

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

H. L. BROWN, JR.

3. ADDRESS OF OPERATOR

P. O. Box 2237, Midland, Texas 79701

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

At surface

990' FEL & 1650' FSL, Sec. 5, T-8-S, R-37-E

At proposed prod. zone

Same

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

14 miles east of Milnesand, New Mexico

15. DISTANCE FROM PROPOSED*

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

990'

16. NO. OF ACRES IN LEASE

319.27

17. NO. OF ACRES ASSIGNED
TO THIS WELL

319.27

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

none

19. PROPOSED DEPTH

8300'

20. ROTARY OR CABLE TOOLS

Rotary

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

4051.3 GR

22. APPROX. DATE WORK WILL START*

October 22, 1976

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	12 3/4" OD	49#	500'	500 sx
12 1/4"	8 5/8" OD	24 & 32#	3700'	300 sx
7 7/8"	4 1/2" OD	11.60#	8300'	300 sx

(SEE ATTACHED EXHIBITS)

The surface formation is Ogallala

Estimated tops of important geologic markers are
as follows:

Unless Drilling Operations Have

Commenced, this drilling approval

Expires 1-18-77

Rustler	2100'
Yates	2550'
San Andres	3690'
Abo	7010'
Wolfcamp Porosity	8020'

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

J. L. McGillTITLE Drilling & Production Mgr. DATE October 6, 1976

(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE

APPROVED BY _____

TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AS AMENDED
OCT 18 1976
ARTHUR R. BROWN
DISTRICT ENGINEER

*See Instructions On Reverse Side

H. L. BROWN, JR.

323 WEST MISSOURI
POST OFFICE BOX 2237
MIDLAND, TEXAS 79701
915 683-5216

October 8, 1976

United States Geological Survey
Post Office Box 1157
Hobbs, New Mexico 88240

Re: H. L. Brown, Jr., Federal "H" No. 1
Roosevelt County, New Mexico

Gentlemen:

In order to comply with NTL-6, the following information is presented below to accompany the attached Form 9-331C on the subject well.

1. The geologic name of the surface formation is Ogallala.
2. The estimated tops of important geologic markers are as follows:

Rustler	2100'
Yates	2550'
San Andres	3690'
Abo	7010'
Wolfcamp Porosity	8020'

3. The estimated depths at which anticipated water, oil, gas and other mineral-bearing formation's are expected to be encountered are as follows:

Water	none anticipated
oil	none anticipated other than the condensate in the Wolfcamp pay at 8020'
Gas	there is a depleted gas zone in the San Andres at 3690'; there is gas in the Wolfcamp at 8020'

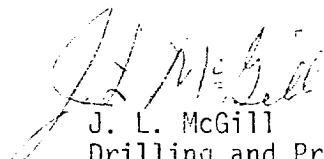
Other Minerals none anticipated

4. The proposed casing program is as follows:

<u>SIZE</u>	<u>GRADE</u>	<u>WEIGHT/FOOT</u>	<u>NEW OR USED</u>	<u>DEPTH</u>
12 3/4" OD	X-42	49#	New	500'
8 5/8" OD	K-55	24# & 32#	New	3700'
4 1/2" OD	N-80	11.6#	New	8300'

5. Minimum specifications for pressure control equipment to be used are as follows: 3000 psi working pressure,
Double Stack with pipe ram in upper
and blind rams in lower stack,
Adapter spool under the BOP's to
have kill line on one side with check
valve and ball valve, and choke manifold
on other side with bleed-off line.
(see attached diagram)
6. The types and characteristics of the proposed circulating medium are as follows:

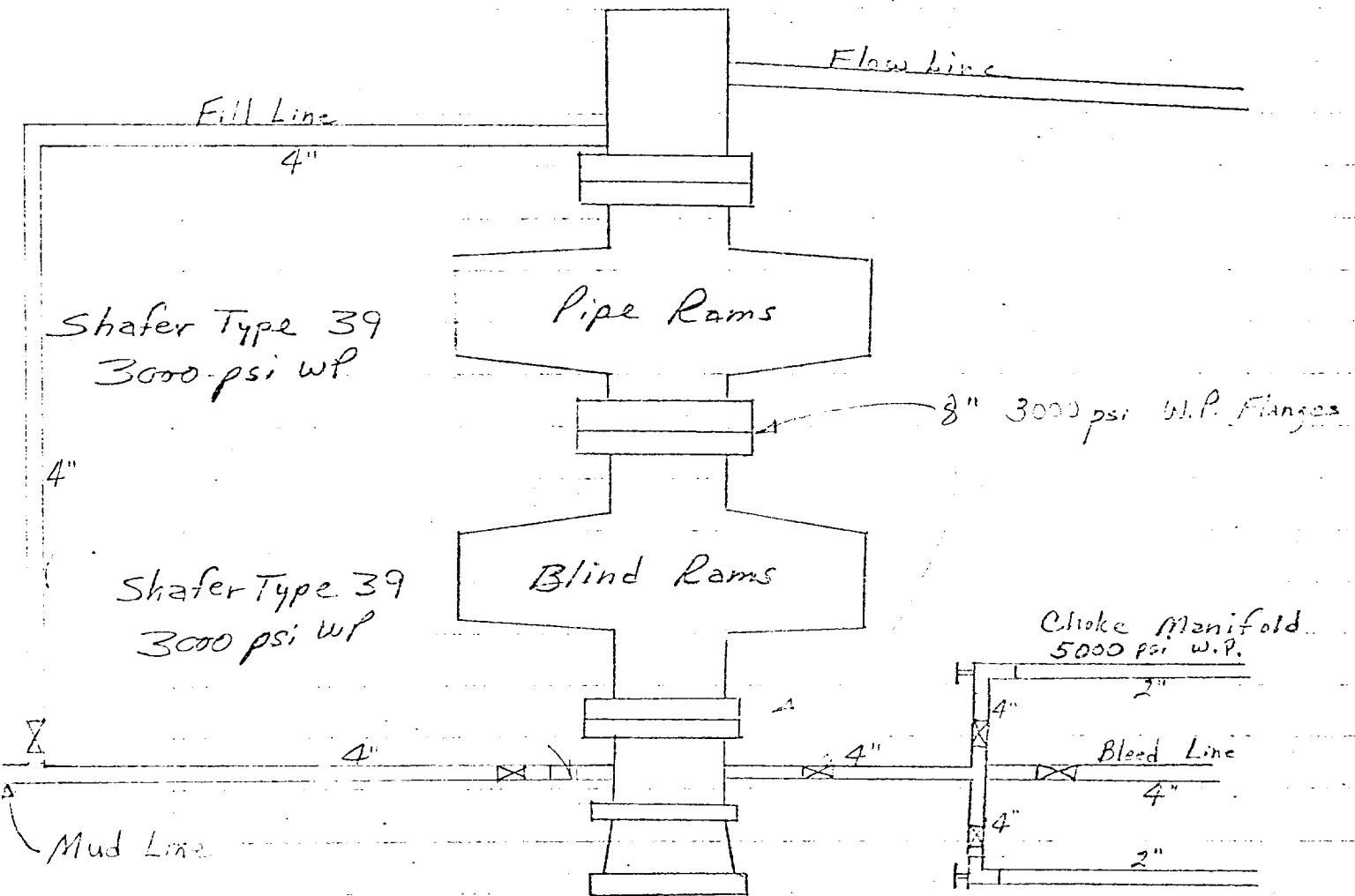
0 - 8000'	Fresh water
8000 - 8300'	9.0#/gal gel with viscosity of 36; lower fluid loss with starch.
7. The auxiliary equipment to be used is as follows:
 - (1) Kelly cock - in mud line above swivel,
 - (2) Floats at the bit - none planned,
 - (3) Monitoring equipment on the mud system - no automatic system planned; will use visual testing and inspection by rig and mud company personnel,
 - (4) A sub will be on the floor with full opening valve to be stabbed into drill pipe when the kelly is not in the string.
8. There will be no drill stem testing or coring in this proposed well. This is a development well; therefore the only log to be run will be a cased hole Gamma Ray - Neutron survey from total depth to 3690'.
9. There are no anticipated abnormal pressures or temperatures to be encountered. Should hydrogen sulfide gas be unexpectedly encountered, a plan is posted at the rig (MGF Drilling Company of Midland, Texas) to handle such emergency and rig personnel are reviewed periodically on these procedures.
10. The anticipated starting date is October 20, 1976 and the drilling operations should cease on or about November 10, 1976. Completion of the well should be accomplished by November 20, 1976.


