

711-356

DATE IN 10/22/09	SUSPENSE	ENGINEER Warrick	LOGGED IN 10/22/09	TYPE IPI	APP NO. 0929547515
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ABOVE THIS LINE FOR DIVISION USE ONLY

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NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



Cimarex

Hudson 11 Fed #1

ADMINISTRATIVE APPLICATION CHECKLIST

30-025-31652

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

SWD-636

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

- [D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

ZENO FARRIS

Zeno Farris

Mgr. Operations Admin

10-16-09

Print or Type Name

Signature

Title

Date

ZFarris@CIMAREX.COM
e-mail Address





Cimarex Energy Co. of Colorado

600 N. Marienfeld St. ♦ Suite 600 ♦ Midland, TX 79701 ♦ (432) 620-1938 ♦ Fax (432) 620-1940
A subsidiary of Cimarex Energy Co. • A NYSE Listed Company • "XEC"

October 16, 2009

Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Richard Ezeanyim

Re: Request for Injection Pressure Increase
Hudson 31 Federal No. 1 (SWD-636) —
31-18S-33E

Mr. Ezeanyim:

Enclosed is a 9-30-09 step rate test performed on the referenced SWD well. The test indicates a reservoir parting pressure of 3356 psig with a surface parting pressure of 1414 psig at 690 Bbls/d.

The results of this test would indicate that Cimarex can safely inject into this reservoir at 1330 to 1350 surface psig at a 550 to 600 Bbl/d rate.

In this regard Cimarex is requesting an injection pressure increase in the Hudson 31 Federal No. 1 well to 1330 psig.

If additional information is needed regarding this issue, please feel free to call the undersigned at 432-620-1938.

Sincerely,

Zeno Farris

Zeno Farris
Manager, Operations Administration
Permian Basin Region

CC:
Oil Conservation Division
1301 W. Grand Avenue
Artesia, NM 88210

*Test on
9/30/2009*

2/8 Tabing

*1330 = 318
4190*



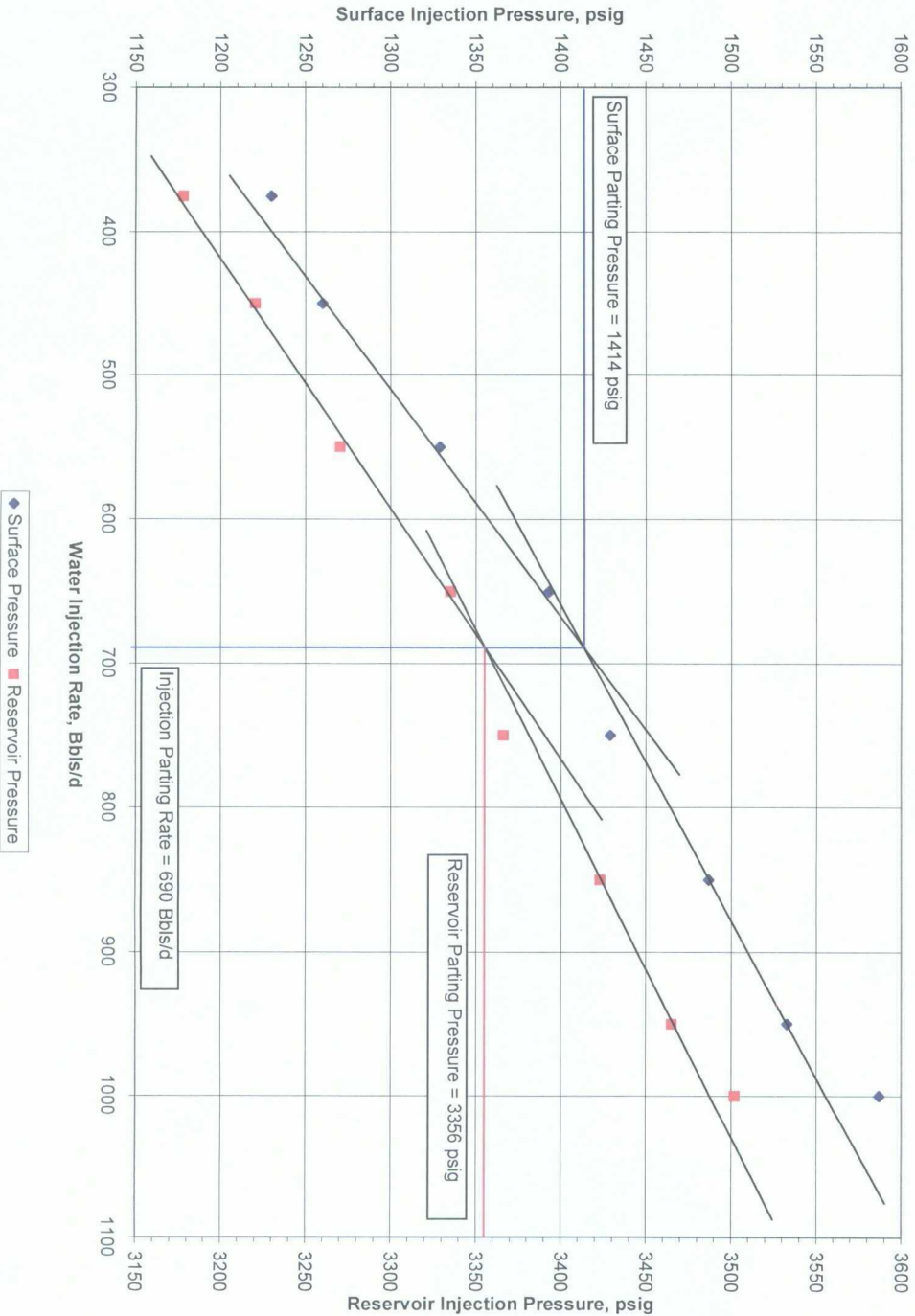
FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

