

UTAH DIVISION OF OIL, GAS AND MINING

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE X WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/ABD. \_\_\_\_\_

DATE FILED 6-6-79

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. U-29644 INDIAN

DRILLING APPROVED: 6-6-79

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 4-15, 1980 LOCATION ABANDONED - WELL NEVER DRILLED

FIELD: San Arroyo 3/86

UNIT:

COUNTY: Grand

WELL NO. Federal 2-20

API NO: 43-019-30518

LOCATION 1635' FT. FROM (N) X LINE: 625' FT. FROM MEX (W) LINE: SW NW 5 1/4-1/4 SEC. 20

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
------	------	------	----------	------	------	------	----------

<u>16S</u>	<u>25E</u>	<u>20</u>	<u>NATURAL GAS CORP. OF CA.</u>				
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**FILE NOTATIONS**

Entered in NID File ✓.....  
Location Map Pinned .....  
Card Indexed ✓.....

Checked by Chief .....  
Approval Letter .....  
Disapproval Letter .....

**COMPLETION DATA:**

Date Well Completed .....

Location Inspected .....

GW..... OS..... PA.....

State or Fee Land .....

**LOGS FILED**

Driller's Log.....  
Electric Logs (No.) .....  
E..... I..... Dual I Lat..... GR-N..... Micro.....  
BHC Sonic GR..... Lat..... MI-L..... Sonic.....  
BLog..... CCLog..... Others.....

**McILNAY-ADAMS & CO., INC.****McILNAY-ADAMS**2305 OXFORD LANE • CASPER, WYOMING 82601  
PETROLEUM CONSULTING ENGINEERS & PROPERTY MANAGEMENT

REGISTERED PROFESSIONAL ENGINEERS

April 26, 1979



Mr. Mike Minder  
 Division of Oil, Gas & Mining  
 1588 West, North Temple  
 Salt Lake City, Utah 84116

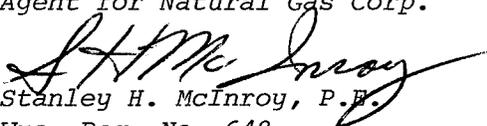
Re: Lease No. U-29644 Proposed Well  
 Natural Gas Corp. - Federal #2-20  
 SW NW Section 20-T16S-R25E  
Grand County, Utah

Dear Mr. Minder:

As discussed by phone on April 23, 1979, I am enclosing copies of the APD and NTL-6 packages for the existing well Federal #41-20 and proposed well Federal #2-20. We would appreciate a statement from your office that the proposed location is not an exception.

Very truly yours,

McILNAY - ADAMS & CO., INC.  
 Agent for Natural Gas Corp.

  
 Stanley H. McInroy, P.E.  
 Wyo. Reg. No. 648

SHM/so

Attachments

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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-29644
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---
2. NAME OF OPERATOR Natural Gas Corporation of Calif.		7. UNIT AGREEMENT NAME ---
3. ADDRESS OF OPERATOR c/o McIlroy-Adams & Co., Inc. 2305 Oxford Lane, Casper, WY 82601		8. FARM OR LEASE NAME Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At surface 625' FWL & 1635' FNL (SW NW) Section 20-T16S-R25E At proposed prod. zone Same		9. WELL NO. #2-20
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 66 miles <sup>South</sup> North of Ouray, Utah		10. FIELD AND POOL, OR WILDCAT San Arroyo
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 625	16. NO. OF ACRES IN LEASE 437.89	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 20-T16S-R25E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3050	19. PROPOSED DEPTH 6350	12. COUNTY OR PARISH   13. STATE Grand   Utah
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 7285' Ungraded GL	17. NO. OF ACRES ASSIGNED TO THIS WELL 320	20. ROTARY OR CABLE TOOLS Rotary
22. APPROX. DATE WORK WILL START* June 1, 1979.		

PROPOSED CASING AND CEMENTING PROGRAM

REVISED SIN 6-1-79

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13 3/4"	9 5/8"	36#	500'	300 sx. cemented to surface
7 7/8"	5 1/2"	15.5#/ft.	6350'	250 sx.

It is proposed to drill a well to a Total Depth of 6350' for the purpose of testing and evaluating all potential oil and/or gas zones encountered. If the well is found productive, 5 1/2" casing will be installed and the well completed. If it is found non productive, the well will be P & A as per USGS Instructions and the disturbed areas restored as per USGS and BLM requirements. See attached "Well Control and Related Information" and "USGS Surface Use and Operating Plan" for details.



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 Agent DATE 4-23-79  
(This space for Federal or State office use)

NOTICE OF APPROVAL

PERMIT NO. \_\_\_\_\_ APPROVED BY [Signature] DISTRICT ENGINEER

CONDITIONS OF APPROVAL ATTACHED

(Orig. Sgd.) R. A. Henricks TO OPERATOR'S COPY DATE 4-23-79

(Orig. Sgd.) R. A. Henricks NECESSARY FLARING OF GAS DURING DRILLING AND COMPLETION PERMITTED SUBJECT TO ROYALTY (N.L.)

NOTICE OF APPROVAL

\*See Instructions On Reverse Side

State of G

CONDITIONS OF

T16S, R25E, S.L.B.&M.

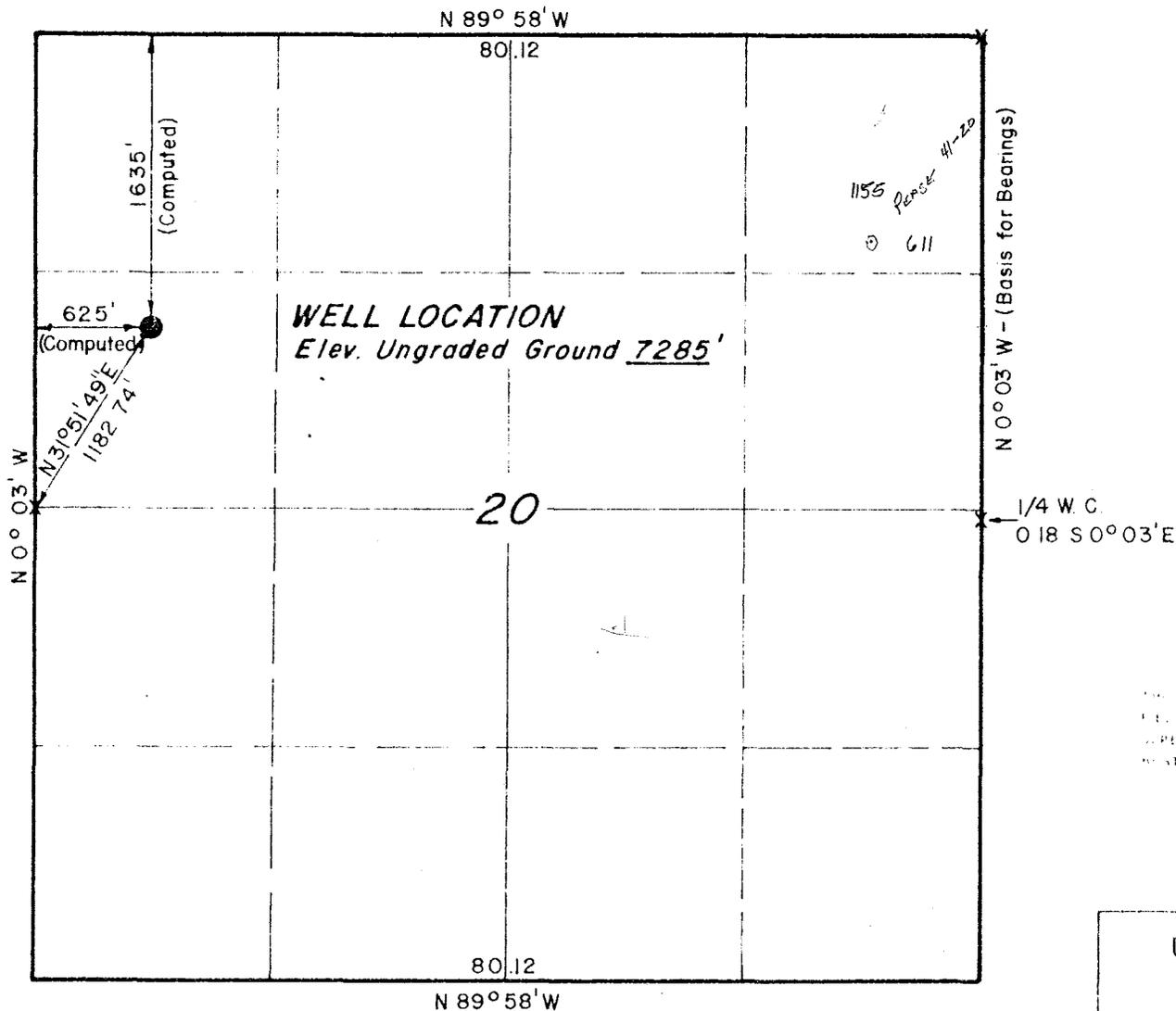
PROJECT

NATURAL GAS CORP.

Well location located as shown  
in the SW 1/4 NW 1/4 Section 20,  
T16S, R25E, S.L.B.&M. Grand  
County, Utah.

Federal #2-20

U-29644



CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF A REAL SURVEY MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR  
REGISTRATION NO 3137  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P.O. BOX Q - 110 EAST - FIRST SOUTH  
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 9-15-77
PARTY R. K. D. D. J.	REFERENCES GLO Plat
WEATHER Fair	FILE NATURAL GAS CO.

X = Section Corners Located

U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

FROM: .: DISTRICT GEOLOGIST,                     , SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-29644

OPERATOR: Natural Gas Corp. of California

WELL NO. #2-20

LOCATION: 1/4 SW 1/4 NW 1/4 sec. 20, T. 16 S., R. 25 E., SIM

Grand County, Utah

1. **Stratigraphy:** USGS Map I-736 indicates that surface rocks are Wasatch fm., otherwise operator projected tops are reasonable.

