

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

Form approved.

15E

REC'D APR 12 2000

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK: DRILL DEEPEN

b. TYPE OF WELL: OIL WELL GAS WELL Other SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR: DEVON ENERGY CORPORATION(NEVADA)

3. ADDRESS AND TELEPHONE NO.: 20 N. BROADWAY, SUITE 1500, OKC, OK 73102 (405) 552-8194

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 330' FNL & 990' FWL
130' 290' Bw#
At top proposed prod. zone (SAME)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 5 miles east & 1.7 miles north of Loco Hills, N.M.

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.: 330'
16. NO. OF ACRES IN LEASE: 160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 660'
19. PROPOSED DEPTH: 4000'

21. ELEVATIONS (Show whether DF, RT, GR, etc.): GR=3702'

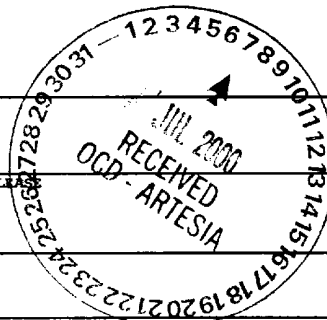
5. LEASE DESIGNATION AND SERIAL NO.: LC 054908
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA
7. UNIT AGREEMENT NAME: NA
8. FARM OR LEASE NAME, WELL NO.: HUDSON FEDERAL #14 19338
9. API WELL NO.: 30-015-31251
10. FIELD AND POOL, OR WILDCAT: GRAYBURG-JACKSON FIELD
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SECTION 17 - T17S - R31E

12. COUNTY OR PARISH: EDDY
13. STATE: NM

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

20. ROTARY OR CABLE TOOLS*: Rotary

22. APPROX. DATE WORK WILL START*: June 15, 2000



23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8" J-55	24.0#	450'	175 sk Lite cmt + 200 sk Class "C"
7 7/8"	5 1/2" J-55	15.5#	4000'	520 sk Lite cmt + 450 sk Class "H"

We plan to circulate cement to surface on all casing strings. Devon Energy Corporation(Nevada) proposes to drill to 4000' to test the Grayburg/San Andres formation for commercial quantities of oil. If the Grayburg/San Andres is deemed non-commercial, the wellbore will be plugged and abandoned per Federal Regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

Drilling Program

- Exhibits #1/1-A = Blowout Prevention Equipment
- Exhibit #2 = Location and Elevation Plat
- Exhibit #3/3-A = Road Map and Topo Map
- Exhibit #4 = Wells Within 1 Mile Radius
- Exhibit #5 = Production Facilities Plat
- Exhibit #6 = Rotary Rig Layout
- Exhibit #7 = Casing Design
- H2S Operating Plan

The undersigned accepts all applicable terms, condition, stipulations and restrictions concerning operations conducted on the leased land or portions thereof, as described below:
Lease No. LC-054908
Legal Description: Section 17-T17N-R31E
Bond Coverage: Statewide in CO, NM, UT, & WY
BLM Bond No.: CO1151

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 William Greenlees

TITLE WILLIAM GREENLEES DISTRICT ENGINEER DATE 4/4/00

*(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

APPROVED BY (ORIG. SGD.) ARMANDO A. LOPEZ TITLE Acting Assistant Field Manager, Lands And Minerals DATE JUL 05 2000

