STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: OG-181

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SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name:

2. Name of Operator: ARCO Oil and Gas Company ✓

8. Farm or Lease Name: Empire Abo Unit "C"

3. Address of Operator: P.O. Box 1610, Midland, Texas 79702

9. Well No.: 46

4. Location of Well: UNIT LETTER K, 1256 FEET FROM THE West LINE AND 2314.3 FEET FROM THE South LINE, SECTION 30 TOWNSHIP 17S RANGE 29E NMPM.

10. Field and Pool, or Wildcat: Empire Abo

15. Elevation (Show whether DF, RT, GR, etc.): 3660 DF

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER Recomplete Abo Zone [X]		OTHER [ ]	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Propose to test the existing Abo perfs 6204-6212' and 6221-6233' separately to determine productivity. If they are not productive, come up hole and test intervals 6192-6194' and 6199-6201'.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Kenneth Gosnell TITLE Engr. Tech. 915-688-5672 DATE 8-17-88

APPROVED BY Original Signed By Mike Williams TITLE _____ DATE AUG 23 1988

CONDITIONS OF APPROVAL, IF ANY:

WORKOVER DISCUSSION

The Empire Abo Unit Well No.C-46, is located in Section 30, T17S-R29E of Eddy County, New Mexico. Originally completed as an oil well on March 21, 1961 this well was temporarily abandoned due to low oil production on October 1, 1987. At the time of abandonment the well was producing 26 bbl. of oil, 264 bbl. water, and 42 MCF a day.

The purpose of this project is to test the existing perforations at 6204'- 6212' and 6221'- 6233' separately to determined productivity of each set of perforations. Stimulate with 60/40 mixture of 15% HCL acid and Xylene and swab test again. If the upper zone is productive, add perforations at 6192'-6194', 6199'-6201' intervals and stimulate. Each of these intervals will be perforated with 2 JSPF, treated with 15% NEFE HCL acid, and swab tested. If not productive each interval will be properly abandoned. Upon completion of the workover and testing operations the well will be turned over to Production Department.

The workover is anticipated to take 10 days and cost $59,500. The anticipated upper limit which includes money for potential casing repair, extended swabbing and testing, would be $84,000 (the amount required will depend on location and size of the leak). The "lower" limit based on a successful test of the first set of perforations is $35,000

As operator ARCO is responsible for temporary abandonment of this well if the project is not successful. CIBP will have to be set within 50' above the top of the upper most perforation to comply with State regulations.

WORKOVER PROCEDURE

1. Clean up the location and dig a reserve pit. Test anchors. MIRU workover unit. Check well for pressure and bleed off. Kill well as necessary with produced water. ND wellhead and NU BOP.

2. PU a string of 2-3/8" tubing, bit, and casing scraper. TIH to +/- 6290' (top of the CIBP). Check for obstructions in the casing. Another CIBP may be set at 6250'. We do not have a clear record to confirm this.

   Note: 206 Jts of inspected tubing should be delivered to the location prior to the work-over operations. The well has no tubing string.

3. If there is no CIBP at 6240', pick one up and TIH on WL. to set it at +/_ 6240'.

4. PU 4-1/2" packer, SN, and TIH. Set pkr. at +/- 6180'. Load the back side with clean produced water, close BOP and pressure test to 500 psi. Hold for 15 min.

   Note: If casing does not hold pressure, procedures will be modified depending on location and size of the casing leak(s).

5. Swab test the original set of perforations at 6204'-6233'. POH with pkr.

6. If the zones are overall productive, TIH with 4-1/2" RBP and set at 6217'. Swab the upper set of perforations at 6204'-6212' to determine if it is productive. POH with RBP.

7. If acid job is necessary to clean up existing perforations - TIH with packer and tubing to 6233'. Spot 100 gal. of 15% NEFE acid across the perforations. PU packer to +/_ 6100' or 100' above the top of perforations. Reverse 5 bbls of water up tubing and set packer.

8. Pressure up the back side to 500 psi. Acidize 6204'-6233' interval with 2500 gals. 60/40 mixture of 15% HCL NEFE acid and Xylene at 1-2 BPM @ +/_ 1000 psi. The acid should contain following additives:

   1 gal /1000 Inhibitor
   5 gal /1000 Iron seq.
   1 gal /1000 Demulsifier

9. Flush to the bottom perforation with clean produced water. Maximum wellhead treating pressure should be held below 1000 psi.

10. SI for 30 min. Record ISIP, 5 min, 10 min, 15 min. SION and swab test.

    If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.

