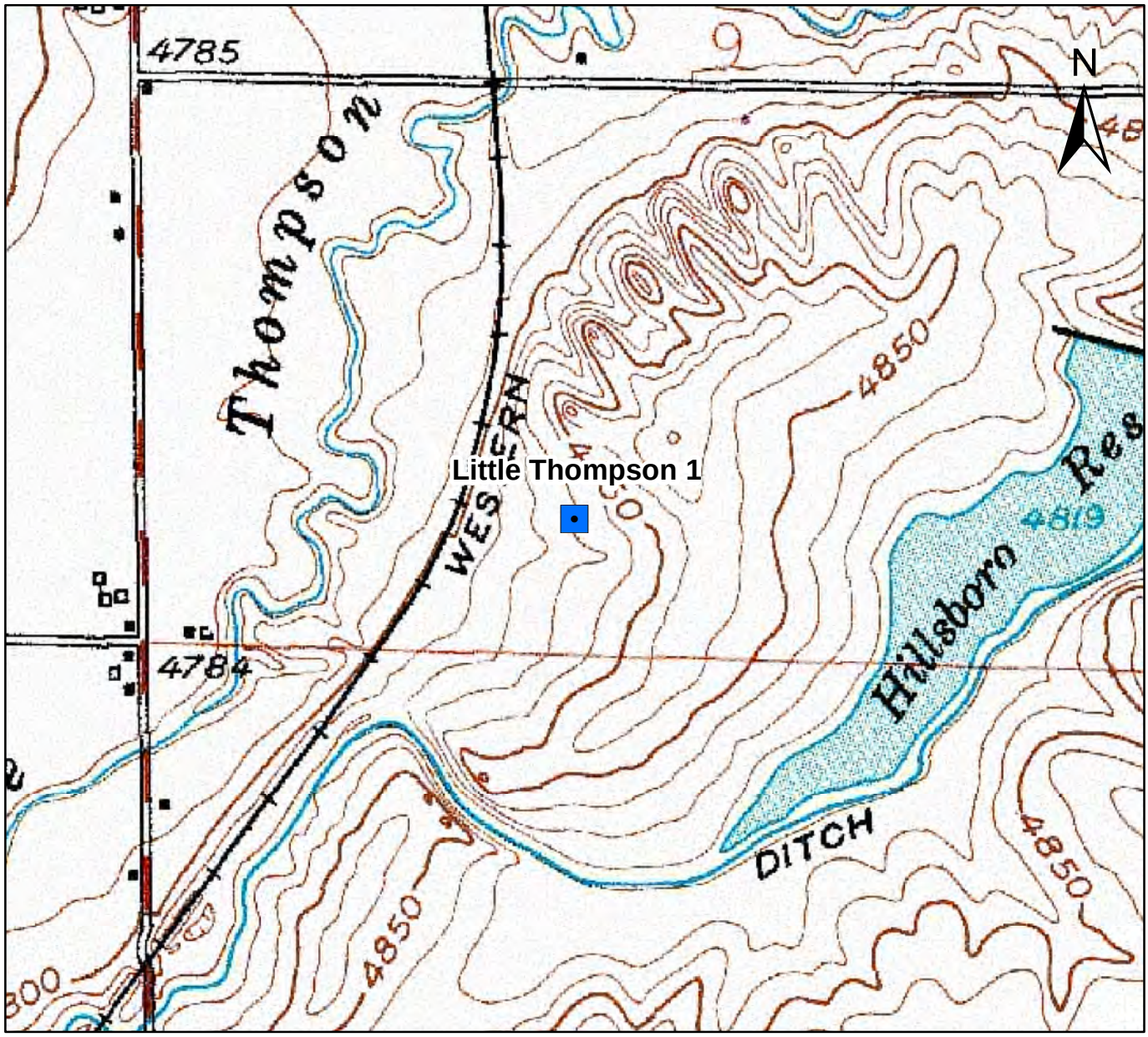


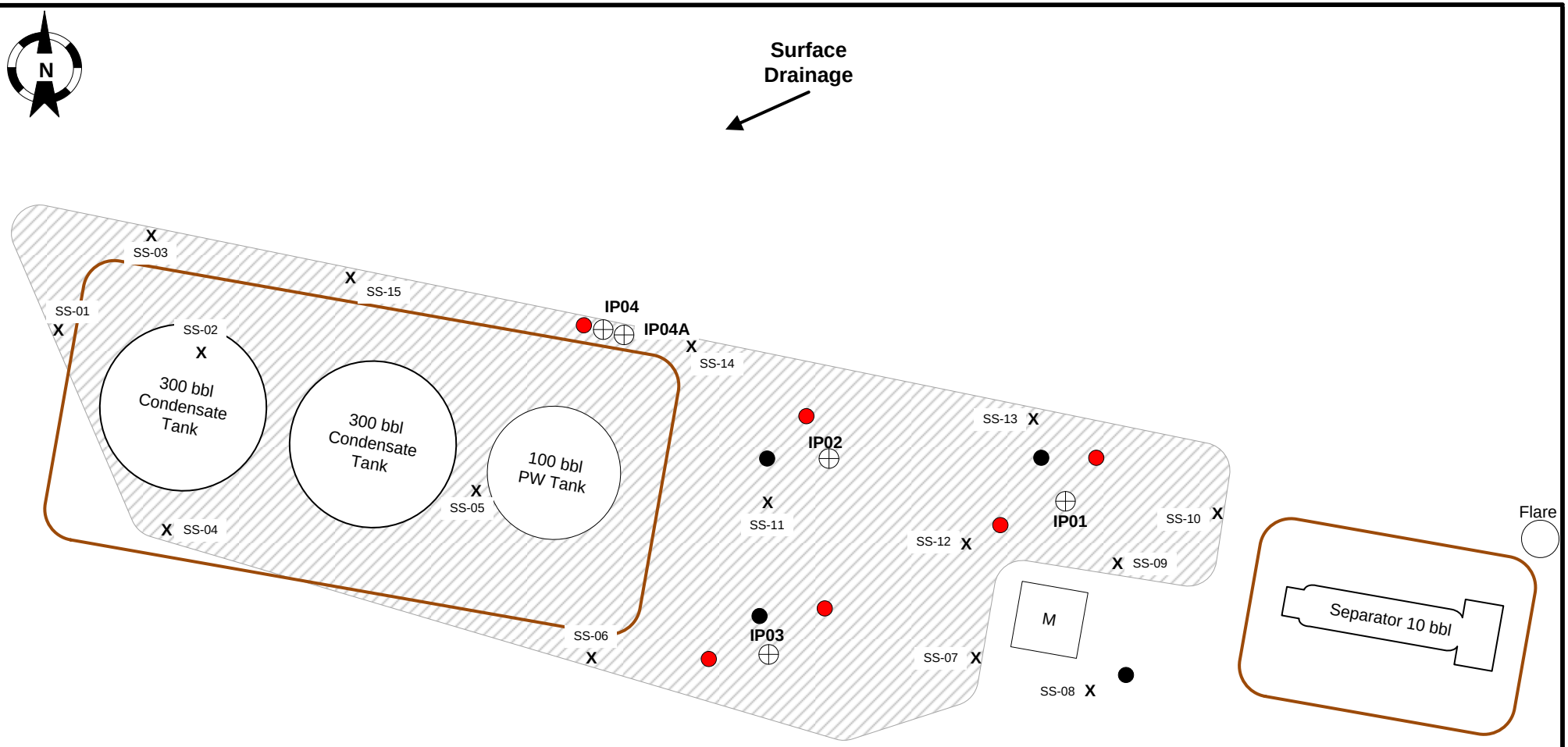
0 375 750 1,500 Feet

Figure 1

Site Location Map
Little Thompson 1
SESW S9 T4N R67W
Weld County, Colorado

Drawn By: BDH
Date: 02/01/2013

Tasman Geosciences



Note:
Surface drainage direction is estimated based on site topography and is not related to regional topography.

PROJECT NO:	**Facility Diagram** PDC Energy – DJ Basin Little Thompson 1 SESW S9 T4N R67W Weld County, CO	Tasman Geosciences	6899 Pecos St., Unit C Denver CO 80221	LEGEND Earthen Berm Approximate Extent of Excavation X Excavation Soil Sample Chemox Injection Point Post Chemox Injection Soil Confirmation Sample Passive Soil Vapor Extraction Point	FIGURE 2
DRAWN BY: BDH					
DATE: 2/1/12					Not to Scale

TABLE 1
LITTLE THOMPSON 1
SOIL ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Depth (Feet bgs)	PID Readings (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzne (mg/kg)	Total Xylenes (mg/kg)	Napthalene (mg/kg)	TPH [(2)] (mg/kg)
SS01	8/25/2011	17	NA	<0.005	<0.005	<0.005	<0.015	<0.005	<50.5
SS02	8/25/2011	20	NA	<0.005	<0.005	<0.005	<0.015	0.016	110.68
SS03	8/25/2011	17	NA	<0.005	<0.005	<0.005	<0.015	<0.005	<50.5
SS04	8/25/2011	17	NA	<0.005	<0.005	<0.005	<0.015	<0.005	<50.5
SS05	8/25/2011	20	NA	<0.005	<0.005	<0.005	0.1474	0.042	87.8
SS06	8/25/2011	17	NA	<0.005	<0.005	<0.005	<0.015	0.013	<50.5
SS07	8/25/2011	17	NA	<0.005	<0.005	<0.005	<0.015	<0.005	<50.5