STEP RATE INJECTION TEST

Company: Cimarex Energy Co.
Well: Hudson 31 Fed. No. 1 SWD
Field: Lea County, NM

Test Date: 9/30/2009
Perforations: 4190 - 4230 ft
Gauge Depth: 4100 ft



Injection Rate Bbls/d	Surface Pressure Psig	Reservoir Pressure Psig
1 375	1230	3178
2 450	1260	3220
3 550	1329	3270
4 650	1393	3335
5 750	1429	3366
6 850	1487	3423
7 950	1533	3465
8 1000	1587	3502

J200910011401

432-332-3211
Doug McNeely
owner



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

ADMINISTRATIVE ORDER SWD-636

***APPLICATION OF ROBERT N. ENFIELD FOR SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.***

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Robert N. Enfield made application to the New Mexico Oil Conservation Division on June 27, 1996, for permission to complete for salt water disposal its Hudson '31' Federal Well No.1 located 2310 feet from the North line and 330 feet from the East line (Unit H) of Section 31, Township 18 South, Range 33 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) One objection was received within the waiting period prescribed by said rule, however, an agreement has been made between the parties, and such objection has since been withdrawn.

IT IS THEREFORE ORDERED THAT:

The applicant herein, is hereby authorized to complete its Hudson '31' Federal Well No.1 located 2310 feet from the North line and 330 feet from the East line (Unit H) of Section 31, Township 18 South, Range 33 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Queen formation at approximately 4190 feet to 4230 feet through 2 3/8-inch plastic-lined tubing set in a packer located at approximately 4170 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 838 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Queen formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

In the event the operator seeks to extend the injection interval within the subject wellbore, the operator shall apply to the Division for such extension. All data supporting the request shall be furnished to the Division and all offset operators shall be notified of the proposed extension.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

Administrative Order SWD-636

Robert N. Enfield

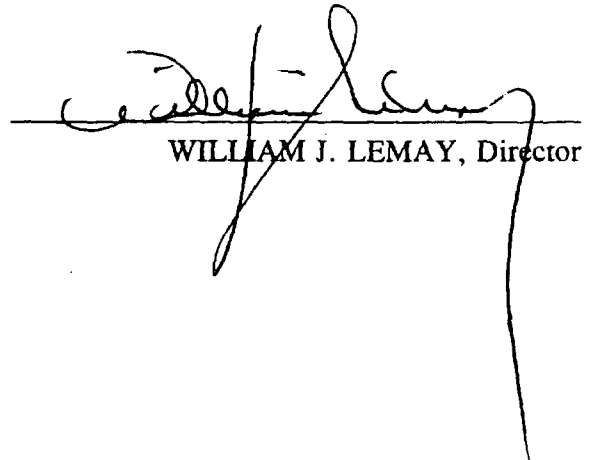
August 9, 1996

Page 3

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 9th day of August, 1996.



WILLIAM J. LEMAY, Director

WJL/BES

xc: Oil Conservation Division - Hobbs
Bureau of Land Management - Carlsbad



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

October 25, 1996

Robert N. Enfield
P. O. Box 2431
Santa Fe, New Mexico 87504

Re: Hudson "31" Federal #1-H, Sec. 31, T18S, R33E

Gentlemen:

The above referenced well was approved for use as a salt water disposal well by Division Order SWD-636 in August, 1996.

An inspection of the well site confirms that injection equipment is in place and the condition of the surrounding area indicates that the well has been used for disposal.

To update our records, and insure that all stipulations of the order permitting disposal into this well are followed, we request that you submit a sundry notice, confirming the status of this well.

If the well is being, or has been used, to dispose of water, the sundry notice is to include the following information:

1. Any work necessary to bring the well into a satisfactory condition for use as a disposal well.
2. The tubing size and packer setting depth.
3. Date of first injection into the well.
4. The volume of fluid disposed of in a 24 hour period.
5. The pressure being used for disposal purposes.

The order stipulates that a pressure test is to be conducted after the installation of the injection equipment, prior to injection into the well. If this procedure has been done, we request that you submit the chart confirming the results of the test. We request that you notify this office 24 hours prior to the pressure test if this procedure has not been done.

Since this is a federal well, please send this office a "complimentary" copy of the notice sent to the BLM.

We will make another inspection of the site in the near future.

If you have any questions, please feel free to call.

Very truly yours