

File

San Juan Energy Resources, Inc.

P. O. Box 48
Farmington, NM 87499
Phone (505) 327-7259
Fax (505) 327-3729

May 12, 1997

Mr. Philip R. Settles
District Forest Ranger
Jicarilla Ranger District
664 East Broadway
Bloomfield, NM 87413

Re: Falcon Seaboard Oil and Gas, L.P.
29-4 Carson 20 # 1
Beneficial Use of Produced Water

Dear Mr. Settles:

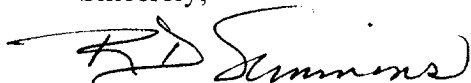
Falcon Seaboard Oil and Gas, L.P. (Falcon) requested permission from the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division (NMOCD) for the beneficial use of produced water from the 29-4 Carson 20 # 1. By way of letter dated November 21, 1996, the NMOCD gave Falcon permission for the beneficial use of the produced water, a copy of the letter is attached for your files.

Falcon will control the water discharge into an earthen pit. Mr. Jim Tensfield, met with me onsite in December 1996 and together we reviewed the location of the earthen pit to be utilized for containment of the produced water. In addition to the pit, to prevent communication with LaJara Arroyo, Falcon will build a dirt retention berm 1-1/2 feet high along the southern perimeter of the well pad. This berm will enclose approximately one and one-half acres and will allow for the retention of over one acre-foot of water should the need arise.

Attached please find a rough sketch of the location with the pit location and retention berm identified.

If you have any additional questions, please give me a call.

Sincerely,



R. D. Simmons
Agent - Falcon Seaboard Oil and Gas, L. P.



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

**OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131**

November 21, 1996

**CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-843**

Mr. Dave Simmons
Falcon Seaboard Oil Co.
P.O. Box 48
Farmington, New Mexico 87499

**Re: Beneficial Use Of Produced Water
29-4 Carson 20 #1
Section 20, Township 29 North, Range 4 West
Rio Arriba County, New Mexico**

Dear Mr. Simmons:

The Oil Conservation Division (OCD) has received Falcon Seaboard Oil Co. request, received by the OCD on July 23, 1996, for authorization to discharge approximately 12 to 18 barrels of produced water generated during the production of the above referenced well into an unlined pit allowing the water to be used for wildlife watering. The U.S. Forest Service, Jicarilla District, Has no objections to the proposal.

The OCD has sole jurisdiction over the disposition of wastes produced in conjunction with oil and gas pursuant to the New Mexico Oil and Gas Act, Water Quality Act and the Water Quality Control Commission Delegation of Responsibilities. Based on the information provided in your request, the produced water discharge is hereby approved subject to the following conditions:

1. Permission will be obtained from the landowner(s) prior to discharge.
2. The produced water will be discharged into the pit in a manner to prevent erosion.
3. The pit will be constructed in a manner to prevent unauthorized discharges to the surrounding surface.
4. Hydrocarbons will not be allowed to enter the pit.
5. No fluids will be allowed to enter a water of the U.S..

Mr. Dave Simmons
November 21, 1996
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Please be advised that this approval does not relieve Falcon Seaboard Oil Co. of liability should their operation result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Falcon Seaboard Oil Co. of liability for compliance with other laws and/or regulation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger C. Anderson".

