

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Oil Cons.

N.M. DIV-Dist. 2

301 W. Grand Avenue  
Albuquerque, NM 88210

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON ABANDONED WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

MARBOB ENERGY CORPORATION

3a. Address

PO BOX 227, ARTESIA, NM 88211-0227

3b. Phone No. (include area code)

(505) 748-3303

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

750 FNL 660 FWL, SEC. 13-T19S-R31E, UNIT D

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

LLANO MCKAY FEDERAL #2

9. API Well No.

30-015-23159

10. Field and Pool, or Exploratory Area

UNDESIGNATED (MORROW)

11. County or Parish, State

EDDY CO., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

PROPOSAL TO CONVERT THE ABOVE REFERENCED WELL TO SALT WATER DISPOSAL IN ACCORDANCE WITH OCD'S ADMINISTRATIVE ORDER SWD-867 (WORKOVER PROCEDURE ATTACHED).

SUBJECT TO  
LIKE APPROVAL  
BY NMOCD

APPROVED

FEB 21 2003

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

DIANA J. CANNON

Title PRODUCTION ANALYST

Signature

Date FEBRUARY 13, 2003

PETROLEUM ENGINEER

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**Llano McKay Fed. No. 2 SWD  
D-13-19s-31e  
Eddy Co., NM**

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**SWD Conversion  
Bone Spring Dolomite  
15 January 2003**

**Note:** See attached SWD Order 867. Notify OCD 24 hrs. in advance of installing injection tubing and packer. See attached wellbore sketches for wellbore info.

**Procedure:**

1. Scrape off location, dig and line workover pit if necessary, dig out cellar, remove dryhole marker and install wellhead on 8-5/8" casing. MIRU reverse unit equipment, BOP and WSU. Mix a simple 9 ppg salt gel spud mud and put in reverse unit pit.
2. Drill out the following plugs, clean out to 8850', circulate the well clean then TOO H laying down the drill collars.  
  
15 sx. Surface plug  
40 sx. 300-441'  
40 sx. 3810-3937'  
40 sx. 6728-6993'
3. RU casing crew, casing handling equipment, tongs and pickup machine. Run 5.5" / 17 ppf / J55 / LTC casing as follows:
  - a. Float Equipment: Run float shoe, one joint casing, float collar. Howco Weld float assembly.
  - b. Centralizers: Run one centralizer per joint on bottom 15 joints. Place centralizers over casing collars.
  - c. Clean threads to white metal and drift casing on rack. Apply API casing thread compound when RIH.
  - d. Make Up Torque: Optimum = 2470 ft-lb, Min = 1850 ft-lb, Max = 3090 ft-lb
  - e. Fillup: Recommend filling casing every 1000-1500' while TIH.
4. Wash fill to bottom, pick up a few feet, pump approximately 750 bbls mud to circulate casing and annulus volume, then pump cement as follows:
  - a. 5 bbls. Fresh water
  - b. 20 bbls. Mud flush
  - c. 5 bbls. Fresh water
  - d. 975 sx. Halliburton Light Cement with 5 pps Gilsonite (12.5 ppg, 2.05 cfps, 10.7 gwps)
  - e. 180 sx. Super H with approx. 5 pps Gilsonite, 3 pps salt, 0.5% Halad 344, 0.4% CFR 3 (13.0 ppg, 1.67 cfps, 8.3 gwps) Adjust additive concentrations as necessary based on pilot test results. Est. BHST = 145-150° F.
  - f. Drop plug and flush with approx. 204 bbs clean fresh water. Need to bump plug.
  - g. Set slips and land casing "as cemented".
5. Install wellhead onto 5.5" casing and NU BOP. WOC 36 to 48 hrs.
6. RIH with bit and scraper to PBD. If PBD not at least 8750', then drill out to float collar and circulate well clean.

7. RU lubricator, run GR/CCL/Cement Bond Log from PBD to TOC, then perf the Bone Spring dolomite with 4 spf at any phasing at the depths shown below using a 4" casing gun. If it is difficult to determine TOC on Bond Log, pressurize casing to 1000-1500 psi and rerun CBL.

