

Natural Gas
Corporation of
California

RECEIVED

AUG 15 1984

DIVISION OF OIL
GAS & MINING

August 14, 1984

Bureau of Land Management
Branch of Fluid Minerals
Vernal District
170 South 500 East
Vernal, UT 84078

Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Re: NGC #24-20 Federal
SE SW $\frac{1}{4}$ Sec. 20, T.8S., R.22E.
Uintah County, UT
Glen Bench Unit

Gentlemen:

Natural Gas Corporation of California proposes to drill the subject well.
Enclosed are the following documents:

- 1) Application for Permit to Drill
- 2) Conditions of Approval for Notice to Drill
- 3) 13 Point Surface Use Plan
- 4) Surveyor's Plat

Your early consideration and approval of this application would be appreciated. Please contact this office if you have any questions concerning this application.

Sincerely,



William A. Ryan
Petroleum Engineer

/kh

Encls.

cc: P. Roberts
R. Langenwalter
Land Dept.
L. Jorgensen

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
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 2071' FWL, 707' FSL, Sec. 20, T.8S., R.22E. SE 1/4 SW 1/4
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15 miles southeast of Vernal, UT

16. NO. OF ACRES IN LEASE
1785

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.
2864'

19. PROPOSED DEPTH
5000'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
4809' Un. Gr.

22. APPROX. DATE WORK WILL START*
August 20, 1984

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|---------------------|
| 12-1/4 | 8-5/8 | 24# | 270' | To surface |
| 7-7/8 | 5-1/2 | 15.5# | T.D. | 1850' Top of cement |

RECEIVED

AUG 15 1984

DIVISION OF OIL
GAS & MINING

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 8/20/84
BY: John R. Baga

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 William A. Ryan TITLE Petroleum Engineer DATE August 13, 1984
SIGNED William A. Ryan

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

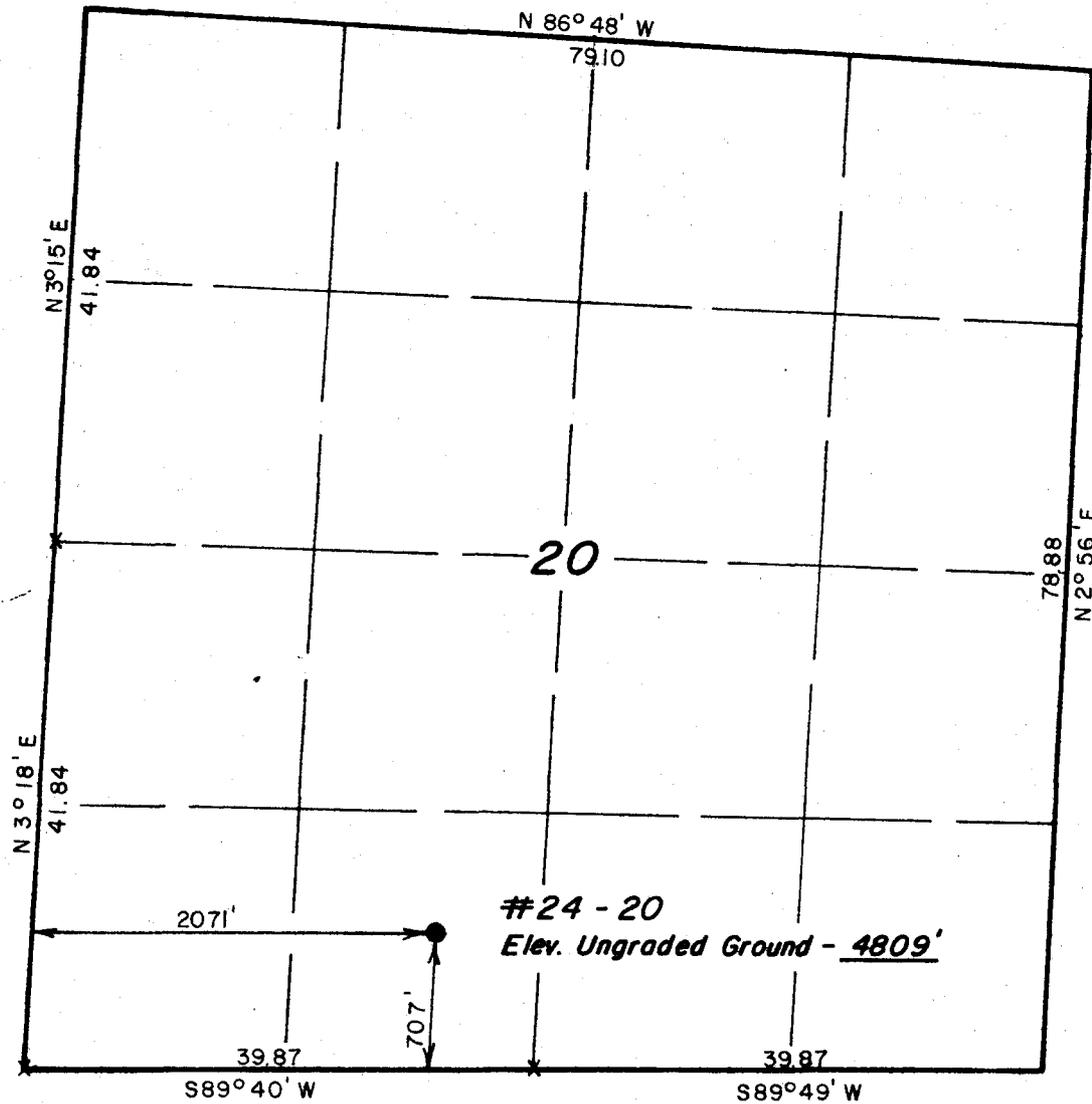
cc: BLM; Div. OG&M; PRoberts; RLangenwalter; Land; LJorgensen

*See Instructions On Reverse Side

T8S, R22E, S.L.B. & M.

PROJECT
NATURAL GAS CO. OF CALIF.

Well location, #24-20, located as shown in the SE 1/4 SW 1/4 Section 20, T8S, R22E, S.L.B. & M. Uintah County, Utah.



X = Section Corners Located



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 2454
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q - 85 SOUTH - 200 EAST
VERNAL, UTAH - 84078

| | | | |
|---------|------------|------|----------------|
| SCALE | 1" = 1000' | DATE | 7/10/84 |
| PARTY | GS, BR | PT | REFERENCES GLO |
| WEATHER | Hot | FILE | NATURAL GAS |

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company Natural Gas Corp. of CA Well No. 24-20
Location Section 20 T8S R22E Lease No. U-9617
Onsite Inspection Date 7-31-84

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 the field representative to insure compliance.

A. DRILLING PROGRAM

1. Pressure Control Equipment

Prior to drilling out the surface casing shoe, the ram-type preventers shall be tested to 2,000 psi and the annular-type preventers shall be tested to 1,500 psi.

The choke manifold system will be consistent with API RP 53.

B. THIRTEEN POINT SURFACE USE PLAN

1. Planned Access Roads

The conditions of approval have been incorporated in the Surface Use Plan. However, also in that plan is a proposal for a planned second access road connecting the 24-20 location with the 23-21 location. We are withholding action on this requested loop road and will consider it as an action separate from the rest of the APD. Therefore, this proposal in item 2.(9) of the 13 point surface use plan is not authorized.

The only access authorized for well 24-20 is that proceeding in a northwesterly direction to tie in with existing road in section 20 near the 13-20 well. This would involve almost .5 mile of new access road construction and would provide adequate access for the construction and drilling activities proposed at the 24-20 location. The APD is approved with the stipulation that the requested connection between the 24-20 location and 23-21 location is not authorized.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company Natural Gas Corporation of California Well No. 24-20

Location Sec. 20 T.8S R.22E Lease No. U-9617

Onsite Inspection Date July 31, 1984

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 the field representative to insure compliance.

A. DRILLING PROGRAM

1. Surface Formation and Estimated Formation Tops:

| <u>Formation</u> | <u>Depth</u> | <u>Datum</u> |
|------------------|--------------|---------------|
| Uintah | Surface | 4809' Un. Gr. |
| H Marker | 4015' | + 819' |
| K Marker | 4629' | + 205' |
| Pay Sand | 4775' | + 59' |
| T.D. | 5000' | - 166' |

2. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered:

| | <u>Formation</u> | <u>Zone</u> |
|-------------------------|------------------|-------------|
| Expected oil zones: | Pay Sand | 4775-4805 |
| Expected gas zones: | | |
| Expected water zones: | | |
| Expected mineral zones: | Oil Shale | Top 1850 |

All fresh water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

3. Pressure Control Equipment:

A 3000 WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 8-5/8" surface casing. The BOP system including the casing will be pressure tested to a minimum of 1500 psi for 30 mins. prior to drilling and will be mechanically checked daily during drilling operations.

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 District Office should be notified, with sufficient lead time, in order to have a BLM representative on location during pressure testing.

4. Casing Program and Auxiliary Equipment:

| <u>Hole Size</u> | <u>Casing Size</u> | <u>Weight/Ft.</u> | <u>Depth</u> | <u>Csg. New/Used</u> | <u>Cement Top</u> |
|------------------|--------------------|-------------------|--------------|----------------------|-------------------|
| 12-1/4 | 8-5/8 | 24# | 270' | New | Surface |
| 7-7/8 | 5-1/2 | 15.5# | T.D. | New | 1850' |

Anticipated cement tops will be reported as to depth, not the expected number of sacks of cement to be used. The District Office should be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

Auxiliary equipment will be upper kelly cock, full opening stabbing valve, 2½" choke manifold, and pit level indicator.

