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New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

2040 South Pacheco Street

Santa Fe, New Mexico 87505
(505) 827-7131

H-0506

Form C-146
Originated 11/1/9

Submit Original
Plus 2 Copies
to appropriate
District Office

APPLICATION FOR
QUALIFICATION OF WELL WORKOVER PROJECT
AND CERTIFICATION OF APPROVAL

THREE COPIES OF THIS APPLICATION AND ALL ATTACHMENTS MUST BE FILED WITH THE APPROPRIATE DISTRICT OFFICE OF THE OIL CONSERVATION DIVISION.

I. Operator: Enron Oil & Gas Company OGRID #: 7377
Address: P.O. Box 2267, Midland, Texas, 79702

Contact Party: Lee Roark Phone: 915/686-3608

II. Name of Well: Diamond 18 Federal No. 5 API #: 3002533078
Location of Well: Unit Letter I, 2130 Feet from the South line and 660 feet from the East line,
Section 18, Township 25S, Range 34E, NMPM, Lea County

III. Date Workover Procedures Commenced: 4/07/97
Date Workover Procedures were Completed: 10/05/97

IV. Attach a description of the Workover Procedures undertaken to increase the production from the Well.

V. Attach an estimate of the production rate of the Well (a production decline curve or other acceptable method, and table showing monthly oil and/or gas Project Production) based on at least twelve (12) months of established production which shows the future rate of production based on well performance prior to performing Workover.

VI. Pool(s) on which Production Projection is based:

Red Hills (Bone Springs)

VII. AFFIDAVIT:

State of Texas)
County of Midland) ss.

10/05/98, being first duly sworn, upon oath states:

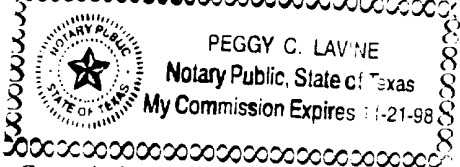
1. I am the Operator or authorized representative of the Operator of the above referenced Well.
2. I have made, or caused to be made, a diligent search of the production records which are reasonably available and contain information relevant to the production history of this Well.
3. To the best of my knowledge, the data used to prepare the Production Projection for this Well is complete and accurate and this projection was prepared using sound petroleum engineering principles.

(Name)

Engineer Tech

(Title)

SUBSCRIBED AND SWORN TO before me this 5th day of October, 1998.



Peggy C. Lavine
Notary Public

My Commission expires: _____

FOR OIL CONSERVATION DIVISION USE ONLY:

VIII. CERTIFICATION OF APPROVAL:

This Application for Qualification of Well Workover Project is hereby approved and the above referenced Well is designated as a Well Workover Project pursuant to the "Natural Gas and Crude Oil Production Incentive Act" (Laws 1995, Chapter 15, Sections 1 through 8). The Oil Conservation Division hereby verifies the Production Projection for the Well Workover Project attached to this application. By copy of this Application and Certification of Approval, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project has been completed as of 10-5-, 1997

Paul J. Rautz
District Supervisor, District 1
Oil Conservation Division
Date: 10/20/98

IX. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT.

DATE: _____

DIAMOND "18" FEDERAL NO.

2.130' FSL & 660' FEL

Sec 18, T25S, R34E

LEA Co., NM

Spud Date: 09/15/95

ENRON L & GAS COMPANY
DEV D&C: 12,600' BONE SPRING

RED HILLS Field

EOG³: 100.0000% WI 82.5000% NRI

AFE No.: 10-1402

DHC: 0; CWC: 113,000

04/07/97

Run new tbg in well.

RU Dale Meyers trucking. Racked 378 jts (new) 2-7/8" tbg. M&W hot oil unit on location, pumped 100 bbls H2O down annulus. Ram WS pulling machine road to location and rigged up. Well dead, ND WH, NU BOP. Tally top raw tbg on rack. PU bit and csg scraper. TIH with 2-7/8" tbg. Forced to run collars very slowly through Braden head duet at 5-1/2" csg not beveled on top and tbg collars hanging up on unbeveled csg top. Ran bit and scraper to 10,880'. Close BOP, turn tbg to frac tank overnight. SDFD. DWC \$44,330. CWC \$44,330.

