

UTAH DIVISION OF OIL, GAS AND MINING

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

DATE FILED 7-3-78

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

DRILLING APPROVED: 6-30-78

SPUDED IN: \_\_\_\_\_

COMPLETED: \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION: \_\_\_\_\_

GRAVITY A.P.I. \_\_\_\_\_

GOR: \_\_\_\_\_

PRODUCING ZONES: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_

WELL ELEVATION: \_\_\_\_\_

DATE ABANDONED: 8-20-80 LOCATION ABANDONED WELL NEVER DRILLED

FIELD: Wildcat 3/86 Greater Cisco

UNIT: \_\_\_\_\_

COUNTY: Grand

WELL NO. Federal Cisco #2

API NO: 43-019-30450

LOCATION 605' FT. FROM (W) X (S) LINE. 769' FT. FROM (E) X (W) LINE. SE 1/4 1/4 - 1/4 SEC. 27

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
<u>20S</u>	<u>23E</u>	<u>27</u>	<u>CISCO DRILLING &amp; DEV. CO.</u>				

~~Any questions concerning the status, etc. of this well →~~

Don Quigley  
(359-3575)

Contact: Pruitt & Gushue  
AHPN. UN SLC.  
(531-8446)

**FILE NOTATIONS**

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

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

**COMPLETION DATA:**

Date Well Completed .....  
OW..... WW..... TA.....  
GW..... OS..... PA.....

Location Inspected .....  
Bond released  
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.....  
CLog..... CLog..... Others.....

10-23-98  
JEP

CISCO DRILLING & DEVELOPMENT CO. - WELL NO. FED. CISCO 2

API No. 43-019-30450

Sec. 27, T. 20S, R. 23E, Grand County, Utah

spud letter - Call Guigley (# inside folder)  
Do they intend on drilling well?

Write to Robert Kirgan  
Mineral Service Co.  
P.O. Box 3523  
2503 S. Grand Ave.  
Snowflake, Ariz. 81501

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 & Development Co.

3. ADDRESS OF OPERATOR  
 419 Whalley Ave., New Haven, Conn. 06511

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface SE. SE. Sec. 27, T20S, R23E, S. L. M.  
 At proposed prod. zone 759' from E-line & 605' from S-line

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approx. 4 1/2 miles north of Cisco, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 605'

16. NO. OF ACRES IN LEASE 640

17. NO. OF ACRES ASSIGNED TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2/3 mile

19. PROPOSED DEPTH 1800'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4710' grd.; 4720' K.B.

22. APPROX. DATE WORK WILL START\* July 30, 1978

5. LEASE DESIGNATION AND SERIAL NO.  
 U-17245

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 NA

8. FARM OR LEASE NAME  
 Federal

9. WELL NO.  
 Cisco #2

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., E., M., OR BLE. AND SURVEY OR AREA  
 SE. SE. Sec. 27-20S-23E S. L. M.

12. COUNTY OR PARISH Grand

13. STATE Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
9 3/4"	7"	20.00	150'	60 sks.
6 1/2"	4 1/2"	9.50	Set thru production zone and cemented to a point about 200' above top of Kd.	

It is planned to drill a well at the above location to test the gas production possibilities of the Dakota and Cedar Mountain formations. (The Morrison appears to have few or no sands in this area.) The well will be drilled to a depth which is 100' below the top of the Morrison or until a quantity of water is encountered, or until production is obtained. It is anticipated that the Dakota should be reached at about 1600' and the Cedar Mountain at about 1690'. The well will be drilled with air and a flare will be kept light<sup>d</sup> at the end of the blowie line to check for gas. The surface casing will be cemented with returns to the surface. A blowout preventer and rotating head will be mounted on top of the surface casing. The Blind and pipe rams will be hydraulically operated. Fill and kill lines will be connected below the blind rams. A float valve will be used in the bottom drill collar.

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 H. Don Jugley TITLE Cons. Geol. DATE Jun. 16, '78

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY [Signature] ACTING DISTRICT ENGINEER DATE OCT 17 1978  
 CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

\*See Instructions On Reverse Side

NECESSARY FLARING OF GAS DURING DRILLING AND COMPLETION APPROVED SUBJECT TO ROYALTY (NTL-4)

NOTICE OF APPROVAL

State O&G

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

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

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-17245OPERATOR: CISCO DRILLING & DEVEL. CO.WELL NO. CISCO No.2LOCATION: ½ SE ½ SE ¼ sec. 27, T. 20S., R. 23E., SLMBRAND County, UTAH

1. Operator predicted stratigraphy and predicted hydrocarbon zones are adequate? Yes  
If not, USGS predictions are:

2. Fresh water aquifers probable below surface casing? POSSIBLE TO DEPTHS OF 500' ±

3. Other probable leasable minerals? Yes. VALUABLE PROSPECTIVELY FOR COAL,  
PRIMARILY IN THE DAKOTA FM.

4. Are hazardous fluids or gases likely? UNKNOWN.

5. Are abnormal conditions of pressure or temperature likely? UNKNOWN

6. Will any strata penetrated need special mud, casing, or cementing beyond that proposed in the APD? PROTECT FRESH WATER AQUIFERS

7. Is additional logging or sampling needed? Yes. OPERATOR DOES NOT INDICATE  
LOGGING PROGRAM. SONIC, DENSITY OR OTHER METHODS OF COAL DETECTION SHOULD  
BE RUN THROUGH THE DAKOTA.