J. L. McGill
Drilling and Production
Manager

Encl.
JLMc/jsd

H.L. Brown, Jr.
Federal H-1

Blow Out Preventor Diagram



Blind Rams are tested daily w/DP out of hole;
Pipe Rams are tested daily w/DP in hole;
Additional tests are made after operation subject to circumstances
33-112 37112

JLB
10-7-76

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION

Form O-102
Supersedes O-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

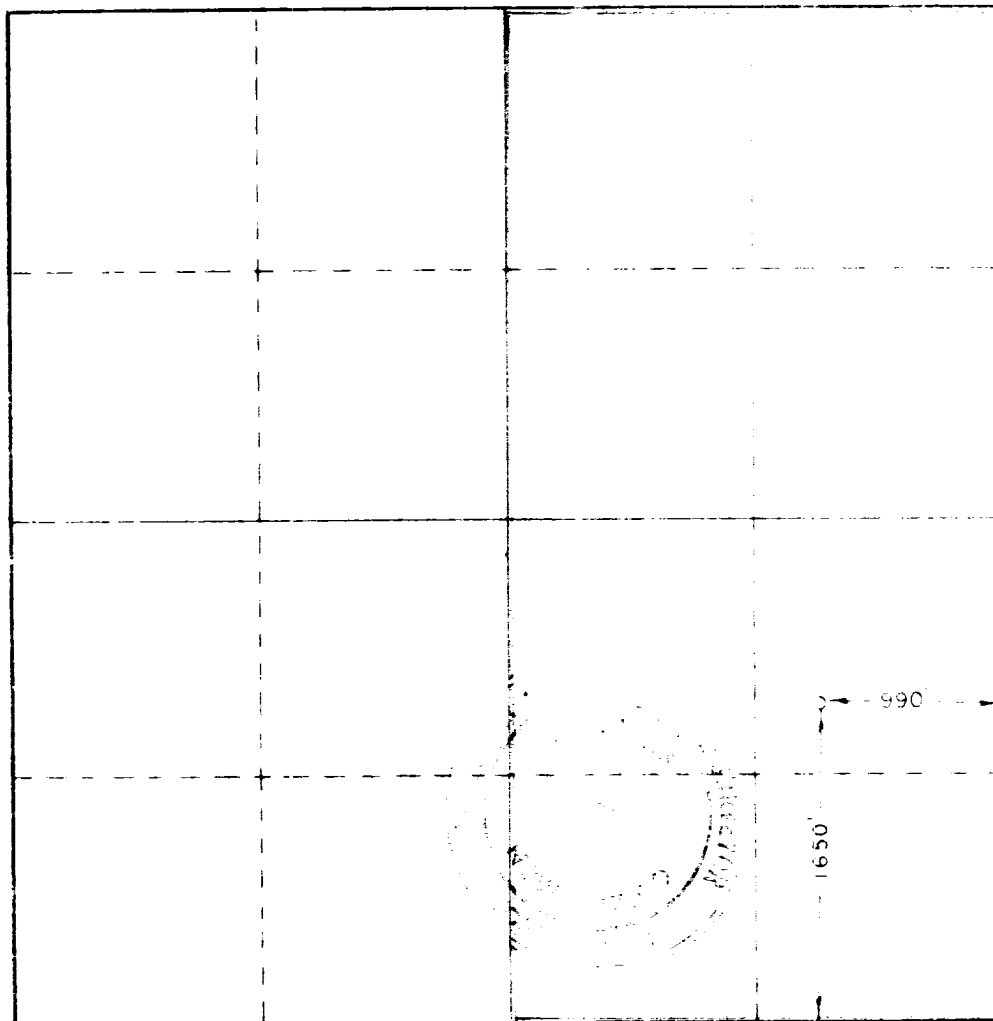
Operator H. L. BROWN, JR.		Lease Federal & H		Well No. 1
Tract Letter I	Section 5	Township 8 South	Range 37 East	County Roosevelt
Actual Location of Well:				
1650	feet from the	south	990	feet from the
				east
Ground Level Elev. 4051.3	Producing Formation Wolfcamp		Estimated Acreage 320	
<div style="text-align: center;"> UNDESIGNATED Bluff (Wolfcamp) Gas </div>				

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated (on reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

J. L. McGill

Drilling & Prod. Mgr

H. L. Brown, Jr.

Oct. 8, 1976

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 knowledge and belief.

