

N. Oil Cons. DIV-Dist. 2

1301 W. Grand Avenue

UNARTESIA, NM 88210

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

BURNETT OIL CO., INC (817/332-5108)

3. ADDRESS OF OPERATOR

801 CHERRY STREET-UNIT #9, SUITE 1500, FORT WORTH, TEXAS 76102-6881

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

UNIT N, 990' FSL, 1650' FWL

At proposed prod. zone

SAME AS SURFACE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

APPROXIMATELY 4 MILES EAST OF LOCO HILLS, NEW MEXICO

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

330'

16. NO. OF ACRES IN LEASE

600

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

330'

19. PROPOSED DEPTH

5200'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3686' GR

22. APPROX. DATE WORK WILL START*

October 1, 2002

23. PROPOSED CASING AND CEMENTING PROGRAM

Koswell Controlled Water Basin

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	500'	+/-400 Sks(Circ. to Surface)
7 7/8"	5 1/2"	15.50#	5200'	+/-1500 Sks in 2 Stages
(If water flows are encountered cementing program may vary.)				

A 12 1/4" hole will be drilled to Rustler Anhydrite. We will set 8 5/8" casing @ this depth & cement to surface After an NMOC required 18 hour cement wait, casing & BOP will be tested before drill out of the shoe. A 7 7/8" hole will be drilled to approx. 5200' to effectively test the Cedar Lake Yeso interval. The 5 1/2" casing will be run and set @ TD and cemented to 600' above highest potential producing horizon(approx. 2100'.) We will perforate and treat productive intervals as recommended by service company.

We also request permission to use enough Rathole cement, if required, to top off surface casing cement to surface without a verbal approval call to BLM.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Stirling Landry

TITLE

PETROLEUM ENGINEER

DATE

AUGUST 7, 2002

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

/s/ Mary J. Rugwell

TITLE

FIELD MANAGER

DATE

SEP 13 2002

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL FOR 1 YEAR



DRILLING PLAN

BURNETT OIL CO., INC.
LEASE NO. NMLC 029338A
GISSLER A LEASE, WELL NO. 18
UNIT LETTER N
990' FSL, 1650' FWL
SECTION 14, TOWNSHIP 17 SOUTH, RANGE 30 EAST
EDDY COUNTY, NEW MEXICO

(A) DRILLING PROGRAM

(1) Estimated tops of geologic markers:

Alluvium.....Surface
Anhydrite.....273'
Salt.....429'
Base Salt.....1097'
Yates.....1387'
Seven Rivers.....1790'
Grayburg.....2700'
San Andres.....3005'
Glorieta.....4510'

(2) Estimated depths of producing formations:

Fresh water.....None
Saltwater flows..(?)*
Oil and Gas.....1387'**, 2700'**

* As waterflows, if any, are encountered, their depth will be recorded, and drilling will continue to total depth. Multiple stage cementers will be placed in the production casing string to enable us to confine the waterflows to their respective depths by cementing.

** Oil and gas bearing zones, if any, will be determined by log analysis, and will be confined by cementing; subsequently perforated, stimulated and produced in a conventional manner.

(3) Blowout Preventer Specifications:

A 3000 PSI Double Ram unit with hydraulic closing equipment. (See Exhibit E schematic). The preventer will be tested before drilling out below surface pipe setting depth. The exact description of the preventer and related equipment will depend on the successful contractor, who has not yet been selected. No high pressure hydrocarbon zones are anticipated.

(4) Supplementary drilling equipment information:

Not available at this time.

(5) Supplementary casing program information:

- a. Surface casing: Surface casing will consist of new 8-5/8" OD 24# J-55 ST&C R3 pipe and will be run into a 12-1/4" hole with notched Texas Pattern shoe on bottom, insert float valve in first collar, Two(2) centralizers around shoe joint and first collar. Bottom 3 joints will be thread locked. Setting depth will be +/- 475' in the Rustler Anhydrite, depending on where a suitable casing seat can be found. Cement will be circulated back to the surface. Initial cement volume will be calculated to be 100% excess of the calculated annular volume between the 8-5/8" casing and the hole. **If circulation of cement to the surface is not achieved due to lost circulation, we would like permission (without having to call BLM) to fill this annular space using sufficient rat hole mix to bring cement to surface per BLM specifications.** Eighteen(18) WOC time will be allowed as per NMOCD. Casing will be tested to 1000 PSI before drilling out.
 - b. Production casing: Production casing will consist of new 5-1/2" OD 15.50# J55 R3 8rd LT&C pipe being run to total depth with float shoe on bottom, float collar in first collar, centralizers throughout intervals and above and below any multiple stage cementers, and being cemented with sufficient volume to bring top of cement 600' above the top of the highest potential producing horizon. If water flow is encountered, we will cement from TD back to the stage cementer, open stage cementer, cement from stage enter with sufficient volume of Class C or equivalent to bring cement up to at least 600' above the highest potential producing horizon, then balancing hydrostatic weight of the cement by adjusting the flow of water to surface through the 5-1/2" casing, enabling the 2nd stage of cement to set up. Casing will be shut in after twelve(12) hours. If there is no flow of water to surface around the 5-1/2" casing, we will cement the water flow proper through the stage cementer with +/- 900 sacks. In case the 2nd stage is not successful in closing off any annular flow, we will repeat the 2nd stage until successful. After drilling out and testing the casing to 2000 PSI, a cement bond log will be run to evaluate the cement job.
- (6) Mud program: Native mud (red beds and shale) will be used to total depth. The surface hole will be drilled with fresh water and lost circulation materials as needed. The remaining hole will be drilled with brine water with necessary additives.
- (7) Logging program: If no water flow(s) are encountered, we will run Neutron Litho density-DLL logs. If water flow(s) are encountered, no open hole logging will be attempted, and after casing is set, cased hole GR/CN logs will be run. No other testing or coring is anticipated.

- (8) Abnormal pressures or hazards: No abnormal pressures or potential hazards are anticipated. The maximum anticipated bottom hole pressure is 1000#. The maximum anticipated bottom hole temperature is 91°F.
- (9) Other facets of the operation to be pointed out:
None.

(B) HYDROGEN SULFIDE DRILLING PROGRAM

(1) Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of Hydrogen Sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing wind.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well, blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan (if applicable.)

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan (if applicable). This plan shall be available at the wellsite. All personnel will be required to carry documentation that they have received the proper training.

(2) H2S SAFETY EQUIPMENT AND SYSTEMS

Note: all H2S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

a. Well Control Equipment:

1. Choke manifold with a minimum of one remote-controlled choke.
2. Blind rams and pipe rams to accommodate all pipe sizes with a properly sized closing unit.

b. Protective equipment for essential personnel:

1. Mark II Surviveair (or equivalent) 30 minute units located in the dog house and at the primary briefing area(to be determined.)

c. H2S detection and monitoring equipment:

1. Three(3) portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

d. Visual warning systems:

1. Wind direction indicators will be positioned for maximum visibility.
2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

e. Mud program:

1. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

f. Metallurgy:

1. All drill strings, casings, tubing, wellheads, BOPS , drilling spools, kill lines, choke manifold, valves and lines will be suitable for H2S service.
2. All elastomers used for packing and seals shall be H2S trim.

g. Communication:

1. Cellular Telephone and/or 2-way radio will be provided at wellsite.
2. Landline telephone is located in field office.

h. Well testing:

1. Drill stem testing may be done in this well bore. Completion testing, if required, will be conducted under the same applicable H2S guidelines that were used in drilling.

(C) SURFACE USE PROGRAM

- (1) Existing roads: Exhibits A, B and C show maps of the general area. From Loco Hills, New Mexico, go east on U.S. Highway 82 approximately 3.9 miles. Turn North on CR 220 road and go approximately 1 mile. Turn West onto lease road and follow to the location.
- (2) Access roads to be constructed: This location will not require any additional lease road into the well pad.
- (3) Location of existing wells: See Exhibit A.
- (4) Location of existing or proposed production facilities:
See Exhibit A for location of existing Gissler A2 production facility on the lease. We propose to above ground commingle this Cedar Lake, Yeso production with the existing Grayburg production by laying approximately 2400' of new flowline. 400' be across a new area. The other 2000' will be along an existing roadway to the existing Gissler A2 Tank Battery.
- (5) Location and type of water supply: All water to be used in drilling the well will be brine or fresh water trucked from Loco Hills, New Mexico or fresh or produced water furnished by our waterflood facilities.

