

4/27/2010

Noble Energy Inc.
Marty Faraguna
804 Grand Avenue
Platteville CO 80651

Project Name- Cindy 23-28 South

Project Number- [none]

Attached are your analytical results for Cindy 23-28 South received by Origins Laboratory, Inc. April 22, 2010 10:30 am. This project is associated with Origins project number X004165-01 .

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Marty Faraguna
Project Number: [none]
Project: Cindy 23-28 South

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
E	X004165-01	Soil	4/21/2010 11:00:00AM	04/22/2010 10:30
W	X004165-02	Soil	4/21/2010 11:00:00AM	04/22/2010 10:30
N	X004165-03	Soil	4/21/2010 11:00:00AM	04/22/2010 10:30
S	X004165-04	Soil	4/21/2010 11:00:00AM	04/22/2010 10:30
B1	X004165-05	Soil	4/21/2010 11:00:00AM	04/22/2010 10:30

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy Inc.
 804 Grand Avenue
 Platteville CO 80651

Marty Faraguna
 Project Number: [none]
 Project: Cindy 23-28 South

E

4/21/2010 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X004165-01 (Soil)

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	OD26004	04/26/2010	04/27/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	105 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	95.7 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	74.7-123			"	"	"	

TPH-Carbon Chain by EPA Method 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OD26005	04/26/2010	04/26/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	88.2 %	65-140			"	"	"	
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Noble Energy Inc.
 804 Grand Avenue
 Platteville CO 80651

Marty Faraguna
 Project Number: [none]
 Project: Cindy 23-28 South

W

4/21/2010 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X004165-02 (Soil)

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	OD26004	04/26/2010	04/27/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	91.9 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.3 %	74.7-123			"	"	"	

TPH-Carbon Chain by EPA Method 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OD26005	04/26/2010	04/26/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	87.6 %	65-140			"	"	"	
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Marty Faraguna
 Project Number: [none]
 Project: Cindy 23-28 South

N
4/21/2010 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X004165-03 (Soil)

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	OD26004	04/26/2010	04/27/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	110 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	89.8 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.4 %	74.7-123			"	"	"	

TPH-Carbon Chain by EPA Method 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OD26005	04/26/2010	04/26/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	88.0 %	65-140			"	"	"	
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Noble Energy Inc.
 804 Grand Avenue
 Platteville CO 80651

Marty Faraguna
 Project Number: [none]
 Project: Cindy 23-28 South

S

4/21/2010 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X004165-04 (Soil)

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	OD26004	04/26/2010	04/27/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	113 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	87.0 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	90.2 %	74.7-123			"	"	"	

TPH-Carbon Chain by EPA Method 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OD26005	04/26/2010	04/26/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	88.1 %	65-140			"	"	"	
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Noble Energy Inc.
 804 Grand Avenue
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Marty Faraguna
 Project Number: [none]
 Project: Cindy 23-28 South

B1

4/21/2010 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X004165-05 (Soil)

BTEX by EPA 8260B

Benzene	ND	0.0100	mg/kg	2.5	OD26004	04/26/2010	04/27/2010	
Toluene	ND	0.0100	"	"	"	"	"	
Ethylbenzene	ND	0.0100	"	"	"	"	"	
o-Xylene	ND	0.0100	"	"	"	"	"	
m,p-Xylene	ND	0.0200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	100 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	90.3 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.6 %	74.7-123			"	"	"	

TPH-Carbon Chain by EPA Method 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OD26005	04/26/2010	04/26/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	87.5 %	65-140			"	"	"	
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**Extractable Petroleum Hydrocarbons by 8015M - Quality Control
 Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch OD26005 - Default Prep GC-Semi										
Blank (OD26005-BLK1)					Prepared: 04/26/2010 Analyzed: 04/26/2010					
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
Residual Range Organics (C28-C36)	ND	200	"							
TPH - Carbon Chain Total	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	<i>43.7</i>		<i>g</i>	<i>50.0</i>		<i>87.5</i>	<i>65-140</i>			
LCS (OD26005-BS1)					Prepared: 04/26/2010 Analyzed: 04/26/2010					
Gasoline (C6-C10)	107	50.0	mg/kg				65-140			
Diesel (C10-C28)	407	50.0	"	500		81.4	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>46.3</i>		<i>g</i>	<i>50.0</i>		<i>92.7</i>	<i>65-140</i>			
LCS Dup (OD26005-BS1)					Prepared: 04/26/2010 Analyzed: 04/26/2010					
Gasoline (C6-C10)	123	50.0	mg/kg				65-140	14.2	25	
Diesel (C10-C28)	410	50.0	"	500		82.1	60-140	0.820	25	
<i>Surrogate: o-Terphenyl</i>	<i>46.3</i>		<i>g</i>	<i>50.0</i>		<i>92.6</i>	<i>65-140</i>			

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**Volatile Organic Compounds by EPA Method 8260B - Quality Control
 Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch OD26004 - EPA 5030B

Blank (OD26004-BLK1)

Prepared: 04/26/2010 Analyzed: 04/27/2010

Benzene	ND	0.004	mg/kg							
Toluene	ND	0.004	"							
Ethylbenzene	ND	0.004	"							
o-Xylene	ND	0.004	"							
m,p-Xylene	ND	0.008	"							

<i>Surrogate: 1,2-Dichloroethane-d4</i>	69.1		ug/L	62.5		111	77.6-134			
<i>Surrogate: Toluene-d8</i>	55.7		"	62.5		89.1	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	59.1		"	62.5		94.6	74.7-123			

LCS (OD26004-BS1)

Prepared: 04/26/2010 Analyzed: 04/27/2010

Benzene	0.21	0.004	mg/kg	0.200		103	75.2-128			
Toluene	0.18	0.004	"	0.200		91.7	76.3-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	71.1		ug/L	62.5		114	77.6-134			
<i>Surrogate: Toluene-d8</i>	57.1		"	62.5		91.4	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	58.8		"	62.5		94.0	74.7-123			

LCS Dup (OD26004-BSD1)

Prepared: 04/26/2010 Analyzed: 04/27/2010

Benzene	0.20	0.004	mg/kg	0.200		99.9	75.2-128	3.50	200	
Toluene	0.18	0.004	"	0.200		91.0	76.3-130	0.788	200	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	70.0		ug/L	62.5		112	77.6-134			
<i>Surrogate: Toluene-d8</i>	56.4		"	62.5		90.3	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	58.1		"	62.5		92.9	74.7-123			

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Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Marty Faraguna
Project Number: [none]
Project: Cindy 23-28 South

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference

Origins Laboratory, Inc.



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