



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor

March 31, 2004

Joanna Prukop
Cabinet Secretary
Acting Director
Oil Conservation Division

Apache Corporation
c/o **James Bruce**
P. O. Box 1056
Santa Fe, New Mexico 87504

Administrative Order NSL-5032 (SD)

Dear Mr. Bruce:

Reference is made to the following: (i) your application (*administrative application reference No. pMES0-408557421*) dated February 6, 2004 filed on behalf of the operator, Apache Corporation ("Apache"); (ii) your e-mail on Monday morning, February 23, 2004; (iii) our telephone conversation late Monday afternoon, February 23, 2004; (iv) our e-mail correspondence on Wednesday, February 25, 2004; (v) your e-mail on Tuesday morning March 23, 2004 checking on the status of Apache's remaining applications in this area; (vi) my e-mail on Friday afternoon, March 26, 2004 requesting additional detailed information concerning the fee lease involved in this matter; (vii) your reply by letter, with attachments, on March 30, 2004; (viii) our e-mail correspondence on Tuesday afternoon, March 30, 2004; and (ix) the Division's records in Santa Fe: all concerning Apache Corporation's request for an unorthodox "infill" oil well location within an existing standard 40-acre oil spacing and proration unit comprising the NE/4 SE/4 (Unit I) of Section 9, Township 21 South, Range 37 East, NMPM, Penrose Skelly (Grayburg) Pool (50350), Lea County, New Mexico.

The Division Finds That:

(1) All of Section 9 is within the Penrose Skelly (Grayburg) Pool; an oil pool governed under Division Rule 104.B (1), which provides for 40-acre oil spacing and proration units and requires wells be located no closer than 330 feet to the outer boundary of such unit.

(2) The 958.25-acre area in Lea County, New Mexico comprising the SW/4 NE/4 and NW/4 SW/4 of Section 13, Township 20 South, Range 37 East, NMPM; Lot 1 of Section 30, Township 20 South, Range 38 East, NMPM; and Lots 3 and 6 of Section 4, the NE/4 SE/4 and S/2 SE/4 of Section 6; the E/2 SW/4 and SE/4 of Section 8; and the E/2 NW/4 and S/2 of Section 9, all in Township 21 South, Range 37 East, NMPM, is a single federal lease (Hawk "B-1") issued by the U. S. Bureau of Land Management (U. S. government lease No. NM-90161) with common ownership in which: (i) Apache, Chevron U.S.A., Inc. ("Chevron"), and BP America Production Company ("BP") each own undivided operating rights; and (ii) Apache is the leasehold operator.

(3) This 40-acre Grayburg unit is currently dedicated to Apache's Hawk "B-1" Well No. 30 (API No. 30-025-35881) located at a standard oil well location 1830 feet from the South line and 620 feet from the East line of Section 9.

(4) Apache now seeks to drill its Hawk "B-1" Well No. 37 at an unorthodox infill oil well location within this 40-acre Grayburg unit 2590 feet from the South line and 1310 feet from the East line of Section 9.

(5) The 320-acre area in Lea County, New Mexico comprising the SE/4 SW/4, NE/4 SE/4, and S/2 SE/4 of Irregular Section 4, and the NE/4 of Section 9, all in Township 21 South, Range 37 East, NMPM, is a single fee lease (Southland Royalty "A" fee lease) with common ownership in which Apache is the single working interest owner and is the designated leasehold operator.

(6) The two-affected standard 40-acre Grayburg oil spacing and proration units to the north that Apache's proposed Hawk "B-1" Well No. 37 is encroaching are:

(a) the SW/4 NE/4 (Unit G) of Section 9, which is currently dedicated to Apache's Southland Royalty "A" Well No. 10 (API No. 30-025-35514), located at a standard oil well location 1830 feet from the North line and 1980 feet from the East line of Section 9; and

(b) the SE/4 NE/4 (Unit H) of Section 9, which is currently dedicated to Apache's Southland Royalty "A" Well No. 12 (API No. 30-025-35767), located at a standard oil well location 1830 feet from the North line and 600 feet from the East line of Section 9.

(7) This request is based on geologic and engineering reasons in that this location is approximately equidistance to other offsetting Penrose Skelly (Grayburg) oil producers within the immediate area.

(8) Apache, BP, Chevron, and the U. S. Bureau of Land Management have entered into a "cooperative lease/well agreement" providing for the allocation of proceeds of Penrose Skelly (Grayburg) oil production from Apache's proposed Hawk "B-1" Well No. 37 in the following manner:

(a) 64.32% to be attributed to the subject Hawk "B-1" federal lease (U. S. government lease No. NM-90161); and

(b) 35.68% attributed to the offsetting Southland Royalty "A" fee lease.

(9) This allocation formula for the proceeds from Apache's proposed Hawk "B-1" Well No. 37 serves to benefit all mineral interests (both cost bearing and non-cost bearing interests), within the Penrose Skelly (Grayburg) Pool to be impacted by this well's drainage.

(10) Approval of this application is in the best interest of conservation, will serve to prevent waste, protects correlative rights, exhibits sound engineering practices, and allows for the recovery of additional reserves that might not otherwise be produced.

It Is Therefore Ordered That:

(1) Pursuant to Division Rule 104.F (2), of the New Mexico Oil Conservation Division's ("Division") Rules and Regulations, the administrative application of Apache Corporation (Apache") (*administrative application reference No. pMES0-408557421*) for its proposed Hawk "B-1" Well No. 37 to be drilled at an unorthodox infill oil well location 2590 feet from the South line and 1310 feet from the East line (Unit I) of Section 9, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, and completed in the Penrose Skelly (Grayburg) Pool (50350), is hereby approved.

(2) For the Division's production reporting, prorationing, and well spacing purposes, Grayburg oil production from the above-described Hawk "B-1" Well No. 37 is to be simultaneously dedicated, with Apache's existing Apache's Hawk "B-1" Well No. 30 (API No. 30-025-35881) located at a standard oil well location 1830 feet from the South line and 620 feet from the East line of Section 9, to the NE/4 SE/4 (Unit I) of Section 9, being a standard 40-acre oil spacing and proration unit in the Penrose Skelly (Grayburg) Pool.

