AMSD	trans-1,4-Dichloro-2-butene	µg/L	EPA624	20.1	20.00	0	101	20-214	2.57	25		12/3/2010 1309h
1012057-001AMSD	Trichloroethene	µg/L	EPA624	21.8	20.00	0	109	61-153	2.89	25		12/3/2010 1309h
1012057-001AMSD	Trichlorofluoromethane	µg/L	EPA624	22.5	20.00	0	113	56-166	4.31	25		12/3/2010 1309h
1012057-001AMSD	Vinyl acetate	µg/L	EPA624	27.1	40.00	0	67.8	38-121	5.19	25		12/3/2010 1309h
1012057-001AMSD	Vinyl chloride	µg/L	EPA624	19.7	20.00	0	98.6	13-155	8.79	25		12/3/2010 1309h
1012057-001AMSD	Xylenes, Total	µg/L	EPA624	67.0	60.00	8.070	98.2	42-167	4.13	25		12/3/2010 1309h
1012057-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	58.0	50.00		116	77-144				12/3/2010 1309h
1012057-001AMSD	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.4	50.00		96.8	80-123				12/3/2010 1309h
1012057-001AMSD	Surr: Dibromofluoromethane	%REC	EPA624	52.9	50.00		106	80-124				12/3/2010 1309h
1012057-001AMSD	Surr: Toluene-d8	%REC	EPA624	47.0	50.00		94.1	80-125				12/3/2010 1309h
1012057-004AMSD	1,1,1-Trichloroethane	µg/kg	SW8260C	20,300,000	20,000,000	0	101	20-144	12.6	35		12/3/2010 1328h
1012057-004AMSD	1,1-Dichloroethene	µg/kg	SW8260C	19,500,000	20,000,000	0	97.3	24-174	8.69	35		12/3/2010 1328h
1012057-004AMSD	1,2-Dichlorobenzene	µg/kg	SW8260C	19,900,000	20,000,000	0	99.6	10-148	8.65	35		12/3/2010 1328h
1012057-004AMSD	1,2-Dichloroethane	µg/kg	SW8260C	19,600,000	20,000,000	0	98.2	54-133	10.2	35		12/3/2010 1328h
1012057-004AMSD	1,2-Dichloropropane	µg/kg	SW8260C	19,800,000	20,000,000	0	99.0	28-140	8.81	35		12/3/2010 1328h
1012057-004AMSD	Benzene	µg/kg	SW8260C	22,900,000	20,000,000	3,642,000	96.3	17-138	7.38	35		12/3/2010 1328h
1012057-004AMSD	Chlorobenzene	µg/kg	SW8260C	19,200,000	20,000,000	0	96.2	13-150	7.72	35		12/3/2010 1328h
1012057-004AMSD	Chloroform	µg/kg	SW8260C	18,700,000	20,000,000	0	93.2	21-147	10.7	35		12/3/2010 1328h
1012057-004AMSD	Ethylbenzene	µg/kg	SW8260C	20,400,000	20,000,000	1,414,000	95.0	10-164	6.31	35		12/3/2010 1328h
1012057-004AMSD	Isopropylbenzene	µg/kg	SW8260C	19,900,000	20,000,000	249,000	98.3	26-146	6.21	35		12/3/2010 1328h
1012057-004AMSD	Methyl tert-butyl ether	µg/kg	SW8260C	19,500,000	20,000,000	0	97.6	28-137	7.72	35		12/3/2010 1328h
1012057-004AMSD	Methylene chloride	µg/kg	SW8260C	18,900,000	20,000,000	0	94.6	10-217	9.87	35		12/3/2010 1328h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-004AMSD	Naphthalene	µg/kg	SW8260C	21,000,000	20,000,000	419,000	103	13-156	6.85	35		12/3/2010 1328h
1012057-004AMSD	Tetrahydrofuran	µg/kg	SW8260C	15,900,000	20,000,000	0	79.6	70-130	4.96	35		12/3/2010 1328h
1012057-004AMSD	Toluene	µg/kg	SW8260C	31,300,000	20,000,000	13,350,000	90.0	23-168	6.39	35		12/3/2010 1328h
1012057-004AMSD	Trichloroethene	µg/kg	SW8260C	19,600,000	20,000,000	0	97.9	14-161	9.25	35		12/3/2010 1328h
1012057-004AMSD	Xylenes, Total	µg/kg	SW8260C	73,900,000	60,000,000	18,760,000	91.8	10-160	5.15	35		12/3/2010 1328h
1012057-004AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51,100,000	50,000,000		102	68-147				12/3/2010 1328h
1012057-004AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49,200,000	50,000,000		98.3	71-144				12/3/2010 1328h
1012057-004AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	50,900,000	50,000,000		102	71-129				12/3/2010 1328h
1012057-004AMSD	Surr: Toluene-d8	%REC	SW8260C	48,600,000	50,000,000		97.2	72-129				12/3/2010 1328h