Roger C. Anderson
Environmental Bureau Chief

WJL/rca

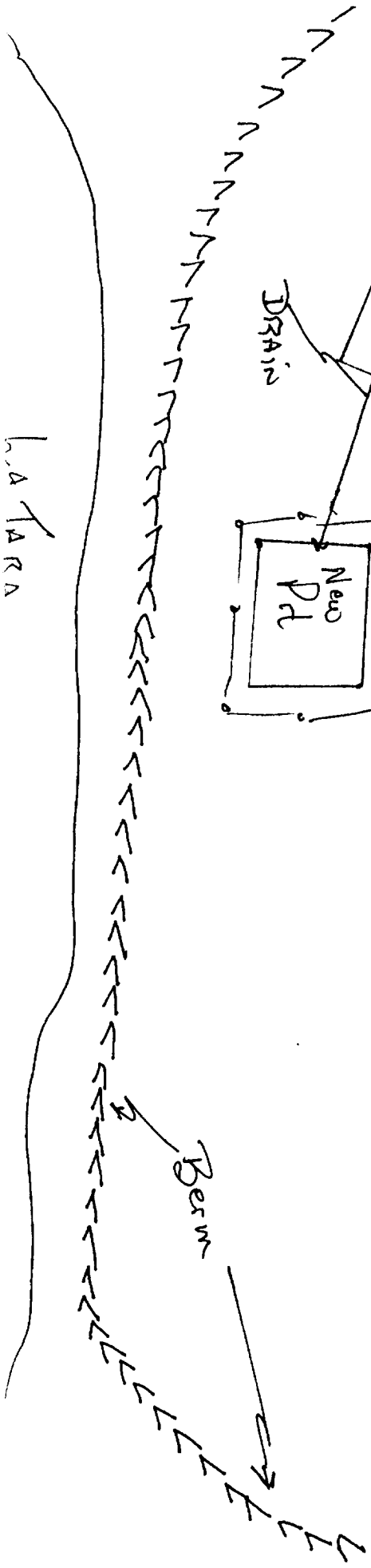
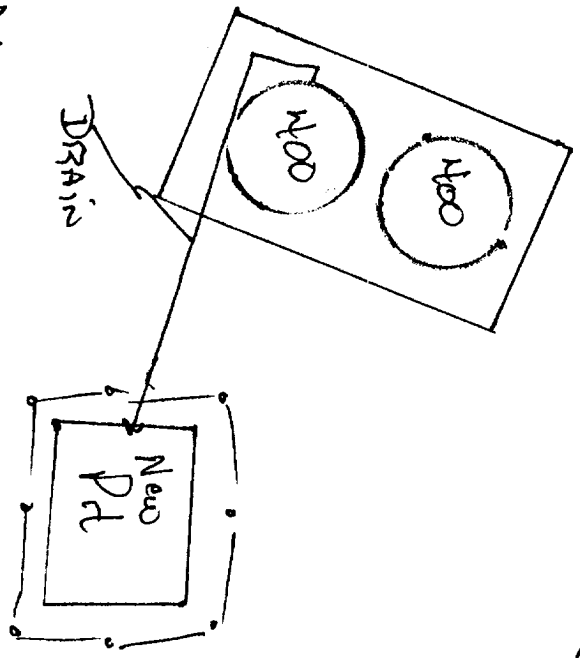
xc: OCD Aztec Office

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Kud

FALCON SEABOARD Oil Gas
29-4 Carson 20 #1

Well head



General Water Quality Falcon Seaboard

Project ID: NA
Sample ID: NA 29-4 Carson 20-1
Laboratory ID: 2269
Sample Matrix: Water

Date Reported: 01/03/96
Date Sampled: NA
Time Sampled: NA
Date Received: 12/27/95

Parameter	Analytical Result	Units
General		
Lab pH.....	8.3	s.u.
Lab Conductivity @ 25° C.....	2,560	µmhos/cm
Total Dissolved Solids @ 180°C.....	1,760	mg/L
Total Dissolved Solids (Calc).....	1,700	mg/L
Anions		
Total Alkalinity as CaCO ₃	239	mg/L
Bicarbonate Alkalinity as CaCO ₃	239	mg/L
Carbonate Alkalinity as CaCO ₃	NA	mg/L
Hydroxide Alkalinity as CaCO ₃	NA	mg/L
Chloride.....	200	mg/L
Sulfate.....	800	mg/L
Nitrate + Nitrite - N.....	NA	
Nitrate - N.....	NA	
Nitrite - N.....	NA	
Cations		
Total Hardness as CaCO ₃	162	mg/L
Calcium.....	56.7	mg/L
Magnesium.....	4.91	mg/L
Potassium.....	18	mg/L
Sodium.....	480	mg/L
Data Validation		<u>Acceptance Level</u>
Cation/Anion Difference.....	4.88	+/- 5 %
TDS (180):TDS (calculated).....	1.0	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983.
Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.


Review

General Water Quality Quality Control Report

Falcon Seaboard

Report Date: 1/3/96

Parameter	Analytical Result	Certified Value	Acceptance Range	Units
Laboratory pH	9.07	9.09	8.89 - 9.29	s.u.
Conductivity	985	957	810 - 1100	μmhos/cm
Total Dissolved Solids	710	714	621 - 807	mg/L
Total Alkalinity	126	125	111 - 139	mg/L
Chloride	130	128	119 - 137	mg/L
Sulfate	115	105	90.3 - 120	mg/L
Total Hardness	263	254	218 - 290	mg/L
Calcium	60.0	54.6	47.0 - 62.2	mg/L
Magnesium	NA	NA	NA	mg/L
Potassium	99	97.4	82.8 - 112	mg/L
Sodium	140	140	119 - 161	mg/L

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Comments:



Review

ANALYTICA

ENVIRONMENTAL LABORATORY

FALCON SEABOARD
PRODUCTION DEPT.

JAN 08 1996

JAN		

January 3, 1996

Jim Wilson
Falcon Seaboard
Five Post Oak Park, Suite 1400
Houston, TX 77027

Dear Mr. Wilson:

Enclosed are the analytical results for the water sample received at Analytica, Inc. on December 27, 1995. The Cation/Anion suite of analyses was run on the samples, as requested.

Tests were conducted in accordance with Standard Methods For The Examination Of Water And Wastewater Analysis, 18th ed. and the "EPA 600 Series For The Examination Of Water and Wastes," as amended.

If you have any questions or comments concerning any information in this report, please contact me at your convenience.

Sincerely,


Danica Carman
Quality Control