See Instructions On Reverse Side

RECEIVED
APR 11 2000
BLM
ROSWELL, NM

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

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

Form C-102
Revised 02-10-94

Instructions on back

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

OIL CONSERVATION DIVISION

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

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

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

AMENDED REPORT

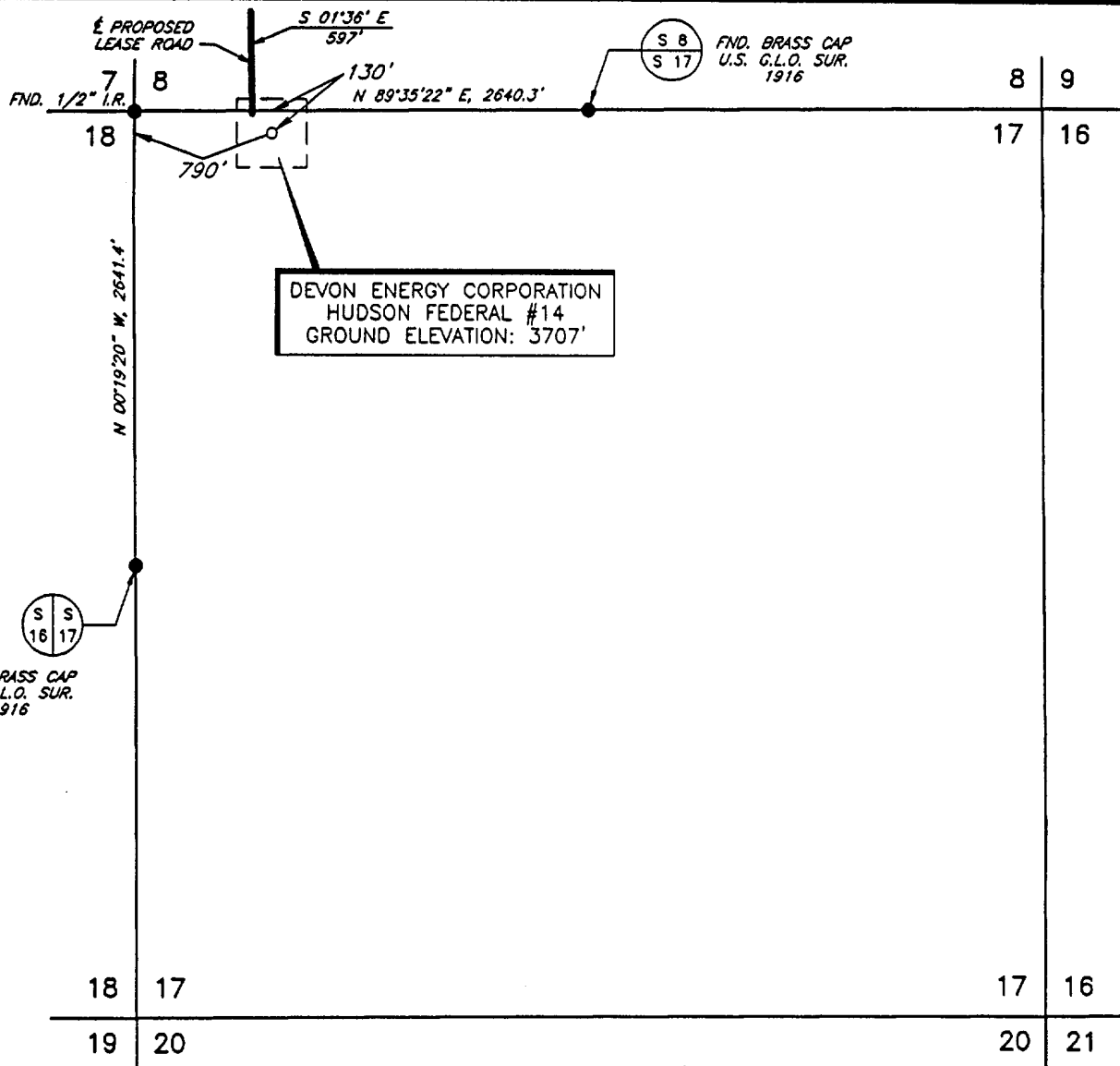
DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name					
4 Property Code		5 Property Name HUDSON FEDERAL						6 Well Number 14	
7 OGRID No.		8 Operator Name DEVON ENERGY CORPORATION						9 Elevation 3707'	
10 SURFACE LOCATION									
UL or lot no. D	Section 17	Township 17 SOUTH	Range 31 EAST, N.M.P.M.	Lot Ida	Feet from the 130'	North/South line NORTH	Feet from the 790'	East/West line WEST	County EDDY
" 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 4c		13 Joint or Infill		14 Consolidation Code		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									
							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		
							Title		
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.		
							Date of Survey JUNE 1, 2000		
							Signature and Seal of Professional Surveyor		
Certificate No.							V. L. BEZNER R.P.S. #7920		
JOB #69724 / 98 SW / V.H.B.									

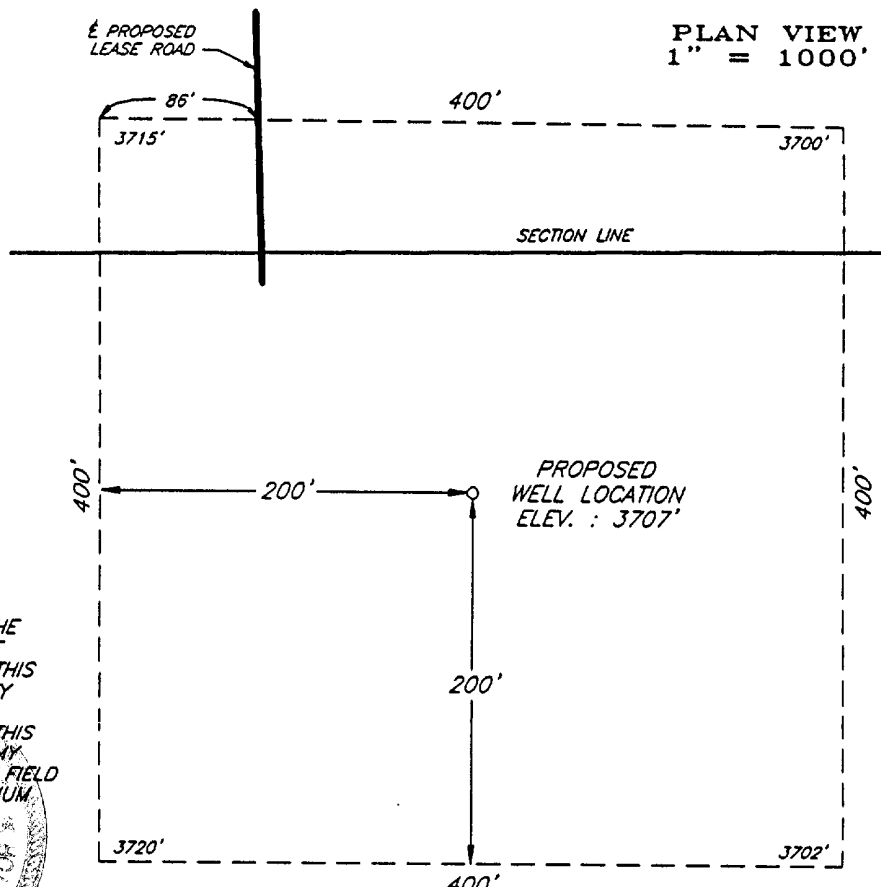
RECEIVED
JUN 26 2000
BLM
ROSWELL, NM

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD
SECTION 17, T-17-S, R-31-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

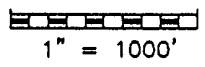


DEVON ENERGY CORPORATION
HUDSON FEDERAL #14
GROUND ELEVATION: 3707'

PLAN VIEW
1" = 1000'

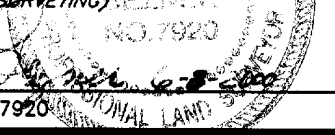


DETAIL VIEW
1" = 100'



DATE OF FIELD WORK: JUNE 1, 2000

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)

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


				DEVON ENERGY CORPORATION		SCALE: AS SHOWN
						DATE: JUNE 1, 2000
NO.	REVISION	DATE	BY	SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS		JOB NO.: 69724-F
SURVEYED BY: C.M.						QUAD NO.: 98 SW
DRAWN BY: V.H.B.						SHEET : 1 OF 1
APPROVED BY: V.L.B.						