SS08	8/25/2011	17	NA	0.024	0.16	<0.005	0.8	0.025	**1,809.8**
	9/6/2011			0.09	0.093	0.1	0.316	0.025	409
SS09	8/25/2011	17	NA	**2.1**	13	6.4	61	2.8	**7,600**
SS10	8/25/2011	15	NA	<0.005	<0.005	<0.005	<0.015	<0.005	75.74
SS11	8/25/2011	20	NA	<0.005	<0.005	<0.005	<0.015	0.014	1.4
SS12	8/25/2011	20	NA	<0.005	<0.005	<0.005	0.041	<0.005	68.9
SS13	8/25/2011	17	NA	0.033	0.074	0.24	1.87	0.15	**992**
SS14	8/25/2011	17	NA	0.0092	0.012	0.11	1	0.14	**587**
SS15	8/25/2011	17	NA	<0.005	<0.005	0.017	0.163	0.065	118

TABLE 1
LITTLE THOMPSON 1
SOIL ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Depth (Feet bgs)	PID Readings (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzne (mg/kg)	Total Xylenes (mg/kg)	Napthalene (mg/kg)	TPH [2] (mg/kg)
Confirmation soil samples below were collected subsequent to remediation activities as described in the Form 27 submitted on August 16, 2012.									
IP01	7/10/2012	15-20	0.0	<0.005	<0.005	<0.005	<0.01	<0.005	<50
IP02	7/10/2012	15-20	0.0	<0.005	<0.005	<0.005	<0.01	<0.005	<50
IP03	7/10/2012	15-20	0.0	<0.005	<0.005	<0.005	<0.01	0.0057	<50
IP04	7/10/2012	15-20	0.0	<0.005	<0.005	0.022	0.311	0.048	**663**
IP04A	1/8/2012	15-20	0.0	<0.005	<0.005	<0.005	<0.01	0.092	<50
COGCC standards for Soil (mg/kg) [1]				**0.17**	**85**	**100**	**175**	**23**	**500**

Notes:

1). Standards for Soil are taken from 2 CCR 404-1, Table 910-1, effective April 1, 2009.