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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Kyle F. Gross
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Jose Rocha
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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-R2126	Chemical Oxygen Demand	mg/L	HACH 8000	1,040	1,000	0	104	85-115				12/3/2010 1030h
LCS-2	Chemical Oxygen Demand	mg/L	HACH 8000	288	300.0	0	96.0	85-115				12/3/2010 1030h
LCS-3	Chemical Oxygen Demand	mg/L	HACH 8000	108	100.0	0	108	85-115				12/3/2010 1030h
LCS-4	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0	10.00	0	90.0	85-115				12/3/2010 1030h
LCS-R21125	Total Recoverable Petroleum Hydr	mg/kg	E1664A-SG	1,230	1,000	64.97	116	64-132				12/3/2010 1925h
LCS-R21124	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	18.1	20.00	2.600	77.5	64-132				12/3/2010 1702h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-R21126	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0				-				12/3/2010 1030h
MB-R21125	Total Recoverable Petroleum Hydr	mg/kg	E1664A-SG	< 150				-				12/3/2010 1925h
MB-R21124	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	< 3.00				-				12/3/2010 1702h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001FMS	Chemical Oxygen Demand	mg/L	HACH 8000	53.0	50.00	0	106	85-115				12/3/2010 1030h
1012057-004DMS	Total Recoverable Petroleum Hydr	mg/kg	E1664A-SG	416,000	1,000	374,700	4,160	64-132			[2]	12/3/2010 1925h

[2] - *Analyte concentration is too high for accurate matrix spike recovery and/or RPD.*

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012057-001FMSD	Chemical Oxygen Demand	mg/L	HACH 8000	51.0	50.00	0	102	85-115	3.85	10		12/3/2010 1030h
1012057-004DMSD	Total Recoverable Petroleum Hydr	mg/kg	E1664A-SG	452,000	1,000	374,700	7,710	64-132	8.19	34	²	12/3/2010 1925h

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: QCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
QCS-R21124	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	16.9	20.00	2.600	71.5	64-132				12/3/2010 1702h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012057
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: QCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
QCSD-R21124	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	16.8	20.00	2.600	71.0	64-132	0.593	34		12/3/2010 1702h

RUSH

American West Analytical Laboratories

WORK ORDER Summary

Work Order: 1012057

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/3/2010

Project: Red Butte Spill **QC Level:** LEVEL II+ **WO Type:** Standard

Comments: Next Day Rush - No Hard Copies. Report out TIC's for Semi's - QC 2+ (Use #1 as MS/MSD) / client was notified that ORO would take longer, he said to send partial reports and do the best we can;

SPD

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012057-001A	Red Butte Ck Near Greenhouse	12/2/2010 4:15:00 PM	12/2/2010 5:54:00 PM	12/6/2010	Aqueous	624-W	☑	voc	3
1012057-001B				12/6/2010		3510-SVOA-PR	☐	walkin semi	
				12/6/2010		625-W	☑	walkin semi	
				12/6/2010		8270-W	☑	walkin semi	
1012057-001C				12/6/2010		3510-TPH-PR	☐	Hall-TPH (liters)	
				12/6/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012057-001D				12/6/2010		3510-ORO-PR	☐	Hall-ORO (liters)	
				12/6/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012057-001E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	2
1012057-001F				12/6/2010		COD-HACH8000	☐	ww - cod	1
1012057-002A	Red Butte Ck Ab Gardens 4992095	12/2/2010 4:40:00 PM		12/6/2010		624-W	☑	voc	3
1012057-002B				12/6/2010		3510-SVOA-PR	☐	walkin semi	
				12/6/2010		625-W	☑	walkin semi	
				12/6/2010		8270-W	☑	walkin semi	
1012057-002C				12/6/2010		3510-TPH-PR	☐	Hall-TPH (liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012057-002D				12/6/2010		3510-ORO-PR	☐	Hall-ORO (liters)	3
				12/6/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012057-002E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012057-002F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012057-003A	Red Butte Ck @ 1100 E. 4992083	12/2/2010 5:10:00 PM		12/6/2010		624-W	☑	voc	3
1012057-003B				12/6/2010		3510-SVOA-PR	☐	walkin semi	
				12/6/2010		625-W	☑	walkin semi	
				12/6/2010		8270-W	☑	walkin semi	

WORK ORDER Summary

Work Order: **1012057**

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/3/2010

Project: Red Butte Spill **QC Level:** LEVEL II+ **WO Type:** Standard

Comments: Next Day Rush - No Hard Copies. Report out TIC's for Semi's - QC 2+ (Use #1 as MS/MSD) / client was notified that ORO would take longer, he said to send partial reports and do the best we can;

