

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 303/628-9211 1050-17th Street, Suite 400
 Quintana Petroleum Corp. Denver, CO 80265

3. ADDRESS OF OPERATOR 303/322-7878 P.O. Box 44065
 Permitco Inc. - Agent Denver, CO 80201-4065

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 2135' FNL and 1805' FWL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 25 miles southeast of Monticello, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 497'

16. NO. OF ACRES IN LEASE 480

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. none

19. PROPOSED DEPTH 6330' *sketch*

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5876' GR

22. APPROX. DATE WORK WILL START*
 Immediately upon approval of this application.

5. LEASE DESIGNATION AND SERIAL NO.
U-40356

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Kali Federal

9. WELL NO.
#1-12

10. FIELD AND POOL, OR WILDCAT
Wildcat ✓

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 12, T37S - R23E

12. COUNTY OR PARISH 13. STATE
San Juan Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	35#	2150'	760 sx or suffic to circ to surf.
8-3/4"	5-1/2"	15.5 & 17#	6330'	Sufficient to cover zones of interest.

Quintana Petroleum Corp. proposes to drill a well to 6330' to test the Ismay and Desert Creek formations. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

RECEIVED
AUG 5 1987
DIVISION OF OIL
GAS & MINING

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 *Don G. Allen* TITLE Consultant for Quintana Petroleum Corp. DATE 8/3/87

(This space for Federal or State office use)

PERMIT NO. 43-037-31335 APPROVAL DATE _____

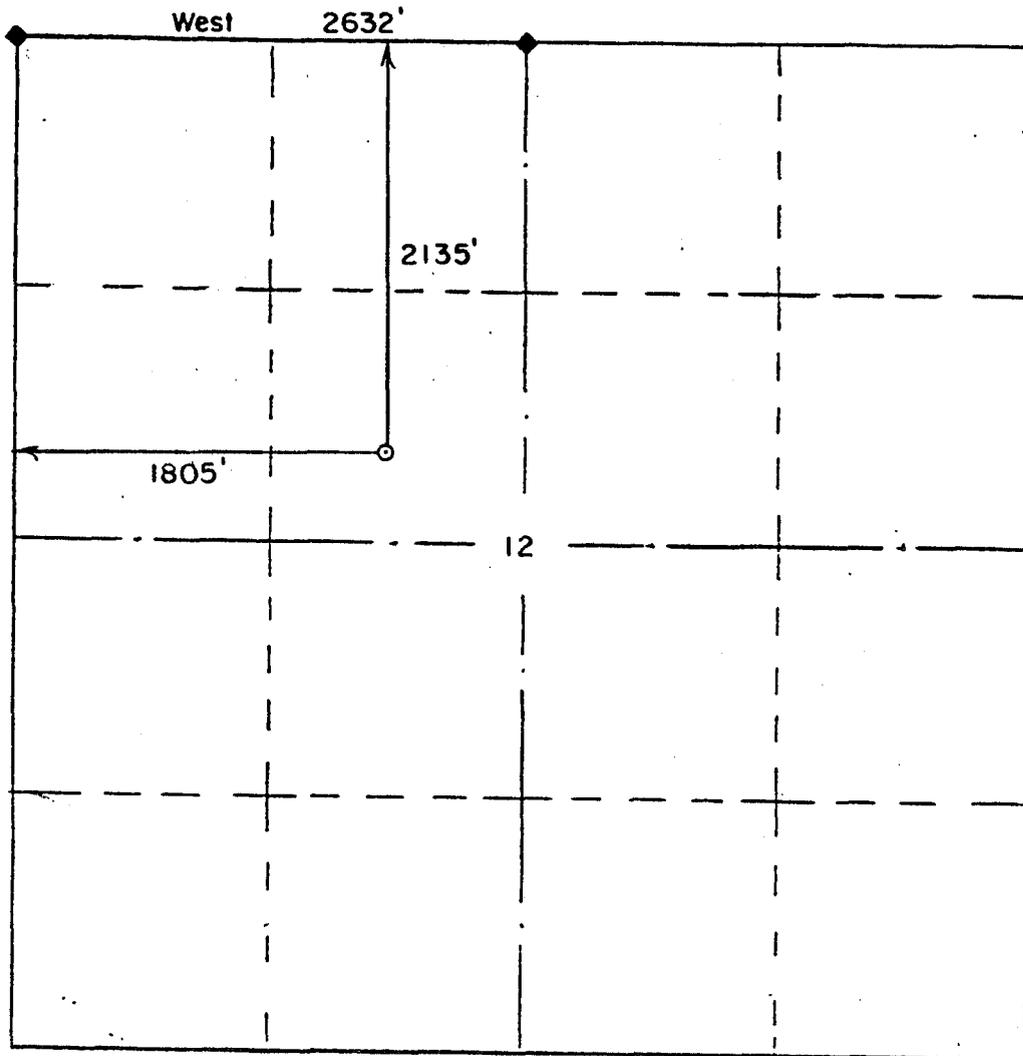
APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY: _____

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
 DATE: 8-7-87
 BY: *John R. Bays*
 WELL SPACING: Rd 15-3-2

*See Instructions On Reverse Side

WELL LOCATION AND ACREAGE DEDICATION PLAT



WELL LOCATION DESCRIPTION:
 Quintana Petroleum Kali Federal 1-12
 2135' FN & 1805' FW
 Section 12, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5876' grd. elev.
 Alternate: 2000' FN & 1700' FW, 5865' grd.

The above plat is true and correct to my knowledge and belief.

22 July 1987

Gerald Huddleston
 Gerald Huddleston, LS
 REGISTERED LAND SURVEYOR
 No. 5705
 STATE OF UTAH

RECEIVED

AUG 5 1987

DIVISION OF OIL
GAS & MINING

ONSHORE OIL & GAS ORDER NO. 1

Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

QUINTANA PETROLEUM CORP.
Kali Federal #1-12
2135' FNL and 1805' FWL
Section 12, T37S - R23E
San Juan County, Utah

Prepared For:

QUINTANA PETROLEUM CORP.

By:

PERMITCO INC.
P.O. Box 44065
Denver, Colorado 80201-4065
303/322-7878

Copies Sent To:

- 4 - BLM - Moab, Utah
- 1 - BLM - Monticello, Utah
- 1 - Div. of Oil, Gas & Mining - SIC, Utah
- 4 - Quintana Petroleum Corp. - Denver, CO



Permitco Incorporated
A Petroleum Permitting Company

QUINTANA PETROLEUM CORPORATION

1050 SEVENTEENTH STREET
SUITE 400
DENVER COLORADO 80265
(303) 628-9211

August 3, 1987

Bureau of Land Management
P. O. Box 7
Monticello, UT 84535

Re: Kali Federal #1-12
Section 12, T37S-R23E
San Juan County, Utah

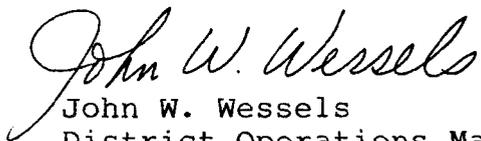
Gentlemen:

This letter is to inform you that Permitco is authorized to act as Agent and to sign documents on behalf of Quintana Petroleum Corporation when necessary for filing county, state and federal permits including Onshore Order No. 1 Right-of-Way applications, etc. for the referenced well.

It should be understood that Permitco is acting as Agent only in those matters stated above and is not responsible for drilling, completion, production or compliance with regulations.

Quintana Petroleum Corporation agrees to accept full responsibility for operations conducted in order to drill, complete and produce the above-mentioned well.

Very truly yours,



John W. Wessels
District Operations Manager

cc: Bureau of Land Management
P. O. Box 970
Moab, UT 84532

Permitco - Lisa Green

JWW:jp

ONSHORE ORDER NO.
Quintana Petroleum Corp.
Kali Federal 1-12
2135' FNL and 1805' FWL
Sec. 12, T37S - R23E
San Juan County, Utah

CONFIDENTIAL-TIGHT HOLE

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

1. The surface formation and estimated formation tops to be encountered are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Burro Canyon	Surface	
Chinle	2112'	+3785'
Shinarump	2752'	+3145'
Hermosa	4862'	+1035'
Ismay	5977'	- 80'
Hovenweep Shale	6132'	- 235'
Lower Ismay	6149'	- 252'
Gothic Shale	6199'	- 302'
Desert Creek	6225'	- 328'
Akah	6320'	- 423'
T.D.	6330'	- 443'

2. The estimated depths at which oil, gas, water or other mineral bearing zones are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Anticipated Depth</u>
Oil/Gas	Ismay	5977'
Oil/Gas	Desert Creek	6225'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth cased and cemented. All oil and gas shows will be tested to determine commercial potential.



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3. Pressure control equipment will consist of a 10", 3000# BOP. (See BOP Diagram attached.)

BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. The San Juan Resource Area will be notified 1 day before pressure testing.

4. a. Casing

The proposed casing program is as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Wt.</u>	<u>Grade</u>	<u>Type</u>	<u>New or Used</u>
Conductor	0-40'	17-1/2"	16#	--			
Surface	0-2150'	12-1/4"	9-5/8"	36#	K-55	ST&C	New
Produc.	0-5330'	8-3/4"	5-1/2"	15.5#	K-55	LT&C	New
Produc.	5330-TD	8-3/4"	5-1/2"	17.0#	K-55	LT&C	New

- b. Cement

The cementing program will be as follows:

<u>Surface</u>	<u>Type and Amount</u>
0-2000'	560 sx Lite with 2% CaCl ₂ and 1/4#/sk Flocele, followed by 200 sx Class B w/2% CaCl ₂ or sufficient to circulate to surface.

<u>Production</u>	<u>Type and Amount</u>
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Will be designed upon completion - sufficient to cover zones of interest.

Anticipated cement tops will be reported as to depth, not the expected number of sacks.



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DRILLING PROGRAM

c. Auxiliary Equipment will be as follows:

1. Kelly cock.
2. Float above the bit.
3. A sub with a full opening valve will be on the floor when the kelly is not in use.
4. Monitoring of the system will be done visually.

5. Drilling fluid will be as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>F/L</u>	<u>PH</u>
0-5000'	Gel/Lime	8.3-8.6	27-35	N/C	8.5-9.0
5000-T.D.	Lightly Dispersed	9.0-10.5	35-45	8-10cc	10+

6. Coring, logging and testing programs are as follows:

- a. No cores are anticipated.
- b. The logging program will consist of the following: A Dual Induction SFL and BHC Sonic will be run from surface casing to T.D. A CNL Lithodensity will be run over zones of interest (minimum run).
- c. Drill Stem Tests may be run in the Ismay and Desert Creek formations if shows warrant.

Whether the well is completed as a dry hole or as a producer, "Well Completion or Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. If requested, samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.



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CONFIDENTIAL-TIGHT HOLE

DRILLING PROGRAM

7. Abnormal conditions, bottom hole pressures and potential hazards.
 - a. The maximum bottom hole pressure to be expected is 3000 psi.
 - b. Quintana Petroleum Corp. plans to spud the Kali Federal Federal #1-12 immediately upon approval of this application and intends to complete the well within approximately one month after the well has reached T.D.
 - c. The operator will contact the San Juan Resource Area at 801/587-2141, 48 hours prior to beginning any dirt work on this location.
 - d. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.
 - e. The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours of spudding, reporting the spud date and time. The Sundry will be sent to the District Manager. If spudding is on a weekend or holiday, the Sundry will be submitted on the following regular work day.
 - f. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations", starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the Moab BLM District Office, P. O. Box 970, Moab, Utah 84532.
 - g. Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NTL-3A.

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- h. If a replacement rig is planned for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergencies, verbal approval can be given by the District Petroleum Engineer.
- i. If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five business days following the date on which the well is placed on production.
- j. No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.
- k. Final abandonment will not be approved until surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or his representative, or the appropriate surface Manager.
- l. Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.
- m. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on with a welding torch: Fed, Well number, location by 1/4 1/4 section, township and range, lease number.



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- n. A first production conference will be scheduled within 15 days after receipt of the first production notice. The San Juan Area Manager will schedule the conference.
- o. Notify the San Juan Resource area (Mike Wade) one day or (on a dry hole) as soon as possible prior to the above at (801) 587-2141 (W) or (801) 587-2026 (H). If unable to reach Mike, call Moab District Office - Greg Noble at (801) 259-6111 (W) or (801) 259-8811 (H).



Permitco Incorporated
A Petroleum Permitting Company

WELL NAME: _____

LOCATION : _____

9-5/8"
Drilling Nipple / "

7 "Circulating Line

B.O.P. Bid Rams 10 "x 3000 W.P.

B.O.P. D.P. Rams 10 "x 3000 W.P.

Not Required

Hyd. Valve - " - - W.P. (Omit)

Check Valve 2 "x 3000 W.P.

Valve 2 " 3000 W.P.

Valve 2 " 3000 W.P.

Valve 2 " 3000 W.P.

2 "Line

MANIFOLD LINE

3000 W.P.

(See Exhibit "B")

Spool 10 "x 3000 W.P.

Ground Level

WELL HEAD B.O.P.

3000 W.P.

Hydraulic

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San Juan County, Utah

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SURFACE USE PLAN

ONSHORE OIL & GAS ORDER NO. 1

Thirteen Point Surface Use Plan

1. Existing Roads
 - a. The proposed well site is located 25 miles southeast of Monticello, Utah.
 - b. Directions to the location from Monticello are as follows:

Go south on Highway 191 for 11.7 miles. Turn east onto the County Road (Mustang) and Alkali #204 and proceed 12.3 miles. Turn right (west) onto existing seismic trail and follow flagging for 1.1 miles to the location.
 - c. The roads in the area are primarily county roads. See Maps #1 and #2.
 - d. Improvement to the existing access will not be necessary.
 - e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
 - f. An encroachment permit will be obtained from the San Juan County Road Department, 801/587-2231, ext. 43.
2. Planned Access Roads
 - a. The last 800 feet will be new access. The road will be flat bladed initially during construction and upgraded if production is established.
 - b. The maximum total disturbed width will be 30 feet.
 - c. The grade will be 5%.
 - d. Turnouts will be installed as needed. No culverts will be needed at this time. Drainage will be installed as needed.



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SURFACE USE PLAN

2. Planned Access Roads (cont.)

- e. We are requesting that a right-of-way grant be issued for the access road outside Lease No. U-40356. The length of road crossing BLM land is approximately 1600 feet. Enclosed is our check in the amount of \$50.00 to cover the right-of-way fees. See Map #1 for location of road.
- f. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance by the San Juan Area Manager.
- g. The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drilling rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.
- h. The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossings; and culverts will be determined at the appropriate field inspection.

3. Location of Existing Wells Within a 1-Mile Radius of the Proposed Location. (See Map #2).

- a. Water Wells - none
- b. Injection or disposal wells - none
- c. Producing Wells - none
- d. Drilling Wells - none

SURFACE USE PLAN

4. Location of Tank Batteries and Production Facilities.

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be Juniper Green to match the trees.
- b. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.
- c. Production facilities for this well will be located on this wellpad. See Diagram #1 for layout of facilities.
- d. All loading lines will be placed inside the berm surrounding the tank battery.
- e. Any necessary pits will be properly fenced to prevent any wildlife entry. The production pit will be flagged overhead.
- f. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- g. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
- h. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.



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SURFACE USE PLAN

4. Production Facilities (cont.)

- i. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Moab District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from a private source.
- b. Water will be trucked to location over the county roads in the area.
- c. No water well is to be drilled on this lease.
- d. Use of water for this operation will approved by obtaining a temporary use permit from the Utah State Engineer, 801/637-1303, and by receiving permission from the land owner or surface management agency to use the land containing the water source.

6. Source of Construction Material

- a. Road surfacing material will be obtained from a commercial source. Pad construction material will be native.
- b. The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3. Construction material will be located on lease.

SURFACE USE PLAN

7. Methods for Handling Waste Disposal

- a. The reserve pit will not be lined. At least half the capacity will be in cut.
- b. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
- c. A trash pit will be constructed near the mud tanks and dug at least six feet into solid, undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free. If a trash cage is used, its contents will be hauled to an approved landfill.
- d. A burning permit is required for burning trash between May 1 and October 31. This will be obtained from the San Juan County Sheriff at (801) 587-2237 if operations should extend past May 1st.
- e. Produced waste water will be confined to a lined pit for a period not to exceed 90 days after initial production. During the 90-day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

8. Ancillary Facilities

- a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. See Diagram #2 for rig layout. See Diagram #3 for cross section of drill pad. See Diagram #4 for cuts and fills.

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SURFACE USE PLAN

9. Wellsite Layout (cont.)

- b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities and soil stockpiles will be shown on Diagram #2 and #4. The location will be laid out and constructed as discussed during the predrill conference.
- c. The top 6 inches of soil material will be removed from the location and stockpiled separate from the trees on the southeast side of the location. Topsoil along the access will be reserved in place.
- d. Access to the well pad will be from the northeast corner of the pad.

10. Reclamation

- a. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- b. The operator or his contractor will contact the San Juan Resource Area office in Monticello, Utah (801/587-2141) 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.



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San Juan County, Utah

CONFIDENTIAL-TIGHT HOLE

SURFACE USE PLAN

10. Reclamation of Surface (cont.)

f. Water bars will be built as follows to control erosion.

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 Feet
2-4%	Every 100 Feet
4-5%	Every 75 Feet
5+%	Every 50 Feet

g. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.

10 lbs/acre Crested wheatgrass (*Agropyron desertorum*)

h. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.

i. The reserve pit and that portion of the location and access road not needed for production and production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. a. Surface Ownership

Federal

b. Mineral Ownership

Federal



Permitco Incorporated
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ONSHORE ORDER NO. [REDACTED]
Quintana Petroleum Corp.
Kali Federal 1-12
2135' FNL and 1805' FWL
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San Juan County, Utah

CONFIDENTIAL-TIGHT HOLE

SURFACE USE PLAN

12. Other Information

- a. There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.
- b. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
- c. The dirt contractor will be provided with an approved copy of the surface use plan.
- d. If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archeological sites will be done by a BLM approved archeologist only if damage occurs.
- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. An archeological study was conducted by IaPlata Archeological Consultants. Monitoring of the wellpad and access road may be required during construction due to several sites found during the onsite inspection. A copy of this report will be submitted directly by IaPlata Archeological Consultants.
- g. Your contact with the District Office is: Greg Nobel, 801/259-6111, P.O. Box 970, Moab, Utah 84532.

The Resource Area Manager's address is P.O. Box 7, Monticello, Utah 84532. Your contact is Richard McClure, 801/587-2141.



Permitco Incorporated
A Petroleum Permitting Company

To Blanding and Monticello, UT

R23E

ALKALI

T37S

MUSTANG

MESA

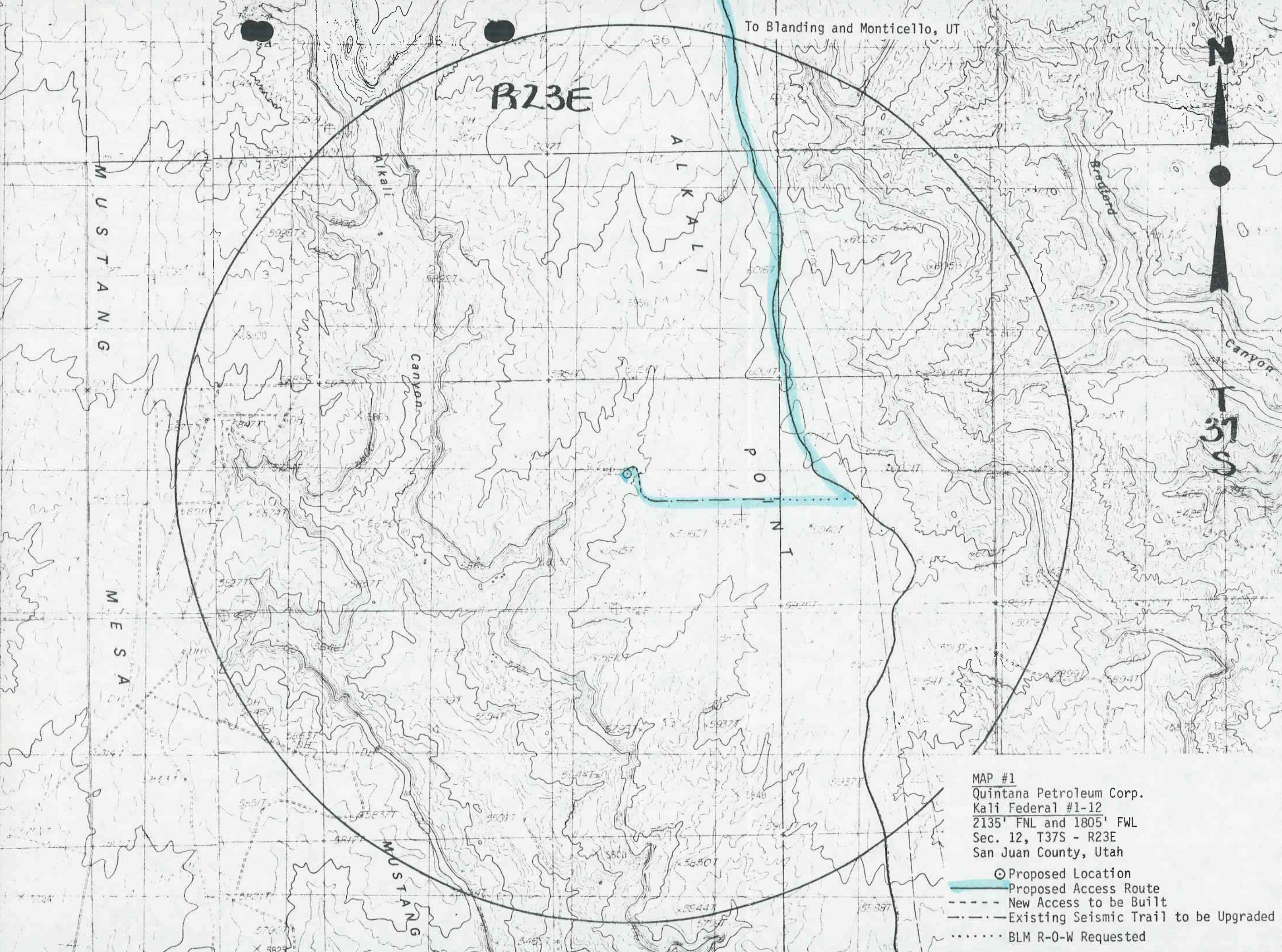
Alkali Canyon

MUSTANG

PONT

MAP #1
Quintana Petroleum Corp.
Kali Federal #1-12
2135' FNL and 1805' FWL
Sec. 12, T37S - R23E
San Juan County, Utah

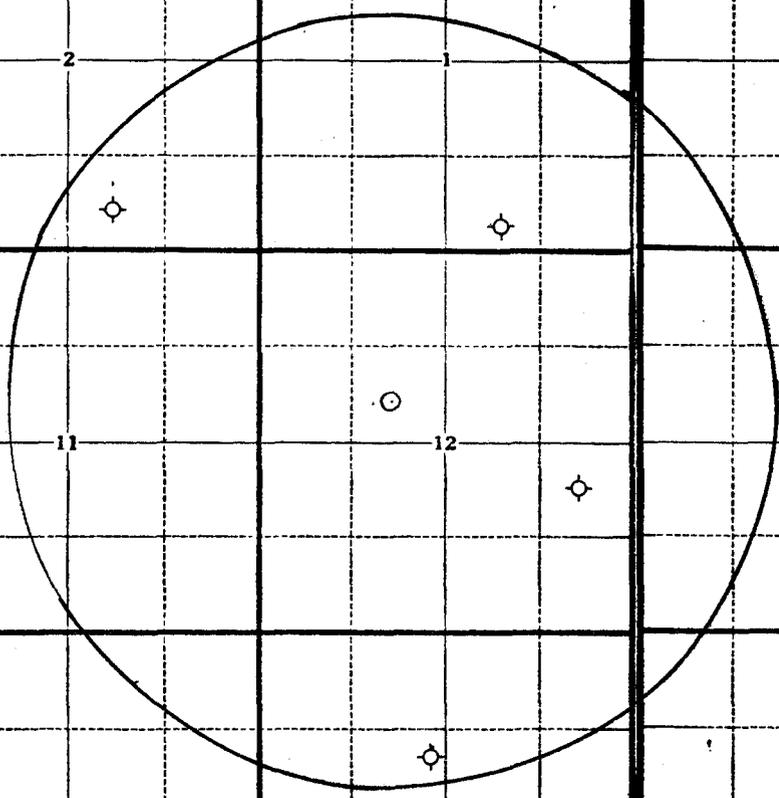
- ⊙ Proposed Location
- Proposed Access Route
- - - - New Access to be Built
- · - · Existing Seismic Trail to be Upgraded
- · · · · BLM R-0-W Requested



R23E

N

T
31
S



MAP #2
Quintana Petroleum Corp.
Kali Federal #1-12
2135' FNL and 1805' FWL
Sec. 12, T37S - R23E
San Juan County, Utah

○ Proposed Location
◇ Dry Holes

DIAGRAM #1
Production Facility Layout
Quintana Petroleum Corp.
Kali Federal #1-12
2135' FNL and 1805' FWL
Sec. 12, T37S - R23E
San Juan County, Utah

Scale: 1" = 60'

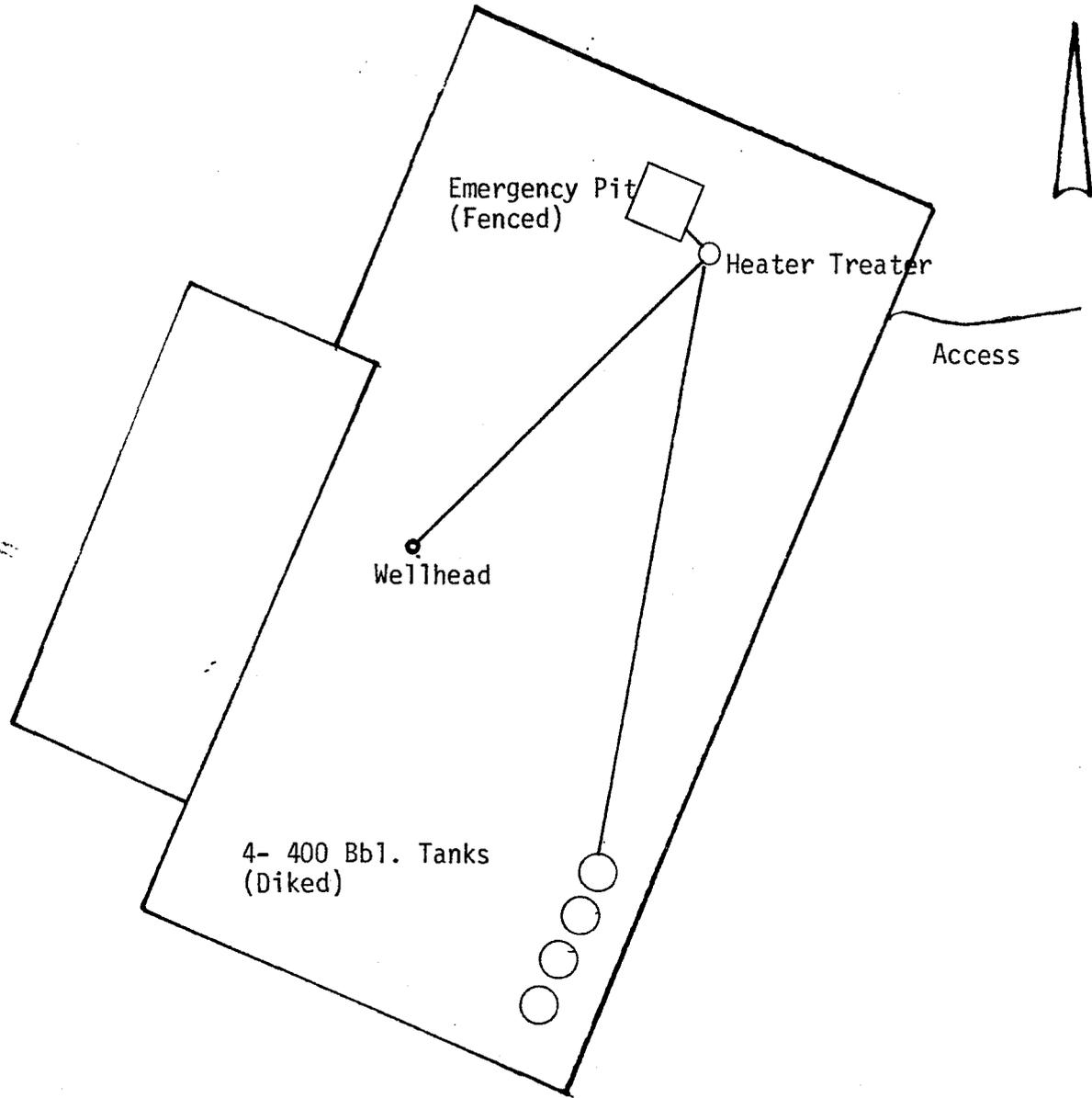


DIAGRAM #2

Rig Layout

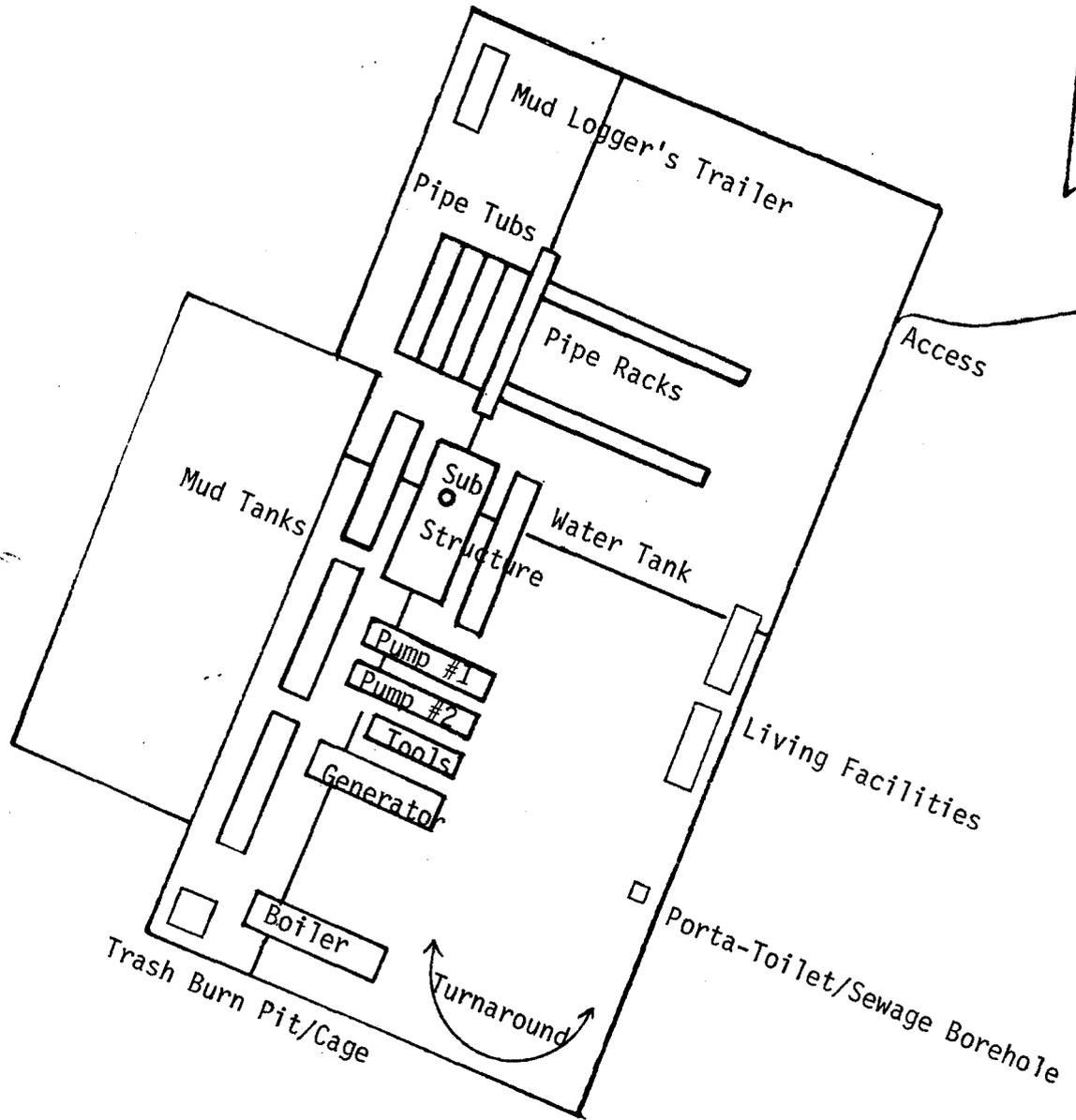
Quintana Petroleum Corp.