2. **Fresh Water:** Fresh water possible in sands in the upper Mesaverde.

3. **Leasable Minerals:** Prospectively valuable for coal in the Mesaverde. Coal beds in this area are generally thought to be thin and discontinuous.

4. **Additional Logs Needed:** Density log should be run through the Mesaverde to aid in identifying coal beds.

5. **Potential Geologic Hazards:**  
None anticipated.

6. **References and Remarks:** Within San Arroyo Field KGS  
REF: USGS Map I-736, USGS Files, Salt Lake City, Utah

Signature: James F. Kohler

Date: 05-09-79



Proposed Action:

On April 30, 1979, National Gas Corporation of California filed an Application for Permit to Drill the No. 2-20 development well, a 6350' gas test of the Dakota, Cedar Mountain, Buckhorn, and Morrison Formations; located at an elevation of 7285' in the SW/NW, Sec. 20, T16S, R25E on Federal mineral lands and Public surface; lease No. U-29644. There was no objection raised to the wellsite nor to the access road. ←

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Freshwater sands and other mineral-bearing formations would be protected. A Blowout Preventor would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface and 13-Point Surface Protection Plans are on file in the U.S.G.S. District Office in Salt Lake City, Utah, and the U.S.G.S. Northern Rocky Mountain Area Office in Casper, Wyoming.

A working agreement has been reached with the Bureau of Land Management, the controlling surface agency. Rehabilitation plans would be decided upon as the well neared completion; the Surface Management Agency would be consulted for technical expertise on those arrangements.

The operator proposes to construct a drill pad 140' wide x 225' long and a reserve pit 100' x 100'. A new access road would be constructed 15' wide x 1.5 miles long from an existing and improved access road. The operator proposes to construct production facilities on disturbed area of the proposed drill pad. If production is established, plans for a gas flowline would be submitted to the appropriate agencies for approval. The anticipated starting date is June 1979 and duration of drilling activities would be about 17 days.

Location and Natural Setting:

The proposed drillsite is approximately 25 miles north of Cisco, Utah, the nearest town. A fair road runs to within 1.5 miles of the location. This well is in the San Arroyo field.

Topography:

The proposed location is on a ridge top that slopes to the south at approximately 8%. The area is interlaced with numerous ridges and canyons formed of sandstones, conglomerates and shale deposits. The sides of hills and canyons are steep and the terrain is "rugged".

Geology:

The surface geology is Mesa Verde. The soil is sandy clay and gravels. Seismic risk for the area is minor. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs would be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formation to slough and stick to drill pipe. A loss of circulation would result in contamination due to the introduction of drilling muds, mud chemicals, filler materials, and water deep into the permeable zone, fissures, fractures, and caverns within the formation in which fluid loss is occurring. The use of special drilling techniques, drilling muds, and lost circulation materials may be effective in controlling lost circulation.

A geologic review of the proposed action has been furnished by the Area Geologist, U. S. Geological Survey, Salt Lake City, Utah.

The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

#### Soils:

No detailed soil survey has been made of the project area. The topsoils in the area range from a sandy clay to a clay type soil. The soil is subject to runoff from rainfall and has a high runoff potential and sediment production would be high. The soils are mildly to moderately alkaline and support the salt-desert shrub community. The pinyon-juniper association is also present, along with pines and oak brush.

Topsoil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately four acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding of slope-cut area would minimize this impact.

#### Air:

No specific data on air quality is available at the proposed location. There would be a minor increase in air pollution due to emissions from

rig and support traffic engines. Particulate matter would increase due to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling-operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicular traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

Toxic or noxious gases would not be anticipated.

#### Precipitation:

Annual rainfall should range from about 15" to 20" at the proposed location. The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during early spring runoff and during extremely heavy rainstorms.

Winds are medium and gusty, occurring predominantly from SW to NE. The climate is semiarid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

#### Surface Water Hydrology:

Drainage is to the San Arroyo Wash 1-1/2 miles to the southeast. The reserve pit was moved to avoid small drainage and to place reserve pit in a minimum of one-half its depth in cut.

Some additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems. The potentials for pollution would be present from leaks or spills. The operator is required to report and clean up all spills or leaks.

#### Groundwater Hydrology:

Some minor pollution of groundwater systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is normal and unavoidable during rotary drilling operations. The potential for communication, contamination, and commingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of

NTL-2B. The depths of freshwater formations are listed in the 10-Point Subsurface Protection Plan. The pits would be unlined. If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval.

#### Vegetation:

Plants in the area are of the salt-desert shrub types grading to the pinyon-juniper association intermingled with the Mountain Mahogany associations.

Proposed action would remove about four acres of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations.

#### Wildlife:

Animal and plant inventory has been made by the BLM. No endangered plants or animals are known to inhabit the project area. The fauna of the area consists predominantly of mule deer, coyotes, rabbits, foxes, and varieties of small ground squirrels and other types of rodents and various types of reptiles. The area is used by man for the primary purpose of grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

#### Social-Economic Effect:

An on the ground surface archaeological reconnaissance was completed by Archaeological-Environmental Research Corporation and appropriate clearances will be obtained from the surface managing agency. If a historic artifact, an archaeological feature or site is discovered during construction operations, activity would cease until the extent, the scientific importance, and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist.

There are no occupied dwellings or other facilities of this nature in the general area. Minor distractions from aesthetics would occur over the lifetime of the project and are judged to be minor. All permanent facilities placed on the location would be painted a color to blend in with the natural environment. Present use of the area is grazing, recreation, and oil and gas activities.

Noise from the drilling operation may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to pre-drilling levels. The site is not visible from any major roads.

The overall effect of oil and gas drilling and production activity is significant in Grand County but it is difficult to assess the environmental impact of a single well on state and/or national levels. However, if said well was to produce in sufficient quantity, additional development wells might be anticipated. This additional development, in turn, would lead to greater environmental and socioeconomic consequences.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

There are no national, state, or local parks, forests, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

The proposed location is within the Book Mountain Planning Unit. This Environmental Assessment Record was compiled by the Bureau of Land Management, the surface managing agency of the Federal surface in the area. The study includes additional information on the environmental impact of oil and gas operations in this area and gives land use recommendations. The E.A.R. is on file in the agency's State offices and is incorporated herein by reference.

#### Waste Disposal:

The mud and reserves pits would contain all fluids used during the drilling operations. A trash pit would be utilized for any solid wastes generated at the site and would be buried at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

#### Alternatives to the Proposed Action:

1) Not Approving the Proposed Permit--The Oil and Gas Lease grants the lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits. Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environmental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under U.S.G.S. and other controlling agencies' supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration.

2) Minor relocation of the wellsite and access road would not significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at

the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

The reserve pit was moved approximately 50' <sup>WEST</sup> ~~east~~ to avoid a drainage. A blooie pit would be constructed at one end of reserve pit and 125' minimum from well head. A Sundry Notice was requested to clarify casing program as two programs were proposed by operator.

NOTE: It is possible that this application would be withdrawn if nearby well 1-20 is a "dry" hole.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately four acres of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due to exhaust emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated with the operation. If the well is a gas producer, additional surface disturbance would be required to install production pipelines. The potential for fires, leaks, spills of gas, oil or water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for subsurface damage to freshwater aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the well is a producer, an irreplaceable and irretrievable commitment of resources would be made. Erosion from the site would eventually be carried as sediment in the Colorado River. The potential for pollution to San Arroyo Wash would exist through leaks and spills.

If well is a producer, other development wells would be anticipated with substantially greater environmental and economic impacts.

Determination:

This requested action does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Sec. 102(2)(C).

6/5/79  
Date

Earl Cady  
District Engineer  
U. S. Geological Survey  
Conservation Division  
Oil and Gas Operations  
Salt Lake City District

