

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-0202296	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Samson Resources Co.		7. If Unit or CA Agreement, Name and No.	
3a. Address Samson Plaza—Two W. 2nd St. Tulsa, OK 74103		8. Lease Name and Well No. Minis "2" Federal Com., # 2	
3b. Phone No. (include area code) (918) 591-1822		9. API Well No.	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 3700' FSL & 1980' FEL At proposed prod. zone same		10. Field and Pool, or Exploratory Hat Mesa Morrow	
14. Distance in miles and direction from nearest town or post office* 39 miles northeast of Carlsbad, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 2-T21S-R32E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1060'	16. No. of Acres in lease 560.2	17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320'	19. Proposed Depth 14,400'	20. BLM/BIA Bond No. on file NM-2037	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3737' GL	22. Approximate date work will start* November 11, 2002	23. Estimated duration 4 - 6 weeks	

24. Attachments

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 <i>George R. Smith</i>	Name (Printed Typed) George R. Smith	Date 9/27/02
Title Agent for Samson Resources Co.		
Approved by (Signature) <i>Steve L. Gamby</i>	Name (Printed Typed) STEVE L. GAMBY	Date NOV 1 2002
Title NM STATE DIRECTOR		
Office NM STATE OFFICE		

Application approval 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.

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.

*(Instructions on reverse)

Lease Responsibility Statement: Samson Resources Co. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

**APPROVAL SUBJECT TO
FEDERAL REQUIREMENTS AND
LOCAL STIPULATIONS
ATTACHED**

George R. Smith, agent

KG

DISTRICT I
1025 N. French Dr., Hobbs, NM 88240

State of New Mexico

Form C-102

Revised August 15, 2000

Energy, Minerals, and Natural Resources Department

Submit to Appropriate District Office

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

OIL CONSERVATION DIVISION

State Lease - 4 copies

Fee Lease - 3 copies

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name Hat Mesa Morrow
⁴ Property Code	⁵ Property Name MINIS "2" FEDERAL	⁶ Well Number 2
⁷ OGRID No.	⁸ Operator Name SAMSON RESOURCES	⁹ Elevation 3737'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
15	2	21 SOUTH	32 EAST, N.M.P.M.		3700'	SOUTH	1980'	EAST	LEA

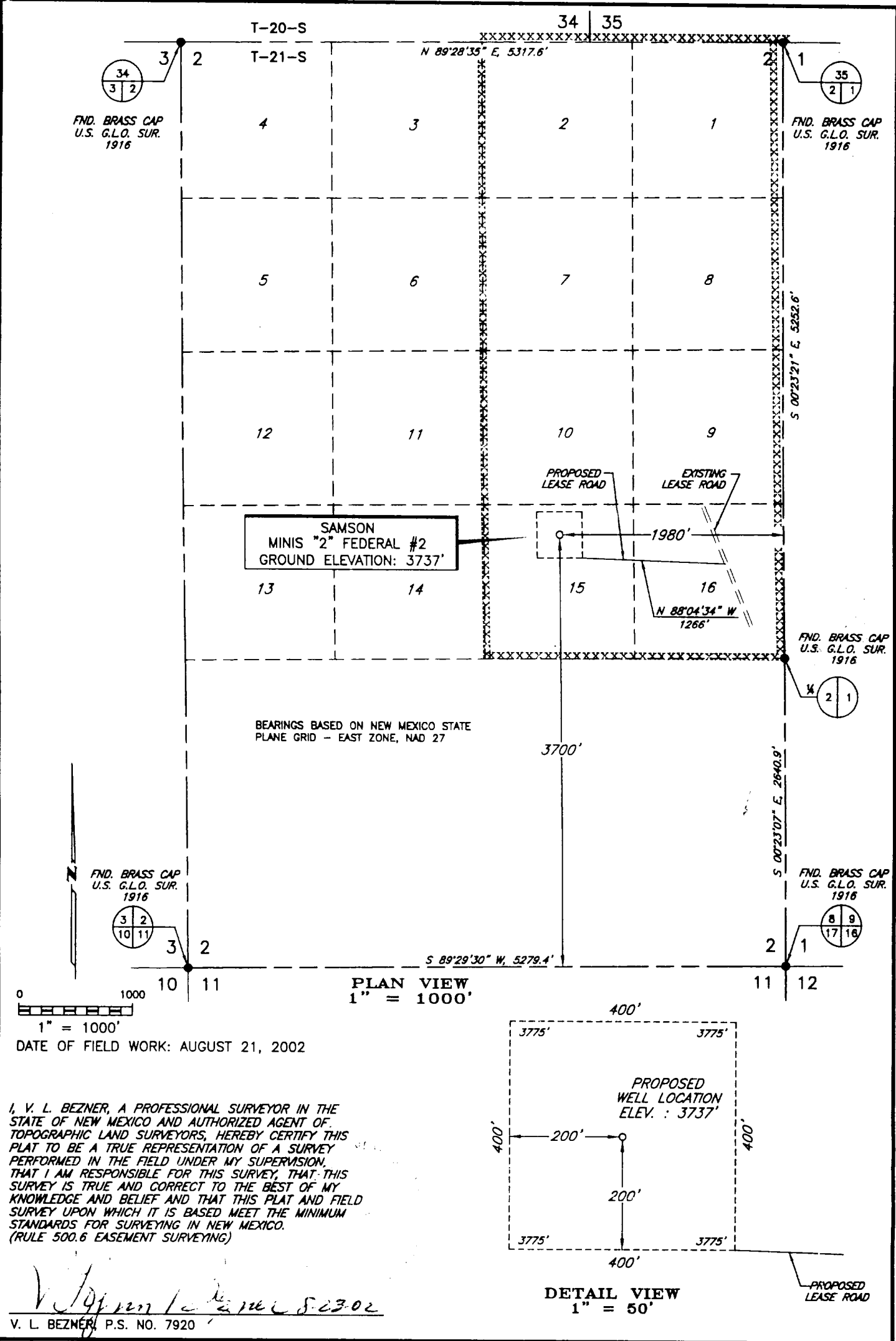
Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code Com	¹⁵ Order No.						