Kali Federal #1-12

2135' FNL and 1805' FWL

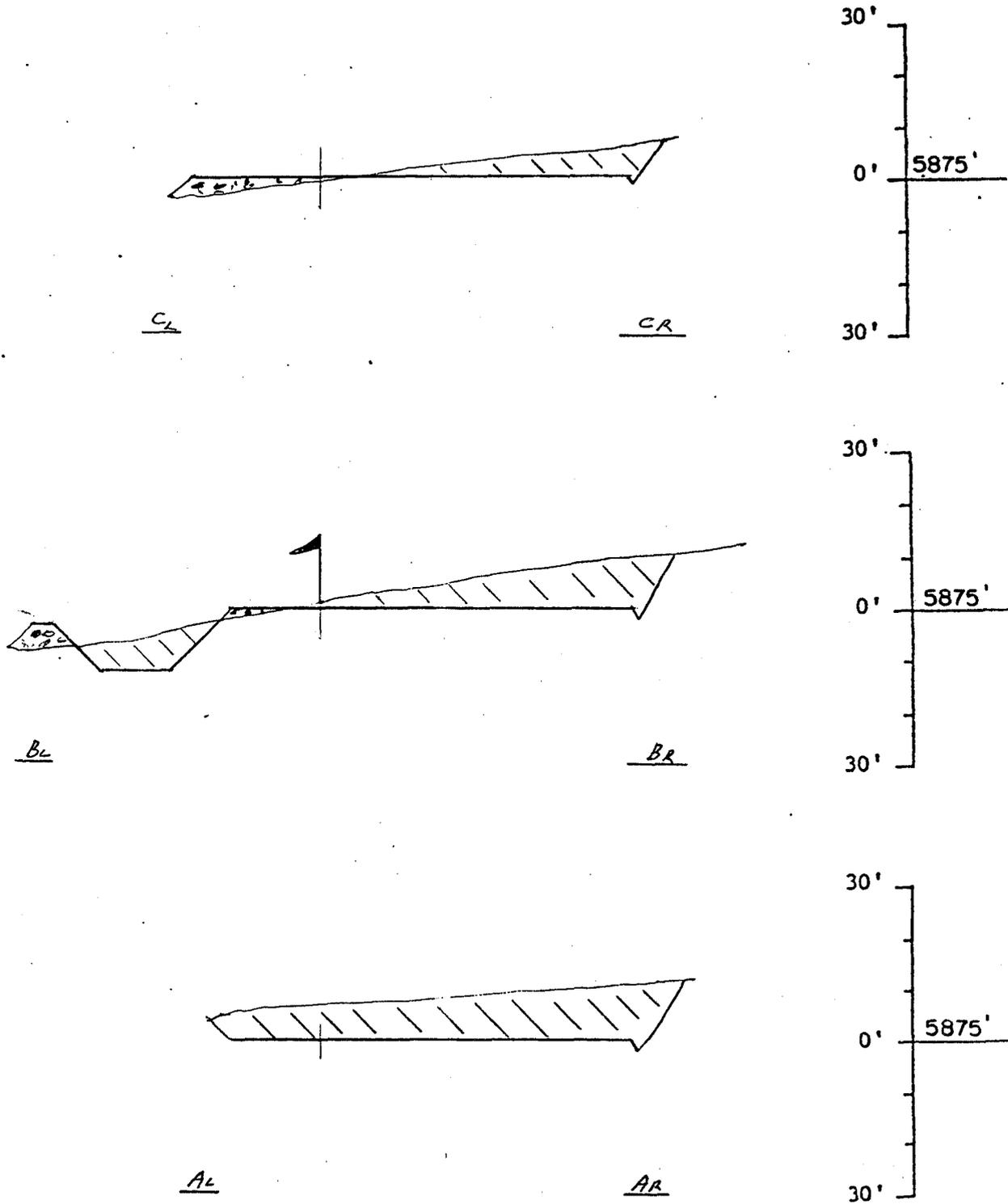
Sec. 12, T37S - R23E

San Juan County, Utah



Cut 
Fill 

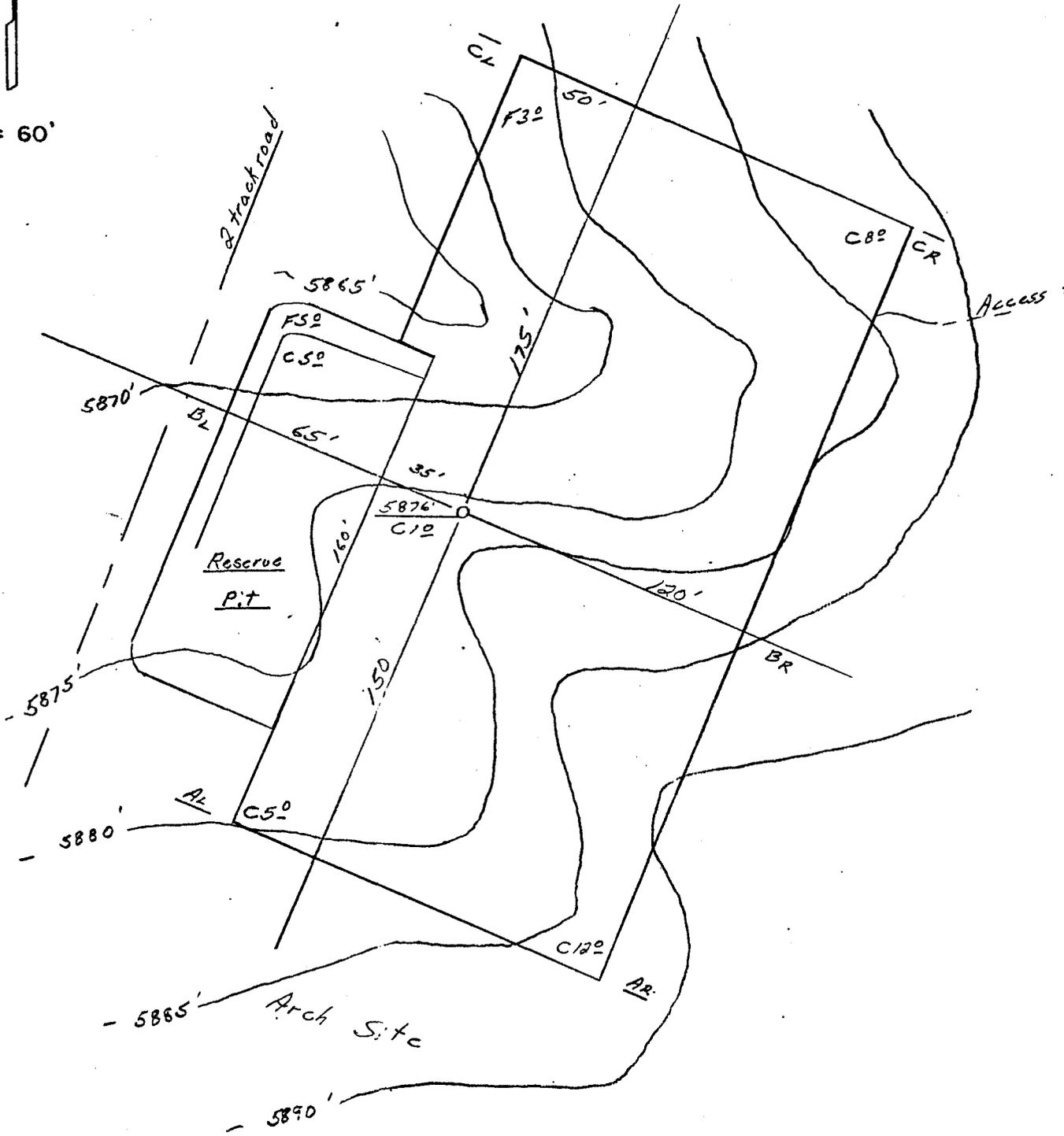
Scales: 1" = 60' H.
1" = 30' V.



WELL PAD PLAN VIEW

Well # 1-12
Quintana Petroleum Corp.
Kali Federal #1-12
2135' FNL and 1805' FWL
Sec. 12, T37S - R23E
San Juan County, Utah

1" = 60'



CONFIDENTIAL

081106

OPERATOR Quintana Petroleum DATE 8-6-87

WELL NAME Kali Federal 1-12

SEC SE NW 12 T 37S R 23E COUNTY San Juan

43-037-31335
API NUMBER

Fed.
TYPE OF LEASE

CHECK OFF:

PLAT

BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

No other well in Sec. 12.
Need water permit

APPROVAL LETTER:

SPACING:

R615-2-3

UNIT

R615-3-2

CAUSE NO. & DATE

R615-3-3

STIPULATIONS:

1- Water



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

August 7, 1987

Quintana Petroleum Corporation
c/o Permitco
P. O. Box 44065
Denver, Colorado 80201-4065

Gentlemen:

Re: Kali Federal 1-12 - SE NW Sec. 12, T. 37S, R. 23E
2135' FNL, 1805' FWL - San Juan County

Approval to drill the referenced well is hereby granted in accordance with Rule R615-3-2, Oil and Gas Conservation General Rules, subject to the following stipulation:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form to the Division within five working days of the time that the well is spudded or a change in operations or interests necessitates a change in entity status.
3. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
4. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.

Page 2
Quintana Petroleum Corporation
Kali Federal 1-12
August 7, 1987

5. Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.
6. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31335.

Sincerely,



R. J. Firth
Associate Director, Oil & Gas

as
Enclosures
cc: Branch of Fluid Minerals
D. R. Nielson
8159T

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. U-40356	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, COUNTRY OR TRIBE NAME N/A 082411	
2. NAME OF OPERATOR 303/628-9211 Quintana Petroleum Corp.			7. UNIT AGREEMENT NAME N/A	
3. ADDRESS OF OPERATOR 303/322-7878 Permitco Inc. - Agent			8. FARM OR LEASE NAME 400 Kali Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 2135' FNL and 1805' FWL At proposed prod. zone			9. WELL NO. #1-12	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 25 miles southeast of Monticello, Utah			10. FIELD AND POOL, OR WILDCAT Wildcat	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 497'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 12, T37S - R23E	
16. NO. OF ACRES IN LEASE 480			12. COUNTY OR PARISH San Juan	
17. NO. OF ACRES ASSIGNED TO THIS WELL 40			13. STATE Utah	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. none			20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5876' GR			22. APPROX. DATE WORK WILL START* Immediately upon approval of this application.	
23. PROPOSED CASING AND CEMENTING PROGRAM				

RECEIVED
AUG 20 1987
DIVISION OF OIL
GAS & MINING

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 [Signature] TITLE Consultant for Quintana Petroleum Corp. DATE 8/3/87

(This space for Federal or State office use)

PERMIT NO. 43-037-31335 APPROVAL DATE _____

APPROVED BY /s/ Kenneth V. Rhea TITLE ACTING DISTRICT MANAGER DATE AUG 17 1987

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED SUBJECT TO RIGHT OF WAY

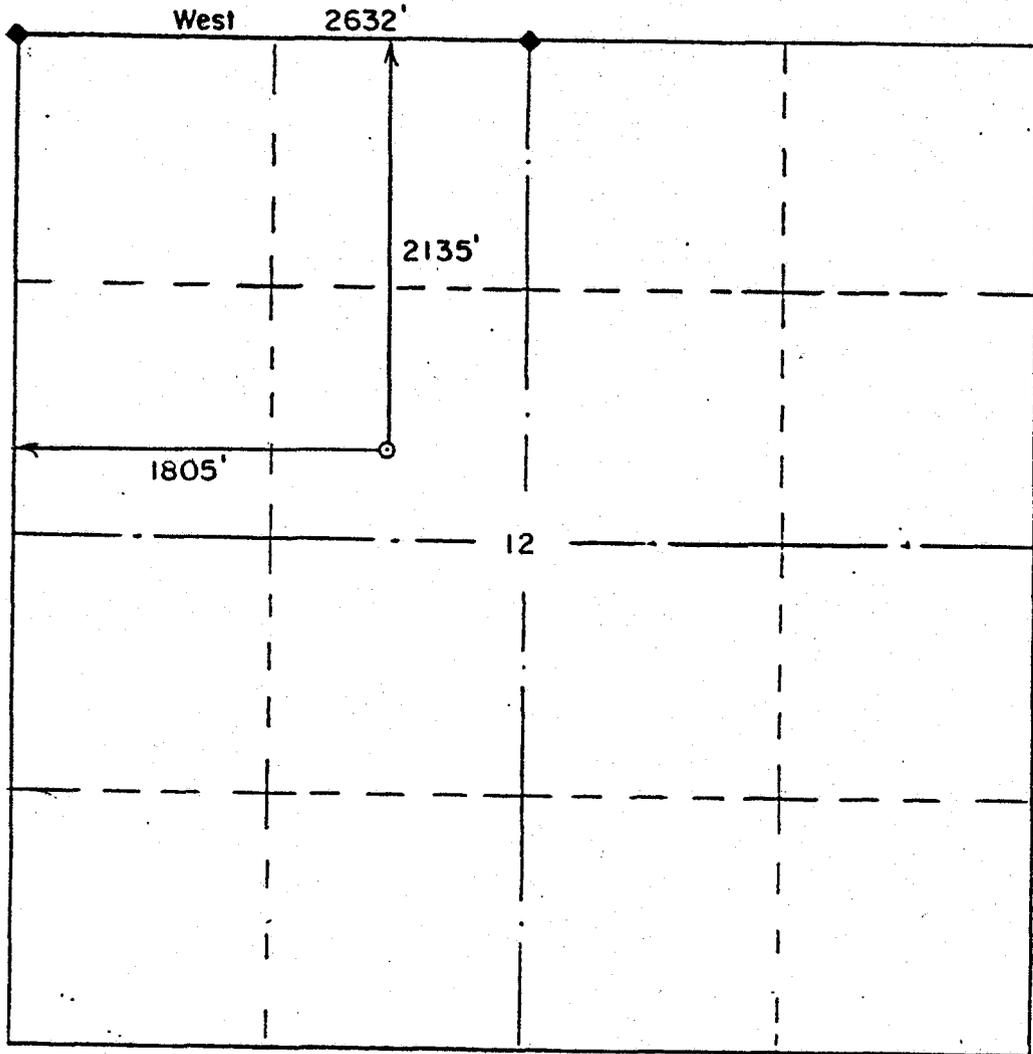
FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

DOGMA

WELL LOCATION AND ACREAGE DEDICATION PLAT



WELL LOCATION DESCRIPTION:
 Quintana Petroleum Kali Federal 1-12
 2135 FN & 1805 FW
 Section 12, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5876' grd. elev.
 Alternate: 2000' FN & 1700' FW, 5865' grd.

The above plat is true and correct to my knowledge and belief.

22 July 1987

REGISTERED LAND SURVEYOR
 No. 5705
Gerald Huddleston
 Gerald H. Huddleston, LS
 STATE OF UTAH

Quintana Petroleum Corp.
Well No. Kali Federal 1-12
Sec. 12, T. 37 S., R. 23 E.
San Juan County, Utah
Lease U-40356

CONDITIONS OF APPROVAL

Approval of this application 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.

Quintana Petroleum Corp., is the bonded entity on this application. Liability will remain with the bonded party named above until we are formally notified by letter of the new bonded entity in reference to this Application for Permit to Drill.

A. DRILLING PROGRAM

1. Operator will set 9-5/8" surface casing 100' into the Chinle at approximately 2212'.
2. Operator will pressure test 9-5/8" surface casing to at least 1000 psi before drilling out from casing shoe.
3. Operator will pressure test B.O.P.E. to at least 2100 psi before drilling out from 9-5/8" casing shoe.

B. THIRTEEN POINT SURFACE USE PLAN

1. Initial blading of the access road and location will be monitored by a BLM approved archaeologist.

082706

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-037-31335

NAME OF COMPANY: QUINTANA PETROLEUM CORP.

WELL NAME: KALI FEDERAL 1-12

SECTION SE NW 12 TOWNSHIP 37S RANGE 23E COUNTY SAN JUAN

DRILLING CONTRACTOR COLEMAN

RIG # 4

SPUDDED: DATE 8-24-87

TIME 12:45 AM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Bob Howell

TELEPHONE # 678-2278 ext. 103

DATE 8-²⁴24-87 SIGNED AS

BLOW OUT PREVENTION TEST

090407

NAME OF COMPANY: Quintana Petroleum Corp.

WELL NAME: Kali Fed 1-12

SECTION: SE NW 12 TOWNSHIP 37 S RANGE 23 E COUNTY: San Juan

DRILLING CONTRACTOR: Coleman

RIG # 4

BOP TEST: DATE: 8/27/87

TIME: 9:00

DRILLING: _____

CASING: _____

H₂S: _____

REPORTED BY: Bob Howell

TELEPHONE NO. 801-678-2278 ext 103

DATE: 8/27/87 SIGNED BS

BAKER SERVICE TOOLS

SAMPLER REPORT

Company Quintana Petroleum Corp. Date 9/7/87
Well Name & No. Kali Federal #1-12 Ticket No. 2755
County San Juan State Utah
Test Interval 6285' - 6368' DST No. 2

Pressure in Sampler: 1500 _____ psig
Total Volume of Sampler: 2100 _____ cc.
Total Volume of Sample: 1400 _____ cc.
Oil: 50 _____ cc.
Water: -- _____ cc.
Mud: 1350 (watery mud) _____ cc.
Gas: 6.1 _____ cu. ft.
Other: None _____

Sample R W: .06 @ 80°F - .04 @ Res Temp = 120,197 ppm NaCl., 73,068 ppm Cl.

Resistivity

Make Up Water _____ @ _____ °F of Chloride Content _____ ppm.
Mud Pit Sample _____ @ _____ °F of Chloride Content _____ ppm.
Gas/Oil Ratio _____ Gravity _____ °API @ _____ °F

Where was sample drained On location.

Remarks: _____

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

2
DST No.

RECORDER NO. 7661 DEPTH 6293 FT.

INITIAL FLOW

DT(MIN) PRESSURE(P SIG)

0	184.6
5	187.5
10	188.9
15	193.1
20	198.8
25	207.4
30	217.7

RECORDER NO. 7661 DEPTH 6293 FT.

FINAL FLOW

DT(MIN) PRESSURE(P SIG)

0	220.3
5	246.4
10	272.5
15	284.3
20	290.0
25	290.0
30	290.7
35	291.5
40	291.2
45	293.0
50	293.8
55	294.4

BAKER[®]

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

2
DST No.

RECORDER NO. 7661 DEPTH 6293 FT.

INITIAL SHUT-IN

INITIAL FLOW TIME: T = 30 MIN.

<u>DT(MIN)</u>	<u>LOG((T+DT)/DT)</u>	<u>PRESSURE(P SIG)</u>	<u>DP(P SIG)</u>
0		217.7	0.0
1	1.491	248.5	30.8
2	1.204	271.7	54.0
3	1.041	295.5	77.8
4	.929	326.0	108.3
5	.845	352.4	134.7
6	.778	380.6	162.9
7	.723	403.9	186.2
8	.677	431.3	213.6
9	.637	461.7	244.0
10	.602	493.5	275.8
12	.544	559.6	341.8
14	.497	634.0	416.3
16	.459	704.1	486.4
18	.426	775.0	557.3
20	.398	857.3	639.6
22	.374	938.4	720.7
24	.352	1010.9	793.2
26	.333	1100.1	882.4
28	.316	1213.0	995.3
30	.301	1325.1	1107.4
35	.269	1553.8	1336.1
40	.243	1773.1	1555.4
45	.222	1975.3	1757.6
50	.204	2158.2	1940.5
55	.189	2310.3	2092.6
60	.176	2424.2	2206.5
63	.169	2491.0	2273.3

EXTRAPOLATED PRESSURE: INDETERMINATE

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

2
DST No.

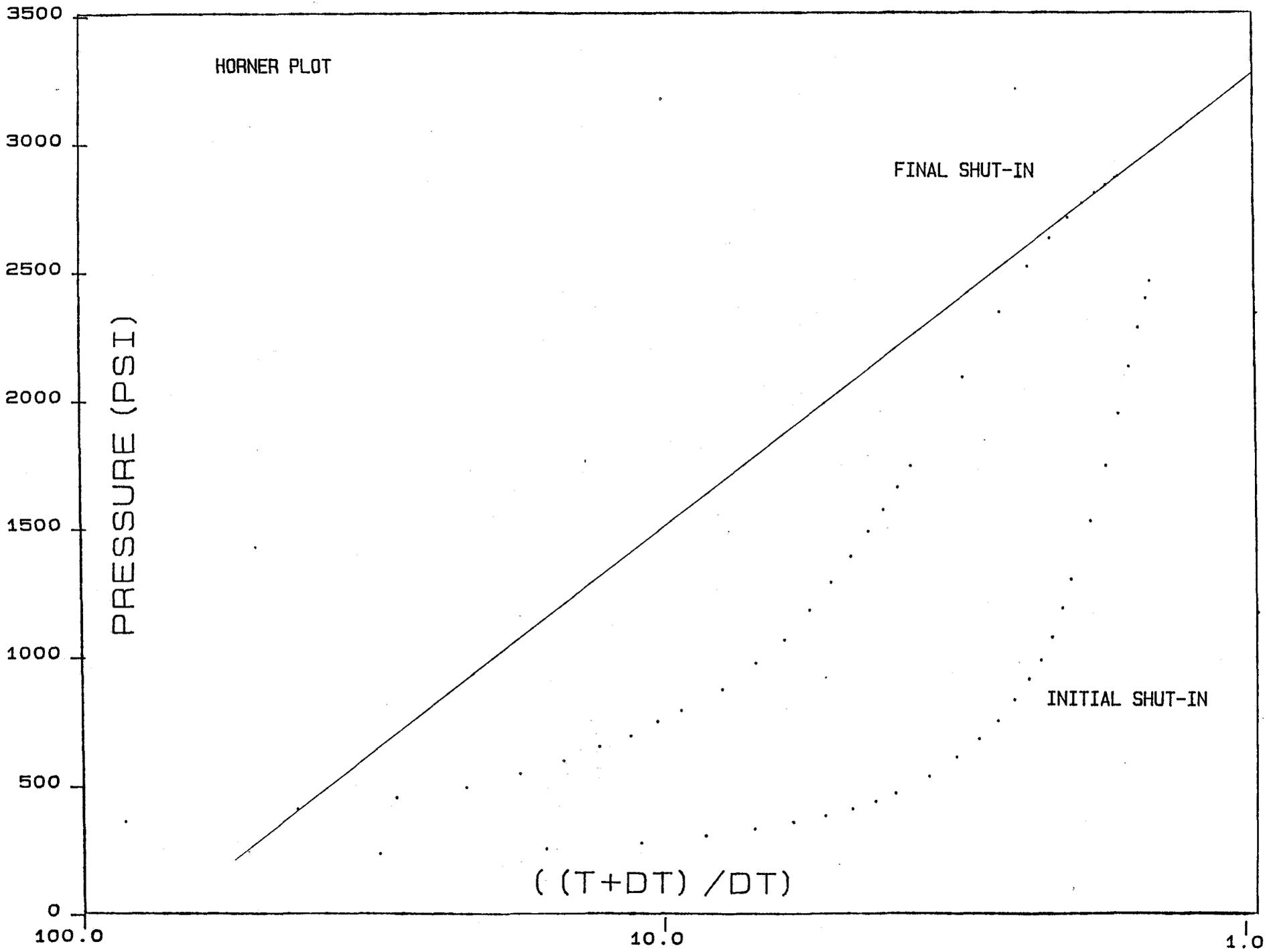
RECORDER NO. 7661 DEPTH 6293 FT.

FINAL SHUT-IN

TOTAL FLOW TIME: T = 85 MIN.

<u>DT(MIN)</u>	<u>LOG((T+DT)/DT)</u>	<u>PRESSURE(P SIG)</u>	<u>DP(P SIG)</u>
0		294.4	0.0
1	1.934	365.3	70.9
2	1.638	418.3	123.9
3	1.467	464.5	170.1
4	1.347	504.8	210.5
5	1.255	559.1	264.7
6	1.181	610.0	315.6
7	1.119	664.9	370.5
8	1.065	707.8	413.4
9	1.019	764.3	469.9
10	.978	807.1	512.7
12	.908	890.0	595.6
14	.850	991.5	697.1
16	.800	1082.6	788.2
18	.758	1197.5	903.2
20	.720	1306.8	1012.4
22	.687	1407.8	1113.4
24	.657	1505.5	1211.1
26	.630	1592.8	1298.4
28	.606	1681.1	1386.7
30	.584	1764.9	1470.5
40	.495	2111.2	1816.8
50	.431	2366.1	2071.8
60	.383	2543.8	2249.5
70	.345	2653.5	2359.1
80	.314	2732.7	2438.4
90	.289	2789.6	2495.2
100	.267	2831.3	2536.9
110	.249	2863.1	2568.7
120	.233	2891.0	2596.6
123	.228	2896.8	2602.4

EXTRAPOLATED PRESSURE: 3302.2 PSI
SLOPE: 1769.4 PSI/LOG CYCLE
POINTS USED: 5



1000.0

DELTA TIME VS DELTA PRESSURE
LOG/LOG PLOT

DELTA (T) (MIN)

100.0

10.0

FINAL SHUT-IN

INITIAL SHUT-IN

DELTA (P) (PSI)

1.0

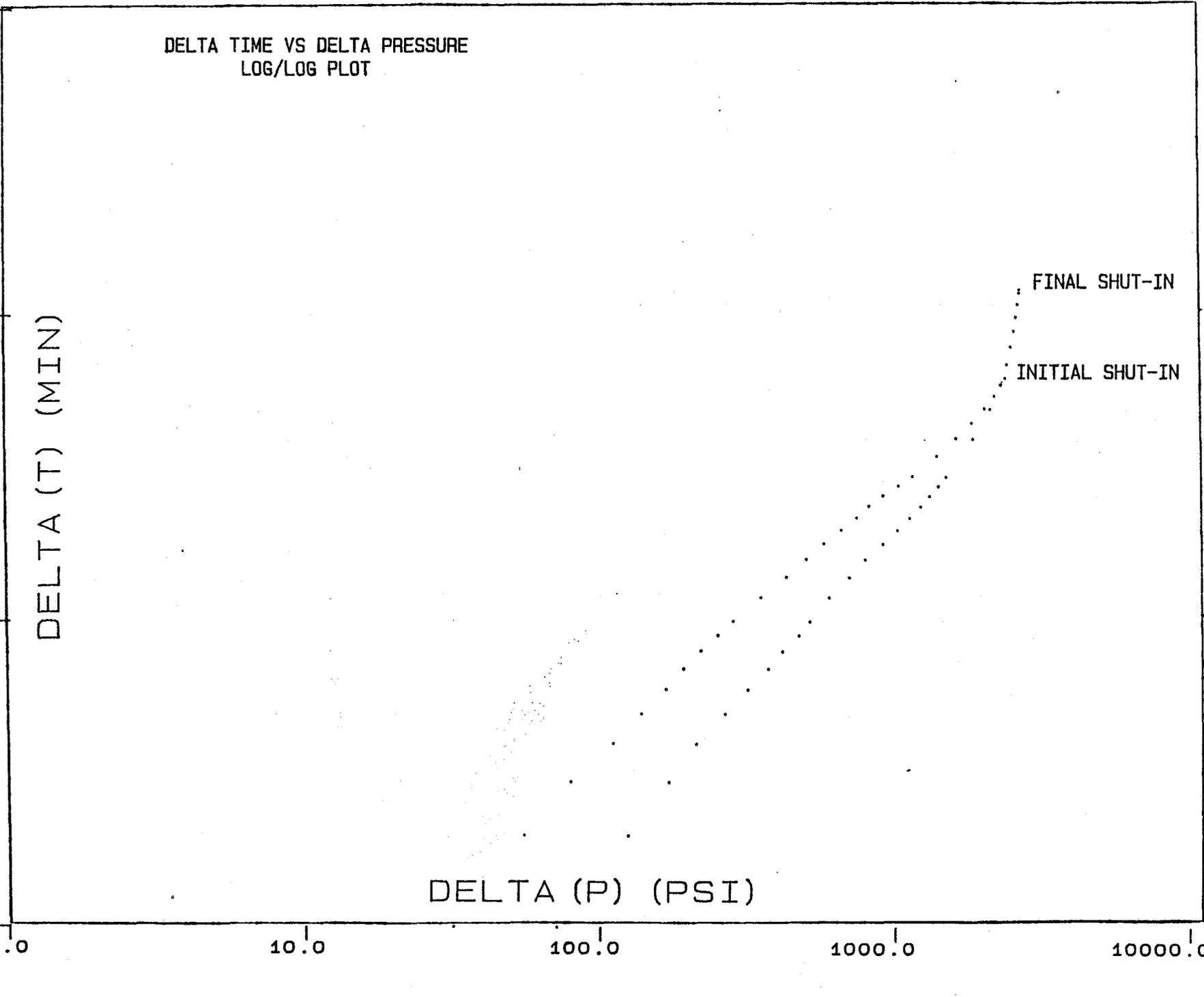
1.0

10.0

100.0

1000.0

10000.0



GAUGE NO. 7661 @ 6293 FT.
ANALOG CHART

4000.0

3200.0

2400.0

1600.0

800.0

0.0

PRESSURE (PSI)

A

B

C

E

D

F

G

K

TIME (MIN)

40.0

80.0

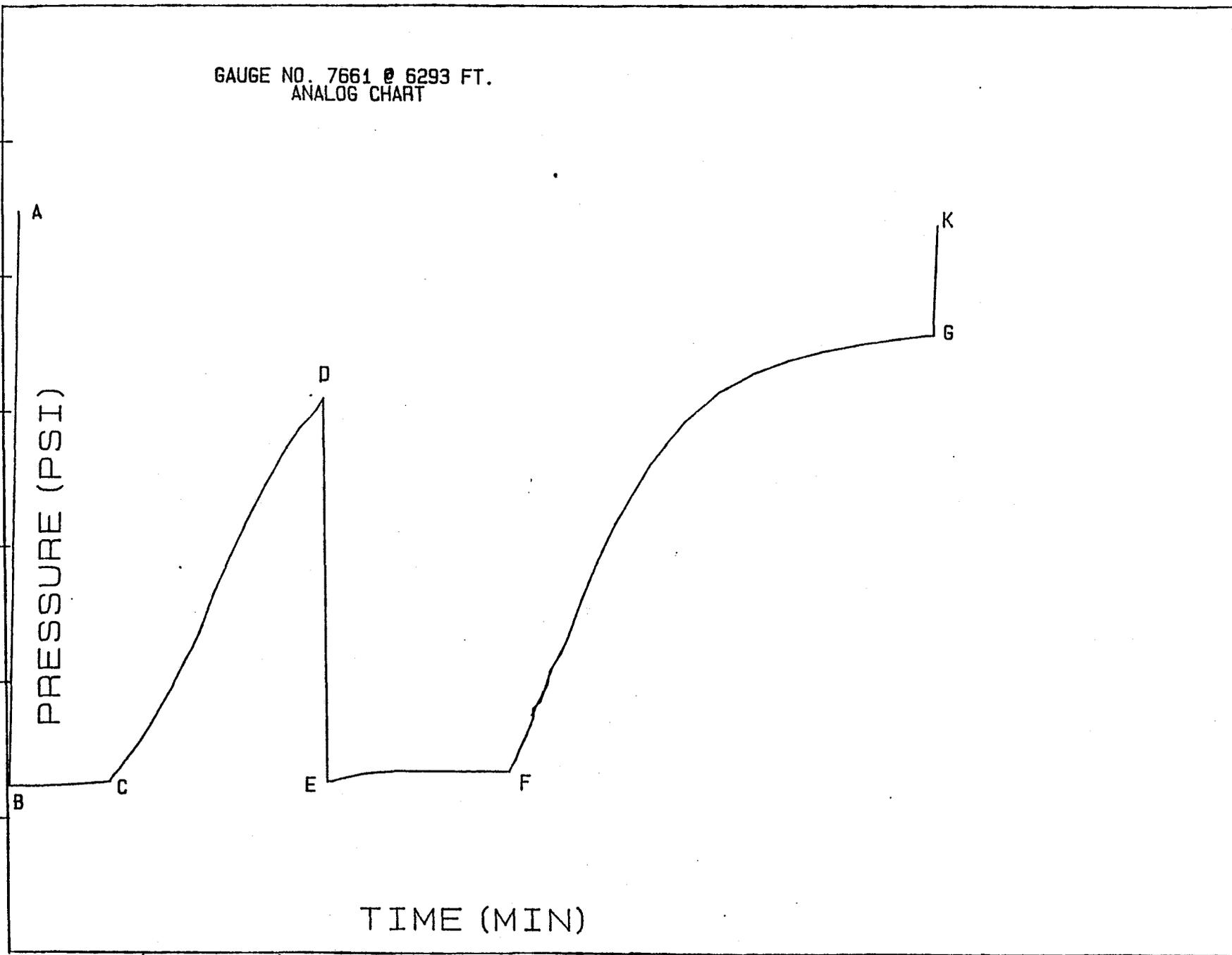
120.0

160.0

200.0

240.0

280.0



BAKER SERVICE TOOLS

DISTRIBUTION OF FINAL REPORTS

Quintana Petroleum Corp.

Operator

Kali Federal #1-12

Well Name and No.