RECEIVED
JUN 26 2000
BLM
ROSWELL, NM

SURFACE USE AND OPERATING PLAN

**Hudson Federal # 14
330' FNL & 990' FWL
Section 17-T17S-R31E
Eddy County, New Mexico**

1. Existing Roads:

- A. The well site and elevation plat for the proposed Hudson Federal #14 is reflected on Exhibit #2. It was staked by Topographic Land Surveyors, Midland, Texas.
- B. All roads into the location are depicted in Exhibit #3. County Road 221 will be used to access the location. No upgrades to roads other than the access into location from County Road 221 will be necessary.
- C. Directions to location: Frm the JCT of SH 82 & Cnty Rd 217 in Loco Hills, go east 4.1 miles on SH 82, thence North 1.7 miles on Lease Road, thence East 0.5 mile on Lease Road, thence Northeast 0.5 mile on Least Road, thence South 0.1 mile on Lease Road, thence Southeast 0.1 mile on Lease Road.

2. Proposed Access Road:

Exhibit #3 shows the new access road to be constructed from County Road 221. It will be constructed as follows:

- A. The maximum width of the road will be fifteen (15) feet.
- B. It will be crowned and made of 6 inches of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- C. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location.
- D. The average grade will be approximately 1%.
- E. No cattleguards, grates or fence cuts will be required.
- F. No turnouts are planned.
- G. Electric lines and flowlines will run parallel to the roadway approximately 50' from the center line of the road.

*w/ prior
BLM approval
under
Secondary
Notice TSO*

3. Location of Existing Wells:

Exhibit #4 shows all existing wells within a one-mile radius.

4. Location of Existing and/or Proposed Facilities:

- A. In the event the well is found productive, it will be added to the Hudson Federal Battery (refer to Exhibit #5). All Hudson Federal wells will go to Hudson Federal Battery located in Section 18-T17S-R31E.
- B. The well will be operated by means of an electric motor.
- C. If the well is productive, rehabilitation plans are as follows:
 - a. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
 - b. Caliche from unused portions of the drill pad will be removed. The original topsoil from the wellsite will be returned to the location. The drill site will then be contoured to the original natural state.

5. Location and Type of Water Supply:

The Hudson Federal #14 will be drilled using a combination of brine and fresh water mud systems (outlined in Drilling Program). The water will be obtained from the existing water line presently supplying fresh water to the unit. Additionally, produced salt water from lease gathering tanks may be used. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche utilized for the drilling pad and proposed access road will be obtained from a existing BLM approved pit. All roads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal:

- A. Drill cuttings will be disposed into the reserve pit.
- B. Drilling fluids will be contained in lined earthen mud pit and the reserve pit. The reserve pit will contain excess drilling fluid or fluid from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit roughly 100' x 100' x 5', or smaller, in size.
- C. The reserve pit will be fenced on three sides throughout drilling operations and will be totally isolated upon removal of the rotary rig. The pit will be lined using a 5-7 mil plastic to minimize loss of drilling fluids.
- D. Water produced from the well during completion operations will be disposed into a steel tank or reserve pit, if volumes prove excessive. After placing the well on production through the production facilities, all water will be collected in tanks and injected into the water injection system. Produced oil will be separated into steel stock tanks until sold.
- E. A portable chemical toilet will be available on the location for human waste during the drilling operations.
- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at a approved landfill. All waste material will be contained to prevent scattering by the wind. All water, fluids, salt or other chemicals will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be generated by this operation.
- G. All waste material will be removed within 30 days after the well is either completed or abandoned. The reserve pit will be completely fenced until it has dried. At the point the reserve pit is found sufficiently dry, it will be backfilled and reclaimed as per the surface owner's specifications. Only the portion of the drilling pad used by the production equipment (pumping unit) will remain in use. If the well is deemed non-commercial, only a dry hole marker will remain.

8. Ancillary Facilities:

No campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout:

- A. The drill pad is shown on Exhibit #6. Approximate dimensions of the pad, pits and general location of the rig equipment is displayed. Top soil will be stored adjacent to the pad until reclamation efforts are undertaken. Only modest cuts will be necessary to build the pad which will be covered with 6" of compacted caliche.
- B. No permanent living facilities are planned, but temporary trailers for the toolpusher, drilling foreman and mud logger may be on location throughout drilling operations.
- C. The reserve pit will be lined using plastic sheeting of 5-7 mil thickness.

10. Plans for Restoration of Surface:

- A. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the surface owner. The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.
- B. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment.
- C. The location and road will be rehabilitated as recommended by the surface owner.
- D. The reserve pit will be fenced on three sides throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.
- E. If the well is deemed commercially productive, the reserve pit will be restored as described in 10 (A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

11. Surface Ownership:

The Bureau of Land Management is the surface owner.

12. Other Information:

- A. The area surrounding the well side is grassland. The top soil is very sandy in nature. The vegetation cover is one of a grassland environment and a scrub-grass scrub disclimax community.
- B. There is permanent water (Nakee Ishee Lake) approximately 15 miles W/NW of the location. There is potential water (Cedar Lake Draw) approximately 3 miles SW of the location.
- C. A Cultural Resources Examination will be completed by Desert West Arch Service Inc. and forwarded to the Carlsbad, New Mexico BLM office.