5. Mud Program and Circulating Medium:

| <u>Interval</u> | <u>Mud Weight lbs./gal.</u> | <u>Viscosity Sec./Qt.</u> | <u>Fluid Loss ML/30 mins.</u> | <u>Mud Type</u> |
|-----------------|---------------------------------|-------------------------------|-----------------------------------|-----------------|
| 0-300 | --- | --- | --- | Air |
| 300-4500 | 8.3 | 27 | No Control | Water |
| 4500-TD | 8.3 - 9.0 | 27 | No Control | Brine Water |

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

6. Testing, Coring, Sampling and Logging:

- a. Testing: None.
- b. Coring: None.
- c. Sampling: 30' intervals, 300-3000', 10' intervals, 3000-TD
- d. Logging:

| | |
|-------------|------------------------|
| <u>Type</u> | <u>Depth</u> |
| DIL w/GR | T.D. - Surface Casing. |
| FDC/CNL | T.D. - 2500' |

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 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 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. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the authorized officer (AO).

7. Abnormal Conditions, Bottom Hole Pressures and Potential Hazards:

Normal pressure and temperature gradients are expected (BHP - 2165 psi). No hazardous gasses have been encountered in this area at this depth.

8. Anticipated Starting Dates and Notifications of Operations:

Location construction: August 20, 1984
Spud Date: September 5, 1984

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 AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the AO within 48 hours after spudding. If the spudding occurs on a weekend or holiday, the report will be submitted on the following regular work day. The oral report will be followed up with a Sundry Notice.

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 commence and continue each month until the well is physically plugged and abandoned. This report will be filed, in duplicate, to the Vernal BLM District Office, 170 South 500th East, Vernal, UT 84078.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

Should the well be successfully completed for production, the AO 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 5 days following the date on which the well is placed on production.

Pursuant to NTL-2B, with the approval of the District Engineer, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During the period so authorized, an application for approval of the permanent disposal method, along with the required water analysis and other information, must be submitted to the District Engineer.

Venting of gas will be in accordance with Rule C-27 of the Utah Oil, Gas & Mining Division and NTL-4A.

A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the appropriate District Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in 43 CFR 3162.7 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.

A first production conference will be scheduled within 15 days after receipt of the first production notice.

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the SO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO 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. 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 AO or his representative, or the appropriate Surface Managing Agency.

Pursuant to Onshore Oil and Gas Order No. 1, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which conforms with applicable Federal laws and regulations and with State and local laws and regulations to the extent that such State and local laws are applicable to operations on Federal or Indian lands.

13 Point Surface Use Plan

1. Existing Roads:

See attached topographic map A.

Proceed west from Vernal, Utah on U.S. Highway 40 for approximately 15 miles to the Ouray turnoff. Proceed south on Highway 88 for about 18 miles to Ouray. From Ouray go across the Green River Bridge and take the first left. Follow this road for about 10.2 miles and take the existing road to the left. Follow this road for 3.5 miles to NGC Well #13-20. The proposed road will start at this point.

2. Planned Access Road:

See attached topographic map B.

The proposed access road will be .5 mile long and will be constructed to the following standards:

- 1) Width - The running surface will be 18 feet and the total disturbance width including the ditches will not exceed 30 feet.
- 2) Maximum grade - 2%.
- 3) Turnouts - None planned.
- 4) Drainage designs - Ditches will be constructed on each side of the road, V-shaped, 1 foot deep at 3:1 slopes.
- 5) Location and size of culverts, major cuts and fills - Antelope Draw has a major wash with 6' side walls and a width of 30 to 60 feet. The new road will cross this wash approximately 200' from the start of construction. A low water crossing will be constructed with cobble rock used as a base in the wash. The ramps in and out of the wash will be crowned and ditched.
- 6) Surfacing materials - Gravel for road and cobble rock for wash crossing.
- 7) Gates, cattleguards, or fence cuts - None.
- 8) The proposed road has been flagged.
- 9) Natural Gas Corporation of California requests that a road be constructed through the 24-20 location to our 23-21 location. This road is being requested for a number of reasons:
 - a) Most of the oil produced is going to the Grand Junction refinery approximately 16 miles round trip mileage will be reduced.
 - b) The past two springs, all oil produced has been moved out via the Glen Bench Road due to high water.
 - c) If the subject well is a producer, we propose to drill additional wells in the SE $\frac{1}{4}$ of Section 20.
 - d) Some gas is being produced at the existing oil wells. It may become economical in the near future to install a gathering line which could be laid along the road right-of-way.
 - e) Access to water for drilling and completions has been difficult to obtain from the Ute Tribe. This road would provide for a shorter haul to Red Wash if it were required.
 - f) Gulf has started to drill in this area and the road would provide a shorter route for them also.

g) Please see attached map for proposed road and location of existing wells.

h) Without the access road there will be a certain amount of temptation to drive cross country thus starting a two track, uncontrolled or maintained by an operator.

3. Location of Existing Wells:

The following wells are located within a one mile radius of the location site.

- 1) Water wells - None.
- 2) Abandoned wells - 22-29, Sec. 29, T.8S., R.22E.
- 3) Temporarily abandoned wells - 23-21, Sec. 21, T.8S., R.22E.
- 4) Disposal wells - None.
- 5) Drilling wells - None.
- 6) Producing wells - 31-30, Sec. 30, T.8S., R.22E.; 44-19 & Gulf Well, Sec. 19, T.8S., R.22E.; 31-20, 22-20, 13-20, Sec. 20, T.8S., R.22E.
- 7) Shut-in Wells - None.
- 8) Injection wells - None.
- 9) Monitoring or observation wells for other resources - None.

4. Location of Tank Batteries and Production Facilities::

All permanent (on site for six months or longer) structures constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5 State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain $1\frac{1}{2}$ times the storage capacity of the battery.

Tank batteries will be placed on the southeast half of the pad between #4 and #5.

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

Gas meter runs for each gas well will be located within 500 feet of the wellhead.

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 AO 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 Vernal 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:

All water needed for drilling purposes will be obtained from the Green River at the Mountain Fuel Bridge, if access can be obtained from the Ute Tribe. Water may be hauled from Ouray or Red Wash if the access agreement cannot be made. A fourth access on private surface may be used to reach the Green River.

6. Source of Construction Material:

All construction materials for this location site and access road will be borrow materials, accumulated during construction of the location site. Road gravels or other materials from other sources are anticipated at this time. The appropriate actions will be taken to acquire them from private sources.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

7. Methods of Handling Waste Disposal:

The reserve pit will not be lined with a plastic liner.

Burning will not be allowed. All trash must be contained and disposed of in a trash cage and hauled to a sanitary landfill.

Produced waste water will 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 required water analysis, will be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order.

8. Ancillary Facilities:

Camp facilities will not be required.

9. Well Site Layout:

See typical rig layout.

10. Plans for Restoration of Surface:

Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry and all cans, barrels, pipe, etc. will be removed.

All disturbed areas not needed for production or workover will be recontoured to the approximate natural contours.

The stockpiled topsoil will be evenly distributed over the areas to be seeded. All areas to be reseeded will be scarified and left with a rough surface.

Seed will be broadcast or drilled at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage. Also, if broadcast, the amount of seed should be proportionately larger to total 14 lbs. per acre.

The BLM will be consulted for a suitable seed mixture for the reseeded of the location.

If the well is abandoned, the entire disturbed area (including roads) will be restored by: (1) backfilling; (2) recontouring; (3) topsoiling; (4) seeding. Specifically, the platform highwall(s) and road fill(s) will be eliminated by moving all excavated material back in place. Restoration of the location and access road will begin within 90 days after completion of the well. If the access road is restored, an attempt will be made to block road to restrict vehicle use.

11. Surface and Mineral Ownership:

Federal - Surface and Minerals.

12. Other Information:

- 1) No known historical or archaeological sites are known to exist in this area. An archaeological survey has been conducted on the proposed location and access road and the area has been cleared. If any cultural resources are located during construction, all work will be stopped and the BLM notified.
- 2) Construction and maintenance of roads, rehabilitation of disturbed areas, and construction of pipeline routes should be in accordance with the surface use standards as set forth in the booklet "Surface Operating Standards for Oil and Gas Exploration and Development".
- 3) The dirt contractor will be furnished an approved copy of the surface use plan and any additional BLM stipulations prior to starting work.
- 4) The well is within the limits of the requirements of State Spacing Rule C-3.

13. Lessee's of Operators Representative and Certification

Representative

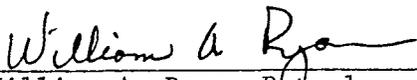
Name: William A. Ryan

Address: 85 South 200 East, Vernal, UT 84078

Phone No. (801) 789-4573

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; and that the work associated with the operations proposed herein will be performed by Natural Gas Corporation of California and its contractors in conformity with this plan and terms and conditions with this plan and the terms and conditions under which it is approved.