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012057-003C	Red Butte Ck @ 1100 E. 4992083	12/2/2010 5:10:00 PM	12/2/2010 5:54:00 PM	12/6/2010	Aqueous	3510-TPH-PR	☐	Hall-TPH (liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012057-003D				12/6/2010		3510-ORO-PR	☐	Hall-ORO (liters)	1
				12/6/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012057-003E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	
1012057-003F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012057-004A	RB Spill from Source (Oil)	12/2/2010 4:20:00 PM		12/6/2010	Oil	8260-S	☑	voc	
1012057-004B				12/6/2010		3580-WASTE-O	☐	Hall-Semi	
				12/6/2010		8270-O	☑	Hall-Semi	
1012057-004C				12/6/2010		3580-WASTE-O	☐	Hall-TPH/ORO	
				12/6/2010		8015-O-ORO	☐	Hall-TPH/ORO	
				12/6/2010		8015-O-TPH	☑	Hall-TPH/ORO	
1012057-004D				12/6/2010		COD-HACH8000	☐	ww - cod/share	
				12/6/2010		OGF-S-1664SGT	☐	ww - cod/share	

Client DWQ

Address 195 N 1950 W

SLC UT 84114
City State Zip

Phone 801-541-3069 Fax

Contact Jim Harris

E-mail jamesharris@utah.gov

Project Name Red Butte Spill

Project Number/P.O.#

Sampler Name J. Harris

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CHAIN OF CUSTODY

Lab Sample Set # 1012057

Page _____ of _____

Turn Around Time (Circle One)

1 day 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED: OG&G 1664	COD	VOCs - SW8021	SVOCs - SW8270	TPH fractionation	TRPH	* per previous sets. ck 12-3-09				QC LEVEL	COMMENTS
Red Butte ck near Greenhouse	1615 12/2	W							X					1 2 2+ 3 3+ 4	Use for MS/MSD SPD 12/2/09
Red Butte ck ab Gardens 4992095	1640 12/2	W							X						
Red Butte Ck e 1100E 4992083	1710 12/2	W							X						
RB Spill From Source (oil)	1620 12/2	O	4						X						RAW OIL

LABORATORY USE ONLY

SAMPLES WERE:

1 Shipped or hand delivered
Notes:

2 Ambient or Chilled
Notes:

3 Temperature 1.1

4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:

5 Properly Preserved
Y N
Checked at Bench
Y N
Notes:

6 Received Within Holding Times
Y N
Notes:

COC Tape Was:

1 Present on Outer Package
Y N NA

2 Unbroken on Outer Package
Y N NA

3 Present on Sample
Y N NA

4 Unbroken on Sample
Y N NA

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME James Harris	Time 1754	PRINT NAME Denise Bruun	Time 17:54
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions: 12-3-09

* per previous sets client needs TRPH - spoke with Jim

Sample Set: 1012057

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except
Ammonia	pH <2 H_2SO_4																
COD	pH <2 H_2SO_4	✓															
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO_3																
NO_2 & NO_3	pH <2 H_2SO_4																
Nutrients	pH <2 H_2SO_4																
O & G	pH <2 HCL	✓															
Phenols	pH <2 H_2SO_4																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H_2SO_4																
TOC	pH <2 H_3PO_4																
TOX	pH <2 H_2SO_4																
T PO_4	pH <2 H_2SO_4																
TPH	pH <2 HCL																

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) **Do Not** dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC, notify client if requested
6) Place client conversation on COC
7) Samples may be adjusted

Frequency: All samples requiring preservation

RUSH

American West Analytical Laboratories

WORK ORDER Summary

Work Order: 1012057

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/3/2010

Project: Red Butte Spill **QC Level:** LEVEL II+ **WO Type:** Standard

Comments: Next Day Rush - No Hard Copies. Report out TIC's for Semi's - QC 2+ (Use #1 as MS/MSD) / client was notified that ORO would take longer, he said to send partial reports and do the best we can;