QUINTANA PETROLEUM CORP. 2
ATTN OPERATIONS MGR.
P.O. BOX 3331
HOUSTON TX 77253

QUINTANA PETROLEUM CORP. 2
ATTN MR. JOHN WESSELS
1050-17TH ST. SUITE 400
DENVER CO 80265

STANDARD OIL PRODUCTION CO. 2
JOINT EXPL. PROGRAMS
P.O. BOX 4587
HOUSTON TX 77210

SANTA FE ENERGY CO. 2
ATTN MR. MIKE DILLI
1616 GLENAARM PL. SUITE 2600
DENVER CO 80202

YATES PETROLEUM CORP. 2
ATTN MR. STEVE SPEER
105 SO. 4TH ST.
ARTESIA NM 88210

CNG PRODUCING CO. 1
ATTN INLAND EXPL. DEPT.
CANAL PLACE ONE SUITE 3100
NEW ORLEANS LA 70130

GRYNBERG PETROLEUM CO. 1
ATTN OPERATIONS DEPT.
5000 SO. QUEBEC SUITE 500
DENVER CO 80237

SAMEDAN OIL CORP. 1
ATTN MR. DAVID LAMBERT
1616 GLENARM PL. SUITE 2550
DENVER CO 80202

CITIES SERVICE OIL & GAS CORP. 2
ATTN MS. JANE BARTON
3545 NW 58TH ST.
OKLAHOMA CITY OK 73112

DUNCAN EXPLORATION CO. 1
1777 S. HARRISON ST.
PENTHOUSE ONE
DENVER CO 80210

RE

QUINTANA PETROLEUM CORPORATION

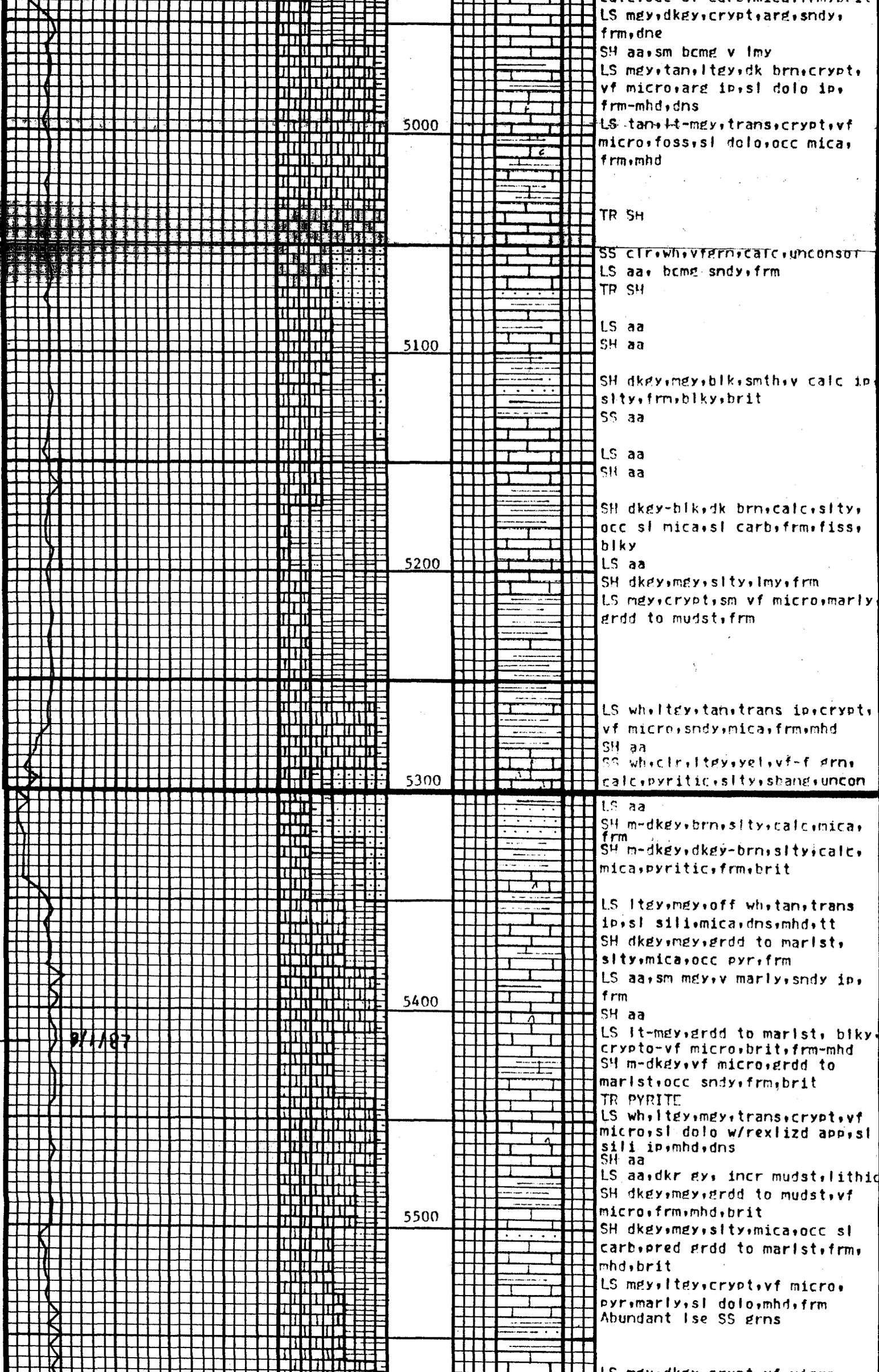
Kali Fed. 1-12
 Sec. 12 TWN 37S RGE 23 E
 San Juan Co. Utah

Geol. Doug Redmond
 P.O. Box 238
 Yampa, Co. 80483
 (303) 638-4610

KB 5891'
 GL 5876' TD 6360' DRLG

DRILLING RATE (MIN/FT)	% LITHOLOGY	DEPTH	POROSITY	INTER. GEOLOGY	OIL SHOW	GEOLOGICAL COMMENTS
			G.F.P.T.			
2.5 5 7.5 10		4600				SH ora-dkred,gr,smth,calc,silty,frm SLTST ora,calc,sndy,mica,frm TR COAL,SS SH dkred,ora,mgy,calc,silty,sft to frm,brit SLTST ora,red,calc-lmy,sndy,frm LS wh,red-pnk,mgy,crypt,arg,sft-frm SS wh,clr,rose,vf-mgrn,calc,glauc,sm sili,sl ark,ang,v fri,uncon
		4700				SH dk red brn,red,ora,calc,mica ip,silty,frm,brit SS wh,clr,ltex,f-mgrn,v lmy,sl ark,sbrdd,fri,frm,tt LS m-dkey,crypt-vfmic,sndy,arg,dns,frm SLTST brn,red,calc,sndy,frm SH red,ora,gy-brn,calc,silty,frm SS mgy,brn,clr,vr-mgrn,calc,sili ip,sl ark,fri,frm,tt LS mgy,ltex,dkey,crypt,vfmic,arg,sndy,dns,frm
		4800				SH dkred-brn,silty,calc,mica,blky,brit,frm LS lt-mgy,crypt,occ vfmic,sparry,lithic,dns,frm,mhd SH dkey,mgy,lmy,calc,mica,slilty,fiss,frm LS aa mgy,dkey-brn,arg,frm
		4900				SS ora,rose,clr,fgern,scat+uncon SLTST dkred-brn,calc,mica,sndy,grdding to sh ip,frm SS wh,ltex,yel,vfgrn,sili,sl calc,mod-w srtd,sbrdd,uncon+poorly cemnted,lse,NFSOC SH dk brn,dkey,smth to slty,

8/31/87



5000

LS mg,dk,crpt,arg,sn,frm,dne
 SH aa,sm bcmg v lmy
 LS mg,tan,ltg,dk brn,crpt,
 vf micro,arg ip,sl dolo ip,
 frm-mhd,dns
 LS tan,lt-mg,trans,crpt,vf
 micro,foss,sl dolo,occ mica,
 frm,mhd

TR SH

5100

SS clr,wh,vf,frn,calc,unconso
 LS aa, bcmg sn,frm
 TR SH

LS aa
 SH aa

SH dk,mg,blk,smth,v calc ip,
 slty,frm,blky,brit
 SS aa

LS aa
 SH aa

5200

SH dk,blk,dk brn,calc,slty,
 occ sl mica,sl carb,frm,fiss,
 blky

LS aa

SH dk,mg,slty,lmy,frm
 LS mg,crpt,sm vf micro,marly
 grdd to mudst,frm

5300

LS wh,ltg,tan,trans ip,crpt,
 vf micro,sn, mica,frm,mhd

SH aa

SS wh,cl,ltg,yel,vf-frn,
 calc,pyritic,slty,shang,uncon

5400

LS aa
 SH m-dk,brn,slty,calc,mica,
 frm
 SH m-dk,dk,brn,slty,calc,
 mica,pyritic,frm,brit

LS ltg,mg,off wh,tan,trans
 ip,sl sili,mica,dns,mhd,tt
 SH dk,mg,grdd to marlst,
 slty,mica,occ pyr,frm

LS aa,sm mg,v marly,sn,ip,
 frm

SH aa

LS lt-mg,grdd to marlst, blky,
 crpt-vf micro,brit,frm-mhd
 SH m-dk,vf micro,grdd to
 marlst,occ sn,frm,brit

TR PYRITE

LS wh,ltg,mg,trans,crpt,vf
 micro,sl dolo w/rexlizd app,sl
 sili ip,mhd,dns

SH aa

5500

LS aa,dkr ey, incr mudst,lithic
 SH dk,mg,grdd to mudst,vf
 micro,frm,mhd,brit

SH dk,mg,slty,mica,occ sl
 carb,ored grdd to marlst,frm,
 mhd,brit

LS mg,ltg,crpt,vf micro,
 pyr,marly,sl dolo,mhd,frm
 Abundant lse SS grns

9/1/87

8/1/87

5400

frm
SH aa
LS lt-mey,grdd to marlst, blk, crypto-vf micro, brit, frm-mhd
SH m-dkey, vf micro, grdd to marlst, occ sndy, frm, brit
TR PYRITE
LS wh, lty, mey, trans, crypt, vf micro, sl dolo w/rexlzd app, sl sili ip, mhd, dns
SH aa
LS aa, dkr ey, incr mudst, lithic
SH dkey, mey, grdd to mudst, vf micro, frm, mhd, brit
SH dkey, mey, slty, mica, occ sl carb, pred grdd to marlst, frm, mhd, brit
LS mey, lty, crypt, vf micro, pyrimarly, sl dolo, mhd, frm
Abundant lse SS grns

5500

LS mey, dkey, crypt, vf micro, marly, pyr, dns, frm, mhd
SH dkey, marly, mica, frm, mhd
LS wh, lty, tan, trans, crypt, occ vf micro, sili ip, chiky, occ foss, frm, mhd, dns
TR PYRITE, CHERT - clr, tan
SH dkey, marly, lithic, sndy, mica, dolo, frm, mhd, blk
LS mey-dkey, marly, dns, mhd
SH aa dkey, occ sl carb
SS clr, wh, vf-f grn, calc-sili, unconsol, NFSOC

5600

LS wh, tan, lty, crypt, vf micro, sl dolo, rexlzd, sm foss remnts vis, lithic, sm marly, sili ip, frm, mhd, dns

5700

SH dkey, dkey-brn, vf micro, marly, mica, lithic, brit, blk, mhd
LS mey-tan, crypt, marly, mhd, dns
SH dkey, blk, calc, slty, grdd to marlst ip, sl carb ip, mica, sl fiss, blk, frm

5800

LS aa
LS lty, mey, tan, crypt, occ vf micro, sl dolo, sili, dolo, chiky ip, dns, frm, mhd
LS tan, lty, mey, wh, crypt, vf micro, v sili, rexlzd, occ marly, dns, mhd, hd
SH m-dkey, brn, calc-marly, dolo, frm, mhd
LS tan, brn, lty, crypt, vf micro, occ foss, sili ip, lithic, thinly lam w/sh, dns, mhd, frm

5900

TR SH, CHERT - tan
SH dkey, dkey-brn, calc-marly, occ mica, blk, brit, frm
LS aa, incr brn, marly, v sili, hd
LS mey, tan, lty, crypt, vf micro, micritic ip, sm sili, dns, mhd, occ vhd
TR SH
SH m-dkey, marly, mhd
LS mey, lty, tan, crypt, occ vf micro, sl foss, sl arg ip, dns, mhd

6000

LS mey, dkey, occ lty, crypt, vf micro, arg-marly, frm, mhd, dns
SH dkey, mey-brn, slty, marly, sl mica, blk-pty, frm, mhd
LS aa, tan, sili, hd
SH blk, dkey, calc, slty, carb, blk, pty, brit, frm-mhd
Anhy wh, amor, sft

8/2/87

LS mey,ltay,crpt,vf micro
sl dolo,arg ip,occ anhy,sucr,
sl fri,frm,mhd,no vis D, tr dk
brn str, no fluo until hit w/
chlorothene, then fluo dull grn

ANHY wh,amor,sl calc,sft
LS mey,ltay,crpt,vf micro,f
micro,v anhy,arg,sm sucr app,
frm,mhd

6100

LS tan,mev,crpt,anhy,dns,mhd
ANHY wh,amor,sft
LS mey,crpt,vf micro,sl arg
app,anhy,mhd

9/4/87

SH blk,dkey,calc,slty,frm,brit
ANHY aa
LS mey,dkey, crpt,sm vf micro,
arg,marly,dns,mhd

6200

SH blk,slty,carb,calc,slty,
frm
LS mey,mbrn,crpt,sm vf micro,
arg,dne,mhd

ANHY wh,(rd frm stng),amor,sft
LS mey-brn,crpt,v anhy,dns,
frm,mhd

6300

LS m-dkey brn,crpt,arg,anhy
ip,sparry,dns,mhd
SH blk,slty,calc,carb,fiss,frm
DOLO mey-brn,crpt,vf micro,
ardd to ls,arg,dns,tt,frm,mhd

D
S
T
*
2

LS dkey-brn,dkey,mev,trans,
anhy,marly,sl dolo,mhd
ANHY aa

LS dkey,mev,crpt,vf micro,
anhy,dolo,marly,dns,mhd
DOLO mey-brn,vf micro,crpt,sm
earthy texture,sucr,v fri,frm,
no vis D, no fluo,scat tr w/
mod bri slo yel cut

9/5 to 9/7/87

DOLO mey-brn,vf micro,sucr,v
fri,sm earthy tex,frm,scat dk
stng,no vis cut,no fluo,scat
mod bri slo yel cut

SH blk,slty,calc,slty,frm
DOLO mey-brn,crpt,arg,erthy,
occ foss,frm,sft
SH blk,slty,calc,carb,pyr,fiss
frm

STATE ENGINEER'S ENDORSEMENT

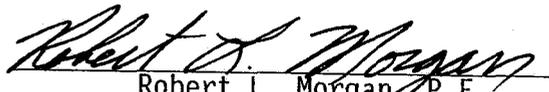
WATER RIGHT NUMBER: 09 - 1530

APPLICATION NO. T62743

1. August 7, 1987 Application received by MP.
 2. August 10, 1987 Application designated for APPROVAL by MP and SG.
 3. Comments:
-
-

Conditions:

This application is hereby APPROVED, dated September 4, 1987, subject to prior rights and this application will expire on September 4, 1988.


Robert L. Morgan, P.E.
State Engineer

092301
SEP 21 1987

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
3 TRIAD CENTER, SUITE 350
SALT LAKE CITY, UT 84180-1203

DIVISION OF OIL
GAS & MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Kali Federal 1-12 43-037-31335
Operator Quintave Pet. Corp. Address 1050 17th St. Suite 400 Denver, Colo
Contractor Coleman Drilling Co. Address Farmington New Mexico
Location SE 1/4 NW 1/4 Sec. 12 T. 37S R. 23E County Sand Juan

Water Sands

<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
From	To	Flow Rate or Head	Fresh or Salty
1.	<u>NONE ENCOUNTERED</u>		
2.	_____		
3.	_____		
4.	_____		
5.	_____		

(Continue on reverse side if necessary)

Formation Tops

Remarks

- NOTE: (a) Report on this form as provided for in Rule 806, Oil and Gas Conservation General Rules.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

QUINTANA PETROLEUM CORPORATION

1050 SEVENTEENTH STREET
SUITE 400
DENVER, COLORADO 80265
(303) 628-9211

December 23, 1987

BUREAU OF LAND MANAGEMENT
Moab District Office
P. O. Box 970
Moab, Utah 84532

RE: Kali Federal #1-12 - CONFIDENTIAL
Section 12, T37S-R23E
San Juan County, Utah

Gentlemen:

In accordance with BLM regulations, enclosed for your records please find copies of the following information on the subject well:

1. DST #1
2. DST #2
3. Geologist's Report
4. Mud Log & Report
5. Electric Logs
6. Well Completion Report
7. Oil & Gas Analysis

Very truly yours,



Jeannie Williams
Production Technician

/jw
enclosures
cc: State of Utah DOGM

RECEIVED
DEC 28 1987

DIVISION OF
OIL, GAS & MINING

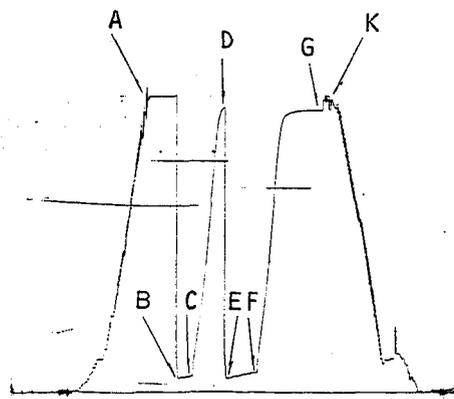
Contractor <u>Coleman Drilling</u>	Surface Choke <u>1/4"</u>
Rig No. <u>2</u>	Bottom Choke <u>3/4"</u>
Spot <u>--</u>	Hole Size <u>8 3/4"</u>
Sec. <u>12</u>	Core Hole Size <u>--</u>
Twp. <u>37 S</u>	DP Size & Wt. <u>4 1/2" 16.60</u>
Rng. <u>23 E</u>	Wt. Pipe <u>2 1/4" ID 180'</u>
Field <u>Wildcat</u>	I.D. of DC <u>2 1/4"</u>
County <u>San Juan</u>	Length of DC <u>680'</u>
State <u>Utah</u>	Total Depth <u>6055'</u>
Elevation <u>5890' KB</u>	Type Test <u>Conventional</u>
Formation <u>Ismay</u>	Interval <u>5980' - 6055'</u>

Mud Type <u>--</u>
Weight <u>9.9</u>
Viscosity <u>37</u>
Water Loss <u>--</u>
Filter Cake <u>--</u>
Resistivity <u>.4 @ 65 °F</u>
<u>16,675</u> Ppm. NaCl
B.H.T. <u>132 °F</u>
Co. Rep. <u>Bob Howell</u>
Tester <u>David Dolyniuk</u>
Baker Dist. <u>Farmington NM</u>

Operator QUINTANA PETROLEUM CORP.
 Ticket No. 2754
 Date 9/3/87
 "TIGHT HOLE"
 Well Name & No. KALI FEDERAL #1-12
 Location S-12 T-37S R-23E
 County, State SAN JUAN COUNTY, UT
 DST No. 1
 Interval 5980' - 6055'
 Formation ISMAY

CONFIDENTIAL

	REPORTED	CORRECTED
Opened Tool @	<u>09:55</u>	hrs.
Flow No. 1	<u>30</u>	<u>27</u> min.
Shut-In No. 1	<u>60</u>	<u>60</u> min.
Flow No. 2	<u>60</u>	<u>57</u> min.
Shut-In No. 2	<u>120</u>	<u>122</u> min.
Flow No. 3	<u>None Taken</u>	min.
Shut-In No. 3	<u>"</u>	<u>"</u> min.



RECORDED
 DEC 28 1987
 DIVISION OF
 OIL, GAS & MINING

Recorder Type <u>Kuster K-3</u>
No. <u>7661</u> Cap. <u>4900</u> psi
Depth <u>5995</u> feet
Inside <u>X</u> Clock
Outside Range <u>24</u> hrs.

Initial Hydrostatic	A	<u>3137.4</u>
Final Hydrostatic	K	<u>3135.7</u>
Initial Flow	B	<u>153.8</u>
Final Initial Flow	C	<u>179.4</u>
Initial Shut-In	D	<u>3015.6</u>
Second Initial Flow	E	<u>150.1</u>
Second Final Flow	F	<u>212.8</u>
Second Shut-In	G	<u>2989.6</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	

Pipe Recovery: Reverse Circulated:
 600' Oil = 2.94 bbl.
 Gravity: 44.5° API @ 60° F

1st Flow: Tool opened with a strong blow, increased to bottom of bucket in 1 minute, 16.0 psi in 2 minutes, 20.0 psi in 3 minutes, 30.0 psi in 5 minutes, 35.0 psi in 10 minutes, 42.0 psi in 15 minutes, 46.0 psi at end of flow period with gas to surface. After shut-in flared gas.

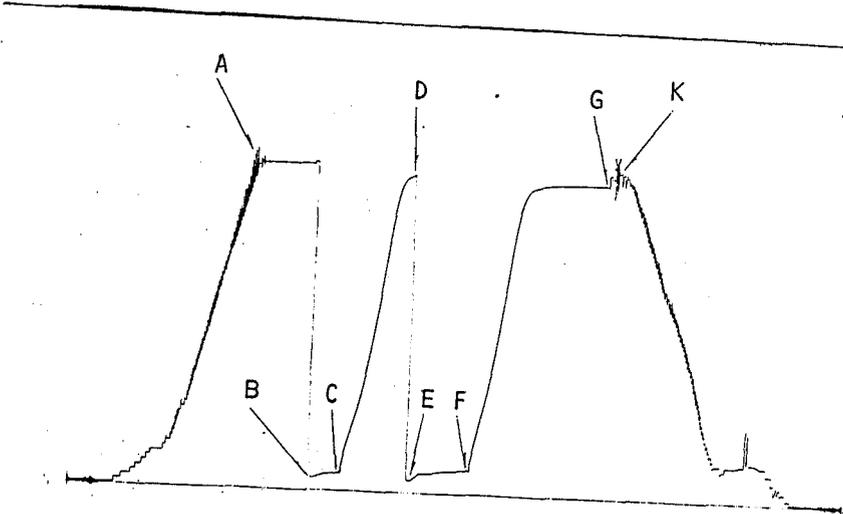
2nd Flow: Tool opened with gas to surface; see gas volume report.

BAKER SERVICE TOOLS

Quintana Petroleum Corp.
Operator

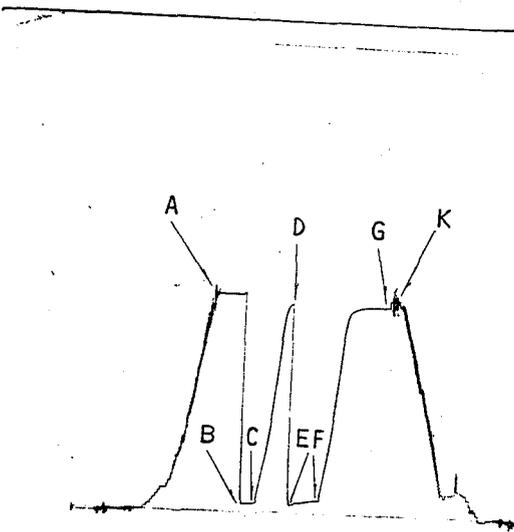
Kali Federal #1-12
Well Name and No.

1
DST No.



Recorder Type Kuster K-3
No. 24645 Cap. 4450 psi
Depth 5955 feet
Inside X Clock
Outside Range 12 hrs

Initial Hydrostatic	A	<u>3106.9</u>
Final Hydrostatic	K	<u>3104.8</u>
Initial Flow	B	<u>114.6</u>
Final Initial Flow	C	<u>169.9</u>
Initial Shut-In	D	<u>3023.7</u>
Second Initial Flow	E	<u>117.9</u>
Second Final Flow	F	<u>227.8</u>
Second Shut-In	G	<u>2988.7</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	



Recorder Type Kuster K-3
No. 24519 Cap. 6650 psi
Depth 6050 feet
Inside Clock
Outside X Range 24 hrs

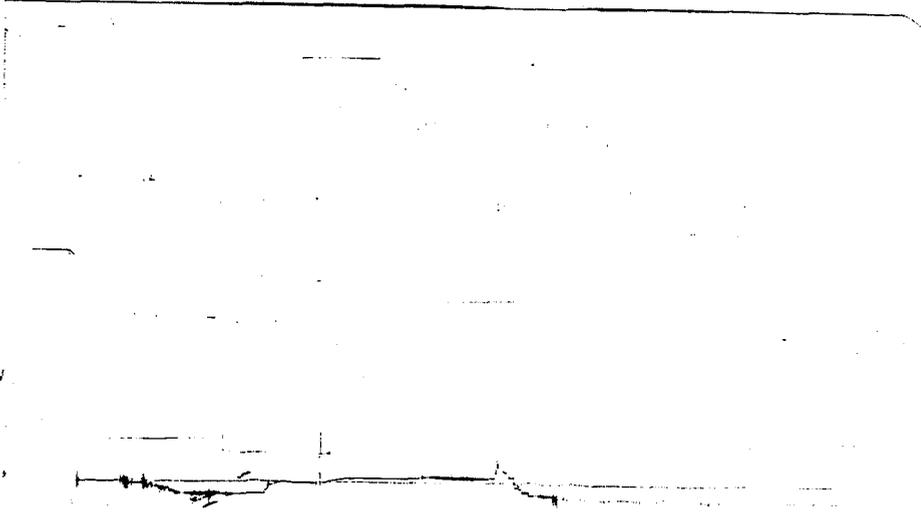
Initial Hydrostatic	A	<u>3144.1</u>
Final Hydrostatic	K	<u>3143.2</u>
Initial Flow	B	<u>149.9</u>
Final Initial Flow	C	<u>172.6</u>
Initial Shut-In	D	<u>3020.8</u>
Second Initial Flow	E	<u>149.5</u>
Second Final Flow	F	<u>221.1</u>
Second Shut-In	G	<u>3003.4</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	

BAKER SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

1
DST No.



Recorder Type Kuster K-3
No. _____ Cap. 6650 psi
Depth Above Tool feet
Inside _____ Clock _____
Outside _____ Range _____ hrs.

Initial Hydrostatic A _____
Final Hydrostatic K _____
Initial Flow B _____
Final Initial Flow C _____
Initial Shut-In D _____
Second Initial Flow E _____
Second Final Flow F _____
Second Shut-In G _____
Third Initial Flow H _____
Third Final Flow I _____
Third Shut-In J _____

This pressure chart was run above the tool and indicates no leaks in string above tool

Recorder Type _____
No. _____ Cap. _____ psi
Depth _____ feet
Inside _____ Clock _____
Outside _____ Range _____ hrs.

Initial Hydrostatic A _____
Final Hydrostatic K _____
Initial Flow B _____
Final Initial Flow C _____
Initial Shut-In D _____
Second Initial Flow E _____
Second Final Flow F _____
Second Shut-In G _____
Third Initial Flow H _____
Third Final Flow I _____
Third Shut-In J _____

BAKER SERVICE TOOLS

SAMPLER REPORT

Company Quintana Petroleum Corp. Date 9/3/87
Well Name & No. Kali Federal #1-12 Ticket No. 2754
County San Juan State Utah
Test Interval 5980' - 6055' DST No. 1

Pressure in Sampler: 200 psig
Total Volume of Sampler: 2100 cc.
Total Volume of Sample: 1900 cc.
Oil: 1400 cc.
Water: None cc.
Mud: 500 cc.
Gas: 1.1 cu. ft.
Other: None

Resistivity

Make Up Water _____ @ _____ °F of Chloride Content Fresh ppm.
Mud Pit Sample .4 @ 65 °F of Chloride Content 16,675 ppm.
Gas/Oil Ratio 125.7/1 cu.ft./bbl. Gravity 44.5 °API @ 60 °F

Where was sample drained On Location.

Remarks: _____

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

1
DST No.

This pressure chart analysis has been made on the basis of the liquid recovery and equations applicable to liquid recovery tests, the Horner extrapolation method and fluid properties from Vasquez & Beggs correlations.

1. The pressure extrapolation plot indicates steady-state conditions were not attained during the initial shut-in period. It is therefore, impossible to determine a reliable extrapolated initial shut-in pressure. The pressure extrapolation plot indicates a maximum final reservoir pressure of 3026 psi which is equivalent to a subsurface pressure gradient of 0.50 psi/ft at the recorder depth of 5995 feet.
2. The Average Production Rate which was used in this analysis, 24.6 barrels/day, has been calculated from analysis of the flow pressure curves using a liquid gradient for the recovered oil of 0.348 psi/ft.
3. The calculated Total Effective Transmissibility of 25.64 md.-ft./cp. indicates an Average Permeability to the produced oil of 1.07 md. for the estimated 10 feet of effective porosity within the total 75 feet of tested interval.
4. The calculated Skin Factor of 16.6 indicates significant well-bore damage was present at the time of this formation test. The calculated Damage Ratio of 3.3 implies the production rate would have been 3.3 times that which occurred, or 81.2 BPD, if formation damage had not been present.
5. The evaluation criteria used in the drillstem test analysis system indicate this is a good mechanical test and the results obtained in this analysis should be reliable within reasonable limits relative to the assumptions which have been made.

BAKER SERVICE TOOLS

Quintana Petroleum Corp.

Operator

Kali Federal #1-12

Well Name and No.

1

DST No

T E S T P A R A M E T E R S

DRILLPIPE CAPACITY	0.0142 BBL/FT	HOLE SIZE	8.750 IN
DRILLCOLLAR CAPACITY	0.0049 BBL/FT	PAY THICKNESS	10 FT (EST)
DRILLCOLLAR LENGTH	680 FT	VISCOSITY	.42 CP
BOTTOM HOLE TEMP	132 DEG F	COMPRESSIBILITY	.000083 1/PSI
POROSITY FRACTION	.15 (EST)	1ST FLOW TIME	27 MIN
RECORDER NUMBER	7661	1ST SHUT-IN TIME	60 MIN
RECORDER DEPTH	5995 FT	2ND FLOW TIME	57 MIN
ELEVATION	5890 FT (KB)	2ND SHUT-IN TIME	122 MIN
DATUM	-105 FT		

C A L C U L A T I O N S

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI)	INDETERMINATE
NUMBER OF POINTS USED	
SLOPE (PSI/LOG CYCLE)	
EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI)	3025.9
NUMBER OF POINTS USED	7
SLOPE (PSI/LOG CYCLE)	156.0
AVERAGE PRODUCTION RATE (BARRELS/DAY)	24.6
TRANSMISSIBILITY (MD.-FT./CP.)	25.64
FLOW CAPACITY (MD.-FT.)	10.72
PERMEABILITY (MD.)	1.07
PRODUCTIVITY INDEX (BARRELS/DAY/PSI)009
DAMAGE RATIO	3.3
SKIN FACTOR (S)	16.6
PRESSURE DROP DUE TO SKIN (PSI)	3360.4
APPROXIMATE RADIUS OF INVESTIGATION (FT.)	15.6
DRAWDOWN FACTOR (%)	N/C
POTENTIOMETRIC SURFACE (FT.)	6945.3

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

1
DST No.

RSI-SCF/STB 932.86
GAS GRAVITY(AIR=1)65
RES TEMP-F 132.00
OIL GRAVITY 44.50
BUBBLE POINT PRESSURE .. 3025.90

OIL PROPERTIES

<u>PRESSURE-PSIA</u>	<u>BO-RB/STB</u>	<u>RS-SCF/STB</u>	<u>UO-CP</u>	<u>CO-1/PSI</u>
200.0	1.0718	37.1	1.55	0.000000
400.0	1.0942	84.5	1.27	.001433
600.0	1.1190	136.7	1.08	.000966
800.0	1.1453	192.3	.94	.000706
1000.0	1.1729	250.6	.83	.000539
1200.0	1.2016	311.2	.75	.000424
1400.0	1.2312	373.7	.69	.000340
1600.0	1.2616	437.9	.63	.000277
1800.0	1.2927	503.6	.59	.000228
2000.0	1.3245	570.6	.55	.000189
2200.0	1.3568	639.0	.52	.000159
2400.0	1.3898	708.5	.49	.000134
2600.0	1.4232	779.1	.46	.000114
2800.0	1.4571	850.8	.44	.000098
3000.0	1.4915	923.4	.42	.000084
3025.9	1.4960	932.9	.42	.000083
3200.0	1.4917	932.9	.42	.000017
3400.0	1.4873	932.9	.43	.000016

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

1
DST No.

RECORDER NO. 7661 DEPTH 5995 FT.

INITIAL FLOW

<u>DT(MIN)</u>	<u>PRESSURE(P SIG)</u>
0	153.8
5	160.4
10	163.4
15	169.3
20	174.2
25	177.8
27	179.4

RECORDER NO. 7661 DEPTH 5995 FT.

FINAL FLOW

<u>DT(MIN)</u>	<u>PRESSURE(P SIG)</u>
0	150.1
5	150.9
10	160.9
15	170.0
20	174.0
25	179.1
30	187.9
35	193.4
40	198.3
45	205.9
50	212.0
55	211.7
57	212.8

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

1
DST No.

RECORDER NO. 7661 DEPTH 5995 FT.

INITIAL SHUT-IN

INITIAL FLOW TIME: T = 27 MIN.

<u>DT(MIN)</u>	<u>LOG((T+DT)/DT)</u>	<u>PRESSURE(PSIG)</u>	<u>DP(PSIG)</u>
0		179.4	0.0
1	1.447	283.1	103.7
2	1.161	330.2	150.8
3	1.000	380.4	201.0
4	.889	421.7	242.3
5	.806	462.7	283.3
6	.740	507.0	327.6
7	.686	539.8	360.4
8	.641	585.5	406.1
9	.602	624.1	444.7
10	.568	656.2	476.8
12	.512	734.6	555.2
14	.467	810.3	630.9
16	.429	894.9	715.5
18	.398	994.3	814.9
20	.371	1098.0	918.6
22	.348	1195.3	1015.9
24	.327	1321.2	1141.8
26	.309	1434.3	1254.9
28	.293	1556.6	1377.2
30	.279	1701.7	1522.3
35	.248	2031.8	1852.4
40	.224	2378.5	2199.1
45	.204	2710.5	2531.1
50	.188	2913.8	2734.4
55	.173	2991.7	2812.3
60	.161	3015.6	2836.2

EXTRAPOLATED PRESSURE: INDETERMINATE

BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

1
DST No.

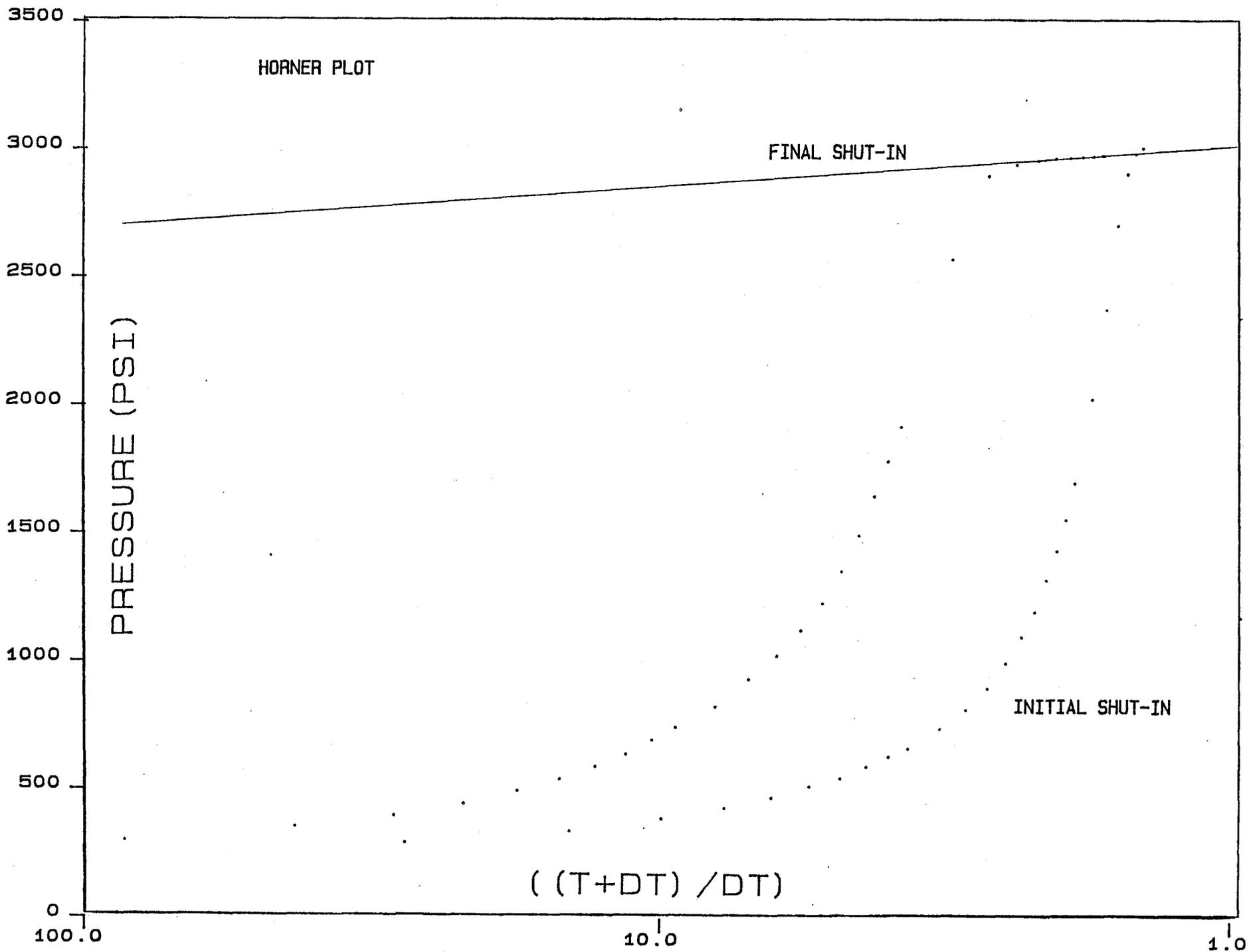
RECORDER NO. 7661 DEPTH. 5995 FT.