    If the lower set of perforations at 6221'-6233', is not productive continue with step 11.

11. PU CIBP and TIH on WL. Set CIBP at +/_6217'.

12. RU to perforate. Perforate new interval in the Empire Abo from 6192'- 6194', and 6199'-6201' with 2 JSPF. Correlate to Welex Gamma Ray-Neutron log dated 3-17-61 (will be provided with procedure). Note fluctuation in fluid level after perforating. If well goes on a vacuum proceed with swab testing prior to performing the acid job.

13. TIH with 4-1/2" treating packer, SN, and tubing to 6217'. Spot 100 gal. of 15% NEFE acid across the perforations. PU packer to +/_ 6100' or 100' above the top of perforations. Reverse 5 bbls of water up tubing and set packer.

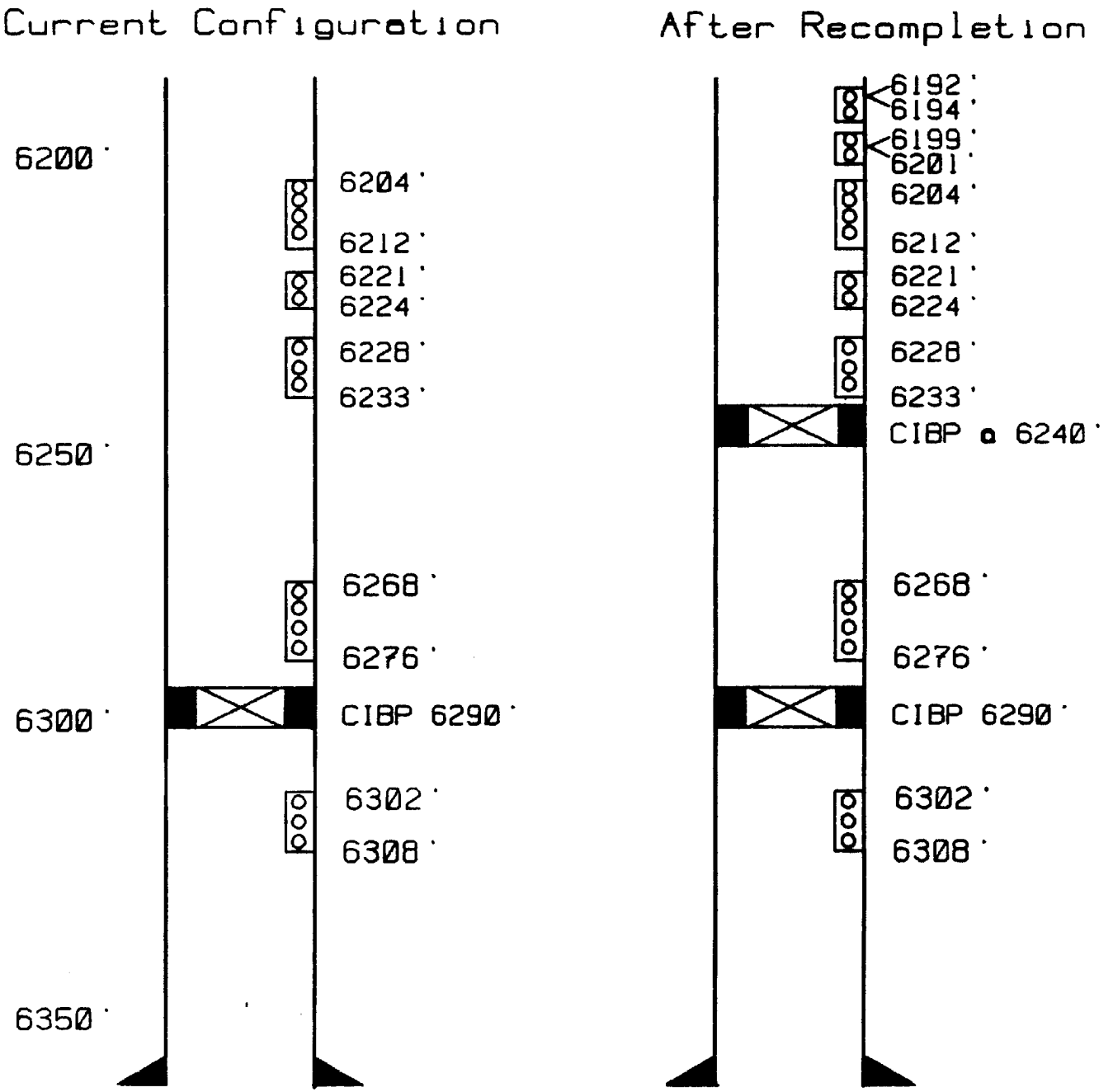
14. Pressure up the back side to 500 psi. Acidize 6192'-6212' interval with 2500 gals. 60/40 mixture of 15% HCL NEFE acid and Xylene at 1-2 BPM @ +/_ 1000 psi. The

acid should contain the same additives as in the previous steps.