SPD

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012057-001A	Red Butte Ck Near Greenhouse	12/2/2010 4:15:00 PM	12/2/2010 5:54:00 PM	12/6/2010	Aqueous	624-W	☑	voc	3
1012057-001B				12/6/2010		3510-SVOA-PR	☐	walkin semi	
				12/6/2010		625-W	☑	walkin semi	
				12/6/2010		8270-W	☑	walkin semi	
1012057-001C				12/6/2010		3510-TPH-PR	☐	Hall-TPH (liters)	
				12/6/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012057-001D				12/6/2010		3510-ORO-PR	☐	Hall-ORO (liters)	
				12/6/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012057-001E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	2
1012057-001F				12/6/2010		COD-HACH8000	☐	ww - cod	1
1012057-002A	Red Butte Ck Ab Gardens 4992095	12/2/2010 4:40:00 PM		12/6/2010		624-W	☑	voc	3
1012057-002B				12/6/2010		3510-SVOA-PR	☐	walkin semi	
				12/6/2010		625-W	☑	walkin semi	
				12/6/2010		8270-W	☑	walkin semi	
1012057-002C				12/6/2010		3510-TPH-PR	☐	Hall-TPH (liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012057-002D				12/6/2010		3510-ORO-PR	☐	Hall-ORO (liters)	3
				12/6/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012057-002E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012057-002F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012057-003A	Red Butte Ck @ 1100 E. 4992083	12/2/2010 5:10:00 PM		12/6/2010		624-W	☑	voc	3
1012057-003B				12/6/2010		3510-SVOA-PR	☐	walkin semi	
				12/6/2010		625-W	☑	walkin semi	
				12/6/2010		8270-W	☑	walkin semi	

WORK ORDER Summary

Work Order: **1012057**

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/3/2010

Project: Red Butte Spill **QC Level:** LEVEL II+ **WO Type:** Standard

Comments: Next Day Rush - No Hard Copies. Report out TIC's for Semi's - QC 2+ (Use #1 as MS/MSD) / client was notified that ORO would take longer, he said to send partial reports and do the best we can;

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012057-003C	Red Butte Ck @ 1100 E. 4992083	12/2/2010 5:10:00 PM	12/2/2010 5:54:00 PM	12/6/2010	Aqueous	3510-TPH-PR	☐	Hall-TPH (liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012057-003D				12/6/2010		3510-ORO-PR	☐	Hall-ORO (liters)	1
				12/6/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012057-003E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	
1012057-003F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012057-004A	RB Spill from Source (Oil)	12/2/2010 4:20:00 PM		12/6/2010	Oil	8260-S	☑	voc	
1012057-004B				12/6/2010		3580-WASTE-O	☐	Hall-Semi	
				12/6/2010		8270-O	☑	Hall-Semi	
1012057-004C				12/6/2010		3580-WASTE-O	☐	Hall-TPH/ORO	
				12/6/2010		8015-O-ORO	☐	Hall-TPH/ORO	
				12/6/2010		8015-O-TPH	☑	Hall-TPH/ORO	
1012057-004D				12/6/2010		COD-HACH8000	☐	ww - cod/share	
				12/6/2010		OGF-S-1664SGT	☐	ww - cod/share	

Client DWQ

Address 195 N 1950 W

SLC UT 84114
City State Zip

Phone 801-541-3069 Fax

Contact Jim Harris

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Project Name Red Butte Spill

Project Number/P.O.#

Sampler Name J. Harris

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CHAIN OF CUSTODY

Lab Sample Set # 1012057

Page _____ of _____

Turn Around Time (Circle One)

1 day 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED: OG&G 1664	COD	VOCs - SW8021	SVOCs - SW8270	TPH fractionation	TRPH	* per previous sets. ck 12-3-09				QC LEVEL	COMMENTS
Red Butte ck near Greenhouse	1615 12/2	W							X					1 2 2+ 3 3+ 4	Use for MS/MSD SPD 12/2/09
Red Butte ck ab Gardens 4992095	1640 12/2	W							X						
Red Butte Ck e 1100E 4992083	1710 12/2	W							X						
RB Spill From Source (oil)	1620 12/2	O	4						X						RAW OIL

LABORATORY USE ONLY

SAMPLES WERE:

1 Shipped or hand delivered
Notes:

2 Ambient or Chilled
Notes:

3 Temperature 1.1

4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:

5 Properly Preserved
Y N
Checked at Bench
Y N
Notes:

6 Received Within Holding Times
Y N
Notes:

COC Tape Was:

1 Present on Outer Package
Y N NA

2 Unbroken on Outer Package
Y N NA

3 Present on Sample
Y N NA

4 Unbroken on Sample
Y N NA

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME James Harris	Time 1754	PRINT NAME Denise Bruun	Time 17:54
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions: 12-3-09

* per previous sets client needs TRPH - spoke with Jim

Sample Set: 1012057

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except
Ammonia	pH <2 H_2SO_4																
COD	pH <2 H_2SO_4	✓															
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO_3																
NO_2 & NO_3	pH <2 H_2SO_4																
Nutrients	pH <2 H_2SO_4																
O & G	pH <2 HCL	✓															
Phenols	pH <2 H_2SO_4																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H_2SO_4																
TOC	pH <2 H_3PO_4																
TOX	pH <2 H_2SO_4																
T PO_4	pH <2 H_2SO_4																
TPH	pH <2 HCL																

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) **Do Not** dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC, notify client if requested
6) Place client conversation on COC
7) Samples may be adjusted

Frequency: All samples requiring preservation