13. Lessees's and Operator's Representative:

The Devon Energy Operating Corporation representatives responsible for assuring compliance of the surface use plan are:

William Greenlees
District Engineer
20 North Broadway, Suite 1500
Oklahoma City, OK 73102

(405) 552-8194 (office)
(405) 773-8929 (home)

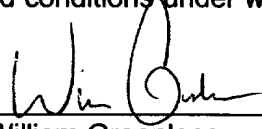
Don Mayberry
Production Superintendent
P. O. Box 250
Artesia, NM 88240

(505) 748-3371 (office)
(505) 370-6552 (pager)

Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access road; that I am familiar with the conditions that 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 Devon Energy Operating Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: March 28, 2000

Signed: 
William Greenlees
District Engineer

DRILLING PROGRAM

**Hudson Federal # 14
330' FNL & 990' FWL
Section 17-T17S-R31E
Eddy County, New Mexico**

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

<u>Zones</u>	<u>Tops</u>
Rustler	310'
Salado	435'
Tansill	1330'
Yates	1485'
Seven Rivers	1800'
Artesia (Queen)	2420'
Grayburg	2800'
San Andres	3120'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Water

Upper Permian: Surface - 300'

Oil

Grayburg:/San Andres 2800' – TD

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8 5/8" casing at 450' and circulating cement back to surface. The Grayburg and San Andres intervals will be isolated by setting 5 1/2" casing to total depth ($\pm 4000'$) and circulating cement to surface.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg OD</u>	<u>Weight, Grade, Type</u>
17-1/2"	0-40'	14"	Conductor, 0.30" wall
12-1/4"	0-450'	8-5/8"	24#, J-55 ERW, FBN ST&C R-3
7-7/8"	0-TD	5-1/2"	15.5# J-55, ST&C seamless

Casing Program:

14" Conductor Casing:	Cemented with redimix to surface.
8 5/8" Surface Casing:	Cemented to surface with 125 sx Lite cmt + 2% CaCl + 1/4 lb/sk Cellophane Flakes and 200 sk Class C + 2% CaCl + 1/4 lb/sk Cellophane Flakes..
5-1/2" Production Casing:	Cemented to surface with 520 sk Lite + 4% Gel + 5% NaCl + 1/4 lb/sk Cellophane Flakes and 450 sk Class "H" + 10% Gypsum + 1/4 lb/sk Cellophane Flakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach surface.

5. Minimum Specifications for Pressure Control:

A 2000 psi blowout prevention system(BOP), as shown in Exhibit #1, will be utilized. The BOP equipment will consist of a double ram type preventor and/or a bag-type (Hydril) preventor. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. Both BOP's will be installed on the 8 5/8" surface casing head(2000 psi WP) and utilized continuously until total depth is reached. As per BLM Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be function tested. Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP.

Additional accessory BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having a minimum 2000 psi WP rating. The BOP equipment to be utilized is illustrated in Exhibit #1 and #1-A. As the Exhibits reflect, 3000 psig BOP equipment will be utilized during drilling operations. This equipment will be utilized as it is the more readily available BOP equipment; however, the BOP systems maximum pressure will be limited to 2000 psig, which is, the maximum working pressure of the 8 5/8" casing head.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to total depth using brine, cut brine and polymer mud systems. Depths of systems are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (1/sec)</u>	<u>Water Loss (cc)</u>
0'-450'	Fresh Water	8.8	34-36	No Control
450'-TD	Cut Brine Polymer	10.0	32-36	10-20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

8. Logging, Testing and Coring Program:

- A. No drillstem tests are planned.
- B. The open hole electrical logging program will be:
 - TD to Base of salt (approx 1400'): Dual Laterolog-Micro SFL with Gamma Ray, Caliper and SP
 - TD to Base of salt (approx 1400'): Compensated Neutron-Litho Density with Gamma Ray and Caliper
 - TD to surface: Gamma Ray/Neutron & Caliper
- C. No coring program is planned.
- D. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Abnormal Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 104 degrees and maximum bottom hole pressure is 800 psig. Hydrogen sulfide gas has been reported or is known to exist in the Grayburg and San Andres formation. An H₂S Drilling Operations Plan is included. No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations:

Barry Hunt of the Carlsbad, New Mexico BLM office will review the proposed pad site for the location. A Cultural Resources Examination will be completed by Desert West Arch Service Inc. and a copy forwarded to the Carlsbad, New Mexico BLM office.

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date is approximately June 15, 2000. The drilling operation should require approximately 10 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

2000# BOP system utilized
 3000# WP BOP Equipment
 2000# psig WP casing head

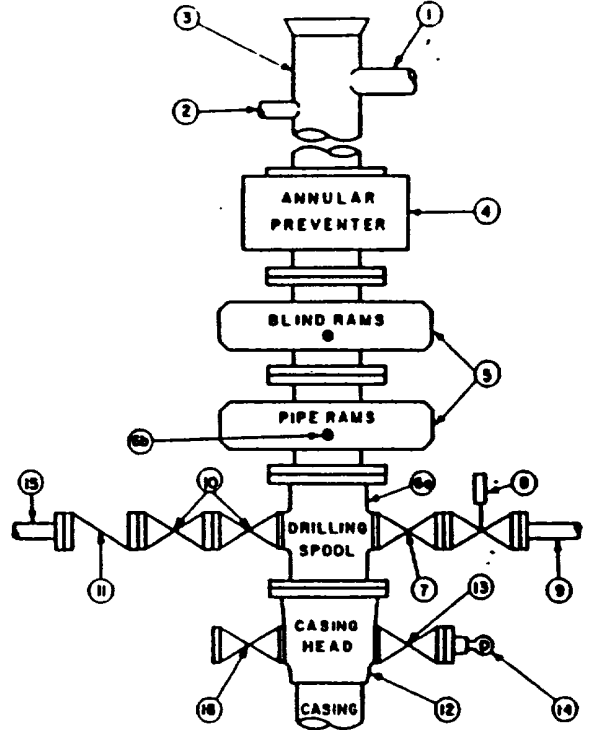
EXHIBIT #1

STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL			
16	Flanged valve	1-13/16"	

CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

- All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
- Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
- BOP controls, to be located near drillers position.
- Kelly equipped with Kelly cock.
- Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
- Kelly saver-sub equipped with rubber casing protector at all times.
- Plug type blowout preventer tester.
- Extra set pipe rams to fit drill pipe in use on location at all times.
- Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

- Bradenhead or casinghead and side valves.
- Wear bushing, if required.

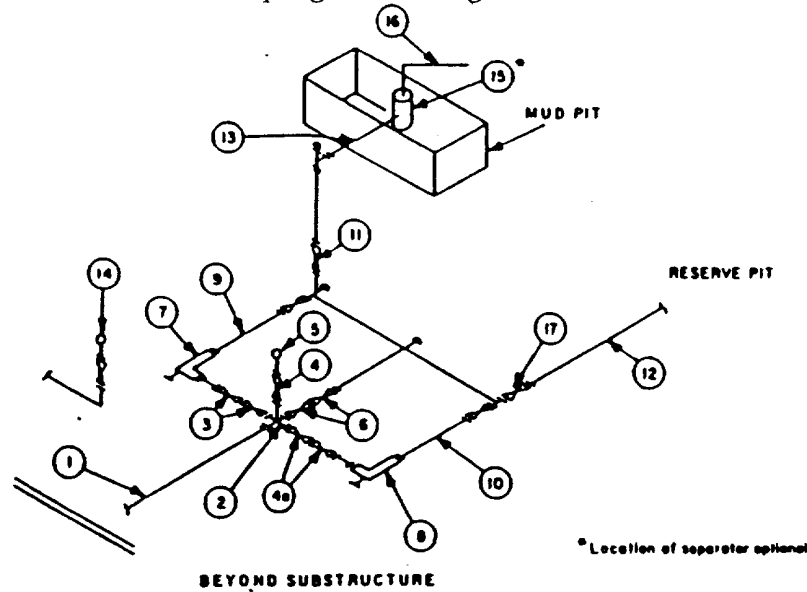
GENERAL NOTES:

- Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
- All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through chokes. Valves must be full opening and suitable for high pressure mud service.
- Controls to be of standard design and each marked, showing opening and closing position.
- Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
- All valves to be equipped with handwheels or handles ready for immediate use.
- Choke lines must be suitably anchored.

- Handwheels and extensions to be connected and ready for use.
- Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
- All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
- Casinghead connections shall not be used except in case of emergency.
- Do not use kill line for routine fill-up operations.

MINIMUM CHOKE MANIFOLD
 2000# BOP system utilized
 3000# WP BOP equipment
 2000# psig WP casing head

EXHIBIT #1-A



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves(1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

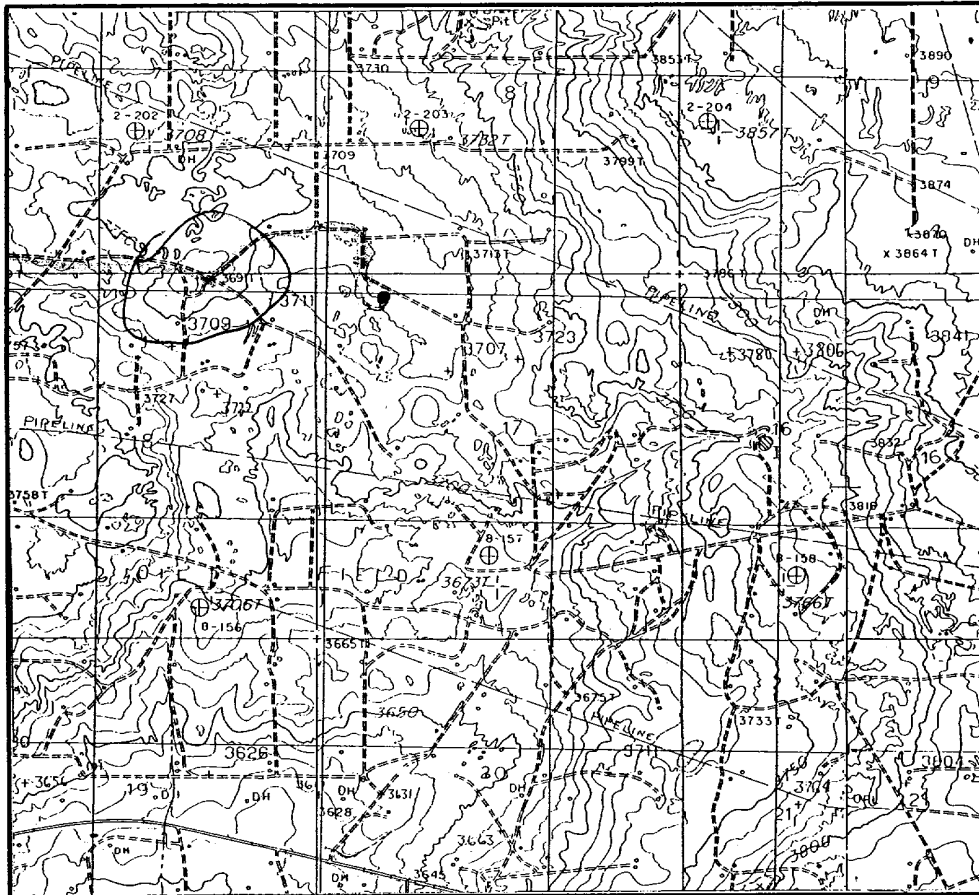
EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTORS
Grayburg-Jackson Field
Eddy County, New Mexico