August 13, 1984
Date



William A. Ryan, Petroleum Engineer

ON-SITE

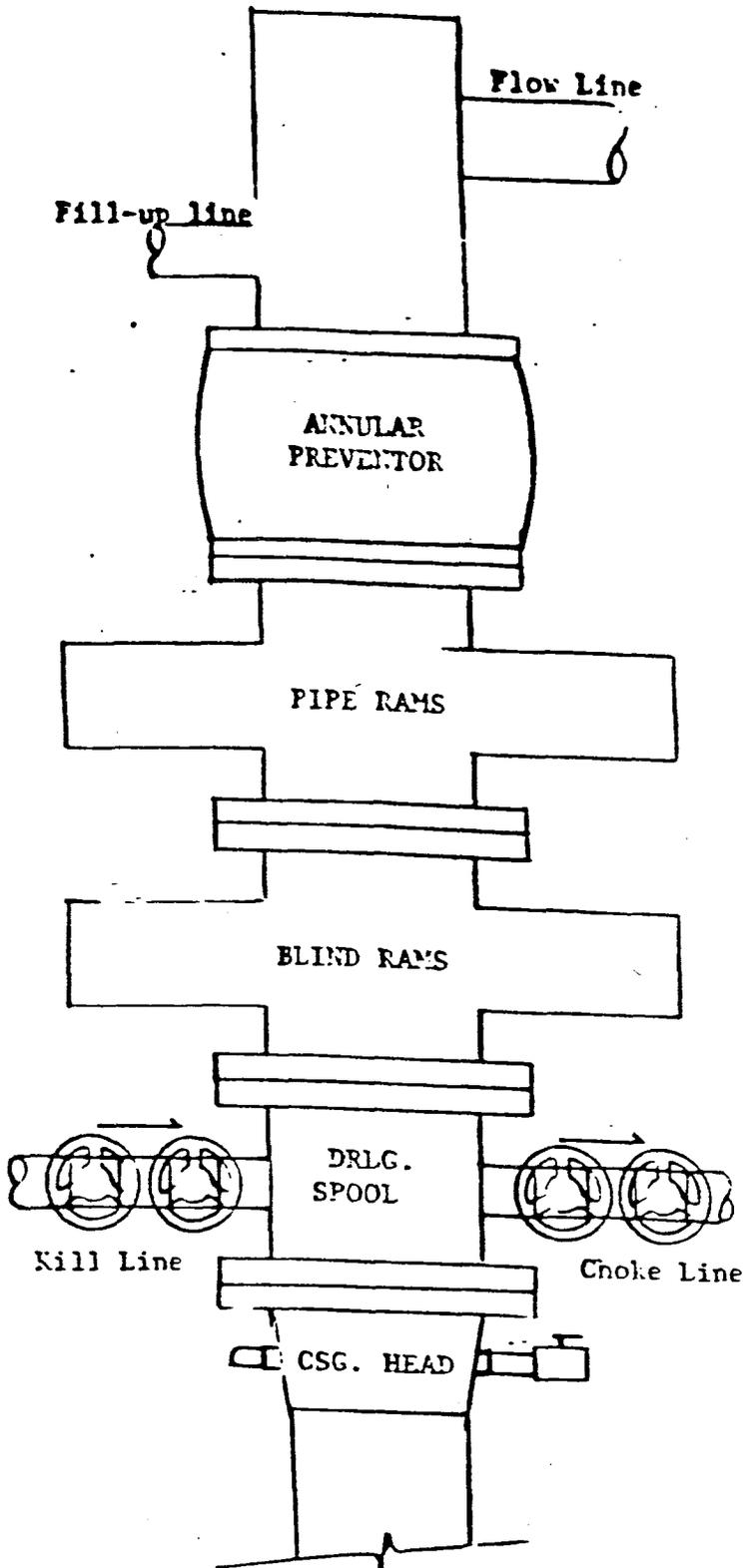
DATE: 7/31/84

PARTICIPANTS:

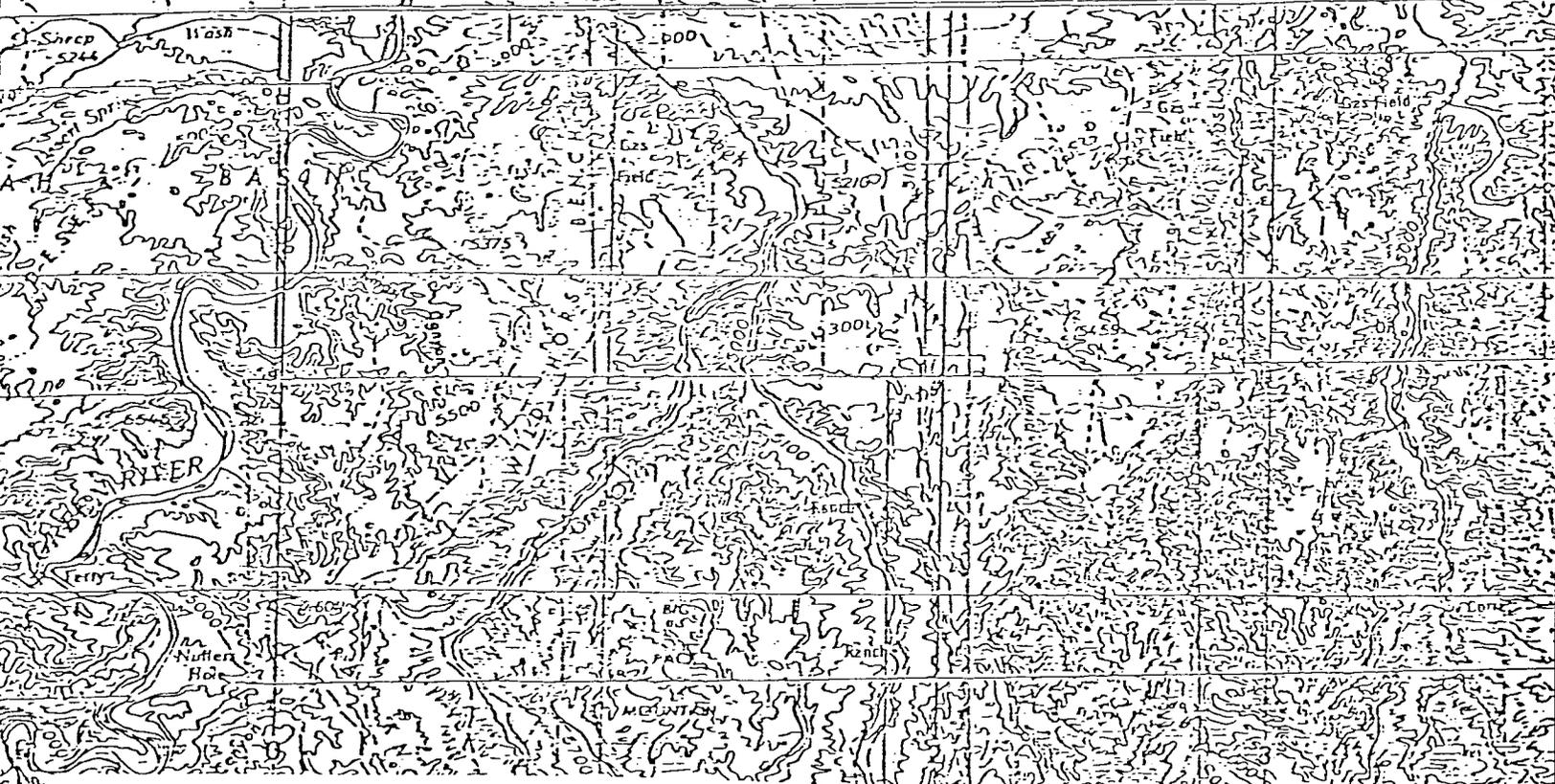
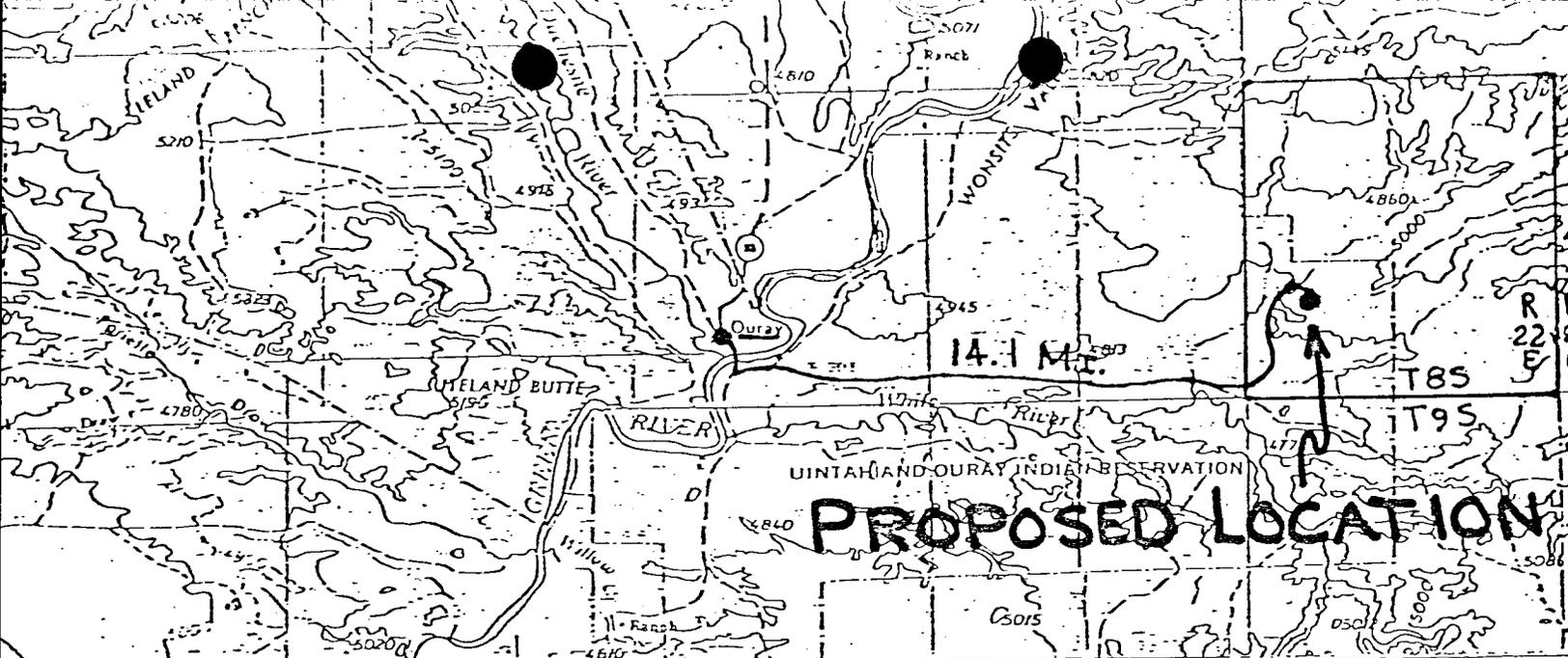
Greg Darlington - BLM
Bill Ryan and Eric Hadsell - NGC

