STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery __X__Pressure Maintenance _____Disposal _____Storage
Application qualifies for administrative approval? _____ Yes __X__ No

II. OPERATOR: EOG RESOURCES

ADDRESS: 4000 N. BIG SPRING ST.,SUITE 500, MIDLAND, TX 79705

CONTACT PARTY: RANDY CATE ; MIKE FRANCIS PHONE: 915-687-4135

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? X Yes _____No
If yes, give the Division order number authorizing the project: R-11389

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: RANDALL S. CATE TITLE: PROJECT ENGINEER

SIGNATURE: _____ DATE: 2/27/2002

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 12843 Exhibit No. 4
Submitted by:
EOG RESOURCES, INC.
Hearing Date: March 21, 2002

ections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted.
nces of the earlier submittal: VIII. WAS SUBMITTED MAY 18, 2000 CASE NO. 12399

to Santa Fe with one copy to the appropriate District Office

1.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

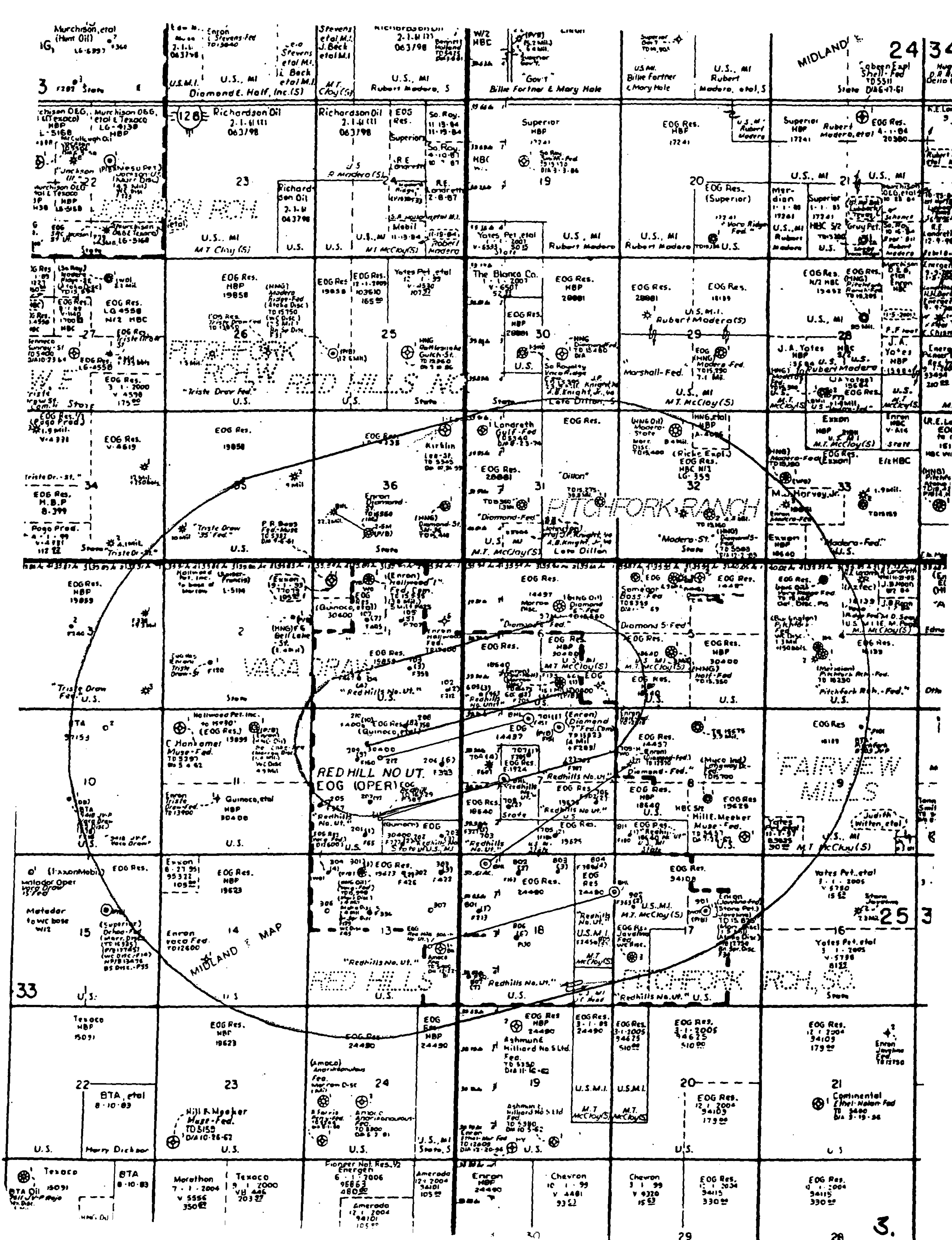
(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.


MIDLAND
Richardson Oil
Diamond E. Half, Inc.(S)
Billie Fortner & Mary Hale
Robert Madera, S
Superior
EOG Res.
U.S., MI
M.T. Clay (S)
Robert Madera
The Blanco Co.
EOG Res. HBP 19858
"Triste Draw Fed."
PITCHFORK RCH
RED HILLS
Yates Pet. etal
M.T. McCloy(S)
Lela Dillon
Marshall-Fed.
J.A. Yates
PITCHFORK RANCH
"Madera-St."
"Madera-Fed."
Exxon
M.J. Harvey, Jr.
"Diamond-Fed"
Landreth
Kirklin
VACA DRAW
"Red Hills No. Ut."
"Diamond 6" Fed."
Diamond 5 Fed.
EOG Res. 14497
Pitchfork Rch.-Fed.
Hollywood Pet. Inc.
C Hankamer Muse-Fed.
RED HILL NO UT.
EOG (OPER)
Quinoco, etal
"Redhills No. Ut."
"Diamond-Fed."
FAIRVIEW MILLS
Hill-Meeker Muse-Fed.
Yates Pet. etal
M.T. McCloy(S)
Matador
Enron Vaca Fed.
MIDLAND MAP
Redhills No. Ut.
PITCHFORK RCH, SO.
Texaco HBP 15091
EOG Res. HBP 19623
EOG Res. 24490
Ashmun & Hilliard No. 5 Ltd.
Amoco
BTA, etal 8-10-83
Hill & Meeker Muse-Fed.
Harry Dickson
Continental Ethel-Nelson Fed
Texaco
BTA Oil
Marathon
Pioneer Nat. Res. 1/2 Energen
Amerada
Enron HBP 24490
Chevron
EOG Res.
U.S.
State
3.

APPLICATION FOR AUTHORIZATION TO INJECT
RED HILLS NORTH UNIT #606H - WATER INJECTION

VI. TABULATION OF DATA ON WELLS IN AREA OF REVIEW

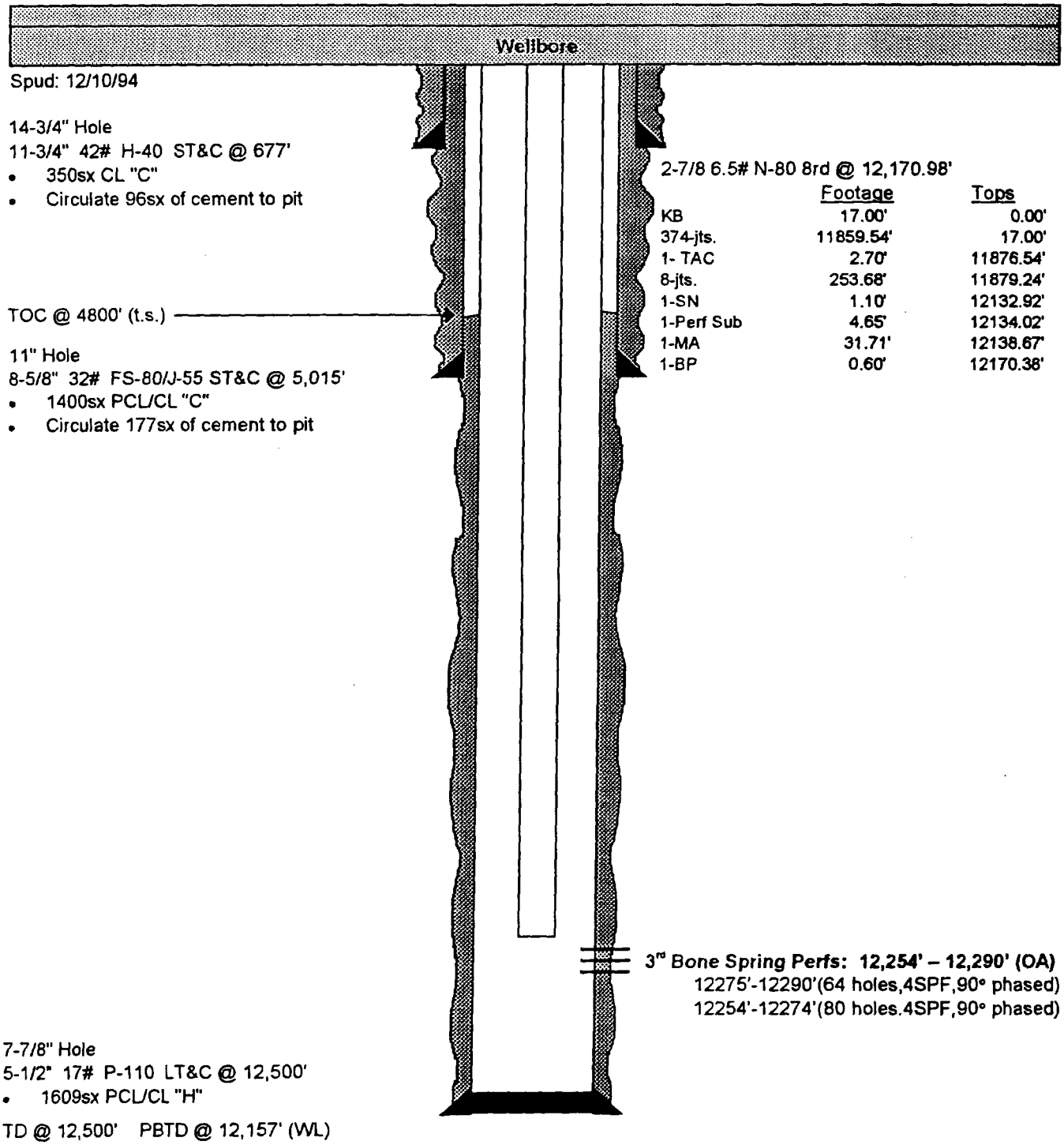
API	UNITIZED LEASE NAME	ORIGINAL LEASE NAME	TYPE	STATUS	SPUD DATE	COMP DATE	TD	PB DEPTH	N/S FTG	N/S DIR	E/W FTG	E/W DIR	SEC	TWP	RNG	HOLE DIR
30025327480000	RED HILLS NORTH UNIT #102	HALLWOOD `1` FEDERAL #2	OIL	ACT	19941210	19950116	12500	12396	510	FSL	660	FEL	1	25	33	Vertical
30025328860000	RED HILLS NORTH UNIT #103	HALLWOOD `1` FEDERAL #3	OIL	ACT	19950305	19950403	12550	12440	1430	FSL	1830	FEL	1	25	33	Vertical
30025328870000	RED HILLS NORTH UNIT #104	HALLWOOD `1` FEDERAL #4	OIL	ACT	19950512	19950607	12500	12450	1060	FSL	1650	FWL	1	25	33	Vertical
30025325270000	RED HILLS NORTH UNIT #206	HALLWOOD `12` FEDERAL #6	OIL	ACT	19940606	19940716	12600	12562	1980	FNL	660	FEL	12	25	33	Vertical
30025325840000	RED HILLS NORTH UNIT #207	HALLWOOD `12` FEDERAL #7	OIL	ACT	19940727	19940909	12600	12553	1630	FSL	2130	FWL	12	25	33	Vertical
30025327890000	RED HILLS NORTH UNIT #209	HALLWOOD `12` FEDERAL #9	OIL	ACT	19941210	19950114	12540	12405	1830	FNL	1650	FWL	12	25	33	Vertical
30025328950000	RED HILLS NORTH UNIT #210	HALLWOOD `12` FEDERAL #10	OIL	ACT	19950327	19960502	12550	12446	660	FNL	1880	FWL	12	25	33	Vertical
30025350770000	RED HILLS NORTH UNIT #211	RED HILLS NORTH UNIT #211	OIL	ACT	20000831	20001128	16229	16095	1250	FSL	2449	FWL	12	25	33	Horizontal
30025353630000	RED HILLS NORTH UNIT #212	RED HILLS NORTH UNIT #212	OIL	ACT	20010312	20010526	17296		1750	FNL	2475	FWL	12	25	33	Horizontal
30025309820001	RED HILLS NORTH UNIT #601	HALF `6` FEDERAL COM #1	OIL-WO	ACT	19950405	19950416	15700	12935	990	FSL	1980	FEL	6	25	34	Vertical
30025309820000	RED HILLS NORTH UNIT #601	HALF `6`FEDERAL COM #1	GAS	INA	19900912	19910123	15675	15406	990	FSL	1980	FEL	6	25	34	Vertical
30025326110000	RED HILLS NORTH UNIT #602	HALF `6` FEDERAL #2	OIL	ACT	19940928	19941031	12600	12508	510	FSL	1980	FWL	6	25	34	Vertical
30025326800000	RED HILLS NORTH UNIT #603	HALF `6` FEDERAL #3	OIL	ACT	19941023	19941128	12600	12421	510	FSL	660	FWL	6	25	34	Vertical
30025328110000	RED HILLS NORTH UNIT #604	HALF `6` FEDERAL #4	D&A	INA	19950105	19950128	12516		810	FSL	660	FEL	6	25	34	Vertical
30025316380000	RED HILLS NORTH UNIT #701	DIAMOND `7` FEDERAL COM #1	OIL	INA	19920718	19921016	15623	15566	660	FNL	1980	FEL	7	25	34	Vertical
30025316380001	RED HILLS NORTH UNIT #701	DIAMOND `7` FEDERAL COM #1	OIL-WO	ACT	19961102	19970522	15623	12648	660	FNL	1980	FEL	7	25	34	Vertical
30025322460000	RED HILLS NORTH UNIT #702	DIAMOND `7` FEDERAL #2	OIL	INA	19931009	19931212	12600	12507	1980	FNL	1780	FEL	7	25	34	Vertical
30025322490000	RED HILLS NORTH UNIT #707	DIAMOND `7` STATE #1	OIL	ACT	19940116	19940302	12550	12337	1650	FNL	2310	FWL	7	25	34	Vertical

* See attached wellbore schematics for well construction and completion detail.

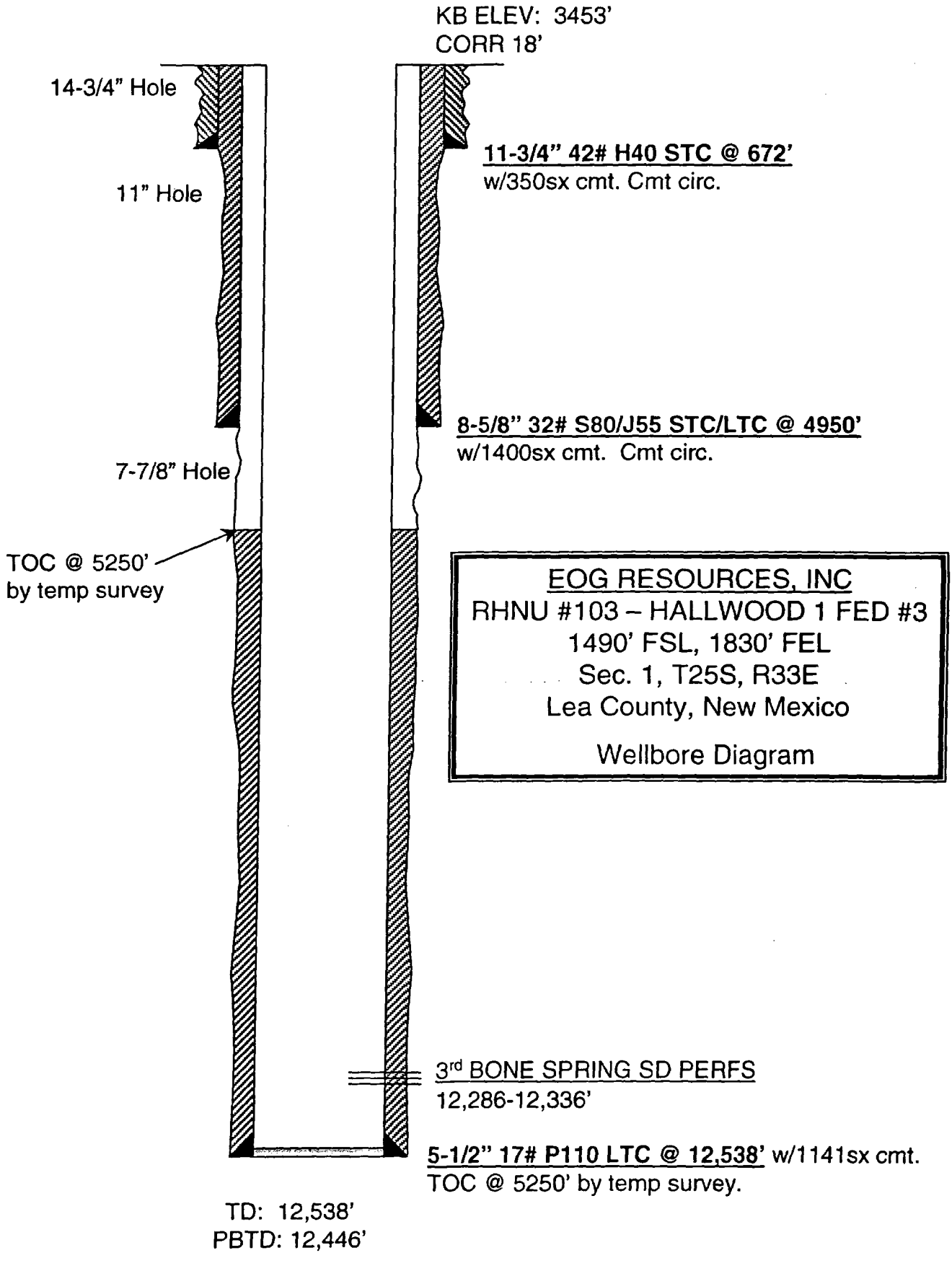
EOG RESOURCES, INC.
510' FSL & 660' FEL
Sec.1-T25S-R33E