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOPE bore.
2. Wear ring will be properly installed in head.
3. Blowout preventor and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi W.P. with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventor will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10 FEET

SECTION 17 TWP T-17-S RGE R-31-E
 SURVEY NEW MEXICO PRINCIPAL MERIDIAN
 COUNTY EDDY STATE NM
 DESCRIPTION 330' FNL & 990' FWL
 ELEVATION 3702'

OPERATOR DEVON ENERGY CORPORATION
 LEASE HUDSON FEDERAL #14

U.S.G.S. TOPOGRAPHIC MAP
LOCO HILLS, NEW MEXICO

SCALED LAT. 32°50'27"
 LONG. 103°53'50"



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
 Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

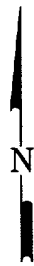
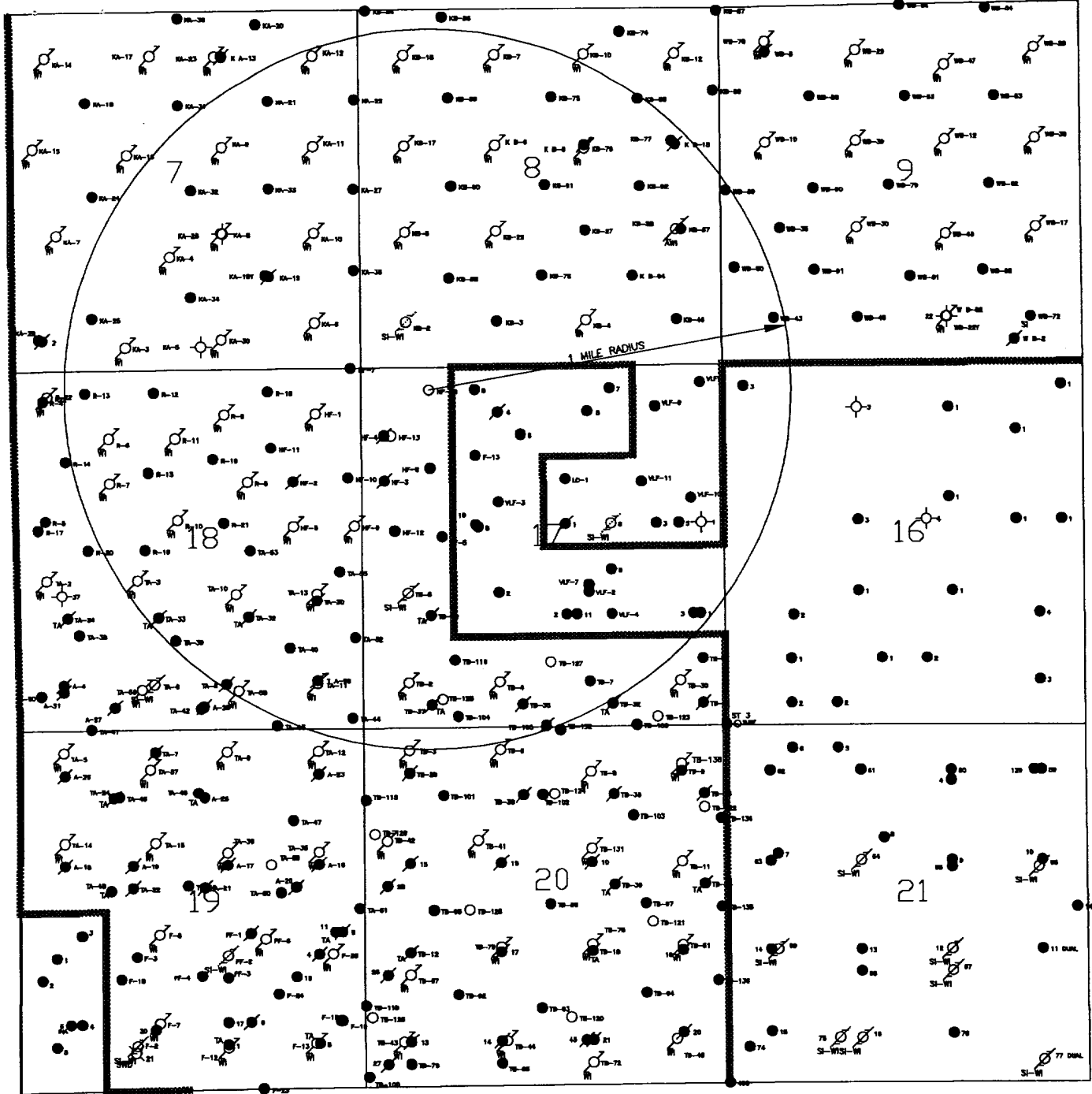
1307 N. HOBART
 PAMPA, TX. 79065
 (800) 658-6382