FINAL SHUT-IN

TOTAL FLOW TIME: T = 84 MIN.

<u>DT(MIN)</u>	<u>LOG((T+DT)/DT)</u>	<u>PRESSURE(P SIG)</u>	<u>DP(P SIG)</u>
0		212.8	0.0
1	1.929	300.0	87.1
2	1.633	357.6	144.7
3	1.462	402.2	189.3
4	1.342	448.1	235.3
5	1.250	498.8	285.9
6	1.176	545.4	332.6
7	1.114	594.3	381.5
8	1.061	643.8	430.9
9	1.014	698.7	485.8
10	.973	747.4	534.6
12	.903	829.2	616.3
14	.845	937.2	724.4
16	.796	1029.4	816.5
18	.753	1129.7	916.9
20	.716	1235.2	1022.3
22	.683	1360.6	1147.8
24	.653	1500.7	1287.9
26	.626	1655.3	1442.5
28	.602	1792.0	1579.2
30	.580	1927.1	1714.2
40	.491	2580.8	2368.0
50	.428	2910.4	2697.5
60	.380	2952.3	2739.5
70	.342	2970.7	2757.9
80	.312	2978.4	2765.6
90	.286	2982.4	2769.6
100	.265	2985.4	2772.6
110	.246	2987.4	2774.5
120	.230	2989.3	2776.5
122	.228	2989.6	2776.8

EXTRAPOLATED PRESSURE: 3025.9 PSI
SLOPE: 156.0 PSI/LOG CYCLE
POINTS USED: 7



1000.0

DELTA TIME VS DELTA PRESSURE
LOG/LOG PLOT

DELTA (T) (MIN)

100.0

FINAL SHUT-IN

INITIAL
SHUT-IN

10.0

DELTA (P) (PSI)

1.0

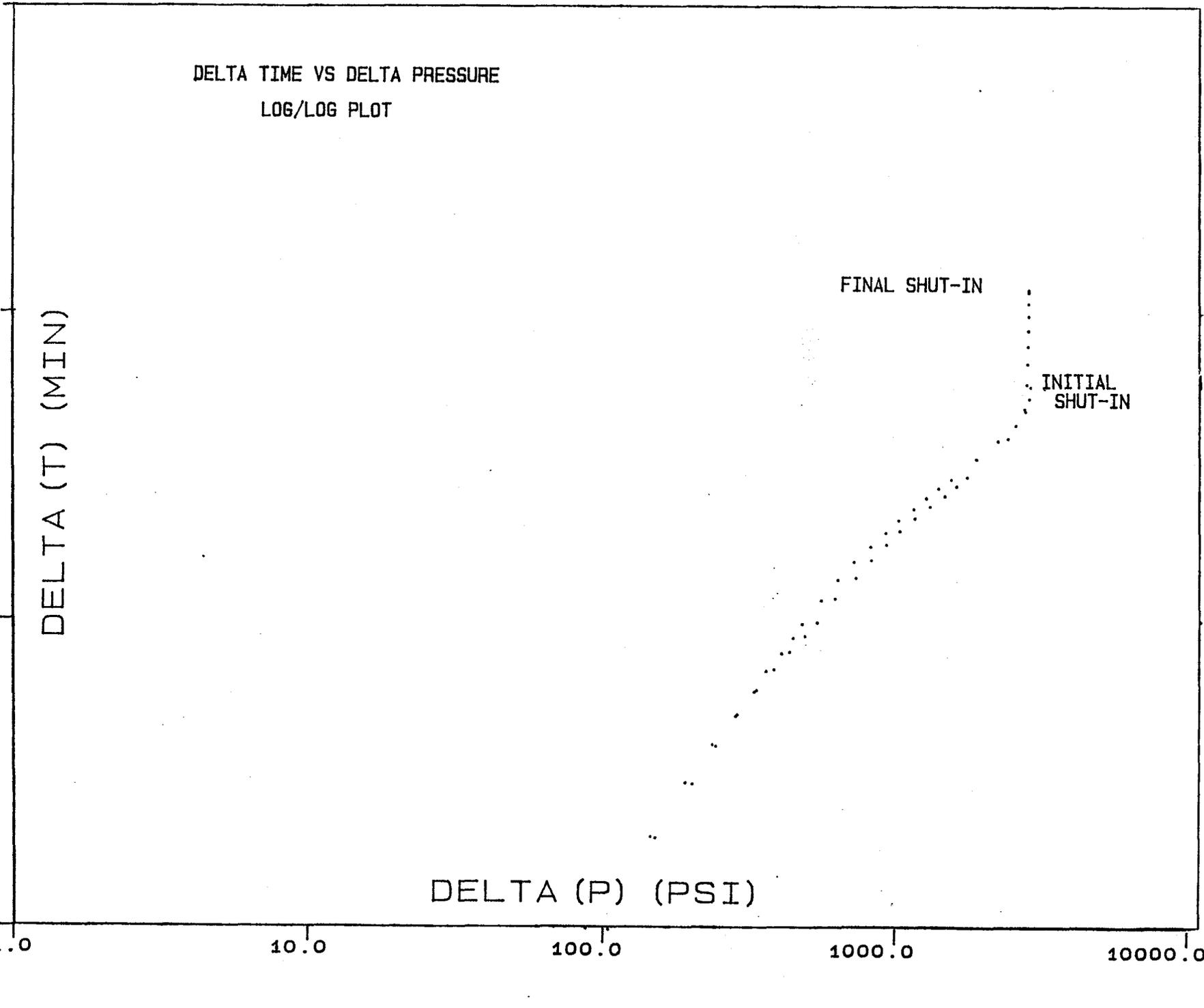
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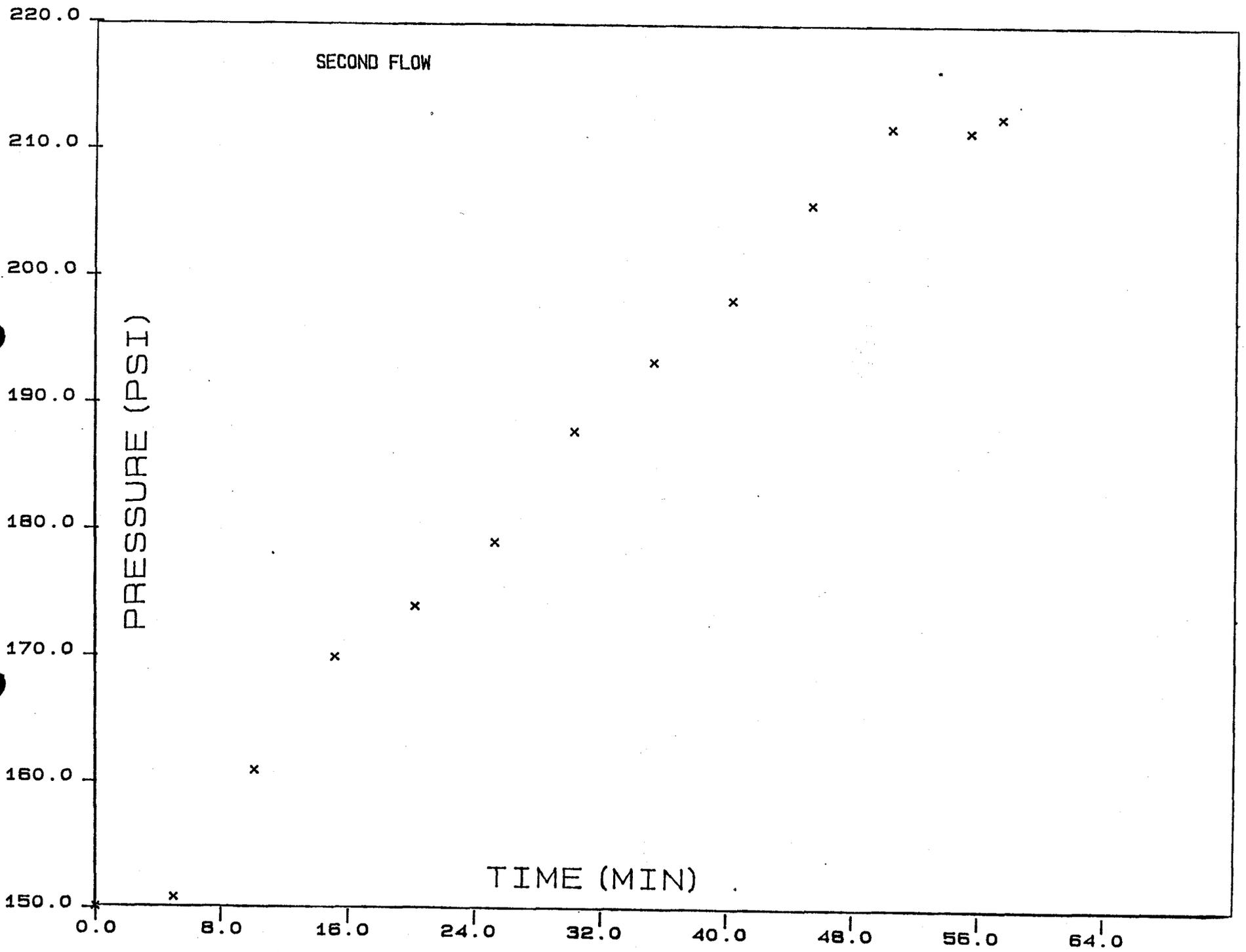
10.0

100.0

1000.0

10000.0

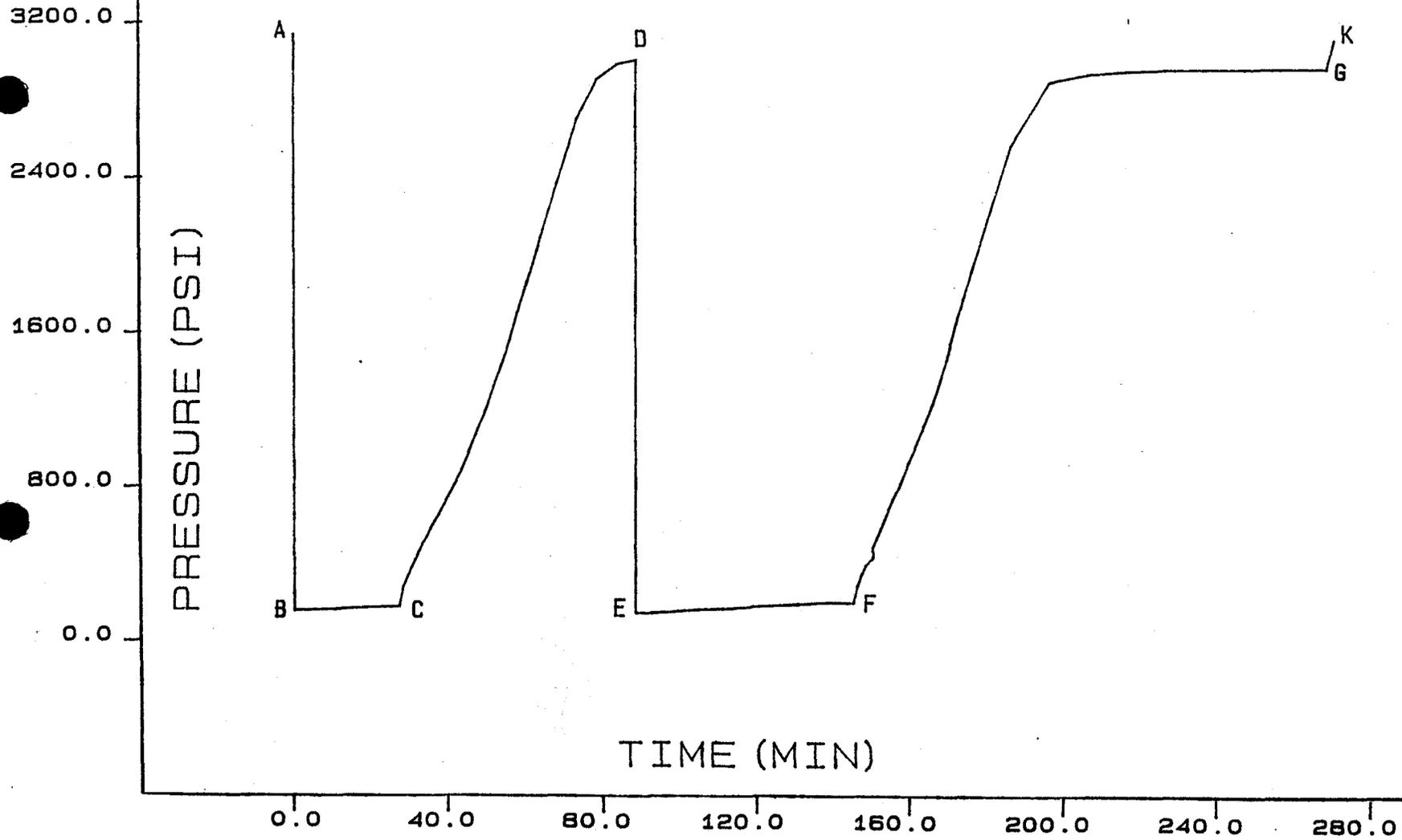




GAUGE NO. 7661 @ 5995 FT.
ANALOG CHART

PRESSURE (PSI)

TIME (MIN)



BAKER SERVICE TOOLS

DISTRIBUTION OF FINAL REPORTS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

QUINTANA PETROLEUM CORP. 2
ATTN OPERATIONS MGR.
P.O. BOX 3331
HOUSTON TX 77253

QUINTANA PETROLEUM CORP. 2
ATTN MR. JOHN WESSELS
1050-17TH ST. SUITE 400
DENVER CO 80265

STANDARD OIL PRODUCTION CO. 2
JOINT EXPL. PROGRAMS
P.O. BOX 4587
HOUSTON TX 77210

SANTA FE ENERGY CO. 2
ATTN MR. MIKE DILLI
1616 GLENAARM PL. SUITE 2600
DENVER CO 80202

YATES PETROLEUM CORP. 2
ATTN MR. STEVE SPEER
105 SO. 4TH ST.
ARTESIA NM 88210

CNG PRODUCING CO. 1
ATTN INLAND EXPL. DEPT.
CANAL PLACE ONE SUITE 3100
NEW ORLEANS LA 70130

GRYNBERG PETROLEUM CO. 1
ATTN OPERATIONS DEPT.
5000 SO. QUEBEC SUITE 500
DENVER CO 80237

SAMEDAN OIL CORP. 1
ATTN MR. DAVID LAMBERT
1616 GLENARM PL. SUITE 2550
DENVER CO 80202

CITIES SERVICE OIL & GAS CORP. 2
ATTN MS. JANE BARTON
3545 NW 58TH ST.
OKLAHOMA CITY OK 73112

DUNCAN EXPLORATION CO. 1
1777 S. HARRISON ST.
PENTHOUSE ONE
DENVER CO 80210

Contractor <u>Coleman Drilling</u>	Surface Choke <u>1/4"</u>	Mud Type <u>--</u>
Rig No. <u>2</u>	Bottom Choke <u>3/4"</u>	Weight <u>9.9</u>
Spot <u>--</u>	Hole Size <u>8 3/4"</u>	Viscosity <u>--</u>
Sec. <u>12</u>	Core Hole Size <u>--</u>	Water Loss <u>--</u>
Twp. <u>37 S</u>	DP Size & Wt. <u>4 1/2" 16.60</u>	Filter Cake <u>--</u>
Rng. <u>23 E</u>	Wt. Pipe <u>2 1/4" ID 180'</u>	Resistivity <u>-- @ -- °F</u>
Field <u>Wildcat</u>	I.D. of DC <u>2 1/4"</u>	<u>-- Ppm. NaCl</u>
County <u>San Juan</u>	Length of DC <u>680'</u>	B.H.T. <u>134 °F</u>
State <u>Utah</u>	Total Depth <u>6368'</u>	Co. Rep. <u>Bob Howell</u>
Elevation <u>5890' KB</u>	Type Test <u>Conventional</u>	Tester <u>Hector DeLeon</u>
Formation <u>Desert Creek</u>	Interval <u>6285' - 6368'</u>	Baker Dist. <u>Farmington NM</u>

Operator QUINIANA PERKOLLEUM CORP.
 Ticket No. 2755
 Date 9/7/87
 "TIGHT HOLE"
 Well Name & No. KALI FEDERAL #1-12
 Location S-12 T-37S R-23E
 County, State SAN JUAN COUNTY, UT
 DST No. 2
 Interval 6285' - 6368'
 Formation DESERT CREEK

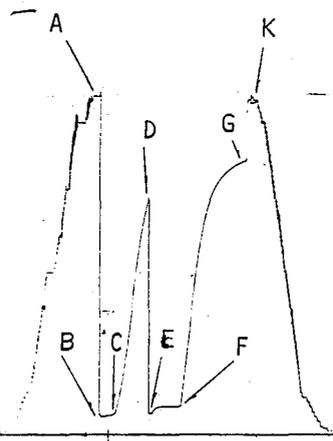
CONFIDENTIAL

	REPORTED	CORRECTED
Opened Tool @	<u>06:30</u>	<u>06:30</u>
Flow No. 1	<u>30</u>	<u>30</u>
Shut-In No. 1	<u>60</u>	<u>63</u>
Flow No. 2	<u>60</u>	<u>55</u>
Shut-In No. 2	<u>120</u>	<u>123</u>
Flow No. 3	<u>None Taken</u>	<u>None Taken</u>
Shut-In No. 3	<u>"</u>	<u>"</u>

Recorder Type Kuster K-3
 No. 7661 Cap. 4900 psi
 Depth 6293 feet
 Inside X Clock
 Outside Range 24 hrs.

Initial Hydrostatic	A	<u>3582.6</u>
Final Hydrostatic	K	<u>3537.4</u>
Initial Flow	B	<u>184.6</u>
Final Initial Flow	C	<u>217.7</u>
Initial Shut-In	D	<u>2491.0</u>
Second Initial Flow	E	<u>220.3</u>
Second Final Flow	F	<u>294.4</u>
Second Shut-In	G	<u>2896.8</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	

RECORDED
 DEC 28 1987
 DIVISION OF
 OIL, GAS & MINING



Pipe Recovery: 740' Total fluid = 3.62 bbl., consisting of:
 560' Gas cut mud = 2.74 bbl.
 180' Gas cut, water cut mud = 0.88 bbl.

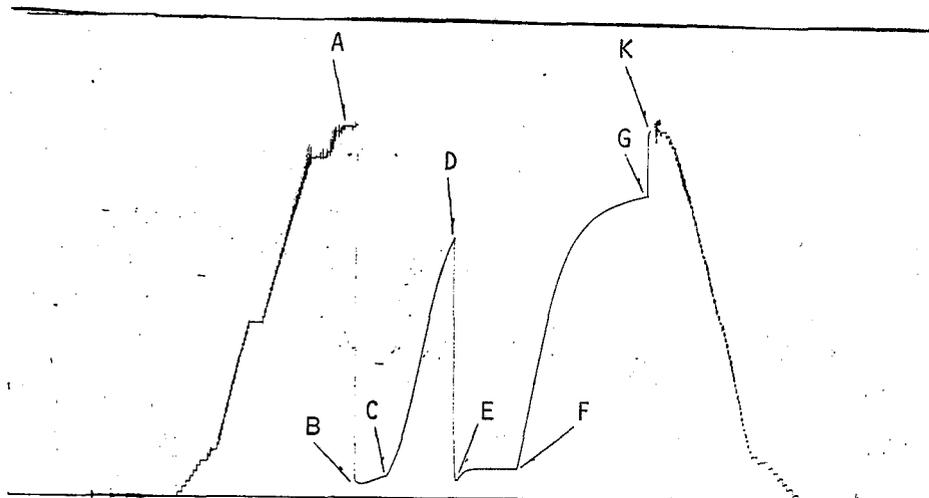
Resistivity:
 Top: .20 @ 78° F - .12 @ Res Temp = 29,729 ppm NaCl., 18,072 ppm Cl.
 Middle: .08 @ 78° F - .05 @ Res Temp = 86,111 ppm NaCl., 52,347 ppm Cl.
 Bottom: .07 @ 78° F - .04 @ Res Temp = 101,680 ppm NaCl., 61,812 ppm Cl.

BAKER SERVICE TOOLS

Quintana Petroleum Corp.
Operator

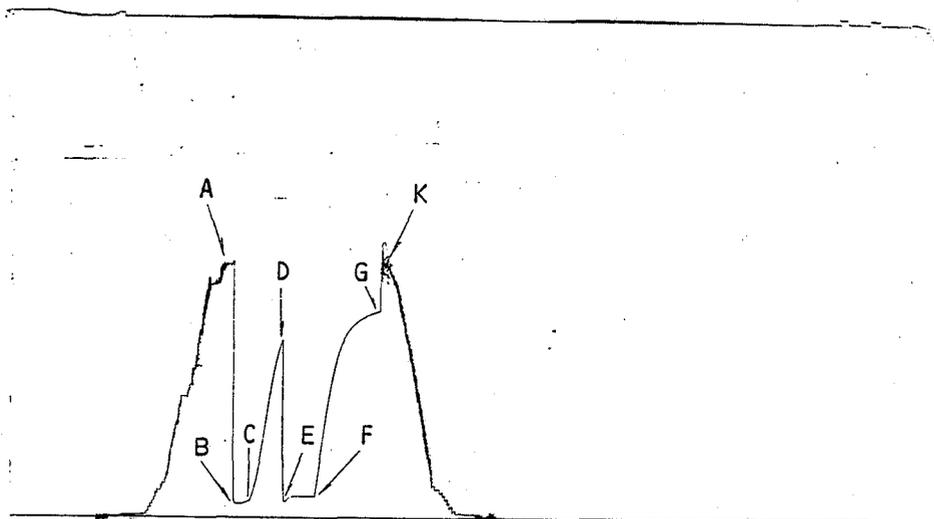
Kali Federal #1-12
Well Name and No.

2
DST No.



Recorder Type Kuster K-3
No. 24645 Cap. 4450 ps
Depth 6257 feet
Inside Clock
Outside Range 12 hrs

Initial Hydrostatic	A	<u>3554.4</u>
Final Hydrostatic	K	<u>3513.6</u>
Initial Flow	B	<u>134.3</u>
Final Initial Flow	C	<u>211.7</u>
Initial Shut-In	D	<u>2486.6</u>
Second Initial Flow	E	<u>177.7</u>
Second Final Flow	F	<u>283.9</u>
Second Shut-In	G	<u>2907.5</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	



Recorder Type Kuster K-3
No. 24519 Cap. 6650 ps
Depth 6363 feet
Inside
Outside Clock
Range 24 hrs

Initial Hydrostatic	A	<u>3583.7</u>
Final Hydrostatic	K	<u>3526.4</u>
Initial Flow	B	<u>176.7</u>
Final Initial Flow	C	<u>223.5</u>
Initial Shut-In	D	<u>2498.5</u>
Second Initial Flow	E	<u>224.7</u>
Second Final Flow	F	<u>290.1</u>
Second Shut-In	G	<u>2920.0</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	

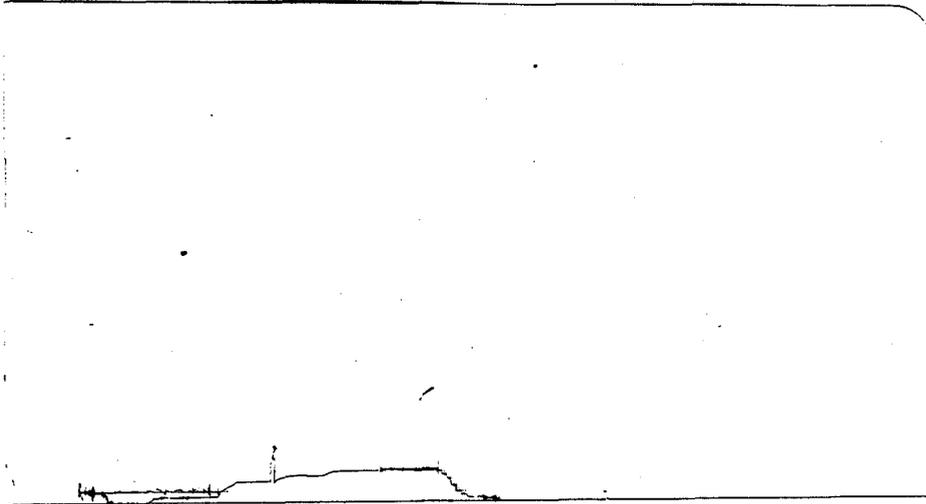
BAKER

SERVICE TOOLS

Quintana Petroleum Corp.
Operator

Kali Federal #1-12
Well Name and No.

2
DST No.



Recorder Type Kuster K-3
No. _____ Cap. 6650 psi
Depth Above Tools feet
Inside X Clock
Outside Range 24 hrs.

Initial Hydrostatic A _____
Final Hydrostatic K _____
Initial Flow B 9.7
Final Initial Flow C 12.6
Initial Shut-In D _____
Second Initial Flow E 75.6
Second Final Flow F 132.1
Second Shut-In G _____
Third Initial Flow H _____
Third Final Flow I _____
Third Shut-In J _____

Recorder Type _____
No. _____ Cap. _____ psi
Depth _____ feet
Inside _____ Clock
Outside Range _____ hrs.

Initial Hydrostatic A _____
Final Hydrostatic K _____
Initial Flow B _____
Final Initial Flow C _____
Initial Shut-In D _____
Second Initial Flow E _____
Second Final Flow F _____
Second Shut-In G _____
Third Initial Flow H _____
Third Final Flow I _____
Third Shut-In J _____

IGT

QUINTANA PETROLEUM CORPORATION
1-12 KALI FEDERAL
SEC. 12, T37S-R23E
SAN JUAN, UTAH

INTERMOUNTAIN GEO-TECH, INC.
P. O. BOX 158
DELTA, CO 81416
303-874-7762

RECORDED
DEC 28 1987

SECTION OF
RECORDS

QUINTANA PETROLEUM CORPORATION
1-12 KALI FEDERAL
SEC. 12, T37S-R23E
SAN JUAN, UTAH

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4. MUD RECORD	4
5. DST	5

(1) COPY, FINAL MUDLOG (FULLSIZE)

(1) COPY, FINAL MUDLOG (HALFSIZE)

DRILLING CONTRACTOR: COLEMAN RIG #4
FARMINGTON, NEW MEXICO

DRILLING FOREMAN: MR. R. L. HOWELL

PUSHER: MR. DON VESTAL

GEO TECHNOLOGISTS: MR. NICK LARKIN - MR. TERRY DAOUST
INTERMOUNTAIN GEO-TECH, INC.
P. O. BOX 158
DELTA, CO 81416

DRILLING FLUID: MR. GARY DUNN
BAROID
FARMINGTON, NEW MEXICO

DRILL STEM TESTS: MR. DAN DOLYNIUK
BAKER TOOLS
FARMINGTON, NEW MEXICO

WIRE LINE LOGS: MR. RON BALLIET
SCHLUMBERGER
FARMINGTON, NEW MEXICO

GEOLOGIST: MR. DOUG REDMOND
YAMPA, CO

QUINTANA PETROLEUM CORPORATION
1-12 KALI FEDERAL
SEC. 12, T37S-R23E
SAN JUAN, UTAH

SUMMARY OF DAILY ACTIVITY

DATE	ACTIVITY	MIDNITE DEPTH	24 HOUR FOOTAGE
8/29/87	IGT UNIT #2 ON LOC, RIG UP, DRLG	--	--
8/30/87	DRLG, SURV, DRLG, TOH NB #5	4088'	575'
8/31/87	TIH, DRLG, SURV, DRLG	4663'	614'
9/01/87	DRLG, SURV, DRLG	5277'	501'
9/02/87	DRLG	5778'	277'
9/03/87	CIRC/DST #1, TOH, TIH, TEST, TOH, SURV, TIH, CIRC, DRLG	6055'	5'
9/04/87	DRLG	6060'	248'
9/05/87	DRLG, T.D. 6356' IGT UNIT #2 RELEASED	6308'	--

DRILL STEM TEST REPORT

DST # 1 Date 9/03/87 Testing Co. BAKER

WELL NAME: KALI FEDERAL #1-12

Formation: Upper Ismay Interval: 5980-6055 Wtr. Cushion

Hole Size 8 3/4 Packer Size Dri. Pipe Size 4 1/2 Bbls/Ft .01422

Dri. Collar Size Bbls/Ft Drig. Contractor Coleman Rig #4

Mud Filtrate: Ppm Nitrate Ppm Chlorides

	<u>Minutes</u>		
	<u>Duration</u>		
Preflow	<u>30</u>	Gas to Surf. <u>30</u> Min; Rate <u></u>	
Initial Shutin	<u>60</u>	Fluid to Surf. <u></u> Min; Rate <u></u>	
Flow Period	<u>60</u>	Mud <u></u> Min; Wtr <u></u> Min; Oil <u></u> Min	
Final Shutin	<u>120</u>		

Test Description: 1" blow in 1 min, 16 psi, 35 psi in 10 min, 46 psi in 30 min, GTS died 10 min, flared off

Open strong blow, 26 psi in 15 min, 24 psi in 30 min, 22 psi in 45 min, 19 psi in 60 min, GTS died in 30 min flared off

Orifice Plate Size	Temp.	Minutes from V.O.	Pressure	Rate
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

Pressure Records (Field Readings) -- Bomb Depth Bottom Hole Temp. 132 °

Pre-Flow IHP 3138 IFP 112-169 FFP 132-241 ISIP 3064 ; Final Flow IFP 110-165 FFP 138-247 FSIP 3015 FHP 2980

Sampler Capacity Cc's; Sampler Pressure Rstv Temp °

Cu Ft Gas Cc's Oil Cc's Water Cc's (Other)

Sampler Recovery (Water): Ppm Nitrate Ppm Chlorides

Pipe Recovery: 600' of 45 gravity at 65° F 2.94 bbls of oil

Sample Recovery: 200 psi, 1.1 cu. ft. gas at 1900 cc = 1400 cc oil, 500 cc mud

Problems: None, Mud Pit, .4 at 65° F, at 3000ppm Chl, Sample Chamber, .4 at 65° F,

Remarks: 3,000ppm Chl, topmmiddle, botton all had oil. Reversed out at 680'

Agent of Operator Nick Larkin

COMPOSITIONAL ANALYSIS

for

Quintana Petroleum Corporation

CONFIDENTIAL

Kali Federal 1-12 Well
Oil and Gas Samples (6018-6026 ft.)
Water Sample (6040-6046 ft.)
Wildcat
Utah
File Number: ARFL-87111

RECEIVED
DEC 28 1987

DIVISION OF
OIL, GAS & MINING

These analyses, opinions, or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories (all errors and omissions excepted), but Core Laboratories and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas, or other mineral or sand in connection with which such report is used or relied upon.

October 15, 1987

Quintana Petroleum Corporation
1050 17th Street, Suite 400
Denver, CO 80265

Attention: Mr. Scott Kimbrough

Subject:

Compositional Analysis
Kali Federal 1-12 Well
Oil and Gas Samples (6018-6026 ft.)
Water Sample (6040-6046 ft.)
Wildcat
Utah
File Number: ARFL-87111

Gentlemen:

Samples of pressurized gas, atmospheric oil, and water were collected by your representative on September 22, 1987. These samples were forwarded to our Aurora laboratory for analysis. The results of our analyses are presented in this report.

The gas sample was analyzed by routine chromatography through hexanes with a heptanes plus fraction. The GPM, BIU, and gas gravity was also determined. The gas analysis is presented on page one.

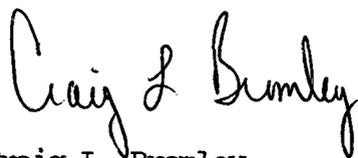
The hydrocarbon composition of the atmospheric liquid sample was determined by flash/chromatographic technique. These results are shown on page two.

A routine analysis was performed on a water sample collected from the producing interval 6040-6046 feet. This data is presented on page three.

Quintana Petroleum Corporation
October 15, 1987
Page two

Thank you for the opportunity to perform this study for Quintana Petroleum Corporation. Should you have any questions pertaining to these test results or if we may be of further assistance, please do not hesitate to contact us at (303)751-9334.

Very truly yours,



Craig L. Bromley
Reservoir Fluid Supervisor

CLB/sso
4 cc addressee

HYDROCARBON ANALYSIS OF GAS SAMPLE (6018-6026 ft.)

<u>Component</u>	<u>Mol Percent</u>	<u>GPM</u>
Hydrogen Sulfide	0.00	
Carbon Dioxide	0.05	
Nitrogen	3.14	
Methane	85.76	
Ethane	8.18	2.231
Propane	2.09	0.587
iso-Butane	0.14	0.047
n-Butane	0.33	0.106
iso-Pentane	0.04	0.015
n-Pentane	0.08	0.030
Hexanes	0.06	0.024
Heptanes plus	<u>0.13</u>	<u>0.058</u>
	100.00	3.098

Calculated gas gravity (air=1.000) = 0.642

Calculated gross heating value = 1118 BTU per cubic foot of dry gas @ 15.025 psia and 60°F.

Collected @ 108 psig and 126°F. on 9/22/87.

Cylinder No. DEN-5023

HYDROCARBON ANALYSIS OF ATMOSPHERIC LIQUID SAMPLE (6018-6026 ft.)

<u>Component</u>	<u>Mol Percent</u>	<u>Weight Percent</u>	<u>Density, Gm/Cc @ 60°F.</u>	<u>°API @ 60°F.</u>	<u>Molecular Weight</u>
Hydrogen Sulfide	0.00	0.00			
Carbon Dioxide	0.00	0.00			
Nitrogen	0.00	0.00			
Methane	0.00	0.00			
Ethane	trace	0.00			
Propane	0.81	0.16			
iso-Butane	0.47	0.12			
n-Butane	1.00	0.25			
iso-Pentane	1.17	0.37			
n-Pentane	3.32	1.05			
Hexanes	6.36	2.34			
Heptanes	11.66	4.91			
Octanes	14.71	6.91			
Nonanes	9.83	5.22			
Decanes	7.43	4.37			
Undecanes plus	<u>43.24</u>	<u>74.30</u>	0.8424	36.3	392
	100.00	100.00			

Properties of Heptanes plus

API gravity @ 60°F. 40.9
 Density, Gm/Cc @ 60°F. 0.8200
 Molecular weight 251

Overall sample molecular weight = 227.9

Overall sample density = 0.8106 gm/cc @ 60°F.