OK Admin



Earl Cady

NATURAL GAS Corp. of Cal. f May 30, 1979  
# 2-20 sec 20-T1B5 R25E (and Co Utah

Modification at onsite

A MOVE PIT 50' WEST

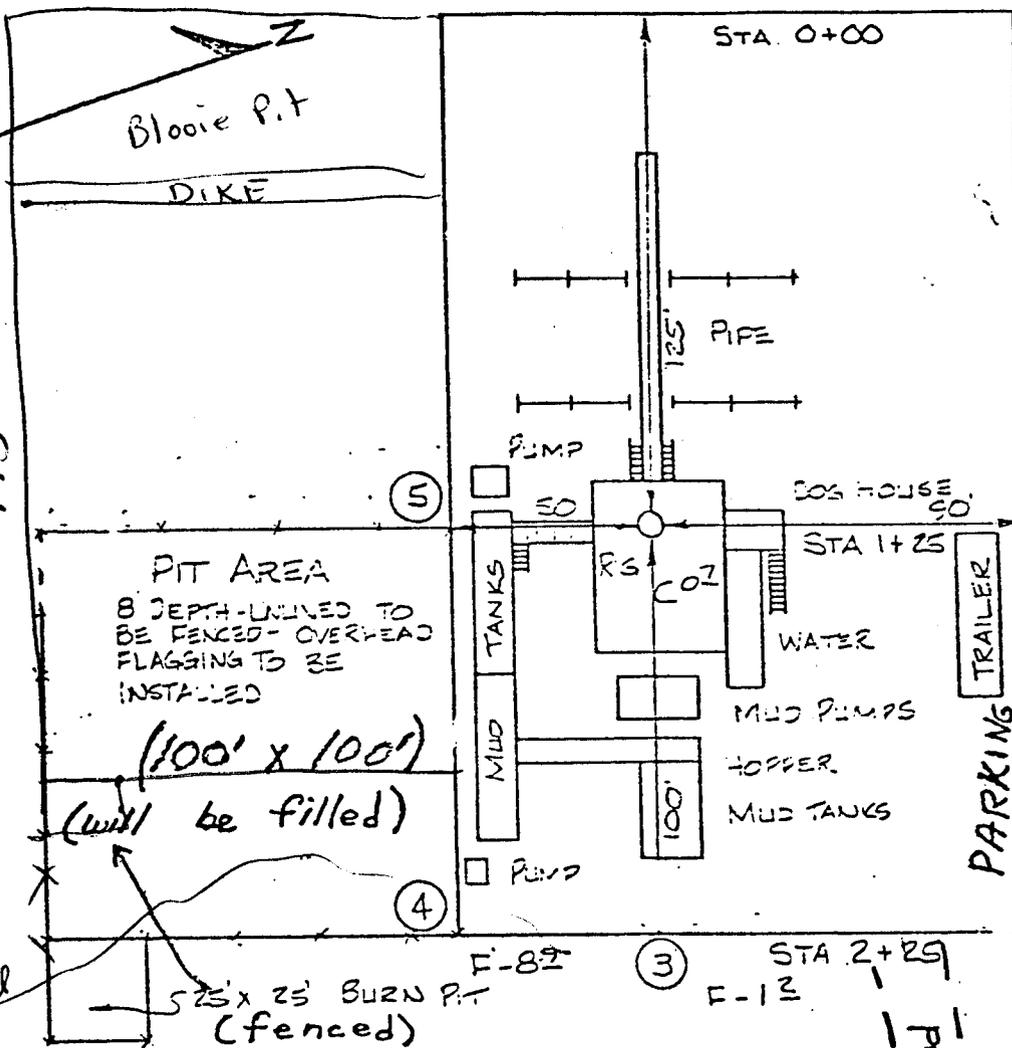
D construct Blooie P.t.

100'

⑥ F-21

⑦ C-20

⑧ C-126

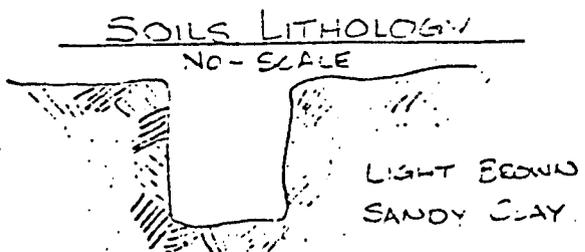


TOP SOIL STOCK PILE

175'

Image

2/e: 1" = 50'



Access Road

FIG. 3

FIGURE 3 RIG LAYOUT NATURAL GAS CORP. OF CALIFORNIA



11-280011

# ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

P.O. Box 17544 - Salt Lake City, Utah 84117

Tel.: (801) 582-0313

December 2, 1977

**Subject:** An Archeological Survey of two proposed Drill Stations in the San Arroyo Ridge Locality of Grand County, Utah

**Project:** McIlnay-Adams & Co., Inc. - Natural Gas Corp. - 1977 Drilling Program in Grand County

**Project No.:** MAC-77-1

**Dept. of Interior Permit:** 77-Ut-007

**To:** McIlnay-Adams & Co., Inc., Room 103, 152 North Durbin, Casper, Wyoming 82601

Gene Day, BLM District Manager, P.O. Box 970, Moab, Utah 84532

Richard Fike, BLM Archeologist, Bureau of Land Management, University Club Bldg., 136 East South Temple, Salt Lake City, Utah 84111

David Madsen, State Archeologist, Antiquities Section, 603 East South Temple, Salt Lake City, Utah 84114

## General Information:

Two drill pads were examined for cultural remains on November 25, 1977, by Dr. F. R. Hauck of AERC, working from maps supplied by the Natural Gas Corporation and the Moab District Office of the Bureau of Land Management. Both of the proposed drill stations and two proposed access roads are located on National Resource Lands administered by the Bureau of Land Management in the following township and range grid:

Township 16 South, Range 25 East

Drill Station #1 located in the NW $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 20;

Drill Station #2 located in the SW $\frac{1}{4}$  of the NW $\frac{1}{4}$  of Section 20;

Access Road A located in the SE $\frac{1}{4}$  of the NE $\frac{1}{4}$  and in the NW $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 20;

Access Road B located in the SW $\frac{1}{4}$  of the NE $\frac{1}{4}$  and in the NW $\frac{1}{4}$  of Section 20.

An area of 100 meters in diameter around each of the two drill stations was examined and 30 meter width quarters for Access Roads A and B were also evaluated.

No historic or prehistoric sites or cultural remains were found during the examination of the proposed drill stations and access roads.

Conclusions and Recommendations:

Drilling and equipment operation over the locations noted above will have no adverse impact upon the cultural resources of the San Arroyo Ridge locality if Natural Gas Corporation and/or its representatives in the field comply with the following recommendations:

- 1) All vehicle traffic and drilling operations be confined to existing roads and examined drill station locations; and cleared access roads;
- 2) drilling personnel refrain from pilfering individual artifacts or from disturbing any archeological and historic sites within the locality; and
- 3) a qualified archeologist is consulted if cultural material from subsurface deposits is exposed during the operation, or if the need arises to relocate or increase the number of drill stations in the locality.

With adherence to these suggestions, a complete archeological

clearance for Natural Gas Corporation and its field operations  
in the San Arroyo Ridge locality can be recommended.

A handwritten signature in cursive script, appearing to read "F. R. Hauck", written above a horizontal line.

F. R. Hauck, Ph.D.  
President

SAN ARROYO PROJECT

(MAC-77-1)

Legend

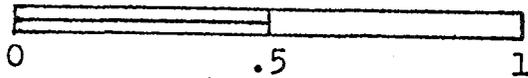
Existing Road

Surveyed Access Road

Drill Station



Scale (in miles)

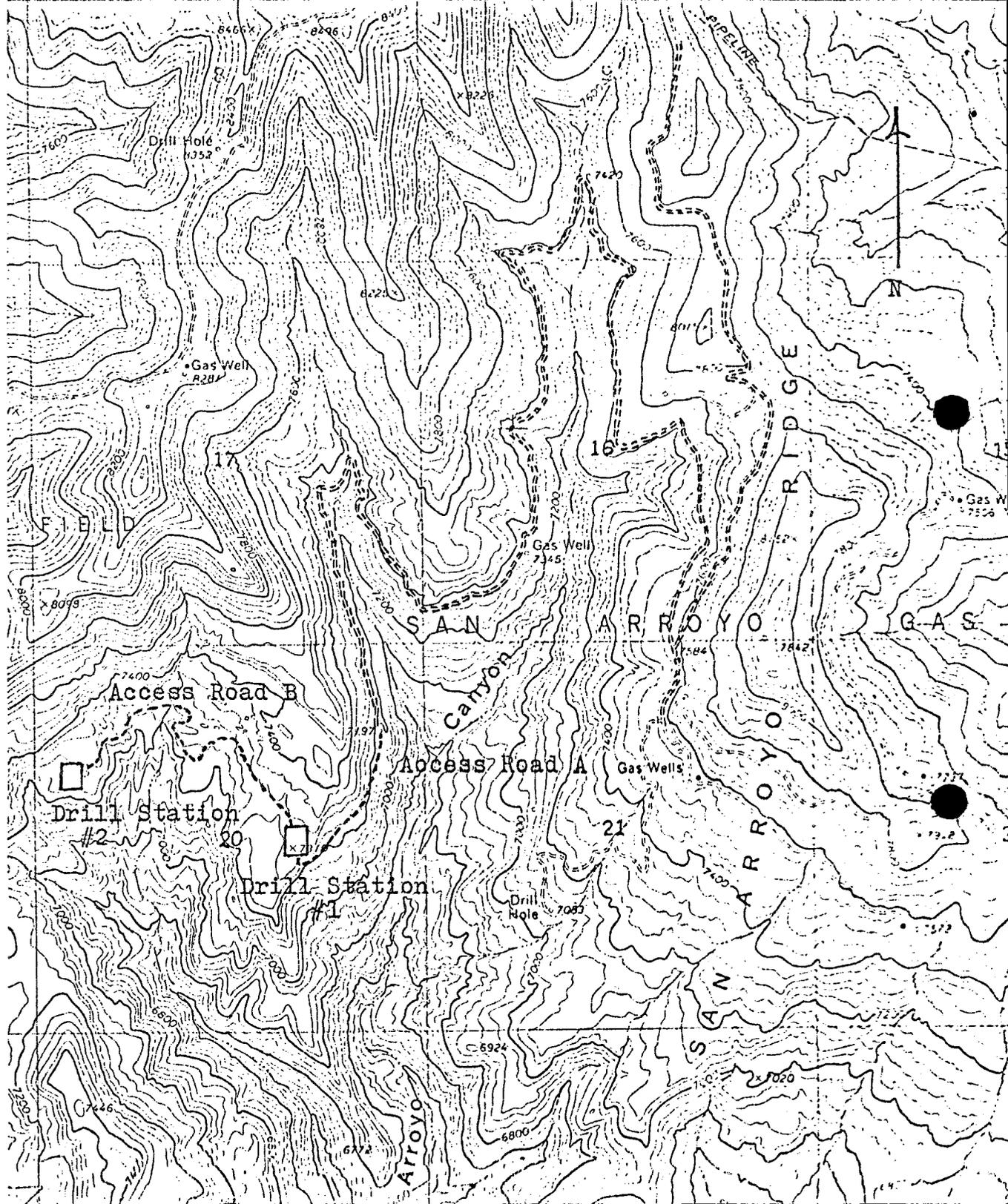


Utah



Project Location:

Township 16 South,  
Range 25 East



WELL CONTROL AND RELATED INFORMATION

NATURAL GAS CORPORATION OF CALIFORNIA

FEDERAL #2-20

SW NW SECTION 20-T16S-R25E

GRAND COUNTY, UTAH

U-29644

1. Surface Formation

Mesaverde

2. Estimated Formation Tops:

<u>Formation</u>	<u>Vertical Depth</u>
Buck Tongue	2150'
Castlegate	2475'
Mancos	2570'
Dakota Silt	5980'
Dakota Beach	6080'
Cedar Mountain	6140'
Buckhorn	6250'
Morrison	6295'
Estimated TD	6350'

3. Estimated Depths at Which Anticipated Water, Oil, Gas or Other Mineral-Bearing Formations are Expected to be Encountered:

Oil or gas bearing zones may be found at 6080', 6140', 6250', and 6295'.