NATURAL GAS CORPORATION
OF
CALIFORNIA

BOP AND PRESSURE CONTAINMENT DATA



1. BOP equip shall consist of a double gate, hydraulically operated preventer with pipe & blind rams or two single ram type preventors, one equipped w/pipe rams, the other w/blind rams.
2. BOP's are to be well braced w/ hand controls extended clear of substructure.
3. Accumulator to provide closing pressure in excess of that required w/sufficient volume to operate all components.
4. All BOP equipment to be tested to 1500# for 30 minutes. The BOP's will be tested at the time of installation & every 30 days thereafter. BOP's to be mechanically checked daily.
5. Modification of hook-up or testing procedure must be approved in writing on tour reports by wellsite representative.



NATURAL GAS CORP. OF CALIF.

#24-20

PROPOSED LOCATION

TOPO.

MAP "A"



SCALE 1" = 4 MI.

NATURAL GAS CORP. OF CALIF.
#24-20
PROPOSED LOCATION

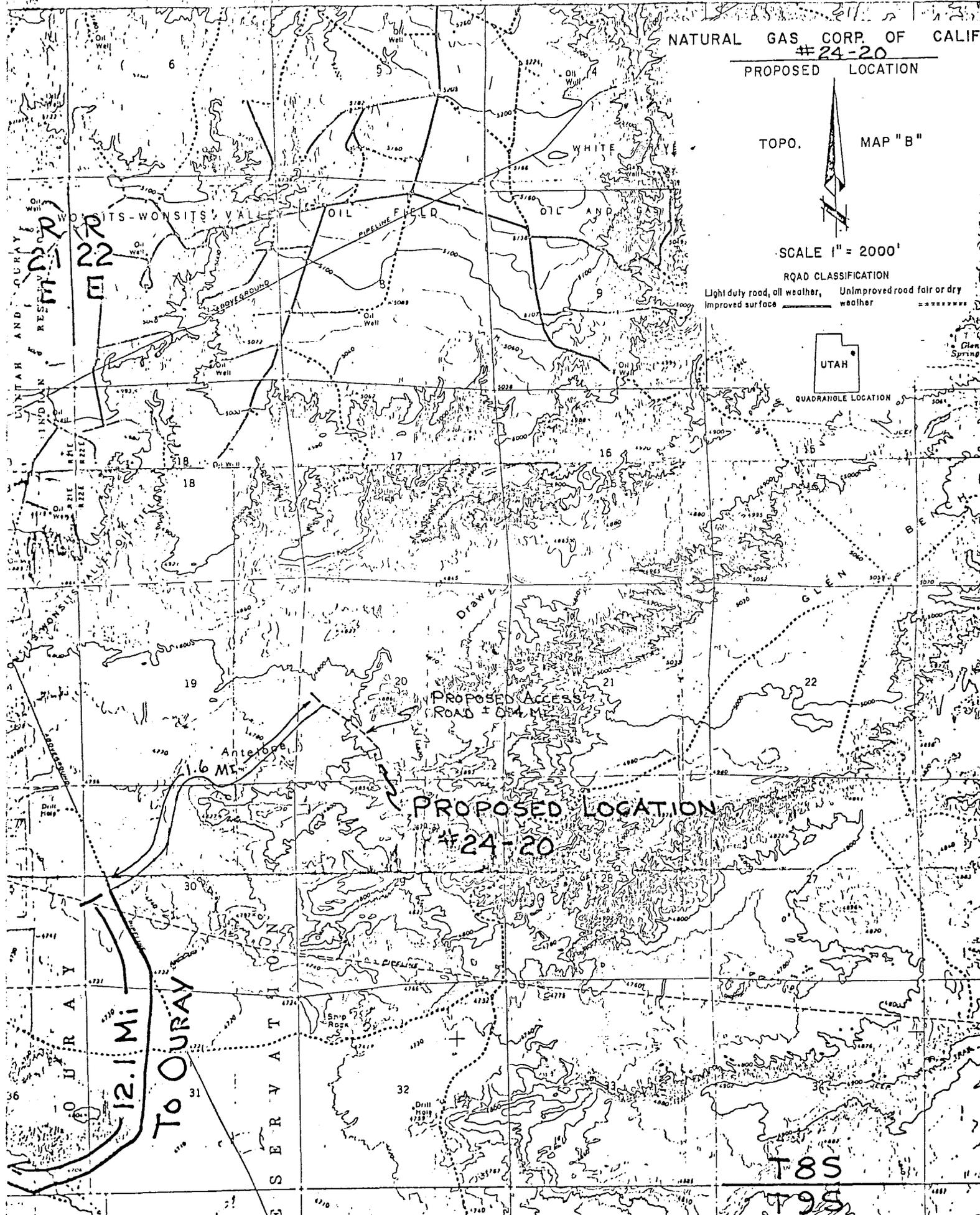
TOPO. MAP "B"

SCALE 1" = 2000'

ROAD CLASSIFICATION
Light duty road, all weather, Improved surface  Unimproved road fair or dry weather 



QUADRANGLE LOCATION



PROPOSED ACCESS ROAD ± 0.4 MI.
PROPOSED LOCATION #24-20

12.1 Mi
TO OURAY

T85
T95

OPERATOR Natural Gas Corp of Co. DATE 8-16-84

WELL NAME Glen Beach Unit #24-20

SEC SESW 20 T 85 R 22E COUNTY Wintock

43-047-31530
API NUMBER

Std
TYPE OF LEASE

POSTING CHECK OFF:

- | | | |
|--------------------------------|------------------------------|-----------------------------|
| <input type="checkbox"/> INDEX | <input type="checkbox"/> MAP | <input type="checkbox"/> HL |
| <input type="checkbox"/> NID | <input type="checkbox"/> | <input type="checkbox"/> PI |

PROCESSING COMMENTS:

Unit well - OK on P.O.D.

Need water permit

CHIEF PETROLEUM ENGINEER REVIEW:

APPROVAL LETTER:

- SPACING: A-3 Glen Beach c-3-a CAUSE NO. & DATE
- c-3-b c-3-c

SPECIAL LANGUAGE:

1- water

RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

AUTHENTICATE LEASE AND OPERATOR INFORMATION

VERIFY ADEQUATE AND PROPER BONDING

AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

APPLY SPACING CONSIDERATION

ORDER _____

UNIT *Allen Beach*

c-3-b

c-3-c

CHECK DISTANCE TO NEAREST WELL.

CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.

IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

VERIFY LEGAL AND SUFFICIENT DRILLING WATER



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

August 20, 1984

Natural Gas Corporation of California
85 South 200 East
Vernal, Utah 84078

Gentlemen:

RE: Well No. Glen Bench Unit #24-20 - SESW Sec. 20, T. 8S, R. 22E
707' FSL, 2071' FWL - Uintah County, Utah

Approval to drill the above referenced oil well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

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

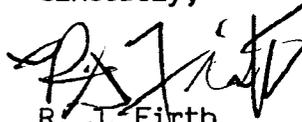
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 533-5771, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

Page 2
Natural Gas Corporation of California
Well No. Glen Bench Unit #24-20
August 20, 1984

5. 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 43-047-31530.

Sincerely,



R. J. Firth
Associate Director, Oil & Gas

RJ/as

Enclosures

cc: Branch of Fluid Minerals

W/O

DIVISION OF OIL, GAS AND MINING

SPODDING INFORMATION

API #43-047-31530

NAME OF COMPANY: NATURAL GAS CORP OF CALIFORNIA

WELL NAME: GLEN BENCH #24-20

SECTION SESW 20 TOWNSHIP 8S RANGE 22E COUNTY Uintah

DRILLING CONTRACTOR Leon Ross

RIG # _____

SPODDED: DATE 9-8-84

TIME 9:00 AM

How Dry Hole Digger

DRILLING WILL COMMENCE Brinkerhoff - Rig #85 (Approx. 9-12-84)

REPORTED BY Bill Ryan

TELEPHONE # 789-4573

DATE 9-10-84 SIGNED AS

RECEIVED

SEP 12 1984

DIVISION OF OIL
GAS & MINING

Natural Gas
Corporation of
California

September 11, 1984

Bureau of Land Management
Branch of Fluid Minerals
Vernal District
170 South 500 East
Vernal, UT 84078

Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Re: NGC #24-20 Federal
SE SW $\frac{1}{4}$ Sec. 20, T.8S., R.22E.
Uintah County, UT
Glen Bench Unit

Gentlemen:

Attached are copies of Form 3160-5, Sundry Notices and Reports on Wells, Report of Spud, for the subject well.