RHNU NO. 102
LEA CO., NEW MEXICO
JULY 28, 2000

WELLBORE SCHEMATIC



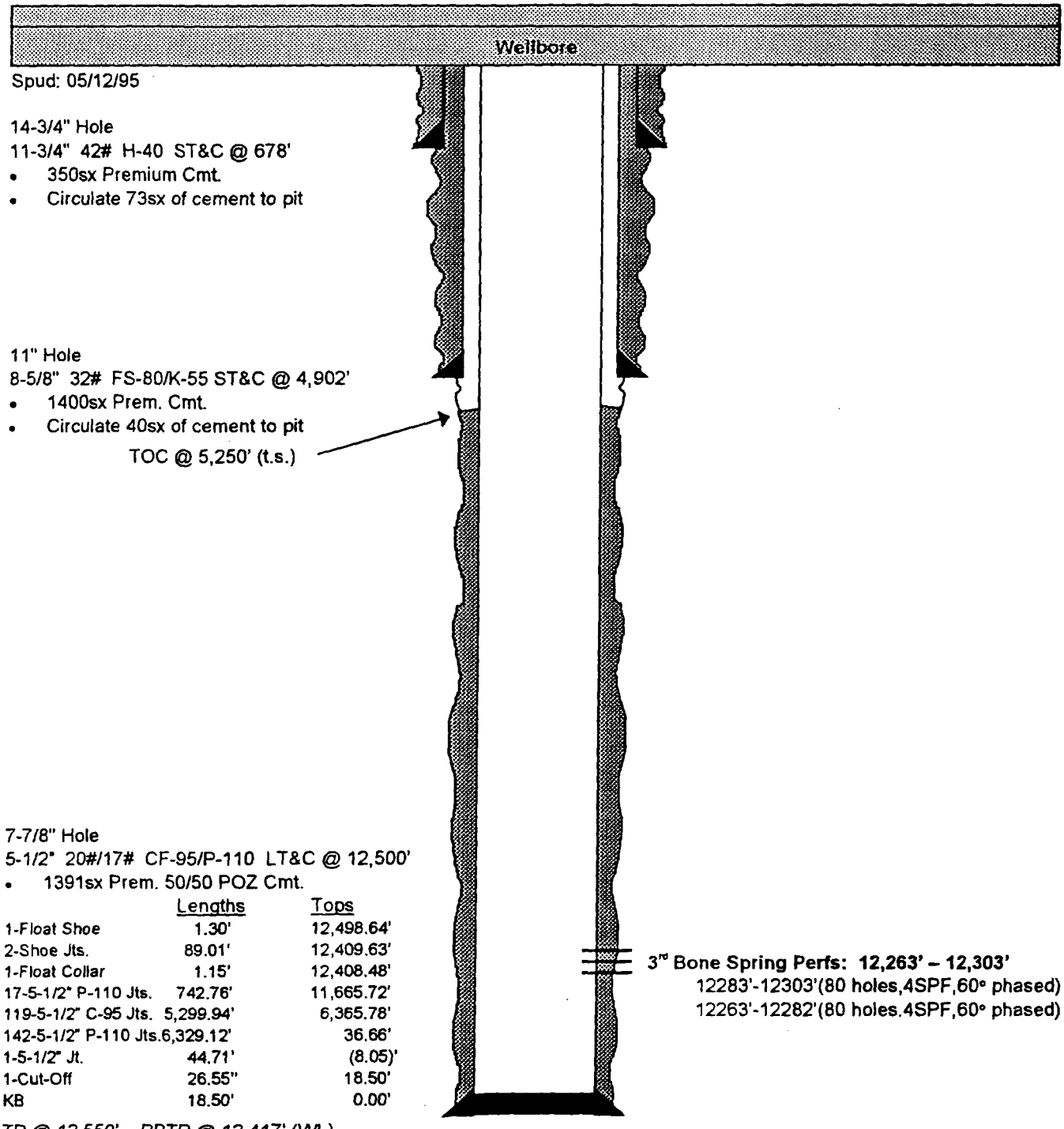
	Footage	Tops
KB	17.00'	0.00'
374-jts.	11859.54'	17.00'
1- TAC	2.70'	11876.54'
8-jts.	253.68'	11879.24'
1-SN	1.10'	12132.92'
1-Perf Sub	4.65'	12134.02'
1-MA	31.71'	12138.67'
1-BP	0.60'	12170.38'


KB ELEV: 3453'
CORR 18'
14-3/4" Hole
11" Hole
11-3/4" 42# H40 STC @ 672'
w/350sx cmt. Cmt circ.
8-5/8" 32# S80/J55 STC/LTC @ 4950'
w/1400sx cmt. Cmt circ.
7-7/8" Hole
TOC @ 5250'
by temp survey
EOG RESOURCES, INC
RHNU #103 – HALLWOOD 1 FED #3
1490' FSL, 1830' FEL
Sec. 1, T25S, R33E
Lea County, New Mexico
Wellbore Diagram
3rd BONE SPRING SD PERFS
12,286-12,336'
5-1/2" 17# P110 LTC @ 12,538' w/1141sx cmt.
TOC @ 5250' by temp survey.
TD: 12,538'
PBTD: 12,446'

EOG RESOURCES, INC.
1060' FSL & 1650' FWL
Sec.1-T25S-R33E

RHNU NO. 104
LEA CO., NEW MEXICO
DECEMBER 12, 2000

WELLBORE SCHEMATIC



Spud: 05/12/95

14-3/4" Hole
11-3/4" 42# H-40 ST&C @ 678'
- 350sx Premium Cmt.
- Circulate 73sx of cement to pit

11" Hole
8-5/8" 32# FS-80/K-55 ST&C @ 4,902'
- 1400sx Prem. Cmt.
- Circulate 40sx of cement to pit

TOC @ 5,250' (t.s.)

7-7/8" Hole
5-1/2" 20#/17# CF-95/P-110 LT&C @ 12,500'
- 1391sx Prem. 50/50 POZ Cmt.

	Lengths	Tops
1-Float Shoe	1.30'	12,498.64'
2-Shoe Jts.	89.01'	12,409.63'
1-Float Collar	1.15'	12,408.48'
17-5-1/2" P-110 Jts.	742.76'	11,665.72'
119-5-1/2" C-95 Jts.	5,299.94'	6,365.78'
142-5-1/2" P-110 Jts.	6,329.12'	36.66'
1-5-1/2" Jt.	44.71'	(8.05)'
1-Cut-Off	26.55"	18.50'
KB	18.50'	0.00'

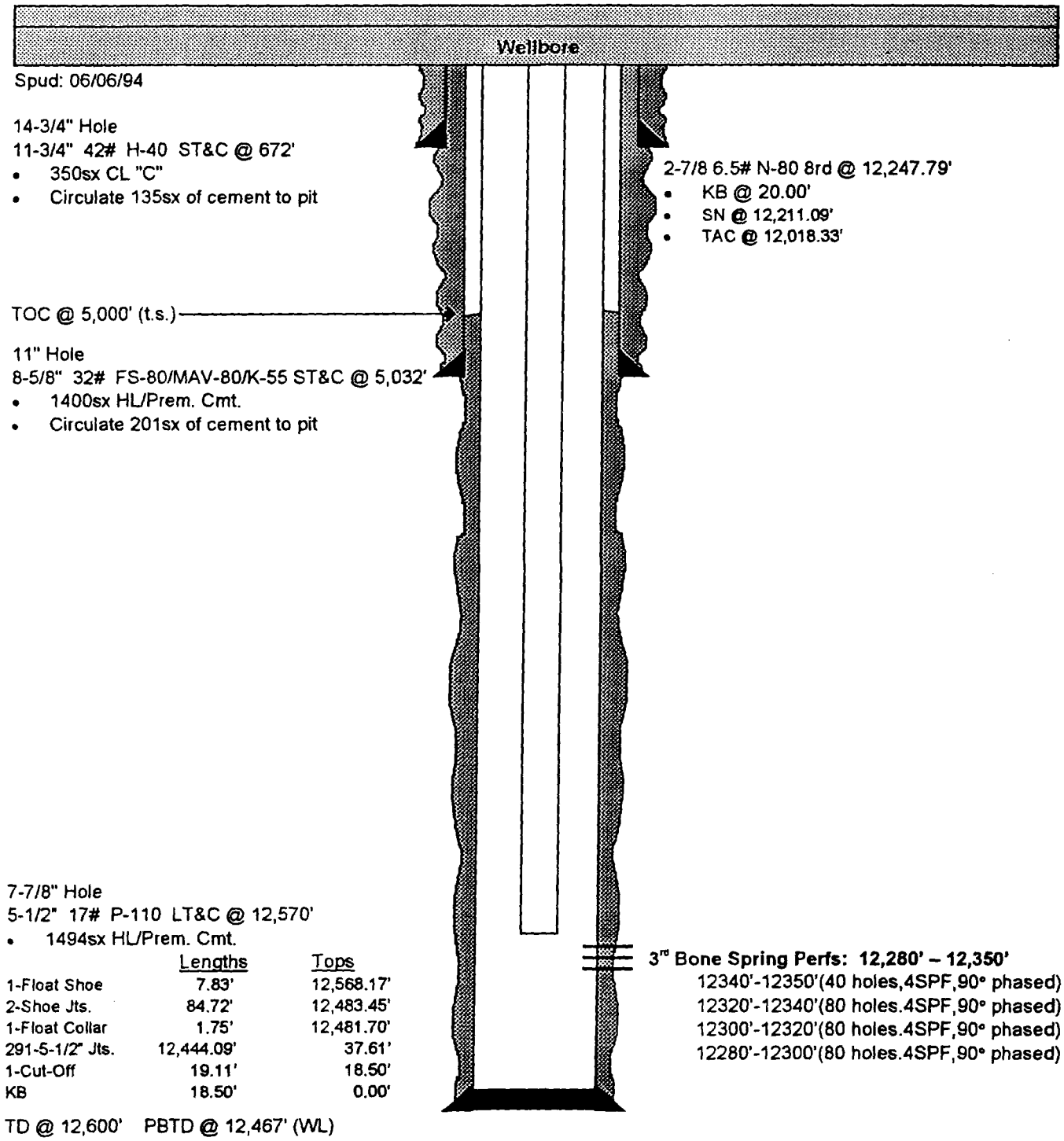
TD @ 12,550' PBTD @ 12,417' (WL)

3rd Bone Spring Perfs: **12,263' – 12,303'**
12283'-12303'(80 holes,4SPF,60° phased)
12263'-12282'(80 holes.4SPF,60° phased)

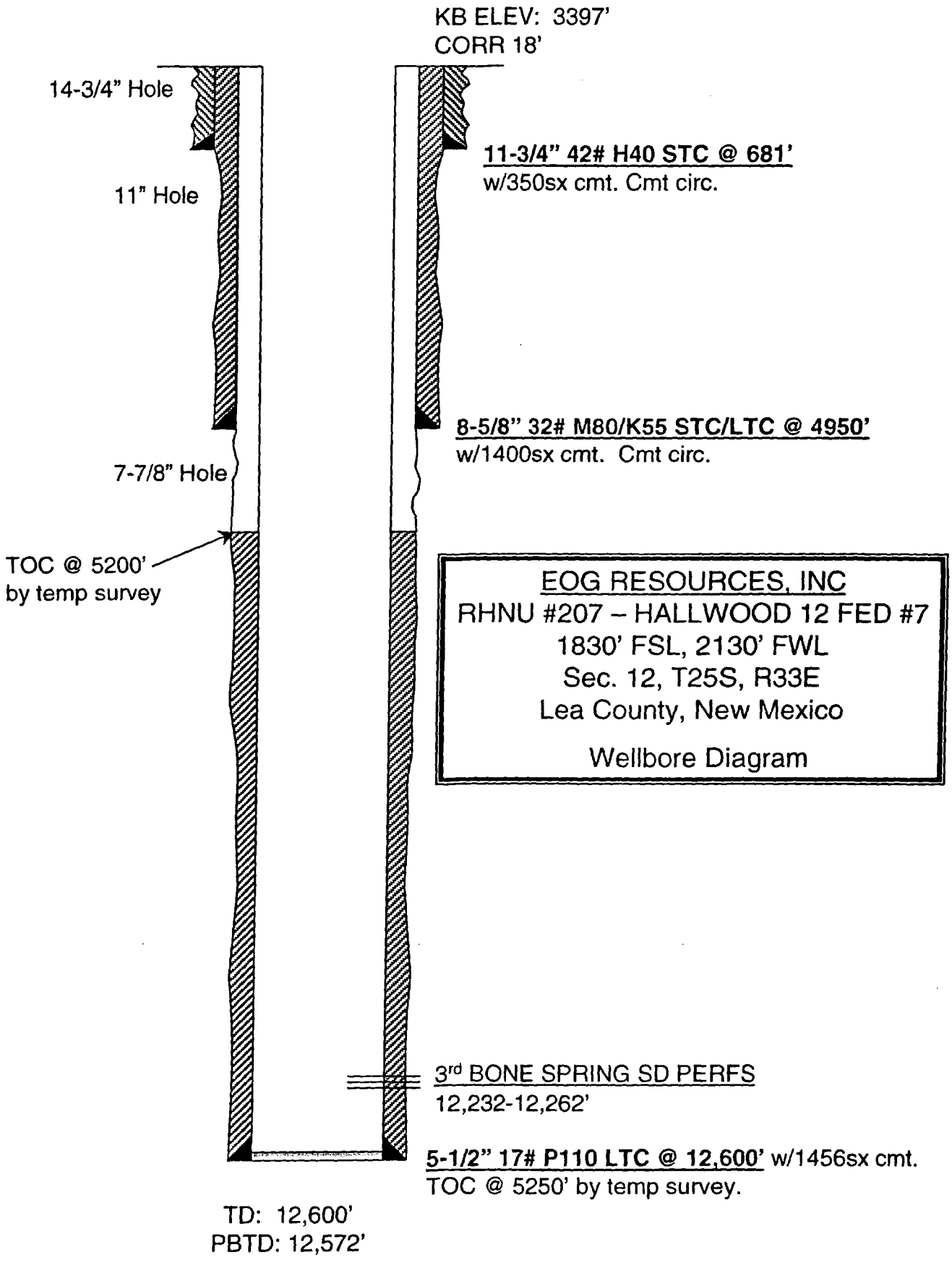
EOG RESOURCES, INC.
1980' FNL & 660' FEL
Sec.12-T25S-R33E

RHNU NO. 206 / HALLWOOD "12" FEDERAL NO. 6
LEA CO., NEW MEXICO
DECEMBER 11, 2000

WELLBORE SCHEMATIC



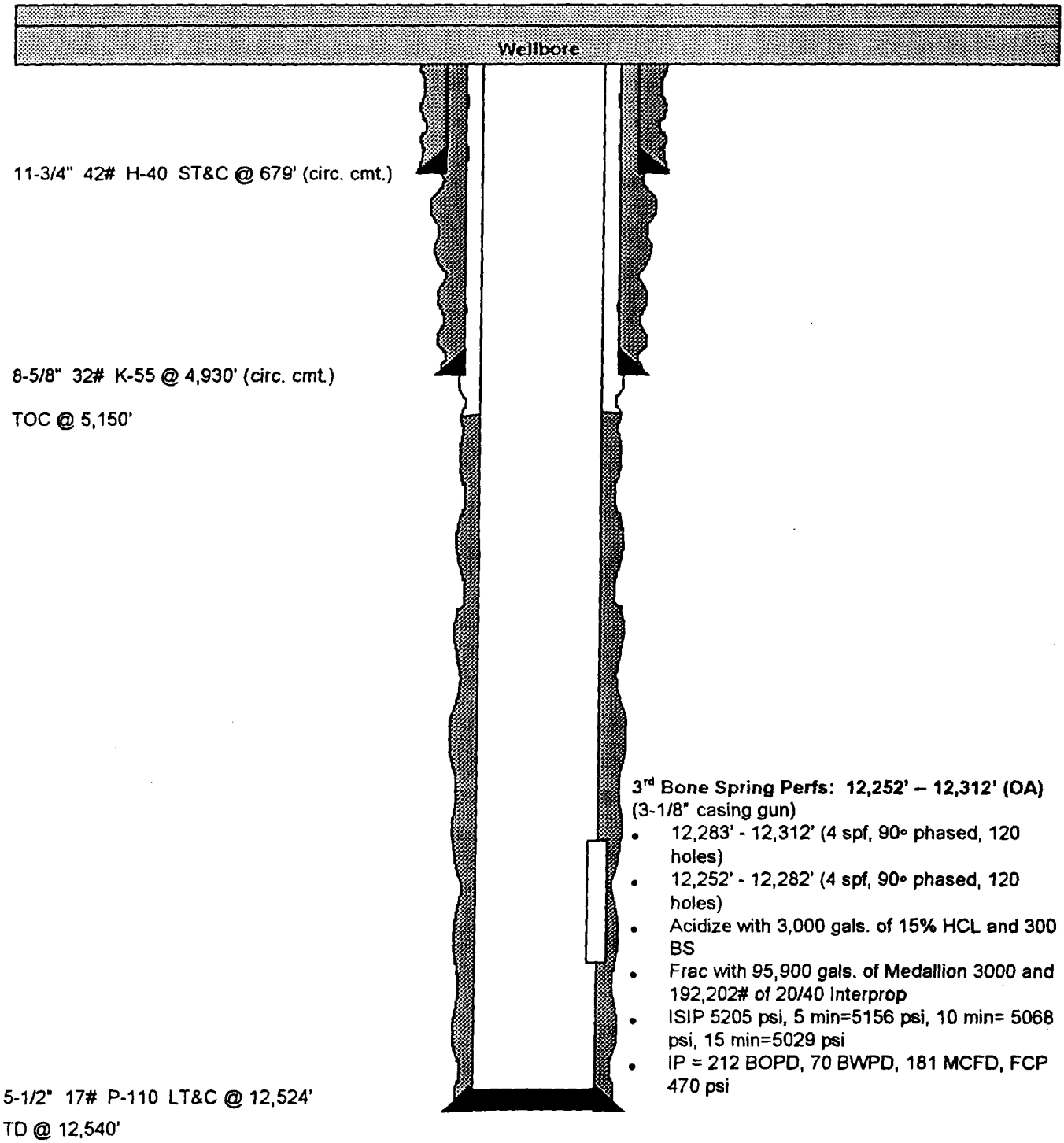
	Lengths	Tops
1-Float Shoe	7.83'	12,568.17'
2-Shoe Jts.	84.72'	12,483.45'
1-Float Collar	1.75'	12,481.70'
291-5-1/2" Jts.	12,444.09'	37.61'
1-Cut-Off	19.11'	18.50'
KB	18.50'	0.00'