Overall sample API = 42.9°API @ 60°F.

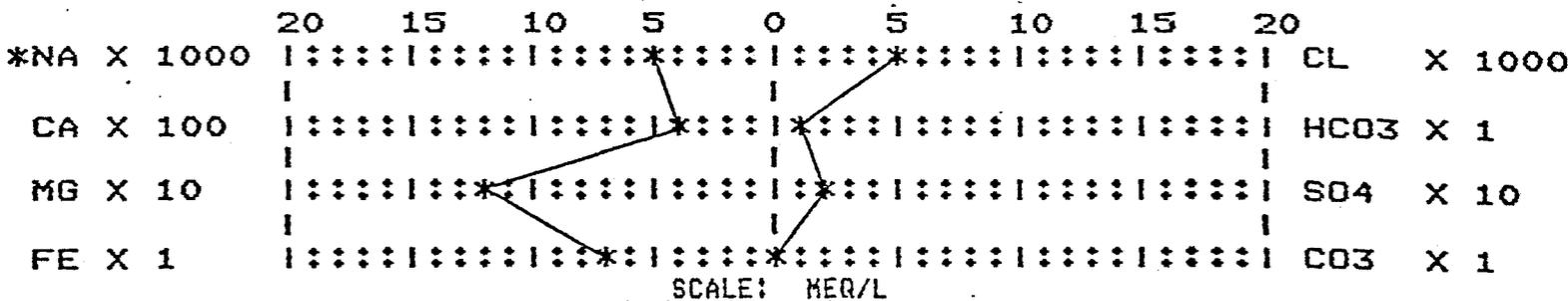
WATER ANALYSIS (6040-6046 ft.)

CONSTITUENTS

CATIONS			ANIONS		
	MG/L	MEQ/L		MG/L	MEQ/L
CALC. SODIUM (NA)	106124	4616.1	CHLORIDE (CL)	182000	5134.2
CALCIUM (CA)	7400	369.3	SULFATE (SO4)	990	20.6
MAGNESIUM (MG)	1400	115.2	CARBONATE (CO3)	<1.0	0.0
IRON (FE)	190	6.8	BICARBONATE (HCO3)	66	1.1
POTASSIUM (K)	1900	48.6	HYDROXIDE (OH)	<0.5	0.0
TOTAL DISSOLVED SOLIDS (CALC.)			300069 MG/L		
HYDROGEN SULFIDE: NEGATIVE					

PHYSICAL PROPERTIES

PH	5.48
SPECIFIC GRAVITY @ 77 F	1.2026
RESISTIVITY (OHM-METERS) @ 77 F	0.051



*-INCLUDES POTASSIUM MEQ

KALI FEDERAL #1-12

QUINTANA PETROLEUM CORPORATION
Sec 12, T37S, R23E
SAN JUAN COUNTY, UTAH

REC-1111
DEC 28 1987

Oil, gas & mineral

TABLE OF CONTENTS

KALI FEDERAL #1-12
Sec 12. T37S. R23E
SAN JUAN COUNTY, UTAH

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SAMPLE DESCRIPTIONS	12

WELL DATA SUMMARY

WELL NAME: KALI FEDERAL #1-12

OPERATOR: QUINTANA PETROLEUM CORPORATION

LOCATION: 1805' FWL + 2135' FNL SE NW Sec 12, T37S, R23E

COUNTY: SAN JUAN

STATE: UTAH

AREA: KALI

DRILLING CONTRACTOR: COLEMAN RIG #4

DRILLING ENGINEER: BOB HOWELL

WELL SITE GEOLOGY: DOUG REDMOND

ELEVATION: GL 5876'
KB 5891'

DEPTH LOGGED: 4600' - 6368'

DATE LOGGED: AUGUST 30, 1987 to SEPTEMBER 7, 1987

TOTAL DEPTH: 6360' DRILLERS, 6368' LOGGERS

HOLE SIZE: 12 3/4" to 2243', 8 3/4 " to TD

CASING PROGRAM: 9 5/8" to 2243', 5 1/2" to TD

D.S.T.: BAKER SERVICE TOOLS

MUDLOGGING COMPANY: INTERMOUNTAIN GEO-TECH

MECHANICAL LOGS: SCHLUMBERGER

WELL STATUS: AWAITING COMPLETION

DAILY DRILLING SUMMARY

1987 DATE	DEPTH	PROGRESS	HOURS DRILLING	MUD WEIGHT	VISC.	W.L.	PH	ACTIVITY
8/30		Begin logging at	4600'	Drilling with H ₂ O				Drilling
8/31	4787'	10'		Drilling with H ₂ O				Drilling
9/01	5414'	640'	22 1/4	Drilling with H ₂ O				Drilling
9/02	5868'	453'	23	8.8	34	12.0	10.5	Drilling
9/03	6055'	187'	13	9.9	37	7.6	11.5	D.S.T. #1
9/04	6124'	69'	6 1/2	10.5	43	7.6	11.5	Drilling
9/05	6355'	231'	18 1/2	10.5	43	12.0	11.0	Circulate for E-logs
9/06	6368'	5'	1/2	10.5	44			Circulate for D.S.T. #2
9/07	6368'	0	0	10.5	44			D.S.T. #2

FORMATION TOPS

ELEVATION: GL 5876'
KE 5891'

<u>FORMATION</u>	<u>PROGNOSIS</u>	<u>ESTIMATED TOP</u>	<u>E-LOG</u>	<u>SUBSEA</u>
BURRO CANYON	SURFACE			
CHINLE	2106'	2128'	2129'	+ 3762'
HERMOSA	4856'	4865'	4870'	+ 1021
UPPER ISMAY	5971'	5998'	6005'	- 114
HOVENWEEP	6126'	6123'	6138'	- 247
LOWER ISMAY	6143'	6139'	6154'	- 263
GOTHIC SHALE	6193'	6225'	6220'	- 329
DESERT CREEK	6219'	6238'	6234'	- 343
DESERT CREEK Ø		6303'	6310'	- 419
CHIMNEY ROCK		6335'	6342'	- 451
AKAH	6314'			

DEVIATION SURVEY

<u>DEPTH</u>	<u>SURVEY</u>	<u>CHANGE</u>
330'	1/2°	
840'	3/4°	+ 1/4°
1360'	1°	+ 1/4°
1884'	1 1/2°	+ 1/2°
2221'	2 3/4°	+ 1 1/4°
2222'	2 1/2°	- 1/4°
2342'	2°	- 1/2°
2558'	1/2°	- 1 1/2°
3021'	1/2°	0
3543'	3/4°	+ 1/4°
4036'	1 1/4°	+ 1/2°
4561'	1°	- 1/4°
5085'	3/4°	- 1/4°
5611'	1/4°	- 1/2°
6360'	1 1/4°	+ 1°

SHOW REPORT

WELL NAME: KALI FEDERAL #1-12

AREA: KALI COUNTY: SAN JUAN STATE: UTAH

SHOW No.: 1 FORMATION: HONAKER TRAIL

FOOTAGE - from 5672' to 5680' Net ftg 8'

	DT	TOTAL GAS	CHROMATOGRAPH BREAKDOWN					other
			C ₁	C ₂	C ₃	C _{4I}	C _{4N}	
BEFORE	2 1/2	20	0.2					
DURING	1 1/2	220	0.75	0.12				
AFTER	2 1/2	15	0.15					

LITHOLOGY TYPE & DESCRIPTION: SS clr,wh,vf-f grn,calc-sili,ang-sb ang,fri,
unconsol

POROSITY Est.: 10-12%

STAIN DESCRIPTION: NONE

FLUORESCENCE and CUT DESCRIPTION: NONE

REMARKS: Weak show

SHOW REPORT

WELL NAME: KALI FEDERAL #1-12

AREA: KALI COUNTY: SAN JUAN STATE: UTAH

SHOW No.: 2

FOOTAGE - from 6017' to 6022' Net ftg 5'

	DT	TOTAL GAS	CHROMATOGRAPH BREAKDOWN					other
			C ₁	C ₂	C ₃	C _{4I}	C _{4N}	
BEFORE	4	41	0.83	0.62	0.26			
DURING	2 1/2	Saturated	Saturated					
AFTER	4							

LITHOLOGY TYPE & DESCRIPTION: SH blk,dkgy,slty,carb,sft LS m brn,ltgy,cripto, vf-f micro,foss,anhy fill,sl sucr

POROSITY Est.: None visible

STAIN DESCRIPTION: some dark brown, pin point

FLUORESCENCE and CUT DESCRIPTION: No fluorescence, dull green after hit with chlorothene, possible pipe dope contamination

REMARKS: Present TD 6040'. Took a gas kick and saturated instruments, slowed pump to fight gas and anhydrite contamination.

SHOW REPORT

WELL NAME: KALI FEDERAL #1-12

AREA: KALI COUNTY: SAN JUAN STATE: UTAH

SHOW No.: 3 FORMATION: DESERT CREEK

FOOTAGE - from 6303' to 6308' Net ftg 5'

	DT	TOTAL GAS	CHROMATOGRAPH BREAKDOWN					other
			C ₁	C ₂	C ₃	C _{4I}	C _{4N}	
BEFORE	4-5	40	0.34	0.16				
DURING	1	380	2.8	1.7	TR			
AFTER	3	200	1.6	0.4				

LITHOLOGY TYPE & DESCRIPTION: DOLO mgy-brn,vf micro,sm crypto,occ sili,v sucr+ fri,carbonate SS app,frm

POROSITY Est.: None visible

STAIN DESCRIPTION: dark brown

FLUORESCENCE and CUT DESCRIPTION: No fluorescence, trace cut - a bright, slow yellow

REMARKS: Trace chert in sample.

DRILL STEM TEST REPORT

WELL NAME: KALI FEDERAL #1-12 DATE: 9-03-87

AREA: KALI COUNTY: SAN JUAN STATE: UTAH

WITNESS: REDMOND FORMATION: UPPER ISMAY

TEST NUMBER: 1 INTERVAL TESTED: 5980' - 6055'

TEST COMPANY AND TYPE OF TEST: BAKER SERVICE, CONVENTIONAL DOUBLE PACKER

INITIAL FLOW: Open with 1" blow, increased to B.O.B. in 1 min. with 16#,
increased to 35# in 10 min., 42# in 15 min., 46 # in 30 min., G.T.S. at
30 min., shut tool in, flared gas off.

FINAL FLOW: Open with G.T.S., strong blow, 21# in 5 min., 26# = 39.1 MCF in 10
min., 25# in 20 min., 24# in 30 min., gas flow surging, 23# in 40 min., 21# in
50 min., 19# in 60 min., shut tool in.

	TIME	TOP CHART 5955'	BOTTOM CHART 6050'	
IH:		<u>3138</u>	<u>3116</u>	BHT: <u>132 °</u>
IF:	<u>30</u>	<u>112-169</u>	<u>110-165</u>	
ISI:	<u>60</u>	<u>3064</u>	<u>3015</u>	
FF:	<u>60</u>	<u>132-244</u>	<u>138-247</u>	
FSI:	<u>120</u>	<u>2990</u>	<u>2990</u>	
FH:		<u>3120</u>	<u>3103</u>	

RECOVERY: 600' oil, 45 gravity at 65°, 2.94 BBLS reversed out

SAMPLE CHAMBER: 1.1 cfg and 1400 cc oil and 500 cc drilling mud at 200 PSI

RESISTIVITIES: Mud pit sample 0.4 at 65°, 300 ppm Cl-

REMARKS: Good Test

DRILL STEM TEST REPORT

WELL NAME: KALI FEDERAL #1-12 DATE: 9-07-87

AREA: KALI COUNTY: SAN JUAN STATE: UTAH

WITNESS: REDMOND FORMATION: DESERT CREEK

TEST NUMBER: 2 INTERVAL TESTED: 6285' - 6368'

TEST COMPANY AND TYPE OF TEST: BAKER SERVICE TOOLS, CONVENTIONAL DOUBLE
PACKER TEST

INITIAL FLOW: Open tool with 1" blow, increased to 2" in 2 min., 3 psi in
30 min., N.G.T.S.

FINAL FLOW: Open with 2#, increased to 18.5 # in 60 min., G.T.S. in 65 min.,
5 to 6' flare died in 75 min.

	TIME	TOP CHART	BOTTOM CHART	
IH:		<u>3603</u>		BHT: <u>134 °</u>
IF:	<u>30</u>	<u>226-246</u>		
ISI:	<u>60</u>	<u>2514</u>		
FF:	<u>60</u>	<u>246-307</u>		
FSI:	<u>120</u>	<u>2899</u>		
FH:		<u>3562</u>		

RECOVERY: 560' slight gas cut mud, 180' salt water and gas cut mud

SAMPLE CHAMBER: 6.1 cfg and 1350 cc H₂O and mud, 50 cc oil at 1500 PSI

RESISTIVITIES: Sampler Rw 0.06 at 80°

REMARKS: _____

GEOLOGICAL SUMMARY

The Kali Federal #1-12 spudded on August 23, 1987, and was drilled to 2243' in the Chinle red beds where 9 5/8" surface casing was set. This casing protected the massive Navajo and Wingate sandstone aquifers from drilling fluids contaminants used during drilling. Fresh water was used to drill out from under surface casing because it facilitated a rapid penetration rate and a low mud cost.

A two man mud-logging unit was employed for gas and sample analysis from 4600' to 6368', where total depth was reached in the Chimney Rock Shale. Mechanical logs included a dual laterolog with NSFL, a CNL-Litho density log, a BHC sonic log, and a dip meter. Two drill stem tests were used to further evaluate zones of interest.

Following is a brief description of the Pennsylvanian age formations encountered in the well.

HERMOSA AND HONAKER TRAIL: 4870' - 6005'

This group of rock ranged from continental shales, sandstones, carbonate marlstones, and limestones higher up; to marine shale and limestone found lower in the section. They were generally massively bedded and lower down ranged from gray limestone to dark marlstones grading to shale. Occasional thin silty sandstone intervals were present that resulted from channel deposits, however, none contained any sign of economic hydrocarbon reserves. The limestones were entirely gray, dense, medium hard, and devoid of hydrocarbons. Occasional shales, slightly carbonaceous and black, contained enough hydrocarbon gas to cause the gas detection equipment to react. Nothing of economic interest was found in this interval.

UPPER ISMAY: 6005' - 6138'

The massive amorphous anhydrite near this top made an accurate sample pick possible. The upper section revealed an interval of "sub-cycles", or cyclic deposition within the major Ismay cycle. Stratigraphically, black shale, anhydrite, and limestone make up these cycles. Nineteen feet from the Upper Ismay tip, a porous limestone 3 feet thick was encountered, which was significant in this well. While drilling ahead, a significant amount of gas circulated up and drilling stopped. Here the mud weight was increased from 9.1 ppg to 9.8 ppg to control the influx of gas into the mud system. During a drill stem test over that interval, gas reached the surface with a 10 to 12 foot orange flare. When it was pulled the test revealed 600 feet of greenish to blue oil, and shut in pressures reached 3000+ psi. The sample quality was poor due to anhydrite contamination in the drilling mud. The limestone it revealed was gray, very fine to finely micro-crystalline, slightly sucrosic, firm, with no visible porosity, and a weak sample show. The remainder of the interval consisted of a massive anhydrite 55 feet thick banded with carbonate streaks, and a medium gray, marly limestone interval at the bottom of the Upper Ismay. No more significant shows were recorded here.

HOVENWEEP SHALE AND LOWER ISMAY: 6138' - 6154' and
6154' - 6220'

The Hovenweep Shale was a black, silty, carbonaceous, and fissile shale typical in the Paradox Basin. Along with the other black shales, it is considered a source bed for hydrocarbons.

The Lower Ismay is made up of 3 major components: On top, a dirty medium gray, dense limestone; next, a massive, amorphous anhydrite; and near this intervals' base is another limestone. The basal component was light to medium gray and slightly porous, producing a weak gas increase without any sample show, and no economic viability.

GOTHIC SHALE: 6220' - 6234'

Here, the black shale, similar in appearance to the Hovenweep above, is much thinner than the offset correlation wells. This was anomalous and the first indicator of an expanded Desert Creek Formation below.

DESERT CREEK: 6234' - 6342'

The upper Desert Creek interval consisted of massive carbonate on top, a massive anhydrite, and a carbonate mudstone located just above the Lower Bench of the Desert Creek. Usually very consistent, the upper carbonate consisted of dolomite and dolomitic siltstone. The thickness of the first anhydrite was an anomaly in itself. Normally 10 to 15 feet thick, this anhydrite was over 32 feet thick. The lower dolomitic and anhydritic mudstone just above the Lower Bench was of near normal thickness and appearance.

Following the mudstone was an anhydrite cap over the porosity interval. The penetration rate increased immediately below this in the porous dolomite. This carbonate was medium gray to brown, very finely microcrystalline and sucrosic, earthy, firm, and friable. It appeared to be very dolomitized, recrystallized, and restructured to the point that no evidence of fossils or primary structures were present. The porous interval totaled 20 feet thick and contained a bed of chert nearly 2 feet thick near the middle.

Electric logs revealed a wet looking interval with high porosity and low resistivity. However, enough questions were formed between the mud log gas increase, sample show, and electric log evaluation that a drill strm test had to be run to further evaluate the interval. The test revealed a zone that has low permeability and is water wet with no economic value.

The final decision for the well was to run production casing and complete the Upper Ismay zone of interest. At this time the well is awaiting this completion.

KALI FEDERAL #1-12
 SAMPLE DESCRIPTIONS

4600-5900 30'
 5900-TD 10'

		Abundant Cavings
4600-4630	60%	<u>Shale</u> - orange to dark red, gray, smooth, calcareous in part, silty, firm
	40%	<u>Siltstone</u> - orange, calcareous, sandy, micaceous, firm Trace Coal, Sandstone
4630-4660	60%	<u>Shale</u> - dark red, orange, medium gray, calcareous, silty, soft to firm, brittle
	30%	<u>Siltstone</u> - orange, red, calcareous to limy, sandy, firm
	10%	<u>Limestone</u> - white, red to pink, medium gray, cryptocrystalline, argillaceous, soft to firm
4660-4690	60%	<u>Shale</u> - dark red brown, red, orange, calcareous, micaceous in part, silty, firm, brittle
	40%	<u>Sandstone</u> - white, clear, rose, very fine to medium grain, calcareous, glauconitic, some siliceous, slightly arkosic, angular, very friable to unconsolidated
4690-4720	50%	<u>Sandstone</u> - white, clear, light gray, fine to medium grain, very limy, slightly arkosic, subrounded, friable, firm, tight
	50%	<u>Shale</u> - as above Trace Pyrite
4720-4750	60%	<u>Shale</u> - red, orange, gray to brown, calcareous, silty, firm
	20%	<u>Limestone</u> - medium to dark gray, cryptocrystalline to very finely microcrystalline, sandy, argillaceous, dense, firm
	20%	<u>Siltstone</u> - brown, red, calcareous, sandy, firm
4750-4780	50%	<u>Shale</u> - as above
	30%	<u>Sandstone</u> - medium gray, brown, clear, very fine to medium grain, calcareous, siliceous in part, slightly arkosic, friable, firm, tight
	20%	<u>Limestone</u> - medium gray, light gray, dark gray, cryptocrystalline, very finely microcrystalline, argillaceous, sandy, dense, firm
4780-4810	80%	<u>Shale</u> - dark red to brown, silty, calcareous, micaceous, blocky, brittle, firm
	10%	<u>Sandstone</u> - as above
	10%	<u>Limestone</u> - as above
4810-4840	50%	<u>Limestone</u> - light to medium gray, cryptocrystalline, occasionally very finely microcrystalline, sparry, lithic, dense, firm, medium hard
	50%	<u>Shale</u> - as above Abundant Cavings
4840-4870	80%	<u>Shale</u> - dark gray, medium gray, limy, calcareous, micaceous, slightly silty, fissile, firm
	20%	<u>Limestone</u> - as above, medium gray, dark gray to brown, argillaceous, firm

4870-4900	90%	<u>Siltstone</u> - dark red to brown, calcareous, micaceous, sandy, grading to shale in part, firm
	10%	<u>Sandstone</u> - orange, rose, clear, fine grain, scattered and unconsolidated
		Trace Limestone - 5%
4900-4930	90%	<u>Sandstone</u> - white, light gray, yellow, very fine grain, siliceous, slightly calcareous, moderately to well sorted, subrounded, unconsolidated and poorly cemented, loose, NFSOC
	10%	<u>Siltstone</u> - as above
4930-4960	70%	<u>Shale</u> - dark brown, dark gray, smooth to silty, calcareous, occasionally slightly carbonaceous, micaceous, firm, brittle
	30%	<u>Limestone</u> - medium gray, dark gray, cryptocrystalline, argillaceous, sandy, firm, dense
4960-4990	90%	<u>Limestone</u> - medium gray, tan, light gray, dark brown, cryptocrystalline, very finely microcrystalline, argillaceous in part, slightly dolomitic in part, firm to medium hard, dense
	10%	<u>Shale</u> - as above, some becoming very limy
4990-5050	100%	<u>Limestone</u> - tan, light to medium gray, translucent, cryptocrystalline, very finely microcrystalline, fossiliferous, slightly dolomitic, occasionally micaceous, firm, medium hard Trace Shale
5050-5080		Very Poor Sample
	50%	<u>Sandstone</u> - clear, white, very fine grain, calcareous, unconsolidated
	50%	<u>Limestone</u> - as above, becoming sandy, firm Trace Shale
5080-5110		Very Poor Sample
	50%	<u>Limestone</u> - as above
	50%	<u>Shale</u> - as above
5110-5140	50%	<u>Shale</u> - dark gray, medium gray, black, smooth, very calcareous in part, silty, firm, blocky, brittle
	40%	<u>Limestone</u> - as above
	10%	<u>Sandstone</u> - as above
5140-5170		Very Poor Sample
	60%	<u>Shale</u> - as above
	40%	<u>Limestone</u> - as above
5170-5200		Very Poor Sample
	90%	<u>Shale</u> - dark gray to black, dark brown, calcareous, silty, occasionally slightly micaceous, slightly carbonaceous, firm, fissile, blocky
	10%	<u>Limestone</u> - as above
5200-5260	70%	<u>Shale</u> - dark gray, medium gray, silty, limy, firm
	30%	<u>Limestone</u> - medium gray, cryptocrystalline, some very finely microcrystalline, marly, graded to mudstone, firm
5260-5290	90%	<u>Limestone</u> - white, light gray, tan, translucent in part, cryptocrystalline, very finely microcrystalline, sandy, micaceous, firm, medium hard
	10%	<u>Shale</u> - as above

5290-5320	50%	<u>Sandstone</u> - white, clear, light gray, yellow, very fine to fine grain, calcareous, pyritic, silty, subangular, unconsolidated,
	30%	<u>Limestone</u> - as above
	20%	<u>Shale</u> - medium to dark gray, brown, silty, calcareous, micaceous, firm
5320-5350	50%	<u>Shale</u> - dark gray, dark gray to brown, silty, calcareous, micaceous, pyritic, firm, brittle
	30%	<u>Limestone</u> - as above
	20%	<u>Sandstone</u> - as above
5350-5380	60%	<u>Limestone</u> - light gray, medium gray, off white, tan, translucent in part, slightly siliceous, micaceous, dense, medium hard, tight
	40%	<u>Shale</u> - dark gray, medium gray, graded to marlstone, silty, micaceous, occasionally pyritic, firm
5380-5410	90%	<u>Limestone</u> - as above, some medium gray, very marly, sandy in part, firm
	10%	<u>Shale</u> - as above
5410-5440	50%	<u>Shale</u> - medium to dark gray, very finely microcrystalline, graded to marlstone, occasionally sandy, firm, brittle
	50%	<u>Limestone</u> - light to medium gray, graded to marlstone, cryptocrystalline to very finely microcrystalline, blocky, brittle, firm to medium hard
		Trace Pyrite
5440-5470	90%	<u>Limestone</u> - white, light gray, medium gray, translucent, cryptocrystalline, very finely microcrystalline, slightly dolomitic with recrystallized appearance, slightly siliceous in part, medium hard, dense
	10%	<u>Shale</u> - as above
5470-5500	70%	<u>Limestone</u> - as above, darker gray and contains an increase of mudstone, lithic
	30%	<u>Shale</u> - dark gray, medium gray, graded to mudstone, very finely microcrystalline, firm, medium hard, brittle
5500-5530		Mudding up, poor sample quality
	50%	<u>Shale</u> - dark gray, medium gray, silty, micaceous, occasionally slightly carbonaceous, predominately graded to marlstone, firm, medium hard, brittle
	50%	<u>Limestone</u> - medium gray, light gray, cryptocrystalline, very finely microcrystalline, pyritic, marly, slightly dolomitic, medium hard, firm
5530-5560		Very Poor Sample
	60%	<u>Limestone</u> - as above
	40%	<u>Shale</u> - as above Abundant loose sandstone grains
5560-5590	90%	<u>Limestone</u> - medium gray, dark gray, cryptocrystalline, very finely microcrystalline, marly, pyritic, dense, firm, medium hard
	10%	<u>Shale</u> - dark gray, marly, micaceous, firm, medium hard

5590-5620	100%	<u>Limestone</u> - white, light gray, tan, translucent, cryptocrystalline, occasionally very finely microcrystalline, siliceous in part, chalky, occasionally fossiliferous, firm, medium hard, dense Trace Pyrite, Chert - clear to tan
5620-5650	70%	<u>Shale</u> - dark gray, marly, lithic, sandy, micaceous, dolomitic, firm, medium hard, blocky
	30%	<u>Limestone</u> - medium gray to dark gray, marly, dense, medium hard
5650-5680	50%	<u>Shale</u> - as above, dark gray, occasionally slightly carbonaceous
	40%	<u>Limestone</u> - as above
	10%	<u>Sandstone</u> - clear, white, very fine to fine grain, calcareous to siliceous, unconsolidated, NFSOC
5680-5710	90%	<u>Limestone</u> - white, tan, light gray, cryptocrystalline, very finely microcrystalline, slightly dolomitic, recrystallized, some fossil remnants visible, lithic, some marly, siliceous in part, firm, medium hard, dense
	10%	<u>Shale</u> - as above Trace Chert - clear, tan
5710-5740	80%	<u>Shale</u> - dark gray, dark gray to brown, very finely microcrystalline, marly, micaceous, lithic, brittle, blocky, medium hard
	20%	<u>Limestone</u> - medium gray to tan, cryptocrystalline, marly, medium hard, dense
5740-5770	90%	<u>Shale</u> - dark gray, black, calcareous, silty, graded to marlstone in part, slightly carbonaceous in part, micaceous, slightly fissile, blocky, firm
	10%	<u>Limestone</u> - as above
5770-5800	100%	<u>Limestone</u> - medium gray, tan, light gray, cryptocrystalline, occasionally very finely micaceous, slightly dolomitic, siliceous, dolomitic, chalky in part, dense, firm, medium hard Trace Shale - as above, Trace Chert - as above
5800-5830	80%	<u>Limestone</u> - tan, light gray, medium gray, white, cryptocrystalline, very finely microcrystalline, very siliceous, recrystallized, occasionally marly, dense, medium hard, hard
	20%	<u>Shale</u> - medium to dark gray brown, calcareous to marly, dolomitic, firm, medium hard Trace Chert - tan, clear
5830-5860	100%	<u>Limestone</u> - tan, brown, light gray, cryptocrystalline, very finely microcrystalline, occasionally fossiliferous, siliceous in part, lithic, thinly laminated with shale, dense, medium hard, firm Trace Shale, Chert - tan
5860-5890	70%	<u>Limestone</u> - as above, increased brown, marly, very siliceous, hard
	30%	<u>Shale</u> - dark gray, dark gray to brown, calcareous to marly, occasionally micaceous, blocky, brittle, firm Trace Chert - 5%, tan, translucent
5890-5920	100%	<u>Limestone</u> - medium gray, tan, light gray, cryptocrystalline, very finely microcrystalline, micritic in part, some siliceous, dense, medium hard, occasionally very hard Trace Shale
5920-5930	90%	<u>Limestone</u> - medium gray, light gray, tan, cryptocrystalline, occasionally very finely microcrystalline, slightly fossiliferous, slightly argillaceous in part, dense, medium hard

5920-5930 (continued)	10%	<u>Shale</u> - medium to dark gray, marly, medium hard Trace Chert - tan
5930-5940	100%	<u>Limestone</u> - light gray, off white, medium gray, cryptocrystalline, occasionally very finely microcrystalline, chalky, slightly argillaceous, micritic, dense, medium hard, firm Trace Shale
5940-5950	100%	<u>Limestone</u> - as above, becoming tan, darker colored
5950-5960	80%	<u>Limestone</u> - medium gray, occasionally light gray, cryptocrystalline, very finely microcrystalline, argillaceous to marly, firm, medium hard, dense
	20%	<u>Shale</u> - dark gray, medium gray to brown, silty, marly, slightly micaceous, blocky to platy, firm, medium hard
5960-5990	70%	<u>Limestone</u> - as above, tan, siliceous, hard
	30%	<u>Shale</u> - as above
5990-6000	50%	<u>Limestone</u> - as above
	50%	<u>Shale</u> - black, dark gray, calcareous, silty, carbonaceous, blocky, platy, brittle, firm to medium hard
6000-6010	70%	<u>Limestone</u> - medium gray, dark gray, cryptocrystalline, very finely microcrystalline, marly in part, some micaceous, fossiliferous, argillaceous, dense, firm, medium hard
	20%	<u>Anhydrite</u> - white, amorphous, soft
	10%	<u>Shale</u> - as above
6010-6020	40%	<u>Shale</u> - black, silty, calcareous, carbonaceous, firm
	40%	<u>Limestone</u> - medium gray, tan, cryptocrystalline, very finely microcrystalline, slightly dolomitic, argillaceous in part, occasionally anhydritic, sucrosic, slightly friable, firm, medium hard, no visible ϕ , trace dark brown stain, no fluorescence until hit with chloroethene, then fluoresced dull green
	20%	<u>Anhydrite</u> - white, amorphous, soft
6020-6030	50%	<u>Limestone</u> - tan, brown, light to medium gray, cryptocrystalline, very anhydritic, argillaceous in part, appears interbedded with anhydrite, dense, medium hard
	30%	<u>Shale</u> - as above
	20%	<u>Anhydrite</u> - white, amorphous, soft
6030-6040		Very Poor Sample - Anhydrite contamination of mud
	80%	<u>Limestone</u> - as above
	10%	<u>Anhydrite</u> - as above
	10%	<u>Shale</u> - as above
6040-6050	60%	<u>Limestone</u> - medium gray, light gray, cryptocrystalline to very finely microcrystalline, finely microcrystalline, very anhydritic, argillaceous, some sucrosic appearance, firm, medium hard
	30%	<u>Anhydrite</u> - white, amorphous, calcareous, soft
	10%	<u>Shale</u> - as above
6050-6060	90%	<u>Limestone</u> - as above
	10%	<u>Anhydrite</u> - as above Trace Shale

6060-6080		Abundant Cavings
	80%	<u>Anhydrite</u> - white, amorphous, slightly calcareous, soft
	20%	<u>Limestone</u> - as above, medium gray, tan, cryptocrystalline, anhydritic, medium hard
6080-6090	90%	<u>Anhydrite</u> - as above, calcareous, banded with some limestone
	10%	<u>Limestone</u> - tan, medium gray, cryptocrystalline, anhydritic, dense, medium hard
6090-6100	100%	<u>Anhydrite</u> - white, amorphous, soft Trace Limestone - as above
6100-6120	90%	<u>Anhydrite</u> - as above
	10%	<u>Limestone</u> - medium gray, cryptocrystalline, very finely microcrystalline, slightly argillaceous appearance in part, anhydritic, medium hard
6120-6130		Very Poor Sample
	60%	<u>Limestone</u> - medium gray, dark gray, cryptocrystalline, very finely microcrystalline, argillaceous, very marly, dense, firm, medium hard
	30%	<u>Anhydrite</u> - as above
	10%	<u>Shale</u> - black, dark gray, calcareous, silty, firm, brittle
6130-6140	80%	<u>Limestone</u> - medium gray, dark gray, cryptocrystalline, some very finely microcrystalline, argillaceous, marly, dense, medium hard
	10%	<u>Shale</u> - as above
	10%	<u>Anhydrite</u> - as above
		Note: Very Poor Sample
6140-6150		Very Poor Sample
	60%	<u>Limestone</u> - as above, very argillaceous
	30%	<u>Shale</u> - black, silty, carbonaceous, calcareous, splintery, firm
	10%	<u>Anhydrite</u> - as above
6150-6160		Very Poor Sample
	40%	<u>Shale</u> - as above
	40%	<u>Limestone</u> - as above
	20%	<u>Anhydrite</u> - white, amorphous, soft
6160-6170		Very Poor Sample
	60%	<u>Limestone</u> - medium gray, medium brown, cryptocrystalline, some very finely microcrystalline, argillaceous, dense, medium hard
	20%	<u>Anhydrite</u> - as above
	20%	<u>Shale</u> - medium gray, black, calcareous, carbonaceous in part, silty, fissile, brittle, firm
6170-6180	60%	<u>Limestone</u> - medium gray to light gray, cryptocrystalline, very finely microcrystalline, argillaceous, some slightly sucrosic, dense, firm, medium hard
	30%	<u>Anhydrite</u> - white, (red from staining), amorphous, soft
	10%	<u>Shale</u> - as above
6180-6190	80%	<u>Anhydrite</u> - as above
	10%	<u>Shale</u> - as above
	10%	<u>Limestone</u> - as above