(3) The distribution of proceeds from Penrose Skelly (Grayburg) oil production from Apache's proposed Hawk "B-1" Well No. 41 are to be allocated in the following manner:

- (a) 64.32% to be attributed to the subject Hawk "B-1" federal lease (U. S. government lease No. NM-90161) located in Section 9; and
- (b) 35.68% attributed to the offsetting Southland Royalty "A" fee lease also located in Section 9.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



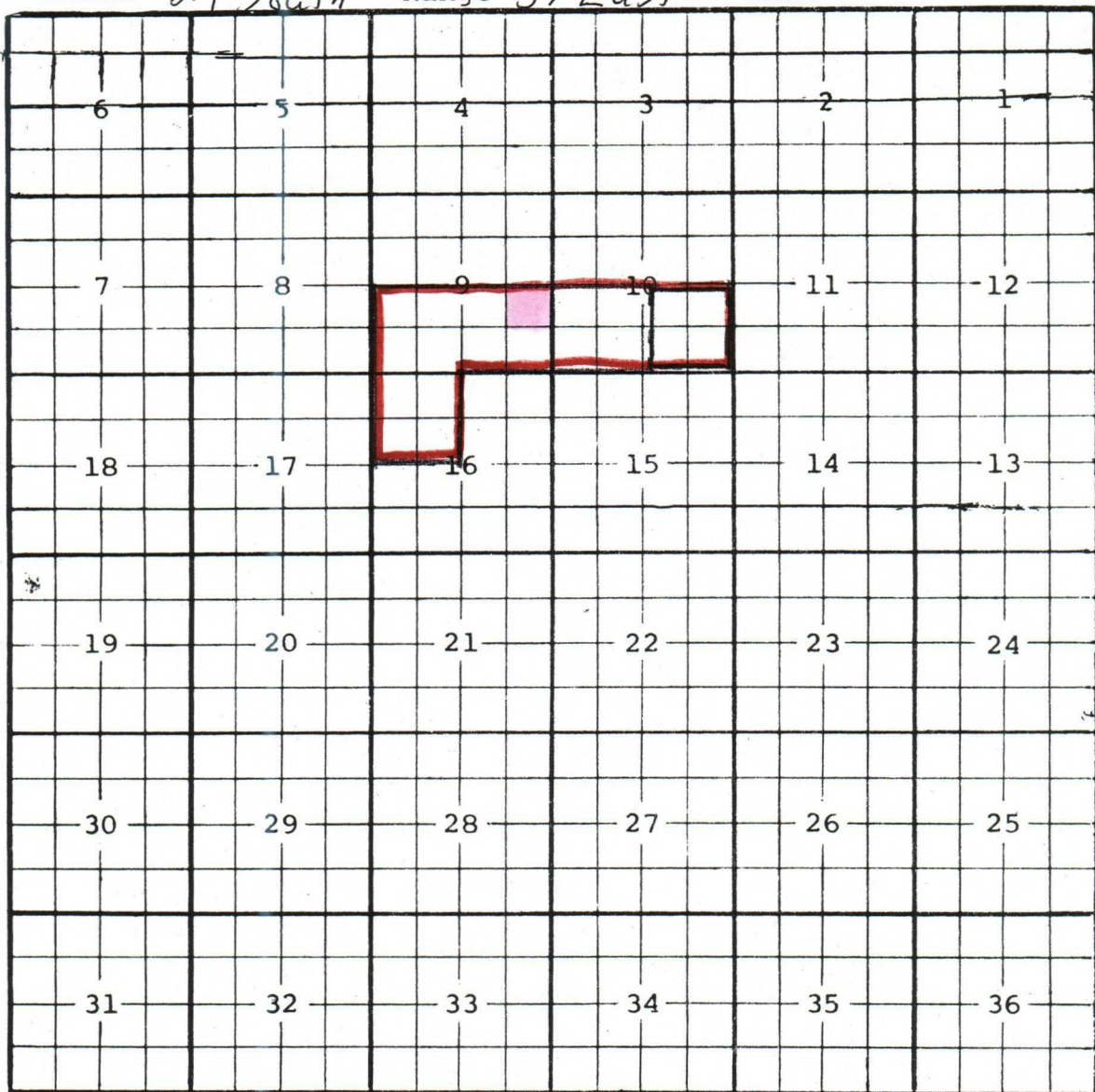
MICHAEL E. STOGNER
Engineer/Hearing Officer

MS/mes

cc: New Mexico Oil Conservation Division - Hobbs
U. S. Bureau of Land Management - Roswell
U. S. Bureau of Land Management - Carlsbad