Yours truly,



William A. Ryan
Petroleum Engineer

/kh

Attachment

cc: P. Roberts
R. Langenwalter
Land Dept.
L. Jorgensen

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

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

3

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. **OIL WELL** **GAS WELL** **OTHER**

2. **NAME OF OPERATOR**
Natural Gas Corporation of California

3. **ADDRESS OF OPERATOR**
85 South 200 East, Vernal, Utah 84078 801-789-4573

4. **LOCATION OF WELL** (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
2071' FWL, 707' FSL, Section 20, T.8S., R.22E. SE $\frac{1}{4}$ SW $\frac{1}{4}$

14. **PERMIT NO.**
43-047-31530

15. **ELEVATIONS** (Show whether DF, RT, GR, etc.)
4809' UN. GR.

5. **LEASE DESIGNATION AND SERIAL NO.**
U-9617

6. **IF INDIAN, ALLOTTEE OR TRIBE NAME**

7. **UNIT AGREEMENT NAME**
Glen Bench Unit

8. **FARM OR LEASE NAME**
Federal

9. **WELL NO.**
#24-20

10. **FIELD AND POOL, OR WILDCAT**
Glen Bench

11. **SEC., T., R., M., OR BLK. AND SURVEY OR AREA**
Section 20, T.8S., R.22E.

12. **COUNTY OR PARISH** 13. **STATE**
Uintah Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

| | | | |
|--|---|---|--|
| NOTICE OF INTENTION TO: | | SUBSEQUENT REPORT OF: | |
| TEST WATER SHUT-OFF <input type="checkbox"/> | PULL OR ALTER CASING <input type="checkbox"/> | WATER SHUT-OFF <input type="checkbox"/> | REPAIRING WELL <input type="checkbox"/> |
| FRACTURE TREAT <input type="checkbox"/> | MULTIPLE COMPLETE <input type="checkbox"/> | FRACTURE TREATMENT <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| SHOOT OR ACIDIZE <input type="checkbox"/> | ABANDON* <input type="checkbox"/> | SHOOTING OR ACIDIZING <input type="checkbox"/> | ABANDONMENT* <input type="checkbox"/> |
| REPAIR WELL <input type="checkbox"/> | CHANGE PLANS <input type="checkbox"/> | (Other) _____ | |
| (Other) <u>Report Spud</u> | <input checked="" type="checkbox"/> | (NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) | |

17. **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.)*

Operator reports subject well spudded by Leon Ross Drilling w/dry hole digger @ 9:00 a.m. on September 8, 1984. 280' of 8-5/8" 24# surface pipe was cemented in a 12-1/4" hole. On the same date, 200 sks of Class H Cement w/2% CaCl₂ and 50# of Cello-Seal were used to cement w/good return to surface - cement didn't fall back.

RECEIVED
SEP 12 1984
**DIVISION OF OIL
GAS & MINING**

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

SIGNED William A. Ryan TITLE Petroleum Engineer DATE 9-10-84
William Ryan
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Copy 124-20 well file



TARGET TRUCKING, INC.

2960 NORTH 500 EAST
VERNAL, UTAH 84078
(801) 789-5756

September 12, 1984

Natural Gas Corporation of California
85 South 200 East
Vernal, Utah 84078

RECEIVED
SEP 17 1984
DIVISION OF OIL
GAS & MINING

Dear Sirs:

This is to inform that Target Trucking will be supplying drilling water for drilling and completing well #Glen Bench 24-20 from Ouray Brine Company at Ouray, Utah.

Water is metered and purchased from the Ute Indian Tribe from Ouray City water line.

Sincerely,

Target Trucking, Inc.

Dan H. McKee
President

DHM/jk

Natural Gas
Corporation of
California

October 15, 1984

Bureau of Land Management
Branch of Fluid Minerals
170 South 500 East
Vernal, UT 84078

Mr. Sam Boltz, Jr.
Chorney Oil Company
555 17th Street, Suite 1000
Denver, CO 80202-3910

✓ Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Mr. John Baker
DeGolyer & MacNaughton
No. 1 Energy Square
Dallas, TX 75206

Re: NGC #24-20 Federal
SE SW $\frac{1}{4}$ Sec. 20, T.8S., R.22E.
Uintah County, UT
Glen Bench Unit

Gentlemen:

Attached are copies of Form 3160-5, Sundry Notices and Reports on Wells, Notice of Intention to Abandon and Subsequent Report of Abandonment, for the subject well.

Yours truly,

William A. Ryan

William A. Ryan
Petroleum Engineer

/kh

Attachment

cc: P. Roberts
Land Dept.
L. Jorgensen
S. Furtado

*Natural Gas
Corporation of
California*

October 16, 1984

Bureau of Land Management
Branch of Fluid Minerals
170 South 500 East
Vernal, UT 84078

Mr. Sam Boltz, Jr.
Chorney Oil Company
555 17th Street, Suite 1000
Denver, CO 80202-3910

Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

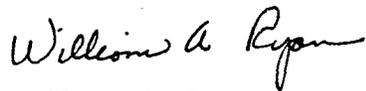
Mr. John Baker
DeGolyer & MacNaughton
No. 1 Energy Square
Dallas, TX 75206

Re: NGC #24-20 Federal
SE SW $\frac{1}{4}$ Sec. 20, T.8S., R.22E.
Uintah County, UT
Glen Bench Unit

Gentlemen:

Attached are copies of Form 3160-4, Well Completion or Recompletion Report and Log, for the subject well.

Yours truly,



William A. Ryan
Petroleum Engineer

/kh

Attachment

cc: P. Roberts
Land Dept.
L. Jorgensen
S. Furtado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-01
Expires August 31, 1985

14

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. RESVR. Other _____

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, Utah 84078 (801)789-4573

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
 At surface 2071' FWL, 707' FSL, SE 1/4 SW 1/4
 At top prod. interval reported below Section 20, T.8S., R.22E.
 At total depth _____

14. PERMIT NO. 43-047-31530
 DATE ISSUED 8/20/84

5. LEASE DESIGNATION AND SERIAL NO. U-9617
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME _____
 7. UNIT AGREEMENT NAME Glen Bench Unit
 8. FARM OR LEASE NAME Federal
 9. WELL NO. #24-20
 10. FIELD AND POOL, OR WILDCAT Glen Bench Natural Buttes
 11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Section 20, T.8S., R.22E.
 12. COUNTY OR PARISH Uintah
 13. STATE Utah

15. DATE SPUDDED 9-8-84
 16. DATE T.D. REACHED 9-20-84
 17. DATE COMPL. (Ready to prod.) P & A 9-23-84
 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 4809' UN. GR
 19. ELEV. CASINGHEAD _____

20. TOTAL DEPTH, MD & TVD 5005'
 21. PLUG, BACK T.D., MD & TVD _____
 22. IF MULTIPLE COMPL., HOW MANY* _____
 23. INTERVALS DRILLED BY _____ ROTARY TOOLS 0-T.D. CABLE TOOLS _____

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* None
 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN OIL W/GR, FDC/CNL, P
 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 |
|-------------|-----------------|----------------|-----------|------------------|---------------|
| 8-5/8 | 24# | 280' | 12-1/4 | 200 Sks Class H | None |
| | | | | | |
| | | | | | |

29. LINER RECORD

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) |
|------|----------|-------------|---------------|-------------|
| | | | | |
| | | | | |

30. TUBING RECORD

| SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|------|----------------|-----------------|
| | | |
| | | |

31. PERFORATION RECORD (Interval, size and number) None

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

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
|---------------------|----------------------------------|
| | |
| | |
| | |

33.* PRODUCTION

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

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

| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) |
|---------------------|-----------------|-------------------------|----------|----------|------------|-------------------------|
| | | | | | | |

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

35. LIST OF ATTACHMENTS
Geological report to follow

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

SIGNED William A. Ryan TITLE Petroleum Engineer DATE 10/15/84

*(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, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP | |
|-----------|-----|--------|-----------------------------|--|---|------------------|
| | | | | | MEAS. DEPTH | TRUE VERT. DEPTH |
| | | | | Green River H-Marker Garden Gulch K-Marker Oregan Creek Pay Sand Fl | Surface 4013 4013 4524 4624 4782 | |
| | | | | Green River | T. O. | |

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT--" for such proposals.)

| | | |
|--|--|---|
| 1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Dry hole | | 5. LEASE DESIGNATION AND SERIAL NO. U-9617 |
| 2. NAME OF OPERATOR Natural Gas Corporation of California | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME |
| 3. ADDRESS OF OPERATOR 85 South 200 East, Vernal, Utah 84078 | | 7. UNIT AGREEMENT NAME Glen Bench Unit |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 2071' FWL, 707' FSL, SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 20, T.8S., R.22E. | | 8. FARM OR LEASE NAME Federal |
| 14. PERMIT NO. 43-047-31530 | 15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4809' UN.GR. | 9. WELL NO. #24-20 |
| | | 10. FIELD AND POOL, OR WILDCAT Glen Bench |
| | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 20, T.8S., R.22E. |
| | | 12. COUNTY OR PARISH Uintah |
| | | 13. STATE Utah |

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

| NOTICE OF INTENTION TO: | | SUBSEQUENT REPORT OF: | |
|--|---|---|--|
| TEST WATER SHUT-OFF <input type="checkbox"/> | PULL OR ALTER CASING <input type="checkbox"/> | WATER SHUT-OFF <input type="checkbox"/> | REPAIRING WELL <input type="checkbox"/> |
| FRACTURE TREAT <input type="checkbox"/> | MULTIPLE COMPLETE <input type="checkbox"/> | FRACTURE TREATMENT <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| SHOOT OR ACIDIZE <input type="checkbox"/> | ABANDON* <input checked="" type="checkbox"/> | SHOOTING OR ACIDIZING <input type="checkbox"/> | ABANDONMENT* <input checked="" type="checkbox"/> |
| REPAIR WELL <input type="checkbox"/> | CHANGE PLANS <input type="checkbox"/> | (Other) <input type="checkbox"/> | |
| (Other) <input type="checkbox"/> | | (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) | |

17. 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.)*

Operator reports the subject well was P & A'd (in the following manner) per verbal instructions received 9/22/84 from the BLM in Vernal.