6190-6200	70%	<u>Anhydrite</u> - as above
	20%	<u>Limestone</u> - medium gray to brown, cryptocrystalline, very anhydritic, dense, firm, medium hard
	10%	<u>Shale</u> - as above
6200-6210	60%	<u>Anhydrite</u> - as above
	40%	<u>Limestone</u> - medium to dark gray brown, cryptocrystalline, argillaceous, anhydritic in part, sparry, dense, medium hard
6210-6220		Very Poor Sample(anhydrite contamination)
	80%	<u>Limestone</u> - as above, very argillaceous, marly
	20%	<u>Anhydrite</u> - as above
		Trace Shale - 5%, black, silty, carbonaceous
6220-6230	60%	<u>Shale</u> - black, silty, carbonaceous, calcareous, fissile, firm
	20%	<u>Anhydrite</u> - as above
	20%	<u>Limestone</u> - tan, medium gray, cryptocrystalline, anhydritic, dense, firm
6230-6240	50%	<u>Shale</u> - as above
	30%	<u>Limestone</u> - as above
	10%	<u>Anhydrite</u> - as above
	10%	<u>Dolomite</u> - medium gray to brown, cryptocrystalline, very finely microcrystalline, graded to limestone, argillaceous, dense, tight, firm, medium hard, NFSOC
6240-6250	50%	<u>Limestone</u> - dark gray to brown, medium gray, cryptocrystalline, very finely microcrystalline, marly, dolomitic, occasionally siliceous, anhydritic, dense, medium hard
	30%	<u>Anhydrite</u> - white, (pink with stain), amorphous, soft
	20%	<u>Shale</u> - as above
6250-6260	50%	<u>Anhydrite</u> - as above
	50%	<u>Limestone</u> - dark gray to brown, dark gray, medium gray, translucent, anhydritic, marly, slightly dolomitic, medium hard
6260-6270	80%	<u>Anhydrite</u> - as above
	20%	<u>Limestone</u> - as above
6270-6280		Very Poor Sample
	80%	<u>Limestone</u> - dark gray, medium gray, cryptocrystalline, very finely microcrystalline, anhydritic, dolomitic, marly, dense, medium hard
	20%	<u>Anhydrite</u> - as above
6280-6290		Very Poor Sample
	90%	<u>Limestone</u> - dark gray, medium gray to brown, cryptocrystalline, very finely microcrystalline, argillaceous and earthy, dolomitic, dense, firm, medium hard, NFSOC
	10%	<u>Anhydrite</u> - as above
6290-6300	100%	<u>Limestone</u> - medium gray to brown, dark gray, earthy, argillaceous, dolomitic, dense, medium hard, firm Trace Anhydrite Trace Chert - white, milky
6300-6310		Very Poor Sample
	60%	<u>Dolomite</u> - medium gray to brown, very finely microcrystalline, cryptocrystalline, some earthy texture, sucrosic, very friable,

6300-6310
(continued)

40%

firm, no visible ϕ , no fluorescence, scattered trace with moderate bright slow yellow cut

Limestone - as above, graded to mudstone

Trace Anhydrite - 5%

6310-6320

100%

Dolomite - medium gray to brown, very finely microcrystalline, sucrosic, very friable, some with earthy texture, firm, scattered dark staining, no visible ϕ , no fluorescence, scattered moderate bright slow yellow cut

Trace Chert - tan, brown

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

U-40356

IF INDIAN, ALLOTTEE OR TRIBE NAME

N/A

UNIT AGREEMENT NAME

N/A

6. FARM OR LEASE NAME

KALI FEDERAL

9. WELL NO.

#1-12

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Section 12, T37S-R23E

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

19. ELEV. CASINGHEAD

5876'

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

DEC 28 1987

CONFIDENTIAL

1a. TYPE OF WELL: OIL WELL GAS WELL DRY

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. REVR. Other _____

2. NAME OF OPERATOR
QUINTANA PETROLEUM CORPORATION

3. ADDRESS OF OPERATOR
1050 - 17th Street, Suite 400, Denver, Colorado 80265

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 2135' FNL & 1805' FWL (SE NW)

At top prod. interval reported below _____

At total depth _____
Same

14. PERMIT NO. 43-037-31335
DATE ISSUED 8/7/87

15. DATE SPUDDED 8/24/87
16. DATE T.D. REACHED 9/5/87
17. DATE COMPL. (Ready to prod.) P&A 9/27/87

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*
5876' GR

20. TOTAL DEPTH, MD & TVD 6360'

21. PLUG, BACK T.D., MD & TVD ---

22. IF MULTIPLE COMPL., HOW MANY* ---

23. INTERVALS DRILLED BY
ROTARY TOOLS 10'-6360'
CABLE TOOLS N/A

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
- Information confidential

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN
GRSP/DLL; GR/FDC/CNL; GR/BHC Sonic; Dipmeter; CBL/CCL/GR/VDL; COLLAR LOG

27. WAS WELL CORED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	2243'	12 1/4"	560 sxs Lite, 200 sxs D-917	None
5 1/2"	15.5#	6163'	8 3/4"	190 sxs Poz	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
N/A				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	6042'	6031'

31. PERFORATION RECORD (Interval, size and number)

Information confidential

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
Information confidential	

33.* PRODUCTION

DATE FIRST PRODUCTION DRY HOLE
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)
WELL STATUS (Producing or shut-in)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED J. Williams TITLE Production Technician DATE 12/23/87

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, flowing and shut-in pressures, and recoveries);

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
NO CORES.				Chinle Hermosa Upper Ismay Hovenweep Lower Ismay Gothic Shale Desert Creek Chimney Rock	LOG TOPS 2129' 4870' 6005' 6138' 6154' 6220' 6234' 6342'	
DST's - CONFIDENTIAL INFORMATION						

QUINTANA PETROLEUM CORPORATION

1050 SEVENTEENTH STREET
SUITE 400
DENVER, COLORADO 80265
(303) 628-9211

RECORDED
DEC 31 1987

DIVISION OF
OIL, GAS & MINING

December 29, 1987

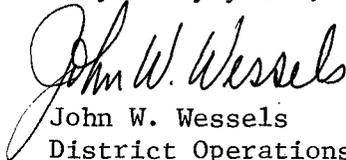
Utah State Oil & Gas Commission
355 W. North Temple
Three Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Re: Kali Federal #1-12 - TIGHT HOLE
San Juan County, Utah

Gentlemen:

Please keep all well information confidential on the Kali Federal #1-12 well located in the SE NW of Section 12, T37S-R23E, San Juan County, Utah.

Very truly yours,


John W. Wessels
District Operations Manager

cc: Well File

JMc:jp

COMPANY: QUINTANA PETRO UT ACCOUNT # N9485 SUSPENSE DATE: 1-4-88

CONFIDENTIAL

123002 WELL NAME: KALI FED 1-12

TELEPHONE CONTACT DOCUMENTATION

API #: 43 037 31335

CONTACT NAME: John Hassels John McCATHARAN

SEC, TWP, RNG: 12 37S 23E

CONTACT TELEPHONE NO.: 1-303-628-9211

SUBJECT: WELL LOSS REC'D MARKED CONFIDENTIAL
SHD FILE ALSO BE CONF?

(Use attachments if necessary)

RESULTS: MR. McCATHARAN WILL SEND WRITTEN REQUEST TO
HOLD FILE CONF. I TOLD HIM WE WOULD UNOFFICIALLY
HOLD IT CONF FOR A FEW DAYS.

(Use attachments if necessary)

CONTACTED BY: VC

DATE: 12-29-87

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INDIVIDUAL WELL RECORD

Sec. 12

T. 37 S.

R. 23 E.

SLB& _____ Mer.

Ref. No. _____

	12		

Date February 24, 1988

FEDERAL

Lease No. 40356 State Utah
 Lessee Celeste C. Grynberg 100% County San Juan
 Operator Quintana Petroleum Corp. Field Wildcat
 Well Name & No. Kali Federal 1-12 Unit/CA _____
 A.P.I. Well No. 43-037-31335 District Moab
 Subdivision SENW
 Location 2000' FNL & 1700' FWL (Changed on APD to: 2135' FNL & 1805' FWL)
 Date Drilling Approved August 17, 1987 Well Elevation 5876 GR Feet
 Date Drilling Commenced August 24, 1987 Total Depth 6360 Feet
 Date Drilling Ceased September 5, 1987 Initial Production _____
 Oral to P&A September 24, 1987 Gravity A.P.I. _____
 Date Abandonment Approved (Final) February 2, 1989 Initial Reservoir Pressure _____
 FAN Approved 9/24/83

GEOLOGIC FORMATIONS

PRODUCTIVE HORIZONS

SURFACE	LOWEST TESTED	NAME	DEPTHS	CONTENTS
<u>Burro Canyon</u>	<u>Chimney Rock</u>			
SURFACE MANAGEMENT AGENCY <u>BLM</u>				
MINERAL OWNERSHIP <u>BLM</u>				
LEASE EXPIRATION <u>7/31/88</u>				

WELL STATUS

YEAR	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1987								SPUD 8/24	P&A 9/24	SRA 10/26		
1989		SRA Apprvd 2/2/89										
1993									FAN			

First Production Memorandum _____ Lease Extension Memorandum _____ Confirmation _____

Remarks _____

Casing & Cementing Program

Size Of Hole	Size Of Casing	Weight Per Foot	Grade	Setting Depth	Quantity Of Cement
12-1/2"	9-5/8"	36#		2243'	560 sxs Lite, 200 sxs D-917
8-3/4"	5-1/2"	15.5#		6163'	190 sxs Poz

Formation Tops	Depth Interval
Chinle	2129'
Hermosa	4870'
Upper Ismay	6005'
Hovenweep	6138'
Lower Ismay	6154'
Gothic Shale	6220'
Desert Creek	6234'
Desert Creek	6310'
Chimney Rock	6342'

No. Acres In Lease 480	No. Acres Assigned To Well 40
---------------------------	----------------------------------

Correspondence/Reports

Logs Run: GR/SP/DLL;GR/FDC/CNL;GR/BHC Sonic
Dipmeter; CBL/CCL/GR/VDL

93 OCT 12 10:58

BLM-11-950

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
OIL AND GAS INSPECTION RECORD

Confidential

OPERATOR Quintana LEASE _____
WELL NO. KALI 1-12 API 43-037-31335
SEC. 12 T. 37S R. 23E CONTRACTOR _____
COUNTY San Juan FIELD W/C

*SE
NW*

DRILLING/COMPLETION/WORKOVER:

APD WELL SIGN HOUSEKEEPING SCPE
 SAFETY POLL. CONTROL SURFACE USE PITS
 OPERATIONS OTHER

SHUT-IN / TA :
 WELL SIGN HOUSEKEEPING EQUIPMENT* SAFETY
 OTHER

ABANDONED:

MARKER HOUSEKEEPING REHAB. OTHER

PRODUCTION:

WELL SIGN HOUSEKEEPING EQUIPMENT* FACILITIES*
 METERING* POLL. CONTROL PITS DISPOSAL
 SECURITY SAFETY OTHER

GAS DISPOSITION:

VENTED/FLARED SOLD LEASE USE

LEGEND: Y - YES OR SATISFACTORY
N - NO OR UNSATISFACTORY
NA - NOT APPLICABLE

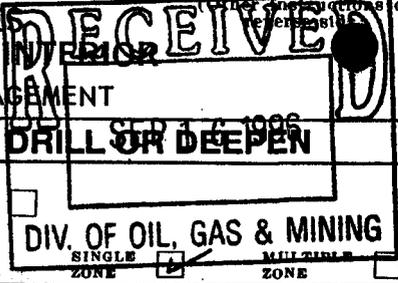
*FACILITIES INSPECTED: Marker Loc

REMARKS: PTA 9-26-87 Rehabbed NEIN

ACTION: _____

INSPECTOR: GA DATE 9-5-88
3:03/14

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN
 b. TYPE OF WELL
 OIL WELL GAS WELL OTHER

5. LEASE DESIGNATION AND SERIAL NO.
UTU-68662
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A
 7. UNIT AGREEMENT NAME
N/A
 8. FARM OR LEASE NAME, WELL NO.
Maverick Federal
 9. AP WELL NO.
#1
 10. FIELD AND POOL, OR WILDCAT
Wildcat
 11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA
12-37s-23e SLBM
 12. COUNTY OR PARISH
San Juan
 13. STATE
Ut.
 22. APPROX. DATE WORK WILL START*
Sept. 30, 1996

2. NAME OF OPERATOR
Robert L. Bayless, Producer LLC (505) 326-2659

3. ADDRESS AND TELEPHONE NO.
P.O. Box 168, Farmington, NM 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface **2135' FNL & 1805' FWL**
 At proposed prod. zone **660 550**
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
8 air miles ESE of Blanding, Ut.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
835'

16. NO. OF ACRES IN LEASE
800

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.
N/A

19. PROPOSED DEPTH
6,163'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5,876' ungraded ground

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	16"	Conductor	52'	To surface
12-1/4"	9-5/8"	36# (K-55)	2,243'	≈760 sx & to surface
8-3/4"	5-1/2"	15.5# (K-55)	6,163'	≈190 sx and to 5,590'

Quintana Petroleum originally drilled a well (API # 43-037-31335) at this location in 1987. It was subsequently plugged.

The Notice of Staking for this well was filed under the names of Energy Investments and Kali Federal 1-12-R. Energy Investments has reached an agreement with Bayless to operate this well and the well name has been changed to that shown above.

This APD is also serving as a BLM road right-of-way application. The right-of-way will be ≈3600' long x 25' wide (2.07 ac.) across SWNW 7-36s-24e and S2NE4 12-36-23e. All of the right-of-way is an existing road which previously served this well when drilled in 1987. That use was also previously authorized by a BLM right-of-way.

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 *Robert L. Bayless* TITLE Consultant (505) 466-8120 DATE 9-14-96

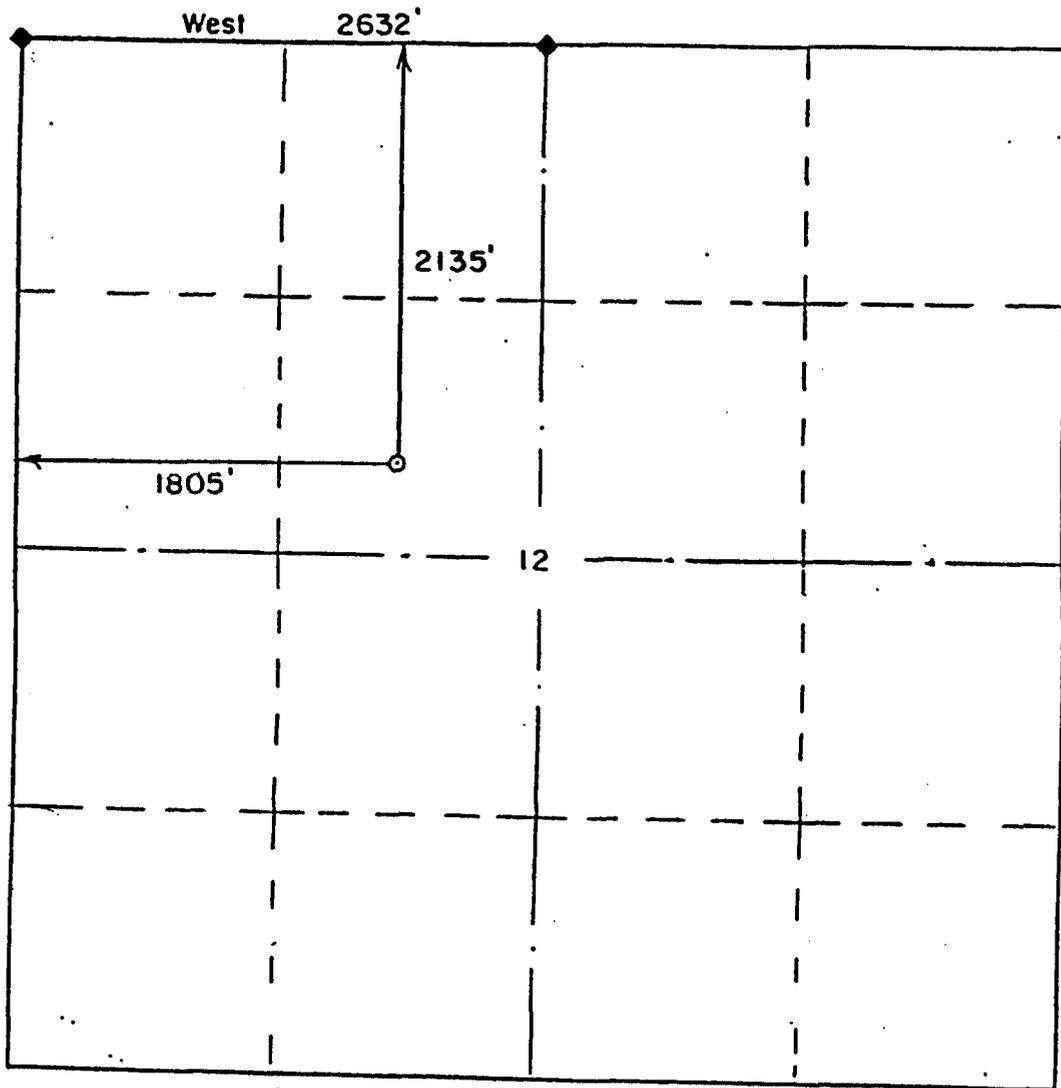
(This space for Federal or State office use)
 PERMIT NO. 43-037-31335 APPROVAL DATE _____

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 *John Matthews* TITLE Petroleum Engineer DATE 9/25/96

*See Instructions On Reverse Side

WELL LOCATION AND ACREAGE DEDICATION PLAT



*WELL LOCATION DESCRIPTION:
 Quintana Petroleum Kali Federal 1-12
 2135 FN & 1805 FW
 Section 12, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5876' grd. elev.
 Alternate: 2000' FN & 1700' FW, 5865' grd.

The above plat is true and correct to my knowledge and belief.

22 July 1987

REGISTERED LAND SURVEYOR
 No. 5705
 Gerald Huddleston, LS
 STATE OF UTAH

213 East Montezuma Avenue • Cortez, Colorado 81321 • 303-565-3330

* Former well name & operator.
 Current are Maverick Federal #1 & Robert L. Bayless, Producer LLC

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
 Robert L. Bayless, Producer LLC (505) 326-2659

3. ADDRESS AND TELEPHONE NO.
 P.O. Box 168, Farmington, NM 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface: 2135' FNL & 1805' FWL
 At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
 8 air miles ESE of Blanding, Ut.

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drif. salt line, if any)
 835'

16. NO. OF ACRES SURVEYED
 800

17. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 N/A

18. PROPOSED DEPTH
 6,163'

19. ROTARY OR CARLIS TOOLS
 Rotary

21. ELEVATIONS (Show whether DV, RT, GR, etc.)
 5,876' ungraded ground

22. APPROX. DATE WORK WILL START
 Sept. 30, 1996

5. LEASE DESIGNATION AND SERIAL NO.
 UTU-68662

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A

7. UNIT AGREEMENT NAME
 N/A

8. FARMOR LEASE NAME WELL NO.
 Maverick Federal

9. AN WELL NO.
 # 1

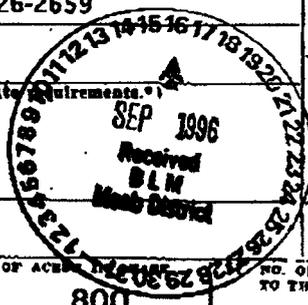
10. FIELD AND POOL OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR S.E. AND SUBSECT OR AREA
 12-37s-23e SLBM

12. COUNTY OR PARISH
 San Juan

13. STATE
 Ut.

18. NO. OF ACRES ASSIGNED TO THIS WELL
 40



PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	16"	Conductor	52'	To surface
12-1/4"	9-5/8"	36# (K-55)	2,243'	≈760 sx & to surface
8-3/4"	5-1/2"	15.5# (K-55)	6,163'	≈190 sx and to 5,590'

Quintana Petroleum originally drilled a well (API # 43-037-31335) at this location in 1987. It was subsequently plugged.

The Notice of Staking for this well was filed under the names of Energy Investments and Kali Federal 1-12-R. Energy Investments has reached an agreement with Bayless to operate this well and the well name has been changed to that shown above.

This APD is also serving as a BLM road right-of-way application. The right-of-way will be ≈3600' long x 25' wide (2.07 ac.) across SWNW 7-36s-24e and S2NE4 12-36-23e. All of the right-of-way is an existing road which previously served this well when drilled in 1987. That use was also previously authorized by a BLM right-of-way.

CONDITIONS OF APPROVAL ATTACHED

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A

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 conditions and measured and true vertical depths. Give blowout prevention program, if any.

SIGNED: Robert L. Bayless TITLE: Consultant (505) 466-8120 DATE: 9-14-96

(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: [Signature] TITLE: Assistant Field Manager, Resource Management DATE: 9/24/96

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

Robert L. Bayless, Producer, LLC
Maverick Federal #1
Lease U-68662
SE/NW, Section 12, T. 37 S., R. 23 E.
San Juan County, Utah

CONDITIONS OF APPROVAL

Approval of this application 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.

Be advised that Robert L. Bayless, LLC is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by NM-0883 (Principal - Robert L. Bayless) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

TABLE 1. NOTIFICATIONS

Notify Jeff Brown of the Monticello BLM Field Office in Monticello, Utah, at (801) 587-2141, or at home (801) 587-2046 for the following:

- 2 days prior to commencement of dirt work, construction and reclamation;
- 1 day prior to spudding;
- 50 feet prior to reaching each casing setting depth;
- 3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab BLM Field Office at (801) 259-6111. If unsuccessful, contact one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab Field Office at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Gary Torres, Petroleum Engineer	Office:	(801) 587-2141
	Home:	(801) 587-2705
Eric Jones, Petroleum Engineer	Office:	(801) 259-2117
	Home:	(801) 259-2214

Robert L. Bayless, Producer

P.O.Box 168

Farmington, NM 87499

FAX

Date:

9/24/96

Number of pages including cover sheet:

8

To:

MIKE HEBERTSON
B OF O, G, & M

~~Phone:~~ ^{FAX} 801-359-3940

Fax phone: 801-538-5333

CC:

From:

TOM MCCARTHY

Phone: 505/326-2659

Fax phone: 505/326-6911

HOME 505 326 6823

REMARKS:



Urgent



For your review



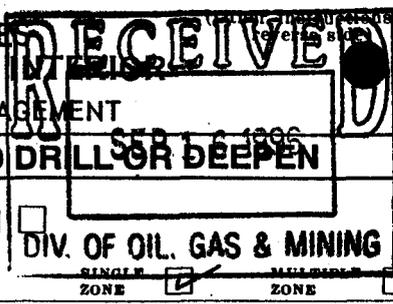
Reply ASAP



Please comment

ATTACHED IS APPROVED APD FOR THE MAVERICK FEDERAL NO. 1 REDRILL. I WOULD REALLY APPRECIATE YOUR SPEEDY APPROVAL OF A STATE PERMIT. PLEASE GIVE ME A CALL!

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
 Robert L. Bayless, Producer LLC (505) 326-2659

3. ADDRESS AND TELEPHONE NO.
 P.O. Box 168, Farmington, NM 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface: 2135' FNL & 1805' FWL
 At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 8 air miles ESE of Blanding, Ut.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 835'

16. NO. OF ACRES IN LEASE
 800

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.
 N/A

19. PROPOSED DEPTH
 6,163'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5,876' ungraded ground

22. APPROX. DATE WORK WILL START*
 Sept. 30, 1996

5. LEASE DESIGNATION AND SERIAL NO.
 UTU-68662

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A

7. UNIT AGREEMENT NAME
 N/A

8. FARM OR LEASE NAME, WELL NO.
 Maverick Federal

9. AP WELL NO.
 # 1

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 12-37s-23e SLBM

12. COUNTY OR PARISH
 San Juan

13. STATE
 Ut.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	16"	Conductor	52'	To surface
12-1/4"	9-5/8"	36# (K-55)	2,243'	≈760 sx & to surface
8-3/4"	5-1/2"	15.5# (K-55)	6,163'	≈190 sx and to 5,590'

Quintana Petroleum originally drilled a well (API # 43-037-31335) at this location in 1987. It was subsequently plugged.

The Notice of Staking for this well was filed under the names of Energy Investments and Kali Federal 1-12-R. Energy Investments has reached an agreement with Bayless to operate this well and the well name has been changed to that shown above.

This APD is also serving as a BLM road right-of-way application. The right-of-way will be ≈3600' long x 25' wide (2.07 ac.) across SWNW 7-36s-24e and S2NE4 12-36-23e. All of the right-of-way is an existing road which previously served this well when drilled in 1987. That use was also previously authorized by a BLM right-of-way.

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.

23. SIGNED Brian Wood TITLE Consultant (505) 466-8120 DATE 9-14-96

(This space for Federal or State office use)

PERMIT NO. 43-037-31335 APPROVAL DATE _____

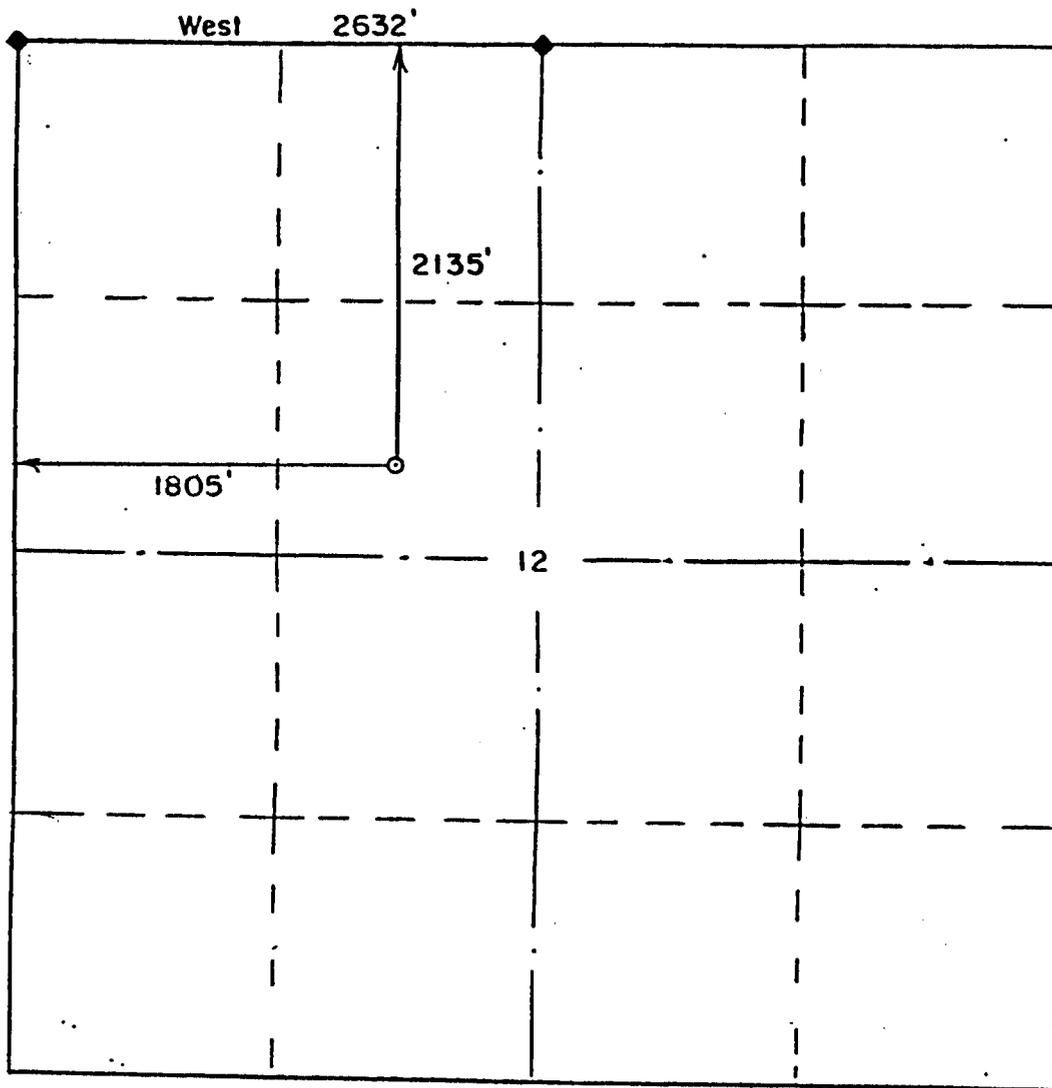
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY JM Matthews TITLE Petroleum Engineer DATE 9/25/96

*See Instructions On Reverse Side

WELL LOCATION AND ACREAGE DEDICATION PLAT



1"=1000'

*WELL LOCATION DESCRIPTION:
 Quintana Petroleum Kali Federal 1-12
 2135 FN & 1805 FW
 Section 12, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5876' grd. elev.
 Alternate: 2000' FN & 1700' FW, 5865' grd.

The above plat is true and correct to my knowledge and belief.

22 July 1987

REGISTERED LAND SURVEYOR
 No. 5705
Gerald Huddleston
 GERALD HUDDLESTON, LS
 STATE OF UTAH

213 East Montezuma Avenue • Cortez, Colorado 81321 • 303-565-3330

* Former well name & operator.
 Current are Maverick Federal #1 & Robert L. Bayless, Producer LLC

Robert L. Bayless, Producer LLC
Maverick Federal #1
2135' FNL & 1805' FWL
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PAGE 1

All lease operations will fully comply with applicable laws, regulations (43 CFR 3100), Onshore Oil & Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. Robert L. Bayless, Producer LLC will furnish a copy of these conditions to its field representative to assure compliance.

Drilling Program

1. ESTIMATED FORMATION TOPS

Estimated formation tops measured by true vertical depth from logs are:

<u>Formation Name</u>	<u>Depth from GL</u>	<u>Depth from KB</u>	<u>Subsea Depth</u>
Dakota Ss	0'	12'	+5,876'
Morrison	100'	112'	+5,776'
Chinle Sh	2,129'	2,141'	+3,747'
Hermosa	4,870'	4,882'	+1,006'
Upper Ismay	6,005'	6,017'	-129'
Hovenweep	6,138'	6,150'	-262'
Lower Ismay	6,154'	6,166'	-278'
Total Depth (TD)	6,163'	6,175'	-287'

2. NOTABLE ZONES

Oil and gas are expected in the Ismay, most likely the Upper Ismay. Water may be found in the Glen Canyon Group. Uranium may be found in the Morrison and Chinle. Oil and gas shows which appear to be commercial to the well site geologist will be tested.

All fresh water and prospectively valuable minerals will be recorded by depth and protected by casing and cement. When possible, water flow

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rates will be measured, samples taken and analyzed, and the results forwarded to BLM.

3. PRESSURE CONTROL (Also see "5." on PAGE 4)

BOP system will follow Onshore Order 2 and API RP 53. A drilling contract has not yet been awarded, thus the exact BOP to be used is not now known. It is expected a 8-5/8" x 11" x 3,000' A diagram of a typical 3000 psi BOP (maximum expected pressure is ≈2600 psi) is on PAGE 3.

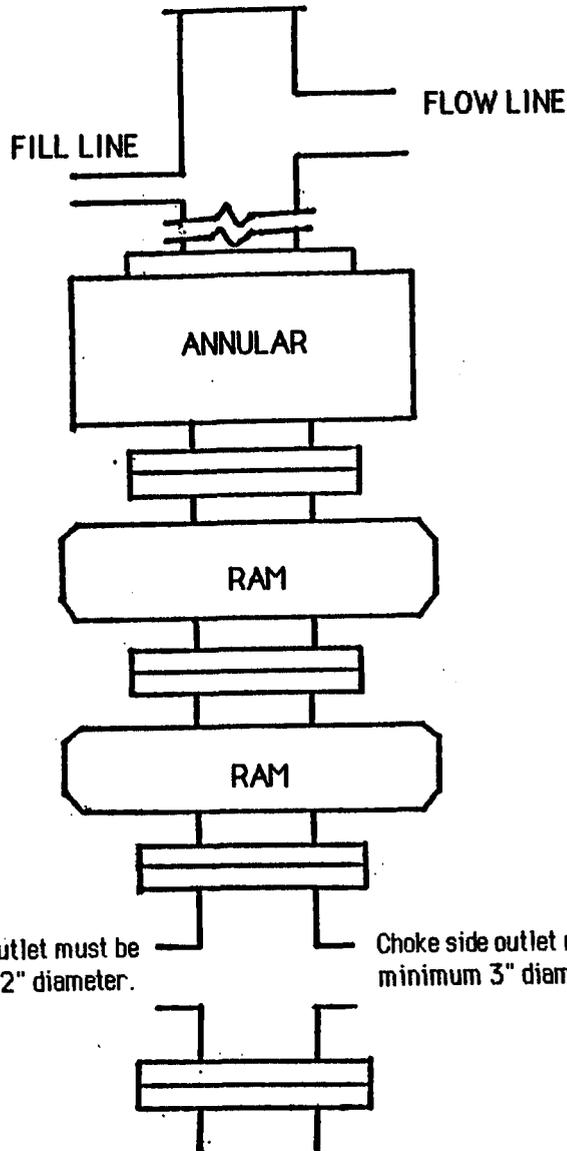
BOP controls will be installed before drilling the surface casing plug and stay in use until the well is completed or abandoned. Call BLM at (801) 587-2141 three hours before pressure testing. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Ram preventers will be inspected and operated each trip (but no more than once a day). Annular preventers will be inspected and operated weekly to ensure good mechanical working order. All BOP mechanical tests, pressure tests, and inspections will be recorded on the drillers log or daily drilling report.

4. CASING & CEMENTING

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Setting Depth</u>
17-1/2"	16"		Conductor		New	52'
12-1/4"	9-5/8"	36#	K-55	ST&C	New	2,243'
8-3/4"	5-1/2"	15.5#	K-55	LT&C	New	6,163'

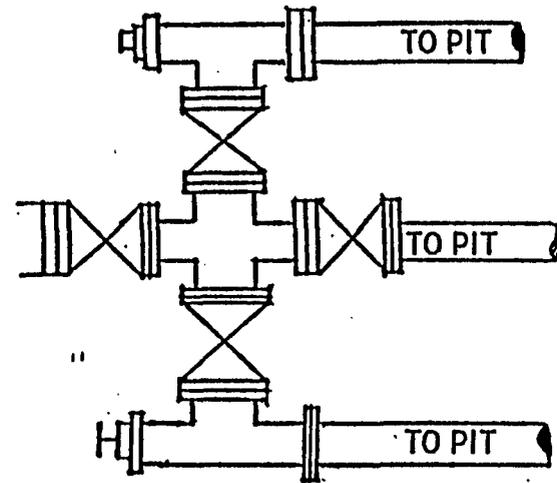
Conductor pipe and surface casing pipe were cemented to surface. The latter was cemented with 560 sx Lite and 200 sx D-917. Production casing was cemented to 5,590' according to cement bond log with 190 sx Poz.

Robert L. Bayless, Producer LLC
 Maverick Federal #1
 2135' FNL & 1805' FWL
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TYPICAL BOP STACK & CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.
 Safety valve and subs will fit all drill string connections in use.
 All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

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Recompletion casing procedures will be ...