County Lea Pool East Hare-San Andres

TOWNSHIP 21 South Range 37 East NMPM

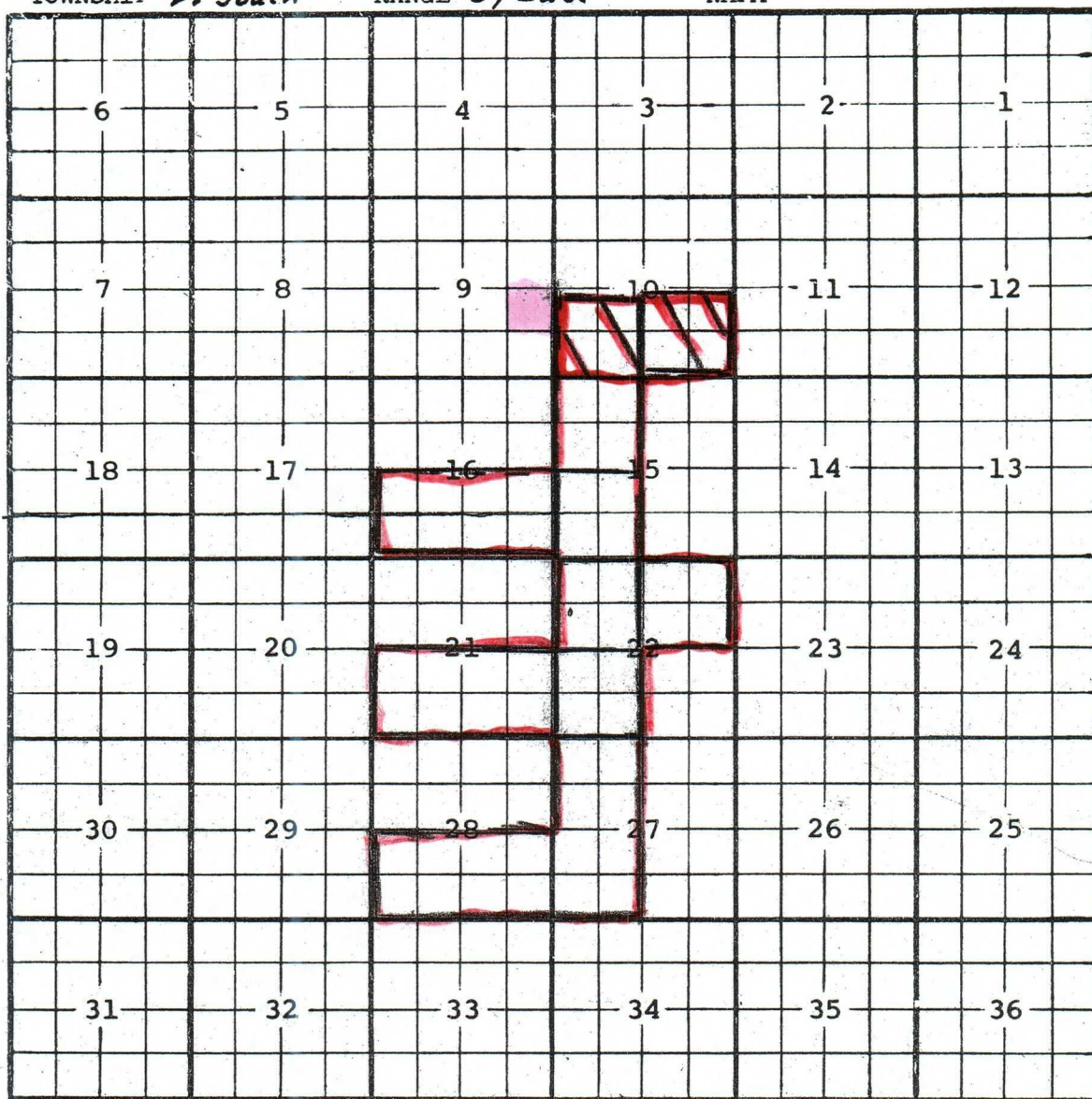


Description: SE 1/4 Sec. 10 (R-10776, 2-28-97)

Ext: SE 1/4 Sec. 9, SE 1/4 Sec. 10, NW 1/4 Sec. 16 (R-12190, 8-12-94)

COUNTY LeaPOOL Hare - San Andres GasTOWNSHIP 21 SouthRANGE 37 East

NMPM

Description: SW $\frac{1}{4}$ Sec. 22 (R-4423, 11-1-71)Ext: $\frac{W}{2}$ Sec 27, $\frac{S}{2}$ Sec 28 (R-4809, 6-18-74)Ext: $\frac{S}{2}$ Sec 21 (R-6698, 6-2-81) EXT: NW $\frac{1}{4}$ sec. 22 (R-8946, 7-1-89)EXT: SW $\frac{1}{4}$ sec 15 (R-9741, 9-1-89) EXT: $\frac{SW}{4}$ Sec. 10, $\frac{NW}{4}$ Sec. 15 (R-10091, 3-28-94)Ext: $\frac{SE}{4}$ Sec. 10, $\frac{NE}{4}$ Sec. 22 (R-10588, 4-26-96)Ext: $\frac{S}{2}$ Sec. 16 (R-11116, 1-7-99) Delete $\frac{S}{2}$ Sec. 10 (R-12190, 8-12-04)

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 13256
ORDER NO. R-12190**

**APPLICATION OF APACHE CORPORATION FOR CONTRACTION OF THE
HARE-SAN ANDRES GAS POOL, EXPANSION OF THE EAST HARE-SAN
ANDRES POOL, AND SPECIAL POOL RULES FOR THE EAST HARE-SAN
ANDRES POOL, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 29, 2004, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 12th day of August, 2004, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) Apache Corporation ("applicant"), seeks an order:

(a) Contracting the horizontal boundaries of the Hare-San Andres Gas Pool (78080) by deleting the following acreage;

Township 21 South, Range 37 East, NMPM
Section 10: S/2

(b) Expanding the horizontal boundaries of the East Hare-San Andres Pool (96601) by adding thereto the following acreage; and

Township 21 South, Range 37 East, NMPM

Section 9: S/2
Section 10: SW/4
Section 16: NW/4

(c) Creating Special Pool Rules for the East Hare-San Andres Pool, providing for; (i) a gas-oil ratio of 5000 cubic feet of gas for each barrel of oil produced, and (ii) all other rules to comply with statewide rules.

(3) The Hare-San Andres Gas Pool was created by Division order No. R-4423 in Case No. 4848, issued on November 1, 1972, and currently covers the following acreage:

Township 21 South, Range 37 East, NMPM

Section 10: S/2
Section 15: W/2
Section 21: S/2
Section 22: NE/4 and W/2
Section 27: W/2
Section 28: S/2

The Hare-San Andres Gas Pool was discovered by the Shell Oil Company Turner Well No. 16, located in Unit M of Section 22, Township 21 South, Range 37 East, NMPM. It was completed in the San Andres formation on June 2, 1972, with the top perforation at 4004 feet. The pool has no special pool rules and is therefore being developed on statewide rules with 160-acre gas spacing units and only one well allowed per unit.

(4) The East Hare-San Andres Pool was created by Division order No. R-10776 in Case No. 11737 issued on February 28, 1997, and currently covers the following acreage:

Township 21 South, Range 37 East, NMPM

Section 10: SE/4

The East Hare-San Andres Pool was discovered by the Exxon Corporation New Mexico "PO" State Well No. 1 located in Unit O of Section 10, Township 21 South, Range 37 East, NMPM. It was completed in the San Andres formation on October 13, 1996, with the top perforation at 4,022 feet. The pool has no special pool rules and is therefore being developed on statewide rules with 40-acre oil proration units, 40-acre depth bracket oil discovery allowable, and a 2,000:1 gas-oil ratio.

(5) Notice was provided to operators within the East Hare-San Andres Pool and within one mile surrounding the pool. No one appeared at the hearing or otherwise opposed this application.

(6) Exxon Mobil Corporation ("ExxonMobil") operates a San Andres gas well located within the SW/4 of Section 10 and within the current boundaries of the Hare-San Andres Gas Pool. The applicant provided testimony that the entire S/2 of Section 10 is a single State of New Mexico lease with identical ownership and Exxon would therefore not be affected by switching the SW/4 of Section 10 from the Hare-San Andres Gas Pool to the East Hare-San Andres Pool. Division records indicate that ExxonMobil's well has not in the past produced enough gas, on the average, to be restricted in the future by the applicant's proposed 5,000:1 gas-oil ratio limitation.

(7) The applicant provided geological and engineering testimony as follows:

(a) The productive portion of the San Andres reservoir in this area does not behave in a conventional manner, with gas over oil, and oil over water. Some wells will produce primarily gas even though they are lower in structure than offsetting oil producers.

(b) The San Andres reservoir provides water supply wells for the deeper Drinkard formation waterflood in this area. Some of these water supply wells actually flow gas at the same time as water is being pumped and are classified as gas wells.

(c) Oil wells in this area producing from the Grayburg formation, which is stratigraphically higher than the San Andres, are spaced on 40-acres. If this application is approved, these existing Grayburg wells can be deepened without obtaining Division approval for rule exceptions, the San Andres formation can be developed, and the wells possibly downhole commingled.

(d) The producing lenses in the San Andres formation are at various stages of pressure depletion. Original reservoir pressure was approximately 1,700-psi and the pressure in some wells is still above the bubble point.

(e) Ultimate primary oil and gas production from this reservoir will not be decreased as a result of allowing a 5,000:1 or higher producing gas-oil ratio. The applied for 5,000:1 gas-oil ratio limit is consistent with the special pool rules existing on other San Andres oil pools in this area.