- Plug #1 4700' - 4800' w/35 sx Class "H"
- 2 2300' - 2500' w/70 sx Class "H"
- 3 1300' - 1500' w/70 sx Class "H"
- 4 250' - 350' w/35 sx Class "H"

RECEIVED
OCT 19 1984
DIVISION OF OIL
GAS & MINING

ACCEPTED
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL GAS, AND MINING
DATE: 10/23/84
BY: [Signature]

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

SIGNED William A. Ryan TITLE Petroleum Engineer DATE 10/15/84
 (This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

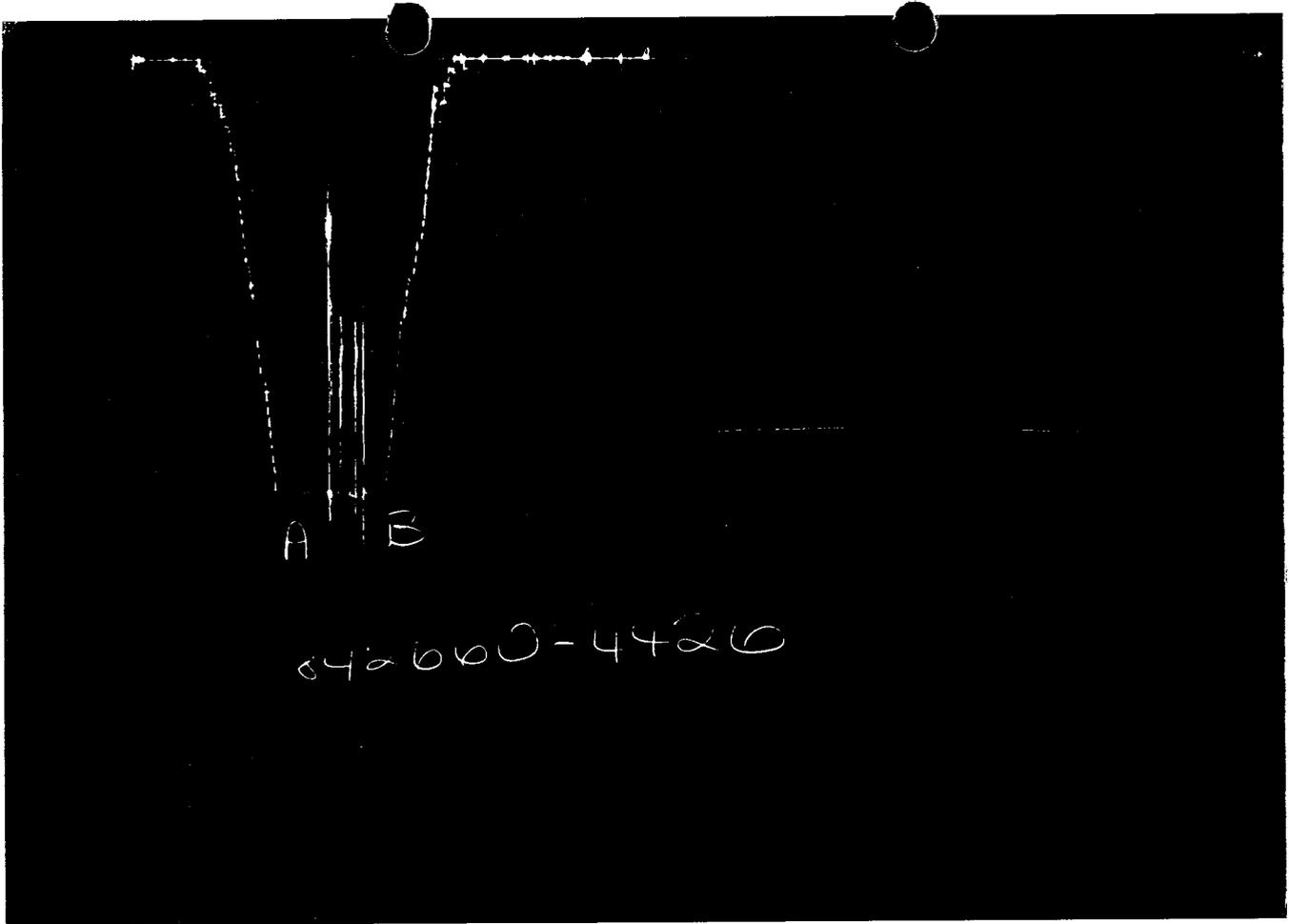
GLEN BENCH 24-20 2 3404.1 - 3487.1 NATURAL GAS CORPORATION
LEASE NAME WELL NO. TEST NO. TESTED INTERVAL LEASE OWNER/COMPANY NAME

LEGAL LOCATION 20 - 8 SOUTH - 22 FRST FIELD AREA GLEN BENCH COUNTY UTAH STATE UTAH PW
SEC. - TWP. - RNG.