KB ELEV: 3397'
CORR 18'
14-3/4" Hole
11" Hole
7-7/8" Hole
TOC @ 5200'
by temp survey
11-3/4" 42# H40 STC @ 681'
w/350sx cmt. Cmt circ.
8-5/8" 32# M80/K55 STC/LTC @ 4950'
w/1400sx cmt. Cmt circ.
EOG RESOURCES, INC
RHNU #207 – HALLWOOD 12 FED #7
1830' FSL, 2130' FWL
Sec. 12, T25S, R33E
Lea County, New Mexico
Wellbore Diagram
3rd BONE SPRING SD PERFS
12,232-12,262'
5-1/2" 17# P110 LTC @ 12,600' w/1456sx cmt.
TOC @ 5250' by temp survey.
TD: 12,600'
PBTD: 12,572'

EOG RESOURCES, INC.
1830' FNL & 1650' FWL
SEC. 12-T25S-R33E

RHNU NO. 209
LEA CO., NEW MEXICO
MAY 13, 199

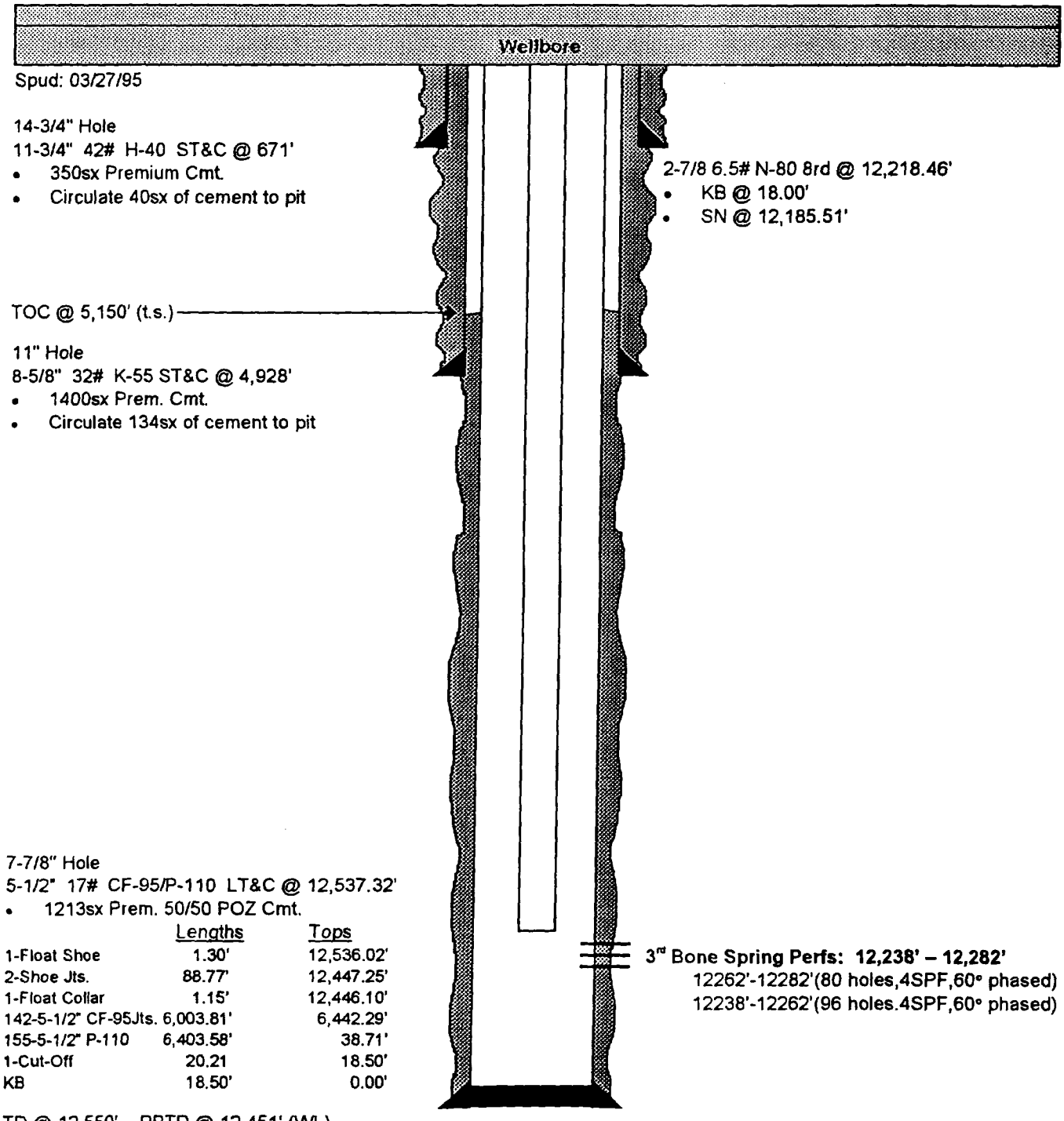
WELLBORE SCHEMATIC



EOG RESOURCES, INC.
660' FNL & 1880' FWL
Sec.12-T25S-R33E

RHNU NO. 210 / HALLWOOD "12" FEDERAL NO. 10
LEA CO., NEW MEXICO
DECEMBER 11, 2000

WELLBORE SCHEMATIC



Spud: 03/27/95

14-3/4" Hole
11-3/4" 42# H-40 ST&C @ 671'
- 350sx Premium Cmt.
- Circulate 40sx of cement to pit

TOC @ 5,150' (t.s.)

11" Hole
8-5/8" 32# K-55 ST&C @ 4,928'
- 1400sx Prem. Cmt.
- Circulate 134sx of cement to pit

2-7/8 6.5# N-80 8rd @ 12,218.46'
- KB @ 18.00'
- SN @ 12,185.51'

7-7/8" Hole
5-1/2" 17# CF-95/P-110 LT&C @ 12,537.32'
- 1213sx Prem. 50/50 POZ Cmt.

	Lengths	Tops
1-Float Shoe	1.30'	12,536.02'
2-Shoe Jts.	88.77'	12,447.25'
1-Float Collar	1.15'	12,446.10'
142-5-1/2" CF-95Jts.	6,003.81'	6,442.29'
155-5-1/2" P-110	6,403.58'	38.71'
1-Cut-Off	20.21	18.50'
KB	18.50'	0.00'

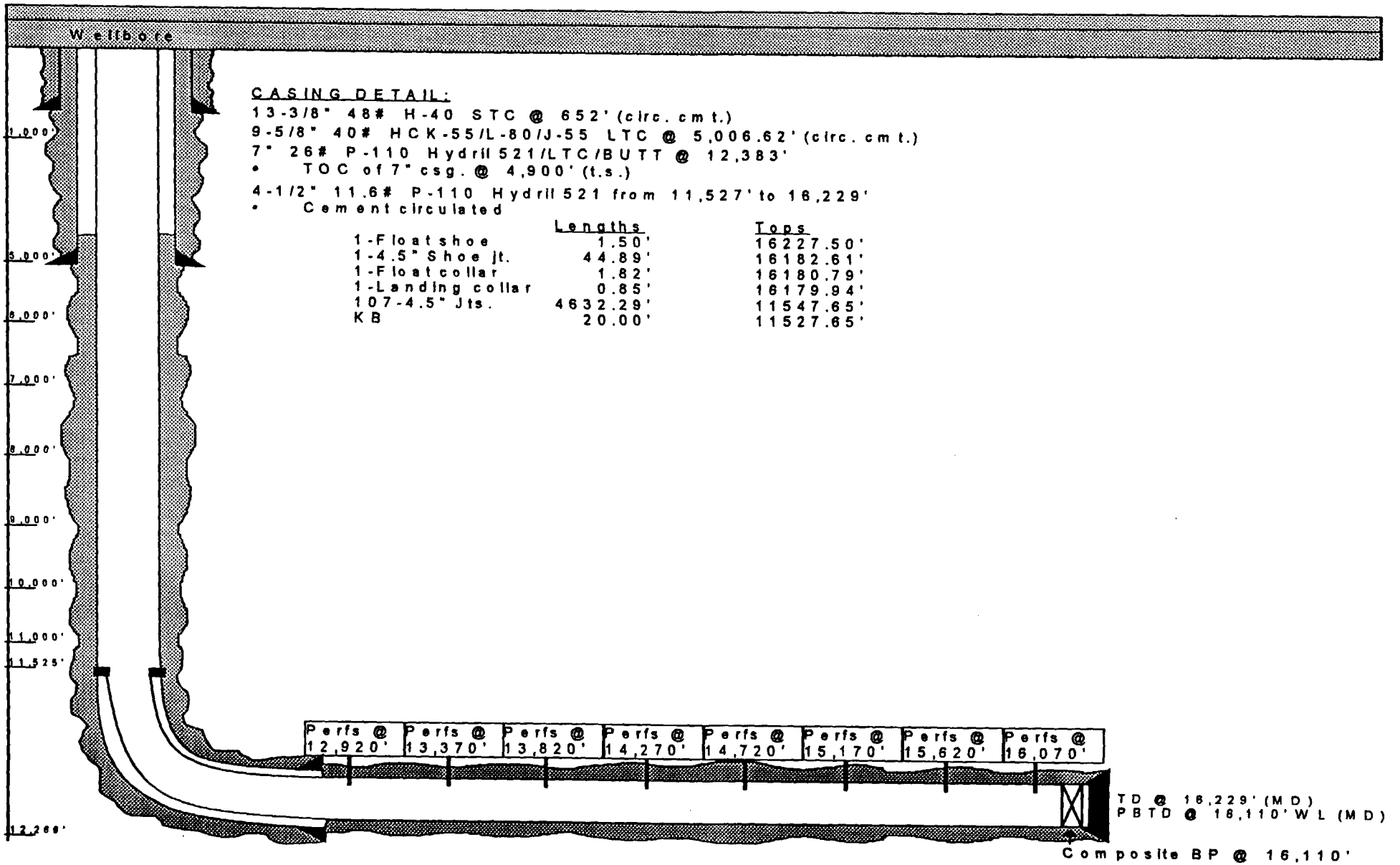
TD @ 12,550' PBTD @ 12,451' (WL)

3rd Bone Spring Perfs: **12,238' – 12,282'**
12262'-12282'(80 holes,4SPF,60° phased)
12238'-12262'(96 holes.4SPF,60° phased)

EOG RESOURCES, INC.
S.L. 1250' FSL & 2449' FWL SEC.12,T25S,R33E
B.H.L. 1441' FWL & 2671' FSL SEC.7,T25S,R34E

RHNU NO. 211
LEA COUNTY, N.M.
FEB 27, 2002

WELL SCHEMATIC



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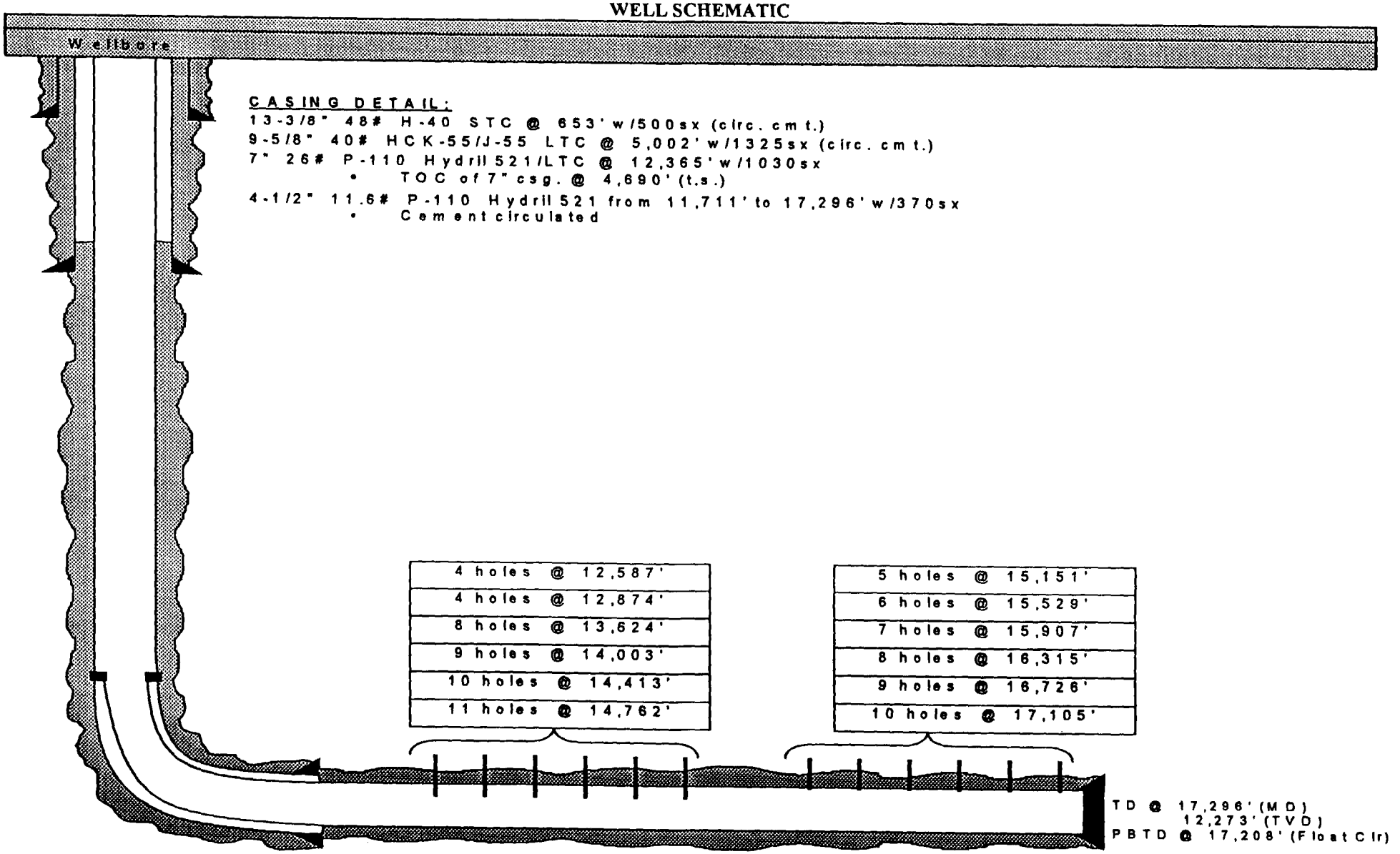
EOG RESOURCES, INC.
S.L.2475' FWL, 1750' FNL, Sec. 12, T25S, R33E
B.H.L. 2300' FWL & 320' FNL, SEC 7, T25S,R34E