04/08/97

RU Ram WS. M&W kill truck on location. 50 lbs press on tbg this a.m. Pump 35 bbls FW to kill. TIH to 12,224' tag top of fill. TOH with bit and csg scraper. TIH with production string, ran as follows: BP - MA, perf sub, SN, 7 jts 2-7/8" tbg, TAC, 376 jts 270 tbg. Landed tbg @ 12,166.34'. ND BOP. Set TAC in 15 lb tension. NUWH. RD. DWC \$2,910. CWC \$47,240.

04/11/97

24 hrs SITP 60, SICP 700. CWC \$47,240.

04/12/97

24 hrs SITP, SICP 1100. CWC \$47,240.

04/13/97

24 hrs flow, 138 MCF, 170 BO, 14/64" chk, 230 TP, 900 CP, 127 BW, 28 LP. CWC \$47,240.

04/14/97

24 hrs flow, 112 MCF, 84 BO, 14/64" chk, 280 TP, 900 CP, 32 BW, 26 LP. CWC \$47,240.

04/15/97

24 hrs flow, 112 MCF, 75 BO, 14/64" chk, 200 TP, 1000 CP, 25 BW, 28 LP. Drop from report. CWC \$47,240.

09/20/97

Install beam pumping equipment to increase oil production by 40 BOPD and gas production by 40 MCFD. An ATAX ROR in excess of 40% and a payout less than 1.8 years is expected.

Work to run rods and down hole pump and place on pump. MI&RU Cobra WS Rig #169. ND Xmas tree. NU production tbg head. Start in hole with down hole pump and rods. SDON. DWC \$29,240. CWC \$29,240.

DIAMOND "18" FEDERAL NO. 5
2,130' FSL & 660' FEL
Sec 18, T25S, R34E
LEA Co., NM
Spud Date: 09/15/95

ENRON OIL & GAS COMPANY
DEV D&C: 12,600' BONT SPRING
RED HILLS Field
EOG: 100.0000% WI 82.5000% NRI
AFE No.: 10-1402
DHC: 0; CWC: 113,000

09/21/97 After SDON. Finish running rods and pump. Set pump @ 12,129'.
Check pump for pump action, it was OK. Clamp off rods and space
pump 24" off btm. RD, clean location and release rig.
Prepare to set surface pumping equipment and place on pump. Ran
and set rods and pump as follows:
1 - 1-1/2" x 30' polish rod with 1-1/2 x 1-3/4 x 16' polish rod
liner
1- 1" x 8' steel pony rods, T-66 Trick with spray metal boxes
113 - 1" x 25' steel pony rods, T-66 Trico with spray metal boxes.
120-7/8 x 25' steel rods
249 3/4 x 25'
1 - 1" x 1' shear tool, 26K shear
1 - 1" x 2' steel pony rod with spray metal boxes. T-66 Trico.
1- 2-1/2 x 2" x 30' RHBC, 3 tube pump with 1-3/4" pkr. single
1 - 1-1/4 x 16' gas anchor, valves an 220" stroke
Set pump @ 12,129'.
DWC \$3,700. CWC \$32,940.

10/02/97 10 hrs WTG set Lufkin 456-305-168 pumping unit. Base blocks and
pumping unit. DWC \$45,000. CWC \$74,240.

10/03/97 Gibson roustabouts, broke out and drained, LP Separator and
hauled to Diamond 18 fed #5. Set separator for fuel gas supply
for generator and started dressing out sep. DWC \$569. CWC
\$74,809.

10/04/97 Gibson Roustabouts finished laying and making up fuel gas lines to
Generator for LP separator. DWC \$1,349. CWC \$76,158.

10/05/97 24 hrs pump 15 MCF, 118 BO and 10 BW on 8 x 130" SPM, TP 50, CP
40. DWC \$275. CWC \$76,433.

10/06/97 24 hrs pump 15 MCF, 3 BO, 8 x 130" SPM, 50 TP, 20 CP, 2 BLW. CWC
\$76,433.

10/07/97 24 hrs pump, 61 BO, 8 x 130" SPM, 50 TP, 40 CP, 5 BW. CWC
\$76,433.