(f) To aid in determining the limits of the East Hare-San Andres Pool as applied for herein, the applicant has drilled three delineation wells, each in the center of a possible 160-acre San Andres gas spacing unit. One well is in the NW/4 of Section 16, one is in the SW/4 of Section 9, and one is in the SE/4 of Section 9. Each of these wells is an infill location Grayburg well as well as standard location gas wells. If these had tested as gas wells in the San Andres, they would have been the only San Andres wells allowed within each of these 160-acre units.

(8) Implementation of the proposed gas pool contraction, oil pool expansion, and 5,000:1 gas-oil ratio limit for the oil pool, will allow the operators of wells completed in the San Andres formation in this area the opportunity to recover additional hydrocarbons, prevent waste, and will protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Apache Corporation for the following three items is hereby approved:

(a) The following acreage is deleted from the boundaries of the Hare-San Andres Gas Pool (78080):

Township 21 South, Range 37 East, NMPM
Section 10: S/2

(b) The following acreage is added to the boundaries of the East Hare-San Andres Pool (96601):

Township 21 South, Range 37 East, NMPM

Section 9: S/2
Section 10: SW/4
Section 16: NW/4

(c) The "*Special Pool Rules for the East Hare-San Andres Pool*," are hereby established and shall read in their entirety as follows:

**SPECIAL POOL RULES
FOR THE
EAST HARE-SAN ANDRES POOL**

RULE 1. Each well completed in or recompleted in the East Hare-San Andres Pool, or in the San Andres formation within one mile thereof and not nearer to or within the limits of another designated San Andres pool, shall be spaced, drilled, operated, and produced in accordance with the special rules hereinafter set forth.

RULE 2. The limiting gas-oil ratio shall be 5,000 cubic feet of gas per barrel of oil.

RULE 3. Statewide rules shall govern this pool except as stated in **RULE 2** above.

(2) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.
Director

New Mexico Oil Conservation Division, District I

1625 N. French Drive

Hobbs, NM 88240

Form 3160-4
(August 1999)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED

OMB NO. 1004-1037

Expires: November 30, 2000

1a. Type of Well:

☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other

b. Type of Completion:

☒ New Well ☐ Workover ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
☐ Other

2. Name of Operator:

Apache Corporation

3. Address:

6120 S. Yale, Suite 1500, Tulsa, OK 74136

3a. Phone No. (Include area code):

918-491-4957

4. Location of Well (Report location clearly and in accordance with Federal requirements):

At surface 2590' FSL, 1310' FEL, Unit I (NE/4, SE/4)

At top prod. interval reported below

At total depth

14. Date Spudded:

5/29/2004

15. Date T.D. Reached:

6/3/2004

16. Date Completed:

☐ D & A☒ Ready to Produce

06/15/04

17. Elevations (DF, RKB, RT, GL):

3474' GL

18. Total Depth:

MD 4350'

TVD

19. Plug Back T.D.:

MD 4302'

TVD

20. Depth Bridge Plug Set:

MD

TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each):

CSL, DSN-SDL

22. Was well cored?

☒ No☐ Yes (Submit analysis)

Was DST run?

☒ No☐ Yes (Submit report)

Directional Survey?

☒ No☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4	8-5/8	24#	0	408		325	78	Ci to surf	
7-7/8	5-1/2	17#	110	4350		925	329	Ci to surf	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8	4072							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. of Holes	Perf Status
Grayburg	3815	3994	3815-3994	4"	21	Producing

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
3815-3994'	Acidize w/ 3000 gals 15% NEFE
3815-3994'	Frac w/ 52,458 gals gel & 100,500# 20/40 sand

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
6/15/04	7/18/2004	24	→	42	76	63	38.8		Pumping
Choke Size	Tubing Pressure Flwg. SI	Casing Pressure	24 Hour Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→				1810		Producing

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tubing Pressure Flwg. SI	Casing Pressure	24 Hour Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→						

(See instructions and spaces for additional data on reverse side)

DAVID R. GLASS
PETROLEUM ENGINEERACCEPTED FOR RECORD
CRIP, SGO, DAVID R. GLASS
AUG 3 2004

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tubing Pressure Flwg. SI	Casing Pressure	24 Hour Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tubing Pressure Flwg. SI	Casing Pressure	24 Hour Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→						

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, Etc.	Name	Top Measured Depth
				Rustler	1282
				Yates	2650
				Seven Rivers	2864
				Queen	3434
				Grayburg	3749
				San Andres	4005

32. Additional remarks (include plugging procedure):

33. Mark enclosed attachments:

- ☒ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☐ Directional Survey
- ☐ Sundry Notice / Plugging / Cement Verification
 ☐ Core Analysis
 ☒ Other Deviation Rpt/NM-OCD/C-104

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Kara CodayTitle Sr. Engineering TechSignature Kara CodayDate 7/23/2004

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 fraudulent statements or representations as to any matter within its jurisdiction.

District I

1625 N. French Dr., Hobbs, NM 88240

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-104

Revised June 1, 2000

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Submit to Appropriate District Office

5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator Name and Address APACHE CORPORATION 6120 S YALE, SUITE 1500 TULSA, OK 74136		OGRID Number 000873
API Number 30-025-36686		Reason for Filing Code / Effective Date NW-6/15/04
Pool Name Penrose Skelly Grayburg	Pool Code 50350	
Property Code 24427	Property Name Hawk B-1	Well Number 37

II. Surface Location

UI or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	9	21S	37E		2590	South	1310	West	Lea

Bottom Hole Location

UI or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
Use Code F	Producing Method Code P	Gas Connection Date 6/15/2004	C-129 Permit Number	C-129 Effective Date	C-129 Expiration Date				

III. Oil and Gas Transporters

Transporter OGRID	Transporter Name and Address	POD	O/G	POD ULSTR Location and Description
037480	EOTT ENERGY PIPELINE LP P O BOX 4666 HOUSTON, TX 77210-4666	0768710	O	K, Sec. 9, T21S, R37E
024650	DYNEGY MIDSTREAM SERVICES 1000 LOUISIANA, SUITE 5800 HOUSTON, TX 77002	0768730	G	K, Sec. 9, T21S, R37E

IV. Produced Water

POD 0768750	POD ULSTR Location and Description K, Sec. 9, T21S, R37E
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V. Well Completion Data

Spud Date	Ready Date	TD	PBTD	Perforations
5/29/2004	6/15/2004	4350'	4302'	3815-3994
Hole Size	Casing & Tubing Size	Depth Set	Sacks Cement	
12-1/4"	8-5/8"	408		325 sx / circ to surface
7-7/8"	5-1/2"	4350		925 sx / circ to surface
	2-7/8"	4072		

VI. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Csg. Pressure
6/15/04	6/15/04	7/18/2004	24		
Choke Size	Oil	Water	Gas	AOF	Test Method
	42	63	76		Pumping