2). TPH - Total volatile and extractable petroleum hydrocarbons. Value calculated by adding GRO and DRO concentrations.

GRO - Gasoline range organics. DRO - Diesel range organics.

mg/kg= Milligrams per kilogram. bgs - Below ground surface.

ppm - Parts per million ND- Not detected

Bold red values indicate an exceedance of the COGCC soil standards for the Site.

ATTACHMENT A

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 26, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Little Thompson 1

Enclosed are the results of analyses for samples received by Summit Scientific on 08/25/11 17:34. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@17'	R108168-01	Soil	08/25/11 12:10	08/25/11 17:34
SS02@20'	R108168-02	Soil	08/25/11 12:15	08/25/11 17:34
SS03@17'	R108168-03	Soil	08/25/11 12:20	08/25/11 17:34
SS04@17'	R108168-04	Soil	08/25/11 12:25	08/25/11 17:34
SS05@20'	R108168-05	Soil	08/25/11 12:30	08/25/11 17:34
SS06@17'	R108168-06	Soil	08/25/11 12:35	08/25/11 17:34
SS07@17'	R108168-07	Soil	08/25/11 12:40	08/25/11 17:34
SS08@17'	R108168-08	Soil	08/25/11 12:45	08/25/11 17:34
SS09@17'	R108168-09	Soil	08/25/11 12:50	08/25/11 17:34
SS10@15'	R108168-10	Soil	08/25/11 12:55	08/25/11 17:34
SS11@20'	R108168-11	Soil	08/25/11 13:00	08/25/11 17:34
SS12@20'	R108168-12	Soil	08/25/11 13:05	08/25/11 17:34
SS13@17'	R108168-13	Soil	08/25/11 13:10	08/25/11 17:34
SS14@17'	R108168-14	Soil	08/25/11 13:15	08/25/11 17:34
SS15@17'	R108168-15	Soil	08/25/11 13:20	08/25/11 17:34

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

R108168.1

Summit Scientific
S2
741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9331 Fax

Page 1 of 2

Client: LT Environmental, Inc.
Address: 4600 West 60th Avenue
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788
Sampler Name: Devin Girtin

Project Manager: Brian Dodek
E-Mail: bdodek@ltenvironmental.com
Fax: (303) 433-1432
Project Name: Little Thompson 1
Project Number: 0188.11058.005

Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO_3	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GRO/EXT/Nap	DRO	Special Instructions
SS01@17'	8-25-11	1010	1			X			X			X	X	
SS02@20'		1015												
SS03@17'		1020												
SS04@17'		1025												
SS05@20'		1030												
SS06@17'		1035												
SS07@17'		1040												
SS08@17'		1045												
SS09@17'		1050												
SS10@16'		1055							X			X	X	

Relinquished by: Date/Time: 8-25-11 1900 Received by: Date/Time: 8-25-11 1700

Relinquished by: Date/Time: Received by: Date/Time:

Relinquished by: Date/Time: Received in Lab by: Date/Time:

Analyze For:

Turn Around Time (Check): Same Day ☐ 72 Hours ☐ 24 Hours ☐ Standard ☐ 48 Hours ☒

Sample Integrity: Temperature Upon Receipt: 5.1 Intact: Yes No

Notes: Results by web 8-29-11.

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S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

R108168.8

Summit Scientific

S2

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page 2 of 2

Client: LT Environmental, Inc.
Address: 4600 West 60th Avenue
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788 Fax: (303) 433-1432
Sampler Name: Dwin Griffin

Project Manager: Brian Dodek
E-Mail: bdodek@ltenvironmental.com
Project Name: Little Thompson 1
Project Number: 0188.11058.005

Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO_3	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GRO EX/Naph	DRO	Special Instructions
SS11@26'	8-25-11	1320	1			X			X			X	X	
SS10@26'		1325	1											
SS13@17'		1310	1											
SS14@17'		1315	1											
SS15@17'		1320	1											

Relinquished by: Date/Time: 8-25-11 1700 Received by: Date/Time: 8-25 17:50

Relinquished by: Date/Time: Received by: Date/Time:

Relinquished by: Date/Time: Received in Lab by: Date/Time:

Turn Around Time (Check): Same Day ☐ 24 Hours ☐ 48 Hours ☒ 72 Hours ☐ Standard ☐

Sample Integrity: Temperature Upon Receipt: 5.1 Intact: (Yes) No

Notes: Results by WCM 8-29-11

www.s2scientific.com

SS01@17'
R108168-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*105 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*98.3 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.3 %*	*78.4-125*		"	"	"	"	

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS02@20'
R108168-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**110**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*105 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.016**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**0.68**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.4 %*	*78.4-125*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS03@17'
R108168-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*104 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.1 %*	*78.4-125*		"	"	"	"	

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS04@17'
R108168-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*105 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*98.8 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.1 %*	*78.4-125*		"	"	"	"	

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS05@20'
R108168-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**85**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*105 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.042**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	**0.14**	0.010	"	"	"	"	"	"	
o-Xylene	**0.0074**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**2.8**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*99.1 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*78.4-125*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS06@17'
R108168-06 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*103 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.013**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.1 %*	*78.4-125*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS07@17'
R108168-07 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*103 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*98.3 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.6 %*	*78.4-125*		"	"	"	"	