All formations (Permeable) below about 100' will probably contain some water.

4. Casing Program:

Conductor Pipe:

0 - 40' - 18" culvert

Surface Casing:

0 - 200' - 9 5/8", 36#/ft., K55, ST&C, "A" Grade (New) - 5 Jts. pipe

Intermediate Casing:

0 - 2580' - 7", 20#/ft., K55, ST&C, "A" Grade (New) - 65 Jts. pipe

Production Casing:

0 - TD (6350') - 4 1/2", 10.5#/ft., K55, ST&C, "A" Grade (new) - 160 Jts. pipe

5. Pressure Control Equipment (See Attached Diagram)

- a. One 10" -(900 Series) 3000 psig preventor (Make unknown) with 4½" drill pipe and blind rams.
- b. At least one 2" kill line will be installed below BOP rams. A choke manifold with one fixed and one variable choke will be utilized (screw connections).
- c. The pressure control equipment will be tested to 1000 psig for 30 min. prior to drilling below surface casing and will be pressure tested thereafter to 1000 psig every 30 days.
- d. A daily operational check of the BOP equipment will be made and recorded.

6. Drilling Fluids:

<u>Interval</u>	<u>Mud Wt., #/gal</u>	<u>Viscosity</u>	<u>Water Loss</u>	<u>Type System</u>
0 - 200'	8.4 - 8.7#	N.C.	N.C.	Lime Water-Native
200 - 2580'	8.4 - 8.7#	As Req.	N.C.	Lime Water-Native
*2580 - T.D.	---	--	--	Air & aerated water System

\* If water zones are encountered while drilling which cannot be handled by air drilling procedures, the drilling fluid will be converted to a fresh water gel system with the following properties:

<u>Mud Weight - #/gal</u>	<u>Viscosity</u>	<u>Water Loss</u>
8.9 - 9.2	30 - 38	4 - 8 cc

If the entire hole is drilled with air, it will be filled with KCl water at T.D. for the purpose of running electric logs. Sufficient mud materials to maintain mud requirements and meet minimum lost circulation and blowout problems will be maintained at the well site.

7. Auxiliary Equipment to be Used:

- a. Drilling with air a 10" - 3000 psig drilling head will be utilized.
- b. 10,000 psi kelly cock
- c. Float at bit if no lost circulation has been encountered.
- d. Mud tank levels will be visually monitored.
- e. A full-opening drill pipe stabbing valve with proper connections will be on the rig floor ready for use when the kelly is not in the string.
- f. An unmanned mud logging unit will be utilized if and when drilling fluid is converted to mud.

8. Testing, Logging and Coring Program:

- a. Coring: None anticipated
- b. Drill stem tests as per samples and significant oil and/or gas shows found by geologist (only applicable if drilling with a mud system).
- c. Logging: 1. DIL - TD to base of surface casing  
2. GR-FDC-CNL - through zones of interest.
- d. Tentative Completion Program:  
4 1/2" production casing will be cemented into place. Possible perforations are from 6295 - 6460' with 20 holes in several intervals. The productive zone will be broken down with approximately 1500 gal 15% HCl acid. If necessary, the well will be fracture stimulated with approximately 100,000# of sand and 70,000 gal of gelled water. All frac fluids are non-volatile.

9. Abnormal Conditions or Potential Hazards:

Abnormal conditions or potential hazards are not expected. Estimated temperature at T.D. is 170°F. Estimated bottom hole pressure is 1200 psig at T.D. Hydrogen sulfide gas is not expected.

10. Anticipated Starting Date of Drilling Operations:

Plan to start drilling June 1, 1979 approximately 17 days should be required to drill, test, etc.

Mud Flow Line

Fed. #2-20  
U-29644

HYDRIL  
SIZE 10"  
SERIES 900 - 3000 psig

PIPE RAMS  
SIZE 10"  
SERIES 900 - 3000 psig

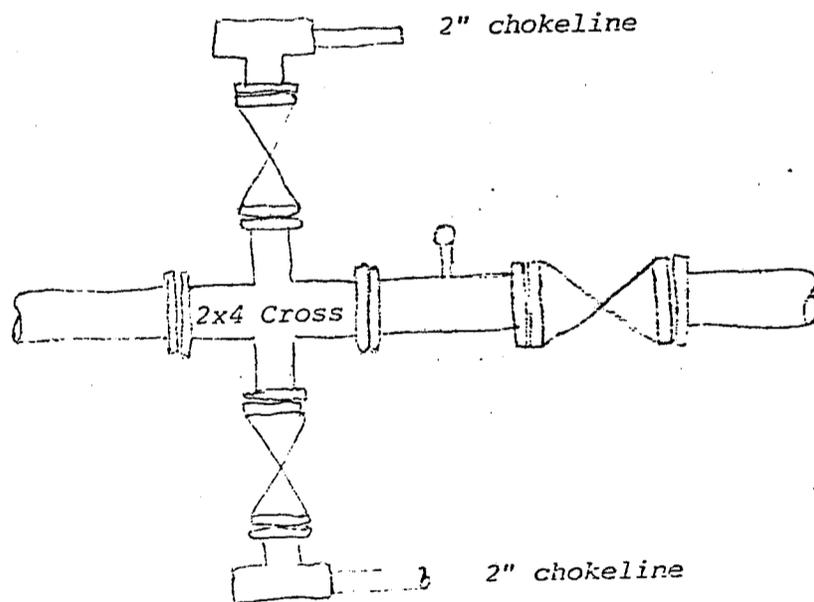
BLIND RAMS  
SIZE 10"  
SERIES 900 - 3000 psig

KILL LINE  
TOP OF CELLAR  
FILL LINE  
CHOKE MANIFOLD  
DRILLING SPOOL  
SIZE 10"  
SERIES 900 - 3000 psig

CASING HEAD  
SIZE 10"  
SERIES 900 - 3000 psig

CHOKE MANIFOLD

BOP Min. 30'



USGS SURFACE USE AND OPERATING PLAN (PER NTL-6)

NATURAL GAS CORPORATION OF CALIFORNIA

FEDERAL #2-20

SW NW SECTION 20-T16S-R25E

GRAND COUNTY, UTAH

U-29644

1. Existing Roads:

- A. Proposed well site: See surveyor's plat and Figures 1 and 2. Elevations were measured at several points around the location as shown on Figure 4. Directional reference stakes were set in all four (4) directions.
- B. To reach Natural Gas Corp. well location, located in the SW/4 NW/4 Section 20-T16S-R25E, S.L.B. & M., Grand County, Utah, proceed west from Vernal, Utah along U.S. Highway 40 - 14 miles to the junction of this highway and Utah State Highway 88 that exits to the south. Proceed south along Utah State Highway 88, 17.8 miles to Ouray, Utah. Proceed south from Ouray along the Uintah County Road (of which the first 4 miles is paved and the rest an improved dirt road), 53 miles to P.R. Springs; proceed easterly along an improved dirt road that is called the McCook Ridge road 7.6 miles to its junction with a road that runs in a southerly direction along San Arroyo Ridge; proceed along this improved dirt road 2.85 miles to the junction of a service road that runs in a westerly direction into the bottom of San Arroyo Canyon; proceed westerly along this road 2.6 miles to an existing gas well in the SW/4 of Section 16-T16S-R25E, S.L.B. & M. at which point an exit road proceeds on in a southwesterly direction for 1.6 miles to an existing gas well (NE NE Section 20-T16S-R25E.) From this point, proceed 0.6 miles in a southwesterly direction to newly drilled well Natural Gas Corporation Federal #1-20. A new access road will be constructed from here for 1.5 miles in a northwesterly direction to the proposed Federal #2-20 location.
- C. Access road to location is shown on Figures 1 and 2.
- D. Not an exploratory well.
- E. Existing roads within a 1-mile radius are shown on attached Figure 2. These roads are dirt roads, which in dry weather will support heavy loads.
- F. The roads that are required for access during the drilling phase, completion phase, and production phase of this well, will be maintained at the standards required by the BLM or other controlling agencies. Existing dirt roads will require periodic blading.

2. Planned Access Roads: (See Figure 2)

1. Width: The new road will be built to a width of 12' - 15' for a distance of about 1.5 miles.
2. Maximum grade will not exceed 8%.
3. Turnouts: None.
4. Drainage design: Drainage ditches will be constructed where it is determined necessary to handle run-off of water and provide adequate drainage.
5. No culverts are anticipated.
6. Surfacing material: The road will be constructed from native borrow accumulated during construction.
7. No gates, cattleguards or fence cuts will be required.
8. The road is center-line flagged.

3. Location of Existing Wells: (Development Well - 1 mile radius)

1. Water Wells: None.
2. Abandoned Wells: None.
3. Temporarily Abandoned Wells: None.
4. Disposal Wells: None.
5. Drilling Wells: One Completing.
6. Producing Wells: One.
7. Shut-in Wells: 1 shut in gas well in 1 mile radius from proposed location (NE NE Section 20-T16S-R25E)
8. Injection Wells: None.
9. Monitoring or Observation Wells for Other Resources: None.