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Kara Coday

Printed Name:

Kara Coday

Title:

Sr. Engineering Technician

Date: 7/23/2004

Phone: (918) 491-4957

OIL CONSERVATION DIVISION

Approved by:

Title:

PETROLEUM ENGINEER

Approval Date:

AUG 26 2004

If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature:

Printed Name

Title

Date

Apache Corporation
6120 S. Yale Ste 1500
Tulsa, OK 74136

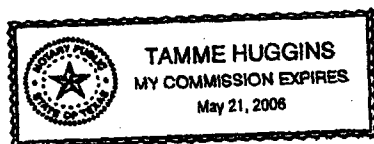
Hawk B-1 # 37
Lea County New, Mexico

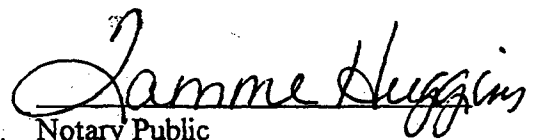
191	1.91	1/4	0.44	0.84	0.84
374	1.83	1 1/4	2.19	4.00	4.84
888	5.14	1	1.75	9.00	13.83
1386	4.98	1	1.75	8.72	22.55
1887	5.01	1	1.75	8.77	31.32
2505	6.18	2 1/4	3.94	24.33	55.65
3005	5.00	1	1.75	8.75	64.40
3503	4.98	3/4	1.31	6.54	70.94
3939	4.36	1/4	0.44	1.91	72.84
4350	4.11	1	1.75		80.04




Michael Roghair - General Manager

The attached instrument was acknowledged before me on the 7th day of June, 2004 by
Michael Roghair - General Manager, CapStar Drilling, L.P.




Notary Public



New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

Form 3160-5
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON 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.

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

5. Lease Serial No.
NMNM90161

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
HAWK B-1 37

9. API Well No.
30-025-36686

10. Field and Pool, or Exploratory Area

11. County or Parish, State

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
APACHE CORPORATION

3a. Address
6120 S. YALE, STE. 1500 TULSA, OK 74136

3b. Phone No. (include area code)
918-491-4980

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
AT SURFACE NESE LOT 1 2590FSL 1310FEL
AT PROPOSED PROD. ZONE NESE 2590FSL & 1310FEL

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input 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 checked="" type="checkbox"/> Other SPUD, SURF. CSG., TD, LOG, PROD. CSG.,
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input 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 recompletion 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.)

5/30/2004 MIRU CAPSTAR RIG # 8 SPUD 12 1/4" HOLE - DRILL TO 408 SURVEY @ 374= 1.25 POH W/ BIT WAIT ON CASING, HAND RIH 9 JTS. 412.41' 8 5/8" 24# J55 ST&C CSG. W/ 5 CENTRALIZERS BJ CMT. SHOE @ 468 W/ 325 SX CLASS C + 2% CACL + 1/8# CF = 78 BBLs. 14.8# SLURRY W/ 1.35 YIELD - DISPLACE PLUG TO 378 W/ 23 BFW - CIRC. 181 SX. CMT. TO PIT WOC CUT OFF CSG. - WELD ON HEAD NU BOP EQUIP.

5/31/2004- DRILL & SURVEY FROM 408-4350. CIRCULATE FOR LOGS SURVEY @ 4344= 1.0 POH W/ BIT HALLIBURTON RAN
6/4/2004 COMPENSATED SONIC LOG 4292-3300; DUAL LATEROLOG MICRO-LOG 4343-3300; GR DUAL SPACED NEUTRON SPECTRAL DENSITY 4268-200 WAIT ON CASING HAND RIH 98 JTS. 4358.78' 5 1/2" 17# K55 LT&C CSG. W/ 18 CENTRALIZERS BJ CMT. SHOE @ 4350 - FC @ 4302 W/ 575 SX. 50:50 POZ W/ 10% GEL + 5% SALT + 1/8# CF = 249 BBLs. 11.8# SLURRY W/ 2.44 YIELD & 350 SX 50:50 POZ W/ 2% GEL + 5% SALT = 80 BBLs. 14.2# SLURRY W/ 1.29 YIELD- PLUG BUMPED & HELD - CIRC. 181 SX. CMT. TO PIT - DISPLACED W/ 2% KCL WATER ND BOP - SET SLIPS - CUT OFF CSG. -

RELEASE RIG @ 5:00 AM 6-4-2004

ACCEPTED FOR RECORD

JUL 22 2004

GARY COURLEY
PETROLEUM ENGINEER

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

LANA WILLIAMS

Title DRILLING CLERK II

Signature

Lana Williams

Date 6/23/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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.

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.

(Instructions on reverse)

GWW

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

SUNDRY NOTICES AND REPORTS ON 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

5. Lease Serial No.
NMNM90161

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

HAWK B-1 #37

9. API Well No.

30-025-36686

10. Field and Pool, or Exploratory Area

PENROSE SKELLY; GRAYBURG

11. County or Parish, State

LEA, NM

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

APACHE CORP.

3a. Address

6120 S. YALE, STE 1500 TULSA, OK 74136

3b. Phone No. (include area code)

918-491-4900

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

AT SURFACE

NESE 2590FSL 1310FEL

AT PROPOSED PROD. ZONE

NESE 2590FSL 1310FEL

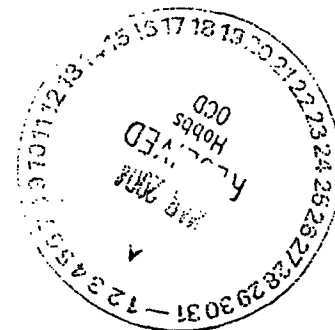
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input checked="" 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 checked="" type="checkbox"/> Other ADD POOL
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input 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 recompletion 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.)

EXTEND TOTAL DEPTH FROM 4150' TO 4800'.

ADD PROPOSED POOL: HARE; SAN ANDRES (GAS) (78080).



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

Michelle L. Hanson

Title Engineering Tech., Drilling Dept.

Signature

Michelle L. Hanson

Date 2/23/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD.) DAVID H. CLAPP

Title

Date

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.

Office

Title 18 U.S.C. Section 1004 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.