- (6) Construction materials: Construction material will be caliche which may be available at the proposed location. If not available on location or road, caliche will be hauled from nearest approved caliche pit.
- (7) Methods of handling waste disposal: Drill cuttings will be disposed of in the lined reserve drilling pit. Auxiliary emergency water containment pits may be necessitated by large volume water flows and these pits, which will hold only water, will not be lined. All drilling fluids will be allowed to evaporate after drilling is completed, at which time pits will be back filled, leveled and reseeded. Trash, waste paper, garbage and junk will be placed in a portable screened trash container on location. All trash and debris will be transported to an authorized disposal station within 30 days following completion activities. Oil and/or water produced during testing operations will be stored in steel tanks until either sold or disposed of through one of our approved disposal methods.
- (8) Ancillary Facilities: There are no planned ancillary facilities.
- (9) Well site layout: Exhibit D shows the relative location and dimensions of the drilling pad and related components. Only minor differences, if any, in length and/or width of the drilling pad are anticipated, depending on which drilling contractor is selected to drill the well. Only minor leveling of the drilling site is anticipated.
- (10) Plans for restoration of the surface:
 - (a) After drilling and successful completion operations are finished, all equipment and other materials not required for normal production operations will be removed. Pits will be backfilled, leveled and re-seeded. Well site will be left in a neat condition.
 - (b) Any unguarded pits containing fluid will be fenced until backfilled.
 - (c) After abandonment of the well, surface restoration will be in accordance with regulations of the SMA. Pits will be backfilled and location will be cleaned. The pit area, well pad and all unneeded access roads will be ripped to promote revegetation. Rehabilitation should be accomplished within 90 days after abandonment.
- (11) Surface ownership: All lands are Federal.

- (12) Other information: The topography of the area is relatively flat, with small hills and sand dunes. The soil is fine, deep sand underlain by caliche. Vegetation cover is generally sparse and consists of mesquite, yucca, oak shinnery and sparse native grasses. Wildlife in the area is typical of that of semi-arid lands and includes coyotes, rabbits, rodents, reptiles, dove and quail. There are no ponds, streams or residences in the area. There is intermittent cattle grazing and hunting in the area; however, the principal land use is for oil and gas production. An archaeological clearance report will be sent to you by a BLM approved archaeological service.
- (13) Operator's representative: Our field representative responsible for compliance with the approved surface use and operations plan is:

Mr. Bobby Claborn, District Supt.
P.O. Box 188
Loco Hills, New Mexico 88255
Office phone: 505-677-2313
Home phone: 505-396-1550
Cellular phone: 505-746-7979

I hereby certify that I, or persons under my direct supervision have inspected the drill site and access route; that I am familiar with the conditions that currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Burnett Oil Co., Inc. 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.

Date: AUGUST 7, 2002

By: Sterling P. Randolph
Sterling P. Randolph
Petroleum Engineer

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., Artec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

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 February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-	96831	CEDAR LAKE, YESO
Property Code	Property Name	Well Number
002388	GISSLER A	18
OGRID No.	Operator Name	Elevation
003080	BURNETT OIL COMPANY	3686'