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LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS08@17'
R108168-08 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**1800**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*99.2 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.025**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	**0.024**	0.0050	"	"	"	"	"	"	
Toluene	**0.16**	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	**0.61**	0.010	"	"	"	"	"	"	
o-Xylene	**0.19**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**9.8**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*95.8 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.5 %*	*78.4-125*		"	"	"	"	

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS09@17'
R108168-09 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**4600**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*96.9 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**2.8**	0.050	mg/kg	10	1082505	"	08/26/11	EPA 8260B	
Benzene	**2.1**	0.050	"	"	"	"	"	"	
Toluene	**13**	0.50	"	100	"	"	"	"	
Ethylbenzene	**6.4**	0.050	"	10	"	"	"	"	
m,p-Xylene	**47**	1.0	"	100	"	"	"	"	
o-Xylene	**14**	0.50	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**3000**	50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*87.6 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*96.7 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*78.4-125*		"	"	"	"	

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS10@15'
R108168-10 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**75**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*103 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**0.74**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.6 %*	*78.4-125*		"	"	"	"	

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S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS11@20'
R108168-11 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*102 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.014**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**1.4**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.1 %*	*78.4-125*		"	"	"	"	

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LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS12@20'
R108168-12 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**65**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*102 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	**0.026**	0.010	"	"	"	"	"	"	
o-Xylene	**0.015**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**3.9**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*99.1 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.2 %*	*78.4-125*		"	"	"	"	

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS13@17'
R108168-13 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**940**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*112 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.15**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	**0.033**	0.0050	"	"	"	"	"	"	
Toluene	**0.074**	0.0050	"	"	"	"	"	"	
Ethylbenzene	**0.24**	0.0050	"	"	"	"	"	"	
m,p-Xylene	**1.4**	0.010	"	"	"	"	"	"	
o-Xylene	**0.47**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**52**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*98.9 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.5 %*	*78.4-125*		"	"	"	"	

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS14@17'
R108168-14 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**550**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*111 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.14**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	**0.0092**	0.0050	"	"	"	"	"	"	
Toluene	**0.012**	0.0050	"	"	"	"	"	"	
Ethylbenzene	**0.11**	0.0050	"	"	"	"	"	"	
m,p-Xylene	**0.82**	0.010	"	"	"	"	"	"	
o-Xylene	**0.18**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**37**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.6 %*	*78.4-125*		"	"	"	"	

S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

SS15@17'
R108168-15 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/25/11 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**100**	50	mg/kg	1	1082506	08/25/11	08/26/11	8015 Full Carbon Chain	

Date Sampled: **08/25/11 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*102 %*	*88.8-124*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/25/11 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.065**	0.0050	mg/kg	1	1082505	"	08/26/11	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	**0.017**	0.0050	"	"	"	"	"	"	
m,p-Xylene	**0.078**	0.010	"	"	"	"	"	"	
o-Xylene	**0.085**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**18**	0.50	"	"	"	"	"	"	

Date Sampled: **08/25/11 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*67.4-143*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*77.3-114*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*122 %*	*78.4-125*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1082506 - EPA 3550A										
Blank (1082506-BLK1)				Prepared & Analyzed: 08/25/11						
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	*12.9*		*"*	*12.5*		*103*	*88.8-124*			
LCS (1082506-BS1)				Prepared & Analyzed: 08/25/11						
C10-C28 (DRO)	476	50	mg/kg	501		95.0	81.4-129		9.26	
Matrix Spike (1082506-MS1)		**Source: R108165-01**		Prepared & Analyzed: 08/25/11						
C10-C28 (DRO)	479	50	mg/kg	501	24.6	90.6	77.8-133		8.48	
Matrix Spike Dup (1082506-MSD1)		**Source: R108165-01**		Prepared: 08/25/11 Analyzed: 08/26/11						
C10-C28 (DRO)	472	50	mg/kg	501	24.6	89.3	77.8-133	1.34	8.48	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1082505 - EPA 5030 Soil MS										
Blank (1082505-BLK1)				Prepared & Analyzed: 08/25/11						
Naphthalene	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
m,p-Xylene	ND	0.010	"							
o-Xylene	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0390*		*"*	*0.0400*		*97.6*	*67.4-143*			
Surrogate: Toluene-d8	*0.0394*		*"*	*0.0400*		*98.6*	*77.3-114*			
Surrogate: 4-Bromofluorobenzene	*0.0373*		*"*	*0.0400*		*93.2*	*78.4-125*			
LCS (1082505-BS1)				Prepared & Analyzed: 08/25/11						
Naphthalene	ND	0.0050	mg/kg				67.8-151		20	
Benzene	0.106	0.0050	"	0.100		106	61-139		11.1	
Toluene	0.0988	0.0050	"	0.100		98.8	64-132		10.9	
Ethylbenzene	0.104	0.0050	"	0.100		104	68.7-135		20	
m,p-Xylene	0.218	0.010	"	0.200		109	70.4-129		20	
o-Xylene	0.107	0.0050	"	0.100		107	66.9-126		20	
Surrogate: 1,2-Dichloroethane-d4	*0.0382*		*"*	*0.0400*		*95.4*	*67.4-143*			
Surrogate: Toluene-d8	*0.0396*		*"*	*0.0400*		*99.1*	*77.3-114*			
Surrogate: 4-Bromofluorobenzene	*0.0374*		*"*	*0.0400*		*93.4*	*78.4-125*			
LCS Dup (1082505-BSD1)				Prepared & Analyzed: 08/25/11						
Naphthalene	ND	0.0050	mg/kg				67.8-151		20	
Benzene	0.108	0.0050	"	0.100		108	61-139	1.91	11.1	
Toluene	0.0989	0.0050	"	0.100		98.9	64-132	0.0911	10.9	
Ethylbenzene	0.103	0.0050	"	0.100		103	68.7-135	0.784	20	
m,p-Xylene	0.216	0.010	"	0.200		108	70.4-129	0.691	20	
o-Xylene	0.105	0.0050	"	0.100		105	66.9-126	1.39	20	
Surrogate: 1,2-Dichloroethane-d4	*0.0400*		*"*	*0.0400*		*100*	*67.4-143*			
Surrogate: Toluene-d8	*0.0400*		*"*	*0.0400*		*100*	*77.3-114*			
Surrogate: 4-Bromofluorobenzene	*0.0369*		*"*	*0.0400*		*92.2*	*78.4-125*			