(Instructions on reverse)

OPER. OGRID NO. 8773
PROPERTY NO. 24427
POOL CODE 30350
EFF. DATE 4/29/04
APPL API NO. 30-025-36686

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

EC

5. Lease Serial No. NMNM90161
6. If Indian, Allottee or Tribe Name
7. If Unit or CA Agreement, Name and No.
8. Lease Name and Well No. HAWK B-1 37
9. API Well No. <u>30-025-36686</u>
10. Field and Pool, or Exploratory PENROSE SKELLY
11. Sec., T., R., M., or Blk. and Survey or Area Sec 9 T21S R37E Mer NMP SME: FEE
12. County or Parish LEA
13. State NM
17. Spacing Unit dedicated to this well 40.00
20. BLM/BIA Bond No. on file
23. Estimated duration 15 DAYS

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		CONFIDENTIAL
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		
2. Name of Operator APACHE CORPORATION		Contact: BONNIE JONES E-Mail: bonitaj@cableone.net
3a. Address 6120 SOUTH YALE, SUITE 1500 TULSA, OK 74136-4224	3b. Phone No. (include area code) Ph: 505.624.9799 Fx: 505.624.9799	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NESE Lot I 2590FSL 1310FEL At proposed prod. zone NESE 2590FSL 1310FEL SUBJECT TO LIKE APPROVAL BY STATE <u>Unit I</u>		
14. Distance in miles and direction from nearest town or post office 3 MILES NORTHWEST OF EUNICE, NM		15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 50'
16. No. of Acres in Lease 958.25		17. Proposed Depth 4150 MD 4150 TVD
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 885.5'		21. Elevations (Show whether DF, KB, RT, GL, etc.) 3474 GL
22. Approximate date work will start 12/15/2003		23. Estimated duration 15 DAYS

24. Attachments

Captain Controlled Water Basin

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) BONNIE JONES	Date 11/17/2003
Title AGENT		
Approved by (Signature) <u>/s/ JOE G. LARA</u>	Name (Printed/Typed) <u>/s/ JOE G. LARA</u>	Date DEC 15 2003
Title <u>FIELD MANAGER</u>		Office <u>CARLSBAD FIELD OFFICE</u>

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

APPROVAL FOR 1 YEAR

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.

Additional Operator Remarks (see next page)

Electronic Submission #25168 verified by the BLM Well Information System

For APACHE CORPORATION, sent to the Hobbs

permitted to AFMSS for processing by ARMANDO LOPEZ on 11/17/2003 (04AL0042AE)

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

DECLARED WATER BASIN

CEMENT BEHIND THE 8 3/8"

CASING MUST BE CIRCULATED

CEMENT BEHIND THE 5 1/2"

CASING MUST BE CIRCULATED

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

DISTRICT I
P.O. Box 1000, Santa Fe, NM 87504-1000

DISTRICT II
P.O. Box 1000, Santa Fe, NM 87504-1000

DISTRICT III
1000 No. Front St., Santa Fe, NM 87504-1000

DISTRICT IV
P.O. Box 1000, Santa Fe, NM 87504-1000

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 February 18, 1984
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 5 Copies

EXHIBIT D-1

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-36686	Pool Code 50350	Pool Name Penrose Skelly; Grayburg
Property Code 24427	Property Name HAWK B-1	Well Number 37
OGED No. 873	Operator Name APACHE CORPORATION	ELEVATION 3474'

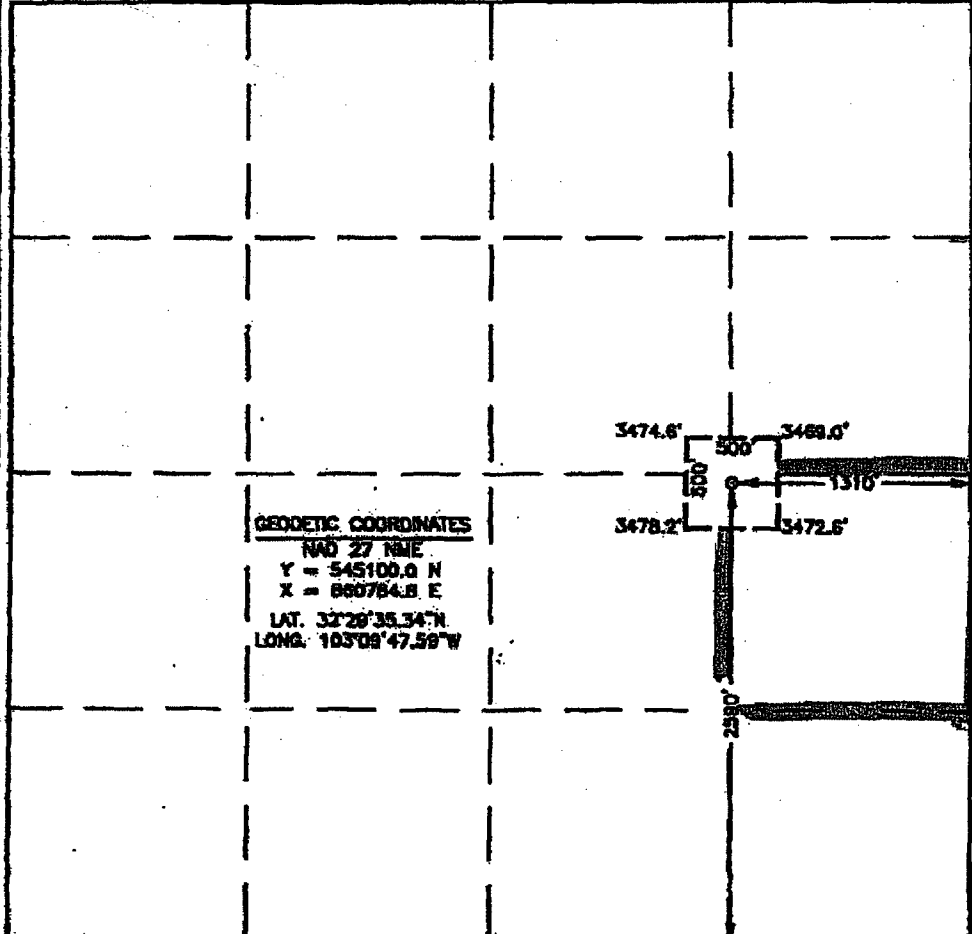
Surface Location

UL or lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
1	9	21-S	37-E		2590'	SOUTH	1310'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40.00		Joint or Infill		Consolidation Code		Order No. N/S L-5032<SD>			

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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Michelle Hanson</i> Signature</p> <p><u>Michelle Hanson</u> Printed Name</p> <p><u>Drilling Tech</u> Title</p> <p><u>9/22/03</u> Date</p>
	<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>August 06, 2003</p> <p>Date Surveyed _____ A.W.B.</p> <p>Signature _____ Professional Surveyor</p> <p><i>Ronald J. Gibson</i> Professional Surveyor</p> <p>Certification No. 03.11.0845 Professional Surveyor</p>

DISTRICT I
P.O. Box 1222, Hobbs, NM 88240-1222

DISTRICT II
P.O. Box 22, Lordsburg, NM 88311-0022

DISTRICT III
1000 Elko Avenue Rd., Artesia, NM 87410

DISTRICT IV
P.O. Box 2222, Santa Fe, N.M. 87504-2222

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 February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies

EXHIBIT D-2

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

AFT Number		Pool Code		Pool Name	
Property Code		Property Name HAWK B-1			Well Number 37
O&M No.		Operator Name APACHE CORPORATION			Elevation 3474'