10/09/97 24 hrs flow 51 MCF, 114 BO, flowing up csg, 50 FTP, 100 CP, 0 BLW.
CWC \$76,433.

10/10/97 24 hrs flow, 15 MCF, 15 BO, 8 x 130" SPM, 55 TP, 90 CP, 1 BW. CWC
\$76,433.

10/11/97 24 hrs pump 39 MCF, 25 BO, 8 x 130" SPM, 45 TP, 20 CP, 13 BW. CWC
\$76,433.

10/12/97 24 hrs pump, 41 MCF, 10 BO, 8 x 130" SPM, 65 TP, 70 CP, 6 BW. CWC
\$76,433.

DIAMOND "18" FEDERAL NO. 5

2,130' FSL & 660' FEL

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LEA Co., NM

Spud Date: 09/15/95

ENRON OIL & GAS COMPANY
DEV D&C: 12,600' BON SPRING

RED HILLS Field

EOG: 100.0000% WI 82.5000% NRI

AFE No.: 10-1402

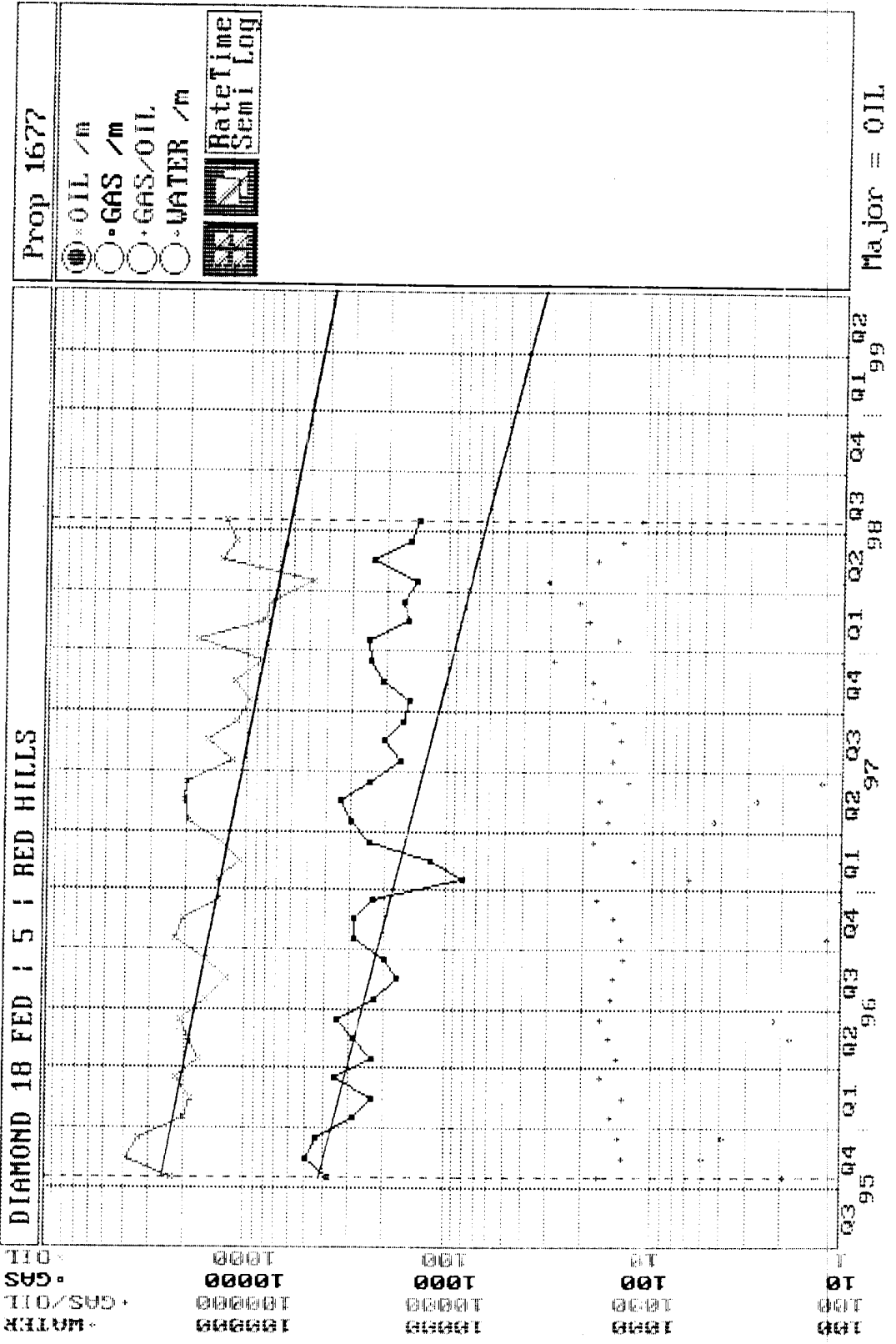
DHC: 0; CWC: 113,000

10/13/97	24 hrs pumped, 97 MCF, 120 BO, 8 x 130" SPM, 500 TP, 200 CP, 47 BW, 53 LP. CWC \$76,433.
10/14/97	24 hrs pump, 44 MCF, 3 BC, 10-1/2 x 130" SPM, 45 TP, 10 CP, 53 LP. CWC \$76,433.
10/15/97	24 hrs pump, 36 MCF, 33 BO, 10-1/2 x 130" SPM, 45 TP, 10 CP, 53 LP. CWC \$345. CWC \$76,778.
10/16/97	24 hrs pump, 67 MCF, 50 BC, 10-1/2 x 130" SPM, 60 TP, 140 CP, 1 BW, 51 LP. CWC \$76,778.
10/17/97	10 hrs MIRU Cobra WSU. Dug out csg valve. W/O rig, MI&Set steel rig mat. MIRU Rapid transport, pumped 13 bbls PW down tbg. TOH with 3 way tapered rod string and 2-1/2" x 2" x 1-3/4" x 30' 3 tube pump. Pump is stuck closed, will not scope out. Found 85 3/4" spray metal rod couplings severely worn and 13-3/4" rods badly worn. Secured well, SDFN. CWC \$1,995. CWC \$78,773.
10/18/97	8-1/2 hrs tbg kicked and started flowing. Killed well with produced water. RIH with rods replacing worn rods. Well on pump 10.2 x 130" SPM @ 3:30 pm. CWC \$3,375. CWC \$82,148.