4. Location of Existing and/or Proposed Facilities:

A. Owned or Controlled by Lessee/Operator within 1 mile of Proposed Well:

1. Tank Batteries: None.
2. Production Facilities: None.
3. Oil Gathering Lines: None.
4. Gas Gathering Lines: None.
5. Injection Lines: None.
6. Disposal Lines: None.

B. New Facilities Required in the Event of Production:

1. Location of Facilities:

See Figure 5 for location of facilities. All facilities will be on the wellsite drilling pad or area disturbed preparing site.

2. Dimension of Facilities:

Production pad will be 225' x 190'. (See Figure 5.)

A production unit will be located 125' east of the well.

One 400 barrel storage tank will be located 210' west of the production unit and 135' northwest of the well.

An emergency disposal pit is proposed (25' x 25' x 8') located 100' south of the production unit.

3. Construction Methods and Materials:

- a. Facilities will be constructed utilizing "good" and acceptable "oil field" construction practices.
- b. Flow lines and all piping will consist of steel and/or fiberglass goods with WP of 300 psig.
- c. Tanks and treater will be constructed of steel and meet API standards.

4. Protective Measurements to Protect Livestock and Wildlife:

- a. The emergency and disposal pits will be fenced and flagged.
- b. The tank battery will be diked.
- c. Flow lines will be buried to a depth of approximately four (4) feet.

C. Plan for Rehabilitation of Disturbed Areas No Longer Needed for Producing Operations:

All disturbed areas not required for producing operations will be restored and reseeded as per BLM specifications.

5. Location and Type of Water Supply:

- A. The anticipated water supply for this location is from P.R. Springs in Section 33-T15½S-R24E.
- B. Water for drilling will be hauled by truck to the drilling site over roads discussed in Items #1 and #2.
- C. No water well will be drilled.

6. Source of Construction Materials:

- A. Native soil will be utilized for the drilling site and access road. No additional construction materials will be required for drilling operations.
- B. Materials other than native soil will not be obtained from Federal or Indian lands.
- C. No additional road gravel, sand, stone, etc. from other sources other than native are anticipated.
- D. No additional access road across Federal land other than those discussed in Items #1 and #2 will be required.

7. Methods for Handling Waste Disposal:

1. Cuttings: Impermeable fenced reserve pit, 100' x 100' x 8' (see Figure 3.)
2. Drilling Fluids: Impermeable fenced reserve pit, 100' x 100' x 8' (see Figure 3.)
3. Produced Fluids:
  - a. Recovered during drill stem tests will be disposed of into impermeable fenced reserve pit 100' x 100' x 8' (see Figure 3.)
  - b. During well completion operations produced fluids will be contained in swab tanks (see Figure 6.)
4. Sewage: Chemical toilet.
5. Garbage and Trash:
  - a. 25' x 25' x 4' trash pit completely fenced with woven wire. (see Figure 3.)
  - b. Engine oil and lubricants will be collected in steel containers and disposed of into reserve pit.
6. Clean up of wellsite area after rig is removed:
  - a. Debris on location will be picked up and burned or buried in garbage pit.
  - b. All pits and wellsite will be covered, leveled, and reseeded as per BLM instructions.

8. Ancillary Facilities:

None.

9. Wellsite Layout:

1. Cross Section - see Figure 4 for cross section and elevations, etc.  
Maximum cut approximately 13' at northwest side of site.  
Maximum fill approximately 9' at southeast side of reserve pit.
2. Location of rig, pits and associated equipment (see Figure 3.)  
Topsoil will be stockpiled adjacent to wellsite pad (see Figure 3.)
3. Rig orientation, parking lots, etc. (see Figure 3.)
4. Pits will be unlined.

10. Plans for Restoration of Surface:

1. All pits will be backfilled, leveled, and contoured to as near the current condition as is practical.  
Waste material will be burned or buried.
2. Revegetation and rehabilitation of wellsite and access roads: As per BLM requirements.
3. All pits will be fenced until they can be back filled.
4. If oil is present on the reserve pit, overhead flagging will be installed.
5. Rehabilitation will be commenced when the rig moves out with the location restored by October, 1979. Reseeding will be done by May 31, 1980.  
Rehabilitation will be completed by May 31, 1982, including vegetation.

11. Other Information:

The Topography of the General Area (See Topographic Map "A")

- 1a. The terrain of the general area slopes from the rim of the Book Cliff Mountains to the north to the Colorado River to the south and is a portion of the East Tavaputs Plateau.  
The area is interlaced with numerous ridges and canyons formed by non-perennial streams and washes. The sides of the hills and canyons are rather steep.
- b. The topsoil in the area ranges from a sandy-clay (SM-ML) type soil to a clayey (OL) type soil.
- c. Outcrops of sandstones, conglomerates, and shale deposits, are common in the area forming ledges and cliffs along the sides of the canyons.  
The visible geologic structures in the area are of the Tuscher Formation - Tertiary Period and the Wasatch Formation also of the Tertiary Period.
- d. Due to the low precipitation average, climate condition and the types of soils, the vegetation that is found in the area is common of the semi-arid region we are located in, and consists of juniper and pinion pine trees, sagebrush, scrub oak, shadscale, and bitterbrush, and some grasses and cacti as the primary flora.
- e. The fauna of the area is sparse and consists predominantly of the mule deer, coyotes, rabbits, and varieties of small ground squirrels and other types of rodents and various forms of reptiles.  
The birds of the area are raptors, finches, ground sparrow, magpies, crows, and jays.
- 2a. The area is used by man for the primary purpose of grazing domestic livestock and sheep.
  - b. Surface ownership is by the Federal Government.
- 3a. The major drainage in the area with a year-round flow is the West Fork Bitter Creek to the east.  
The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during the early spring run-off and during extremely heavy rain storms of relatively long duration. This type of storm is rather uncommon as the normal annual precipitation is around 8".
  - b. There are no occupied dwellings within 1 mile of the wellsite.
  - c. There are no visible archaeological, historical, or cultural sites within any reasonable proximity of the proposed location site. An archaeological survey has been conducted. (copy attached)

12. Lessee's or Operator's Representative:

McIlnay-Adams & Co., Inc.----- (307) 265-4351 (office)  
2305 Oxford Lane, Casper, WY 82601  
Mr. Edward W. McIlnay----- (307) 237-3655 (home)

13. Certification:

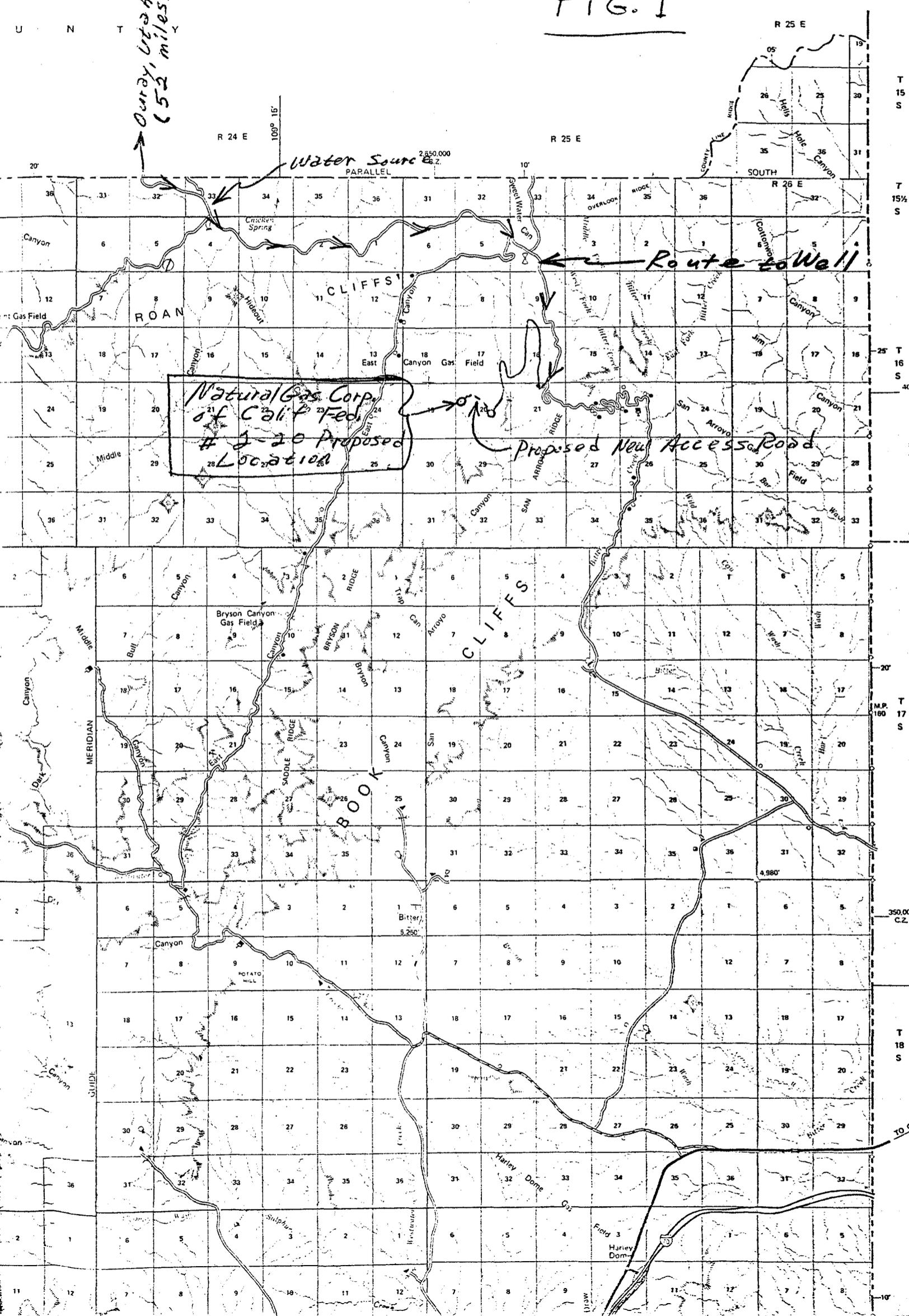
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access roads; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated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