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S2

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: PDC - Little Thompson 1 Project Number: 0188-11058.005 Project Manager: Brian Dodek	**Reported:** 08/26/11 18:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1082505 - EPA 5030 Soil MS										
Matrix Spike (1082505-MS1)		**Source: R108165-01**		Prepared & Analyzed: 08/25/11						
Naphthalene	ND	0.0050	mg/kg		0.00		26.4-144		20	
Benzene	0.109	0.0050	"	0.100	0.00	109	42.9-137		17.9	
Toluene	0.101	0.0050	"	0.100	0.00	101	42.6-130		11.9	
Ethylbenzene	0.104	0.0050	"	0.100	0.00	104	39-133		20	
m,p-Xylene	0.220	0.010	"	0.200	0.00	110	34.7-134		20	
o-Xylene	0.108	0.0050	"	0.100	0.00	108	41.3-126		20	
Surrogate: 1,2-Dichloroethane-d4	*0.0429*		*"*	*0.0400*		*107*	*67.4-143*			
Surrogate: Toluene-d8	*0.0403*		*"*	*0.0400*		*101*	*77.3-114*			
Surrogate: 4-Bromofluorobenzene	*0.0377*		*"*	*0.0400*		*94.2*	*78.4-125*			
Matrix Spike Dup (1082505-MSD1)		**Source: R108165-01**		Prepared & Analyzed: 08/25/11						
Naphthalene	ND	0.0050	mg/kg		0.00		26.4-144		20	
Benzene	0.108	0.0050	"	0.100	0.00	108	42.9-137	1.08	17.9	
Toluene	0.0993	0.0050	"	0.100	0.00	99.3	42.6-130	2.06	11.9	
Ethylbenzene	0.103	0.0050	"	0.100	0.00	103	39-133	1.54	20	
m,p-Xylene	0.218	0.010	"	0.200	0.00	109	34.7-134	0.548	20	
o-Xylene	0.107	0.0050	"	0.100	0.00	107	41.3-126	1.03	20	
Surrogate: 1,2-Dichloroethane-d4	*0.0420*		*"*	*0.0400*		*105*	*67.4-143*			
Surrogate: Toluene-d8	*0.0396*		*"*	*0.0400*		*99.1*	*77.3-114*			
Surrogate: 4-Bromofluorobenzene	*0.0373*		*"*	*0.0400*		*93.2*	*78.4-125*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 15, 2012

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Little Thompson 1

Enclosed are the results of analyses for samples received by Summit Scientific on 07/10/12 15:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IP01	R207107-01	Soil	07/10/12 08:10	07/10/12 15:50
IP02	R207107-02	Soil	07/10/12 08:30	07/10/12 15:50
IP03	R207107-03	Soil	07/10/12 08:55	07/10/12 15:50
IP04	R207107-04	Soil	07/10/12 09:30	07/10/12 15:50

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

R207107

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S2

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303-277-9310 • 303-274-5933 Fax

Page 1 of 1

Client: PDC
Address: 1775 Sherman St #3000
City/State/Zip: Denver Co 80203
Phone: 303-860-5900 Fax: 303-860-5938
Sampler Name: Brian Humphrey
Project Manager: Brandon Bruns
E-Mail: bbruns@petx.com
Project Name: Little Thompson 1
Project Number:

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Soil	Matrix: Air - Canister Serial #	Matrix: Other (Specify)	Analyze For: 8260 BTEX + Aromatics	Analyze For: 8015 DRO	Special Instructions
TP01	7/10/12	0810	1			X			X			X	X	Please cc. bbruns@petx.com
TP02		0830												Estimate - 900.00
TP03		0835												
TP04		0930	4			4			4			4	4	

Relinquished by: Date/Time: 7/10/12 1550 Received by: Date/Time: 7/10/12 1550
Relinquished by: Date/Time: Received by: Date/Time:
Relinquished by: Date/Time: Received in Lab by: Date/Time:

Turn Around Time (Check): Same Day ☐ 24 Hours ☐ 48 Hours ☒ 72 Hours ☐ Standard ☐

Sample Integrity: Temperature Upon Receipt: 5.0 Intact: Yes

Notes:

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

IP01
R207107-01 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/12 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2071012	07/10/12	07/11/12	8015 DRO	

Date Sampled: **07/10/12 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*97.0 %*	*30-150*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/12 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	2071011	07/10/12	07/11/12	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/10/12 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*30-150*		"	"	"	"	
Surrogate: Toluene-d8		*98.4 %*	*30-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*	*30-150*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

IP02
R207107-02 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/12 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2071012	07/10/12	07/11/12	8015 DRO	

Date Sampled: **07/10/12 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*97.5 %*	*30-150*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/12 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.0050	mg/kg	1	2071011	07/10/12	07/11/12	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/10/12 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*30-150*		"	"	"	"	
Surrogate: Toluene-d8		*98.5 %*	*30-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*30-150*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