Surface Location

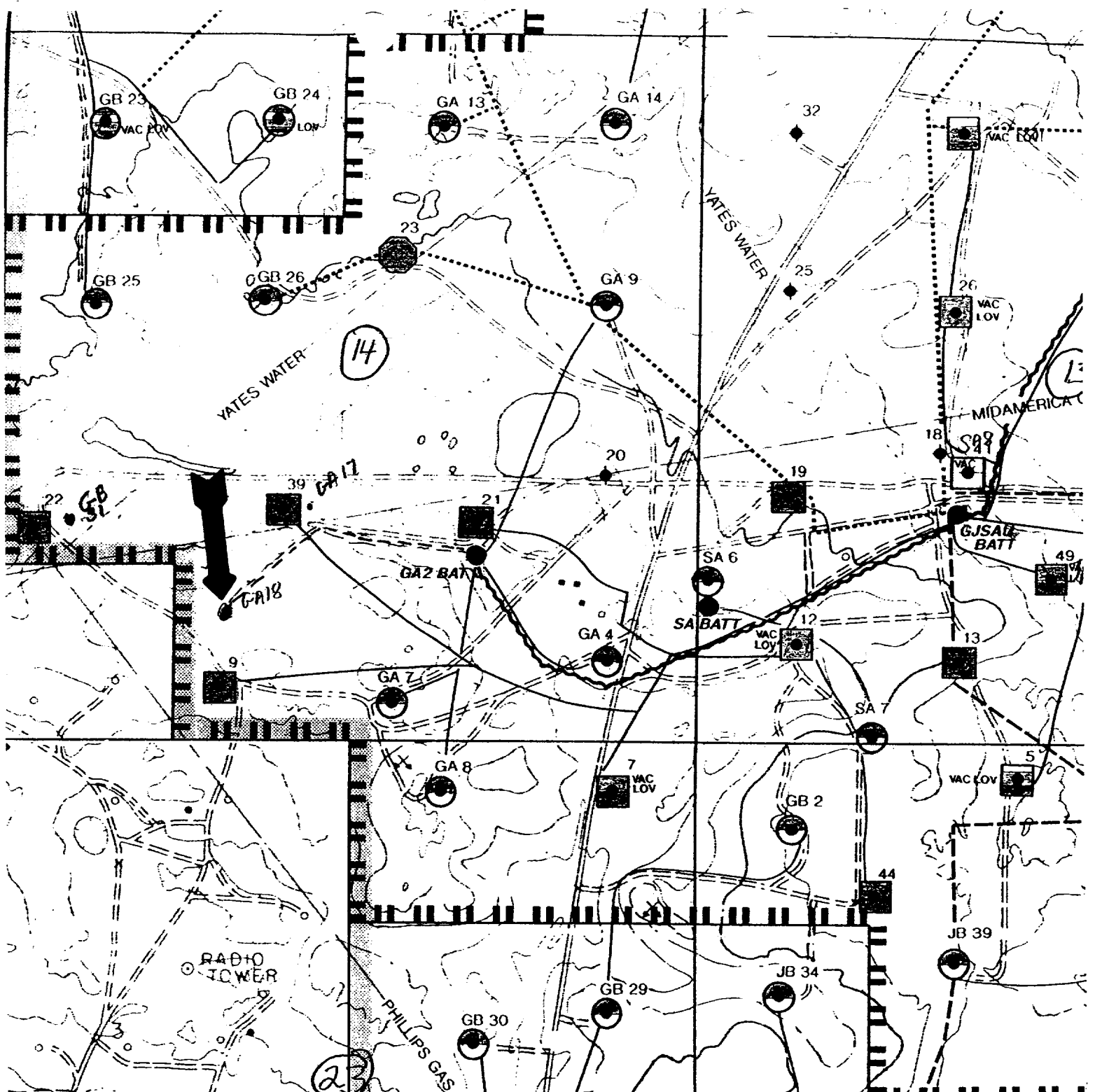
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	14	17-S	30-E		990	SOUTH	1650	WEST	EDDY

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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
40									

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

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature STERLING RANDOLPH Printed Name PETROLEUM ENGINEER Title JULY 31, 2002 Date	
	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. JUNE 26, 2002 Date Surveyed Signature GARY EIDSON Printed Name PROFESSIONAL SURVEYOR Title 02.11.0469 Date RONALD EIDSON 3239 Certificate No. GARY EIDSON 12641	



BURNETT OIL CO., INC.

GRAYBURG-JACKSON &
 SQUARE LAKE FIELDS
 CEDAR LAKE VASO
 EDDY COUNTY, NM.
 SEC 14, T 17S, R 30E
 1" = 1000' GISSLER A #18
 LOCO HILLS DISTRICT

Revisions	
Date	By
17/1997	DBRSTER

GISSLER A #18
 EXHIBIT A



CONTOUR INTERVAL: 10'
LOCO HILLS, N.M.

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

GISSLER A #18
EXHIBIT B

DESCRIPTION 990' FSL & 1650' FWL

ELEVATION 3686'

OPERATOR BURNETT OIL COMPANY

LEASE GISSLER A

U.S.G.S. TOPOGRAPHIC MAP
LOCO HILLS, N.M.