8. References - remarks: USGS Files, Salt Lake City, Utah

Is location within 2 miles of a KGS? Yes. LESS THAN 2 MI. FROM CISCO SPRINGS  
KGS

Signature: T.R.A.Date: 7 / 17 / 78

Oil and Gas Drilling

EA No. 1175

United States Department of the Interior  
Geological Survey  
8440 Federal Building  
Salt Lake City, Utah 84138

Usual Environmental Analysis

*Need cut & fill plot  
No Determination*

3647885  
Joe Howell

Lease No. 11-17245

Operator Cisco Drilling & Development Co.

Well No. 2

Location 605'ESL, 769'EEL Sec. 27 T. 20 S R. 23 E

County Grand State Utah Field Wildcat

Status: Surface Ownership Public Minerals Federal

Joint Field Inspection Date August 2, 1978

Participants and Organizations:

George Diwachak U.S.G.S. - Salt Lake City

Rocky Curnett BLM - Moab, Utah

W. Don Quigly Cisco Drilling & Development

Wayne Perschon Jacobs Drilling

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Related Environmental Analyses and References:

- (1) Unit Resource Analysis - Book Mountain Planning Unit (06-01)
- (2) BLM - Moab, Utah

Analysis Prepared by:

*George Diwachak (9/5/78)*  
George Diwachak  
Environmental Scientist  
Salt Lake City, Utah

Date: 8/2/78

*Pad 200 x 250  
70 x 100  
0.06 mi new access 200  
7 days activity  
Stock pile top soil man con  
Mist blowie line discharge  
Need cut & fill plot  
Cisco work*

### Proposed Action:

On June 20, 1978, Cisco Drilling and Development Company filed an Application for Permit to Drill the No. 2 exploratory well, a 1800-foot gas test of the Dakota and Cedar Mountain Formations; located at an elevation of 4,710 ft on Federal mineral lands and public surface; Lease No. U-17245, location at 605'FSL, 769'FEL, Sec. 27, T. 20S, R. 23E, Grand County, Utah. 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. Fresh-water sands and other mineral-bearing formations would be protected. A Blowout Preventer 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 200 ft wide x 250 ft and a reserve pit 70 ft x 100 ft. A new access road will be constructed 14 ft wide x 0.06 mi long. The operator proposes to construct production facilities on disturbed areas of the proposed drill pad. If production is established, plans for a gas flow line will be submitted to the appropriate agencies for approval. The anticipated starting date is when approved and duration of drilling activities would be about 7 days.

### Location and Natural Setting:

The proposed drillsite is approximately 4.5 mi north of Cisco, Utah, the nearest town. A fair road runs to within 300 ft of the location. This well is in the Wildcat Field.

### Topography:

The topography of the proposed drill site is relatively flat to gently rolling dissected by a few small drainages.

### Geology:

The surface geology is Mancos. The soil is sandy clay loam with rock. No geologic hazards are known near the drillsite. 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 will be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist and is possible in the sandstone units. 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 top soils 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.

Top soil 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 2 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 8 to 11 inches 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 rain storms. This type of storm is rather uncommon as the normal annual precipitation is around 8 inches.

Winds are medium and gusty, occurring predominately from southwest to northeast. Air mass inversions are rare.

The climate is semi-arid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

#### Surface Water Hydrology:

The numerous drainages in the area are intermittent and flow in response to spring runoff and heavy rains. Cisco Wash is the only major drainage in proximity of the lease and it is ephemeral. Surface water movement is toward the south and to the Colorado River.

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.

#### Ground Water Hydrology:

Some minor pollution of ground water 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 basis 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 fresh-water formations

are listed in the 10-Point Subsurface Protection Plan. There would be no tangible effect on water migration in fresh-water aquifers. 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:

The vegetation of the area is of the salt desert shrub type consisting predominantly of shad scale, sagebrush and sparse coverings of native grasses.

Proposed action would remove about two 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 Bureau of Land Management. No endangered plants or animals are known to habitat on the project area. The fauna of the area consists predominantly of coyotes, rabbits, 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 would be required prior to approval of the proposed action. Appropriate clearances would then 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 is judged to be minor. All permanent facilities placed on the location would be painted a light sand 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. After drilling operations, completion equipment would be visible to passersby of the area but would not present a major intrusion.

The economic effect of one well would be difficult to determine. The overall effect of oil and gas drilling and production activity are significant in Grand County. But should this well discover a significant new hydrocarbon source, local, state and possibly national economics might be improved. In this instance, other development wells would be anticipated with substantially greater environmental and economic impacts.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to United States Geological Survey'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.

#### Land Use:

The land is used for wildlife and stock grazing. 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 reserve 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 contacting agencies supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration. Therefore, the alternative of not proceeding with the proposed action at this time is rejected.

2) Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program 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.

It is recommended that the blow<sup>oo</sup>ie line be misted as it enters the reserve pit to keep dust to a minimum.

Prior to final approval, a cut and fill plat for drill site construction should be submitted to adequately assess surface disturbances.

#### Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately two acres of land surface for the life time 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 sub-surface damage to fresh water 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 the Cisco Wash would exist through leaks and spills.