- Dig up wellhead
- Cut off top of conductor pipe
- Weld on 9-5/8" x 5-1/2" Larkin casing head
- Cut off top of 5-1/2" casing and install 5-1/2" x 2-7/8" tubing head
- MOTE will install rig anchors
- Truck in 6200' of tubing
- Move in Big A rig, RU, and install BOP on 5-1/2" casing
- Drill out 200' surface cement plug with 4-5/8" bit and casing scraper
- Drill and/or circulate out mud from 200' to 5700'
- Drill cement plug from 5700' to 5900'
- Drill out CIBP at 5900'
- Drill and/or circulate out mud from 5900' top 6123'
- Drill out float and cement to 6145'. Keep tally while tripping in.
- Circulate hole clean with fresh water. TOH with tubing.

5. MUD PROGRAM

Hole will be drilled with fresh water.

6. CORING, TESTING, & LOGGING

No cores are planned or DSTs are planned. Oil Finder, Cased Hole Correlation, and Gamma Ray logs may be run.

Objective is to recomplete in the Upper Ismay. Tentative plan is to ...

- RU Blue Jet
- Run GR-CCL from TD to 5500'
- Perforate Upper Ismay intervals (determined from Compensated Neutron Density log) as follows:

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<u>Interval</u>	<u>Thickness</u>	<u>Number of Holes</u>
6004' - 6010'	6 ft	13
6018' - 6026'	8 ft	17
6040' - 6046'	6 ft	13
6052' - 6058'	6 ft	13
6124' - 6138'	14 ft	29

- TIH with tubing, packer, and BP to 6140'. Set BP.
- TOH and set packer at 6100'
- Acidize with 1500 gal 15% HCl
- TIH and retrieve BP
- TOH with tubing and BP
- Set BP at 6100'
- TOH and set packer at 5990'
- Acidize with 3000 gal 15% HCl
- TIH and retrieve BP
- TOH with tubing, packer, and BP
- TIH with tubing to 6060'. Run seating nipple 1 joint off bottom.
- Swab back load and test. Further work based on test results.

Whether it is completed as a dry hole or producer, "Well Completion or Recompletion Report and Log" (Form 3160-4) will be submitted within 30 days after completion of the well or after completion of operations *per* 43 CFR 3162.4-1. Two copies of all logs, core descriptions & analyses, test data, geologic summaries, sample descriptions, and all other data obtained during drilling, work over, and/or completion operations, will be filed with Form 3160-4. (If requested, sample cuttings, fluids, and/or gases will be submitted to BLM.)

7. DOWN HOLE CONDITIONS

Maximum anticipated bottom hole pressure is \approx 2600 psi. No abnormal pressures, temperatures, or hydrogen sulfide are expected.

Robert L. Bayless, Producer LLC
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8. MISCELLANEOUS

The anticipated spud date is September 30, 1996. It is expected it will take \approx 2 weeks to drill out the plugs (5700' to 5900' and 200' to surface) and recomplete the well.

The spud date will be phoned to the Resource Area at least 24 hours before spudding. A Sundry Notice (Form 3160-5), reporting the spud date and time, will be sent to the District Manager within 24 hours after spudding. If the spud is on a weekend or holiday, the Sundry will be sent on the following regular work day. Daily drilling reports will be sent to the District Office at least weekly.

Operations authorized by this APD will not be suspended for more than 30 days without prior approval of BLM. All conditions of approval will apply to any operations with a replacement rig.

There will be no change from the proposed drilling and/or work over plan without prior approval from the District Office. A Sundry Notice will be filed for approval for all changes of plans and other operations *per* 43 CFR 3162.3-2.

Starting with the month when operations begin, and continuing each month until the well is P&Aed, a "Monthly Report of Operations" (Form 3160-6) will be sent to the Minerals Management Service.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual events will be promptly reported to BLM *per* NTL-3A.

If the well is successfully completed for production, then the District Manager will be notified. The Resource Area will be notified prior to the first sale. Written notification will be sent not later than 5 business days following the date on which the well is placed on production. The Resource Area may schedule a first production conference after receipt of the first

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production notice.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Manager. Preliminary approval will not exceed 30 days or 50 MMcf of gas. Approval to vent/flare beyond this initial period will require the District Manager's approval *per* NTL-4A.

Instructions must be obtained from the District Office before plugging. A Sundry Notice will be sent to the District Manager within 30 days following completion of the well for abandonment. The Sundry will note where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until reclamation required by the approved APD or abandonment notice has been completed to the satisfaction of BLM.

The well will be identified starting with rig-up. This information "Robert L. Bayless, Producer LLC, Maverick Federal #1, SENW 12-37s-23e, San Juan County, Ut., U-68662" will be posted on an all weather sign at the pad. Once plugged, the same information will be beaded on the top of the casing with a welding torch. The above ground dry hole marker will be omitted.

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Surface Use Plan

1. EXISTING ROADS & DIRECTIONS (See PAGES 15 & 16)

From Monticello, go S 13 miles on US 191.
At the equivalent of Milepost 60.2, turn left (E) onto County Road 204.
Follow gravel County Road 204 (aka, Alkali Pt.) S for 3.0 miles.
Then turn left and still follow gravel County Road 204 SE for 9.1 miles.
Then turn right and follow a dirt road W for 0.85 miles.
Then turn left and follow orange flags NW \approx 800' to the well pad.

Roads will be maintained to a standard at least equal to their present condition. An encroachment permit has been filed with the county road department.

This APD is also serving as a BLM road right-of-way application. The right-of-way will be \approx 3600' long x 25' wide (2.07 ac.) across the SWNW 7-36s-24e and S2NE4 12-36-23e. All of the right-of-way is an existing road which previously served this well when drilled in 1987.

2. ROAD TO BE BUILT OR UPGRADED (See PAGE 16)

Call BLM (801-587-2141) 48 hours before starting construction.

The \approx 800' of reclaimed road will be flat bladed with a 16' wide running surface and maximum disturbed width of 20'. Topsoil will be windrowed along the edge. Maximum cut or fill will be 1'. Maximum grade will be 8%. No cattle guards, culverts, or turnouts are needed now.

Surface disturbance and vehicle travel will be limited to the pad and road. Any additional area needed must be approved in advance by BLM.

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If the well is productive, the 800' of previously reclaimed road and 0.85 miles of existing dirt road will be upgraded to Class 3 Road Standards within 60 days of dismantling the rig. If the deadline cannot be met, the Resource Area will be notified so temporary drainage control can be installed. Class 3 Road Standards control drainage by using topography, ditch turnouts, dips, out sloping, crowning, low water crossings, and culverts. It is anticipated at least one 18" OD culvert will then be installed.

3. EXISTING WELLS

There are no oil, gas, injection, or water wells within a mile.

4. PROPOSED PRODUCTION FACILITIES

A tank battery, separator, heater-treater, and meter run will be installed on the well site. Natural gas will probably be piped a mile east via a buried steel pipeline along the well road to Western's existing gas line, but the pipeline is not part of this application.

All permanent (on site for 6 or more months) surface facilities will be painted a flat, neutral sand beige or juniper green color. Parts required to comply with OSHA colors will be excluded.

The tank battery will be surrounded by a dike of sufficient capacity to contain 150% of the storage capacity of the largest tank in the battery + one day's production. All loading lines will be placed inside the dike.

Site security regulations in 43 CFR 3162.7-5 and Onshore Order #3 will be obeyed. Oil and gas measurement will comply with Onshore Orders #4 (43 CFR 3162.7-2) and #5 (43 CFR 3162.7-3).

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5. WATER SUPPLY

Water will be trucked from a private water well (Perkins Ranch in Montezuma Creek). A water use permit has been approved by the state.

6. CONSTRUCTION MATERIALS

Pad construction materials will be on lease native soil in place on the well pad and road. Bentonite will be bought from a commercial source. Rock will be bought from a private pit or from BLM *per* 43 CFR 3610.

7. WASTE DISPOSAL

The reserve pit will be lined with at least 24 tons of commercial bentonite worked into 3:1 sides. At least half of the capacity will be in cut. The pit will be fenced 4' high on 3 sides with woven wire topped with barbed wire. The 4th side will be fenced when drilling stops. The fence will be kept in good repair while the pit dries. No liquid hydrocarbons will be discharged to the pit, pad, or road. Should hydrocarbons escape, they will be cleaned up and removed within 48 hours. No chrome compounds will be on location.

All trash will be placed in a trash cage. When full and upon the finish of completion operations it will be hauled to the new county landfill. There will be no trash burning or burial on location.

Human waste will be disposed of in chemical toilets. Toilet contents will be disposed of at a state approved dump station.

Water will be produced into the reserve pit for 90 days or less after initial production. During the 90 days, an application will be submitted for BLM's approval of a permanent disposal method and site.

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8. ANCILLARY FACILITIES

There will be no airstrip or formal camp. Three camper trailers may be on site for the company man, mud logger, and tool pusher.

9. WELL SITE LAYOUT & CONSTRUCTION

A fence (single strand bare wire on steel posts) will be built south of the pad to protect an archaeology site. See PAGES 17 & 18 for depictions of the well pad, cross sections, cut and fill diagrams, reserve pit, burn pit, access road onto the pad, parking, living facilities, and rig orientation. The top 6" (where available) of soil will be stockpiled east of the pad and north of the pit. Subsoil from the pit will be stockpiled south of the pit. A diversion ditch will be built along the north side to drain west.

10. RECLAMATION

Upon completion of drilling, the well site will be cleared of all debris, material, and junk not needed for production.

Reclamation will start when the reserve pit is dry. All areas not needed for production will be backfilled, recontoured to match natural contours, and reserved topsoil spread. If the well is a producer, then enough topsoil will be kept aside to reclaim the rest of the pad. That pile of topsoil and all reclaimed areas will be broadcast seeded between October 1 and February 28 with 10 pounds per acre crested wheatgrass as was done for the original well, or as otherwise specified by BLM. Seeded areas will be left rough and lightly harrowed after seeding.

If the 800' of new road is surfaced, then the surfacing material will be removed before seeding. The grade of road cuts and fills will be reduced

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to a natural appearance and the road blocked.

11. SURFACE OWNER

All facilities are on BLM.

12. OTHER INFORMATION

The dirt contractor will be provided with an approved copy of the surface use plan.

The operator will inform everyone in the area who is associated with the well that they are subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. If historic or archaeological material is uncovered during construction, the operator is to immediately stop work that may further disturb such material and call BLM. BLM will inform the operator within 5 working days whether the material appears eligible for the Nat'l. Register of Historic Places, likely mitigation the operator must do before the site can be used if in-situ preservation is not necessary, and a timeframe for BLM to complete an expedited review under 36 CFR 800.11 to confirm through the SHPO that the BLM's findings are correct and the mitigation is appropriate.

If the operator wishes at any time to relocate activities to avoid the expense or delays of mitigation, BLM will assume responsibility for any required recording or stabilization of the exposed material. Otherwise, the operator is responsible for mitigation costs. BLM will provide technical and procedural mitigation guidelines. Once BLM verifies mitigation has been completed, the operator will then be allowed to resume construction.

BLM's Moab District Office's phone number is (801) 259-6111. BLM

Robert L. Bayless, Producer LLC
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Petroleum Engineer Eric Jones can be called after hours at 259-2214.

BLM's San Juan Resource Area's phone number is (801) 587-2141.

Safe drilling and operating practices will be used. The nearest hospital is a half hour drive away in Monticello. It is 3 blocks northwest of the intersection of US 666 and US 191. Hospital phone number is (801) 587-2116. Or dial 1-800-332-1911 from anywhere in San Juan County, Ut. The closest medical helicopter is in Farmington NM. Farmington hospital phone number is (505) 325-5011.

13. REPRESENTATION AND CERTIFICATIONS

Anyone having questions concerning the APD should contact:

Brian Wood
Permits West, Inc.
37 Verano Loop
Santa Fe, NM 87505
(505) 466-8120 FAX: (505) 466-9682 Mobile: (505) 699-2276

Field representative will be:
Tom McCarthy, Petroleum Engineer
Robert L. Bayless, Producer LLC
P.O. Box 168
Farmington, NM 87499
(505) 326-2659

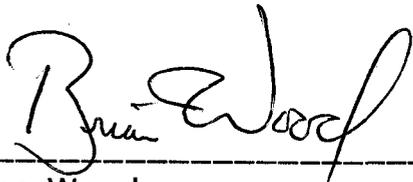
I hereby certify Robert L. Bayless, Producer LLC has the necessary consents from the proper lease and unit interest owners to conduct lease and unit operations in conjunction with this APD. Bond coverage *per* 43 CFR 3104 for lease activities will be provided by Robert L. Bayless, Producer LLC.

Robert L. Bayless, Producer LLC
Maverick Federal #1
2135' FNL & 1805' FWL
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Be advised that Robert L. Bayless, Producer LLC is considered to be the operator of the Maverick Federal #1 in the SENW Sec. 12, T. 37 S., R. 23 E., Lease UTU-68662, San Juan County, Utah, and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands. Bond coverage for this well is provided by Bond #40S23024BCA (Aetna) via surety consent as provided for in 43 CFR 3104.2. BLM will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

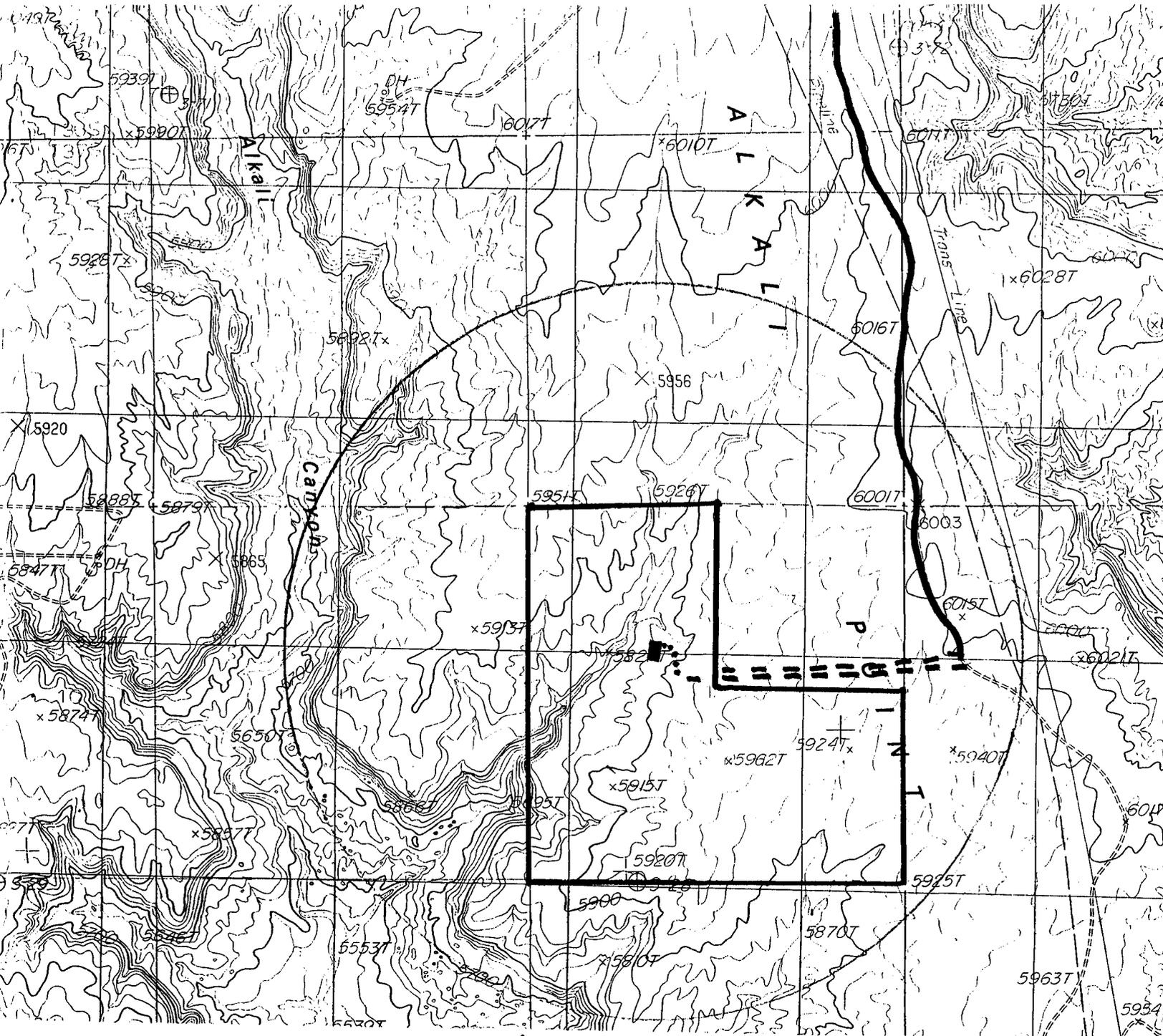
I hereby certify I have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Robert L. Bayless, Producer LLC 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.



Brian Wood
Consultant

September 14, 1996
Date

Robert L. Bayless, Producer LLC
 Maverick Federal #1
 2135' FNL & 1805' FWL
 Sec. 12, T. 37 S., R. 23 E.
 San Juan County, Utah



PROPOSED MAVERICK/EXISTING KALI WELL: █

LEASE LINE: ▬

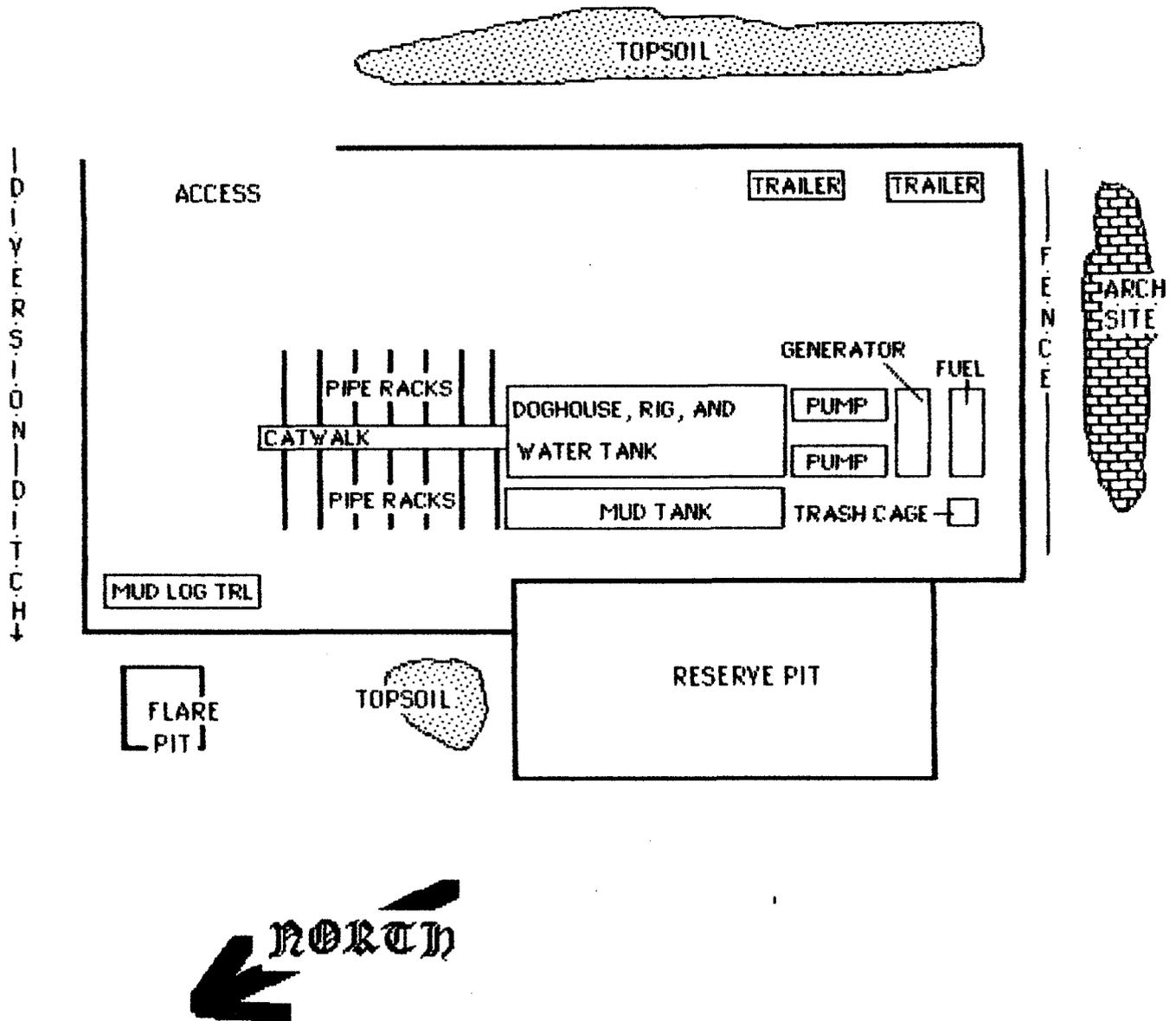
RECLAIMED ROAD: █

DIRT ROAD: █

COUNTY ROAD: ~

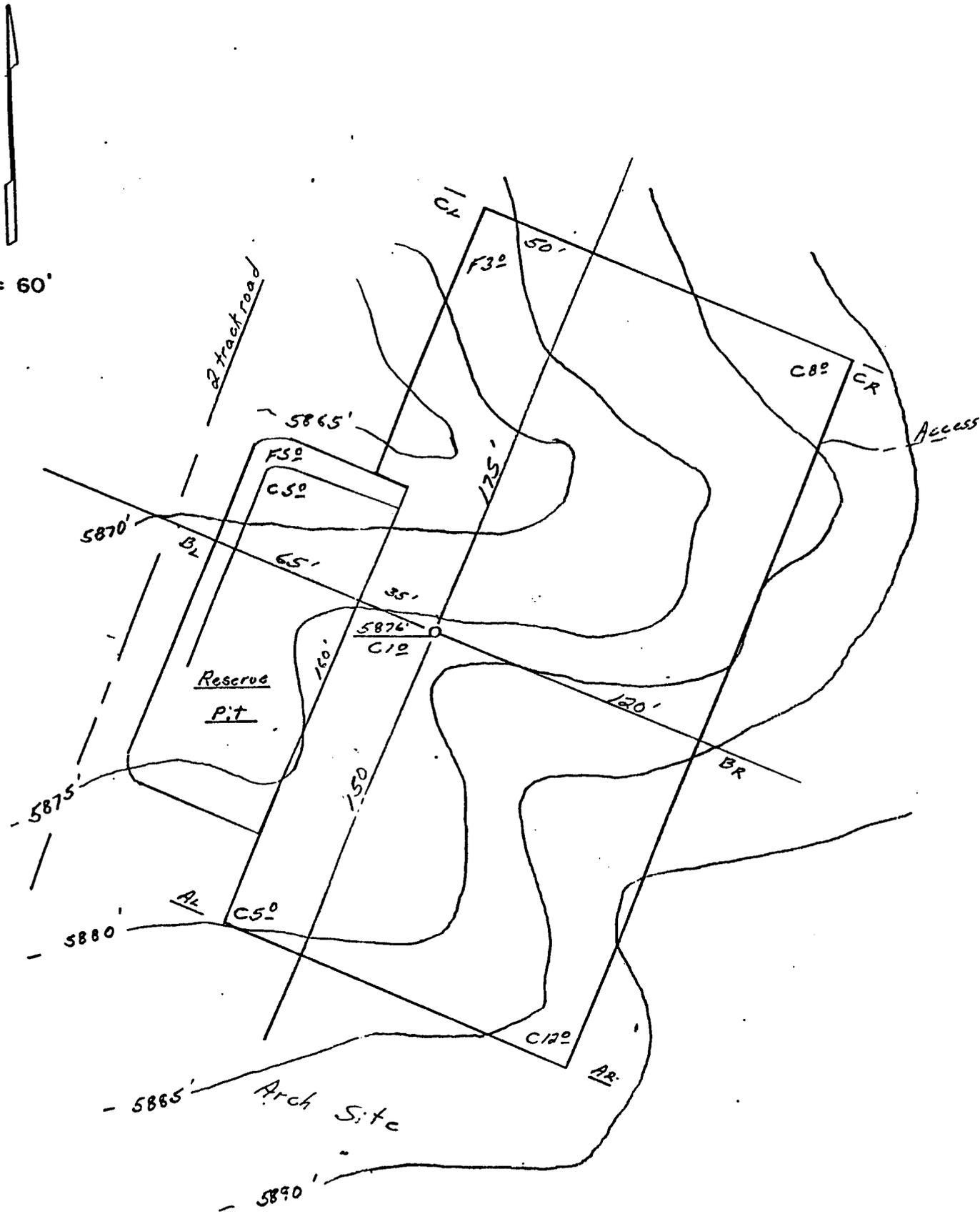
BLM ROAD RIGHT-OF-WAY APPLICATION: █

Robert L. Bayless, Producer LLC
Maverick Federal #1
2135' FNL & 1805' FWL
Sec. 12, T. 37 S., R. 23 E.
San Juan County, Utah



WELL PAD PLAN VIEW

1" = 60'



WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 09/23/96

API NO. ASSIGNED: 43-037-31335

WELL NAME: MAVERICK FEDERAL #1 (RE-ENTRY)
OPERATOR: ROBERT L. BAYLESS (N9300)

PROPOSED LOCATION:
SENW 12 - T37S - R23E
SURFACE: 2135-FNL-1805-FWL
BOTTOM: 2135-FNL-1805-FWL
SAN JUAN COUNTY
UNDESIGNATED FIELD (002)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED
LEASE NUMBER: UTU - 68662

PROPOSED PRODUCING FORMATION: ISMAY

RECEIVED AND/OR REVIEWED:

Plat
 Bond: Federal[] State[] Fee[]
(Number _____)
 Potash (Y/N)
 Oil shale (Y/N)
 Water permit
(Number _____)
 RDCC Review (Y/N)
(Date: _____)

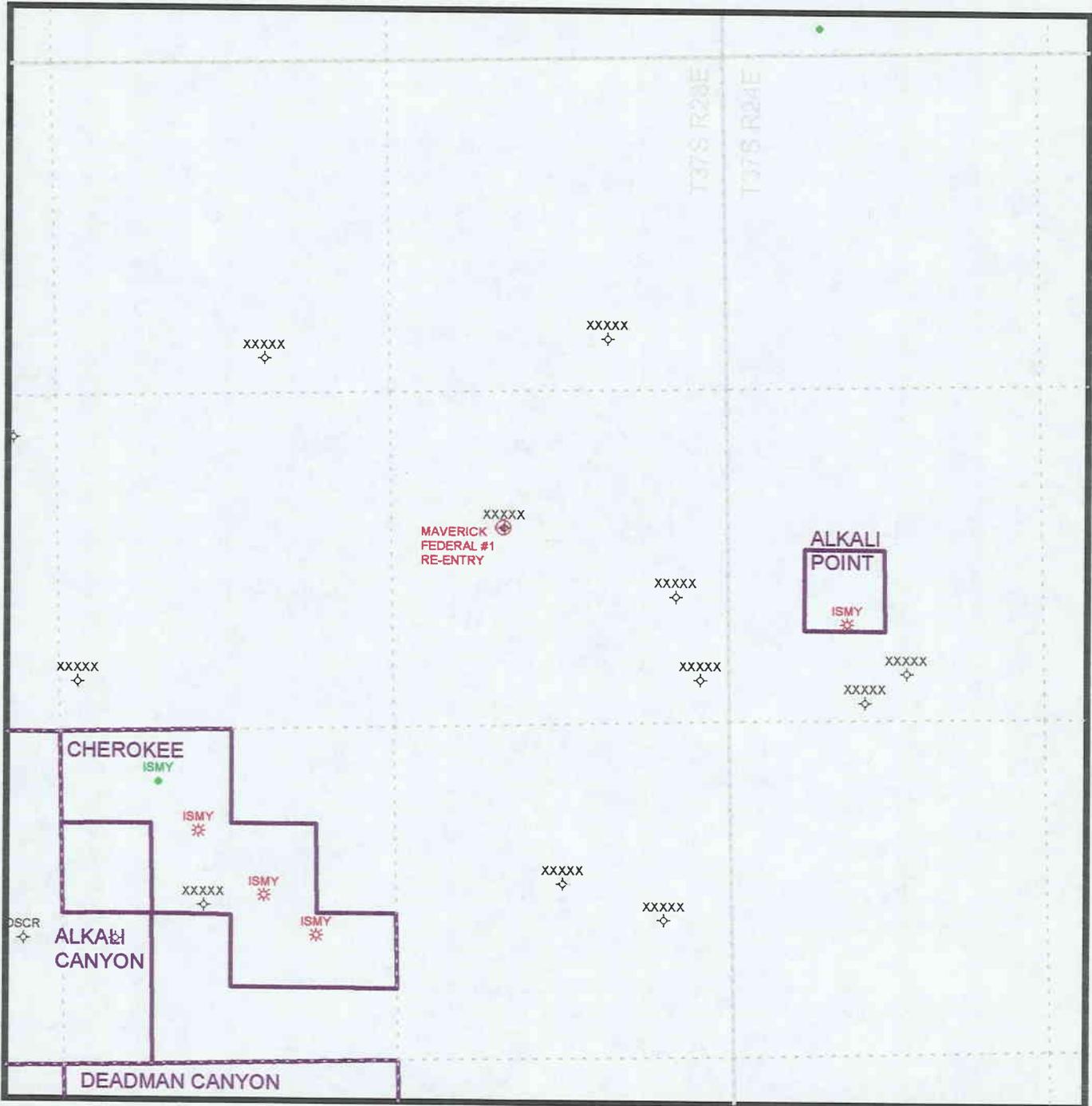
LOCATION AND SITING:

R649-2-3. Unit: _____
 R649-3-2. General.
 R649-3-3. Exception.
 Drilling Unit.
Board Cause no: _____
Date: _____

COMMENTS: _____

STIPULATIONS: _____

OPERATOR: ROBERT L. BAYLESS
FIELD: UNDESIGNATED (002)
SEC, TWP, RNG: 12, T37S, R23E
COUNTY: SAN JUAN
UAC: R649-3-2



PREPARED:
DATE: 23-SEPT-96



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

September 25 1996

Robert L. Bayless, Producer LLC
P.O. Box 168
Farmington, New Mexico 87499

Re: Maverick Federal #1 Well, 2135' FNL, 1805' FWL, SE NW,
Sec. 12, T. 37 S., R. 23 E., San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-31335.

Sincerely,


for R. J. Firth
Associate Director

lwp

Enclosures

cc: San Juan County Assessor
Bureau of Land Management, Moab District Office



Operator: Robert L. Bayless, Producer LLC
Well Name & Number: Maverick Federal #1
API Number: 43-037-31335
Lease: UTU-68662
Location: SE NW Sec. 12 T. 37 S. R. 23 E.

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews at (801)538-5334 or Mike Hebertson at (801)538-5333.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

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
 Robert L. Bayless, Producer LLC (505) 326-2659

3. ADDRESS AND TELEPHONE NO.
 P.O. Box 168, Farmington, NM 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface: 2135' FNL & 1805' FWL
 At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
 8 air miles ESE of Blanding, Ut.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 835'

16. NO. OF ACRES IN LEASE
 800

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

5. LEASE DESIGNATION AND SERIAL NO.
 UTU-68662

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A

7. UNIT AGREEMENT NAME
 N/A

8. FARM OR LEASE NAME, WELL NO.
 Maverick Federal

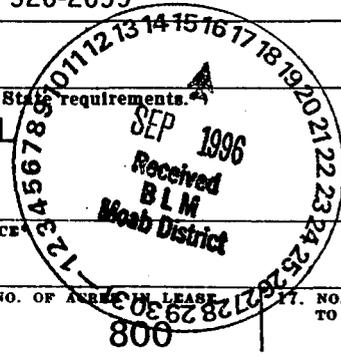
9. API WELL NO.
 # 1

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 12-37s-23e SLBM

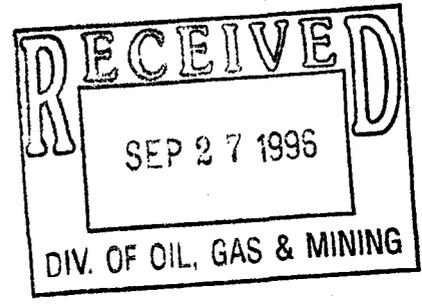
12. COUNTY OR PARISH
 San Juan

13. STATE
 Ut.



Re-entry

Quintana Petroleum originally drilled the Kuli Fed. 1-12 in this location. API # 43-037-31335



CONDITIONS OF APPROVAL ATTACHED

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A Dated 1/1/80

24. SIGNED [Signature] TITLE Consultant (505) 466-8120 DATE 9-14-96

(This space for Federal or State office use)

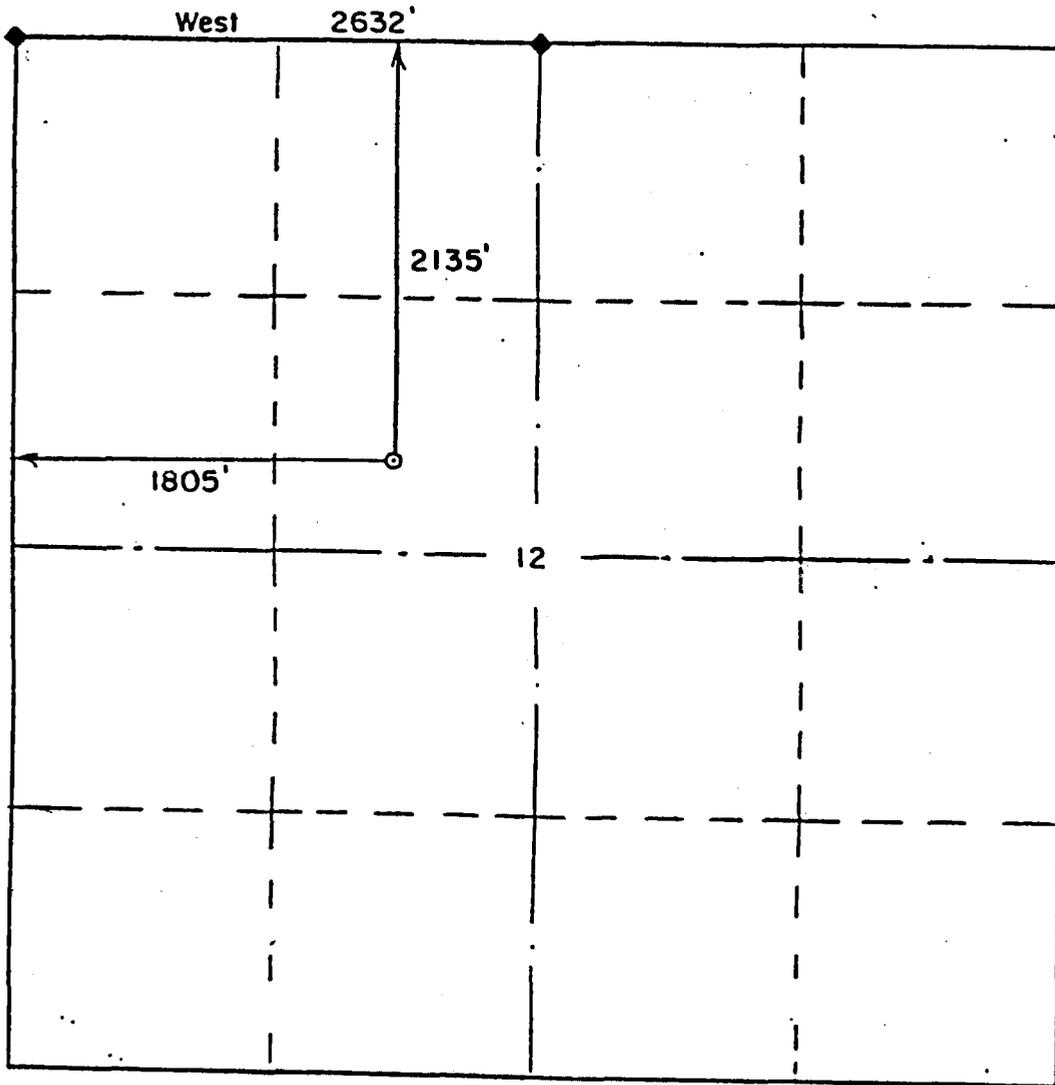
PERMIT NO. _____ APPROVAL DATE _____

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 Asst Brad D. Palmer TITLE Assistant Field Manager, Resource Management DATE SEP 24 1996

*See Instructions On Reverse Side

WELL LOCATION AND ACREAGE DEDICATION PLAT



***WELL LOCATION DESCRIPTION:**

Quintana Petroleum Kali Federal 1-12
 2135 FN & 1805 FW
 Section 12, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5876' grd. elev.
 Alternate: 2000' FN & 1700' FW, 5865' grd.