RHNU N0. 212
LEA COUNTY, NEW MEXICO
FEB 27, 2002

WELL SCHEMATIC



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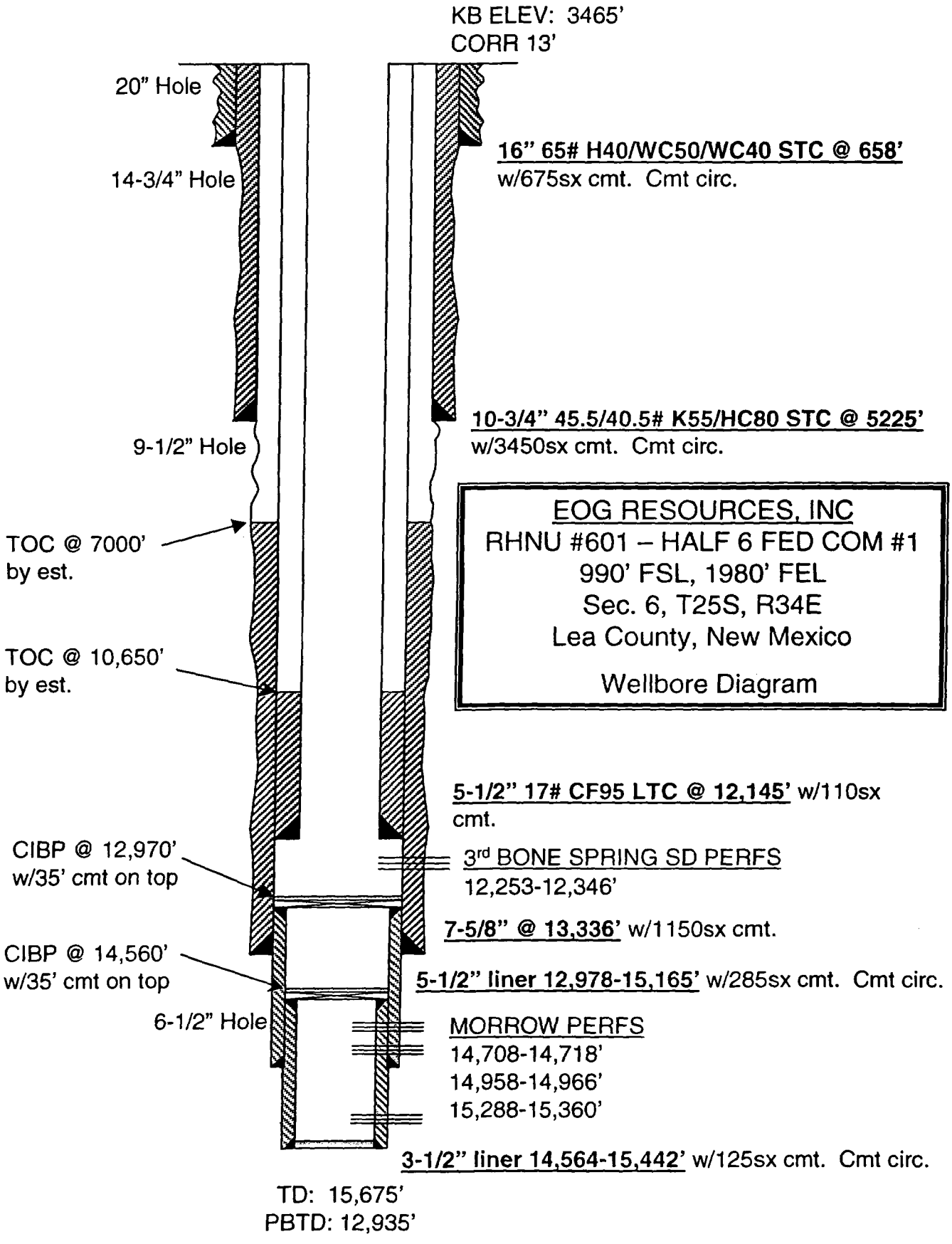
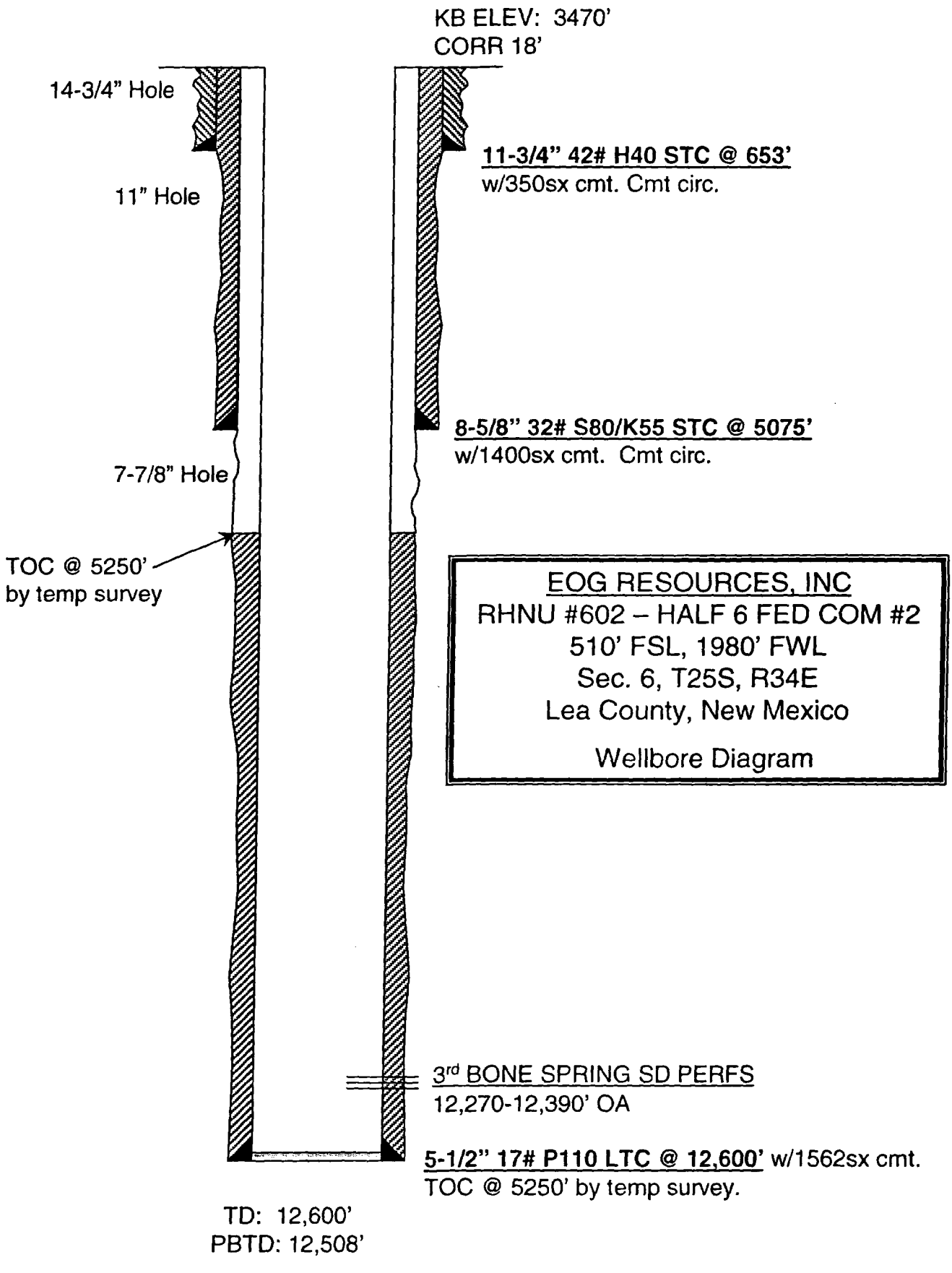
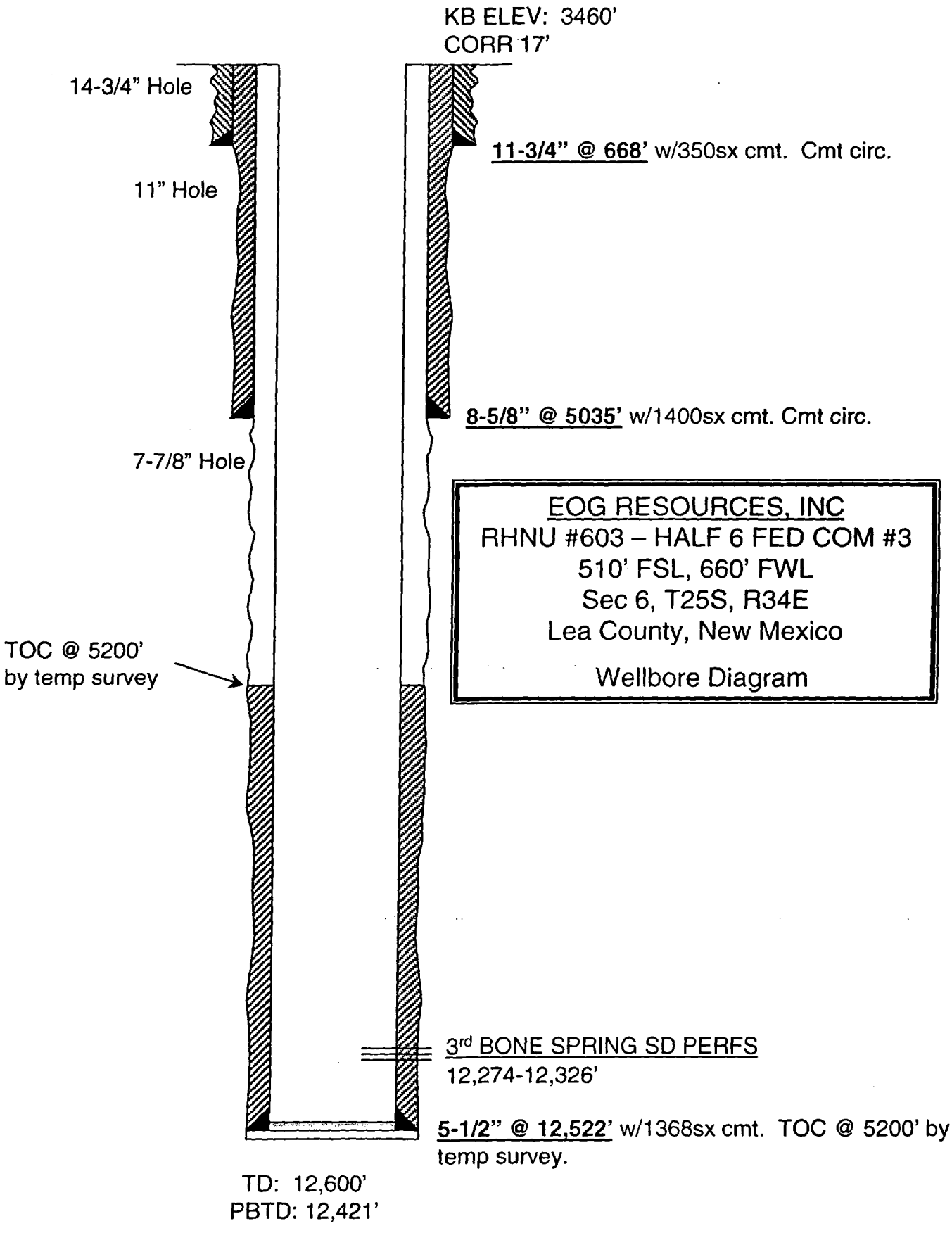
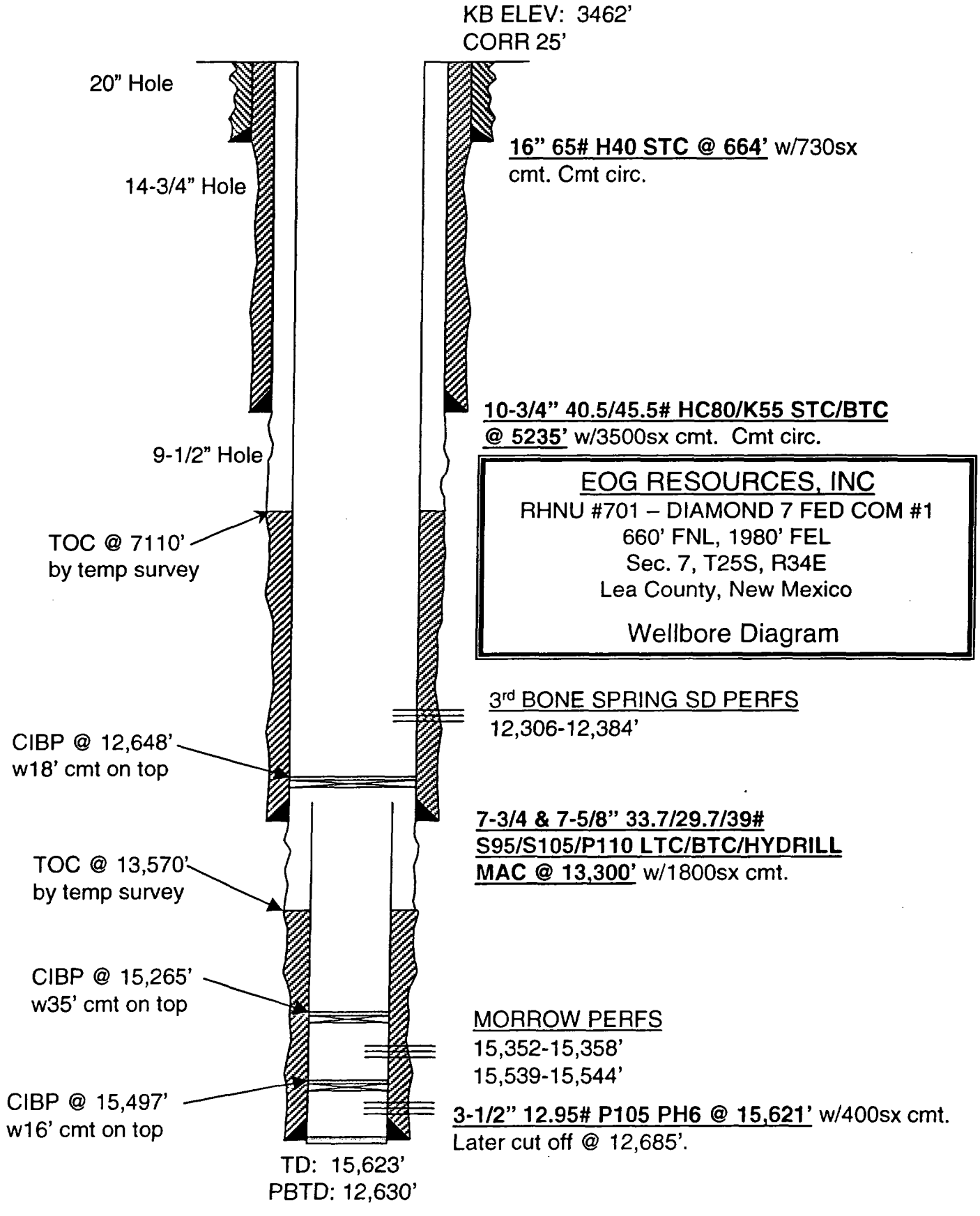
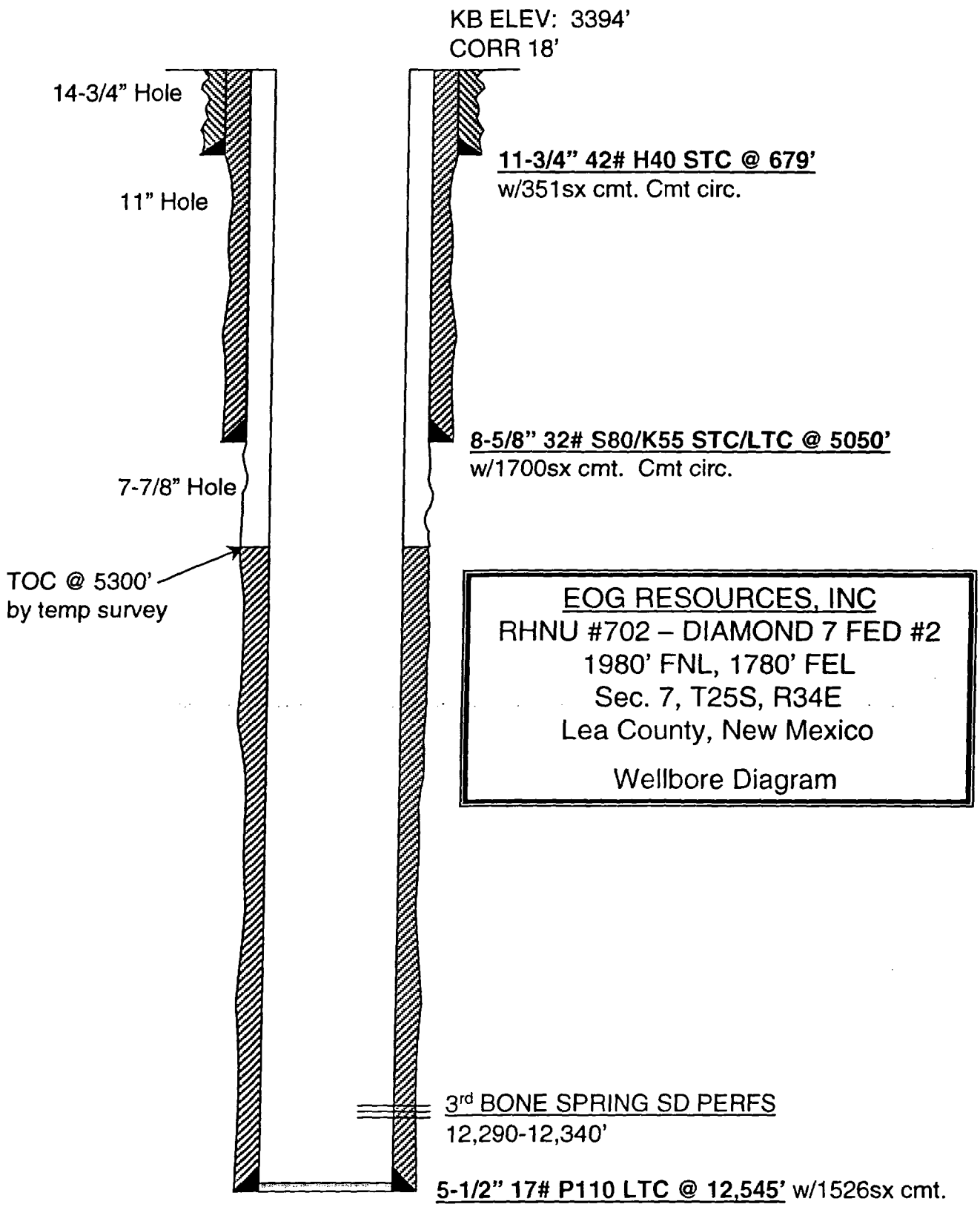
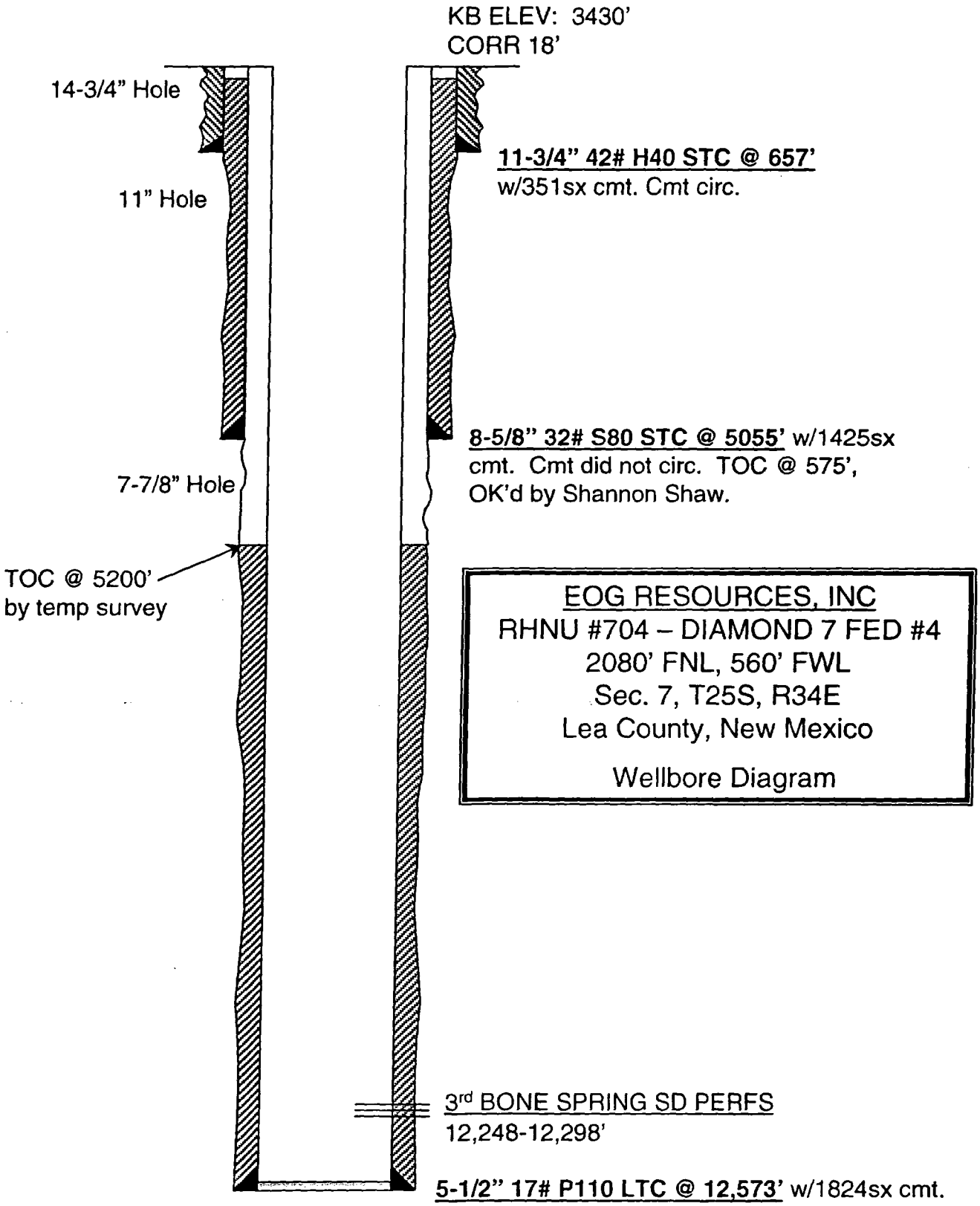