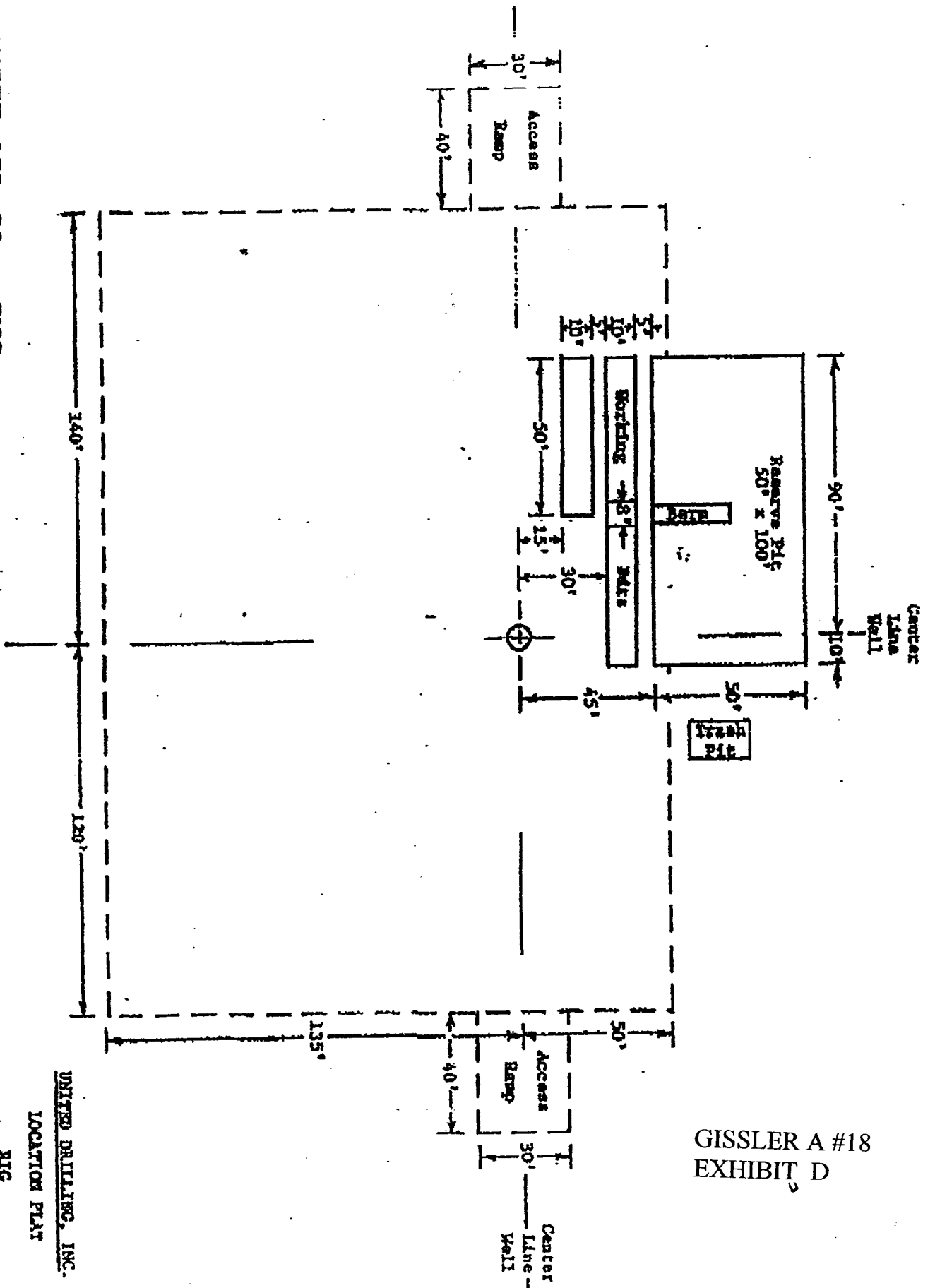
The map is a geological survey of the Loco Hills region. It includes a grid with section numbers (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). The map shows various geological units and features, including:

- Mescalero**: A large unit in the upper left and center.
- SANDS**: A unit in the upper center.
- FIELD**: A unit in the upper right and center.
- Cedar Lake**: A unit in the lower center.
- Cedar**: A unit in the lower center.
- QUERECHO**: A unit in the lower right.
- SHUGART**: A unit in the lower right.
- Loco Hills**: A prominent feature in the center.
- GISSLER A #18**: A specific point of interest marked with a black dot and an arrow.
- Mesa**: A feature in the upper left.
- Canyon**: A feature in the upper right.
- Valley**: A feature in the lower left.

The map also includes various topographic features like 'Mesa', 'Canyon', and 'Valley'. The map is a detailed geological survey of the Loco Hills region.