The above plat is true and correct to my knowledge and belief.

22 July 1987

REGISTERED LAND SURVEYOR
 No. 5705
 Gerald Huddleston, LS
 STATE OF UTAH

213 East Montezuma Avenue • Cortez, Colorado 81321 • 303-565-3330

*** Former well name & operator.**

Current are Maverick Federal #1 & Robert L. Bayless, Producer LLC

Robert L. Bayless, Producer, LLC
Maverick Federal #1
Lease U-68662
SE/NW, Section 12, T. 37 S., R. 23 E.
San Juan County, Utah

CONDITIONS OF APPROVAL

Approval of this application 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.

Be advised that Robert L. Bayless, LLC is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by NM-0883 (Principal - Robert L. Bayless) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. The proposed 3M BOP system is adequate. Installation, testing and operation of the system shall be in conformance with Onshore Oil and Gas Order No. 2.

B. SURFACE

1. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the San Juan Resource Area Manager. The operator shall suspend all operation in the immediate area of such discovery until written authorization to proceed is issued by the San Juan Resource Area Manager. An evaluation of the discovery will be made by the San Juan Resource Area Manager to determine appropriate action to prevent the loss of significant cultural or scientific values. The operator will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the operator.

2. BLM will complete a raptor/owl survey and clearance of the affected area surrounding the proposed drilling site prior to work initiation if the proposed well is drilled between February 1, and July 15. If the raptor/owl survey locates an active raptor/owl nest which would be affected by this proposal, no work would be allowed until nestlings have fledged.

3. Deer winter range restrictions from December 15, through April 30 are imposed for well location preparation and drilling operations.

4. All permanent above the ground production equipment will be painted Juniper Green.

5. The reserve pit shall remain free of hydrocarbons at all times. Any hydrocarbons entering the reserve pit will be removed promptly or the pit will be effectively sealed with netting material with a mesh of one inch or less.

6. Reclamation of the entire disturbed area will be accomplished by grading the area as near as practical back to the natural contour and spreading the top soil evenly as possible over the area. The entire disturbed area will be scarified with a 6 inch or less distance between ripped surfaces. The soil surface will be dry and loose prior to seeding and will be broadcast seeded between October 1, and February 28 with the following mixture of pure live seed:

Fourwing saltbush	2 pounds/acre
Wild sunflower	1 pound/acre
Mormon tea	1 pound/acre
Crested wheatgrass	4 pounds/acre

C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, enclosed.

Building Location- Contact the BLM Petroleum Engineering Technician at the Monticello BLM Field Office at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to BLM 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the Moab BLM Field Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the Moab BLM Field Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Moab BLM Field Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the BLM in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the BLM is to be notified.

First Production- Should the well be successfully completed for production, the Moab BLM Field Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Monticello BLM Field Office. The Monticello BLM Field Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the Moab BLM Filed Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or

completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the Moab BLM Field Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever occurs first, without the prior, written approval of the BLM. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the Moab BLM Field Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Moab BLM Field Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the Moab BLM Field Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) shall be filed with the Moab BLM Field Office within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the BLM, or the appropriate surface managing agency.

TABLE 1. NOTIFICATIONS

Notify Jeff Brown of the Monticello BLM Field Office in Monticello, Utah, at (801) 587-2141, or at home (801) 587-2046 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

50 feet prior to reaching each casing setting depth;

3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab BLM Field Office at (801) 259-6111. If unsuccessful, contact one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab Field Office at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Gary Torres, Petroleum Engineer	Office:	(801) 587-2141
	Home:	(801) 587-2705

Eric Jones, Petroleum Engineer	Office:	(801) 259-2117
	Home:	(801) 259-2214

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: ROBERT BAYLESS

Well Name: MAVERICK FEDERAL # 1 (RE-ENTRY)

Api No. 43-037-31335

Section 12 Township 37S Range 23E County SAN JUAN

Drilling Contractor PALONCO BROS.

Rig #: 1

SPUDDED:

Date: 9/30/96

Time: 7:00 AM

How: ROTARY

Drilling will commence: _____

Reported by: PAM

Telephone #: 1-505-326-2659

Date: 9/30/96 Signed: MKH

OPERATOR ROBERT L. BAYLESS, PRODUCER LLC
 ADDRESS P.O. BOX 168
FARMINGTON, NM 87499

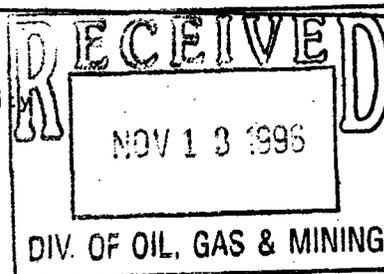
OPERATOR ACCT. NO. N 9300

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	10781	→	43-037-31335	MAVERICK FEDERAL #1	SEW	12	37S	23E	SAN JUAN	9/30/96	10/23/96
WELL 1 COMMENTS: Entity chg. not necessary; re-entry same # 10781. <i>lc</i> WELL SHUT IN. WAITING ON PIPELINE.											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

- ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
 - B - Add new well to existing entity (group or unit well)
 - C - Re-assign well from one existing entity to another existing entity
 - D - Re-assign well from one existing entity to a new entity
 - E - Other (explain in comments section)

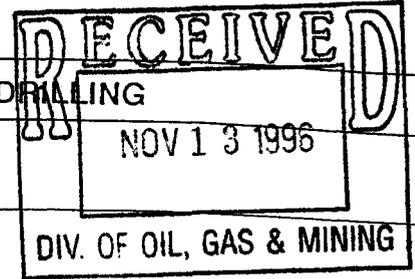
NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)



Tew M. Taylor
 Signature
 PETROLEUM ENGINEER
 Title
 11/5/96
 Date
 Phone No. (505) 326-2659

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING



REPORT OF WATER ENCOUNTERED DURING DRILLING

1. Well name and number: MAVERICK FEDERAL NO. 1

API number: 43-037-31335

2. Well Location: QQ SENW Section 12 Township 37S Range 23E County SAN JUAN

3. Well operator: ROBERT L. BAYLESS, PRODUCER LLC

Address: P.O. BOX 168

FARMINGTON, NM 87499

Phone: (505) 326-2659

4. Drilling contractor: RUDY POLANCO

Address: P.O. BOX 2113

BLOOMFIELD, NM

Phone: (505) 632-8226

5. Water encountered (attach additional pages as needed): NOT APPLICABLE, SEE NOTE BELOW.

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		

6. Formation tops: THIS IS A RE-ENTRY INSIDE OF EXISTING 5 1/2" CASING OF THE
KALI FEDERAL #1-12 DRILLED BY QUINTANA PETROLEUM.

If an analysis has been made of the water encountered, please attach a copy of the report to this form.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 11/5/96

Name & Signature: TOM MC CARTHY

Title: PETROLEUM ENGINEER

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 11 1997

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.
UTU-68662

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA, Agreement Designation
N/A

8. Well Name and No.
MAVERICK FEDERAL

9. API Well No.
#1 43-037-31335

10. Field and Pool, or Exploratory Area
WILDCAT

11. County or Parish, State
SAN JUAN, UT

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

ROBERT L. BAYLESS, PRODUCER LLC

3. Address and Telephone No.

P.O. BOX 168 FARMINGTON, NM 87499

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

2135' FNL & 1805' FWL
SEC. 12, T37S, R23E

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>PREFORATE ADDITIONAL DEEPER ZONES</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

3/19/97: Move in test tank.

3/20/97: Rig up perforators. Trip in hole with GR CCL log. Run log from 5890-6121'. Trip in with 1 11/16" slick wire perforating Gun. Perforate Ismay Zone 6050-6058' with 2 SPF. Rig down perforators.

3/22/97: Test well with 1/4" choke to frac tank. Shut in casing pressure 815 PSI. Shut in tubing pressure 145 PSI. Flowed well 3 hours. Average tubing pressure 22 PSI. Average casing pressure 815 PSI. Made gas at a rate of 49 MCFD. Shut well in.

RECEIVED
NORMAN FIELD OFFICE
1997 MAR 25 PM 1:15
DEPT. OF THE INTERIOR
BUREAU OF LAND MGMT

14. I hereby certify that the foregoing is true and correct

Signed [Signature]

Title Petroleum Engineer

Date 3/24/97

(This space for Federal or State office use)

Approved by [Signature]
Conditions of approval, if any:

Title Assistant Field Manager,
Resource Management

Date 4/9/97

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001, makes 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.

*See instruction on Reverse Side

Form 3160-4
(July 1992)

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. DESVR. Other _____

2. NAME OF OPERATOR
ROBERT L. BAYLESS, PRODUCER LLC

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 168, FARMINGTON, NM 87499 (505) 326-2659

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface **2135' FNL & 1805' FWL**
At top prod. interval reported below **SAME**
At total depth **SAME**
4160939-N
646411-E

14. PERMIT NO. **43-037-31335** DATE ISSUED **9/24/96**

5. LEASE DESIGNATION AND SERIAL NO.
UTU -68662

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME, WELL NO.
MAVERICK FEDERAL #1

9. API WELL NO.
43-037-31335

10. FIELD AND POOL, OR WILDCAT
WILDCAT

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA
SEC. 12, T37S, R23E

12. COUNTY OR PARISH **SAN JUAN** 13. STATE **UT**

15. DATE SPUDDED **9/30/96** 16. DATE T.D. REACHED **10/2/96** 17. DATE COMPL. (Ready to prod.) **3/22/97** 18. ELEVATIONS (OF, RKB, RT, CR, ETC.)* **5876' GR** 19. ELEV. CASINGHEAD **5874" GR**

20. TOTAL DEPTH, MD & TVD **6113'** 21. PLUG, BACK T.D., MD & TVD **6113'** 22. IF MULTIPLE COMPL., HOW MANY* **→** 23. INTERVALS DRILLED BY **→** ROTARY TOOLS **X** CABLE TOOLS _____

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
UPPER ISMAY 6004' -6138' MD 25. WAS DIRECTIONAL SURVEY MADE **NO**

26. TYPE ELECTRIC AND OTHER LOGS RUN **NONE** 27. WAS WELL CORDED **NO**

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9 5/8	36#	2243'	12 1/4"	560 sxs Lite, 200 sxs D-917	NONE
5 1/2"	15.5#	6163"	8 3/4"	190 sxs POZ	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NONE				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8	6009.99	

31. PERFORATION RECORD (Interval, size and number)

6018-6026'	4 SPF
6040-6046'	4 SPF
6052-6058'	2 SPF

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
NONE	

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
10/10/96	FLOW	SHUT-IN

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
3/22/97	3	1/4	→	0	6	0	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
22	815	→	0	49	0	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) **VENTED** TEST WITNESSED BY **RALPH SMITH**

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED *Tom Smith* TITLE PETROLEUM ENGINEER DATE 3/24/97

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes 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.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:
UTU-68662

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:
MAVERICK FEDERAL #1

9. API Well Number:
43-037-31335

10. Field and Pool, or Wildcat:
WILDCAT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well:
OIL GAS OTHER:

2. Name of Operator:
ROBERT L. BAYLESS, PRODUCER LLC

3. Address and Telephone Number:
P.O. Box 168, Farmington, New Mexico 87499 (505)326-2659

4. Location of Well:
Footages: **2135' FNL & 1805' FWL**
County: **San Juan**
QQ, Sec., T.,R.,M.: **Sec. 12, T37S, R23E**
State: **Utah**

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

Abandonment

Casing Repair

Change of Plans

Conversion to Injection

Fracture Treat

Multiple Completion

New Construction

Pull or Alter Casing

Recompletion

Shoot or Acidize

Vent or Flare

Water Shut-Off

SUBSEQUENT REPORT
(Submit Original Form Only)

Abandonment *

Casing Repair

Change of Plans

Conversion to Injection

Fracture Treat

Other _____

New Construction

Pull or Alter Casing

Shoot or Acidize

Vent or Flare

Water Shut-Off

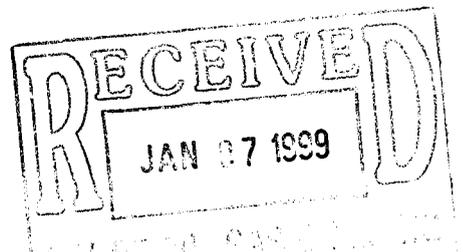
Other APPROVAL FOR SHUT-IN STATUS

Date of work completion _____
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

Approximate date work will start _____

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We request approval for shut-in status for the subject well. It is capable of producing gas and oil at rates that are currently uneconomic. At such time that a gas pipeline is built closer to this well or if gas and oil prices improve, we will evaluate the connection and production of the well.



13. Name & Signature Thomas McCarthy Title: Engineer Date: January 4, 1999

**Accepted by the
Utah Division of**

(This space for State use only) **Oil, Gas and Mining
FOR RECORD ONLY**

*Federal Approval of this
Action is Necessary*

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:
UTU - 68662

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:
MAVERICK FEDERAL #1

9. API Well Number:
43-037-31335

10. Field and Pool, or Wildcat:
WILDCAT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well:
OIL GAS OTHER:

2. Name of Operator:
ROBERT L. BAYLESS, PRODUCER LLC

3. Address and Telephone Number:
P.O. BOX 168, FARMINGTON, NM 87499 (505) 326-2659

4. Location of Well:
Footages: 2135' FNL & 1805' FWL
County: San Juan
QQ, Sec., T.,R.,M.: SEC. 12, T37S, R23E
State: Utah

CONFIDENTIAL

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Multiple Completion
- Other
- New Construction
- Pull or Alter Casing
- Recompletion
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandonment *
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other Annual Status Report
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Date of work completion _____

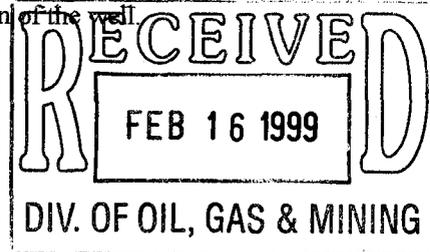
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Annual Status Report:

The Maverick Federal Well No. 1 is shut-in due to uneconomic production. At such time that a gas pipeline is built closer to this well or if gas or oil prices improve, we will evaluate the connection and production of the well.



13. Name & Signature: Thomas McCarthy Title: Engineer Date: 2/11/99

(This space for State use only)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

UTU - 68662

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

7. Unit Agreement Name:

1. Type of Well:

OIL GAS OTHER:

8. Well Name and Number:

MAVERICK FEDERAL #1

2. Name of Operator:

ROBERT L. BAYLESS, PRODUCER LLC

9. API Well Number:

43-037-31335

3. Address and Telephone Number:

P.O. BOX 168, FARMINGTON, NM 87499 (505) 326-2659

10. Field and Pool, or Wildcat:

WILDCAT

4. Location of Well:

Footages: 2135' FNL & 1805' FWL

County: San Juan

QQ, Sec., T.,R.,M.: SEC. 12, T37S, R23E

State: Utah

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(Submit Original Form Only)

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- Water Shut-Off

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Annual Status Report:

The Maverick Federal Well No. 1 is shut-in due to uneconomic production. At such time that a gas pipeline is built closer to this well we will evaluate the connection and production of the well.

RECEIVED

MAR 03 2000

DIVISION OF
OIL, GAS AND MINING

13.

Name of Extension for Shut-in or Temporary Abandonment may be issued in accordance with

R649-3-36.1.1, 1.2 & 1.3, upon receipt and review, by the Division of Oil, Gas & Mining of

(This space for State use only) the supporting data specified in the sited rule.

10-Mar-2000

Accepted by the 2/19/00
Utah Division of
Oil, Gas & Mining

COPY SENT TO
Date: 3-13-00
Initial: CAD

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

UTU - 68662

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

MAVERICK FEDERAL #1

9. API Well Number:

43-037-31335

10. Field and Pool, or Wildcat:

WILDCAT

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well:

OIL GAS OTHER:

2. Name of Operator:

ROBERT L. BAYLESS, PRODUCER LLC

3. Address and Telephone Number:

P.O. BOX 168, FARMINGTON, NM 87499 (505) 326-2659

4. Location of Well:

Footages: 2135' FNL & 1805' FWL

County: San Juan

QQ, Sec., T.,R.,M.: SEC. 12, T37S, R23E

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT

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- Abandonment
- Casing Repair
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Approximate date work will start _____

SUBSEQUENT REPORT

(Submit Original Form Only)

- Abandonment *
- Casing Repair
- Change of Plans
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* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Annual Status Report:

The Maverick Federal Well No. 1 is shut-in due to uneconomic production. At such time that a gas pipeline is built closer to this well we will evaluate the connection and production of the well.

RECEIVED

MAR 13 2002

DIVISION OF
OIL, GAS AND MINING

13.

Name & Signature

Thomas McCarthy

Title: Engineer

Date: 2/25/02

(This space for State use only)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

UTU - 68662

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

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7. Unit Agreement Name:

1. Type of Well:

OIL GAS OTHER:

8. Well Name and Number:

MAVERICK FEDERAL #1

2. Name of Operator:

ROBERT L. BAYLESS, PRODUCER LLC

9. API Well Number:

43-037-31335

3. Address and Telephone Number:

P.O. BOX 168, FARMINGTON, NM 87499 (505) 326-2659

10. Field and Pool, or Wildcat:

WILDCAT

4. Location of Well:

Footages: 2135' FNL & 1805' FWL

County: San Juan

QQ, Sec., T.,R.,M.: SEC. 12, T37S, R23E

State: Utah

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(Submit Original Form Only)

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Annual Status Report:

The Maverick Federal Well No. 1 is shut-in due to uneconomic production. At such time that a gas pipeline is built closer to this well we will evaluate the connection and production of the well.

RECEIVED

MAR 06 2003

DIV. OF OIL, GAS & MINING

13.

Name & Signature

Thomas McCarthy

Title: Engineer

Date: 2/27/03

(This space for State use only)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:

UTU-68662

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL
OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
MAVERICK FEDERAL NO. 1

2. NAME OF OPERATOR:
ROBERT L. BAYLESS, PRODUCER LLC

9. API NUMBER:
4/3-037-31335

3. ADDRESS OF OPERATOR:
PO BOX 168 FARMINGTON NM 87499

PHONE NUMBER:
(505) 326-2659

10. FIELD AND POOL, OR WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2135' FNL & 1805' FWL

COUNTY: SAN JUAN

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 12 37S 23E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>1/1/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

See attached proposed plugging and abandonment procedure. After we receive partner approval, Bayless will proceed to plug this well contingent on rig availability and weather conditions.

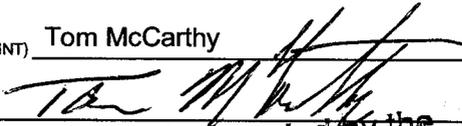
COPY SENT TO OPERATOR

Date: 12.3.2009

Initials: KS

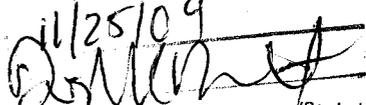
NAME (PLEASE PRINT) Tom McCarthy

TITLE Engineer

SIGNATURE 

DATE 11/2/2009

(This space for State use only)

Approved by the
Utah Division of
Oil, Gas and Mining
11/25/09


Federal Approval Of This
Action Is Necessary

RECEIVED

NOV 09 2009

DIV. OF OIL, GAS & MINING

PLUG AND ABANDONMENT PROCEDURE
Maverick Federal #1

Wildcat
2135' FNL and 1805' FWL, Section 12, T-37-S, R-23-E
San Juan County, UT / API 43-037-31335

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

1. Install and test location rig anchors. Prepare a blow pit. Comply with all State, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
2. Rods: Yes , No , Unknown .
Tubing: Yes , No , Unknown , Size 2.875" , Length 6010' KB .
Packer: Yes , No , Unknown , Type _____
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate. .
3. **Plug #1 (Ismay perforations and top, 5968' – 5868')**: Round trip 5.5" gauge ring to 5968'. TIH and set 5.5" cement retainer at 5968'. Pressure test tubing to 1000 PSI. Load casing with water and circulate well clean. Pressure test casing to 800 PSI. *If casing does not test, then spot or tag subsequent plugs as appropriate.* Mix 17 sxs Class B cement and spot a plug above CR to isolate the Ismay interval. TOH with tubing.
4. **Plug #2 (Cutler top, 3092' – 2992')**: Perforate 3 HSC holes at 3092'. Establish an injection rate into the squeeze holes. TIH and set a 5.5" CR at 3042'. Mix 60 sxs Class B cement, squeeze 43 sxs outside the 5.5" casing and leave 17sxs inside to cover the Cutler top. TOH with tubing.
5. **Plug #3 (9.625" casing shoe and Chinle top, 2293' – 2079')**: Perforate 3 HSC holes at 2293'. Establish an injection rate into the squeeze holes. TIH and set a 5.5" CR at 2243'. Mix 101 sxs Class B cement, squeeze 71 sxs outside the 5.5" casing and leave 30 sxs inside to cover the 9.625" casing shoe and Chinle top. PUH.
6. **Plug #4 (Surface, 102' – 0')**: Mix and spot approximately 20 sxs cement from 102' to surface, TOH and LD tubing. Shut in well and WOC.
7. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location per BLM stipulations.

Maverick Federal #1

Current

Wildcat

2135' FNL & 1805' FWL, Section 12, T-37-S, R-23-E

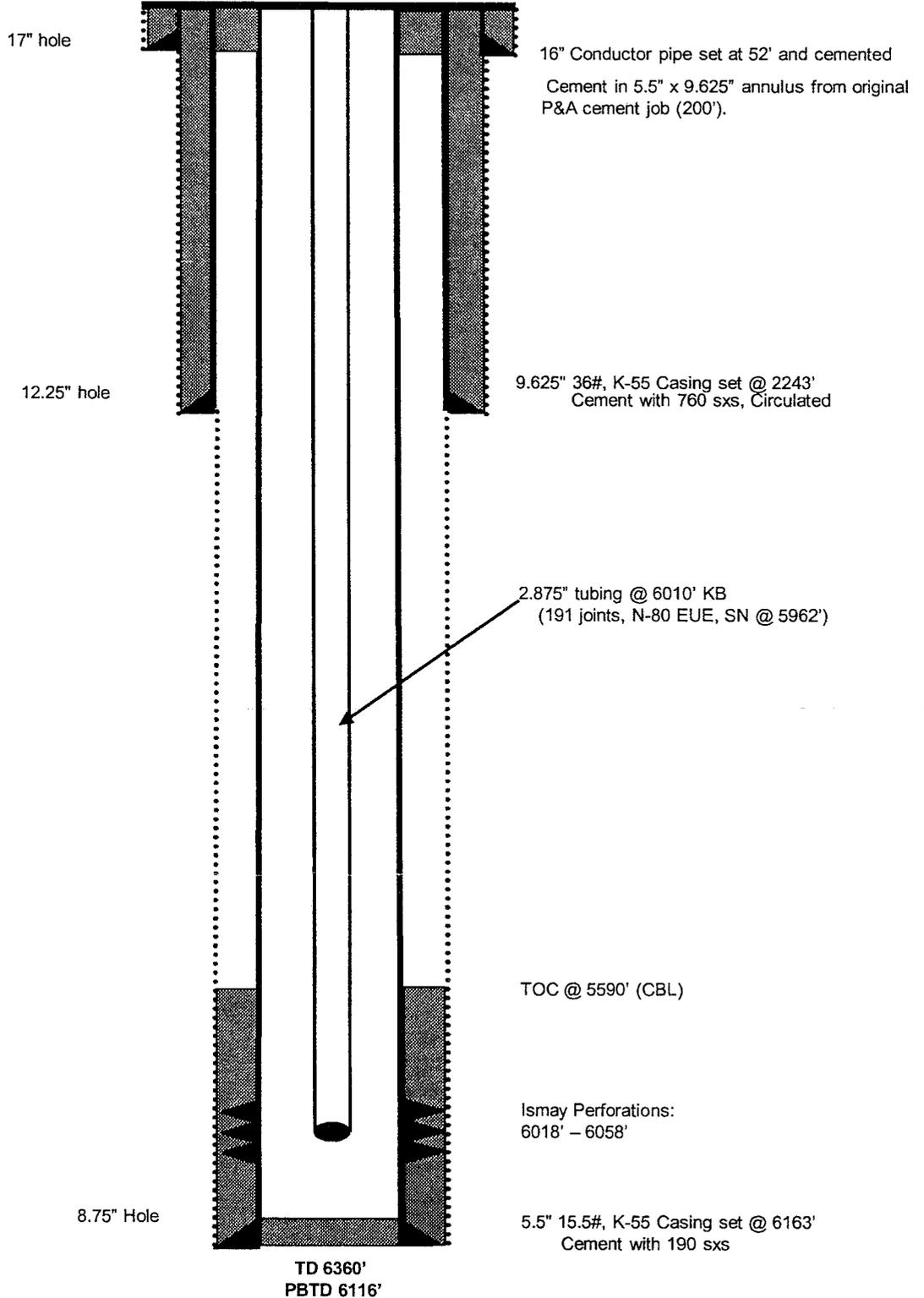
San Juan County, UT / API #43-037-31335

Today's Date: 10/1/09
Original Spud: 8/24/87
Original P&A: 9/27/87
Re-Entered: 9/30/96
Completed: 3/22/97
Elevation: 5876' GI
5891' KB

Chinle @ 2129'

Cutler @ 3042' *est

Ismay @ 6005'



Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING

- | |
|--------|
| 1. DJJ |
| 2. CDW |

X - Change of Operator (Well Sold)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

12/1/2010

FROM: (Old Operator): N7950-Robert L. Bayless Producer, LLC PO Box 168 Farmington, NM 87499 Phone: 1 (505) 564-7809	TO: (New Operator): N2292-Lodestone Operating, Inc. 272 Beachwalk Lane Port Aransas, TX 78373 Phone: 1 (361) 816-7654
--	--

CA No.

Unit:

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
MAVERICK FED 1	12	370S	230E	4303731335	10781	Federal	GW	S
SHANE FED 1	07	370S	240E	4303731406	10999	Federal	GW	P

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 1/26/2011
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 1/26/2011
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 3/24/2010
- 4a. Is the new operator registered in the State of Utah: Business Number: 6279346-0143
- 5a. (R649-9-2) Waste Management Plan has been received on: IN PLACE
- 5b. Inspections of LA PA state/fee well sites complete on: n/a
- 5c. Reports current for Production/Disposition & Sundries on: ok
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 1/6/2011 BIA
- Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a
- Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

DATA ENTRY:

- Changes entered in the **Oil and Gas Database** on: 1/31/2011
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 1/31/2011
- Bond information entered in RBDMS on: n/a
- Fee/State wells attached to bond in RBDMS on: n/a
- Injection Projects to new operator in RBDMS on: n/a
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

- Federal well(s) covered by Bond Number: UTB000255
- Indian well(s) covered by Bond Number: n/a
- 3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number n/a
- 3b. The **FORMER** operator has requested a release of liability from their bond on: n/a

LEASE INTEREST OWNER NOTIFICATION:

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER.
UTU68662

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CO-AGREEMENT NAME:

1. TYPE OF WELL
OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
MAVERICK FEDERAL #1

2. NAME OF OPERATOR:
LODESTONE OPERATING, INC. *N2292*

9. API NUMBER:
4303731335

3. ADDRESS OF OPERATOR:
272 BEACHWALK LN *CITY* PORT ARANSAS *STATE* TX *Zip* 78373

PHONE NUMBER:
(361) 816-7654

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2135FNL & 1805 FWL COUNTY: SAN JUAN
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 12 37S 23E SL STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>12/1/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
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	<input type="checkbox"/> COMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THIS IS A CHANGE OF OPERATOR FROM ROBERT L. BAYLESS PRODUCER LLC TO LODESTONE OPERATING, INC. EFFECTIVE DECEMBER 1, 2010.
BOND COVERAGE HERUNDER IS PROVIDED BY STATEWIDE BOND UTB000255.

I hereby certify that the foregoing is true and correct
Company: Robert L. Bayless Producer LLC

Print Name: Robert L. Bayless, Jr. *N7950*

Title: Executive Manager

Signed: *[Signature]*

Date: January 19, 2011

*PO Box 168
Farmington NM 87499 (505) 564-7809*

NAME (PLEASE PRINT) DAVID M. REAVIS

TITLE PRESIDENT

SIGNATURE *[Signature]*

DATE 1/19/2011

(This space for State use only)

APPROVED 1/31/2011

(5/2000)

Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(See instructions on Reverse Side)

Filed 1/26/2011 ER

RECEIVED

JAN 31 2011

DIV. OF OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU68662
2. Name of Operator LODESTONE OPERATING INC		6. If Indian, Allottee or Tribe Name
Contact: SYLVIA MILLS E-Mail: samills61@gmail.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 272 BEACHWALK LN PORT ARANSAS, TX 78373	3b. Phone No. (include area code) Ph: 361-816-7654 Fx: 361-777-2163	8. Well Name and No. MAVERICK FEDERAL 1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 12 T37S R23E 2135FNL 1805FWL		9. API Well No. 43-037-31335
		10. Field and Pool, or Exploratory WILDCAT
		11. County or Parish, and State SAN JUAN COUNTY COUNTY, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Fracture Treat
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Alter Casing
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Change Plans
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Well Integrity
	<input checked="" type="checkbox"/> Other

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

THIS IS A CHANGE OF OPERATOR FROM ROBERT L. BAYLESS PRODUCER LLC TO:
LODESTONE OPERATING, INC
272 BEACHWALK LN
PORT ARANSAS, TEXAS 78373
EFFECTIVE DECEMBER 1, 2010.

BOND COVERAGE HEREUNDER IS PROVIDED BY STATEWIDE BOND #UTB000255

RECEIVED
JAN 10 2011

DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #100103 verified by the BLM Well Information System For LODESTONE OPERATING INC, sent to the Moab Committed to AFMSS for processing by MARIE MCGANN on 01/06/2011 ()	
Name (Printed/Typed) DAVID M REAVIS	Title PRESIDENT
Signature (Electronic Submission)	Date 01/05/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	Title Division of Resources	Date 1/6/2011
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Moab Field Office	
Office		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

cc: udogm

Conditions of Acceptance Attached

Lodestone Operating, Inc.
Well No. Maverick 1
Section 12, T37S, R23E
Lease UTU68662
Grand County, Utah

CONDITIONS OF ACCEPTANCE

Acceptance of this application 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.

Be advised that Lodestone Operating, Inc. is considered to be the operator of the above well effective December 1, 2010, and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UTB000255 (Principal – Lodestone Operating, Inc.) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43CFR 3106.7-2 continuing responsibility are met.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU68662
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SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME:
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1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MAVERICK FED 1
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2. NAME OF OPERATOR: LODESTONE OPERATING, INC	9. API NUMBER: 43037313350000
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3. ADDRESS OF OPERATOR: 1605 US HWY 181, PMB 169, PORTLAND, TX, 78374	PHONE NUMBER: 361 877-7077 Ext	9. FIELD and POOL or WILDCAT: ALKALI POINT
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 2135 FNL 1805 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 37.0S Range: 23.0E Meridian: S	COUNTY: SAN JUAN STATE: UTAH
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11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/1/2013 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Test & Pipeline"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 Please see (2) attachments to Sundry. Please note: Testing will occur after pipeline is approved and constructed.

Accepted by the Utah Division of Oil, Gas and Mining

Date: September 23, 2013

By: *Derek Quist*

NAME (PLEASE PRINT) Sylvia Mills	PHONE NUMBER 361-816-7654	TITLE Production Analyst
SIGNATURE N/A		DATE 7/18/2013

Maverick Federal #1 Sundry Verbiage
7/18/2013

This sundry is filed to request permission to test the Maverick Federal #1 well on a temporary basis. We propose to lay a surface line from the Maverick Federal #1 to our Shane Federal #1 well.

We are in the process of archaeological clearance of this proposed line and we will be filing the proper paperwork for this line before testing is commenced.

In brief, we request permission to shut in the Shane Federal #1 well during the Maverick Federal #1 testing and produce full well stream production into the Shane Federal #1 tank battery. The Shane Federal #1 well has not produced any oil in many years. We will gauge the tanks before and after to insure proper allocation of produced fluids to Maverick Federal #1.

In addition, we will run gas production through the Shane Federal #1 meter, again on a temporary basis. We do not anticipate the test taking more than two (2) calendar months.

We will notify the BLM when this test commences and finishes along with the oil, gas and water production during this period. This will allow us to test the feasibility of building a full tank battery on the Maverick Federal #1 location versus requesting permission to build a full battery on the Shane Federal #1 location.

We are requesting this permission in advance because our testing procedure will be different if this request is not approved.

We are attaching a preliminary pipeline survey. The points on this survey have already been staked.