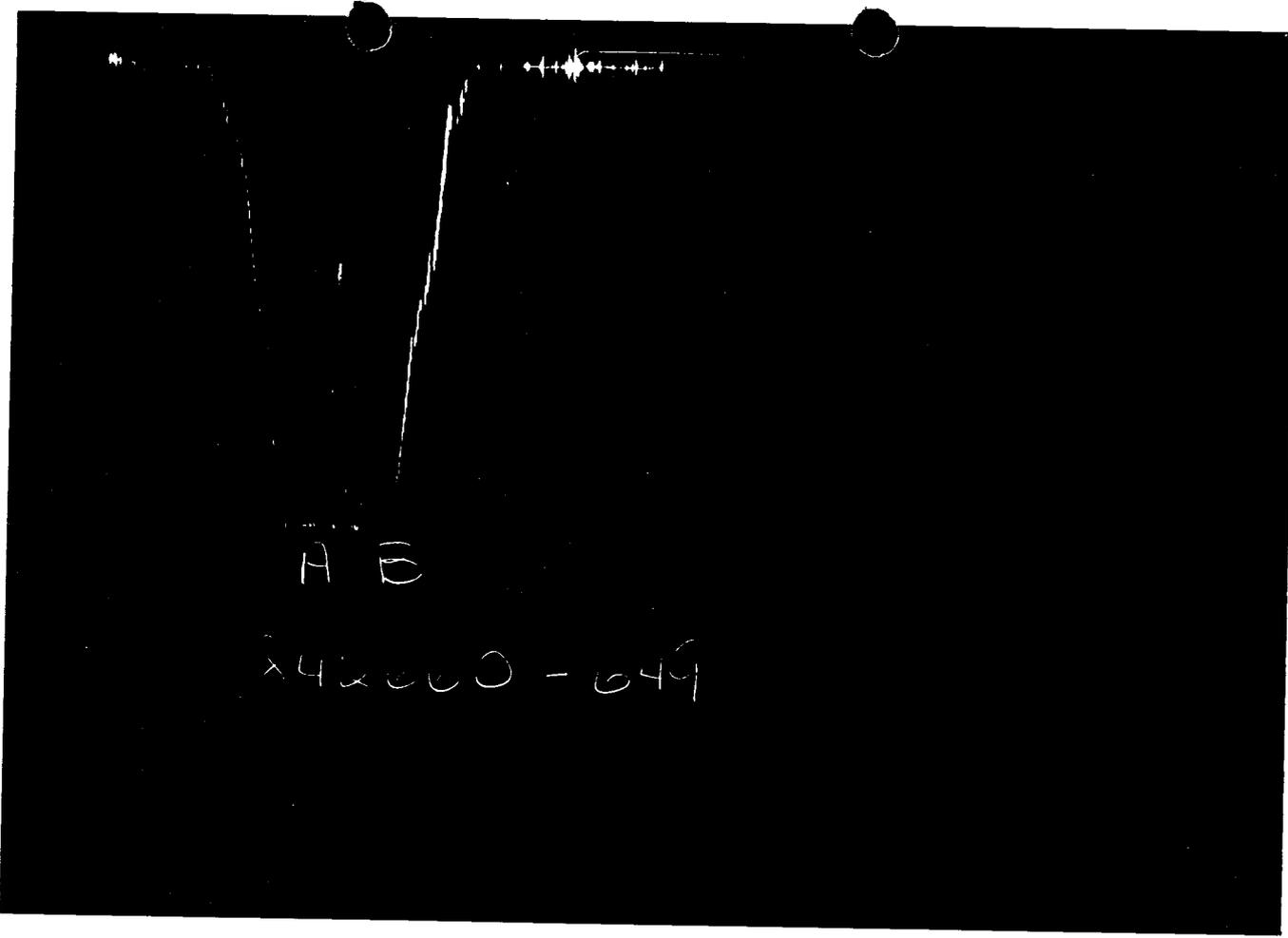
TICKET NO. 84266000
02-OCT-84
VERNAL

FORMATION TESTING SERVICE REPORT



GAUGE NO: 4426 DEPTH: 3380.6 BLANKED OFF: NO HOUR OF CLOCK: 24

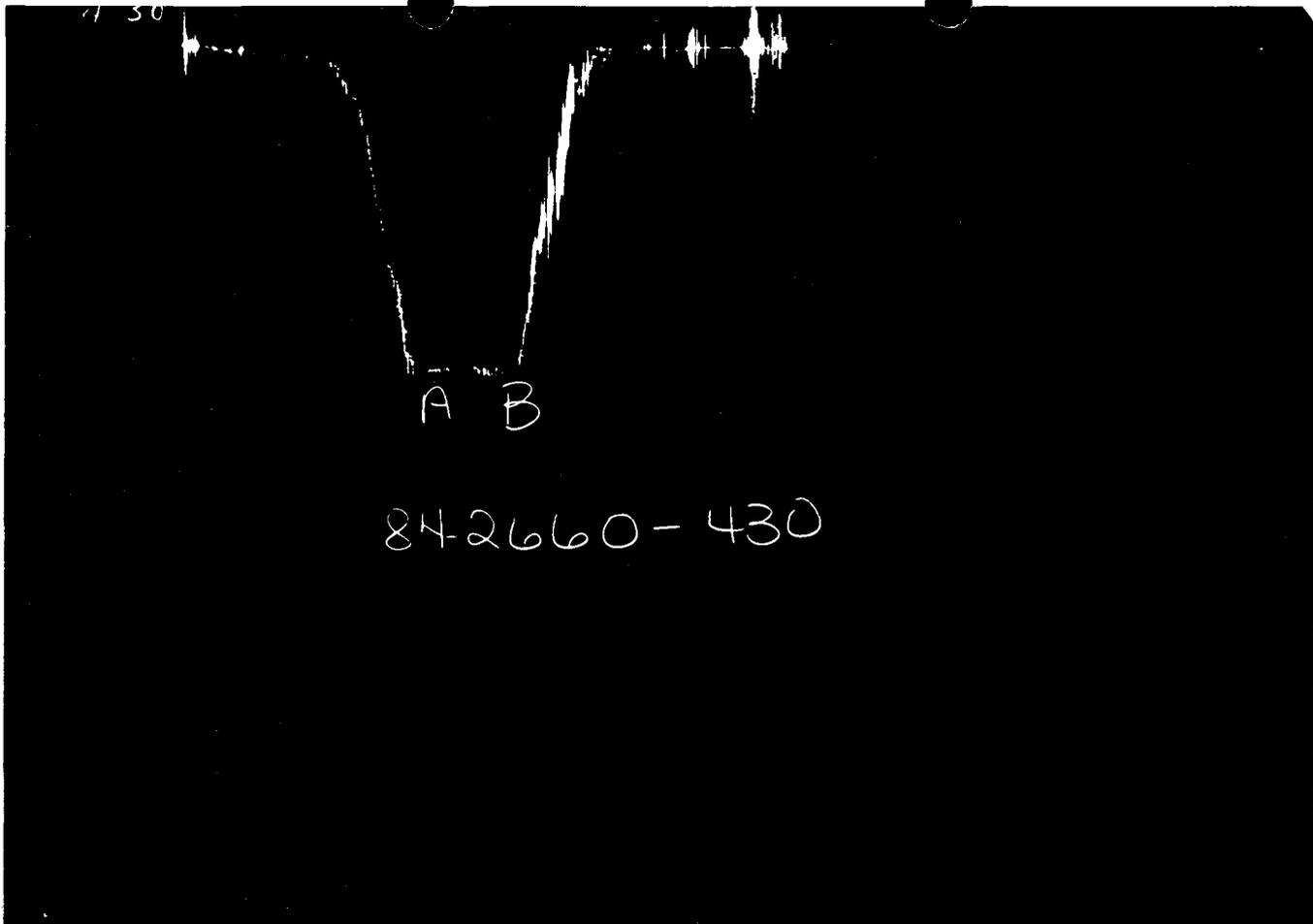
| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|---------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | | 1665.1 | | | |
| B | FINAL HYDROSTATIC | | 1658.1 | | | |



GAUGE NO: 649 DEPTH: 3448.9 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|---------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | | 1693.5 | | | |
| B | FINAL HYDROSTATIC | | 1684.5 | | | |

430



GAUGE NO: 430 DEPTH: 3508.8 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|---------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | | 1726.6 | | | |
| B | FINAL HYDROSTATIC | | 1719.8 | | | |

EQUIPMENT & HOLE DATA

FORMATION TESTED: GREEN RIVER

NET PAY (ft): _____

GROSS TESTED FOOTAGE: 82.6

ALL DEPTHS MEASURED FROM: KB

CASING PERFS. (ft): _____

HOLE OR CASING SIZE (in): 7.875

ELEVATION (ft): 4820

TOTAL DEPTH (ft): 5009.0

PACKER DEPTH(S) (ft): 3397, 3404, 3487, 3493

FINAL SURFACE CHOKE (in): 0.250

BOTTOM HOLE CHOKE (in): 0.750

MUD WEIGHT (lb/gal): 9.20

MUD VISCOSITY (sec): _____

ESTIMATED HOLE TEMP. (°F): _____

ACTUAL HOLE TEMP. (°F): @ ft

TICKET NUMBER: 84266000

DATE: 9-22-84 TEST NO: 2

TYPE DST: OFF BTM STRADDLE

HALLIBURTON CAMP: VERNAL

TESTER: CLIFFORD L. RICHARDS

WITNESS: TOM ???

DRILLING CONTRACTOR: BRINKERHOFF SIGNAL #85

FLUID PROPERTIES FOR RECOVERED MUD & WATER

| SOURCE | RESISTIVITY | CHLORIDES |
|--------|------------------|-----------|
| _____ | _____ @ _____ °F | _____ ppm |
| _____ | _____ @ _____ °F | _____ ppm |
| _____ | _____ @ _____ °F | _____ ppm |
| _____ | _____ @ _____ °F | _____ ppm |
| _____ | _____ @ _____ °F | _____ ppm |
| _____ | _____ @ _____ °F | _____ ppm |

SAMPLER DATA

Pstg AT SURFACE: _____

cu.ft. OF GAS: _____

cc OF OIL: _____

cc OF WATER: _____

cc OF MUD: _____

TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ _____ °F

GAS/OIL RATIO (cu.ft. per bbl): _____

GAS GRAVITY: _____

CUSHION DATA

| TYPE | AMOUNT | WEIGHT |
|-------|--------|--------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

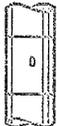
RECOVERED:

MEASURED FROM TESTER VALVE

REMARKS:

- UNABLE TO GET PACKERS TO HOLD -

ELEVATION REPORTED AT GROUND LEVEL

| | | O.D. | I.D. | LENGTH | DEPTH | |
|----|---|----------------------------------|-------|--------|--------|--------|
| 1 |  | DRILL PIPE..... | 4.500 | 3.826 | 2810.5 | |
| 3 |  | DRILL COLLARS..... | 6.500 | 2.250 | 463.3 | |
| 50 |  | IMPACT REVERSING SUB..... | 5.875 | 3.250 | 1.0 | 3273.8 |
| 3 |  | DRILL COLLARS..... | 6.500 | 2.250 | 92.0 | |
| 5 |  | CROSSOVER..... | 6.000 | 2.500 | 1.0 | |
| 13 |  | DUAL CIP SAMPLER..... | 5.000 | 0.750 | 6.8 | |
| 60 |  | HYDROSPRING TESTER..... | 5.000 | 0.750 | 5.0 | 3378.6 |
| 80 |  | AP RUNNING CASE..... | 5.000 | 3.060 | 4.1 | 3380.6 |
| 15 |  | JAR..... | 5.000 | 1.750 | 5.0 | |
| 16 |  | VR SAFETY JOINT..... | 5.000 | 1.000 | 2.8 | |
| 97 |  | PRESSURE EQUALIZER (TOP SUB).... | 5.000 | 0.500 | 1.0 | |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 3396.6 |
| 18 |  | DISTRIBUTOR VALVE..... | 5.000 | 1.680 | 2.0 | |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 3404.4 |
| 20 |  | FLUSH JOINT ANCHOR..... | 5.750 | 2.870 | 38.0 | |
| 98 |  | PRESSURE EQUALIZER (BOTTOM SUB). | 4.500 | 1.500 | 1.7 | |
| 81 |  | BLANKED-OFF RUNNING CASE..... | 5.000 | | 4.1 | 3448.9 |
| 5 |  | CROSSOVER..... | 5.000 | 2.375 | 0.6 | |
| 5 |  | CROSSOVER..... | 5.500 | 2.750 | 0.8 | |
| 5 |  | CROSSOVER..... | 6.000 | 3.250 | 0.7 | |
| 3 |  | DRILL COLLARS..... | 6.500 | 2.250 | 31.0 | |
| 5 |  | CROSSOVER..... | 6.000 | 2.500 | 1.1 | |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 3487.0 |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 3492.8 |
| 90 |  | SIDE WALL ANCHOR..... | | | 6.3 | |
| 5 |  | CROSSOVER..... | 5.750 | 2.625 | 0.7 | |
| 20 |  | FLUSH JOINT ANCHOR..... | 5.750 | 2.870 | 8.0 | |