6709 N. CLASSEN BLVD.
 OKLAHOMA CITY, OK. 73116
 (800) 654-3219

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

R 31 E

T 17 S

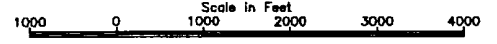


GRAYBURG-JACKSON AREA
EDDY COUNTY, NEW MEXICO

WELLS WITHIN A ONE MILE RADIUS
HUDSON FEDERAL #14
EXHIBIT 4

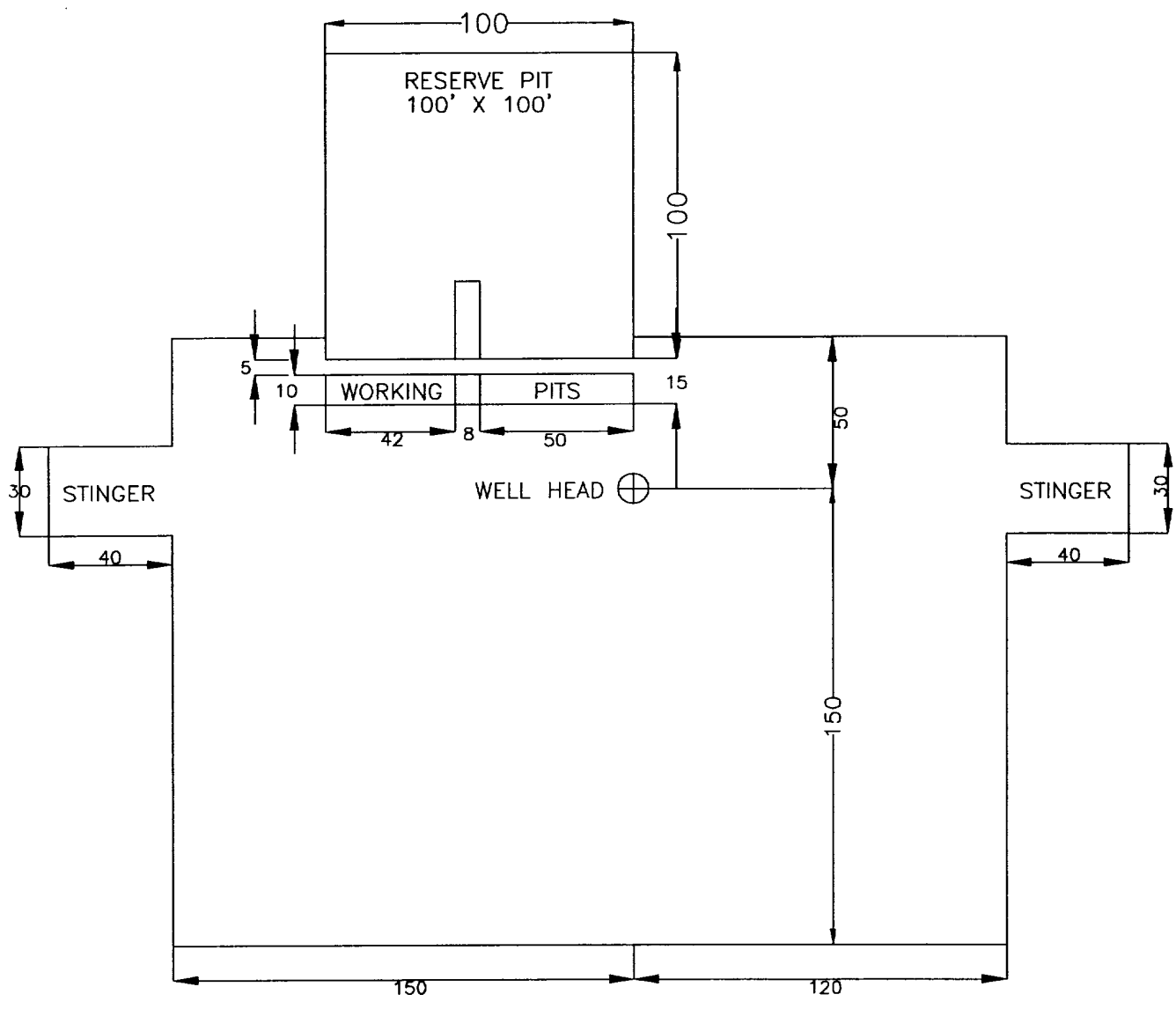
hf-14.dwg	

Wells updated to 4/00

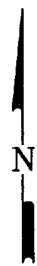


R. JACKSON

4/00



ELEV. 3702 FEET



devon
ENERGY CORPORATION

GRAYBURG-JACKSON AREA
EDDY COUNTY, NEW MEXICO

DRILL PAD LAYOUT
HUDSON FEDERAL #14
EXHIBIT 6

Scale in Feet
25 0 25 50 75 100

RJ 4/00

Well name:	HUDSON FEDERAL #14
Operator:	Devon Energy Corporation(Nevada)
String type:	Surface
Location:	Grayburg-Jackson Field

Design parameters:

Collapse

Mud weight: 9.000 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 75 °F
 Bottom hole temperature: 81 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 450 ft

Burst

Max anticipated surface pressure: 1,598 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 1,652 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.50 (B)

Tension is based on buoyed weight.
 Neutral point: 389 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 4,000 ft
 Next mud weight: 10.000 ppg
 Next setting BHP: 2,078 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 4,000 ft
 Injection pressure 4,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	450	8.625	24.00	J-55	ST&C	450	450	7.972	21.7

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	210	1370	6.51	1652	2950	1.79	9	244	26.12 J

Prepared by: C.H. Carleton
 Devon Energy

Phone: (405) 552-4528
 FAX: (405) 552-4621

Date: March 28, 2000
 Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 450 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

HUDSON FEDERAL #14

Operator: **Devon Energy Corporation(Nevada)**

String type: **Production**

Location: **Grayburg-Jackson Field**

Design parameters:

Collapse

Mud weight: 10.000 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? Yes
Surface temperature: 75 °F
Bottom hole temperature: 131 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 450 ft

Burst

Max anticipated surface pressure: 1,598 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,078 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.
Neutral point: 3,395 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	4000	5.5	15.50	J-55	LT&C	4000	4000	4.825	125.4

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2078	4040	1.94	2078	4810	2.31	53	217	4.12 J

Prepared by: C.H. Carleton
Devon Energy

Phone: (405) 552-4528
FAX: (405) 552-4621

Date: March 28,2000
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 4000 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

DEVON ENERGY CORPORATION (Nevada)

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of the H₂S safety equipment and of personal protective equipment to be utilized at the location such as H₂S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H₂S bearing formation, H₂S training will be required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H₂S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H₂S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

B. H₂S Safety Equipment And Systems

All H₂S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H₂S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

- (a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.
- (b) A choke manifold with a minimum of one remote choke.