IP03
R207107-03 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/12 08:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2071012	07/10/12	07/11/12	8015 DRO	

Date Sampled: **07/10/12 08:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*93.3 %*	*30-150*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/12 08:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.0057**	0.0050	mg/kg	1	2071011	07/10/12	07/11/12	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/10/12 08:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*30-150*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*30-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.6 %*	*30-150*		"	"	"	"	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

IP04
R207107-04 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/12 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**650**	50	mg/kg	1	2071012	07/10/12	07/13/12	8015 DRO	

Date Sampled: **07/10/12 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*74.7 %*	*30-150*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/12 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.048**	0.0050	mg/kg	1	2071011	07/10/12	07/12/12	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	**0.022**	0.0050	"	"	"	"	"	"	
m,p-Xylene	**0.25**	0.010	"	"	"	"	"	"	
o-Xylene	**0.061**	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**13**	0.50	"	"	"	"	"	"	

Date Sampled: **07/10/12 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*90.8 %*	*30-150*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*30-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*30-150*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

Total Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2071012 - EPA 3550A										
Blank (2071012-BLK1)				Prepared: 07/10/12	Analyzed: 07/11/12					
C10-C28 (DRO)	ND	50	mg/kg							
LCS (2071012-BS1)				Prepared: 07/10/12	Analyzed: 07/11/12					
C10-C28 (DRO)	556	50	mg/kg	501		111	79.3-126			
LCS Dup (2071012-BSD1)				Prepared: 07/10/12	Analyzed: 07/11/12					
C10-C28 (DRO)	533	50	mg/kg	501		106	79.3-126	4.17	11	
Matrix Spike (2071012-MS1)		**Source: R207108-01**		Prepared: 07/10/12	Analyzed: 07/11/12					
C10-C28 (DRO)	600	50	mg/kg	501	ND	120	45.1-150			
Matrix Spike Dup (2071012-MSD1)		**Source: R207108-01**		Prepared: 07/10/12	Analyzed: 07/11/12					
C10-C28 (DRO)	577	50	mg/kg	501	ND	115	45.1-150	3.78	25	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2071011 - EPA 5030 Soil MS										
Blank (2071011-BLK1)				Prepared & Analyzed: 07/10/12						
Naphthalene	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
m,p-Xylene	ND	0.010	"							
o-Xylene	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0425*		*"*	*0.0397*		*107*	*30-150*			
Surrogate: Toluene-d8	*0.0363*		*"*	*0.0400*		*90.8*	*30-150*			
Surrogate: 4-Bromofluorobenzene	*0.0418*		*"*	*0.0400*		*105*	*30-150*			
LCS (2071011-BS1)				Prepared: 07/10/12 Analyzed: 07/11/12						
Naphthalene	ND	0.0050	mg/kg				85.7-124			
Benzene	0.100	0.0050	"	0.100		100	58.1-115			
Toluene	0.0999	0.0050	"	0.100		99.9	56.7-123			
Ethylbenzene	0.108	0.0050	"	0.100		108	61.4-138			
m,p-Xylene	0.210	0.010	"	0.200		105	63.6-128			
o-Xylene	0.107	0.0050	"	0.100		107	62.6-134			
Surrogate: 1,2-Dichloroethane-d4	*0.0403*		*"*	*0.0397*		*101*	*30-150*			
Surrogate: Toluene-d8	*0.0364*		*"*	*0.0400*		*91.1*	*30-150*			
Surrogate: 4-Bromofluorobenzene	*0.0402*		*"*	*0.0400*		*100*	*30-150*			
LCS Dup (2071011-BSD1)				Prepared: 07/10/12 Analyzed: 07/11/12						
Naphthalene	ND	0.0050	mg/kg				85.7-124		12.6	
Benzene	0.101	0.0050	"	0.100		101	58.1-115	0.477	20	
Toluene	0.102	0.0050	"	0.100		102	56.7-123	1.85	20	
Ethylbenzene	0.107	0.0050	"	0.100		107	61.4-138	0.893	12.2	
m,p-Xylene	0.210	0.010	"	0.200		105	63.6-128	0.143	13.2	
o-Xylene	0.107	0.0050	"	0.100		107	62.6-134	0.196	12.2	
Surrogate: 1,2-Dichloroethane-d4	*0.0414*		*"*	*0.0397*		*104*	*30-150*			
Surrogate: Toluene-d8	*0.0370*		*"*	*0.0400*		*92.5*	*30-150*			
Surrogate: 4-Bromofluorobenzene	*0.0410*		*"*	*0.0400*		*102*	*30-150*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2071011 - EPA 5030 Soil MS										
Matrix Spike (2071011-MS1)		**Source: R207108-01**		Prepared: 07/10/12		Analyzed: 07/11/12				
Naphthalene	ND	0.0050	mg/kg		0.00		34-148			
Benzene	0.0824	0.0050	"	0.100	0.00	82.4	47.2-120			
Toluene	0.0818	0.0050	"	0.100	0.00	81.8	47.7-125			
Ethylbenzene	0.0873	0.0050	"	0.100	0.00	87.3	34.5-150			
m,p-Xylene	0.169	0.010	"	0.200	0.00	84.4	30-150			
o-Xylene	0.0869	0.0050	"	0.100	0.00	86.9	30-150			
Surrogate: 1,2-Dichloroethane-d4	*0.0454*		*"*	*0.0397*		*114*	*30-150*			
Surrogate: Toluene-d8	*0.0367*		*"*	*0.0400*		*91.8*	*30-150*			
Surrogate: 4-Bromofluorobenzene	*0.0410*		*"*	*0.0400*		*102*	*30-150*			
Matrix Spike Dup (2071011-MSD1)		**Source: R207108-01**		Prepared: 07/10/12		Analyzed: 07/11/12				
Naphthalene	ND	0.0050	mg/kg		0.00		34-148		23.9	
Benzene	0.0798	0.0050	"	0.100	0.00	79.8	47.2-120	3.22	15.1	
Toluene	0.0781	0.0050	"	0.100	0.00	78.1	47.7-125	4.54	16.8	
Ethylbenzene	0.0809	0.0050	"	0.100	0.00	80.9	34.5-150	7.63	10.1	
m,p-Xylene	0.154	0.010	"	0.200	0.00	77.0	30-150	9.18	17.2	
o-Xylene	0.0798	0.0050	"	0.100	0.00	79.8	30-150	8.50	15.2	
Surrogate: 1,2-Dichloroethane-d4	*0.0471*		*"*	*0.0397*		*119*	*30-150*			
Surrogate: Toluene-d8	*0.0374*		*"*	*0.0400*		*93.5*	*30-150*			
Surrogate: 4-Bromofluorobenzene	*0.0406*		*"*	*0.0400*		*102*	*30-150*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 07/15/12 16:26