Date

4/26/79

Stanley H. McInroy, P. E.  
Wyo. Reg. #648

FIG. 1



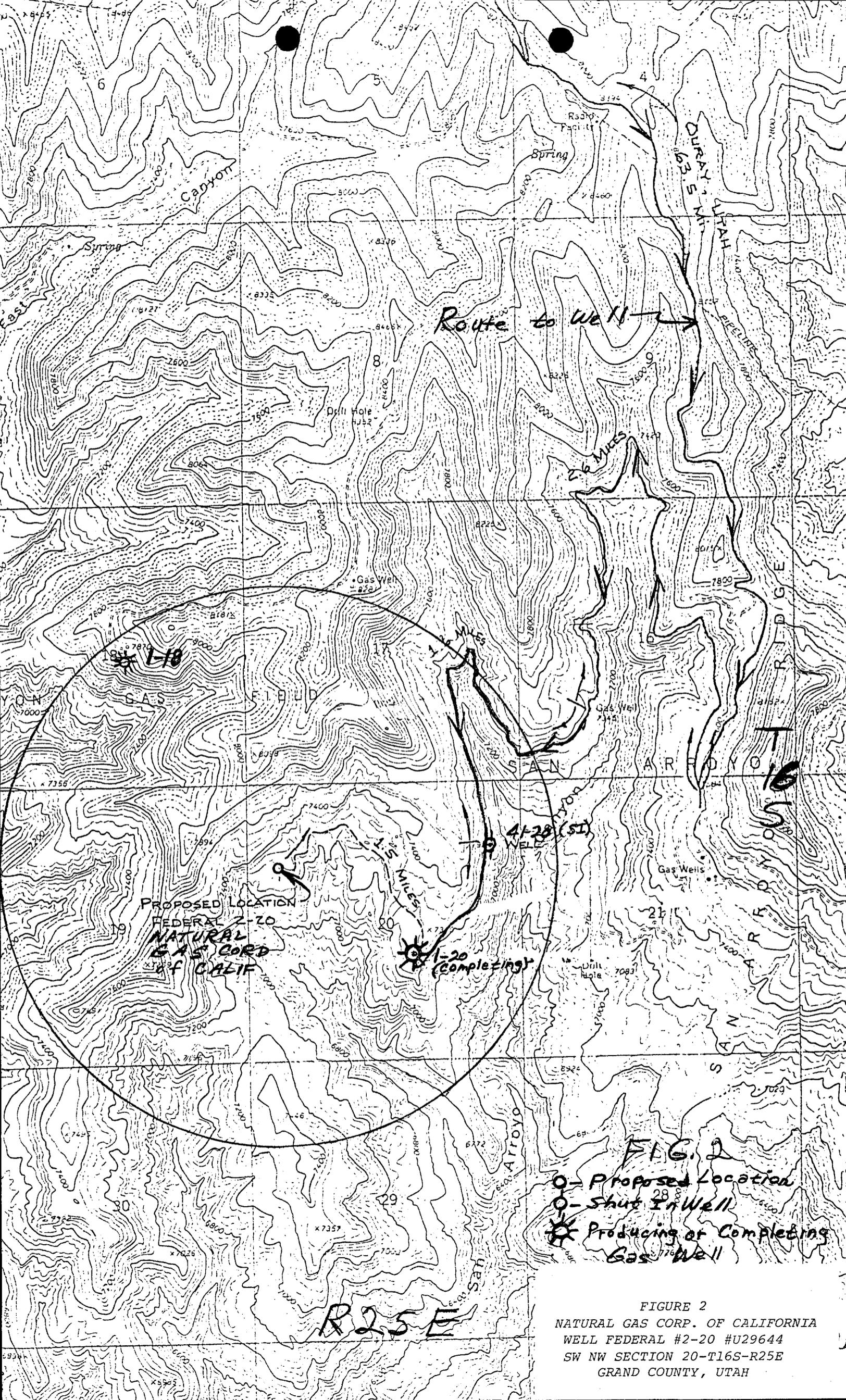
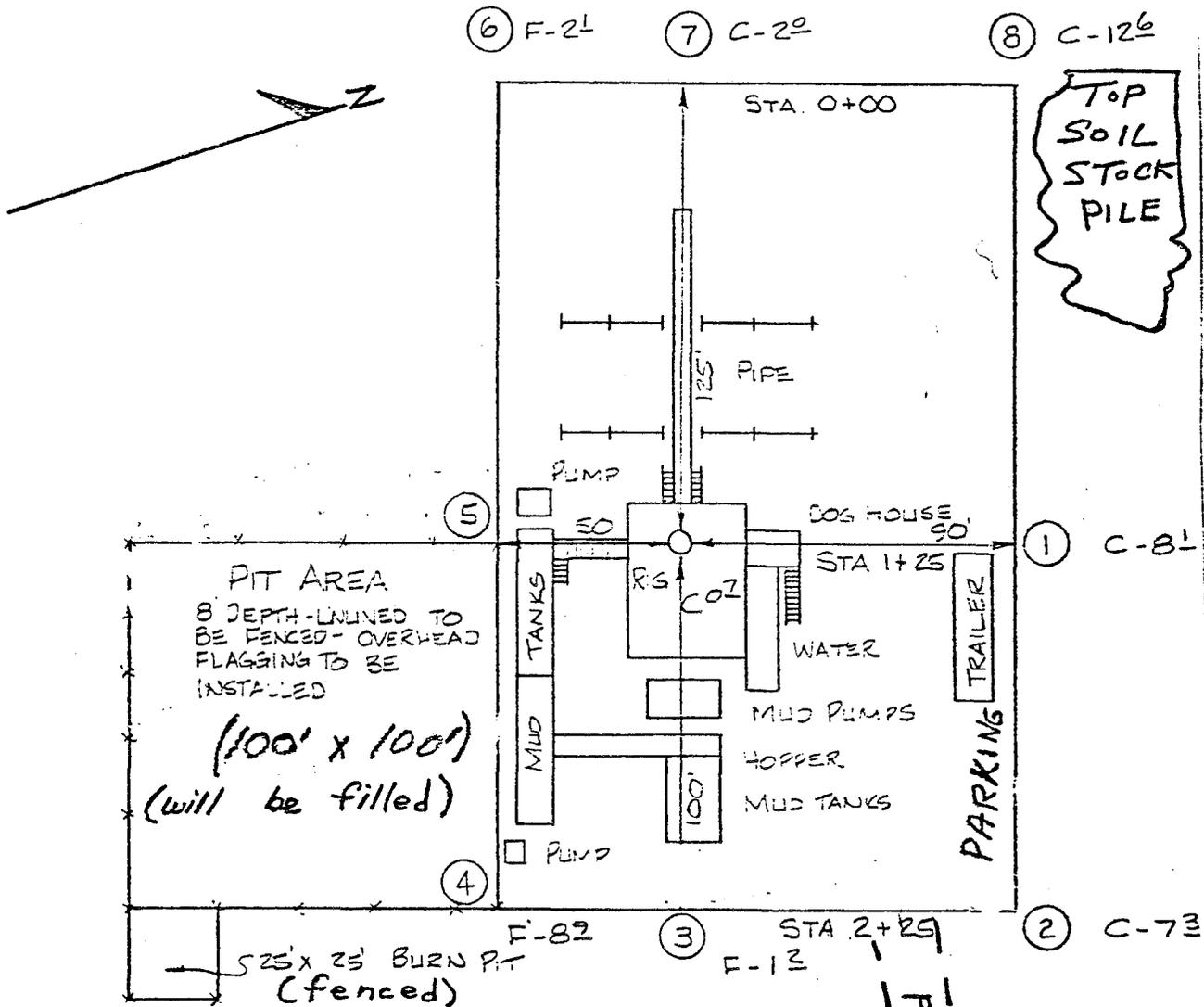
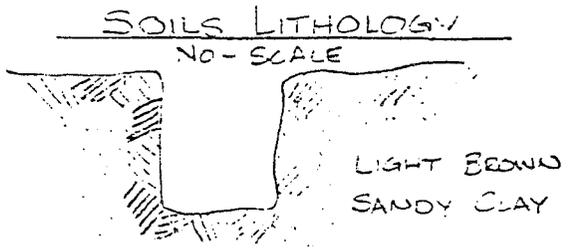


FIG. 2  
 \* - Proposed Location  
 ○ - Shut In Well  
 ☼ - Producing or Completing Gas Well

FIGURE 2  
 NATURAL GAS CORP. OF CALIFORNIA  
 WELL FEDERAL #2-20 #U29644  
 SW NW SECTION 20-T16S-R25E  
 GRAND COUNTY, UTAH



Scale: 1" = 50'



Access Road

FIG. 3

FIGURE 3  
RIG LAYOUT  
NATURAL GAS CORP. OF CALIFORNIA  
WELL FEDERAL #2-20 #U29644  
SW NW SECTION 20-T16S-R25E  
GRAND COUNTY, UTAH

# NATURAL GAS CO

SEC. 20 T16S, R25E, S.L. B  $\frac{1}{4}$  M.