2. H2S Detection And Monitoring Equipment

- (a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.
- (b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.

3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

- (a) Four (4) - five minute escape packs located at strategic points around the rig.
- (b) Two (2) - thirty minute rescue packs to be located at the designated briefing areas.

4. Visual Warning System

Visual warning system will consist of the following:

- (a) Two wind direction indicators.
- (b) One condition / warning sign which will be posted on the road providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

5. Mud Program

- (a) The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H₂S bearing formations.

6. Metallurgy

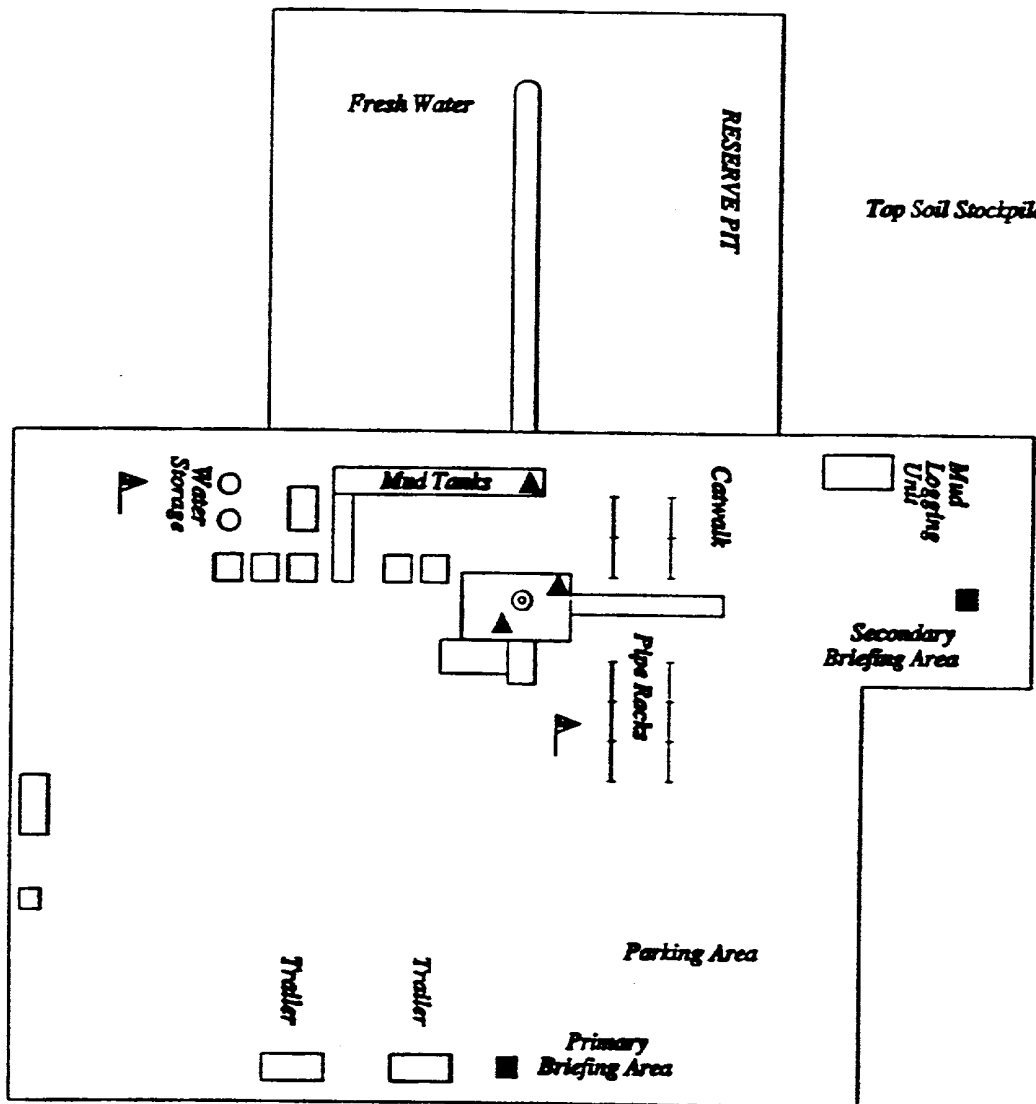
- (a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

7. Communication

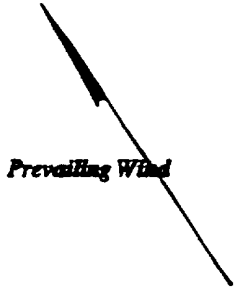
- (a) Two way radio and cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

1. Attached is a diagram representing a typical location layout as well as the location of H₂S monitors, briefing areas, and wind direction indicators.



- ▲ H2S MONITORS WITH ALARMS AT THE BELL NIPPLE, SUBSTRUCTURE, AND SHALE SHAKER
- ▲ WIND DIRECTION INDICATORS
- SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT



devon
 GRAYBURG-JACKSON AREA
 NEW COUNTY, NEW MEXICO

H2S PLAN

Scale in Feet
 25 0 25 50 75 100