Bone Spring: 8710-8726' (approx. 68 shots)

8. RIH with treating packer on work string. Swab tubing volume (50 bbls). Continue swabbing until it looks like we're getting formation water. Catch a sample at end of testing and send to Halliburton for analysis. If get good oil show, keep testing.
9. When done testing zone, acidize with 5000 gal NE Fe 20% HCL at 3-5 bpm while limiting treating pressure to 5000 psi. Drop 2 slugs of 25 ball sealers spaced evenly through job. Flush acid with 2 transport loads of produced water. TOOH with work string.
9. RIH with nickel plated 5.5" retrievable packer on 2-7/8"/6.5/N80/EUE internally plastic coated tubing (Tuboscope TK-69 or similar) from George Young Sales. Plastic coat all subs and crossovers used. Space out to set packer near 8650', pump 140 bbls clean fresh water containing corrosion inhibitor, biocide and oxygen scavenger down annulus, set packer, tree well up and load annulus the rest of the way to surface (if not already full) with clean fresh water containing corrosion inhibitor, biocide and oxygen scavenger (total annular volume is 131 bbls). Bleed air if/as necessary and test the annulus to 300 psi for 30 minutes using a chart recorder.
10. Plumb 2-7/8" x 5.5" annulus to surface and install a gauge so the annular pressure can be monitored. Build injection tree assembly and start water disposal. Limit injection pressure to 1742 psi.

Kbc/lano mckay swd 1a

Well: Llano McKay Fed. 2 SWD

Zero: 18' AGL

Location: 660' FWL 750' FNL

KB: 3580'

GL: 3562'

D-13-19s-31e

Eddy NM

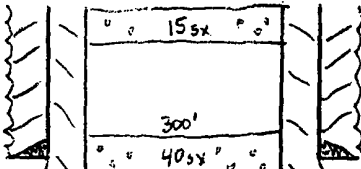
Casing Program:

Size	Wt.	Grade	Conn.	Depth
13 3/8"	48			400
8 5/8"	24			2883' ±
	32			3882'
4 1/2"	11.6, 13.5		LTC	8895 - 12655'

Spvd 5/80

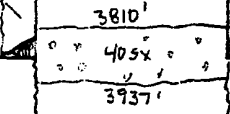
P1A 12/82

17 1/2"



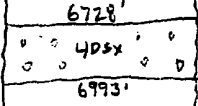
13 3/8" @ 400'  
450sx H (circ 25sx)  
DV 672'

13"

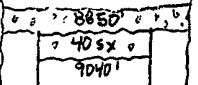


8 5/8" @ 3882'  
1st: 725 BJL + 150" C"  
2nd: 150 BJL + 100" C"  
(circ 75sx)

7 7/8"



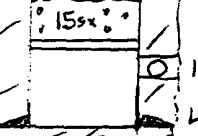
BEFORE



4 1/2" jet cut @ 8895'

TDC 9816'

C16SF 12400'



12526-12548' Morrow  
4 1/2" @ 12,655' 420 BJL + 300 H

Well: Llano McKay Fed. 2 SWD

Zero: 18' AGL

Location: 660' FWL 750' FNL

KB: 3580'

GL: 3562'