10/19/97	20 hrs pump, 48 MCF, 56 BO, 10 x 130" SPM, 60 TP, 320 CP, 65 BW, 55 LP. CWC \$82,148.
10/20/97	1 hr crew to location, 1 hr road rig out. 24 hrs pump, 89 MCF, 34 BO, 10.2 x 130" SPM 50 TP, 60 CP, 0 BW, 54 LP. CWC \$698. CWC \$82,846.
10/21/97	24 hrs pump, 67 MCF, 42 BO, 10.2 x 130" SPM 60 TP, 260 CP, 53 LP. CWC \$82,846.
10/22/97	24 hrs pump, 67 MCF, 42 BO, 10.2 x 130", 60 TP, 260 CP, 53 LP. CWC \$82,846.
10/23/97	24 hrs pmp, 41 MCF, 30 BO, 10.2 x 130" SPM, 95 TP, 260 CP, 53 LP. CWC \$82,846.
11/02/97	Installed poles for power line to location. Incomplete. Dip not hang wire. Should finish Monday 11-03-97. CWC \$82,846.
11/03/97	Building pumping unit. Plan to complete installing service 11/4/97. CWC \$82,846.
11/04/97	Building pumping unit. CWC \$7,385. CWC \$90,231.
01/12/98	Shut down prep to change pump. CWC \$1,258. CWC \$91,489.

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DIAMOND "18" FEDERAL NC. 5
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Sec 18, T25S, R34E
LEA Co., NM
Spud Date: 09/15/95

ENRON OIL & GAS COMPANY
DEV D&C: 12,600' BONT SPRING
RED HILLS Field
EOG%: 100.0000% WI 82.5000% NRI
AFE No.: 10-1402
DHC: 0; CWC: 113,000

01/13/98	SI. Stripping operation. DWC \$3,031. CWC \$94,520.
01/14/98	Released TAC and TOH. DWC \$2,787. CWC \$97,307.
01/18/98	24 hrs pump, 111 MCF, 67 BO, 10.2 x 130" SPM, 200 TP, 100 CP, 55 BW. CWC \$97,307.
01/19/98	24 hrs pump, 94 MCF, 111 BO, 10.2 x 130" SPM, 150 TP, 125 CP. CWC \$97,307.
01/20/98	No test. CWC \$97,307.