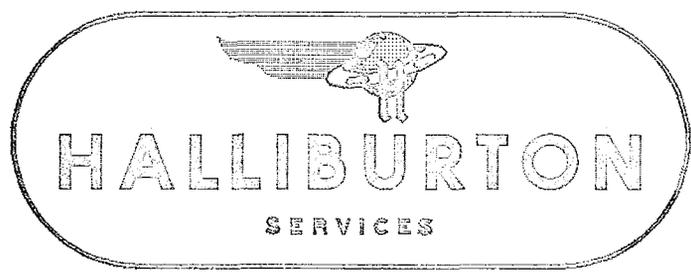
CONTINUED

EQUIPMENT DATA

| | O.D. | I.D. | LENGTH | DEPTH |
|--|-------|------|--------|--------|
| 81  BLANKED-OFF RUNNING CASE..... | 5.750 | | 4.1 | 3508.8 |
| TOTAL DEPTH | | | | 5009.0 |

EQUIPMENT DATA

| | | | | | | | |
|---------------------|----------------------|------------|------------|----------|-----------------|-----------------|-------------------------|
| LEASE NAME | 24-20 | WELL NO. | 1 | TEST NO. | 4784.1 - 4855.1 | TESTED INTERVAL | NATURAL GAS CORPORATION |
| LEGAL LOCATION | SEC. 20 T 8S - R 22E | FIELD AREA | GLEN BENCH | COUNTY | UINTAH | STATE | UTAH NM |
| SEC. - TWP. - RANG. | | | | | | | |



TICKET NO. 84265900
 02-OCT-84
 VERNAL

FORMATION TESTING SERVICE REPORT

4426

842659 - 4426

GAUGE NO: 4426 DEPTH: 4760.3 BLANKED OFF: NO HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | | | | | |
| B | INITIAL FIRST FLOW | | | 30.0 | | F |
| C | FINAL FIRST FLOW | | | | | |
| C | INITIAL FIRST CLOSED-IN | | | 60.0 | | C |
| D | FINAL FIRST CLOSED-IN | | | | | |
| E | INITIAL SECOND FLOW | | | 30.0 | | F |
| F | FINAL SECOND FLOW | | | | | |
| F | INITIAL SECOND CLOSED-IN | | | 60.0 | | C |
| G | FINAL SECOND CLOSED-IN | | | | | |
| H | FINAL HYDROSTATIC | | | | | |
| I | HYDROSTATIC RELEASE | | | | | |

649

L C F
D E

649-649 #

GAUGE NO: 649 DEPTH: 4819.6 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 2356 | 2356.5 | | | |
| B | INITIAL FIRST FLOW | 45 | 45.1 | 30.0 | 30.0 | F |
| C | FINAL FIRST FLOW | 45 | 43.8 | | | |
| C | INITIAL FIRST CLOSED-IN | 45 | 43.8 | 60.0 | 60.0 | C |
| D | FINAL FIRST CLOSED-IN | 62 | 73.2 | | | |
| E | INITIAL SECOND FLOW | 45 | 55.0 | 30.0 | 30.0 | F |
| F | FINAL SECOND FLOW | 45 | 47.4 | | | |
| F | INITIAL SECOND CLOSED-IN | 45 | 47.4 | 60.0 | 60.0 | C |
| G | FINAL SECOND CLOSED-IN | 53 | 59.4 | | | |
| H | FINAL HYDROSTATIC | 2311 | 2321.6 | | | |
| I | HYDROSTATIC RELEASE | | | | | |

 842659-422

GAUGE NO: 430 DEPTH: 5006.0 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | | 2463.1 | | | |
| B | INITIAL FIRST FLOW | | | 30.0 | | F |
| C | FINAL FIRST FLOW | | | | | |
| C | INITIAL FIRST CLOSED-IN | | | 60.0 | | C |
| D | FINAL FIRST CLOSED-IN | | | | | |
| E | INITIAL SECOND FLOW | | | 30.0 | | F |
| F | FINAL SECOND FLOW | | | | | |
| F | INITIAL SECOND CLOSED-IN | | | 60.0 | | C |
| G | FINAL SECOND CLOSED-IN | | | | | |
| H | FINAL HYDROSTATIC | | 2397.4 | | | |
| I | HYDROSTATIC RELEASE | | 2442.1 | | | |

EQUIPMENT & HOLE DATA

FORMATION TESTED: GREEN RIVER
 NET PAY (ft): _____
 GROSS TESTED FOOTAGE: 71.0
 ALL DEPTHS MEASURED FROM: KELLY BUSHING
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 7.875
 ELEVATION (ft): 4820
 TOTAL DEPTH (ft): 5009.0
 PACKER DEPTH(S) (ft): 4776, 4784, 4856, 4858
 FINAL SURFACE CHOKE (in): 0.250
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): 9.20
 MUD VISCOSITY (sec): _____
 ESTIMATED HOLE TEMP. (°F): _____
 ACTUAL HOLE TEMP. (°F): 128 @ 5005.0 ft

TICKET NUMBER: 84265900
 DATE: 9-21-84 TEST NO: 1
 TYPE DST: ON BTM. STRADDLE
 HALLIBURTON CAMP: VERNAL
 TESTER: CLIFFORD L. RICHARDS
 WITNESS: TOM STODDARD
 DRILLING CONTRACTOR: BRINKERHOFF SIGNAL # 85

FLUID PROPERTIES FOR RECOVERED MUD & WATER

| SOURCE | RESISTIVITY | CHLORIDES |
|------------|----------------------------------|-------------------|
| <u>PIT</u> | <u> </u> @ <u> </u> °F | <u>70000</u> ppm |
| _____ | <u> </u> @ <u> </u> °F | <u> </u> ppm |
| _____ | <u> </u> @ <u> </u> °F | <u> </u> ppm |
| _____ | <u> </u> @ <u> </u> °F | <u> </u> ppm |
| _____ | <u> </u> @ <u> </u> °F | <u> </u> ppm |
| _____ | <u> </u> @ <u> </u> °F | <u> </u> ppm |

SAMPLER DATA

Pstg AT SURFACE: 20
 cu.ft. OF GAS: 0.00
 cc OF OIL: 0
 cc OF WATER: 0
 cc OF MUD: 1350
 TOTAL LIQUID cc: 1350

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): @ °F
 GAS/OIL RATIO (cu.ft. per bbl): _____
 GAS GRAVITY: _____

CUSHION DATA

| TYPE | AMOUNT | WEIGHT |
|-------|--------|--------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

RECOVERED:

35 FEET OF MUD - TRACE OF OIL

MEASURED FROM
TESTER VALVE

REMARKS:

NO READINGS AVAILABLE FROM GAUGE # 4426 - STYLUS WAS NOT ENGAGED.
 ELEVATION MEASURED AT GROUND LEVEL

| | | O.D. | I.D. | LENGTH | DEPTH | |
|----|---|----------------------------------|-------|--------|--------|--------|
| 1 |  | DRILL PIPE..... | 4.500 | 3.826 | 4309.1 | |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 346.4 | |
| 50 |  | IMPACT REVERSING SUB..... | 5.875 | 3.250 | 1.0 | 4656.5 |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 90.0 | |
| 5 |  | CROSSOVER..... | 6.000 | 2.500 | 1.0 | |
| 13 |  | DUAL CIP SAMPLER..... | 5.000 | 0.750 | 6.8 | |
| 60 |  | HYDROSPRING TESTER..... | 5.000 | 0.750 | 5.0 | 4758.3 |
| 80 |  | AP RUNNING CASE..... | 5.000 | 3.060 | 4.1 | 4760.3 |
| 15 |  | JAR..... | 5.000 | 1.750 | 5.0 | |
| 16 |  | VR SAFETY JOINT..... | 5.000 | 1.000 | 2.8 | |
| 17 |  | PRESSURE EQUALIZING CROSSOVER... | 5.000 | 0.500 | 1.0 | |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 4776.3 |
| 18 |  | DISTRIBUTOR VALVE..... | 5.000 | 1.680 | 2.0 | |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 4784.1 |
| 20 |  | FLUSH JOINT ANCHOR..... | 5.750 | 2.870 | 28.0 | |
| 17 |  | PRESSURE EQUALIZING CROSSOVER... | 4.750 | 0.500 | 1.7 | |
| 81 |  | BLANKED-OFF RUNNING CASE..... | 5.000 | | 4.1 | 4819.6 |
| 5 |  | CROSSOVER..... | 5.000 | 2.375 | 1.4 | |
| 5 |  | CROSSOVER..... | 5.500 | 2.750 | 0.7 | |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 29.0 | |
| 5 |  | CROSSOVER..... | 6.000 | 2.500 | 1.1 | |
| 5 |  | CROSSOVER..... | 5.938 | 2.750 | 0.8 | |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 4855.6 |
| 70 |  | OPEN HOLE PACKER..... | 6.750 | 1.530 | 5.8 | 4858.5 |
| 5 |  | CROSSOVER..... | 5.750 | 2.625 | 0.7 | |
| 5 |  | CROSSOVER..... | 5.938 | 3.250 | 1.3 | |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 120.6 | |
| 5 |  | CROSSOVER..... | 5.750 | 2.250 | 1.0 | |
| 20 |  | FLUSH JOINT ANCHOR..... | 5.750 | 2.870 | 17.0 | |

CONTINUED

EQUIPMENT DATA

| | O.D. | I.D. | LENGTH | DEPTH |
|---|-------|------|--------|--------|
| 81 | | | | |
|  | | | | |
| BLANKED-OFF RUNNING CASE..... | 5.750 | | 4.1 | 5006.0 |
| TOTAL DEPTH | | | | 5009.0 |

EQUIPMENT DATA