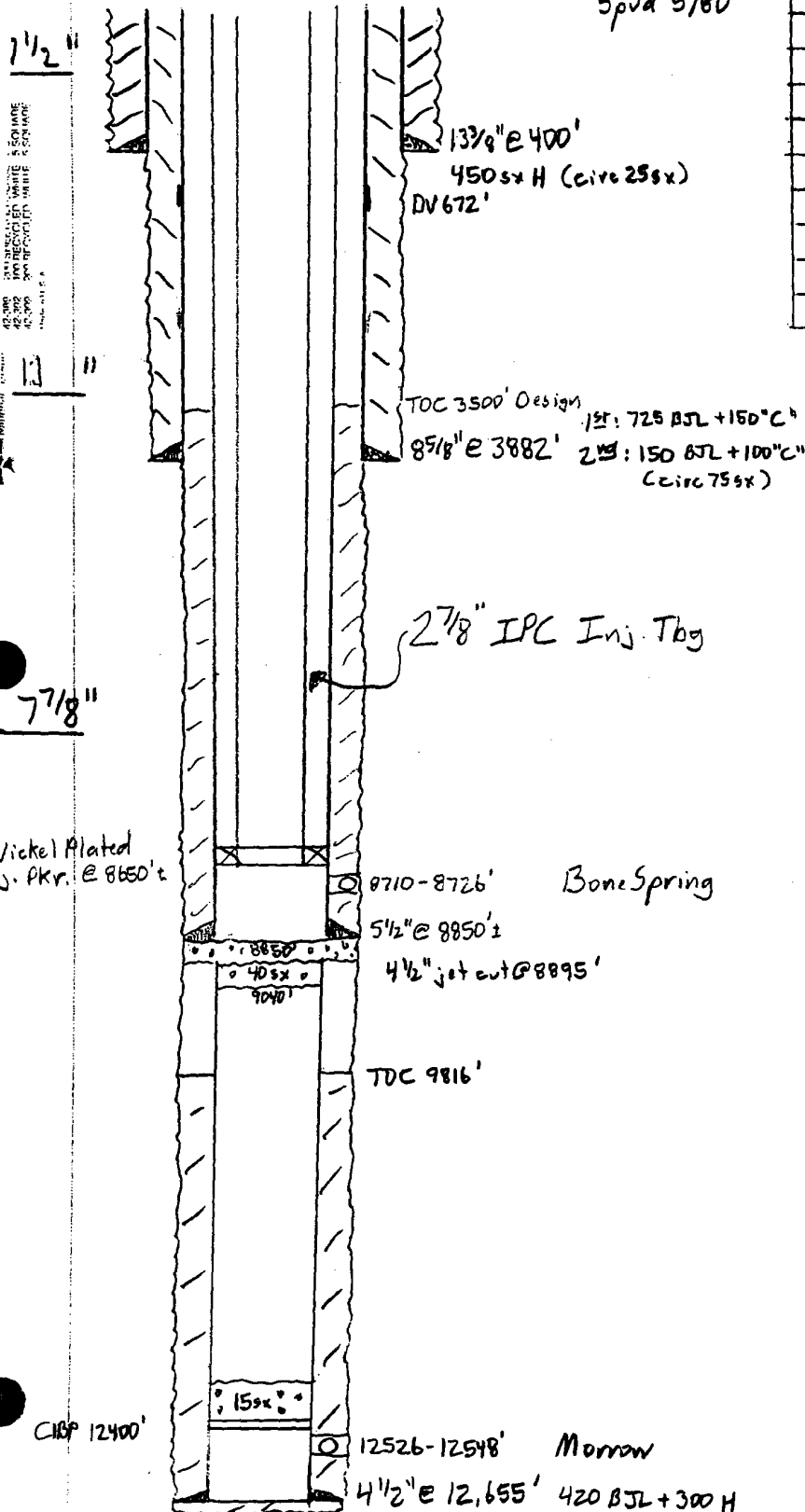
D-13-19s-3le

Eddy NM

Casing Program:

Size	Wt.	Grade	Conn.	Depth
13 7/8"	48			400
8 7/8"	24			2883' ±
	32			3882'
4 1/2"	11.6, 13.5		LTC	8895 - 12655'
5 1/2"	17	J55	LTC	± 8850'
2 7/8"	6.5	J55	EVE	± 8650'
Internally Plastic Coated				

Spud 5/80



AFTER

PET. DEV. CORP. ~~SID~~ 13-19S-31E  
Llano-McKay Fed. NW NW  
#2 Unit -- D

NC TOPS PER LLB  
Penn- 10896  
Strawn- 11030  
Atoka- 11459  
Morks- 11959  
Morci- 12110