



Petroglyph Operating Company, Inc.

Proj 1594



02144375

RECEIVED  
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LaVeta, CO 81055

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COGCC

State of Colorado  
Oil and Gas Conservation Commission  
1120 Lincoln Street, Suite 801  
Denver, CO 80203

July 5, 2002

Attention: Mr. Loren Avis  
Fax: 303-894-2109

Subject: Water analysis of monitor wells  
Rohr 09-10 MW. Lively 35-09 MW, State 36-05 MW

Dear Mr. Avis:

Enclosed are the annual analyses of water from the subject monitor wells.

Best regards,

Tom Melland  
Raton Basin District Mgr.

CC: Boise and LaVeta files

PETROGLYPH

Client Sample ID: 09-10 MW

TOTAL Metals

Lot-Sample #...: D2F050318-001

Matrix.....: WATER

Date Sampled...: 06/04/02 15:40 Date Received...: 06/05/02

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2161485						
Calcium	405	0.10	mg/L	SW846 6010B	06/12/02	E2HXM1AK
		Dilution Factor: 1		Analysis Time...: 16:42		
Iron	0.75	0.10	mg/L	SW846 6010B	06/12/02	E2HXM1AL
		Dilution Factor: 1		Analysis Time...: 16:42		
Potassium	ND	3.0	mg/L	SW846 6010B	06/12/02	E2HXM1AM
		Dilution Factor: 1		Analysis Time...: 16:42		
Magnesium	43.0	0.10	mg/L	SW846 6010B	06/12/02	E2HXM1AN
		Dilution Factor: 1		Analysis Time...: 16:42		
Manganese	1.2	0.010	mg/L	SW846 6010B	06/12/02	E2HXM1AP
		Dilution Factor: 1		Analysis Time...: 16:42		
Sodium	120	2.0	mg/L	SW846 6010B	06/12/02	E2HXM1AQ
		Dilution Factor: 1		Analysis Time...: 16:42		

PETROGLYPH

Client Sample ID: 09-10 MW

General Chemistry

Lot-Sample #...: D2F050318-001    Work Order #...: E2HXM    Matrix.....: WATER  
Date Sampled...: 06/04/02 15:40    Date Received...: 06/05/02

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.3	0.10	No Units	MCAWW 150.1	06/07/02	2158442
		Dilution Factor: 1		Analysis Time...: 12:00		
Bicarbonate Alkalinity	291	5.0	mg/L	MCAWW 310.1	06/07/02	2161209
		Dilution Factor: 1		Analysis Time...: 15:00		
Bromide	1.3	0.20	mg/L	MCAWW 300.0A	06/11-06/12/02	2163246
		Dilution Factor: 1		Analysis Time...: 01:47		
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1	06/07/02	2161212
		Dilution Factor: 1		Analysis Time...: 15:00		
Chloride	105	2.5	mg/L	MCAWW 325.2	06/07/02	2158394
		Dilution Factor: 1		Analysis Time...: 12:00		
Nitrate-Nitrite	ND	0.10	mg/L	MCAWW 353.2	06/12/02	2165432
		Dilution Factor: 1		Analysis Time...: 17:00		
Specific Conductance 2220		2.0	umhos/cm	MCAWW 120.1	06/06/02	2157501
		Dilution Factor: 1		Analysis Time...: 14:00		
Sulfate	1210 Q	250	mg/L	MCAWW 375.4	06/14/02	2165542
		Dilution Factor: 50		Analysis Time...: 10:00		
Total Alkalinity	291	5.0	mg/L	MCAWW 310.1	06/07/02	2161208
		Dilution Factor: 1		Analysis Time...: 15:00		
Total Dissolved Solids	1930	10.0	mg/L	MCAWW 160.1	06/10/02	2162266
		Dilution Factor: 1		Analysis Time...: 16:00		

NOTE(S) :

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

PETROGLYPH

Client Sample ID: 35-09 MW

TOTAL Metals

Lot-Sample #...: D2F050318-002

Matrix.....: WATER

Date Sampled...: 06/04/02 16:55 Date Received...: 06/05/02

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2161485						
Calcium	76.3	0.10	mg/L	SW846 6010B	06/12/02	E2HXXW1AK
		Dilution Factor: 1		Analysis Time...: 16:45		
Iron	0.98	0.10	mg/L	SW846 6010B	06/12/02	E2HXXW1AL
		Dilution Factor: 1		Analysis Time...: 16:45		
Potassium	ND	3.0	mg/L	SW846 6010B	06/12/02	E2HXXW1AM
		Dilution Factor: 1		Analysis Time...: 16:45		
Magnesium	5.8	0.10	mg/L	SW846 6010B	06/12/02	E2HXXW1AN
		Dilution Factor: 1		Analysis Time...: 16:45		
Manganese	0.19	0.010	mg/L	SW846 6010B	06/12/02	E2HXXW1AP
		Dilution Factor: 1		Analysis Time...: 16:45		
Sodium	174	2.0	mg/L	SW846 6010B	06/12/02	E2HXXW1AQ
		Dilution Factor: 1		Analysis Time...: 16:45		