Oct. 4, 1976

Registration Department

John A. West

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

H. L. BROWN, JR.
WELL NO. 1 FEDERAL "H"
990' FSL and 1650' FEL Sec. 5, 8-S, 37-E
Roosevelt County, New Mexico
Lease New Mexico 28054

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, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a highway map showing the location of the proposed well as staked. Approximately 8 1/2 miles east of Milnesand on State Highway 262, just before the Highway makes a sharp right-angle turn to the South, turn in North across a cattleguard on a lease road. An H. L. Brown, Jr. sign is located at this turn-off. The lease road makes a right turn and proceeds East one mile from the turn-off to an access road that turns left to an abandoned well location approximately 1/4 mile North of the lease road. The abandoned well has a marker labeled 990' FEL & FWL of Section 5, 8-S, 37-E. The new road to be constructed commences on the Northwest portion of the abandoned location and proceeds North, as staked, to the proposed location.
- B. Exhibit "B" is a plat showing all existing roads within a one-mile radius of the wellsite, and the planned access road.
- C. There are no plans to improve or repair any of the existing roads at this time; however, this is an area where H. L. Brown, Jr. operates eight gas wells and the existing roads have been maintained in the past and that practice will continue in the future.

2. PLANNED ACCESS ROADS:

- A. Length and Width: New road required will be 12 feet wide and 560 feet long. This new road is labeled and color coded yellow on Exhibit "B". The center line of the proposed new road from

the beginning to the wellsite, has been staked and flagged with the stakes being visible from any one to the next.

- B. SURFACING MATERIAL: Six inches of caliche, water, compacted and graded.
 - C. MAXIMUM GRADE: Three percent.
 - D. TURNOUTS: No turnouts will be necessary on this short addition of access road; however, the abandoned location does provide the equivalent of a turnout.
 - E. DRAINAGE DESIGN: New road will have a drop of 6 inches from center line on each side.
 - F. CULVERTS: None required.
 - G. CUTS AND FILLS: None required.
 - H. GATES, CATTLEGUARDS: No gates or cattleguards are required.
3. LOCATION OF EXISTING WELLS:
- A. Existing wells within a one-mile (plus) radius are shown on Exhibit "B".
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. There is no tank battery, flow lines nor any other existing equipment on this lease owned by H. L. Brown, Jr.
 - B. If the well is productive, the tank battery and flow line will be located on the well pad and no additional surface disturbance will occur.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. Water for drilling will be purchased from the surface land owners, Mr. Arlen Perkins and Mr. Alton Perkins, from an earthen tank located 1400 feet south of the proposed location by the existing road. The water line will be laid along the access road to the proposed well so that additional surface area is not disturbed. The line will be removed after drilling is completed.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. Caliche for surfacing the road and the well pad will be obtained from an existing pit in SE/4, SE/4 Section 33, T-7-S, R-37-E, approximately one mile Northeast of the proposed well location. The pit is on land owned by Mr. Ross Ainsworth of Milnesand, New Mexico. Location of the pit is shown on Exhibit "B"

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of soil. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "C".
- F. All trash and debris will be buried or removed from the well-site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELLSITE LAYOUT:

- A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit and location of major rig components.
- B. Cutting and levelling of sand dunes up to 6 feet high will be necessary to construct the location.
- C. The reserve pit will be plastic lined.
- D. The pad and pit area has been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as possible.

- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment of the well, surface restoration will be in accordance with the agreement with the surface owner. Pits will be filled and location will be cleaned. The pit area, well pad, and all unneeded access road will be ripped to promote revegetation. Rehabilitation should be accomplished within 90 days after abandonment.