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientifc

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

January 10, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203

RE: Little Thompson 1

Enclosed are the results of analyses for samples received by Summit Scientifc on 01/09/13 11:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Joseph J Egry IV For Ben Shrewsbury
President / Laboratory Manager

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientifc. Test results relate only to samples analyzed.

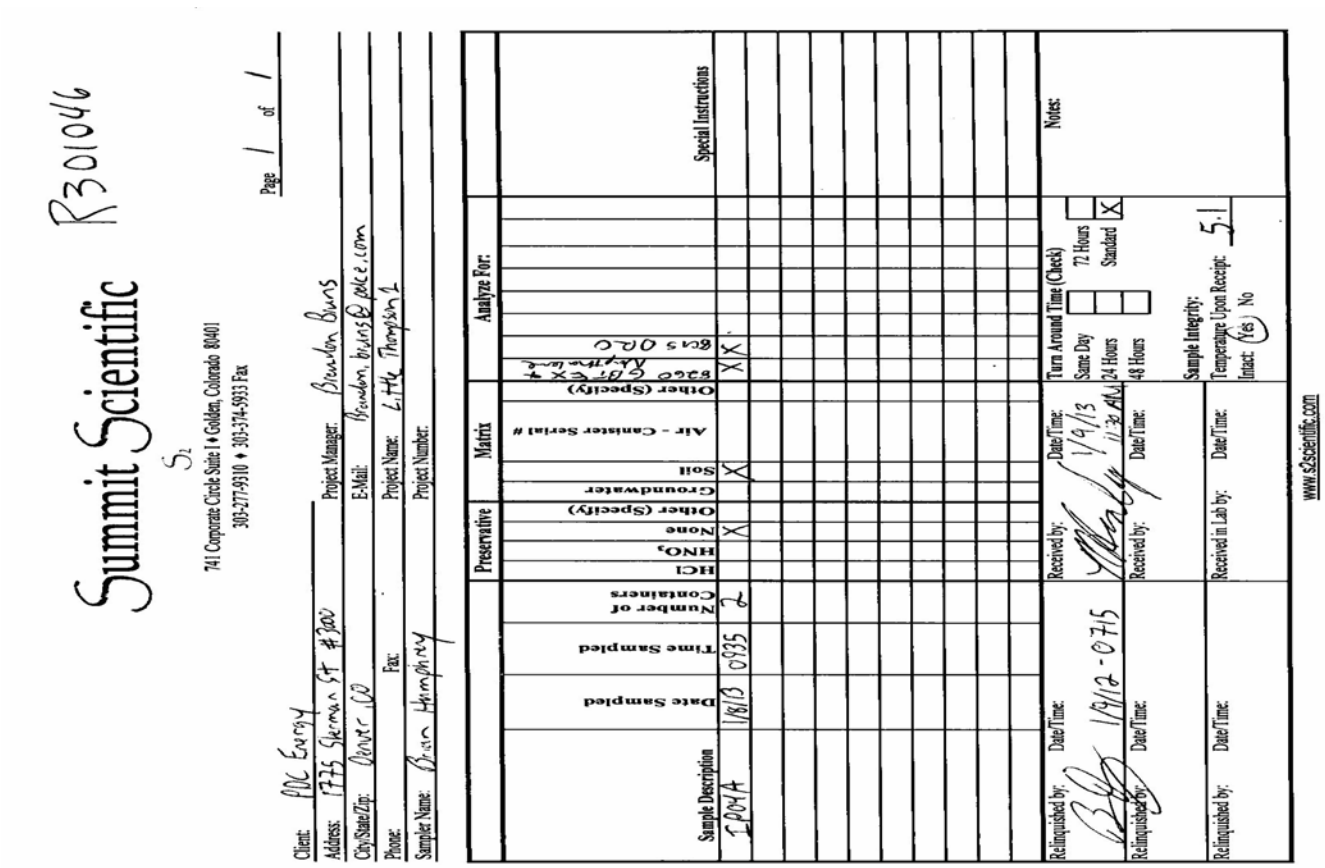
Summit Scientifc is the sole authority for authorizing edits or modifcations to this document. Unauthorized modifcation of this report is strictly prohibited.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 01/10/13 08:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IP04A	R301046-01	Soil	01/08/13 09:35	01/09/13 11:30



PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 01/10/13 08:37

IP04A

R301046-01 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **01/08/13 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3010911	01/09/13	01/09/13	8015 DRO	