Determination:

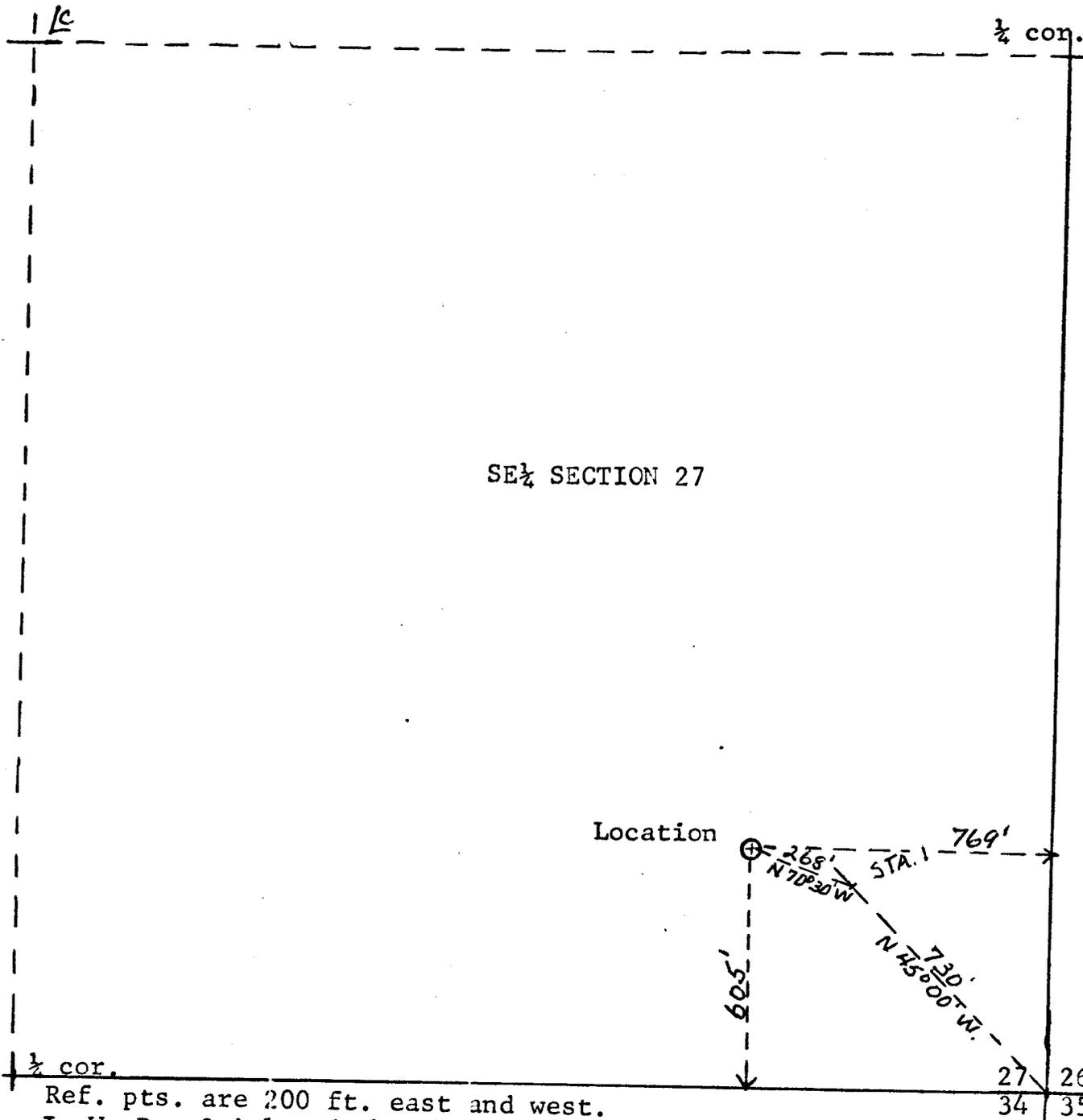
This requested action does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Sec. 102(2)(C).

For Frank S. Boyd 9/18/78  
District Engineer  
U. S. Geological Survey  
Conservation Division  
Oil and Gas Operations  
Salt Lake City District



Cisco Drilling & Development Co.  
# 2                      27-205-23E  
U-17245                      W

LOCATION PLAT FOR  
 CISCO DRILLING & DEVELOPMENT CO.  
 CISCO #2 WELL  
 SE. SE. SEC. 27-20S-23E  
 GRAND COUNTY, UTAH  
 Elev.: 4710' grd.



Ref. pts. are 200 ft. east and west.  
 I, W. Don Quigley do hereby certify  
 that this plat was plotted from notes  
 of a field survey made by me on Jun 29,  
 1977.

*W. Don Quigley*  
 W. Don Quigley

Scale: 1 in. = 400 ft.  
 Date: June 16, 1978  
 Surveyed by: W. Don Quigley

PLAT NO. 1

SURFACE USE & OPERATIONS PLAN  
FOR  
CISCO DRILLING & DEVELOPMENT CO.  
CISCO #2 WELL  
SE. SE. SEC. 27-20S-23E  
GRAND COUNTY, UTAH