Surface Location

UL or lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South Line	Feet from the	East/West Line	County
1	9	21-S	37-E		2590'	SOUTH	1310'	EAST	LEA

Bottom Hole Location If Different From Surface

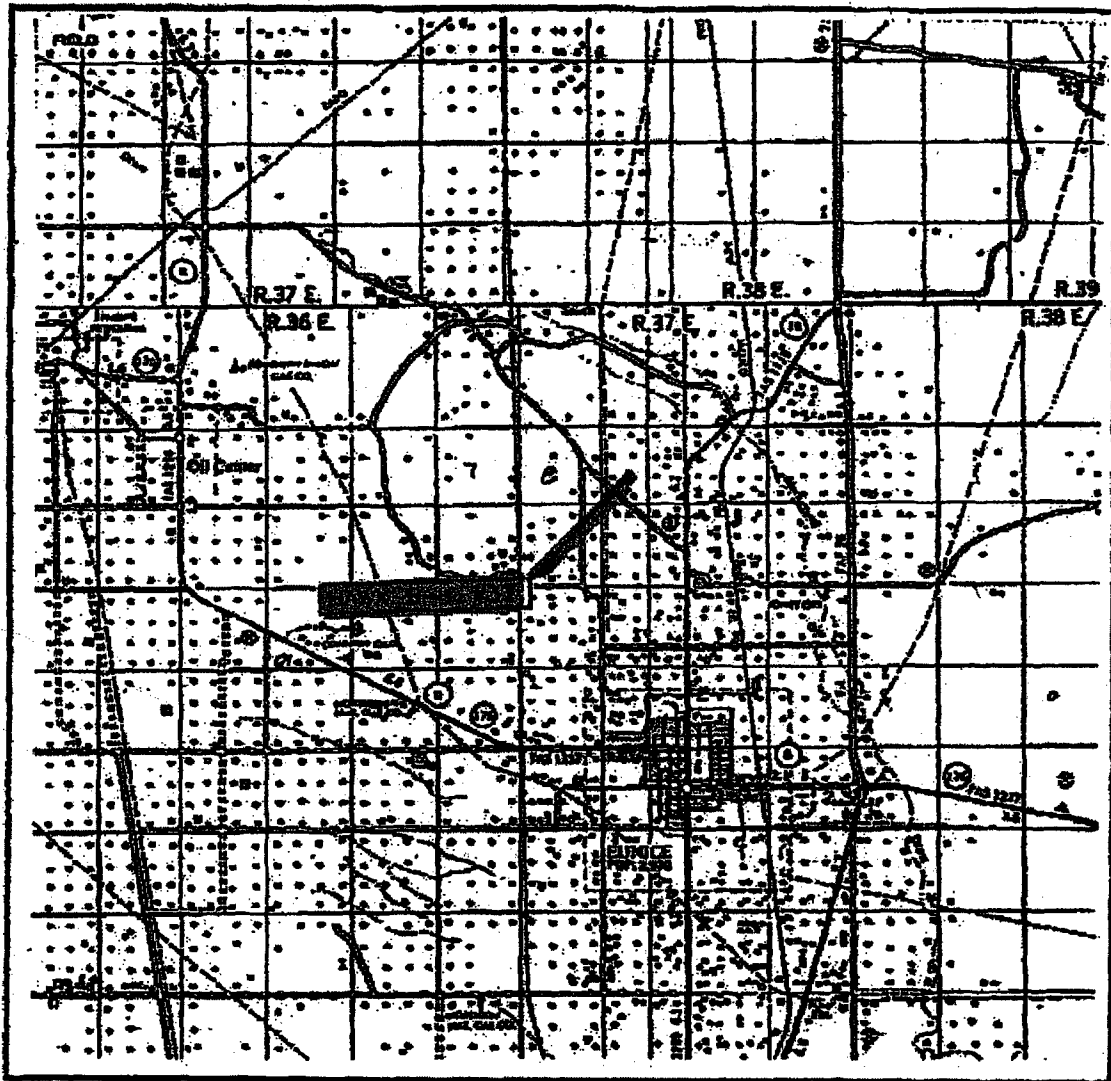
UL or lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South Line	Feet from the	East/West Line	County
Dedicated Acres		Joint or Infill		Consolidation Code		Order No.			

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

<p>APACHE-SOUTHLAND ROYALTY #1</p> <p>APACHE-SOUTHLAND ROYALTY #6</p> <p>HAWK B-1 #2</p> <p>HAWK B-1 #13</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
	<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>August 06, 2003</p> <p>Date Surveyed _____ A.W.B.</p> <p>Signature & Seal of Professional Surveyor _____</p>
	<p>03.11.0845</p>
	<p>Certificate No. NORMAN L. KIRSON 3239 CARY KIRSON 13844</p>