Daimond 18 Fed. No. 5

Future Production Before Workover

IP Rate at WO on 03/97 Decline(exp)
 Oil 1100 BOPM 43 %/yr
 Gas 1800 mcf/mo 50 %/yr

Date	Oil BOPM	Gas MCF/Mo
4/15/97	1100.0	1800.0
5/15/97	1061.3	1726.5
6/15/97	1023.9	1656.1
7/15/97	987.9	1588.5
8/15/97	953.1	1523.7
9/15/97	919.6	1461.5
10/15/97	887.2	1401.8
11/15/97	856.0	1344.6
12/15/97	825.8	1289.8
1/15/98	796.8	1237.1
2/15/98	768.7	1186.6
3/15/98	741.7	1138.2
4/15/98	715.6	1091.8
5/15/98	690.4	1047.2
6/15/98	666.1	1004.5
7/15/98	642.6	963.5
8/15/98	620.0	924.2
9/15/98	598.2	886.4
10/15/98	577.1	850.3
11/15/98	0.0	815.6
12/15/98	0.0	782.3
1/15/99	0.0	750.4
2/15/99	0.0	719.7
3/15/99	0.0	690.4
4/15/99	0.0	662.2
5/15/99	0.0	635.2
6/15/99	0.0	609.2
7/15/99	0.0	584.4
8/15/99	0.0	560.5
9/15/99	0.0	537.7
10/15/99	0.0	515.7
11/15/99	0.0	494.7
12/15/99	0.0	474.5
1/15/00	0.0	455.1
2/15/00	0.0	436.5
3/15/00	0.0	418.7
4/15/00	0.0	401.6
5/15/00	0.0	385.2
6/15/00	0.0	369.5
7/15/00	0.0	354.4
8/15/00	0.0	340.0
9/15/00	0.0	326.1
10/15/00	0.0	312.8

Date	Oil BOPM	Gas MCF/Mo
11/15/00	0.0	300.0
12/15/00	0.0	287.8
1/15/01	0.0	276.0
2/15/01	0.0	264.8
3/15/01	0.0	254.0
4/15/01	0.0	243.6
5/15/01	0.0	233.7
6/15/01	0.0	224.1
7/15/01	0.0	215.0
8/15/01	0.0	206.2
9/15/01	0.0	197.8
10/15/01	0.0	189.7
11/15/01	0.0	182.0
12/15/01	0.0	174.5
1/15/02	0.0	167.4
2/15/02	0.0	160.6
3/15/02	0.0	154.0
4/15/02	0.0	147.8
5/15/02	0.0	141.7
6/15/02	0.0	135.9
7/15/02	0.0	130.4
8/15/02	0.0	125.1
9/15/02	0.0	120.0
10/15/02	0.0	115.1
11/15/02	0.0	110.4
12/15/02	0.0	105.9
1/15/03	0.0	101.5
2/15/03	0.0	97.4
3/15/03	0.0	93.4
4/15/03	0.0	89.6
5/15/03	0.0	86.0
6/15/03	0.0	82.5
7/15/03	0.0	79.1
8/15/03	0.0	75.9
9/15/03	0.0	72.8
10/15/03	0.0	69.8
11/15/03	0.0	66.9
12/15/03	0.0	64.2
1/15/04	0.0	61.6
2/15/04	0.0	59.1
3/15/04	0.0	56.7
4/15/04	0.0	54.4
5/15/04	0.0	52.1

Date	Oil BOPM	Gas MCF/Mo
6/15/04	0.0	50.0
7/15/04	0.0	48.0
8/15/04	0.0	46.0
9/15/04	0.0	44.1
10/15/04	0.0	42.3
11/15/04	0.0	40.6
12/15/04	0.0	38.9
1/15/05	0.0	37.4
2/15/05	0.0	35.8
3/15/05	0.0	34.4
4/15/05	0.0	0.0