PETROGLYPH

Client Sample ID: 35-09 MW

General Chemistry

Lot-Sample #...: D2F050318-002

Work Order #...: E2HXW

Matrix.....: WATER

Date Sampled...: 06/04/02 16:55

Date Received...: 06/05/02

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.0	0.10	No Units	MCAWW 150.1	06/07/02	2158442
		Dilution Factor: 1		Analysis Time...: 12:00		
Bicarbonate Alkalinity	107	5.0	mg/L	MCAWW 310.1	06/07/02	2161209
		Dilution Factor: 1		Analysis Time...: 15:00		
Bromide	0.37	0.20	mg/L	MCAWW 300.0A	06/11-06/12/02	2163246
		Dilution Factor: 1		Analysis Time...: 02:40		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/07/02	2161212
		Dilution Factor: 1		Analysis Time...: 15:00		
Chloride	55.9	2.5	mg/L	MCAWW 325.2	06/07/02	2158394
		Dilution Factor: 1		Analysis Time...: 12:00		
Nitrate-Nitrite	0.12	0.10	mg/L	MCAWW 353.2	06/12/02	2165432
		Dilution Factor: 1		Analysis Time...: 17:00		
Specific Conductance	1030	2.0	umhos/cm	MCAWW 120.1	06/06/02	2157501
		Dilution Factor: 1		Analysis Time...: 14:00		
Sulfate	371 Q	50.0	mg/L	MCAWW 375.4	06/14/02	2165542
		Dilution Factor: 10		Analysis Time...: 10:00		
Total Alkalinity	107	5.0	mg/L	MCAWW 310.1	06/07/02	2161208
		Dilution Factor: 1		Analysis Time...: 15:00		
Total Dissolved Solids	737	10.0	mg/L	MCAWW 160.1	06/10/02	2162266
		Dilution Factor: 1		Analysis Time...: 16:00		

NOTE(S):

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

PETROGLYPH

Client Sample ID: 36-05 MW

TOTAL Metals

Lot-Sample #...: D2F050318-003

Matrix.....: WATER

Date Sampled...: 06/04/02 17:35 Date Received...: 06/05/02

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2161485						
Calcium	62.0	0.10	mg/L	SW846 6010B	06/12/02	E2HX01AK
		Dilution Factor: 1		Analysis Time...: 16:49		
Iron	44.7	0.10	mg/L	SW846 6010B	06/12/02	E2HX01AL
		Dilution Factor: 1		Analysis Time...: 16:49		
Potassium	6.2	3.0	mg/L	SW846 6010B	06/12/02	E2HX01AM
		Dilution Factor: 1		Analysis Time...: 16:49		
Magnesium	21.0	0.10	mg/L	SW846 6010B	06/12/02	E2HX01AN
		Dilution Factor: 1		Analysis Time...: 16:49		
Manganese	0.66	0.010	mg/L	SW846 6010B	06/12/02	E2HX01AP
		Dilution Factor: 1		Analysis Time...: 16:49		
Sodium	204	2.0	mg/L	SW846 6010B	06/12/02	E2HX01AQ
		Dilution Factor: 1		Analysis Time...: 16:49		

PETROGLYPH

Client Sample ID: 36-05 MW

General Chemistry

Lot-Sample #...: D2F050318-003    Work Order #...: E2HX0    Matrix.....: WATER  
Date Sampled...: 06/04/02 17:35    Date Received...: 06/05/02

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.7	0.10	No Units	MCAWW 150.1 Dilution Factor: 1 Analysis Time...: 12:00	06/07/02	2158442
Bicarbonate Alkalinity	587	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1 Analysis Time...: 15:00	06/07/02	2161209
Bromide	0.34	0.20	mg/L	MCAWW 300.0A Dilution Factor: 1 Analysis Time...: 02:51	06/11-06/12/02	2163246
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1 Dilution Factor: 1 Analysis Time...: 15:00	06/07/02	2161212
Chloride	25.3	2.5	mg/L	MCAWW 325.2 Dilution Factor: 1 Analysis Time...: 12:00	06/07/02	2158394
Nitrate-Nitrite	0.26	0.10	mg/L	MCAWW 353.2 Dilution Factor: 1 Analysis Time...: 17:00	06/12/02	2165432
Specific Conductance 1060		2.0	umhos/cm	MCAWW 120.1 Dilution Factor: 1 Analysis Time...: 14:00	06/06/02	2157501
Sulfate	43.2 Q	10.0	mg/L	MCAWW 375.4 Dilution Factor: 2 Analysis Time...: 10:00	06/14/02	2165542
Total Alkalinity	587	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1 Analysis Time...: 15:00	06/07/02	2161208
Total Dissolved Solids	695	10.0	mg/L	MCAWW 160.1 Dilution Factor: 1 Analysis Time...: 16:00	06/10/02	2162266

NOTE(S) :

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.