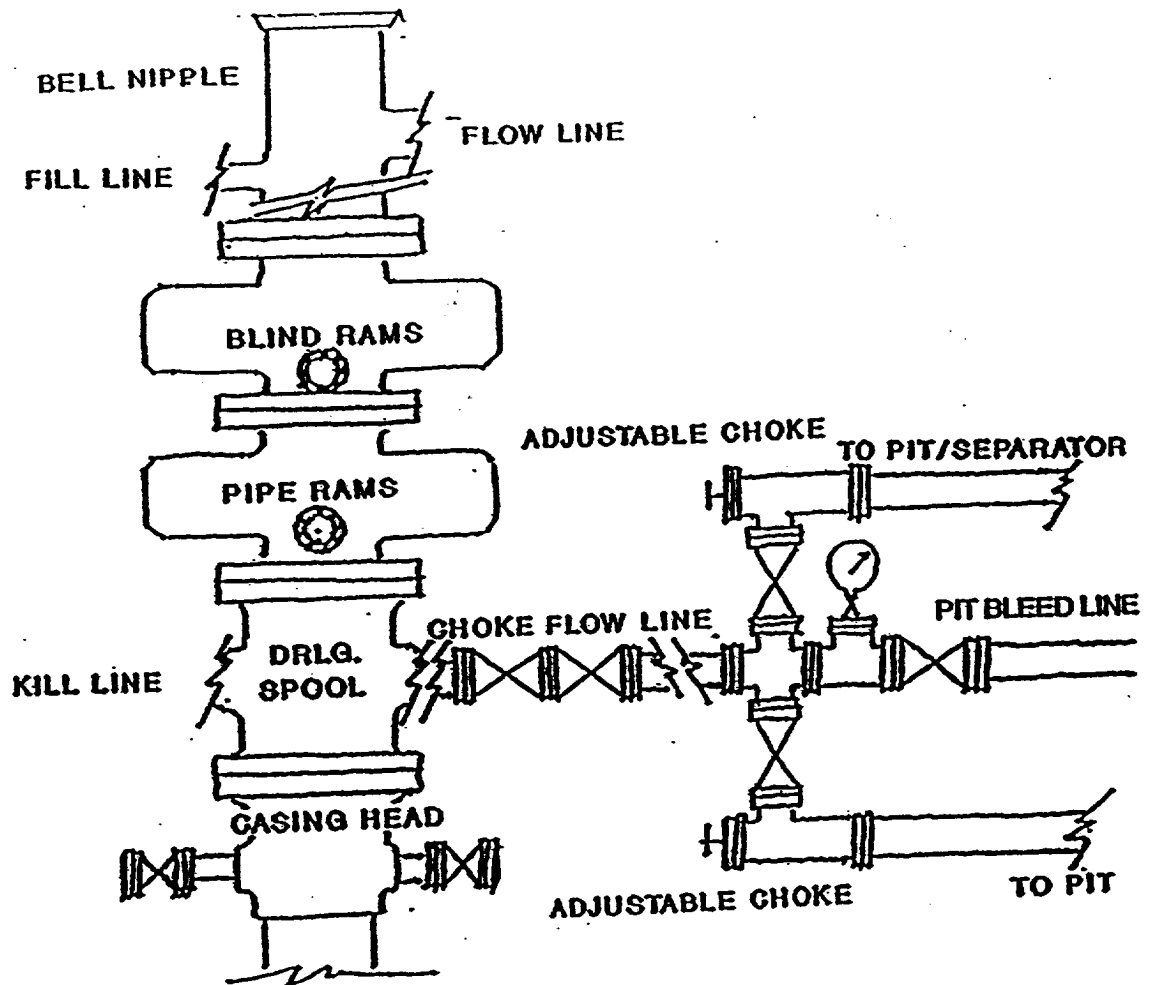
GISSLER A #18
EXHIBIT C

BURNETT OIL CO., INC.
 PROPOSED DRILL SITE LAYOUT



GISSLER A #18
 EXHIBIT D

UNITED DRILLING, INC.
 LOCATION PLAN
 NIG
 Scale: 1"=40'



BURNETT OIL CO., INC.

**BLOWOUT PREVENTER &
CHOKE MANIFOLD DIAGRAM
2000 PSI WORKING PRESSURE
SERIES 600 FLANGES**

**GISSLER A #18
EXHIBIT E**