11. OTHER INFORMATION:

- A. TOPOGRAPHY: Land surface is undulating to gently rolling and dunny. From an elevation of 4051 feet at the wellsite, the land surface slopes gently toward the South at about 30 feet per mile.
- B. SOIL: Soil is a deep fine sand underlain by caliche.
- C. FLORA AND FAUNA: The vegetative cover is generally sparse and consists of mesquite, yucca, shinnery oak, sandsage and perennial native range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove, quail, and an occasional antelope.
- D. PONDS AND STREAMS: There are no rivers, streams, lakes or ponds in the area.
- E. RESIDENCES AND OTHER STRUCTURES: The nearest occupied dwelling is a ranch house 1 3/4 miles Southeast of the wellsite. The nearest operating water well is 1400 feet South; however there is another water well 200 feet Northeast, standing, without a pump.
- F. ARCHEOLOGICAL, HISTORICAL AND CULTURAL SITES: None observed in the area.
- G. LAND USE: Grazing and hunting in season.
- H. SURFACE OWNERSHIP: Wellsite and the new road are on surface owned by Arlen and Alton Perkins.

12. OPERATOR'S REPRESENTATIVES:

The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

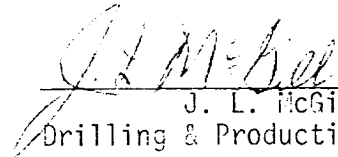
J. L. McGill (915) 697-1539 (home)
Harold Dumas (915) 697-1403 (home)

Both above are officed at 323 W. Missouri, Midland, Texas
79701 (915) 683-5216

13. CERTIFICATION:

I hereby certify that I or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by H. L. Brown, Jr. and his contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

October 8, 1976
Date


J. L. McGill
Drilling & Production Manager

Encl.
JLMc/jsd

H. L. BROWN, JR.
323 WEST MISSOURI
POST OFFICE BOX 2237
MIDLAND, TEXAS 79701
915 683-5216

October 6, 1976

United States Geological Survey
Post Office Box 1157
Hobbs, New Mexico 88240

Re: H. L. Brown, Jr.'s
Federal H Well #1
Roosevelt Co., New Mexico

Gentlemen:

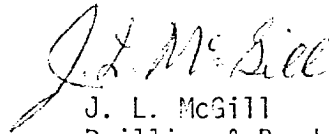
This is to advise you that we have reached an agreement with the surface owner, Mr. Arlen Perkins, concerning right-of-way and location payments for the subject well.

It is our intention to restore the area as nearly as possible to its original condition which will include the following:

1. Remove all trash from location area.
2. Break out and smooth over reserve pit.
3. Clean location and restore original condition where possible.