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
Plus north 160 acres

<div><p>16</p><p>NOTE: THIS IS AN IRREGULAR SECTION</p></div>	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Brad P. Hargrove Printed Name Landman Title September 3, 2002 Date
	18 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. AUGUST 21, 2002 Date of Survey Signature and Seal of Professional Surveyor Certificate Number V. L. BEZNER R.P.S. #7920 JOB #83265 / 72 SW / J.C.P.

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 2, T-21-S, R-32-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



				SAMSON	SCALE: AS SHOWN
					DATE: AUGUST 21, 2002
NO.	REVISION	DATE	BY	SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS	JOB NO.: 83266-F
SURVEYED BY: H.V.					QUAD NO.: 72 SW
DRAWN BY: J.C.P.					
APPROVED BY: V.L.B.					SHEET : 1 OF 1

APPLICATION FOR DRILLING

SAMSON RESOURCES CO.
 Minis "2" Federal Com., Well No. 2
 3700' FSL & 1980' FEL, Sec. 2-R21S-R32E
 Lea County, New Mexico
 Lease No.: NM-0202296
 (Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Samson Resources Co. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Rustler	1,530'	Penn Shale	12,200'
Yates	3,150'	Strawn	12,850'
Capitan	3,529'	Atoka	13,060'
Delaware	5,530'	Morrow	13,600'
1 st Bone Spring	9,535'	T.D.	14,400'
Wolfcamp	11,650'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:
 Water: Surface water between 100' - 300'.
 Oil: Possible in the Delaware below 5530'.
 Gas: Possible in Atoka below 13,060' and the Morrow below 13,600'.

✓ **4. Proposed Casing Program:**

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	K-55	BT&C	0' - 1,600'	1590 Circ. 1330 sx. HLC Prem Plus
12 1/4"	8 5/8"	32.0#	N-80	LT&C	0' - 5,600' 3212±	Circ. 2650 sx. Interfill C & Prem
7 7/8"	5 1/2"	20.0#	P110	LT&C	0' - 14,400'	890 sx Interfill H & Super H TOC 5400'

5. Minimum Specifications for Pressure Control Equipment:

A 12" 5000 psi WP Shaffer, LWS Double Gate BOP will be installed on the 12 1/4" casing and tested as per Onshore Oil & Gas Order #2. Casing and BOP will be tested as a 3,000 psi BOP system before drilling out with the 12 1/4" and 7 7/8". See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 1,600': Fresh water mud:	8.6 - 9.0 ppg	32 - 36	No W/L control
1,600' - 5,600': Brine mud:	10.0 - 10.1 ppg	28 - 29	No W/L control ✓
5,600' - 11,500': Fresh/Cut Brine	8.4 - 9.2 ppg	28 - 29	No W/L control
11,500' - 12,900': Cut Brine	8.8 - 9.6 ppg	28 - 29	No. W/L control
12,900' - 14,400': Cut brine/gum, starch	9.4 - 11.5 ppg	38 - 42	W/C control 15cc - 8cc +/-

7. **Auxiliary Equipment:** Blowout Preventer, flow sensors and stabbing valve.