1. A survey plat showing the location of the proposed well site is attached. (See Plat No.1). Map No.1 shows the location of the well site at the southeast end of Cisco Mesa as well as the secondary roads in the area. The location is about 300' from a well used road as shown. The east Cisco Exit from I-70 is used to gain access to the secondary roads leading to the well site. The site is about 10 miles from this exit. The secondary roads are in good shape and will require no work.
2. Planned Access Road: Since the location is real close to the present road, little access road will be needed. There is a small wash that will be crossed and will require some grading. The road will be about 14 ft. wide. Only about 300' of new road will be constructed.
3. Location of Existing Wells: See attached map.
4. Location of Production Equipment: A plan for the anticipated production equipment, if the well is successful, is submitted on Plat No. 2. When production ceases this equipment will be removed and the land surface graded, levelled and reseeded.
5. 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 from Cottonwood Creek or from Cisco Wash. Both have water holes. Cisco Wash would be the closest, being about four miles away.
6. Road Material: No additional road material, gravel, sand, or culverts will be required.
7. Waste Disposal: A reserve 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 reserve pit. Burnable material and garbage will be put into the burn pit, which will be fenced to prevent the spreading of debris by the wind. A toilet will be furnished for the human waste. All pits will be folded-in and covered as soon as feasible after cessation of drilling operations.
8. Camp Facilities and Airstrips: No camp facilities other than two or three house trailers at the well site will be needed. No airstrips will be required.

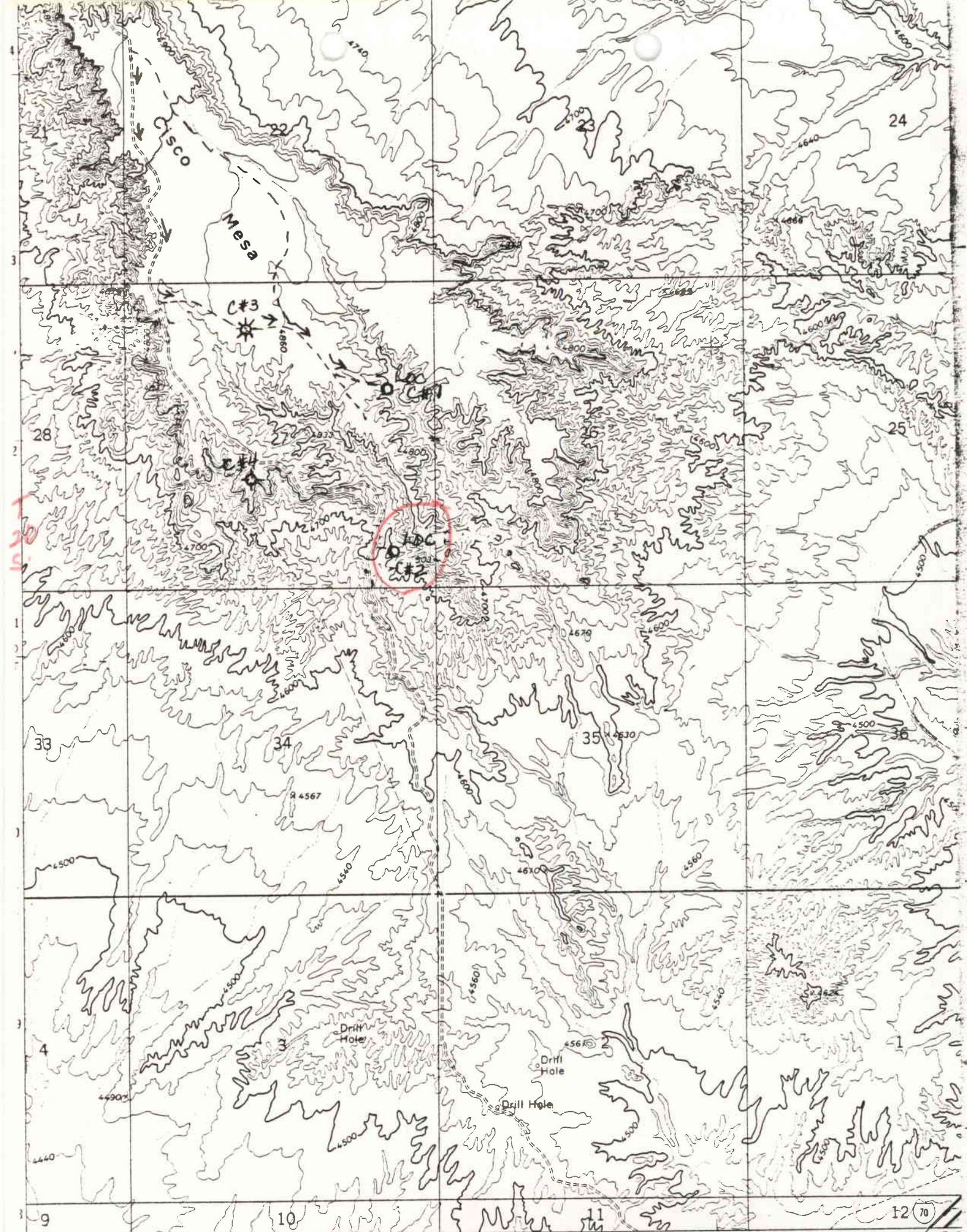
9. Well Site Layout: A plan for the drilling equipment layout required for the drilling of the proposed well is shown on Plat No.3. The approximate dimensions of the drill site are shown. The site will be levelled for this equipment. Since the site is on top of a small hill, some grading to level the hill top will be required; but the surface material can be pushed to the sides with no deep cuts. A natural depression on the north side of the site can be used for the reserve pit and will require only a minimum of banking to contain the fluids.
10. Restoration: After drilling operations have been concluded, and the equipment removed, the well site will be cleaned, levelled and restored to normal. Some contouring of the sides may be needed to shape the hilltop naturally. The pits will be covered and the area reseeded, if the well is not successful; otherwise, the site will be levelled and prepared for the placement of the production equipment. This work will be conducted as soon as feasible, hopefully within 30 days after the drilling equipment has been removed.
11. Land Description: The proposed well site is located on top of a small hill which slopes to the west and north. This is a gravel hill and has no topsoil of significance. Little vegetation is present.
12. Representative: The operator's representative at the well site will probably be W. Don Quigley, 57 West South Temple Bldg., Salt Lake City, Utah. The location and restoration work will be accomplished by contractors working for the operator.

13. Certification:

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

Date: June 16, 1978

W. Don Quigley  
W. Don Quigley

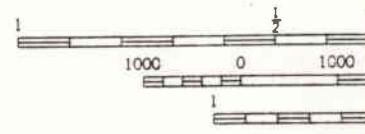


22'30" 641 642 2 610 000 FEET 644 20'

12 (70) R. 2  
THOMPSON 24 MI.  
GREEN RIVER 50 MI.

Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1969. Field checked 1970  
Polyconic projection. 1927 North American datum  
10,000-foot grid based on Utah coordinate system, central zone  
1000-meter Universal Transverse Mercator grid ticks,  
zone 12, shown in blue  
Fine red dashed lines indicate selected fence lines

R. 23 E



MAP NO. 1 DOTTED

UTM GRID AND 1970 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

THIS MAP COMPI  
FOR SALE BY U. S. GEOLOGICAL SI  
A FOLDER DESCRIBING TOP

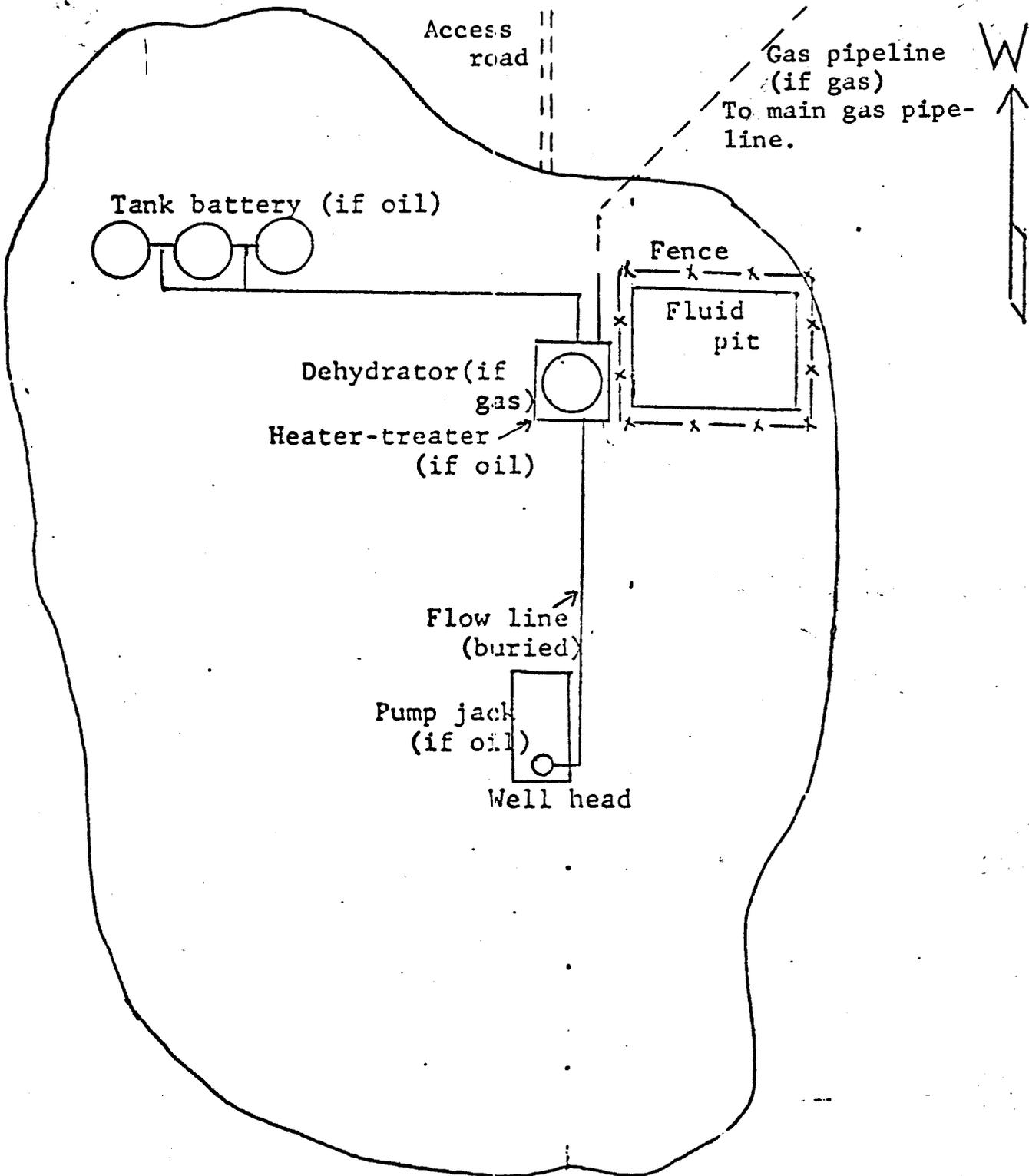
PLAN FOR PRODUCTION EQUIPMENT

CISCO DRILLING & DEVELOPMENT CO.

CISCO #2 WELL

SE. SE. SEC. 27-20S-23E

GRAND COUNTY, UTAH



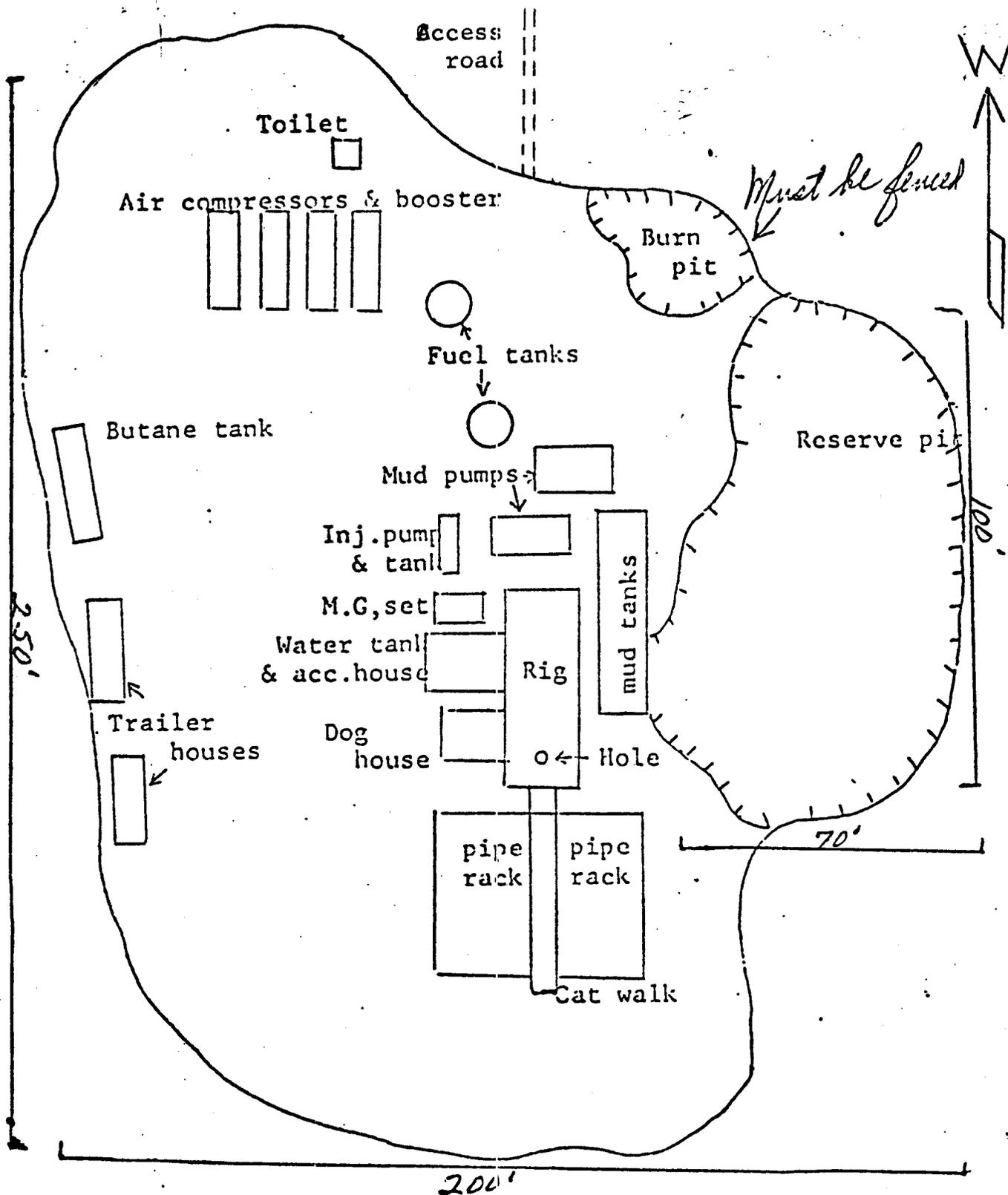
LOCATION PLAN FOR

CISCO DRILLING & DEVELOPMENT CO.

CISCO # 2 WELL

SE. SE. SEC. 27-20S-23E

GRAND COUNTY, UTAH



Scale: 1 in. = approx. 35 ft.

PLAT NO. 3

WELL CONTROL EQUIPMENT FOR  
CISCO DRILLING & DEVELOPMENT CO.

CISCO #2 WELL  
SE. SE. SEC. 27-20S-23E  
GRAND COUNTY, UTAH

The following control equipment is planned for the above designated well: (See attached diagram).

1. Surface Casing:
  - A. Hole size for surface casing is 9 3/4"
  - B. Setting depth for surface casing is approx. 150 ft.
  - C. Casing specs. are: 7 IN. D.D., J-55, 20,000#, 8 rd. thread, new or used.
  - D. Anticipated pressure at setting depth is approx. 20 lbs.
  - E. Casing will be run using three centralizers and a guide shoe, and will be cemented with 60 sks of cement with returns to the surface.
  - F. Top of the casing will be at ground level.
2. Casing Head:

Flange size: 10", A.P.I. Pressure rating: 2000# W.P., Series 600; Cameron, OCT, or equivalent; new or used; equipped w/two 2" ports with nipples and 2", 2000# W.P. ball or plug valves. Casing head and valves set above ground level.
3. Intermediate Casing:

None.
4. Blowout Preventors:
  - A. Double rams; hydraulic; one set of blind rams; one set of rams for 3 1/2" or 4" drill pipe; 10" flange; 2000# or greater W.P.; Series 900; equipped with mechanical wheels and rod for back-up; set on top of casing head flange and securely bolted down, and pressure tested for leaks up to 2000# p.s.i.
5. B. Rotating Head:

Shaffer, Grants or equivalent; set on top of blowout preventor and bolted securely; complete with kelly drive, pressure lubricator; 3 1/2" or 4" rubber for 2000# W.P.; need not have hydril assembly on bottom.
6. C. Fill and Kill Lines:

The fill and kill lines (2" tubing or heavy duty line pipe) are to be connected thru the 2" valves on the casing head.
5. Auxillary Equipment:

A float valve is to be used in the bottom drill collar at all times. A safety valve will also be used in the drill pipe and kept within easy reach on the rig floor at all times.
6. Anticipated Pressures:

The shut-in pressures of the Dakota, Cedar Mountain, and Morrison formations at depths of 2000' to 3000' in the area have been measured at about 500# to 700# maximum.
7. Drilling fluids:

Air-soap-water mist will be used to drill the subject well. In case of excessive caving problems, it may be

necessary to convert to mud.

8. Production Casing:

A. Hole size for production casing will be 6 7/8".

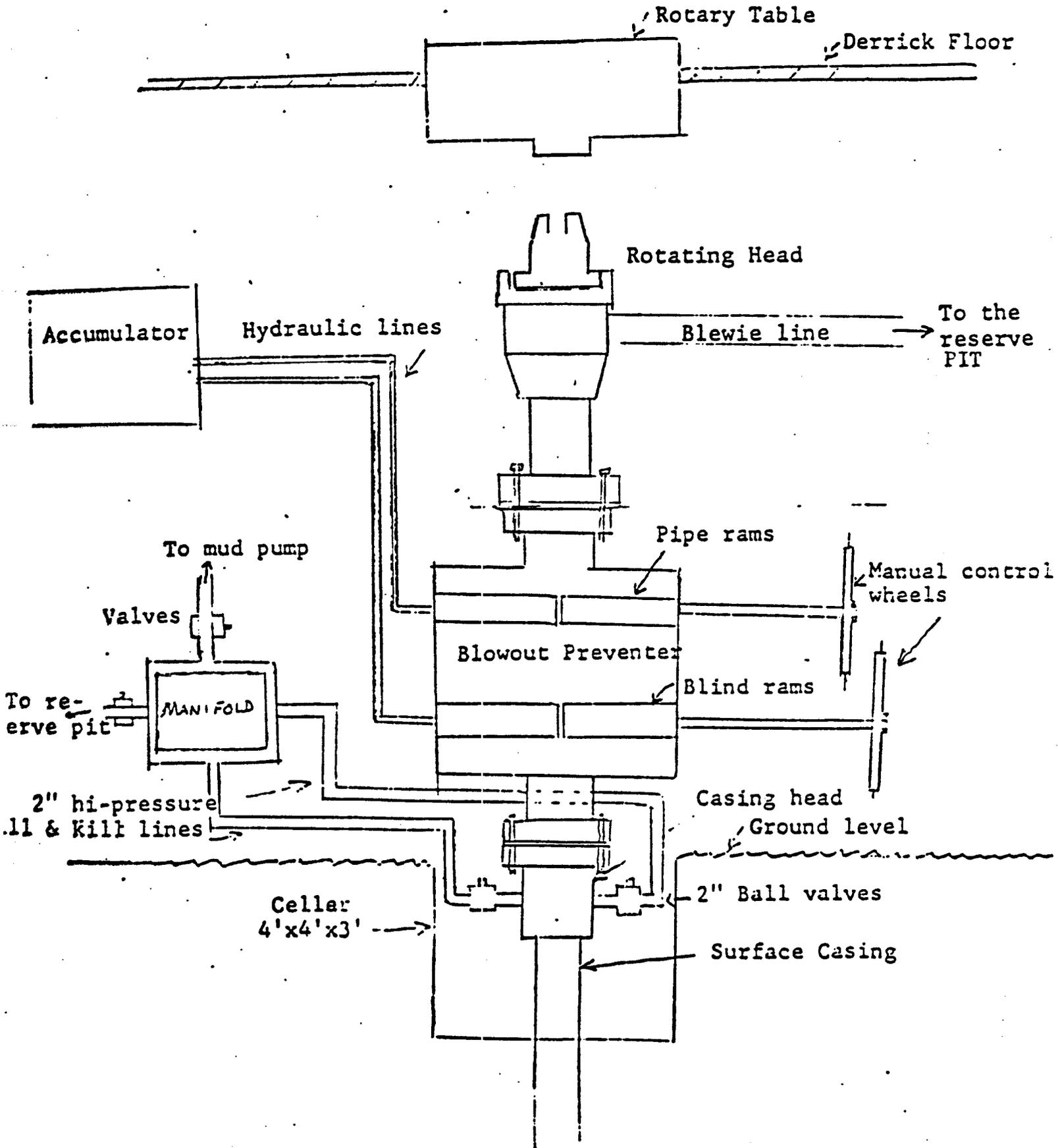
B. Approx. setting depth will be about 2500'

C. Casing Specs. are: 4 1/2" O.D.; J-55; 9.50#, 8-rd thread; new.

D. If good production is obtained, the casing will be run with a guide shoe at the bottom and about six centralizers and cemented conventionally with sufficient cement to cover 200 ft. above the top of the Dakota formation. The production zone will be perforated, 2 3/8" O.D. tubing will be run, and the well completed conventionally. In the event the production is small, it may be desirable to minimize the damage to the formation by keeping all mud and cement off the formation. In this case the procedure outlined below will be used.

E. Casing will be run with about six centralizers and a Lynes packer and DV tool set above the production zone. There will be sufficient casing to extend thru the production zone below the Lynes packer and a blind guide shoe on the bottom. The casing will be cemented above the packer with about 85 sks of cement (sufficient to cement thru the Dakota formation). The cement will be allowed to cure at least 48 hrs. The plug can then be drilled out and the casing perforated below the packer. Two inch tubing will be run and secured in the tubing head prior to perforating.

SCHEMATIC DIAGRAM OF  
CONTROL EQUIPMENT FOR THE  
CISCO DRILLING & DEVELOPMENT CO.  
CISCO #2 WELL  
SE. SE. SEC. 27-20S-23E  
GRAND COUNTY, UTAH





STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**\*\* FILE NOTATIONS \*\***

Date: June 20 -  
Operator: Cisco Drilling & Dev.  
Well No: 3rd. Cisco #2  
Location: Sec. 27 T. 20S R. 23E County: Grand

File Prepared:  Entered on N.I.D.:   
Card Indexed:  Completion Sheet:

API NUMBER: 43-019-30450

**CHECKED BY:**

Administrative Assistant [Signature]  
Remarks: OK - fit Order  
Petroleum Engineer [Signature]  
Remarks:  
Director 7  
Remarks:

**INCLUDE WITHIN APPROVAL LETTER:**

Bond Required:  Survey Plat Required:   
Order No. 102-5  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

June 30, 1978

Cisco Drilling And Deveopment Co.  
419 Whalley Avenue  
New Haven, Connecticut 06511

Re: Well No. Federal Cisco #2  
Sec. 27, T. 20 S, R. 23 E,  
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. 102-5.

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

PATRICK L. DRISCOLL - Chief Petroleum Engineer  
HOME: 582-7247  
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.

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 43-019-30450.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT  
Director



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

CLEON B. FEIGHT  
Director

DIVISION OF OIL, GAS, AND MINING

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

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

June 26, 1979

Cisco Drilling & Development Company  
419 Whalley Ave. P.O. Box 6054  
New Haven, Connecticut 06511

Hamden, CN 06517

7/19/79 - Not ready  
to drill,  
Will  
Notify

Re: Well No. Federal Cisco #2 (6-30-78)  
Sec. 27, T. 20S, R. 23E,  
Grand County, Utah

Well No. Federal Cisco #5  
Sec. 26, T. 20S, R. 23E,  
Grand County, Utah

Gentlemen:

In reference to above mentioned wells, 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 these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

*Kathy Avila*

KATHY AVILA  
RECORDS CLERK

July 9, 1979

MEMO TO FILE:

Re: Cisco Drilling & Development  
Well No. Federal #2  
Sec. 27, T. 20S, R. 23E  
Grand County, Utah

According to a telephone conversation with Cisco Dr., on the above date, this location is not ready to drill. and they will notify when they do.

KATHY AVILA  
RECORDS CLERK



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

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

November 21, 1979

Cisco Drilling & Development  
419 Whalley Ave.  
New Haven, Connecticut

Gentlemen:

*Attached is a copy of the final order in Cause No. 102-16B.*

*You will note that this order requires a copy of the property or lease line to be filed with the Application for Permit to Drill. If this only covers the pertinent section, so state.*

*No new Applications for Permit to Drill will be granted unless all required forms on existing wells are up to date. Also, some operators have not been submitting their 2 mill conservation levy as authorized under Section 40-6-14, Utah Code Annotated, 1953, as amended. The required sales report, Form 5, may be obtained upon request from this office.*

*Sincerely,*

DIVISION OF OIL, GAS AND MINING

*Cleon B. Feight*  
Cleon B. Feight  
Director

/btm

cc Well Files

March 10, 1980

Cisco Drilling & Development  
~~419 Whalley Ave.~~  
~~New Haven, Connecticut~~

P.O. Box 6059

Hamden, Ct 06517

Re: Well No. Fed. Cisco 2  
Sec. 27, T. 20S, R. 23E.  
Grand County, Utah  
SECOND NOTICE

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  
CLERK TYPIST

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

August 20, 1980

Cisco Drilling  
419 Whalley Ave.  
New Haven, Connecticut 06511

Re: Returned Application for  
Permit to Drill  
Well #Cisco Fed 2  
Section 27, T. 20S., R. 23E.  
Grand County, UT  
Lease #U-17245  
Application Approved October 17, 1978

Gentlemen

An Application for Permit to Drill the referenced well was approved. Since that date no known activity has transpired at the approved location. Under current District policy, Application's for Permit to Drill are effective for a period of one year. In view of the 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. and 15 W. 100)

E.W. Gynn  
District Engineer

bcc: O&GS NRMA Casper  
SMA  
State Office (O&G) ✓  
State Office (BLM)  
USGS-Vernal  
Well File  
APD Control

RAH/cva