KB ELEV: 3465'
CORR 13'
20" Hole
14-3/4" Hole
16" 65# H40/WC50/WC40 STC @ 658'
w/675sx cmt. Cmt circ.
9-1/2" Hole
10-3/4" 45.5/40.5# K55/HC80 STC @ 5225'
w/3450sx cmt. Cmt circ.
TOC @ 7000'
by est.
TOC @ 10,650'
by est.
EOG RESOURCES, INC
RHNU #601 – HALF 6 FED COM #1
990' FSL, 1980' FEL
Sec. 6, T25S, R34E
Lea County, New Mexico
Wellbore Diagram
5-1/2" 17# CF95 LTC @ 12,145' w/110sx cmt.
CIBP @ 12,970'
w/35' cmt on top
3rd BONE SPRING SD PERFS
12,253-12,346'
7-5/8" @ 13,336' w/1150sx cmt.
CIBP @ 14,560'
w/35' cmt on top
5-1/2" liner 12,978-15,165' w/285sx cmt. Cmt circ.
6-1/2" Hole
MORROW PERFS
14,708-14,718'
14,958-14,966'
15,288-15,360'
3-1/2" liner 14,564-15,442' w/125sx cmt. Cmt circ.
TD: 15,675'
PBTD: 12,935'


KB ELEV: 3470'
CORR 18'
14-3/4" Hole
11" Hole
7-7/8" Hole
TOC @ 5250'
by temp survey
11-3/4" 42# H40 STC @ 653'
w/350sx cmt. Cmt circ.
8-5/8" 32# S80/K55 STC @ 5075'
w/1400sx cmt. Cmt circ.
EOG RESOURCES, INC
RHNU #602 – HALF 6 FED COM #2
510' FSL, 1980' FWL
Sec. 6, T25S, R34E
Lea County, New Mexico
Wellbore Diagram
3rd BONE SPRING SD PERFS
12,270-12,390' OA
5-1/2" 17# P110 LTC @ 12,600' w/1562sx cmt.
TOC @ 5250' by temp survey.
TD: 12,600'
PBTD: 12,508'


KB ELEV: 3460'
CORR 17'
14-3/4" Hole
11" Hole
7-7/8" Hole
11-3/4" @ 668' w/350sx cmt. Cmt circ.
8-5/8" @ 5035' w/1400sx cmt. Cmt circ.
EOG RESOURCES, INC
RHNU #603 – HALF 6 FED COM #3
510' FSL, 660' FWL
Sec 6, T25S, R34E
Lea County, New Mexico
Wellbore Diagram
TOC @ 5200'
by temp survey
3rd BONE SPRING SD PERFS
12,274-12,326'
5-1/2" @ 12,522' w/1368sx cmt. TOC @ 5200' by temp survey.
TD: 12,600'
PBTD: 12,421'


KB ELEV: 3462'
CORR 25'
20" Hole
14-3/4" Hole
9-1/2" Hole
16" 65# H40 STC @ 664' w/730sx cmt. Cmt circ.
10-3/4" 40.5/45.5# HC80/K55 STC/BTC @ 5235' w/3500sx cmt. Cmt circ.
EOG RESOURCES, INC
RHNU #701 – DIAMOND 7 FED COM #1
660' FNL, 1980' FEL
Sec. 7, T25S, R34E
Lea County, New Mexico
Wellbore Diagram
TOC @ 7110' by temp survey
3rd BONE SPRING SD PERFS
12,306-12,384'
CIBP @ 12,648' w18' cmt on top
7-3/4 & 7-5/8" 33.7/29.7/39# S95/S105/P110 LTC/BTC/HYDRILL MAC @ 13,300' w/1800sx cmt.
TOC @ 13,570' by temp survey
CIBP @ 15,265' w35' cmt on top
MORROW PERFS
15,352-15,358'
15,539-15,544'
CIBP @ 15,497' w16' cmt on top
3-1/2" 12.95# P105 PH6 @ 15,621' w/400sx cmt.
Later cut off @ 12,685'.
TD: 15,623'
PBTD: 12,630'

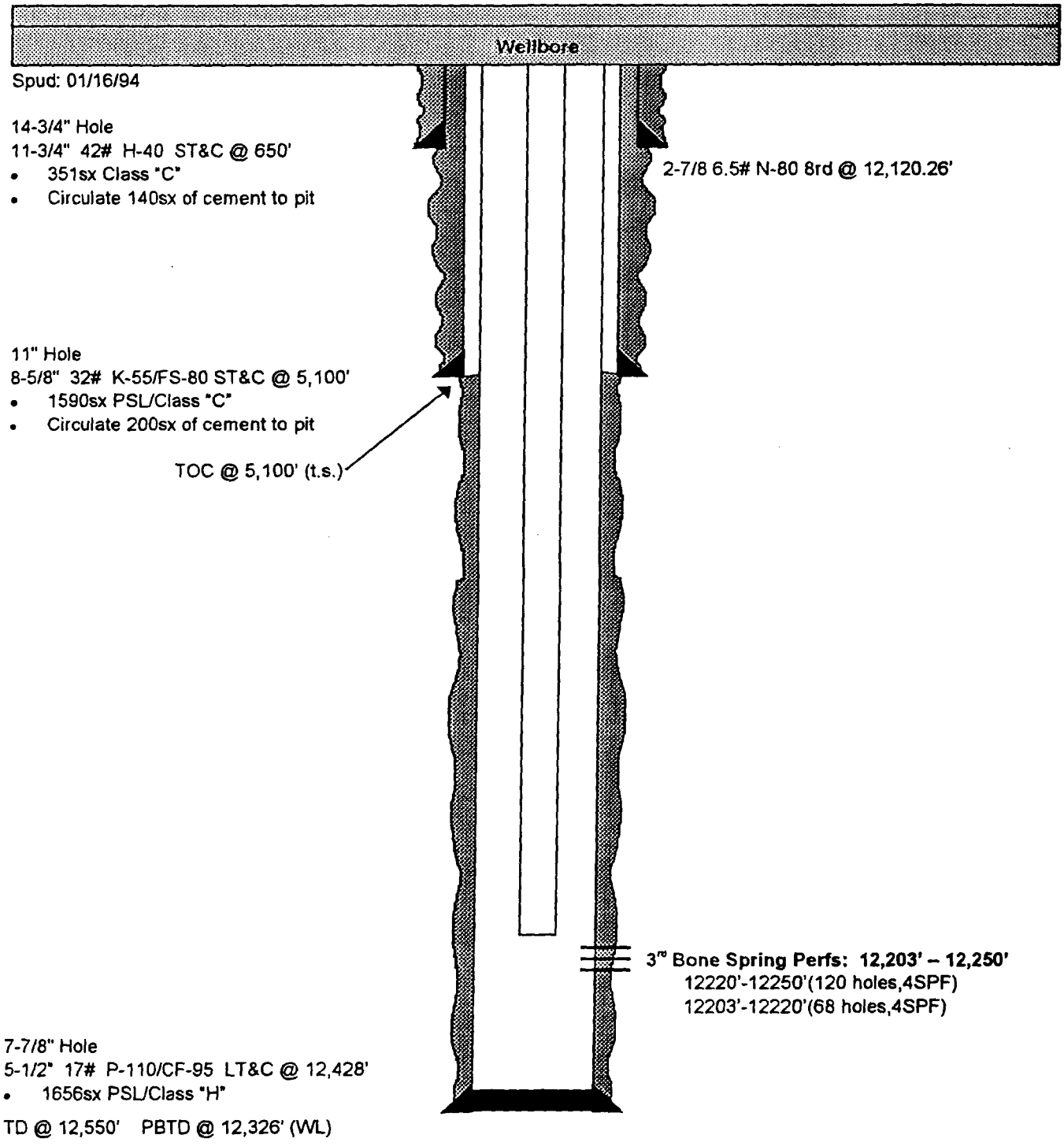

KB ELEV: 3394'
CORR 18'
14-3/4" Hole
11" Hole
7-7/8" Hole
TOC @ 5300'
by temp survey
11-3/4" 42# H40 STC @ 679'
w/351sx cmt. Cmt circ.
8-5/8" 32# S80/K55 STC/LTC @ 5050'
w/1700sx cmt. Cmt circ.
EOG RESOURCES, INC
RHNU #702 – DIAMOND 7 FED #2
1980' FNL, 1780' FEL
Sec. 7, T25S, R34E
Lea County, New Mexico
Wellbore Diagram
3rd BONE SPRING SD PERFS
12,290-12,340'
5-1/2" 17# P110 LTC @ 12,545' w/1526sx cmt.
TD: 12,545'
PBTD: 12,447'


KB ELEV: 3430'
CORR 18'
14-3/4" Hole
11" Hole
11-3/4" 42# H40 STC @ 657'
w/351sx cmt. Cmt circ.
8-5/8" 32# S80 STC @ 5055' w/1425sx
cmt. Cmt did not circ. TOC @ 575',
OK'd by Shannon Shaw.
7-7/8" Hole
TOC @ 5200'
by temp survey
EOG RESOURCES, INC
RHNU #704 – DIAMOND 7 FED #4
2080' FNL, 560' FWL
Sec. 7, T25S, R34E
Lea County, New Mexico
Wellbore Diagram
3rd BONE SPRING SD PERFS
12,248-12,298'
5-1/2" 17# P110 LTC @ 12,573' w/1824sx cmt.
TD: 12,600'
PBTD: 12,480'

EOG RESOURCES, INC.
1650' FNL & 2310' FWL
Sec.7-T25S-R34E

RHNU NO. 707
LEA CO., NEW MEXICO
AUGUST 01, 2000

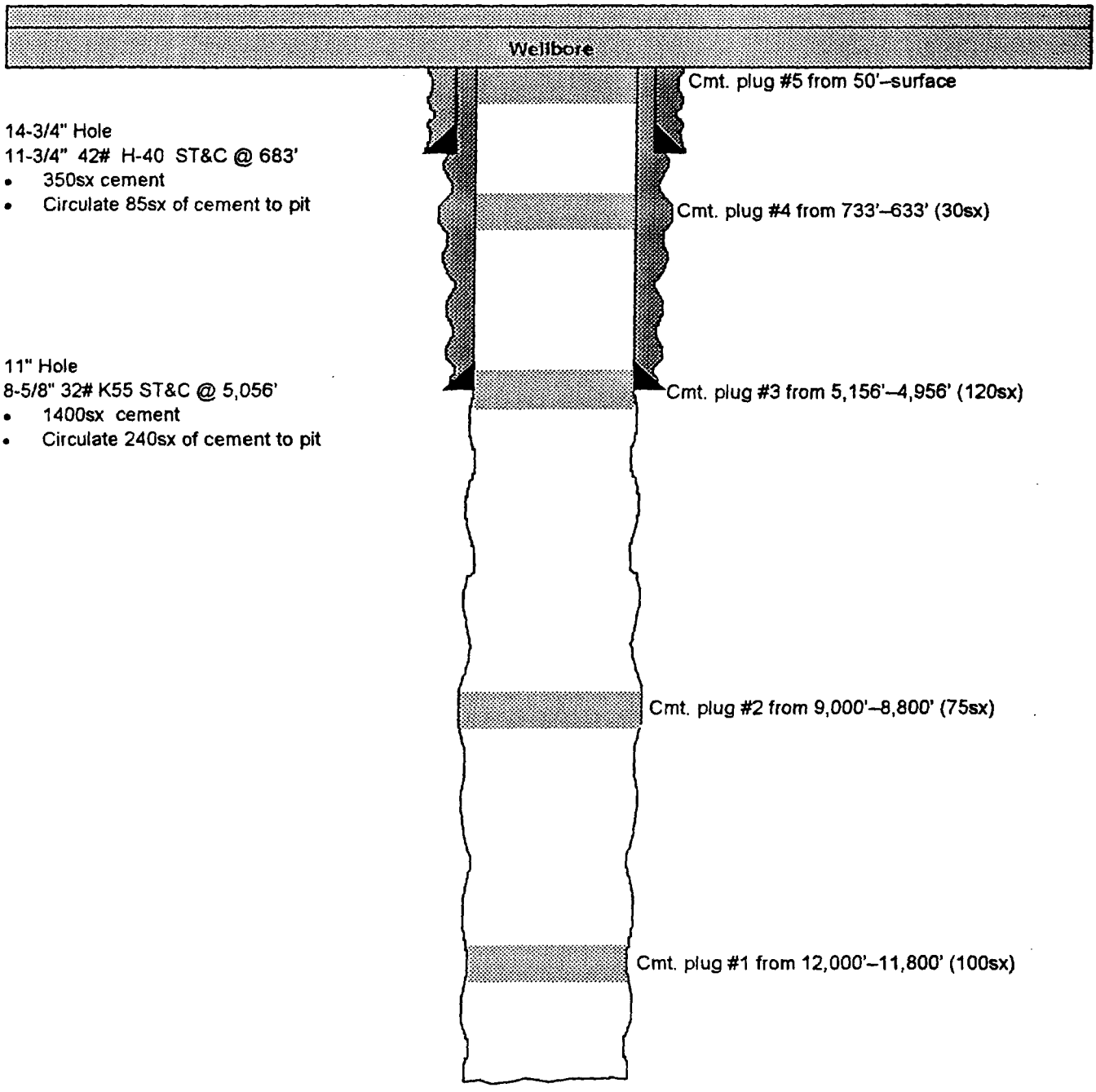
WELLBORE SCHEMATIC



EOG RESOURCES, INC.
810' FSL & 660' FEL
Sec.6-T25S-R34E

HALF '6' FEDERAL NO. 4
LEA CO., NEW MEXICO
FEBRUARY 19, 2002

CURRENT
WELLBORE SCHEMATIC

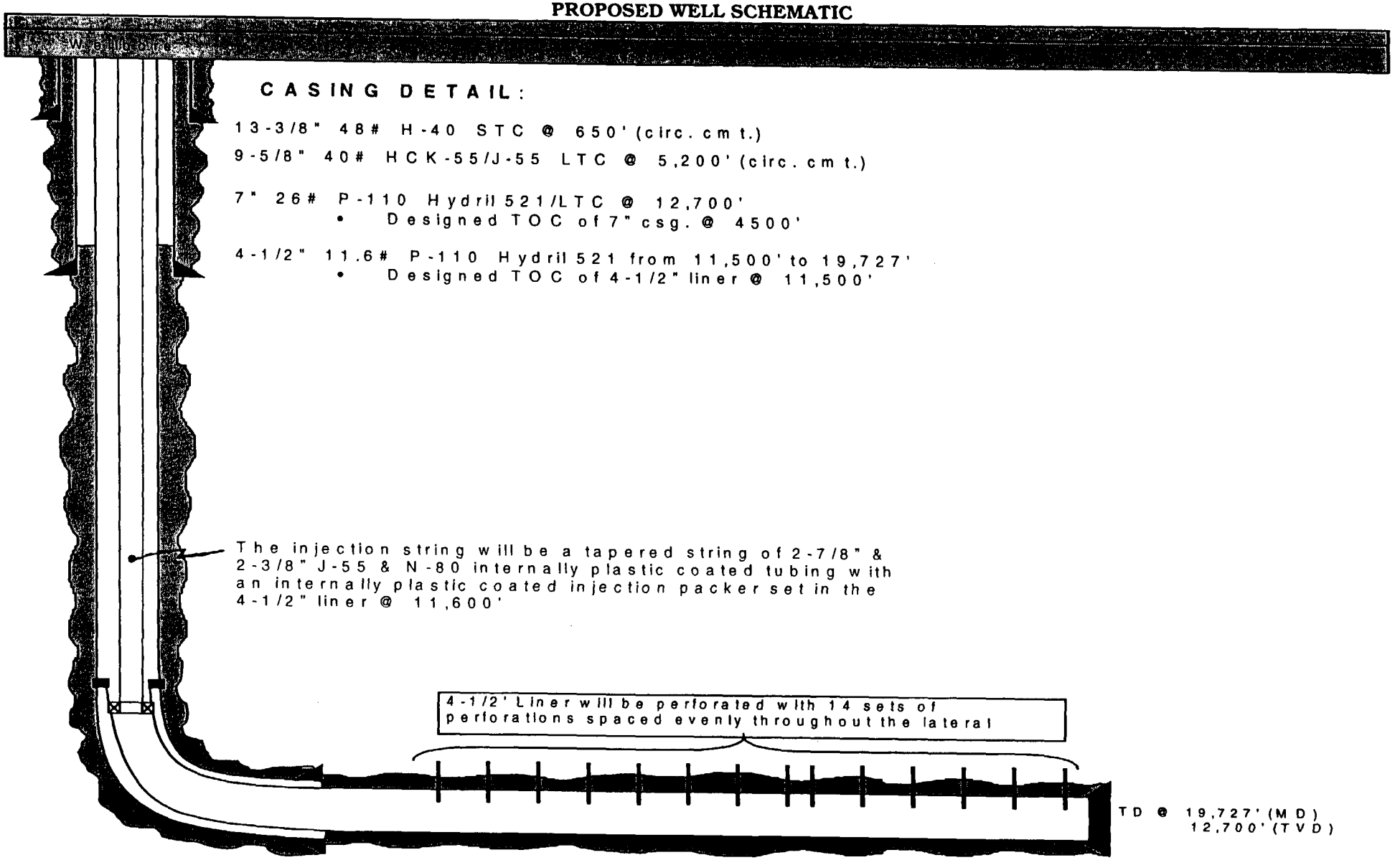


7-7/8" Open Hole from 5,056' to 12,516'
TD @ 12,516'

EOG RESOURCES, INC.