1600 Red Beds
 3212± SPS
 5350-5400 Reef

or Utilize A Fresh water mud system to TD.

✓ See Amendment Sunday Submitted 10/31/02, Approved Nov. 1, 02.
 Fresh 16" - 1590 8 5/8 - 5,600 (REEF) Fresh
 (S.S.) 11 3/4 - 3420

SAMSON RESOURCES CO.

Minis "2" Federal Com., Well No. 2

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8. Testing, Logging, and Coring Program:

Drill Stem Tests: None unless conditions warrant.

Logging: 5,000' to T.D: CNL-DNL w/GR-Cal.

5,000' to Surface: CNL-GR

Coring: Rotary sidewall if dictated by logs.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 6336 psi and surface pressure of 3168 psi with a temperature of 204°.

10. H_2S : None expected. The Minis "2" Fed. #1 producing in the Delaware was tested and is totally sweet, no H_2S .

11. Anticipated starting date: November 11, 2002.

Anticipated completion of drilling operations: Approximately 6 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

SAMSON RESOURCES

Minis "2" Federal Com., Well No. 2
3700' FSL & 1980' FEL, Sec. 2-R21S-R32E
Lea County, New Mexico
Lease No.: NM-0202296
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a USGS/BLM Topo map showing the location of the proposed well as staked. The well site location is approximately 40 road miles northeast of Carlsbad, New Mexico. Traveling east from Carlsbad there will be approximately 37.5 miles of paved highway and 2.0 miles of gravel ranch/oilfield roads.
- B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 32 miles to NM Highway #176. Turn southeast on NM #176 for 5.3 miles. Turn south on oil field road at a Phillips Petroleum and a Conoco sign onto a good gravel road. Continue south for 1.3 miles to the Minis 1 Fed. #2 well site 500 feet west (right) of the road. Turn north onto the well pad and take the road north and west from the northeast corner of the pad. This access road runs .4 mile to the Minis "2" Federal, Well No. 1 well pad. The start of the proposed access road is on the southeast corner of the pad as the access road enters the pad. The road will run west on the south side of the No. 1 well pad for 1300 feet to the southeast corner of the proposed well site.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road is approximately 1300 feet in length and is color coded red on Exhibit "A".
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche and will be properly drained.
- C. Turnouts: There will be one turnout at the midpoint, increasing the road width to 20 feet for passing.
- D. Culverts: None required.
- E. Cuts and Fills: None required except the leveling of small dunes.
- F. Gates, Cattle guards: None required.
- G. Off Lease R/W: R/W # NM-107207 was issued for the Minis 2 Federal, well No. 1.

3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

SAMSON RESOURCES

Minis "2" Federal Com., Well No. 2

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4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;

- A. Samson Resources has production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas production-process equipment and tank battery, if required, will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for the access road and well site pad will be obtained on location, if available or from a Federal pit located in the SENE of Sec. 11-T21S-R32E. No surface materials will be disturbed except those necessary for actual grading and construction of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock and wildlife from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

SAMSON RESOURCES

Minis "2" Federal Com., Well No. 2

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9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 400' X 400'.
- B. Mat Size: 300' X 210', plus 150' X 150' mud pits. The pits will be on the north.
- C. Cut & Fill: There will be a 1 – 1.5 foot cut on the west with fill to the east.
- D. The surface will be topped with compacted caliche and the mud pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to work after abandonment.

11. OTHER INFORMATION:

- A. Topography: The proposed well site and access road is located on the north side of Hat Mesa. The location has a northwesterly slope of 1% from an elevation of 3737'.
- B. Soil: The topsoil on the well site and access road is a light brown colored fine sand. The soil is of the Pyote and Maljamar fine sands complex Soils Series.
- C. Flora and Fauna: The vegetation at the well site is a sparse to fair grass cover of three-awn, dropseed, burrograss, sandbur and other miscellaneous native grasses along with plants of mesquite, yucca, sage, shinny oak brush, broomweed, cacti, buckwheat and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None.
- E. Residences and Other Structures: None, but existing oil field facilities.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road are on Federal surface.
- H. There is no evidence of archaeological, historical or cultural sites in the area. Archaeological Survey Consultants, P.O. Box 2285, Roswell, NM 88202 are conducting an archaeological survey and their report will be submitted to the appropriate government agencies.

SAMSON RESOURCES

Minis "2" Federal Com., Well No. 2

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12. OPERATOR'S REPRESENTATIVE:

- A. The field representative responsible for assuring compliance with the approved surface use and operations plan is as follows:

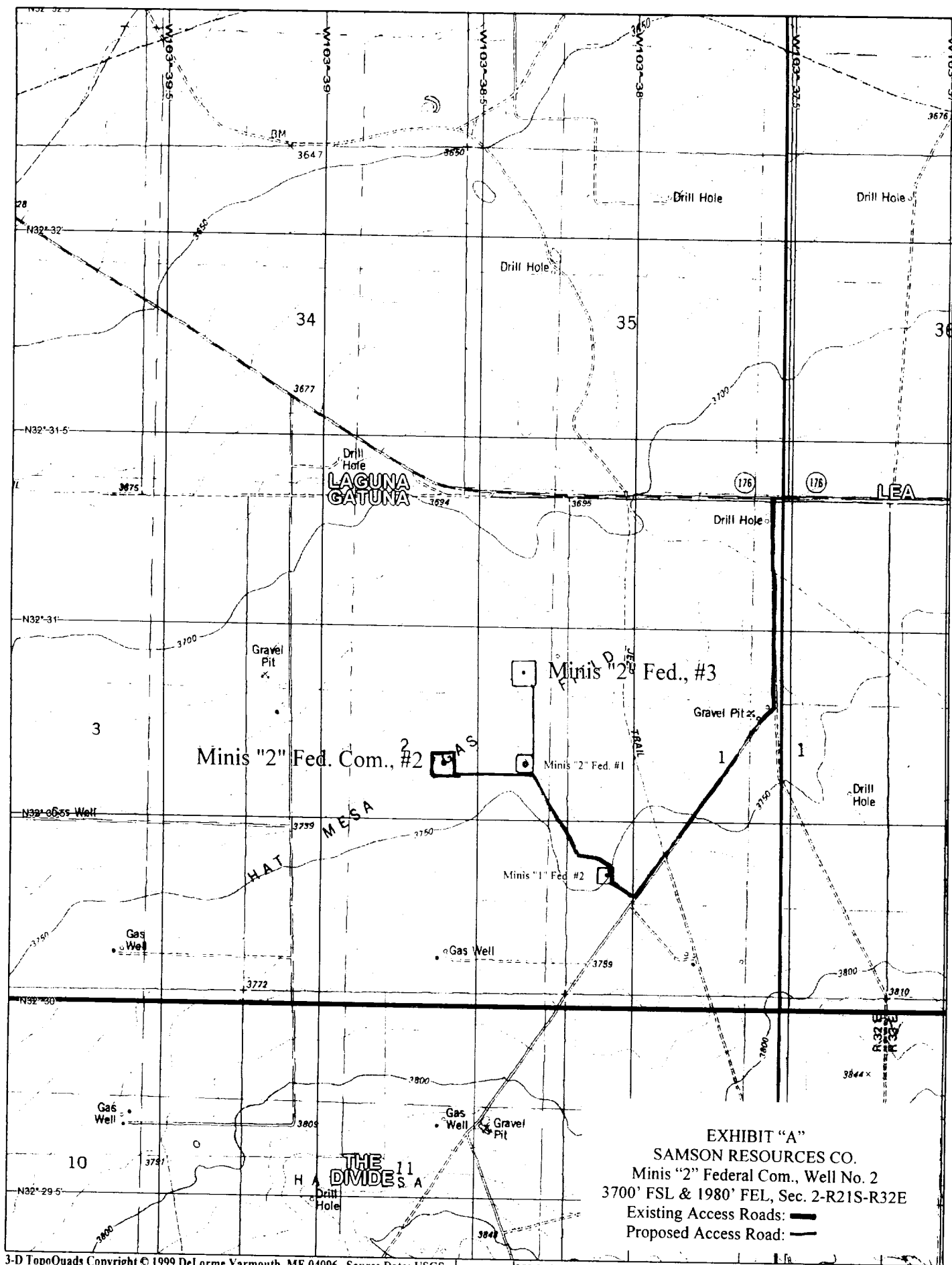
Billy Goodwin
Samson Resources
Samson Plaza-Two West Second St.
Tulsa, OK 74103-3103
Office Phone: (918) 591-1822

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Samson Resources and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

September 26, 2002

George R. Smith
Agent for: Samson Resources



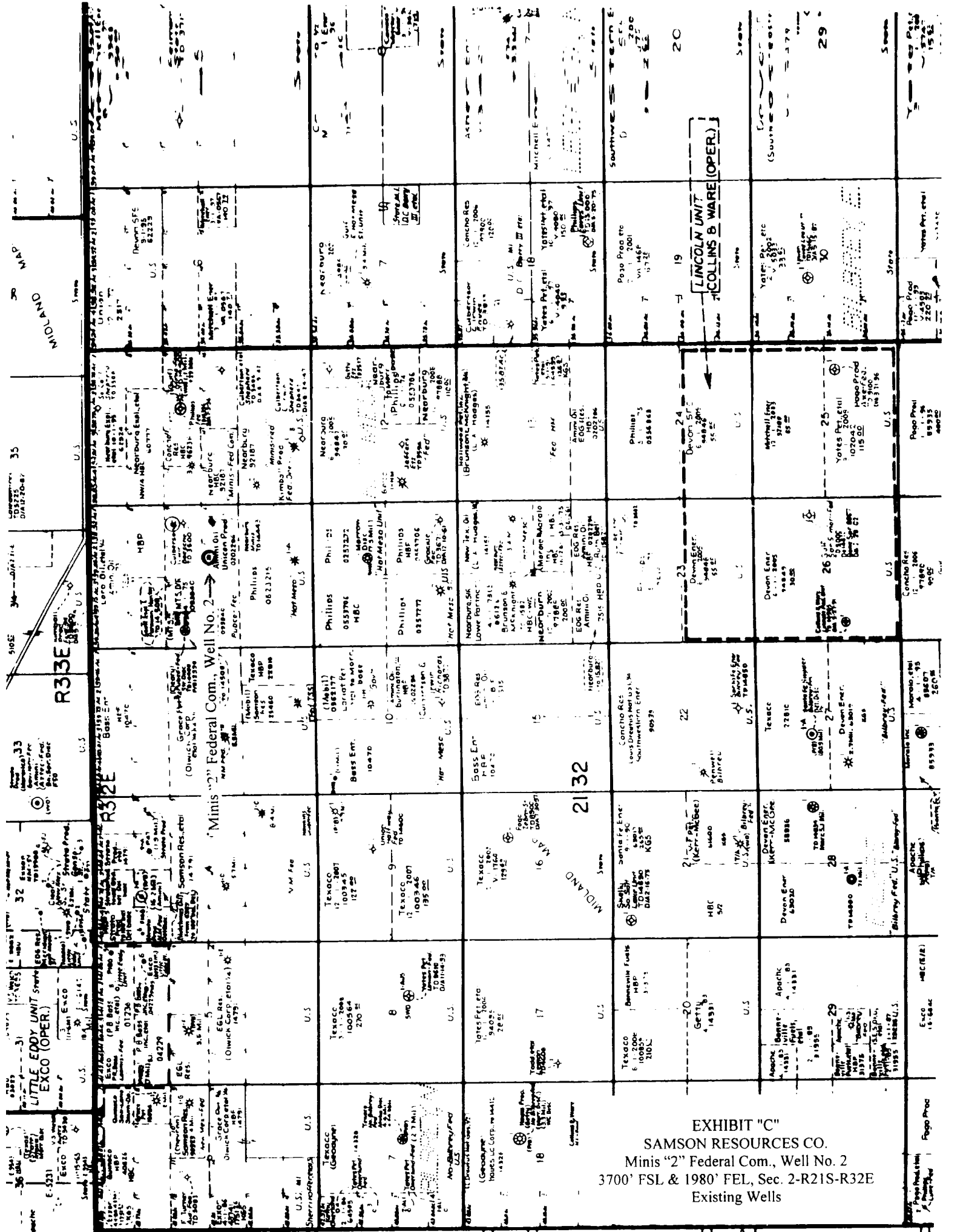


EXHIBIT "C"
 SAMSON RESOURCES CO.
 Minis "2" Federal Com., Well No. 2
 3700' FSL & 1980' FEL, Sec. 2-R21S-R32E
 Existing Wells



RIG 715 BOP LAYOUT

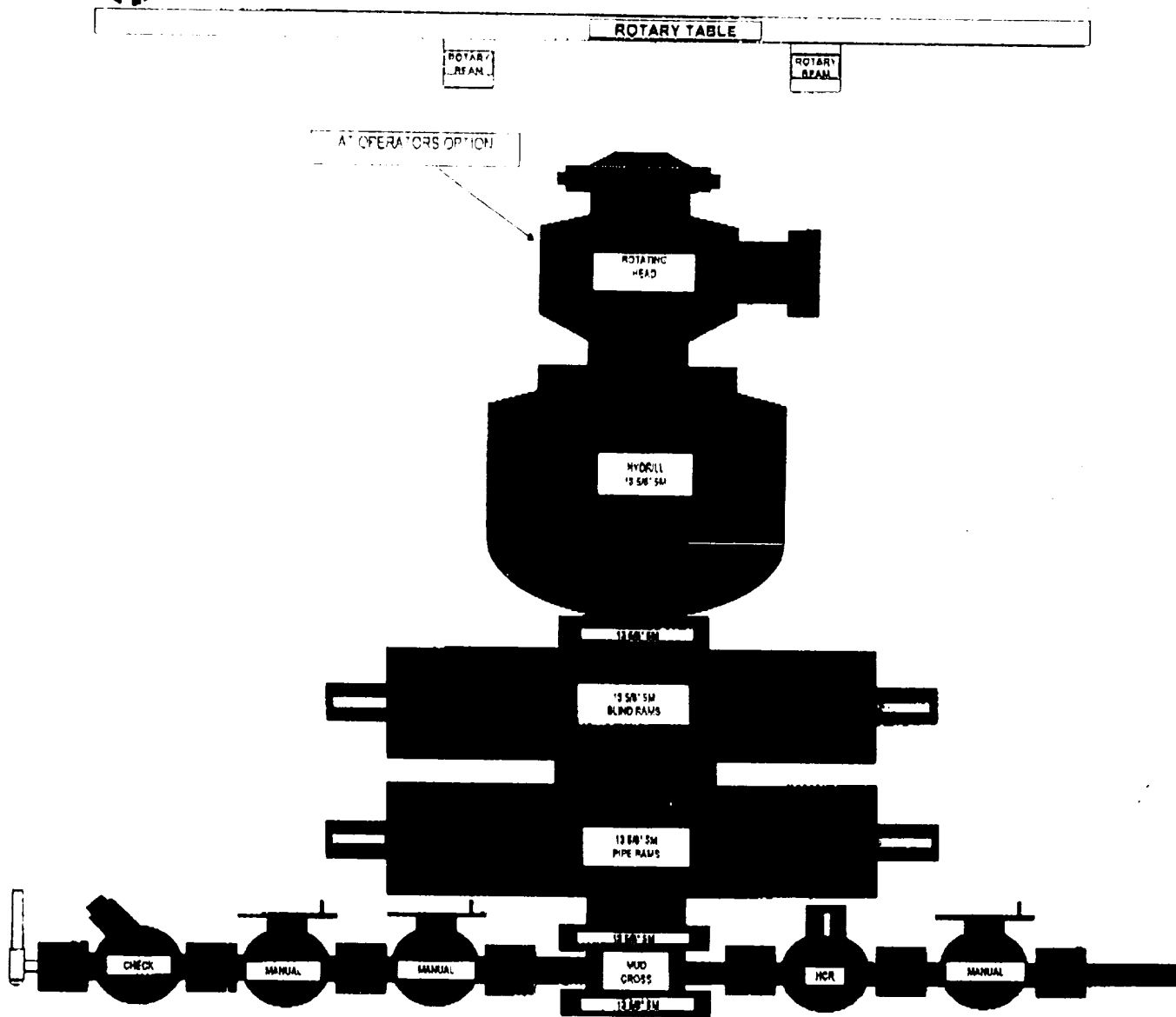


EXHIBIT "E"
 SAMSON RESOURCES CO.
 Minis "2" Federal Com., Well No. 2
 BOP Specifications



N/O = NORMALLY OPEN
N/C = NORMALLY CLOSE