Date Sampled: **01/08/13 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*96.1 %*	*30-150*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/08/13 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	**0.0092**	0.0050	mg/kg	1	3010910	01/09/13	01/09/13	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**2.7**	0.50	"	"	"	"	"	"	

Date Sampled: **01/08/13 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.6 %*	*21-167*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 01/10/13 08:37

Total Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3010911 - EPA 3550A										
Blank (3010911-BLK1)				Prepared & Analyzed: 01/09/13						
C10-C28 (DRO)	ND	50	mg/kg							
LCS (3010911-BS1)				Prepared & Analyzed: 01/09/13						
C10-C28 (DRO)	423	50	mg/kg	501		84.4	73-134			
LCS Dup (3010911-BSD1)				Prepared & Analyzed: 01/09/13						
C10-C28 (DRO)	443	50	mg/kg	501		88.4	73-134	4.63	11	
Matrix Spike (3010911-MS1)		**Source: R301046-01**		Prepared & Analyzed: 01/09/13						
C10-C28 (DRO)	435	50	mg/kg	487	44.4	80.2	50-148			
Matrix Spike Dup (3010911-MSD1)		**Source: R301046-01**		Prepared & Analyzed: 01/09/13						
C10-C28 (DRO)	446	50	mg/kg	492	44.4	81.7	50-148	2.54	13	

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PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 01/10/13 08:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3010910 - EPA 5030 Soil MS										
Blank (3010910-BLK1)				Prepared & Analyzed: 01/09/13						
Naphthalene	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0391*		*"*	*0.0397*		*98.4*	*23-173*			
Surrogate: Toluene-d8	*0.0400*		*"*	*0.0400*		*100*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0376*		*"*	*0.0400*		*94.0*	*21-167*			
LCS (3010910-BS1)				Prepared & Analyzed: 01/09/13						
Naphthalene	ND	0.0050	mg/kg				66-138			
Benzene	0.102	0.0050	"	0.100		102	58-130			
Toluene	0.110	0.0050	"	0.100		110	61-134			
Ethylbenzene	0.118	0.0050	"	0.100		118	74-139			
m,p-Xylene	0.234	0.010	"	0.200		117	73-137			
o-Xylene	0.115	0.0050	"	0.100		115	73-141			
Surrogate: 1,2-Dichloroethane-d4	*0.0394*		*"*	*0.0397*		*99.2*	*23-173*			
Surrogate: Toluene-d8	*0.0400*		*"*	*0.0400*		*100*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0410*		*"*	*0.0400*		*103*	*21-167*			
LCS Dup (3010910-BSD1)				Prepared & Analyzed: 01/09/13						
Naphthalene	ND	0.0050	mg/kg				66-138		12	
Benzene	0.109	0.0050	"	0.100		109	58-130	6.63	13	
Toluene	0.117	0.0050	"	0.100		117	61-134	5.85	16	
Ethylbenzene	0.125	0.0050	"	0.100		125	74-139	6.17	12	
m,p-Xylene	0.247	0.010	"	0.200		124	73-137	5.43	14	
o-Xylene	0.122	0.0050	"	0.100		122	73-141	5.78	12	
Surrogate: 1,2-Dichloroethane-d4	*0.0391*		*"*	*0.0397*		*98.5*	*23-173*			
Surrogate: Toluene-d8	*0.0406*		*"*	*0.0400*		*101*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0395*		*"*	*0.0400*		*98.8*	*21-167*			

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PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Little Thompson 1 Project Number: [none] Project Manager: Brandon Bruns	**Reported:** 01/10/13 08:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3010910 - EPA 5030 Soil MS										
Matrix Spike (3010910-MS1)		**Source: R301046-01**		Prepared & Analyzed: 01/09/13						
Naphthalene	0.00801	0.0050	mg/kg		0.00923		10-158			
Benzene	0.0871	0.0050	"	0.0940	0.00	92.7	30-131			
Toluene	0.0912	0.0050	"	0.0940	0.00	97.0	30-134			
Ethylbenzene	0.0936	0.0050	"	0.0940	0.00	99.6	22-153			
m,p-Xylene	0.188	0.010	"	0.188	0.00867	95.5	10-159			
o-Xylene	0.0908	0.0050	"	0.0940	0.00	96.6	31-151			
Surrogate: 1,2-Dichloroethane-d4	*0.0400*		*"*	*0.0373*		*107*	*23-173*			
Surrogate: Toluene-d8	*0.0379*		*"*	*0.0376*		*101*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0365*		*"*	*0.0376*		*97.1*	*21-167*			
Matrix Spike Dup (3010910-MSD1)		**Source: R301046-01**		Prepared & Analyzed: 01/09/13						
Naphthalene	0.00800	0.0050	mg/kg		0.00923		10-158	0.0460	42	
Benzene	0.0887	0.0050	"	0.0960	0.00	92.4	30-131	1.80	34	
Toluene	0.0929	0.0050	"	0.0960	0.00	96.8	30-134	1.81	30	
Ethylbenzene	0.0944	0.0050	"	0.0960	0.00	98.4	22-153	0.877	24	
m,p-Xylene	0.191	0.010	"	0.192	0.00867	95.0	10-159	1.49	68	
o-Xylene	0.0916	0.0050	"	0.0960	0.00	95.5	31-151	0.871	38	
Surrogate: 1,2-Dichloroethane-d4	*0.0417*		*"*	*0.0381*		*109*	*23-173*			
Surrogate: Toluene-d8	*0.0391*		*"*	*0.0384*		*102*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0389*		*"*	*0.0384*		*101*	*21-167*			

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Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference