

UTAH DIVISION OF OIL, GAS AND MINING

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

\* Location Abandoned - Well never drilled - 3-8-82

DATE FILED 2-29-80

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. U-17245-C INDIAN

DRILLING APPROVED: 3-5-80

SPUDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: LA March 8, 1982

FIELD: Greater Cisco Area 3/86

UNIT:

COUNTY: Grand

WELL NO. Cisco Federal #14

API NO: 43-019-30615

LOCATION 500' FT. FROM (N) ~~W~~ LINE. 2449' FT. FROM (E) ~~W~~ LINE. NW NE<sup>2</sup> 1/4-1/4 SEC. 26

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
20S	23E	26	CISCO DRILLING & DEV., INC.				

FILE NO. \_\_\_\_\_

\_\_\_\_\_ in NID File

\_\_\_\_\_ on S R Sheet

Location Map Pinned

Card Indexed

IWR for State or Fee Land

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Checked by Chief

Copy NID to Field Office

Approval Letter

Disapproval Letter

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**COMPLETION DATA:**

Date Well Completed

OW

WW

TA

GW

OS

PA

Location Inspected

Bond released

State of Fee Land

\_\_\_\_\_

\_\_\_\_\_

**LOGS FILED**

Driller's Log

Electric Logs (No. )

E

I

E-I

GR

GR-N

Micro

Lat

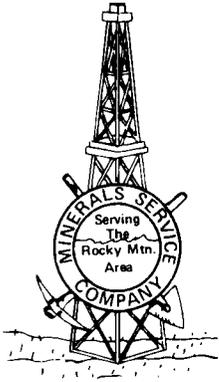
MI-L

Sonic

Others

\_\_\_\_\_

10-23-90  
Jep



# MINERALS SERVICE COMPANY

P.O. Box 3523, 2503 Foresight Circle, Grand Junction, Colorado 81501  
Telephone 303/245-2335

February 27, 1980

Bonnie Melendez  
State of Utah  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: Our File MSC-80-23-L  
Cisco Well #14  
T.20 S., R.23 E., Sec. 26, SLM  
Grand County, Utah

Dear Ms. Melendez:

Enclosed for filing please find duplicate original copies of the following documents for Cisco Well #14, to be drilled in the Cisco Springs Field of Grand County, Utah:

- a. U.S.G.S. Form 9-331-C Application for Permit to Drill
- b. Operation Plan for Cisco Drilling & Development, Inc.
- c. Surface Use Plan
- d. Location Plan
- e. Plan for Production Equipment
- f. Well Plat and Certificate of Survey
- g. Map reflecting existing wells and holes in immediate proximity
- h. Map (Exhibit "B") reflecting well locations in relationship to existing lease lines and roads.

The foregoing documents constitute the Notice of Intention to Drill for Cisco Well #14 required to be submitted pursuant to Rule C-4 of the General Rules and Regulations and Rules of Practice and Procedure (amended to March 22, 1978).

Sincerely,

*Robert P. Kirgan*

Robert P. Kirgan  
Geologist

**RECEIVED**

FEB 28 1980

RPK/lr

Enclosure: APD  
cc: File

DIVISION OF  
OIL, GAS & MINING

**COPY**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Cisco Drilling and Development, Inc.

3. ADDRESS OF OPERATOR  
 P. O. Box 6059 Hamden, Connecticut 06517

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 T.20 S., R.23 E., SLM Sec. 26; 500' fnl and 2,448.83' fel  
 At proposed prod. zone Same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 4 miles NW of Cisco, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 500 ft.

16. NO. OF ACRES IN LEASE 1,120 Ac.

17. NO. OF ACRES ASSIGNED TO THIS WELL 160 Ac.

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1,528 ft.

19. PROPOSED DEPTH 2,500 ft. *Entrada*

20. ROTARY OR CABLE TOOLS

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 4,680 (GR); 4,690 (RT)

5. LEASE DESIGNATION AND SERIAL NO.  
 U-17245-C

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

7. UNIT AGREEMENT NAME  
 N/A

8. FARM OR LEASE NAME  
 Federal

9. WELL NO.  
 Cisco Well #14

10. FIELD AND POOL OR WILDCAT  
*Grtr Cisco Area*  
~~Cisco Springs~~

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 T.20 S., R.23 E., SLM Sec. 26: NW $\frac{1}{4}$ NE $\frac{1}{4}$

12. COUNTY OR PARISH 13. STATE  
 Grand Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12"	(Surface) 8 5/8"	24 lbs/ft.	150 ft.	75 sk. Class II Cement
7 7/8"	(Prod.) 5 1/2"	14 lbs/ft.	150' - 2,500'	

**RECEIVED**  
6/1/80  
**FEB 29 1980**

**DIVISION OF OIL, GAS & MINING**

It is planned to drill a well at the above described location to test the gas production possibilities of the sands in the Dakota, Cedar Mountain, and Morrison Formations. The well will be drilled to a point which is near the top of the Entrada formation or to commercial production. Rotary tools will be used with air for circulation until water is encountered, then drilling fluid will be used to finish the well. The surface casing will be set at about 150 ft., and cemented with returns to the surface. A blowout preventer with hydraulically operated blind and pipe rams will be installed on top of the surface casing; and a kelly cock and safety sub on the derrick floor will provide protection from pressures and temperatures, 2 - inch Fill and Kill lines will be connected below the blind rams. Any gas encountered will be flared at the end of the blewie line, and roughly checked for volume through a 2 - inch line after the pipe rams have been closed. A float valve will be used in the bottom drill collar at all times.

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 Robert P. Kergan TITLE Geologist DATE 2/20/80

(This space for Federal or State office use)

PERMIT NO. 43-019-30615 APPROVAL DATE 3/5/80

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

CONDITIONS OF APPROVAL, IF ANY:

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination

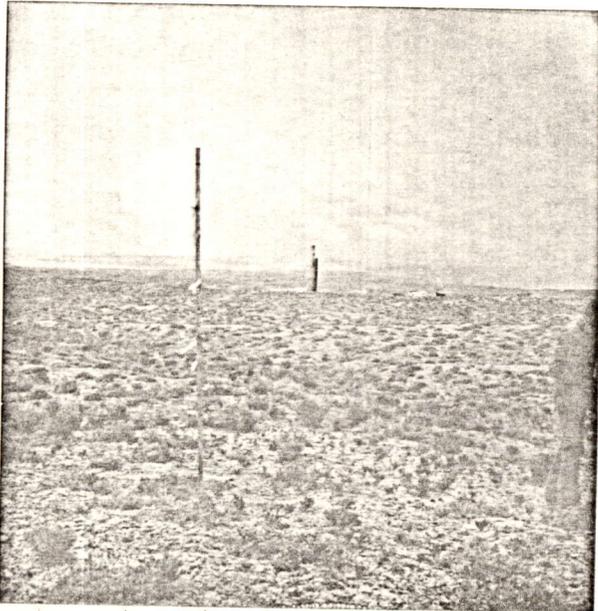
I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102(2)(C).

*E. L. ...*

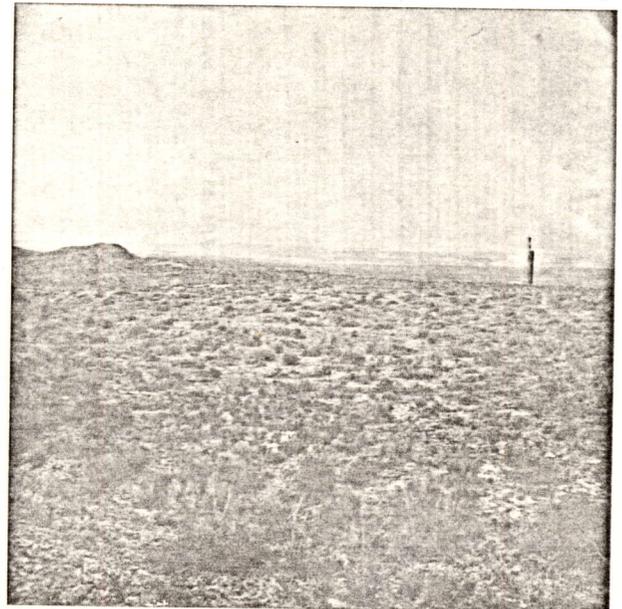
District Engineer  
U. S. Geological Survey  
Conservation Division  
Oil & Gas Operations  
Salt Lake City District

JUN 16 1980

Date



*Cisco Drilling #14 Sec. 26,  
T20S, R23E, Grand Co.,  
Utah*



*Ridge where reserve pit will  
be located - Cisco Drilling #14,  
Sec. 26, T20S, R23E, Grand Co.*

United States Department of the Interior  
Geological Survey  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

USUAL ENVIRONMENTAL ASSESSMENT

Date June 2, 1980

Operator Cisco Drilling & Development, Inc. Well No. 14  
Location 500' FNL 2448.83' FEL Section 26 Township 20S Range 23E  
County Grand State Utah Field/Unit Cisco Springs  
Lease No. U-17245-C Permit No. \_\_\_\_\_

Prepared by: Glenn M. Doyle  
Environmental Scientist  
Grand Junction, Colorado

Joint Field Inspection Date: April 30, 1980

Field Inspection Participants, Titles, and Organizations:

<u>Glenn Doyle</u>	<u>U. S. Geological Survey</u>
<u>Elmer Duncan</u>	<u>Bureau of Land Management</u>
<u>Robert Kirgan</u>	<u>Operator's Representative</u>
<u>Chad Christiansen</u>	<u>Dirt Contractor</u>
_____	_____
_____	_____
_____	_____

Related Environmental Documents:

BLM-Moab, Book Mountain Unit Resource Analysis.

BLM-Utah, 1979, Final initial wilderness inventory, USDI, August, 50 pp.

*Admin. Control ?*  
*per 200 x 250*  
*per 12 x 60*  
*1/3 mi x 16' new assess*  
*18711 ac*  
*also related*  
*1-5*

## DESCRIPTION OF PROPOSED ACTION

Proposed Action:

1. Location State: Utah  
County: Grand

500 ' F N L, 2448.83 F E L, NW ¼ NE ¼

Section 26, T20S, R23E, SLM

2. Surface Ownership Location: Public  
Access Road: Public

Status of Reclamation Agreements: Not Applicable

3. Dates APD Filed: 2/29/80  
APD Technically Complete: 4/02/80  
APD Administratively Complete: 2/29/80

4. Project Time Frame Starting Date: June 1980  
Duration of drilling activities: 7 days.

A period of 30 to 60 days is normally necessary to complete a well for production if hydrocarbons are discovered. If a dry hole is drilled, recontouring and reseeding would normally occur within one year; revegetation or restoration may take several years. If the well is a producer, an indefinite period of time would occur between completion and rehabilitation.

5. Related actions of other federal or state agencies and Indian tribes:

None known

6. Nearby pending actions which may affect or be affected by the proposed action:

None known

7. Status of variance requests:

None known

The following elements of the proposed action would/could result in environmental impacts:

1. A drill pad 200' wide x 250' long and a reserve pit 12' x 60' would be constructed. Approximately .33 mile of new access road, averaging 16' in width, would be constructed from a maintained road. 1.8 acres of disturbed surface would be associated with the project.
2. Drilling
3. Waste disposal

4. Traffic
5. Water requirements
6. Completion
7. Production
8. Transportation of hydrocarbons
9. Other

Details of the proposed action are described in the Application for Permit to Drill.

The location was rotated clockwise 110° east of north in order to locate the reserve pit in at least one-half cut material.

Environmental Considerations of the Proposed Action:

Regional Setting/Topography - Regional topography is flat desert and rolling hills grading to the talus-flanked Book Cliffs.

PARAMETER

A. Geology - Surface is Mancos Shale. Other formations are listed in the 10-Point Subsurface Plan.

Information Source: Application to Drill.

1. Other Local Mineral Resources to be Protected: Prospective coal and geothermal resources. Coal probably subeconomic. Geothermal resources unproven.

Information Source: ME, District Geologist.

2. Hazards:

a. Land Stability: Location and access built on Mancos Shale. Material is stable, provided the slopes are moderate and moisture content is low.

Information Source: Application to Drill and Field observation.

b. Subsidence: Subsidence can occur with the withdrawal of oil, gas, and/or water.

Information Source: Keller, Edward A., 1976, Environmental geology, Charles E. Merrill, 488 pp.

c. Seismicity: Seismic risk: low. Statistically, greatest damage would be moderate, corresponding to intensity VII of Modified Mercalli Intensity Scale, 1931.

Information Source: Algermissen, S. T., and Perkins, David M., 1977, Earthquake hazards map of the United States, Reprint from Earthquake Information Bulletin, 9(1) Jan-Feb., 4 pp.; Perkins, David M., 1974, Seismic risk maps, Reprint of Earthquake information bulletin, 6(6) Nov-Dec.; von Hake, Carl A., Earthquake History of Utah, NOAA.

- d. High Pressure Zones/Blowout Prevention: No high pressure zones expected. Blowout prevention systems detailed in APD.

Information Source: Application to Drill.

## B. Soils

1. Soil Character: No detailed soil surveys done in area. Changes in soil fertility, horizons, slope stability, etc., cannot be predicted. Soils are considered nitrogen-poor, alkalic soils that support the salt-desert community.

Information Source: Field observation.

2. Erosion/Sedimentation: Erosion/sedimentation would increase as would runoff potential. Extent of increases unpredictable without site-specific studies being done.

Information Source: Field observation.

- C. Air Quality - Wellsite lies in Class II attainment area. No Class I attainment areas are near, or adjacent to, proposed location.

Information Source: BLM-Moab, Book Mountain Unit Resource Analysis.

- D. Noise Levels - Ambient noise levels temporarily elevated. Personnel safety could be jeopardized. Wildlife would avoid area.

Information Source: Field observation.

## E. Water Resources

### 1. Hydrologic Character

a. Surface Waters: A moderate-size, northeasterly-draining channel would be filled and levelled, increasing sediment yield and erosion potential.

Information Source: Field observation.

b. Groundwaters: Contamination to groundwaters through commingling with drilling fluids is possible.

Information Source: Field observation.

2. Water Quality

a. Surface Waters: Impacts to surface water quality are judged as insignificant, provided the operator maintains a fluid-tight reserve pit.

Information Source: Field observation.

b. Groundwaters: Operator proposes 150' of surface casing. Commingling of drilling fluids with potentially usable water could render groundwater unusable. Pits would be unlined.

Information Source: Application to Drill and Field observation.

F. Flora and Fauna1. Endangered and Threatened Species Determination

Based on the formal comments received from the Bureau of Land Management on May 27, 1980, we determine that there would be no effect on endangered and threatened species and/or their critical habitat.

2. Flora: Construction would remove about 1.8 acres of vegetation increasing potential for non-point erosion and decreasing soil fertility.

Information Source: Field observation.

3. Fauna: Vegetation removal reduces wildlife habitats and food sources. Deer are not known to winter in the area. No known migratory bird nesting areas, strutting or breeding grounds, or fish-spawning areas would be impacted by proposed action.

Information Source: BLM-Moab, Book Mountain Unit Resource Analysis.

G. Land Uses

1. General: Oil and gas operations, recreation, and grazing are major land uses. Amount and quality of land available to livestock, wildlife, and recreationists would be reduced during well life.

Information Source: Field observation.

2. Affected Floodplains and/or Wetlands: N/A

Information Source: Field observation.

H. Aesthetics: Operation would not blend with natural surroundings. Most likely unappealing to recreationists. Impact duration: life of well.

Information Source: Field observation.

I. Socioeconomics: The effect of one well on local and regional population and economy would be considered minor. If major discovery, then consider:

Population increase, community services taxed, resources depleted, cumulative impacts multiply, pipelines and transportation routes expand.

Information Source: G. Doyle, Environmental Scientist, USGS.

J. Cultural Resources Determination: Based on the formal comments received from the Bureau of Land Management on May 27, 1980, we determine that there would be no effect on cultural resources subject to no stipulations.

Information Source: Bureau of Land Management.

K. Adequacy of Restoration Plans: Rehabilitation plan judged as adequate. Problems hampering restoration: a) Area subject to short growing season; b) limited precipitation during growing season; and c) generally, very little topsoil which has limited organic matter and is low in fertility.

Information Source: G. Doyle, Environmental Scientist, USGS.  
David Oberwager, Env. Spec. (Reclamation), USGS-AOSO.

#### Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.

2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

#### Adverse Environmental Effects:

1. If approved as proposed:

a. About 1.8 acres of vegetation would be removed, increasing and accelerating erosion potential.

b. Pollution of groundwater systems <sup>could</sup> would occur with the introduction of drilling fluids into the aquifer(s). The potential for interaquifer leakage and lost circulation is ever-present, depending on the casing program.

c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.

d. The potential for fires, leaks, spills of gas and oil or water exists.

e. During construction and drilling phases of the operation, noise and dust levels would increase.

f. Distractions from aesthetics during the lifetime of the project would exist.

g. Erosion from the site would eventually be carried as sediment in the Colorado River. The potential for pollution to Cisco Springs would exist through leaks and spills.

h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of an irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.

i. Other:

- 1) Original wellsite layout places reserve pit in fill material.
- 2) Both cattle and sheep could be endangered by toxic or hazardous fluids in the reserve pit if it is not properly fenced.

## 2. Conditional approval

a. All adverse impacts described in section one above would occur, except

- 1) By rotating the well pad clockwise 110° east of north and by shortening and deepening the reserve pit, the well pad would then be located in a small ridge of cut material, thus improving chances for a competent reserve pit.
- 2) By fencing the reserve pit on three sides prior to drilling, and on the fourth side once the rig moves off, hazards posed by fluids to livestock and wildlife would be mitigated.

### Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

1. See attached Lease Stipulations. *None*
2. See attached BLM Stipulations.
3. Rotate well pad clockwise 110° east of north.
4. Shorten and deepen reserve pit to 12' x 12' x 60' dimensions.
5. Fence reserve pit on three sides prior to drilling, and on the fourth side once the rig moves off.

Controversial Issues and Conservation Division Response: None known.



# United States Department of the Interior

IN REPLY REFER TO

3100  
(U-603)

BUREAU OF LAND MANAGEMENT

Moab District  
Grand Resource Area  
P. O. Box M  
Moab, Utah 84532

May 22, 1980

## Memorandum

To: Oil & Gas Office, USGS Conservation Division,  
P.O. Box 3768, Grand Jct., CO 81502

From: Area Manager, Grand

Subject: Cisco Drilling & Development Co.  
Cisco Well #14, Lease U-17245-C  
NWNE, Section 26, T. 20 S., R. 23 E., SLB&M  
Grand County, Utah

On April 30, 1980, a representative from this office met with Glen Doyle, USGS, and Bob Kirgan agent of Cisco Drilling and Development Co. for an inspection of the above referenced location. Subject to the attached conditions, I am approving the surface management portion of the Application for Permit to Drill.

The archaeological requirement has been fulfilled on this location. No threatened or endangered flora or fauna are indicated in the area.

Please forward the enclosed information to Cisco Drilling and Development Company..

*C. Delano Backus*

Enclosures (3)  
1-Reclamation Procedures  
2-Seed Sources  
3-Seed Mixture



*Save Energy and You Serve America!*

27 MAY 1980

STANDARD STIPULATIONS FOR OIL & GAS EXPLORATION

Contact this office at least 24 hours prior to beginning construction of access road and pad.

Stockpile the surface 8 inches of topsoil in a wind-row on the southeast of southwest corner of the location.

The upper banks (uphill side) of all cuts will be rounded during construction of the access road and pad.

Notify the BLM District Archaeologist if cultural material from sub-surface deposits is exposed during the operation.

The bottom half of the reserve pit will be lined with at least 1 inch of bentonite spread over the surface and raked into the soil.

The trash pit will be at least six feet deep and fenced with fine mesh wire during drilling operations.

The "blooey" line will be centered and directed into the pit.

If production is obtained, the access road will be upgraded to BLM specifications for long-term roads as outlined in the surface use standards section of the "Oil and Gas" pamphlet (joint BLM and USGS publication).

If production is obtained, all production facilities will be painted "desert tan" or a similar color approved by the Grand Resource Area Manager.

Rehabilitation of the site and access road will be accomplished in accordance with the enclosed restoration procedures.

Production facilities and pipeline route are approved on this location under lease rights.

Production facilities are not approved at this time.

At least two low water crossings will be made on the new access road.

Pad size is reduced from 250 feet by 275 feet to 200 feet by 250 feet.

Seed will be drilled into the disturbed area in fall of 1980.

Rotate the pad north <sup>110°</sup>20 degrees east.

## RECLAMATION PROCEDURES IN GRAND RESOURCE AREA

1. Disk or rip pads and access roads.
  - a. Overlap passes in order to insure complete treatment.
2. Contour pads and access roads.
  - a. Lay berms into centers.
  - b. Use cut material for fill areas.
  - c. Lay stockpiled surface soil over top of pads and spread evenly.
  - d. On highly erosive soils, it may be more beneficial to grade slopes to reduce steepness.
  - e. Do not smooth pads out, leave a roughened surface. On steeper slopes and slopes with clayey soils scarify or serrate the ground in order to increase water infiltration and reduce erosion.
3. Water bar roads where required by this office.

* 2%	Grade	-	200 ft. intervals
2-4%	Grade	-	100 ft. intervals
4-5%	Grade	-	75 ft. intervals
5%	Grade	-	50 ft. intervals

\* Actual spacing may vary according to soil stability. Lighter textured soils will require more frequent water bars. When natural drainage ways are present, water bars are to be constructed to make maximum use of them. Plan operations so that natural drainage ways do not become blocked.
4. Seed roads and pads in the fall (Oct. through mid-Dec.).

Seed Mixture

<u>Grasses</u>		<u>Lbs./Acre</u>
Oryzopsis hymenoides	Indian rice grass	1
<u>Forbs</u>		
Sphaeralcia grossulariaefolia	Globe mallow	1
<u>Browse</u>		
Ceretoides lanata	Winterfat	1
Artemisia spinescens	Bud sage	1
Atriplex confertafolia	Shadscale	1
Atriplex corrugata	Matt saltbush	1
		<hr/>
		6

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

TO: DISTRICT ENGINEER, OFFICE SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-17245-C

OPERATOR: Cisco Drilling & Development, Inc. WELL NO. 14

LOCATION: NW $\frac{1}{2}$  NW $\frac{1}{2}$  NE $\frac{1}{2}$  sec. 26, T. 20S, R. 23E, SLM  
Grand County, Utah

1. Stratigraphy: Operator tops appear reasonable

Mancos	Surface
Dakota	1765
Cedar Mtn.	1830
Morrison	1905
Summerville	2295
Entrada	2320

2. Fresh Water:

Fresh water may be encountered in the Dakota SS

3. Leasable Minerals:

Prospectively valuable land for coal in the Dakota  
(Prospectively valuable geothermal land lies within 1 mile west)

4. Additional Logs Needed: Adequate

5. Potential Geologic Hazards: None anticipated

6. References and Remarks: Cisco Dome KGS within 2 miles west

Signature: Gregory W Wood Date: 3-13-80

*Slenn*

26-205-23E ✓  
#14



Memorandum

To: District Oil and Gas Engineer, Mr. Edward Guynn

From: Mining, Supervisor, Mr. Jackson W. Moffitt

Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. U-27245-C Will No Ciso 14

1. The location appears potentially valuable for:

- strip mining\*
- underground mining\*\*
- has no known potential.

2. The proposed area is

- under a Federal lease for \_\_\_\_\_ under the jurisdiction of this office.
- not under a Federal lease under the jurisdiction of this office.
- Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

\*If location has strip mining potential:

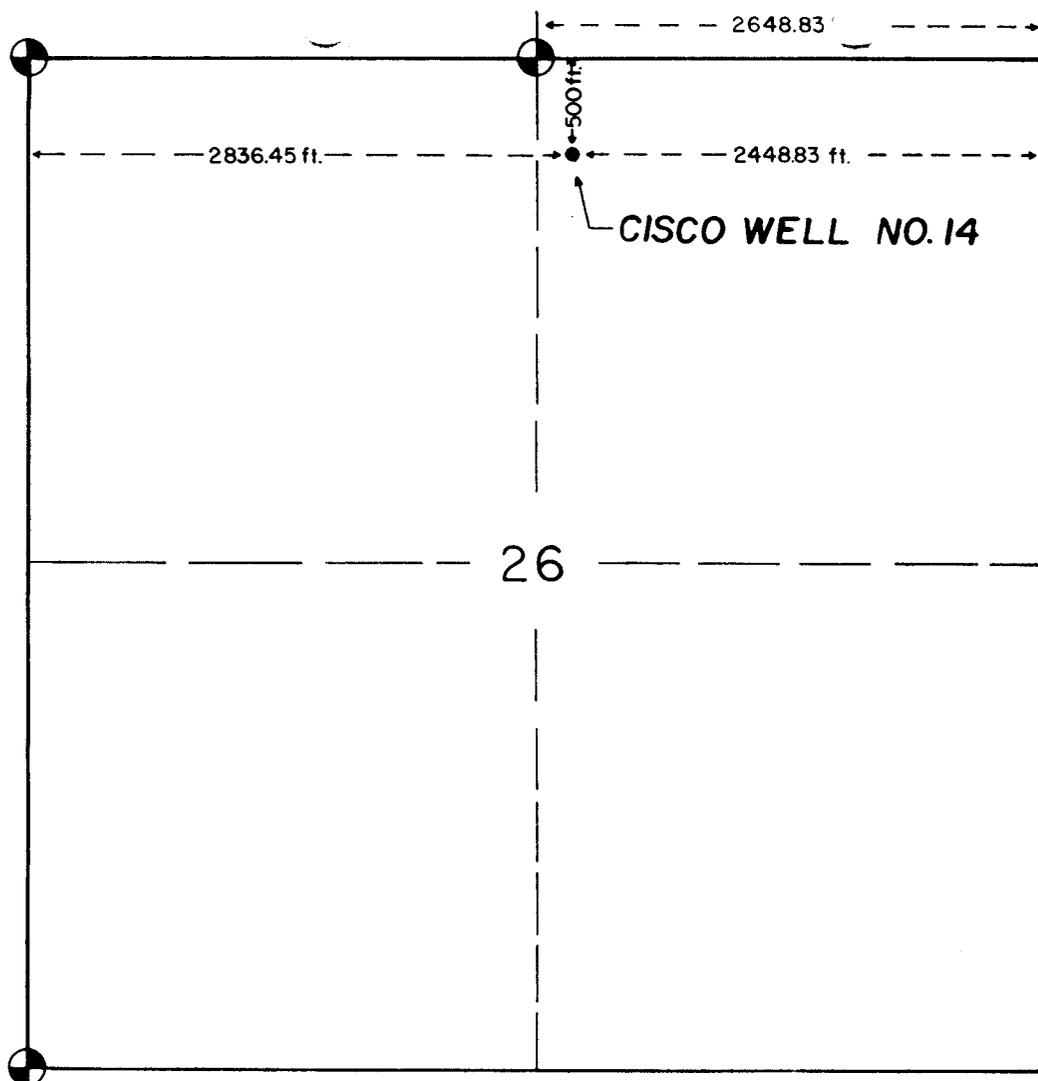
Surface casing should be set to at least 50 feet below the lowest strip minable zone at \_\_\_\_\_ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

\*\*If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in like manner. Except for salines or water-bearing horizons with potential for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

Signed *Allen J. Vance*

10 APR 1960



0 1000  
SCALE 1" = 1000'

FOUND G.L.O. BRASS CAP

ELEVATIONS ARE FROM U.S. DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY TOPOGRAPHIC MAP.

**CERTIFICATE OF SURVEY**

I, MERRITT P. DISMANT, BEING A REGISTERED LAND SURVEYOR DO HEREBY CERTIFY THAT THE SURVEY OF DRILL SITE LOCATION CISCO WELL NO.14 IN SECTION 26, T.20S., R.23E., IN THE SALT LAKE MERIDIAN, GRAND COUNTY, UTAH, AND THE PLAT THEREOF WAS MADE UNDER MY SUPERVISION.

**RECEIVED**  
MAR 6 1980

*Merritt P. Dismant*

MERRITT P. DISMANT

DIVISION OF OIL, GAS & MINING



PLAT OF THE  
CISCO WELL NO.14  
GRAND COUNTY, UTAH

**MINERALS SERVICE COMPANY**  
GRAND JUNCTION, COLORADO

SURVEYED BY I.T.S., Inc.	SCALE 1" = 1000'	DRAWN BY KLF	JOE HENDERSON
WORKED BY I.T.S., Inc.	DATE 9/27/79	CHECKED BY	

7935

OPERATION PLAN

Cisco Drilling & Development, Inc.  
 Cisco Sell #14  
 T.20 S., R.23 E., SLM Section 26  
 500 ft. fnl and 2,448.83' fel  
 Grand County, Utah

1. Elevation - 4,680 ft. (GR); 4,690 ft. (RT)
2. The geologic name of the surface formation: Mancos
3. The estimated tops of important geological markers:

<u>Formation</u>	<u>Depth to top</u>	<u>Thickness</u>	<u>Datum (RT)</u>
Mancos Shale	Surface	1,766 ft.	4,690 ft.
Dakota Sandstone	1,766 ft.	65 ft.	2,924 ft.
Cedar Mountain	1,831 ft.	75 ft.	2,859 ft.
Morrison			
Brushy Basin Shale Member	1,906 ft.	180 ft.	2,784 ft.
Salt Wash Sandstone Member	2,086 ft.	210 ft.	2,604 ft.
Summerville/Curtis	2,296 ft.	25 ft.	2,394 ft.
Entrada Sandstone	2,321 ft.	--	2,369 ft.

Elevation of Entrada: 2,369 ft. above sea level.

4. It is anticipated that we will encounter water in the Dakota Formation. If water is encountered, it will be necessary to convert from air to drilling fluid. The estimated depths at which oil and/or gas might be encountered, is between 1,770' to 2,400'. About 800 sacks of Barite will be maintained on the drill site. The reservoir pit is considered sufficient to accomodate even a large volume of water produced.
5. It is planned to drill a 12" hole and run new 8 - 5/8" surface casing down to a depth of 150 ft. (RT) and will be no more than 1 degree deviation. 150 ft. of 8 - 5/8 ", 24 lbs/ft., K-55, R-3 new casing will be set and cemented with approximately 75 sk. cement, 3% CaCl; with returns to the surface. A 7 - 7/8" hole will be drilled below the surface casing, using air for circulation until water is encountered. If good production (over 750 MCF/day) is obtained, 5 - 1/2", 14 lbs/ft., K-55, R-3 new production casing will be run and cemented conventionally with sufficient Class B, Type II cement to reach about 200 ft. above the top of the Dakota Formation. The production zone will then be perforated; 2 - 3/8" O.D. tubing run; and the well completed conventionally.
6. The maximum pressure and the working pressure for control equipment is stated on the enclosed schematic diagram. A flare will be maintained at the end of the blewie line while drilling below 1,200 ft. This will insure that no gas will be missed. The air drilling will minimize the pollution to ground waters and damage

to shallow formations. In addition to the blind rams and pipe rams, the drill rig will be equipped with a kelly cock and a safety sub on the derrick floor.

7. High viscosity mud (not less than 100 vis.) will be pumped into the hole to provide control of anticipated gas and to provide a conductive medium for the electric logs. About 800 sk. of Barite will be maintained on the drill site even after conversion from air to drilling fluid.
8. A casing head or flange will be mounted on top of the surface casing and a blowout preventer with blind and pipe rams (hydraulic) will be mounted on the casing head (see Plat for diagram). A rotating head or "Grant" will be mounted on top of the blowout preventer. A blewie line, at least 125 ft. long, will be attached to the rotating head and extended into the reservoir pit.
9. Should gas (several million cubic feet) or oil be encountered, and/or when the total depth of the well is reached, electric logs will be run. A dual-induction laterolog will be run from bottom to the top of the hole, and a gamma-density and compensated neutron porosity log will be run from the bottom to a point which is 150 ft. above the top of the Dakota Formation. Samples of the cuttings will begin at 1,200 ft. 30 ft. samples will be taken from 1,200 ft. to 1,600 ft., and then 10 ft. samples will be taken from 1,600 ft. to total depth.
10. As stated before, high viscosity mud will be pumped into the hole to provide control of the gas and to provide a conductive medium for the logs. The drilling fluid will be used as a control in the event of high pressure gas and the various safety devices--the blind rams, kelly cock, and safety valves--will serve further to control any hazardous flow pressure or high temperature by permitting a shut-in of the well. No hydrogen sulfide is expected.
11. It is anticipated that the drilling of the well will require about one week and will start about April 1, 1980.

Robert P. Kirgan  
Field Representative  
Minerals Service Company  
Grand Junction, CO 81502

## SURFACE USE PLAN

Cisco Drilling & Development, Inc.  
Cisco Well #14 - Grand County, Utah

### 1. EXISTING ROADS:

Area Map Exhibit "B" is a reproduction of portions of the Cisco and Cisco Springs, Utah Quadrangles.

- A. Exhibit "A" shows the proposed well site as staked. Drill site and directional reference stakes have been completed and flagged during our on-site field work.
- B. From the East exit off Interstate 70 to Cisco, Utah, take an existing gravel road (Cisco Mesa Road) that runs in a Northwesterly direction approximately 1.75 miles, then Southwesterly approximately 1.5 miles on an existing road. The new access road to the well has been center-line flagged and generally follows a natural contour; it will not need any culverts or low water crossings.
- C. Access roads to the location are color-coded and labeled on map, Exhibit "B".
- D. This is an exploratory well. Existing public and ranch roads within a three mile radius are shown on map, Exhibit "B", and consist of a sandy-dirt surface with road conditions color-coded.
- E. The existing roads will require grading, with no additional road material necessary. With production, we anticipate having to grade the roads into the well location but should not have any problems with the existing main approach roads through the Cisco Mesa Area.

### 2. PLANNED ACCESS ROAD:

- 1.) The width of the existing road is about 12 ft. and is not expected to be wider than 16 ft.
- 2.) The maximum anticipated grade from the preliminary survey will not exceed 5% grade.
- 3.) No turnouts will be necessary on the access road.
- 4.) There will be no ditches or water turnouts necessary for Cisco Well #14 because the main access roads already exist in this area.
- 5.) No culverts or major cuts or fills will be necessary on the access road.
- 6.) We anticipate not using any surfacing material for the access roads.
- 7.) No gates, cattleguards, or fence cuts will be necessary.

- 8.) All new roads or reconstructed roads have been center-line flagged; no culverts or low water crossings should be necessary for this location. The new road is shown in orange on map, Exhibit "B".

3. LOCATION OF EXISTING WELLS WITHIN TWO MILE RADIUS:

- 1.) Water wells - None
- 2.) Abandon Wells - See Exhibit "B"
- 3.) Temporarily abandoned wells - See Exhibit "B"
- 4.) Disposal wells - None
- 5.) Drilling wells - None
- 6.) Producing wells - See Exhibit "B"
- 7.) Shut-in wells - See Exhibit "B"
- 8.) Injection wells - None
- 9.) Monitoring or Observation wells - None

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. Presently, the lessee does not control or own any tank batteries, production facilities, oil, gas, injection or disposal lines within a one mile radius.
- B. A plan for the anticipated production equipment, if the well is successful, is submitted on Plat No. 2. This location should stay within the boundary of the proposed well pad. The dimensions of the pad are 250 ft. x 275 ft. No additional construction materials will be required. Protective measures for livestock and wildlife will include all pits being fenced on three sides during drilling and will be fenced on the fourth side and overhead flagging installed after drilling is completed and prior to filling.
- C. Areas not needed for production equipment will be surface graded, contoured and reseeded to normal topography.

5. LOCATION AND TYPE OF WATER SUPPLY:

Since the proposed well is to be drilled with air for circulation, very little water will be required. The water needed will be hauled by truck to the location by Dalgarno Transportation, located in Grand Junction, Colorado. They will get their water at Cisco Springs or from the Colorado River. No water well will be drilled on this lease.

6. SOURCE OF CONSTRUCTION MATERIALS:

No additional road material, gravel, sand or culverts will be required. There will be no low water crossings on the approach road to Cisco Well #14. Upon production, only existing materials on the site will be used for permanent road. The surface and mineral ownership are both held by the U.S.A.

7. METHODS FOR HANDLING WASTE DISPOSAL:

A reservoir and burn pit will be constructed at the well site as shown on Plat No. 3. All excess water, mud, and drill cuttings will be deposited into the reservoir pit. Burnable material and garbage will be put into the trash pit, which will be fenced to prevent the spreading of debris by wind. A toilet will be furnished for human waste. The approximate dimensions of the reservoir pit are shown on Plat No. 3. When the pits are dry and the weather permitting, all pits will be folded in and covered after cessation of the drilling operation. Any oil left on the surface of the reservoir pit will be either skimmed off or burned off prior to covering the reservoir pit. The reservoir pit will also be fenced on the fourth side and overhead flagging installed after drilling is completed and prior to filling.

8. ANCILLARY FACILITIES:

No camp facilities other than two or three house trailers at the well site will be needed. No air strips will be required.

9. WELL SITE LAYOUT:

A plan for the drilling equipment layout required for the drilling of the proposed well is shown on Plat No. 3. The approximate dimensions of the site, direction of drill rig setting, reservoir pit location with dimensions, and equipment arrangements are shown on this plat. The drilling site is located on the East side of the Cisco Mesa on an area 250 ft. x 275 ft., and slopes from the West to the East. The topsoil (approximately 8") will be stockpiled in the Northeast and Northwest corner of this drill site. The surface in this area is a sandy shale with very little vegetation. The reservoir pit will be placed on the North side of the site and will be unlined.

10. PLANS FOR RESTORATION OF SURFACE:

After drilling operations have been concluded, and the equipment removed, the well site will be cleaned, rat hole and mouse hole filled in; the cellar filled in around well marker or well head; the location and roads leveled and restored to the normal topography; top soil spread back over the location and reseeded if the well is unsuccessful. If the well is completed for production, the location will be cleaned and leveled for the production equipment; oil on pits will

be either skimmed off or burned off; the pits will be folded in and leveled. This work will be conducted as soon as feasible, hopefully within 60 days after the drilling equipment has been removed. Disturbed areas will be reseeded in the fall by broadcasting.

11. OTHER INFORMATION:

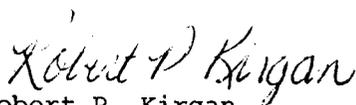
Topography of the land is a desert highland consisting of erosional hills, mesas, and plateaus. Upper Sonoran Zone greasewood, salt brush, sage brush, and rabbit brush grow in a sandy loam saline soil, which supports various insect, rodent, and reptile populations. There are no known archaeological, historical or cultural sites in the area. There are no occupied dwellings in the area.

12. Field Representative who can be contacted concerning compliance of this Surface Use Plan is:

Robert P. Kirgan  
P. O. Box 3523  
Grand Junction, CO 81502  
(303) 245-2335

CERTIFICATION:

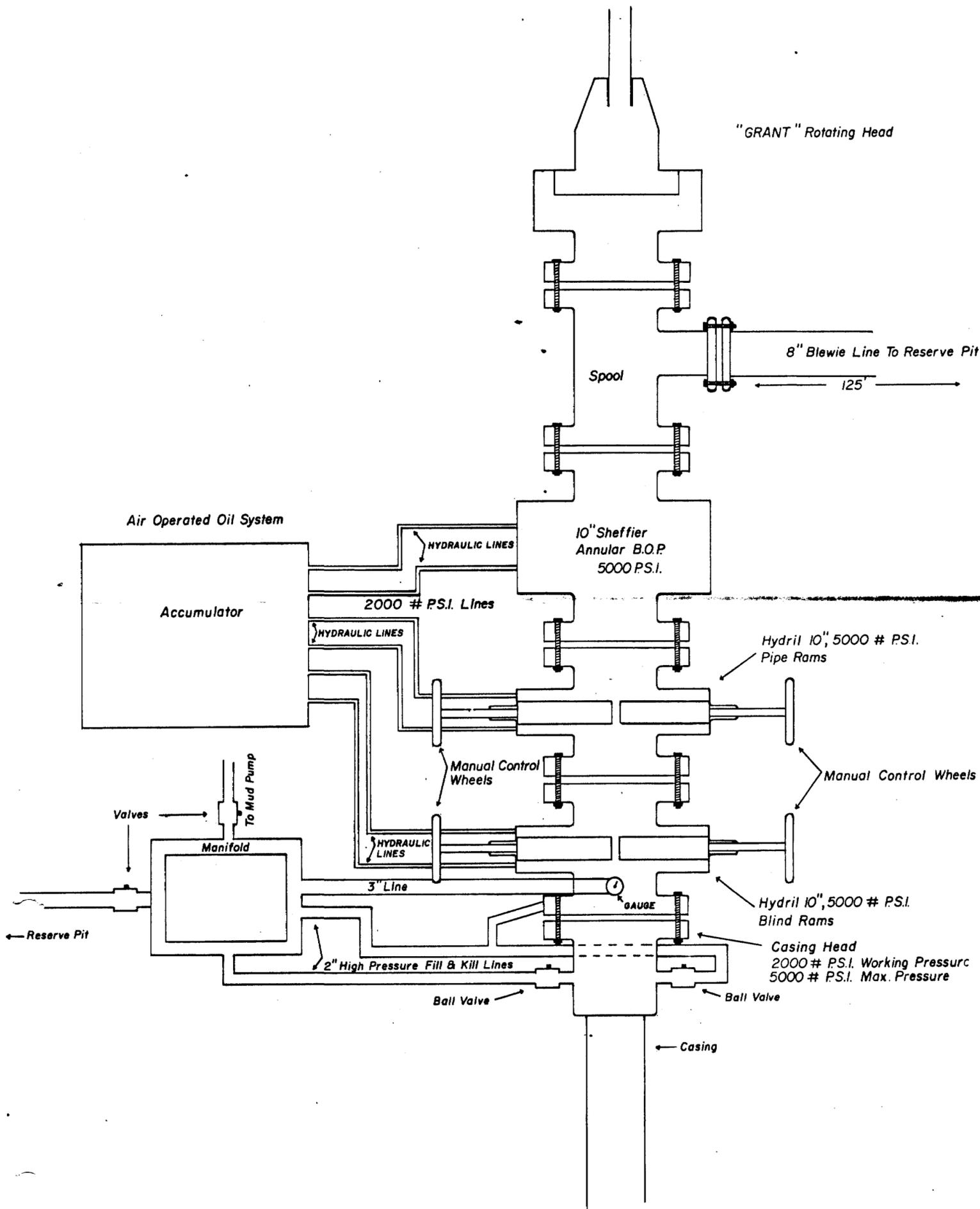
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operation proposed herein will be performed by Cisco Drilling & Development, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

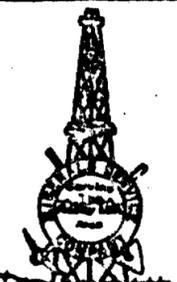
  
Robert P. Kirgan  
Field Representative

2/22/80

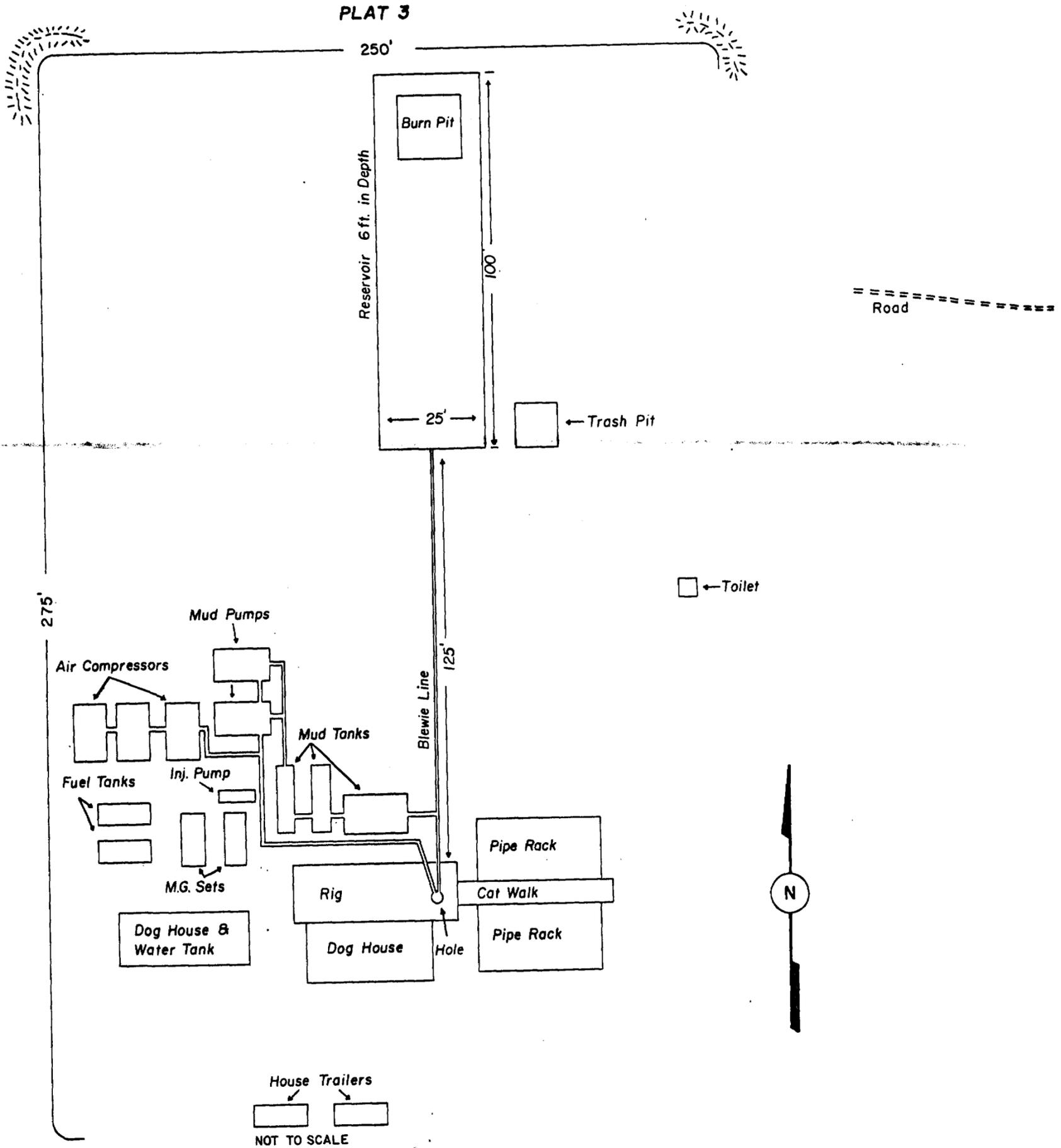
RPK/lr

CONTROL EQUIPMENT FOR THE  
CISCO DRILLING and Development Company



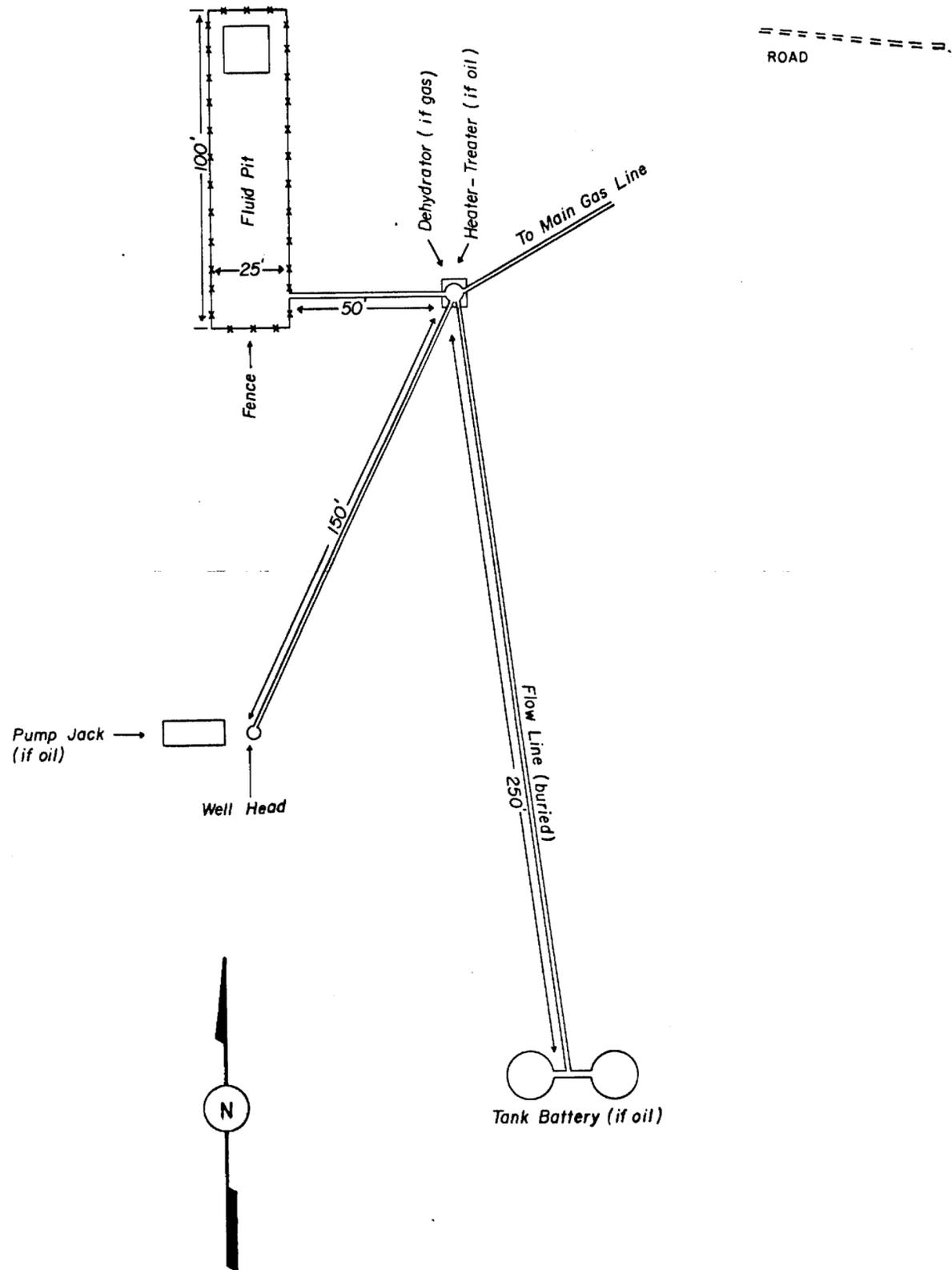
	CONTROL EQUIPMENT FOR CISCO WELL NO.14 T.20S.,R.23E.,SEC.26		
	<b>MINERALS SERVICE COMPANY</b> GRAND JUNCTION, COLORADO		
DESIGNED BY	SCALE	DRAWN BY	JOB NUMBER
MADE BY	DATE	CHECKED BY	DATE

PLAN FOR LOCATION  
 CISCO DRILLING & DEVELOPMENT CO.  
 CISCO WELL NO. 14  
 T. 20S., R. 23 E., Sec. 26  
 THE SALT LAKE PRINCIPAL MERIDIAN



	LOCATION PLAN FOR CISCO WELL NO. 14 T. 20S., R. 23 E., Sec. 26		
	MINERALS SERVICE COMPANY GRAND JUNCTION, COLORADO		
APPROVED BY	SCALE	DRAWN BY	JOB NUMBER
STAKED BY	DATE	CHECKED BY	

PLAN FOR PRODUCTION EQUIPMENT  
 CISCO DRILLING & DEVELOPMENT CO.  
 CISCO WELL NO.14  
 T.20S.,R.23E.,Sec.26  
 THE SALT LAKE PRINCIPAL MERIDIAN



	PLAN FOR PRODUCTION EQUIPMENT CISCO WELL NO.14 T.20S.,R.23E.,Sec.26 PLAT 2			
	<b>MINERALS SERVICE COMPANY</b> GRAND JUNCTION, COLORADO			
	DRAWN BY	SCALE	DRAWN BY	JOB NUMBER
BY	DATE	CHECKED BY		

\*\* FILE NOTATIONS \*\*

DATE: February 29, 1980

Operator: Cisco Drilling & Development, Inc.

Well No: Cisco Federal #14

Location: Sec. 26 T. 20S R. 23E County: Grand

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number 43-019-30615

CHECKED BY:

Geological Engineer: \_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

Director: \_\_\_\_\_

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. 102-16B 11/15/79

O.K. Rule C-3

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

#3

Lease Designation Fed

Plotted on Map

Approval Letter Written

*wtr*

*W*  
*PI*

March 7, 1980

Cisco Drilling and Development, Inc.  
c/o Minerals Service Company  
P.O. Box 3523  
Grand Junction, Colorado 81501

Re: Well No. Cisco Federal #14  
Sec. 26, T. 20S, R. 23E.,  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well is hereby granted in accordance with the Order issued in Cause No. 102-16B dated November 15, 1979.

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  
1 Office: 533-5771  
Home: 876-3001

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 43-019-30615.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Geological Engineer

/b:tm

cc: USGS

October 10, 1980

Cisco Drilling and Development, Inc.  
P.O. Box 6059  
Hamden, Connecticut 06517

RE: Well No. Cisco Federal #14  
Sec. 26, T. 20S, R. 23E.,  
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 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

*Barbara Hill*  
BARBARA HILL  
CLERK TYPIST

/bjh



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*

CLEON B. FEIGHT  
*Director*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
MAXILIAN A. FARBMAN  
EDWARD T. BECK  
E. STEELE McINTYRE

March 30, 1981

Cisco Drilling and  
Development, Inc.  
P.O. Box 6059  
Hamden, Connecticut 06517

Re: Well No. Cisco Federal #14  
Sec. 26, T. 20S, R. 23E.,  
Grand county, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

*Sandy Bates*  
SANDY BATES  
CLERK-TYPIST

December 22, 1981

Cisco Drilling and Development  
P. O. Box 6059  
Hamden, Connecticut 06517

Re: Well No. Cisco Federal #14  
Sec. 26, T. 20S, R. 23E  
Grand County, Utah  
FINAL NOTICE

Gentlemen:

In reference to the 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 to drill 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



Cari Fürse  
Clerk Typist



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

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

March 8, 1982

Cisco Drilling & Development, Inc.  
P. O. Box 6059  
Hamden, Connecticut 06517

Re: Well No. Cisco Federal #14  
Sec. 26, T. 20S, R. 23E.  
Grand County, Utah

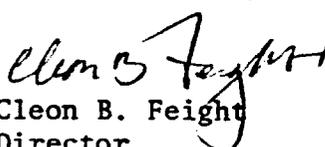
Gentlemen:

Approval to drill the above mentioned well, which was granted in our letter of March 7, 1980, is hereby terminated for failure to spud it within a reasonable period of time.

If and when you should decide to drill this well, it will be necessary for you to again obtain the approval of this Division.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

  
Cleon B. Feight  
Director

CBF/cf