Proposed Water Injection Well: RHNU No. 606H-WI
Proposed Surface Location: 530' FSL, 1650' FEL, Sec. 6, T25S, R33E
Proposed Bottomhole Location: 1400' FNL, 2150' FWL, Sec. 12, T25S, R33E
LEA COUNTY, NEW MEXICO

PROPOSED WELL SCHEMATIC



N:\SCHEM\LEA\RHNU #606H-WI\RHNU 606H-WI SCHEM.DOC

22.

de 1

INJECTION WELL DATA SHEET

PERATOR: EOG RESOURCES ,INC.

VELL NAME & NUMBER: RHNU NO. 606H-WI

VELL LOCATION: S.L.530'FSL & 1650' FEL SEC.6,T25S,R34E ; B.H.L. 1400' FNL & 2150' FWL SEC. 12,T25S,R33E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 171/2" Casing Size: 13 3/8"

Cemented with: 475 sx. *or* _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8"

Cemented with: 1350 sx. *or* _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 8 3/4"; 6 1/8" Casing Size: 7" ; 4 ½" LINER

Cemented with: 800 ; 520 sx. *or* _____ ft^3

Top of Cement: 5000' ; 11,500' Method Determined: TEMP.SURV,CBL

Total Depth: 12,700' ; 19727'

Injection Interval

12,700' TMD feet to 19,727' TMD

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8";2 3/8" Lining Material: INTERNAL PLASTIC COAT

Type of Packer: 4 ½" BAKER AD-1 ; IPC

Packer Setting Depth: 11,600'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? XX Yes ** No

   If no, for what purpose was the well originally drilled? ** WELL WILL INITIALLY BE PRODUCED TO CLEAN UP FRACTURE TREATMENT

2. Name of the Injection Formation: THIRD BONE SPRING SAND

3. Name of Field or Pool (if applicable): RED HILLS

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   DELAWARE – 5200'-9300'

   WOLFCAMP - 12,300'-13,800'

   MORROW - 14,800'-15,500'

APPLICATION FOR AUTHORIZATION TO INJECT
RHNU NO. 606H-WI

VII. 1.) PROPOSED AVG. INJECTION RATE --- 2500 BWPD
PROPOSED MAX. INJECTION RATE --- 3000 BWPD

2.) CLOSED SYSTEM

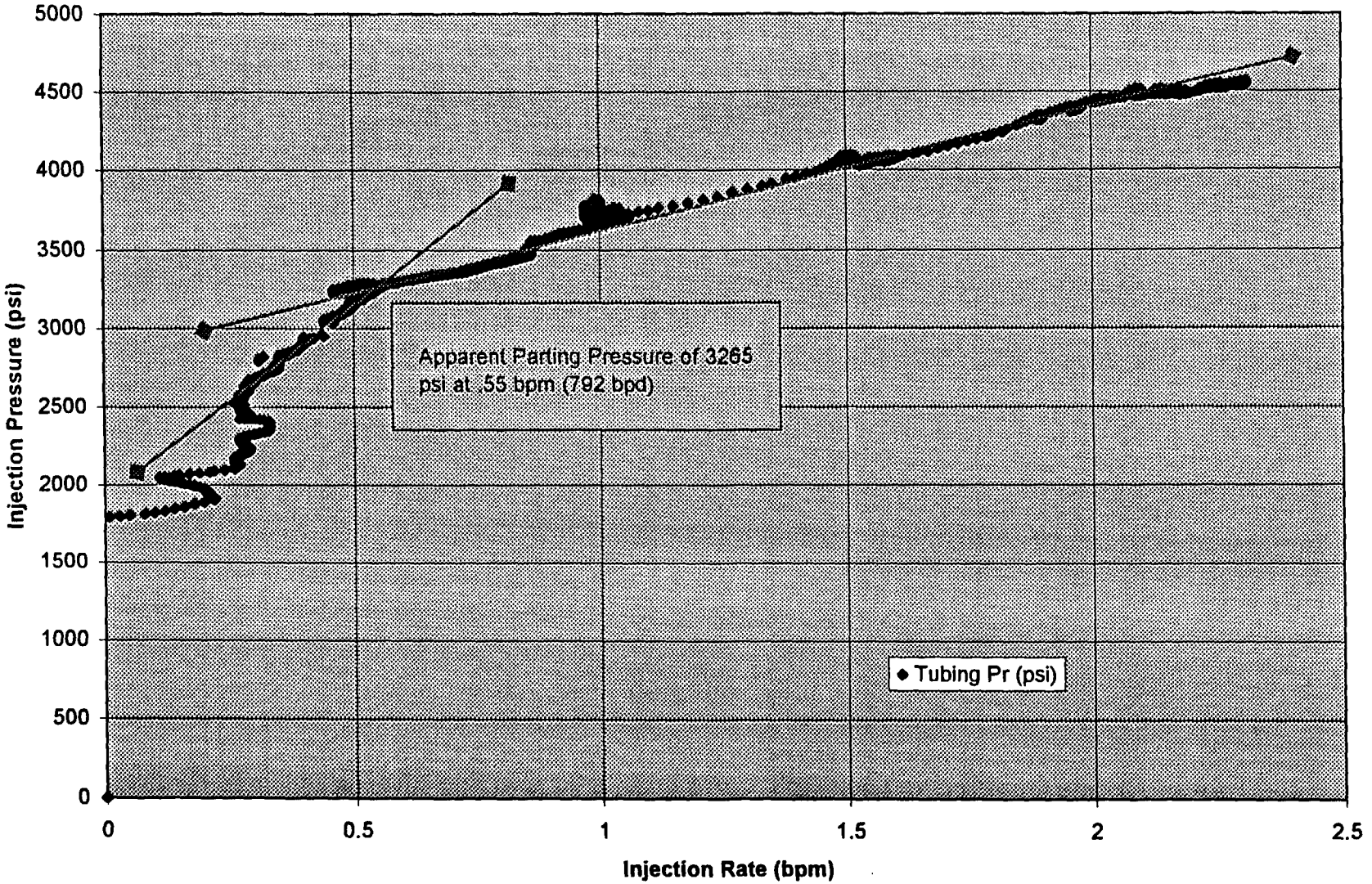
3.) PROPOSED AVG. INJECTION PRESSURE --- 3000 psig
PROPOSED MAX. INJECTION PRESSURE --- 3250 psig
FROM RHNU 302 STEP RATE TEST

4) SOURCES OF INJECTED WATER---
PRODUCED BONE SPRING WATER FROM RED HILLS
PRODUCED MORROW WATER FROM PITCHFORK RANCH
FRESH WATER FROM SANTA ROSA WELLS IN AREA
DELAWARE & BONE SPRING FROM TRISTE DRAW AREA
WHEN FULLSCALE FLOOD IMPLEMENTED
--ANALYSIS INCLUDED—

VIII. UNDERGROUND SOURCE OF FRESH WATER – SANTA ROSA
FOUND AT APPROX. 300'.; ANALYSIS INCLUDED

IX. STIMULATION WILL CONSIST OF 2 STAGE ---
400,000 GAL. & 500,000 # SAND FRACTURE TREATMENT

Injection Pressure vs. Injection Rate



P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 202-123
SAMPLE RECEIVED 2/14/02
RESULTS REPORTED 2/20/02

TO: Mr. Randy Cate
P.O. Box 2267, Midland, Texas 79702

COMPANY EOG Resources, Inc. LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY STATE

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from fresh water station. 2/13/02
NO. 2 Produced water - taken from Red Hills North Unit #302 SWD. 2/13/02
NO. 3 Produced water - taken from Triste Draw SWD. 2/13/02
NO. 4 Produced water - taken from Vaca #30 SWD. 2/13/02

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0022	1.0660	1.1786	1.0116
pH When Sampled				
pH When Received	7.64	6.47	4.84	3.64
Bicarbonate as HCO_3	283	854	68	0
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	420	15,800	74,000	3,700
Calcium as Ca	104	4,240	23,200	840
Magnesium as Mg	39	1,264	3,888	389
Sodium and/or Potassium	222	34,154	76,620	6,317
Sulfate as SO_4	318	217	174	586
Chloride as Cl	241	63,207	170,446	11,931
Iron as Fe	2.8	1,112	74.1	642
Barium as Ba			0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,208	103,935	274,396	20,063
Temperature °F.				
Carbon Dioxide, Calculated	12	564	1,768	0
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	5.68	0.091	0.048	0.390
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Sulfate Scaling Tencency	None	None	None	None

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The objective herein is to evaluate compatibility between these four waters. Our greatest concern is that the Red hills North Unit SWD water had black precipitation, and we assume this was due to iron sulfide although there was no residual hydrogen sulfide present. This would be the only concern because if the Red Hills North Unit SWD does have hydrogen sulfide, it would be incompatible with the water from the other SWD wells since they both have soluble iron. However, it should be noted that a previous record of composite produced water from the Red Hills North Unit battery (laboratory #1201-119 reported 12/18/01) did not indicate the presence of hydrogen sulfide. Also, we would be concerned about the possibility of oxygen in the fresh water. If there was oxygen in the fresh water, it would have to be removed chemically or physically before being mixed with any of these waters.

Form No. 3

By Waylan C. Martin, M.A.

Fax: Dirk Ellyson, Carlsbad (505-390-2907)

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Randy Cate
P.O. Box 2267, Midland, TX 79702

LABORATORY NO. 50094
SAMPLE RECEIVED 5-16-00
RESULTS REPORTED 5-16-00

COMPANY EOG Resources, Inc. LEASE Vaca 13 Federal
FIELD OR POOL
SECTION 13 BLOCK SURVEY T-25S&R-33E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from fresh water well located in NW/4 of Section 13.
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0062			
pH When Sampled				
pH When Received	6.54			
Bicarbonate as HCO_3	88			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	4,300			
Calcium as Ca	980			
Magnesium as Mg	450			
Sodium and/or Potassium	485			
Sulfate as SO_4	458			
Chloride as Cl	3,409			
Iron as Fe	11.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	5,869			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.920			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	1.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By
Waylan C. Martin, M.A.

Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANGEMENT

5. Lease Serial No.
NMNM 30400

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.
Red Hills Noth Unit NM NM 104037 X

1b. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.
Red Hills North Unit 606H

2. Name of Operator
EOG Resources, Inc.

9. API Well No.

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
P.O. Box 2267, Midland, TX 79702	(915)686-3714	Red Hills Bone Spring

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

11. Sec., T., R., M., or Blk. And Survey or Area

At surface	530' FSL & 1650' FEL (UL/O)	Sec 6 T-25-S: R-34-E (S/L)
At proposed prod. Zone	1400'FNL & 2150'FWL)	Sec 12 T-25-S; R-33-E (BHL)

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
19 Miles west from Jal, NM	Lea	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. Unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
530 / 530	See Exhibit 5	320

18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
900	TVD 12,700 TMD 19,727	NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc)	22. Approximate date work will start*	23. Estimated duration
3433	4/1/2002	60 days

24. Attachments

The following completed in accordance with the requirements of Onshore Oil an Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest Sytem Lands, the SUPO shall be filed with the appropriate Forest Service Office)
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
5. Operator certification.

25. Signature	Name *(Printed/Typed)*	Date
Mike Francis	Mike Francis	2/26/2002

Title
Agent

Approved by *(Signature)*	Name *(Printe*	6. Such other site specific information and/c authorized officer.	Date
Title	Office		

Application approval does not warrant or certify the applicant holds legal or equitable title to those rightes in the subject lease which would enlitle the applicant to conduct operations theron.
Conditions of approval, if any, are attached

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 jurisidiction.

**(Instructions on reverse)*

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 02-10-94

Instructions on back

Submit to the Appropriate District Office
State Lease - 4 copies
Fee Lease - 3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	51820	Red Hills Bone Spring

4 Property Code	5 Property Name	6 Well Number
	RED HILLS NORTH UNIT	606 H

7 OGRID No.	8 Operator Name	9 Elevation
7377	EOG RESOURCES, INC.	3433'

10 SURFACE LOCATION

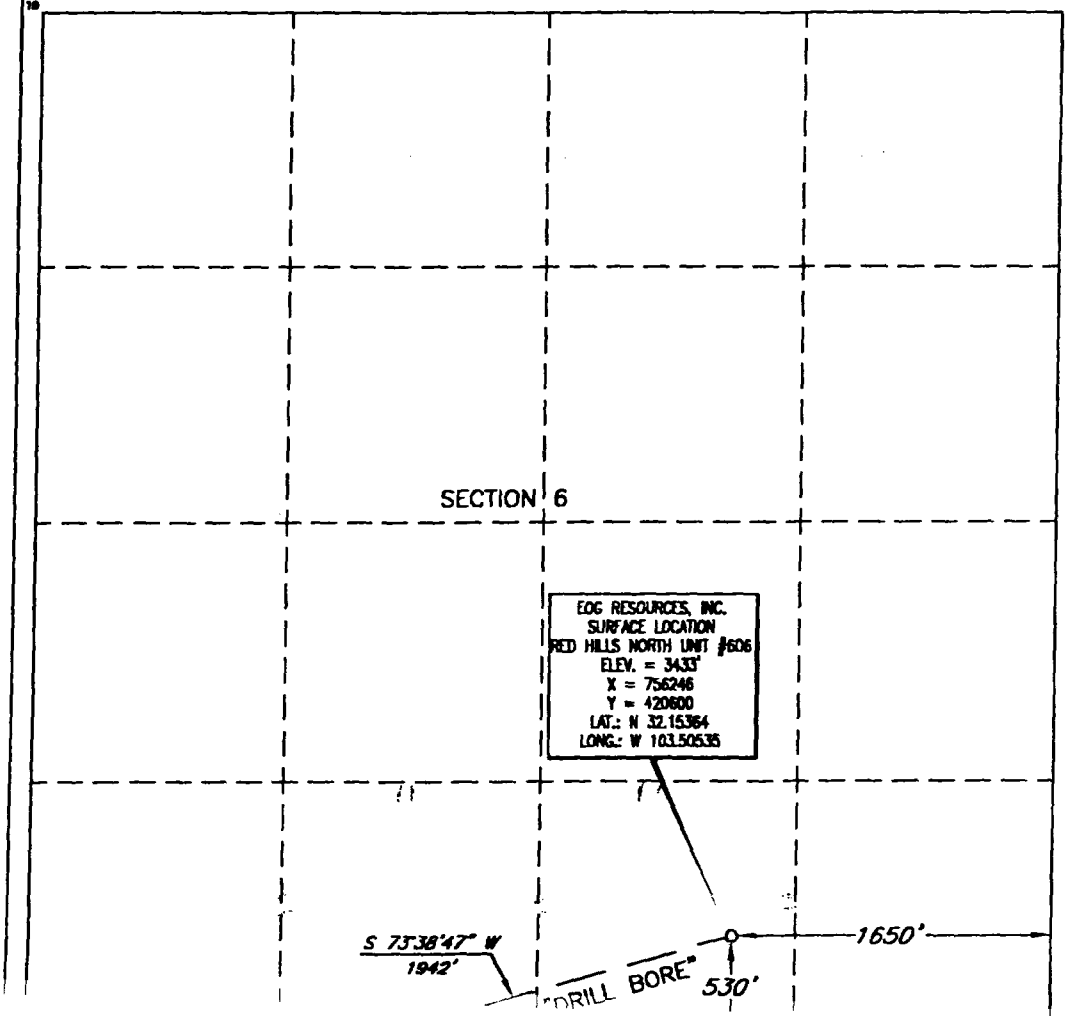
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
O	6	25 SOUTH	34 EAST, N.M.P.M.		530'	SOUTH	1650'	EAST	LEA

11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature

Printed Name
Mike Francis

Title
Agent

Date
2/26/02

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey
FEBRUARY 22, 2002

Signature and Seal of Professional Surveyor

Certificate No. V. L. HUZNER R.P.S. #7920

30

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 02-10-94

Instructions on back

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State Lease - 4 copies
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	51820	Red Hills Bone Spring

4 Property Code	5 Property Name	6 Well Number
	RED HILLS NORTH UNIT	606H

7 OGRID No.	8 Operator Name	9 Elevation
7377	EOG RESOURCES, INC.	3433'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

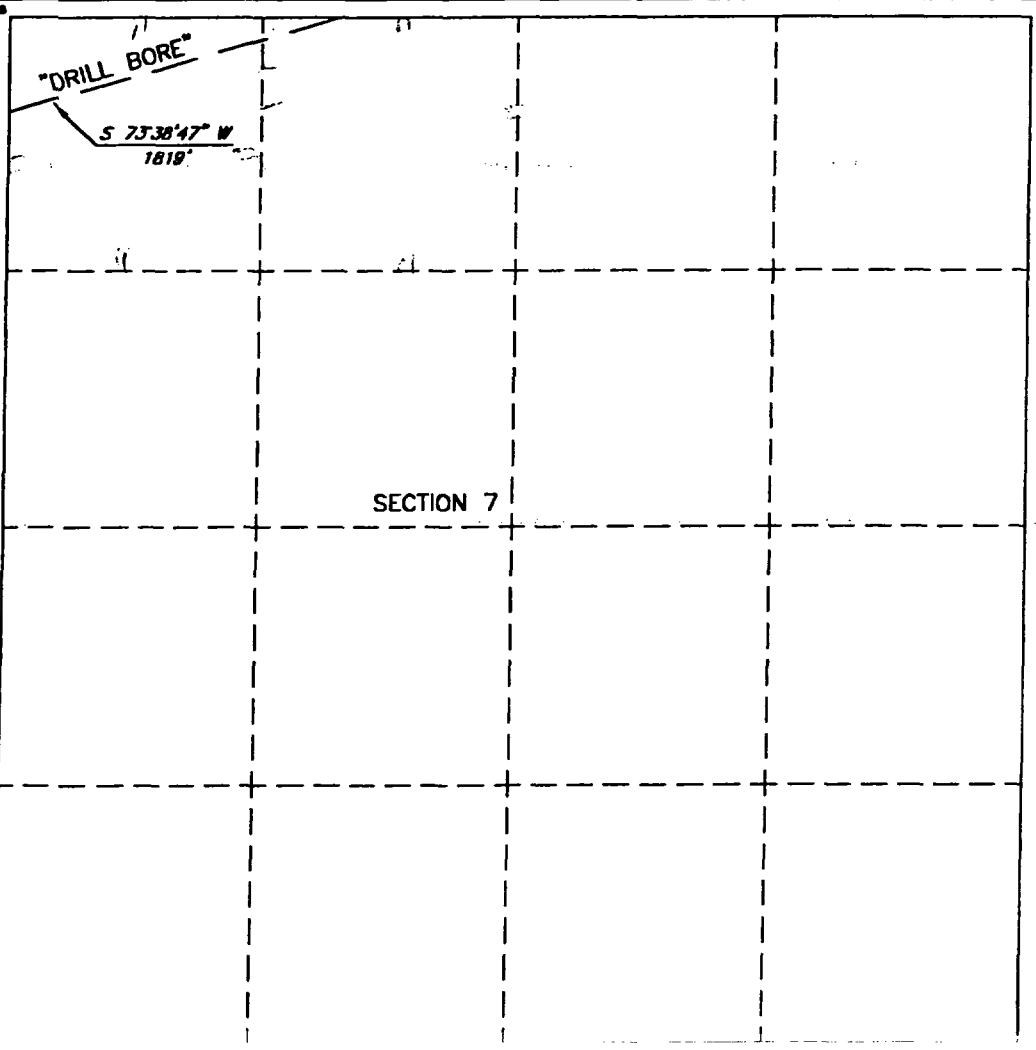
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



OPERATOR CERTIFICATION

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

Signature: Mike Francis

Printed Name: Mike Francis

Title: Agent

Date: 2/26/02

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: FEBRUARY 22, 2002

Signature and Seal of Professional Surveyor

Certificate No. V. L. BEZNER R.P.S. #7920

31.