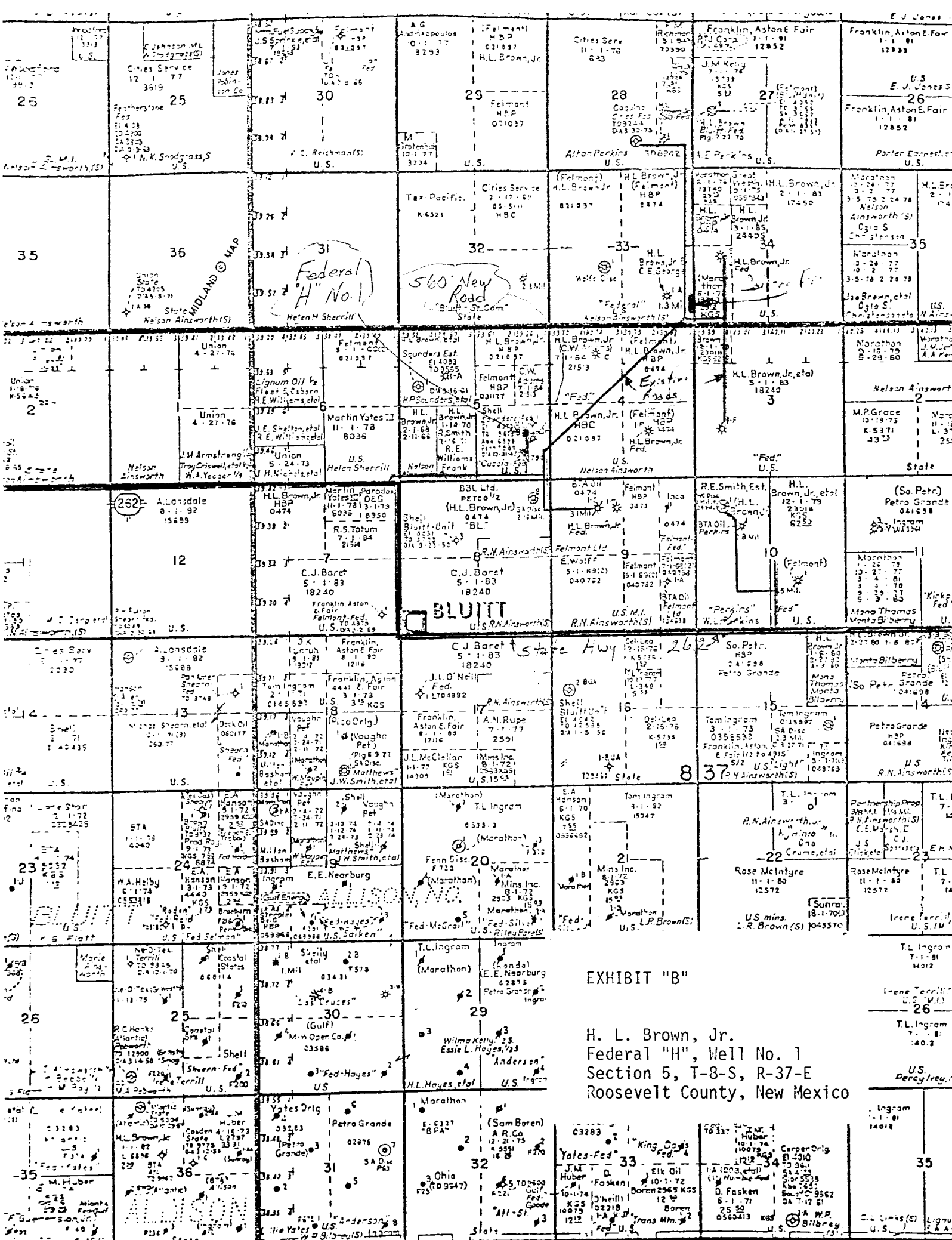
Yours very truly,

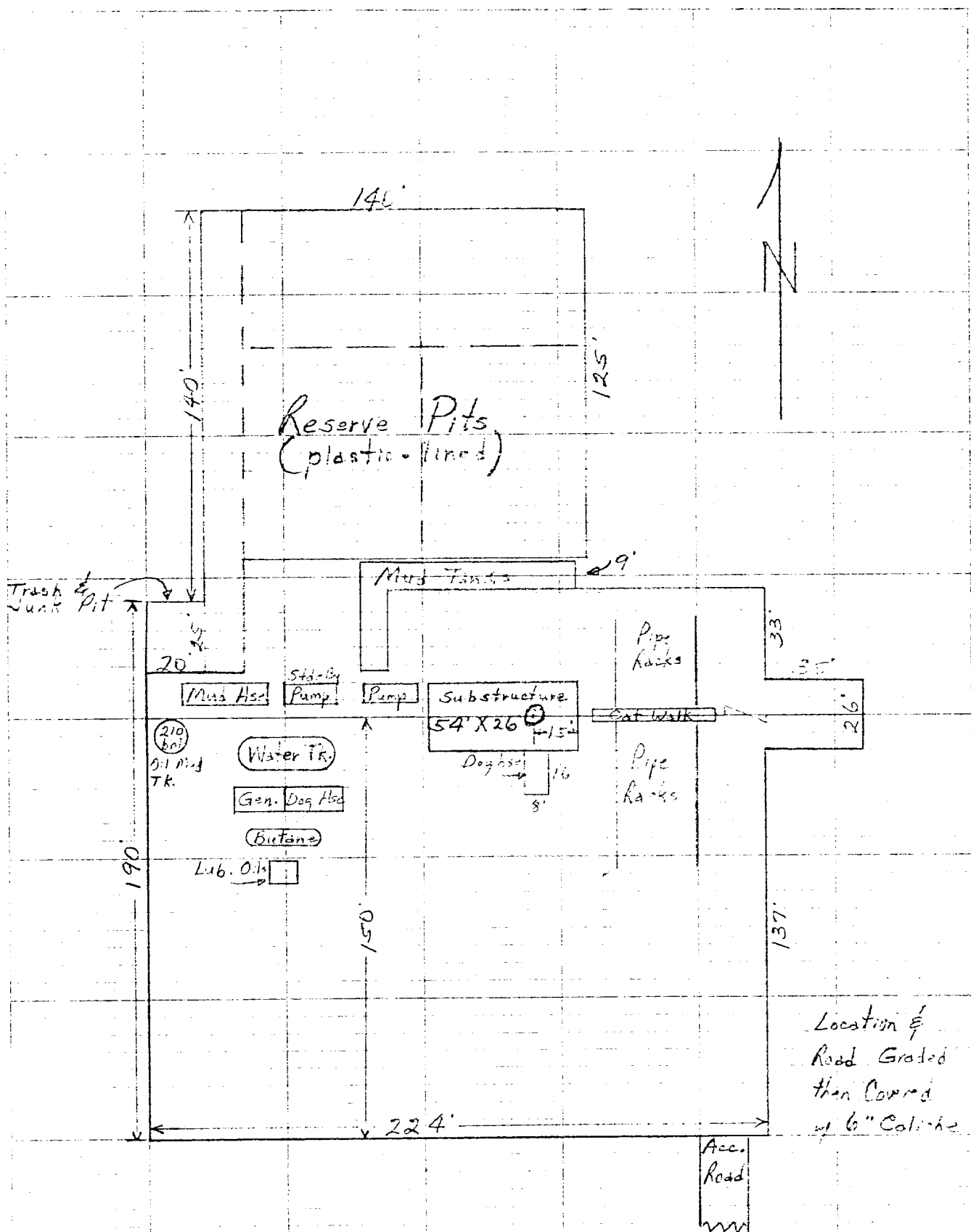
H. L. BROWN, JR.



