

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 28, 2009

John Cocroft  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: KMG - Dolph 15-1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/10/09 16:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long, sweeping horizontal line extending to the right.

Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Director





LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: KMG - Dolph 15-1

Project Number: KMG 09477.47  
Project Manager: John Cocroft

**Reported:**  
12/28/09 08:40

**RPBG02**  
**R912062-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	9121503	12/15/09	12/16/09	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		99.8 %	77.7-123		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9121502	12/15/09	12/16/09	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		91.9 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		96.1 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	85.3-109		"	"	"	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**RPBG02**  
**R912062-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Specific Conductance (EC)	0.753	0.00100 mmhos/cm	1	9121504	12/15/09	12/15/09	SM 2510b/mod
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Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.1		pH Units	"	9121505	12/15/09	12/15/09	EPA 9045B	

**Evergreen Analytical Laboratories**

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.4	0.16	mg/kg	1	9122801	12/14/09	12/28/09	EPA 6020	

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	53	0.39	"	"	"	"	"	EPA 6010A	

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	140	1.90	mg/L	"	"	12/16/09	"	USDA60 6 (20b)	

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	34.0	0.750	"	"	"	"	"	"	

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.70	0.100	units	"	"	"	"	Calculation	

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**RPBG02**  
**R912062-01 (Soil)**

**Summit Scientific**

**Evergreen Analytical Laboratories**

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium</b>	<b>340</b>	2.00	mg/L	1	9122801	12/16/09	12/28/09	USDA60 6 (20b)	

**Evergreen Analytical - Hot Water Soluble Boron, Soil Basis**

Date Sampled: 12/10/09 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.14</b>	0.050	mg/L	1	9122801	12/18/09	12/28/09	GUPTA	

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12/28/09 08:40

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

**Batch 9121503 - EPA 3550A**

<b>Blank (9121503-BLK1)</b>				Prepared: 12/15/09 Analyzed: 12/16/09							
C10-C28 (TEPH-DRO)	ND	50	mg/kg								
C28-C36 (TEPH-ORO)	ND	50	"								
<i>Surrogate: o-Terphenyl</i>	<i>13.4</i>		<i>"</i>	<i>12.5</i>		<i>107</i>	<i>77.7-123</i>				
<b>LCS (9121503-BS1)</b>				Prepared: 12/15/09 Analyzed: 12/16/09							
C10-C28 (TEPH-DRO)	541	50	mg/kg	500		108	83.3-127			15	
<b>LCS Dup (9121503-BSD1)</b>				Prepared: 12/15/09 Analyzed: 12/16/09							
C10-C28 (TEPH-DRO)	535	50	mg/kg	500		107	83.3-127	1.19		15	
<b>Matrix Spike (9121503-MS1)</b>				<b>Source: R912062-01</b>		Prepared: 12/15/09 Analyzed: 12/16/09					
C10-C28 (TEPH-DRO)	534	50	mg/kg	500	ND	107	75.8-126			13.6	
<b>Matrix Spike Dup (9121503-MSD1)</b>				<b>Source: R912062-01</b>		Prepared: 12/15/09 Analyzed: 12/16/09					
C10-C28 (TEPH-DRO)	502	50	mg/kg	500	ND	100	75.8-126	6.24		13.6	

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Project Number: KMG 09477.47  
Project Manager: John Cocroft

**Reported:**  
12/28/09 08:40

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 9121502 - EPA 5030 Soil MS**

**Blank (9121502-BLK1)**

Prepared & Analyzed: 12/15/09

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0362</i>		<i>"</i>	<i>0.0400</i>		<i>90.4</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.7</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.8</i>	<i>85.3-109</i>			

**LCS (9121502-BS1)**

Prepared & Analyzed: 12/15/09

Benzene	0.100	0.0050	mg/kg	0.100		100	70-114		8.14	
Toluene	0.0987	0.0050	"	0.100		98.7	72.7-116		7.88	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0376</i>		<i>"</i>	<i>0.0400</i>		<i>94.0</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.7</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>96.9</i>	<i>85.3-109</i>			

**LCS Dup (9121502-BSD1)**

Prepared & Analyzed: 12/15/09

Benzene	0.103	0.0050	mg/kg	0.100		103	70-114	2.37	8.14	
Toluene	0.100	0.0050	"	0.100		100	72.7-116	1.78	7.88	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>96.9</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>97.9</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>85.3-109</i>			

**Matrix Spike (9121502-MS1)**

Source: R912062-01

Prepared & Analyzed: 12/15/09

Benzene	0.0995	0.0050	mg/kg	0.100	ND	99.5	66.8-117		17.8	
Toluene	0.0986	0.0050	"	0.100	ND	98.6	71.5-117		14.4	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.1</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>97.9</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>85.3-109</i>			

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12/28/09 08:40

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 9121502 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (9121502-MSD1)</b>	<b>Source: R912062-01</b>			<b>Prepared &amp; Analyzed: 12/15/09</b>						
Benzene	0.102	0.0050	mg/kg	0.100	ND	102	66.8-117	2.56	17.8	
Toluene	0.103	0.0050	"	0.100	ND	103	71.5-117	4.03	14.4	
Surrogate: 1,2-Dichloroethane-d4	0.0413		"	0.0400		103	77.3-121			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	85.3-109			

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**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 9121504 - General Preparation**

Duplicate (9121504-DUP1)	Source: R912062-01			Prepared & Analyzed: 12/15/09							
Specific Conductance (EC)	0.658	0.00100	mmhos/cm		0.753				13.4	20	

**Batch 9121505 - General Preparation**

Duplicate (9121505-DUP1)	Source: R912062-01			Prepared & Analyzed: 12/15/09							
pH	7.9		pH Units		8.1				2.13	20	

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Project: KMG - Dolph 15-1

Project Number: KMG 09477.47  
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**Reported:**  
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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

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