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 02-10-94

Instructions on back

Submit to the Appropriate District Office
State Lease - 4 copies
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	51820	Red Hills Bone Spring

4 Property Code	5 Property Name	6 Well Number
	RED HILLS NORTH UNIT	606 H

7 OGRID No.	8 Operator Name	9 Elevation
7377	EOG RESOURCES, INC.	3433'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

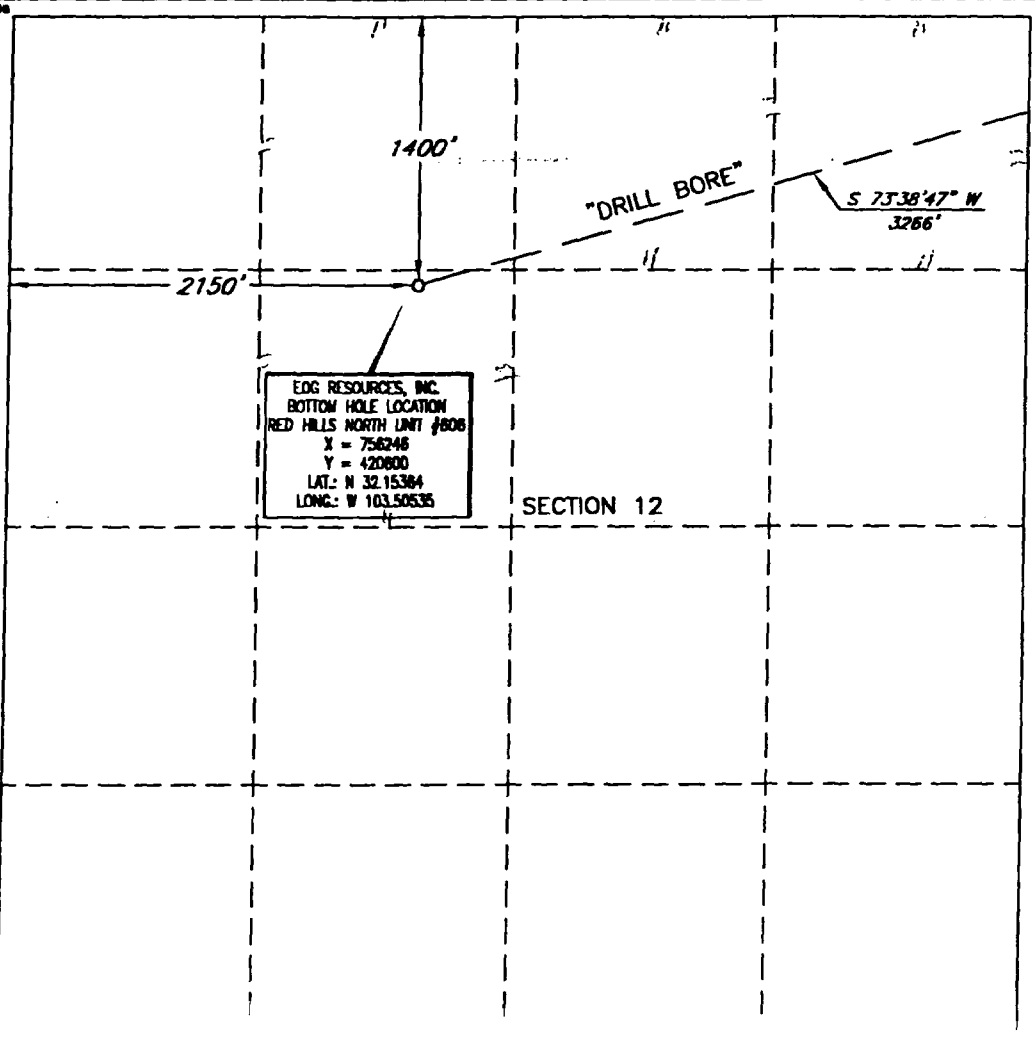
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	12	25 SOUTH	33 EAST, N.M.P.M.		1400'	NORTH	2150'	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



OPERATOR CERTIFICATION

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

Signature: Mike Francis

Printed Name: Mike Francis

Title: Agent

Date: 2/26/02

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: FEBRUARY 22, 2002

Signature and Seal of Professional Surveyor

NEW MEXICO
V. LYNN BEZNER
NO 7920
PROFESSIONAL LAND SURVEYOR

Certificate No. V. L. BEZNER R.P.S. #7920

32.

DRILLING PROGRAM
EOG RESOURCES,INC.
Red Hills North Unit No. 606H
Lea County, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1100'
Delaware Mt. Group	5150'
Bone Spring Lime	9275'
3rd Bone Spring Sand	12225'
TVD	12700'
TMD	19727'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	100'	Fresh Water
3rd Bone Spring Sand	12400'	Oil

4. CASING PROGRAM

Hole Size	Interval	OD Casing	Weight Grade Jt. Cond. Type
171/2"	0-650'	13 3/8"	48# H-40 ST&C
12 1/4"	0-5200''	9 5/8"	40# N-80 LT&C
8 3/4"	0-12700'	7"	26#/P110 LTC
6 1/8"	11,500-TD	4 1/2"	11.6#P-110 Hydrill

Cementing Program:

17 ½"" Surface Casing:	Cement to surface with 325 sx Prem Plus, 3% Econolite, 2%Calcium Chloride, 0.25#/sx Flocele, 150 sx Prem Plus, 2% Calcium Chloride
9 5/8" Intermediate:	Cement to surface with 1100sx Interfill C, .25#/sx flocele, 250 sx Premium Plus, 2% Calcium Chloride
7" 2nd Intermediate	Cement w/800sx Premium, 3% Econolite, 5#/sx Salt (3%), +.25lb/sk Flocele; 250 sx Prem 50/50 Poz mix 'A', 2% Halliburton-Gel First , 0.5% Halad-322. +2%HR-5
4 ½" Liner	520 sx Premium Plus +.3% Halad-344+.3%Super CBL+.3%SCR-100. This cement slurry is designed to bring TOC to 11500'.

DRILLING PROGRAM
EOG RESOURCES,INC.
Red Hills North Unit No. 606H
Lea County, NM

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. EOG request authorization to use a 2M system, providing for an annular preventer to be used prior to drilling the surface casing shoe and prior to drilling out of first intermediate. Before drilling out of 1st intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/1000 psi and the annular to 3500/5000-psig pressure.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Wt (PPG)	Viscosity (sec)	Waterloss (cc)
0-650'	Fresh Water (Spud Mud)	8.5	40-45	N.C.
650''-5200'	Brine Water	10.0	30	N.C.
5200'- TD	Cut Brine + Polymer/KCL	8.8 – 9.2 32	32	10

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 5000' to TD.

DRILLING PROGRAM
EOG RESOURCES,INC.
Red Hills North Unit No. 606H
Lea County, NM

8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Compensated Density-Neutron from12,300' to surface. LWD GR from 12,300' to 13,800'

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 5000 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

DRILLING PROGRAM
EOG RESOURCES,INC.
Red Hills North Unit No. 606H
Lea County, NM

SURFACE USE AND OPERATIONS PLAN

1. EXISTING ROADS:

Access to location will be made as shown on Exhibit #2

Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. PROPOSED ACCESS ROAD:

No new road is required

No turnouts necessary.

No culverts, cattleguards, gates, low-water crossings are necessary.

Surfacing material consists of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

3. LOCATION OF EXISTING WELLS:

Exhibit #3 shows all existing wells within a one-mile radius of this well.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

There are no existing production facilities. If production is encountered, a temporary facility will be established on the drill pad, and if warranted, a production facility would be built at a later date in the immediate area of the drill pad location. If the well is productive, the flowline would also be located on the drill-pad site and no additional disturbance will occur.

5. LOCATION AND TYPE OF WATER SUPPLY:

Fresh water and brine water for drilling will come from commercial sources and transported to the well site over the roads as shown on Exhibit #2.

6. PLANS FOR RESTORATION OF THE SURFACE:

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current federal laws and regulations. Location will be cleaned, and the wellpad removed to promote vegetation and disposal of human waste will be complied with. Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

ANCILLARY FACILITIES:

No airstrip, campsite, or other facilities will be built.

WELL SITE LAYOUT:

Exhibit #4 shows the relative location and dimensions of the well pad.

DRILLING PROGRAM
EOG RESOURCES,INC.
Red Hills North Unit No. 606H
Lea County, NM

OTHER INFORMATION:

The area around the well site is grassland and the topsoil is duned and sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.

CERTIFICATION:

I HEREBY CERTIFY that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EOG Resources, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Randy Szenasy
Drilling Superintendant

Date: 2/26/02

DRILLING PROGRAM
EOG RESOURCES,INC.
Red Hills North Unit No. 606H
Lea County, NM

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.

2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1.

3. All fittings to be flanged

4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.

5. All choke and fill lines to be securely anchored especially ends of choke lines.

6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

7. Kelly cock on kelly.

8. Extension wrenches and hand wheels to be properly installed.

9. Blow out preventer control to be located as close to driller's position as feasible.

10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EOG Resources, Inc.

Red Hills North Unit 606H

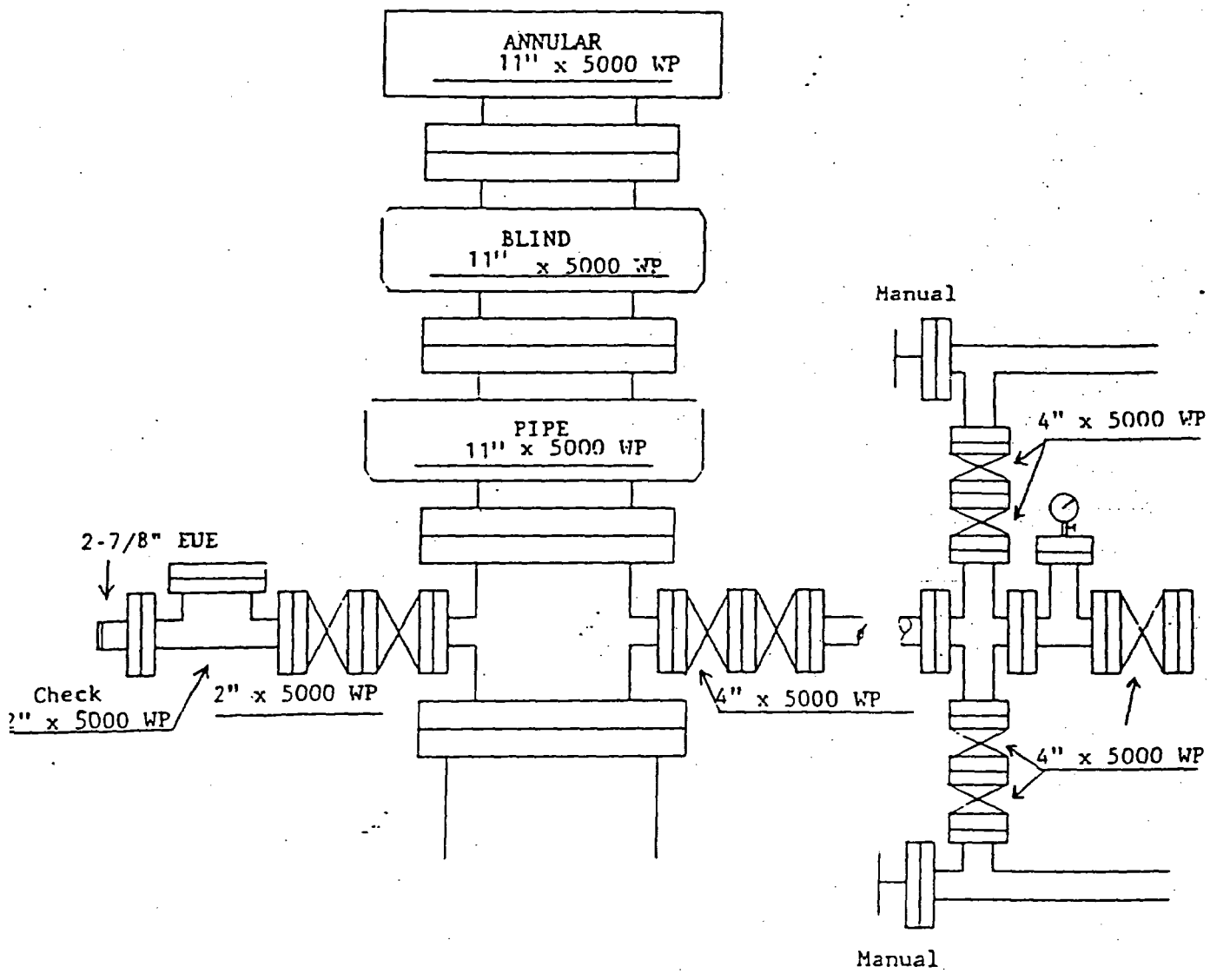
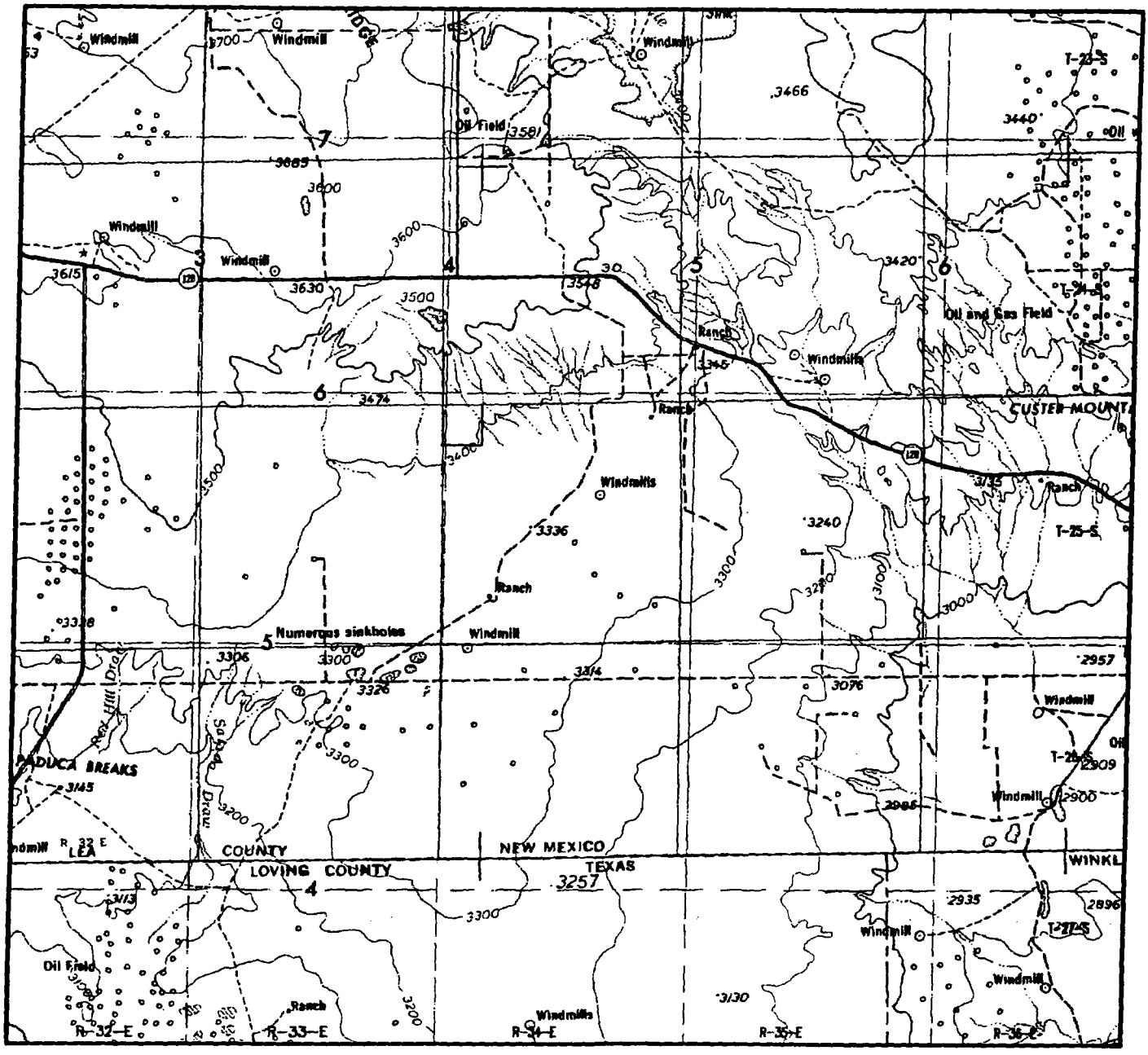


Exhibit 1

VICINITY MAP



SECTION 6 TWP 25-S RGE 34-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY LEA STATE NM

DESCRIPTION 530' FSL & 1650' FEL

OPERATOR EOG RESOURCES, INC.