J. L. McGill
Drilling & Production Manager

JLMc/jsd





Contractor: M-G-F Drilling Co.

1121 Vaughn Bldg.
Midland, Tx. 79701

1" = 50' 10-5-76

EXHIBIT "C"

H. L. Brown, Jr.
Federal "H", Well No. 1
Section 5, T-8-S, R-37-E
Roosevelt County, New Mexico

U. S. GEOLOGICAL SURVEY
P. O. Box 1157
Hobbs, New Mexico 88240

HOBBS DISTRICT

H. L. Brown, Jr.
No. 1 Federal "H"
NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 5-8S-37E
Roosevelt County, N. M.

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to the attached sheet for general requirements for drilling and producing operations.
2. Notify this office (telephone (505) 393-3612) when the well is spudded and in sufficient time for a representative to witness cementing operations.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval before changing the approved drilling program or commencing plugging operations, plug-back work, casing repair work, or corrective cementing operations.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. A kill-line is to be properly installed and is not to be used as a fill-up line.
7. Blowout preventers are to have proper casing rams when running casing.
8. Drill string safety valve(s) to fit all pipe in the drill string to be maintained on the rig floor while drilling operations are in progress.
9. Blowout prevention drills are to be conducted as necessary to assure that equipment is operational and that each crew is properly trained to carry out emergency duties. All BOP tests and drills are to be recorded on the driller's log.
10. 12-3/4" surface casing should be set in the Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set a lesser depth, the 8-5/8" casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler after cementing around the shoe with the specified amount of cement.
11. Operations must be in compliance with the provisions of the landowner agreement concerning surface disturbance and surface restoration.
12. If, during operations, the operator or any person working in his behalf, discover any historic or prehistoric ruin, monument or site, or any object of antiquity subject to the Antiquities Act of June 8, 1906, (34 Stat. 225, 16 U.S.C. Secs. 431-433), and 43 CFR Part 3, then work will be suspended and the discovery promptly reported to the District Manager. The Bureau will then take such action as required under the Act and regulations thereunder. When directed by the District Manager, the operator will obtain, at his expense, a qualified archaeologist to examine and, if necessary, excavate or otherwise protect such ruins or objects.

13. All access roads constructed in conjunction with the drilling permit should be limited to 12 feet in width, along with turnouts. If well is a producer, all roads will be adequately drained to control runoff and soil erosion. Drainage facilities may include ditches, water bars, culverts and/or any other measure deemed necessary by the responsible BLM representative.