## LOCATION LAYOUT SHEET

CROSS SECTION - (2)

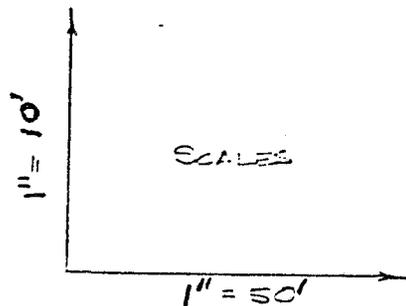
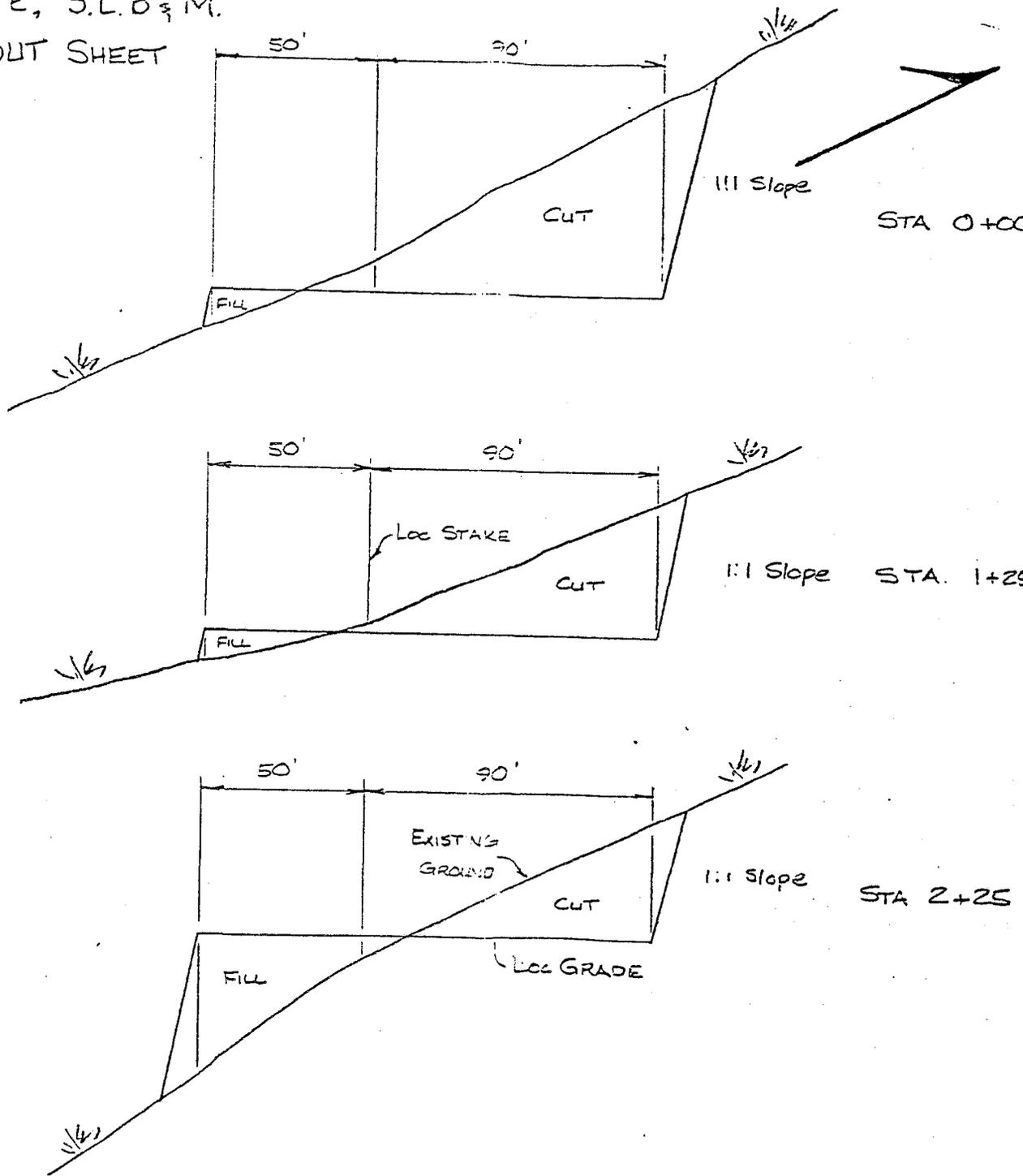
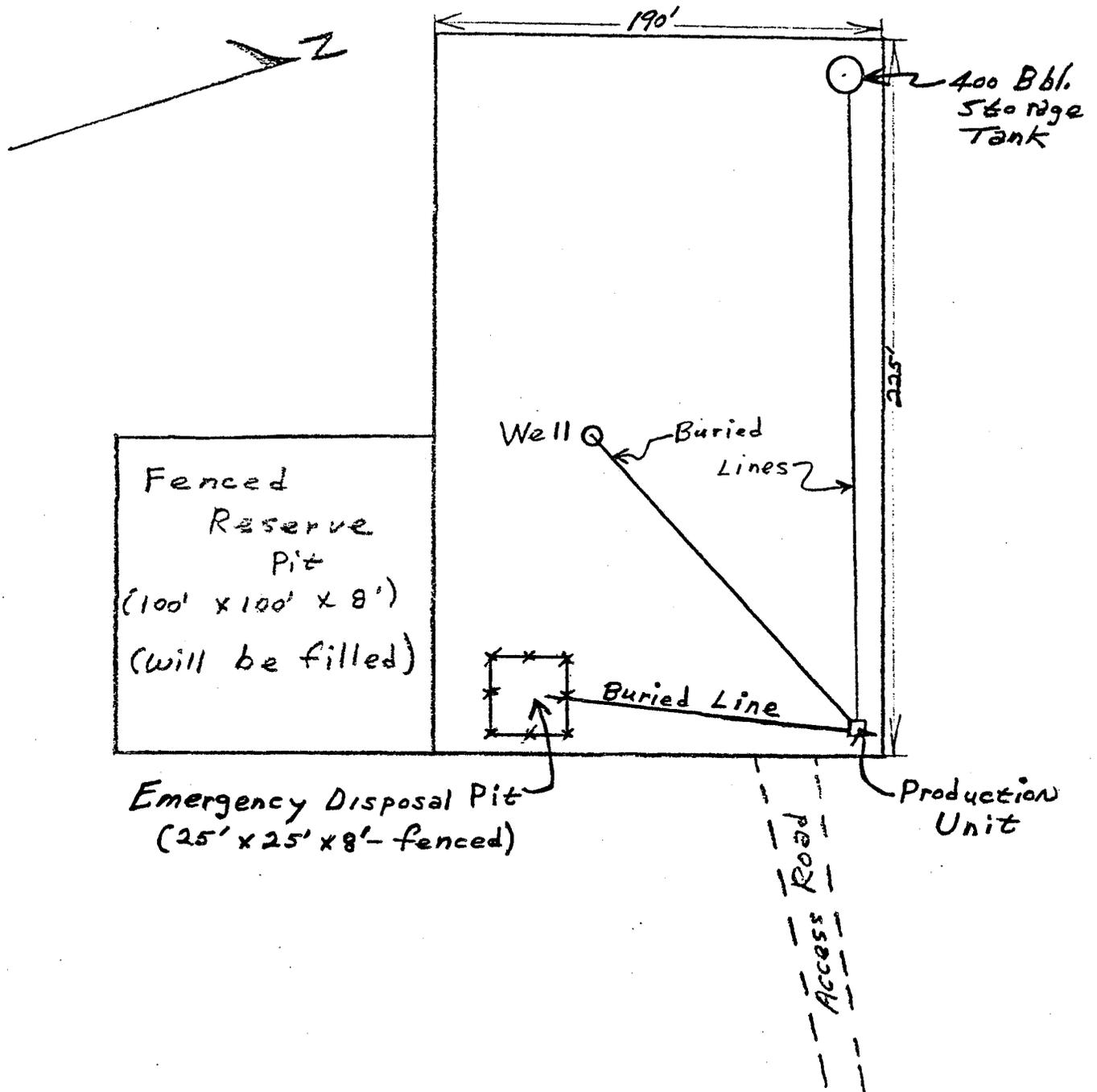
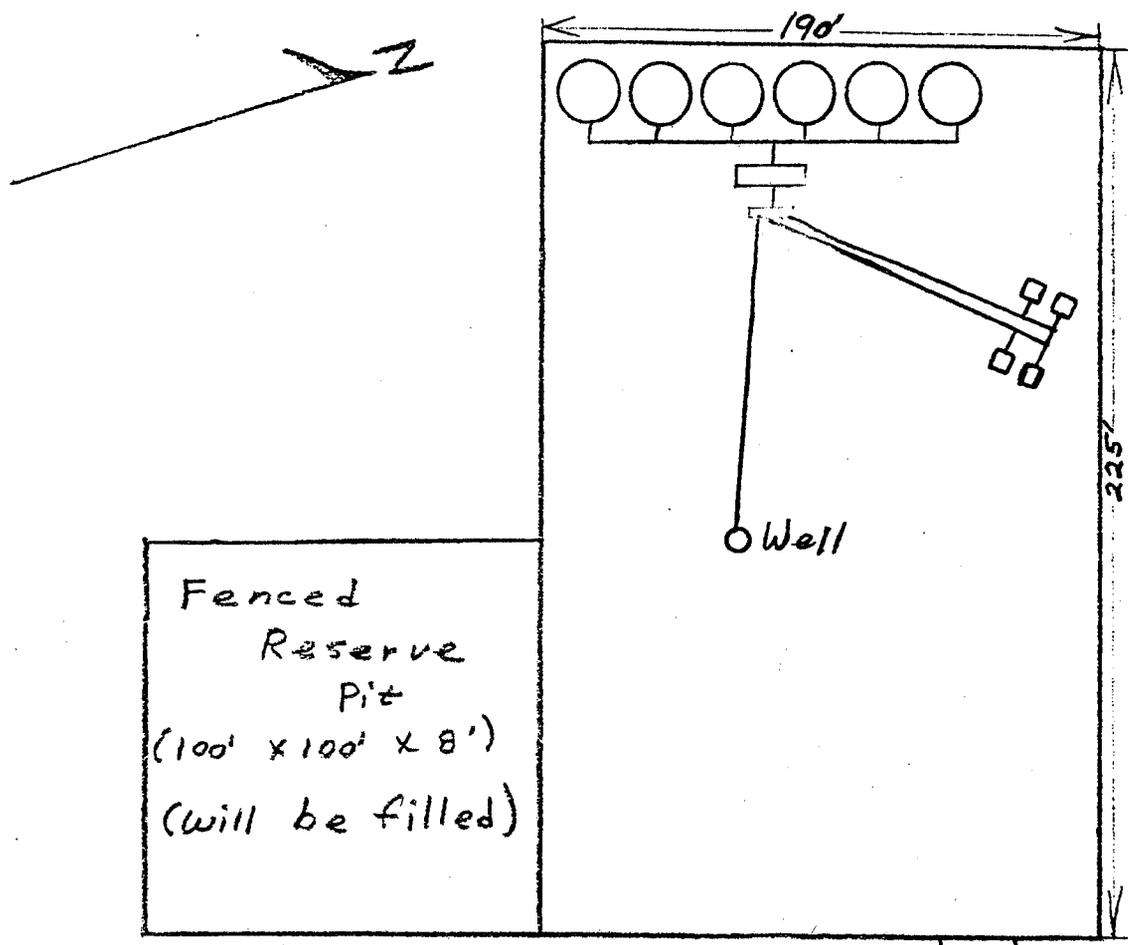