15. Flush to the bottom perforation with clean produced water. Maximum wellhead treating pressure should be held below 1000 psi.

16. Record ISIP, 5 min, 10 min, 15 min. SION and swab test.

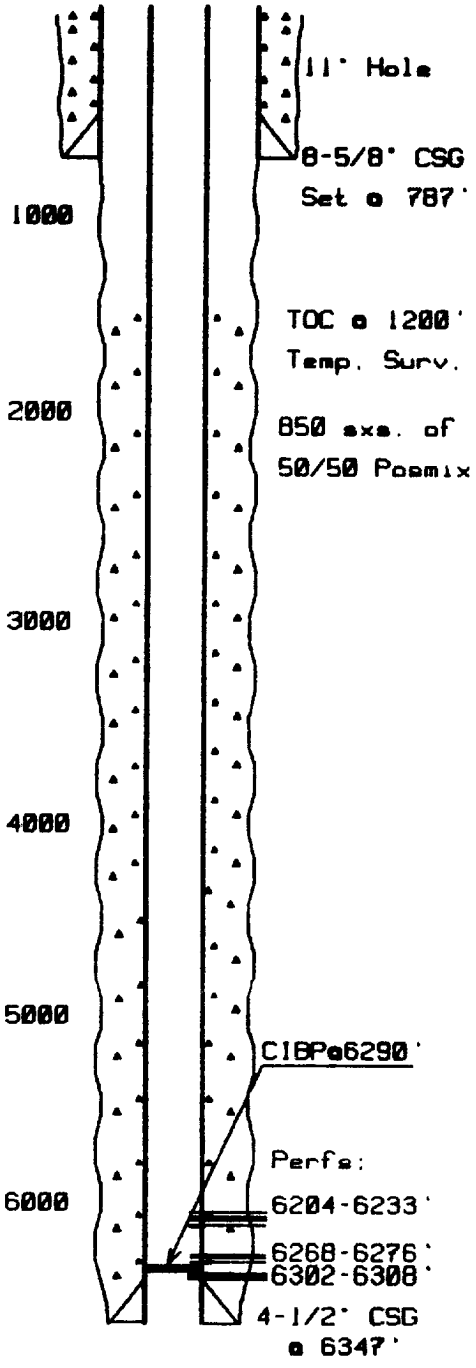
If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.


Current Configuration
6200
6204
6212
6221
6224
6228
6233
6250
6268
6276
6300
CIBP 6290
6302
6308
6350
After Recompletion
6192
6194
6199
6201
6204
6212
6221
6224
6228
6233
CIBP @ 6240
6268
6276
CIBP 6290
6302
6308

ARCO OIL AND GAS COMPANY

April 4, 1988

CURRENT WELLBORE CONFIGURATION



GENERAL INFORMATION

Well Name: Empire Abo Unit No. C-46

Location: 2314'FSL& 1256'FWL,Sec.30,T17S,R29E
Eddy County, New Mexico

Spud Date: March 2, 1961
Completion Date: March 21,1961
TD: 6360'; PBTD: 6290'.

Elevation GL: 3650' RKB: 3660

CASING INFORMATION

Depth (ft)	Hole Size	Casing (lbs)	Weight	Grade	Cpl.	Cmt. (sxs)	Top (ft)
0-787'	11"	8-5/8"	24#	H-40	STC	500	Surface
0-6347'	7-7/8	4-1/2"	9.5#	J-55	STC	850	1200'

TUBING INFORMATION

Length (ft)	Tubing Size	Weight (lbs)	Grade	Cpl.

No tubing in the wellbore. There are only 2 Jts of 2-3/8" tubing hanging inside the well.

PERFORATIONS

Interval	Number or Shots	Comments
6204-6212', 6221-6224', 6229-6233',	1 JSPF	
6268-6276', 6302-6308'	1 JSPF	

COMMENTS

The well was shut in and temporarily abandon due to lack of economic production effective 10-1-73. CIBP set at 6290' and possibly at 6250'.(we do not have a complete record)