LEASE RED HILLS NORTH UNIT #606 H

DISTANCE & DIRECTION FROM JAL GO WEST 23.0 MILES ON STATE HWY. 128, THENCE SOUTHEAST ±2.0 MILES ON DIAMOND ROAD, THENCE NORTHEASTERLY 3.8 MILES ON LEASE ROAD, THENCE EAST 0.7 MILES ON LEASE ROAD, THENCE SOUTH 1.9 MILES ON LEASE ROAD TO A POINT +200' WEST OF THE LOCATION.

Exhibit 2

N

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

4.

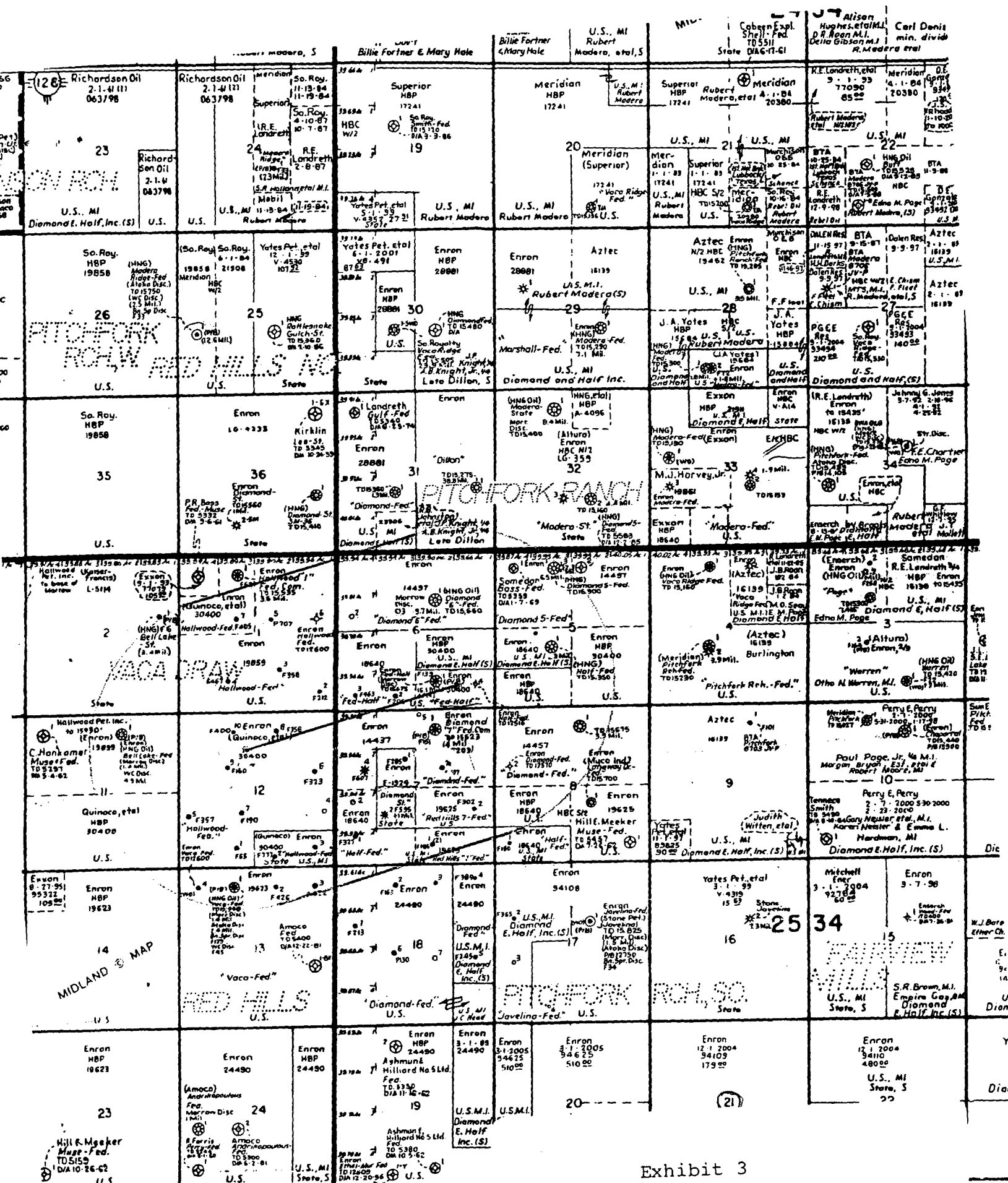
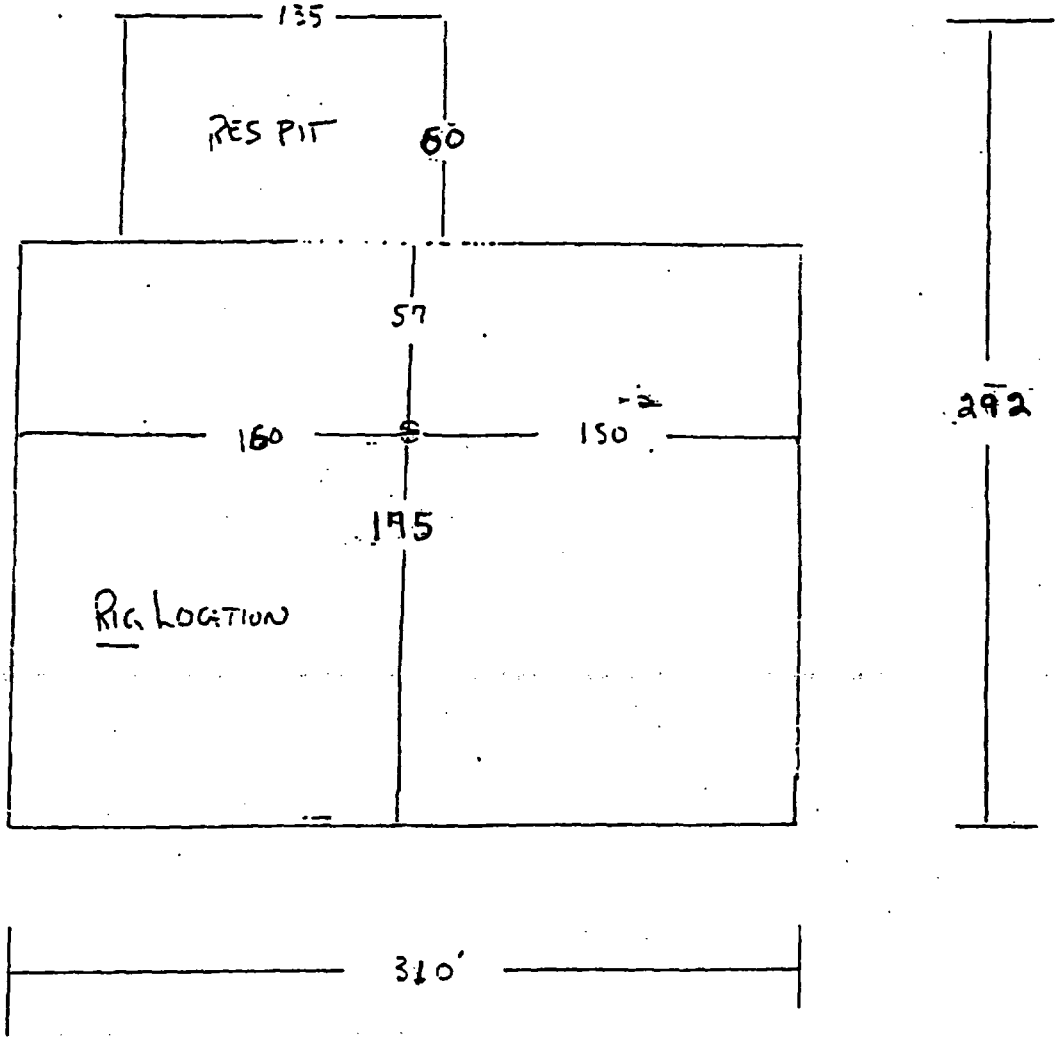
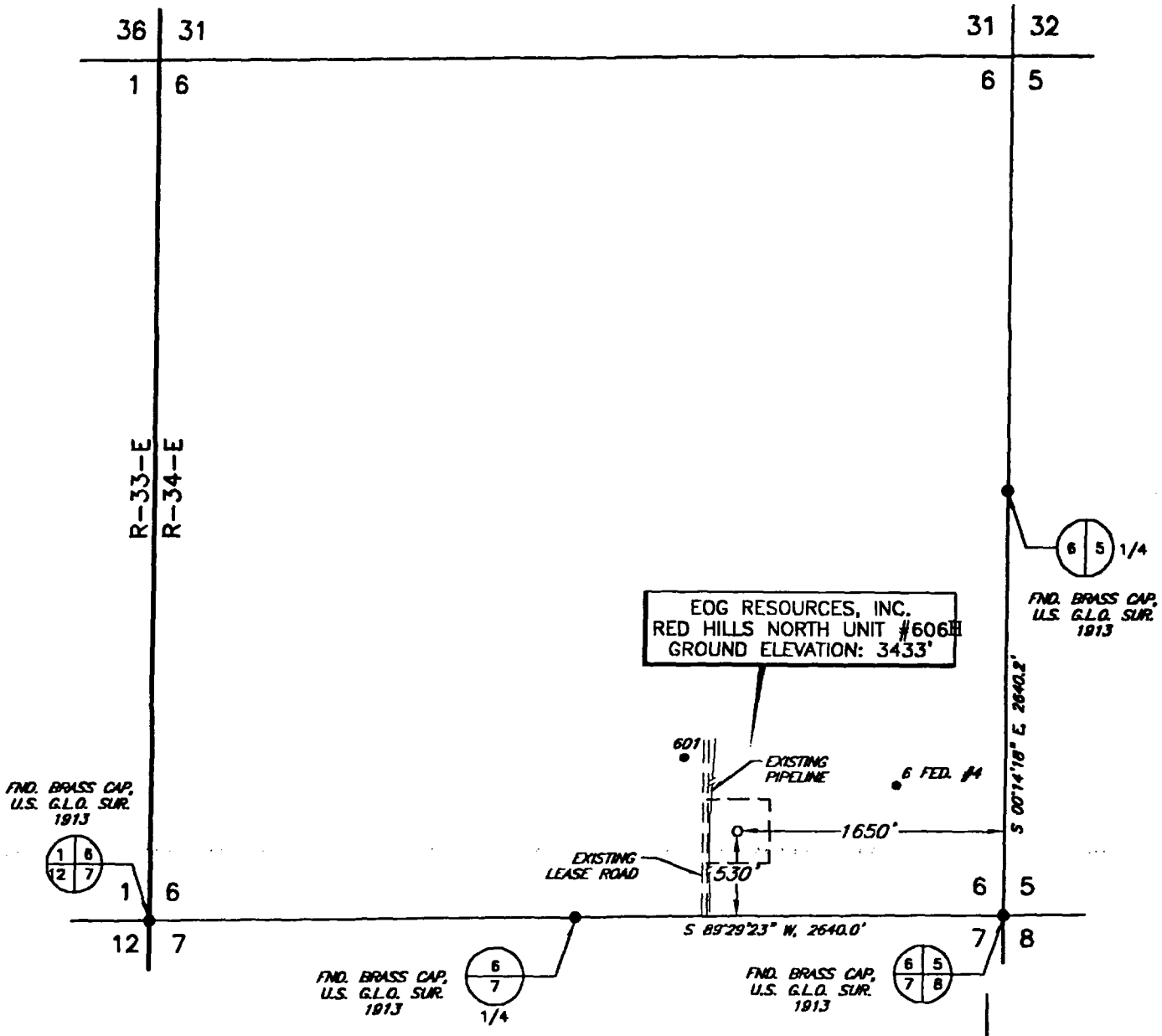

PITCHFORK RANCH
RED HILLS
MIDLAND MAP
Richardson Oil
Richardson Oil
Superior
Meridian
Billie Fortner & Mary Hale
U.S., MI Robert Madera, etal, S
Cabeen Expl. Shell Fed.
Alison Hughes, et al MI
Carl Donit
Yates Pet. etal
Enron
Aztec
Exxon
Marshall-Fed.
Diamond-Fed.
Javelina-Fed.
Vaca-Fed.
Amoco
Texaco
Chevron
Ashmun & Hilliard No 5 Ltd. Fed
Hill R. Meeker Muse-Fed
Perry E. Perry
Paul Page, Jr.
Exhibit 3
Red Hills North Unit 606H
42

Exhibit 4



SECTION 6, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY NEW MEXICO



PLAN VIEW
1" = 1000'

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

STATE OF NEW MEXICO * V. LYNN BEZNER NO. 7920 * PROFESSIONAL LAND SURVEYOR

V. L. BEZNER, P.S. NO. 7920

DATE OF FIELD WORK: FEBRUARY 22, 2002

NO.	REVISION	DATE	BY

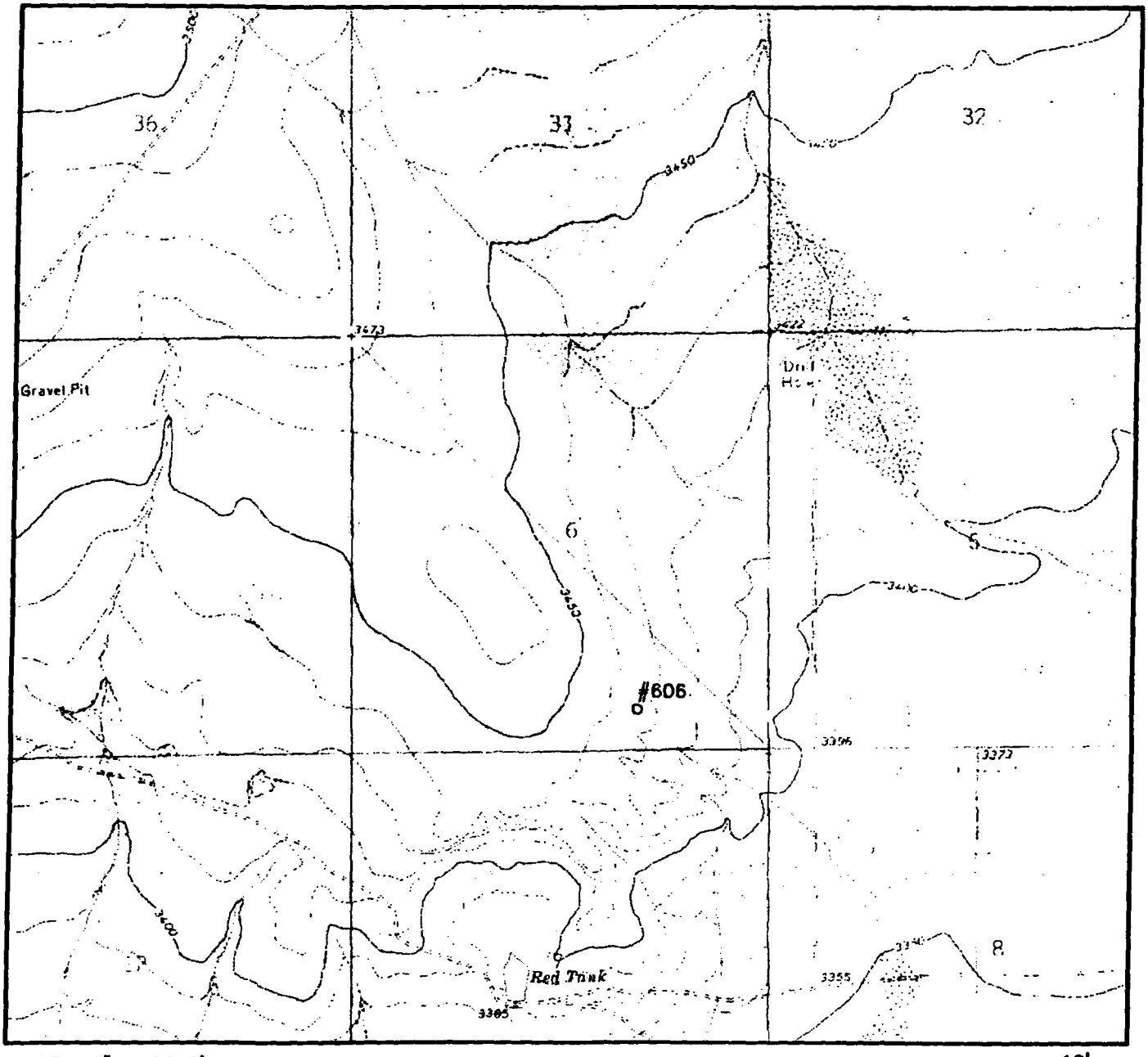
SURVEYED BY: R.J.O.
DRAWN BY: J.C.P.

EOG RESOURCES, INC.

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS

SCALE: AS SHOWN
DATE: FEBRUARY 22, 2002
JOB NO.: 80589-F
QUAD NO.: 22 NE

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10'

SECTION 6 TWP 25-S RGE 34-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY LEA STATE NM

DESCRIPTION 530' FSL & 1650' FEL

ELEVATION 3433'

OPERATOR EOG RESOURCES, INC.

LEASE RED HILLS NORTH UNIT #606 H

U.S.G.S. TOPOGRAPHIC MAP

BELL LAKE, NEW MEXICO

SCALED LAT. N 32.15364

LONG. W 103.50535

-N-

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

Statement Accepting Responsibility For Operations

Operator Name: EOG Resources, Inc.
Street or Box: P.O. Box 2267
City, State: Midland, TX
Zip Code: 79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NMNM 30400

Legal Description of Land: Section 6, T25S, R34E, NMPM
Lea Co., NM (S/2 SE/4)

Formation(s) (if applicable):

Bond Coverage: (***State if individually bonded or another's bond***) Individually

BLM Bond File No.: NM2308 with endorsement to State of NM

Authorized Signature: _____
Mike Francis

Title: Agent

Date 2/26/02