FIGURE 4  
LOCATION LAYOUT SHEET  
NATURAL GAS CORP. OF CALIFORNIA  
WELL FEDERAL #2-20 #U29644  
SW NW SECTION 20-T16S-R25E  
GRAND COUNTY, UTAH



Scale: 1" = 50'

FIGURE 5  
 PRODUCTION FACILITIES  
 NATURAL GAS CORP. OF CALIFORNIA  
 WELL FEDERAL #2-20 #U29644  
 SW NW SECTION 20-T16S-R25E  
 GRAND COUNTY, UTAH



GLOSSARY

- 400 Bbl. Frac Tanks
- ▭ Blender
- ▭ Blender Manifold
- Frac Piping
- Pump Trucks

Scale: 1" = 50'

FIGURE 6  
 STIMULATION LAYOUT  
 NATURAL GAS CORPORATION OF CALIF.  
 WELL FEDERAL #2-20 #U-29644  
 SW NW SECTION 20-T16S-R25E  
 GRAND COUNTY, UTAH

STATE OF UTAH  
DIVISION OF OIL, GAS, AND MINING

\*\* FILE NOTATIONS \*\*

Date: April 30, 1979

Operator: Natural Gas Corporation

Well No: Federal # 2-20

Location: Sec. 20 T. 16S R. 25E County: Grand

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number: 43-019-30518

CHECKED BY:

Administrative Assistant: \_\_\_\_\_

Remarks:

Petroleum Engineer: \_\_\_\_\_

Remarks: *Since drilling unit was set up on 320 ac. & two wells are located on section 20, doesn't granting the exception well 1-20 preclude further drilling in this section.*

Director: ~~Must have hearing before Bd~~

Remarks: Denied.

INCLUDE WITHIN APPROVAL LETTER:

# 31

Bond Required:

Survey Plat Required:

Order No. 149-1 3/14/73  
149-2

Surface Casing Change   
to \_\_\_\_\_

Rule C-3(c), Topographic exception/company owns or controls acreage within a 660' radius of proposed site

O.K. Rule C-3

O.K. In \_\_\_\_\_ Unit

Other:

Letter Written/Approved



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

CLEON B. FEIGHT  
*Director*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

May 15, 1979

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
*Chairman*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

MR STANLEY H MCINROY  
MCINROY - ADAMS CO INC  
2305 OXFORD LANE  
CASPER WY 82601

Re: Well No. Federal #2-20, Sec. 20, T. 16S, R. 25E, Grand County, Utah

Dear Mr. McInroy:

In view of the Boards order in Cause No. 149-1, a copy of which is attached, approval to drill the above mentioned well cannot be granted without a hearing before the Board of Oil, Gas, and Mining requesting an exception.

Yours very truly,

DIVISION OF OIL, GAS, AND MINING

*Cleon B Feight*  
Cleon B. Feight, Director

CBF/lw

cc: U. S. Geological Survey

# SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

---

1. OIL WELL  GAS WELL  OTHER

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

3. ADDRESS OF OPERATOR  
*c/o McIlnay-Adams & Co., Inc.  
2305 Oxford Lane, Casper, WY 82601*

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
*625' FWL & 1635' FNL (SW NW) Section 20-T16S-R25E*

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
*7285' Ungraded GL*

7. UNIT AGREEMENT NAME  
---

8. FARM OR LEASE NAME  
*Federal*

9. WELL NO.  
*#2-20*

10. FIELD AND POOL, OR WILDCAT  
*San Arroyo*

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
*Sec. 20-T16S-R25E*

12. COUNTY OR PARISH  
*Grand*

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 type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <i>Change in Original ID</i>	<input checked="" 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.)\*

*This Sundry Notice is submitted to correct the original Intent to Drill dated 4-23-79 Item No. 23.*

Casing Program is as follows:

- Conductor Pipe - 40' - 18" culvert*
- Surface: 200' - 9 5/8", 36#/ft., in 13 3/4" hole - 300 sx. to surface*
- Intermediate: - 2580' - 7", 20#, New, 8 3/4" hole - 600 sx. cement*
- Production: 6350' - 4 1/2", 10.5#, New set in 7 7/8" hole w/350 sx. cement*

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

SIGNED *A. H. McIlnay* TITLE *Agent* DATE *6-1-79*

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

\*See Instructions on Reverse Side



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

CHARLES R. HENDERSON  
*Chairman*

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THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

CLEON B. FEIGHT  
*Director*

June 7, 1979

NATURAL GAS CORPORATION OF CALIFORNIA  
2305 OXFORD LANE  
CASPER WY 82601

Re: Well No. Federal #2-20, Sec. 20, T. 16S, R. 25E, Grand County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the Order issued in Cause No. 149-1 and 149-2 dated March 14, 1973.

This permit is granted providing Well No. Federal 1-20 in the SE $\frac{1}{4}$  of Section 20 is plugged and abandoned prior to drilling the Federal 2-20, and we receive a letter from lease holders in SW $\frac{1}{4}$  stating they have no objections to this location.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Geological Engineer  
HOME: 876-3001  
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-019-30518.

DIVISION OF OIL, GAS, AND MINING

*Cleon B Feight*  
Cleon B. Feight, Director

/lw

cc: U. S. Geological Survey



2400 ANACONDA TOWER  
555 SEVENTEENTH STREET  
DENVER, COLORADO 80202  
TELEPHONE 303-825-6100  
TWX 910-931-2620



July 12, 1979

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: Uinta Basin  
San Arroyo Prospect  
Grand County, Utah

Gentlemen:

Natural Gas Corporation of California has plans to drill their Federal #2-20 located in the SE/4 Section 20, T16S, R25E. The Anschutz Corporation will support their well through an Acreage Contribution Option, covering the SW/4 Section 20, T16S, R25E; therefore, there is no conflict on our behalf.

Sincerely yours,

THE ANSCHUTZ CORPORATION

*Kenneth G. Leis*

Kenneth G. Leis  
Landman

MOF:jw

cc: U.S.G.S.  
8440 Federal Building  
125 South State Street  
Salt Lake City, Utah 84138  
Attention: Mr. E.W. Guynn

Natural Gas Corporation of California  
245 Market Street  
San Francisco, California 94106  
Attention: Jim Langman



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH

CHARLES R. HENDERSON  
*Chairman*

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

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EDWARD T. BECK  
E. STEELE McINTYRE

CLEON B. FEIGHT  
*Director*

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

February 5, 1980

Natural Gas Corporation of Cal.  
2305 Oxford Ln.  
Casper, Wyoming 82601

77 BEALE ST.  
San FRANCISCO 94106

RE: Well No. Federal #2-20  
Sec. 20, T. 16S, R. 25E,  
Grand County, Utah

Gentlemen:

In reference to above mentioned well(s), considerable time has gone by since approval was obtained from this office.

This office has not recieved any notification of spudding. If you do not intend to drill this well (these wells), please notify this Division. If spudding or any other activity has taken place, please send necessary forms.\* If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill this well, and action will be taken to terminate the application. If you plan on drilling this well at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

DEBBIE BEAUREGARD  
CLERK-TYPIST

March 17, 1980

Natural Gas Corporation of Ca.  
77 Beale St.  
San Francisco, California 94106

Re: Well No. Fed. 2-20  
Sec. 20, T. 16S, R.25E.  
Grand County, Utah

Gentlemen:

In reference to above mentioned well, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill this well, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill this well and action will be taken to terminate the application. If you plan on drilling this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

*Janice Tabish*

JANICE TABISH  
CLERK-TYPIST

*415-495-4971*

*Talked with Jim Langman 4-15-80  
He said call application*

Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

August 27, 1980

Natural Gas Corp. of California  
2305 Oxford Lane  
Casper, WY 82601

*Previously  
Location  
Abandoned  
by Oil & Gas  
(4-15-80)*

Re: Returned Application for  
Permit to Drill  
Well #2-20  
Section 20, T. 16S., R. 25E.  
Grand County, UT  
Lease #U-29644  
Application Approved: July 11, 1979

Gentlemen:

The Application for Permit to Drill the referenced well were approved. Since that date no known activity has transpired at the approved location. The conditions of approval state under Item No. 10 that Applications for Permit to Drill are effective for a period of one year. In view of foregoing this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location on a future date a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must, then, be submitted. Your cooperation in this matter is appreciated.

Sincerely

(ORIG. SGD.) W. P. MARTENS

*for*  
E. W. Gynn  
District Engineer

bcc: ADCM, Oil & Gas, NCR, Casper  
SMA  
State Office (O&G) ✓  
State Office (BLM)  
USGS-Vernal  
Well File  
APD Control

RAH/cva