VICINITY MAP

EXHIBIT E-1



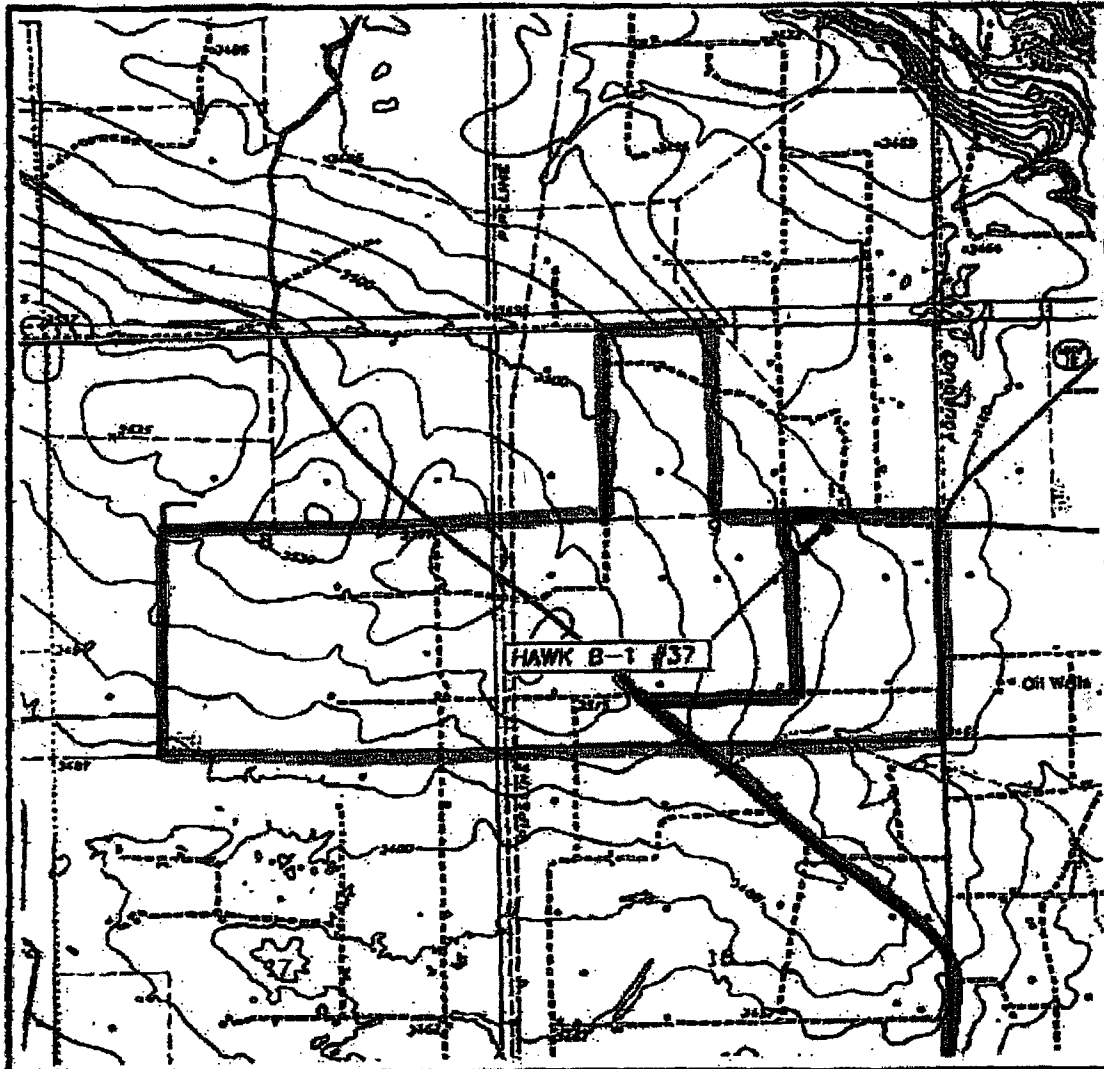
SCALE: 1" = 2 MILES

SEC. 9 TWP. 21-S RGE. 37-E
 SURVEY N.M.P.M.
 COUNTY LEA
 DESCRIPTION 2590' FSL & 1310' FEL
 ELEVATION 3474'
 OPERATOR APACHE CORPORATION
 LEASE HAWK B-1

JOHN WEST SURVEYING
 HOBBS, NEW MEXICO
 (505) 393-3117

LOCATION VERIFICATION MAP

EXHIBIT E-2



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
EUNICE, N.M.

SEC. 9 TWP. 21-S RCE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2590' FSL & 1310' FEL

ELEVATION 3474'

OPERATOR APACHE CORPORATION

LEASE HAWK B-1

U.S.G.S. TOPOGRAPHIC MAP
EUNICE, N.M.

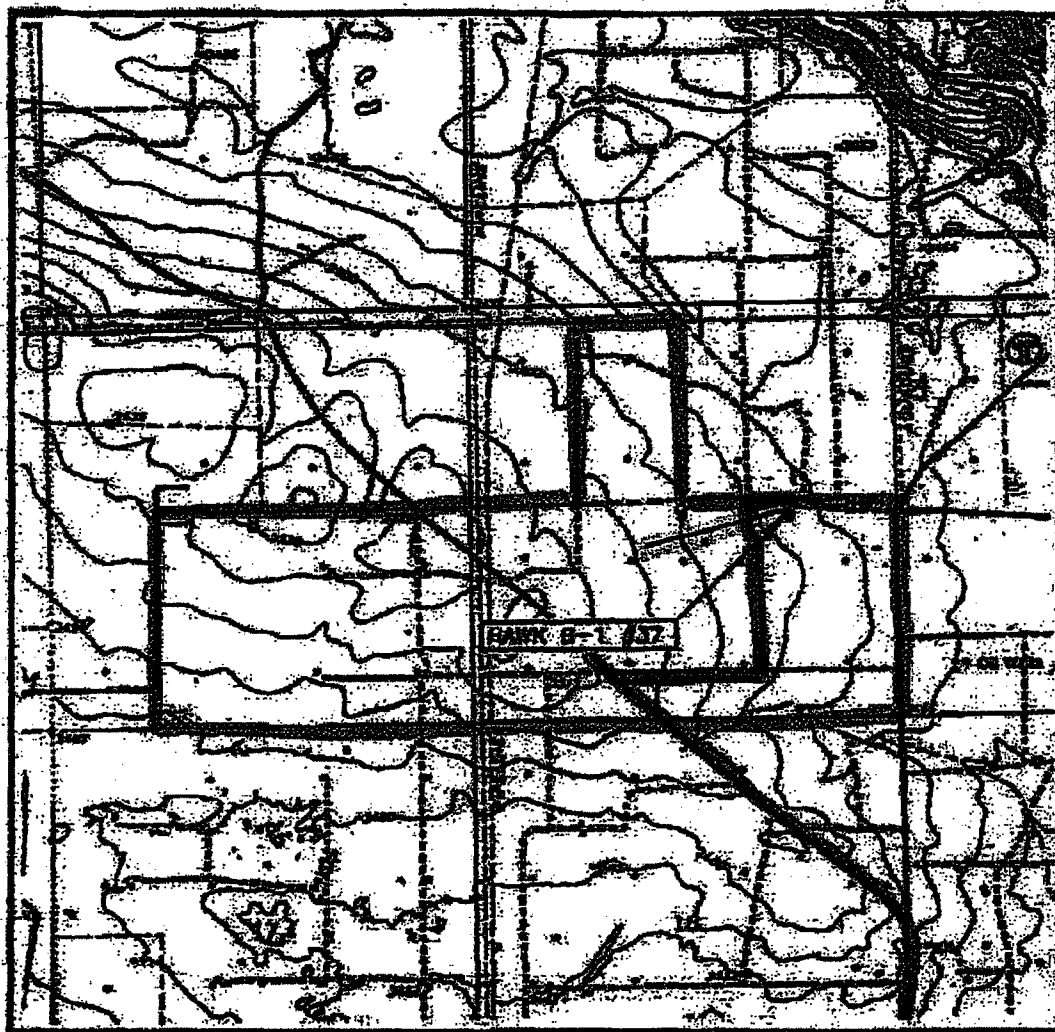
JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

ACCESS [REDACTED]

LEASE BOUNDARY [REDACTED]

LOCATION VERIFICATION MAP

EXHIBIT E-3



SCALE: 1" = 2000'

SEC. 9 TWP. 21-S. RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2500' FSL & 1500' FSL

ELEVATION 3475'

OPERATOR APACHE CORPORATION

LEASE RANK B-1

U.S.G.S. TOPOGRAPHIC MAP

ELUNGE, N.M.

CONTOUR INTERVAL: 10'
ELUNGE, N.M.

Flow-line Route

1951
Flow line
JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

ACCESS

LEASE BOUNDARY

