

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
 Texas Oil & Gas Corp.

3. ADDRESS OF OPERATOR
 1800 Lincoln Center Building, Denver, CO 80264

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface **3165'**
 1250' FSL ~~2140'~~ FEL, Sec. 5-T16S-R25E
 At proposed prod. zone **SE SW**

5. LEASE DESIGNATION AND SERIAL NO.
 TXO Harvey Federal #1

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.
 #1

10. FIELD AND POOL, OR WILDCAT
 San Arroyo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 5-T16S-R25E

12. COUNTY OR PARISH
 Grand

13. STATE
 Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 34.7 miles northwest of Mack, Colorado

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 1250'

16. NO. OF ACRES IN LEASE
 637.36

17. NO. OF ACRES ASSIGNED TO THIS WELL
 318.7

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

19. PROPOSED DEPTH
 7000' **NOV 1979**

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 7672' GR

22. APPROX. DATE WORK WILL START*
 November 10, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
30"	20"	Corrugated Iron	20'	None required
12 1/2"	9-5/8"	36# H-40	250'	165 SXS
8-3/4"	7"	20#	2800'	100 SXS
6 1/2"	4 1/2"	10.5# K-55	7000'	380 SXS

All casing to be new casing.

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 Environmental Engineer DATE 10/12/79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

Proposed Action:

On October 15, 1979, Texas Oil & Gas Corp. filed an Application for Permit to Drill the TXO Harvey Federal #1 development well, a 7000' gas test of the Morrison Formation; located at an elevation of 7672' in the SW/4 SE/4, Sec. 5, T16S, R25E on Federal mineral lands and Public surface; lease No. U-10427.

An objection was raised to the wellsite. A cut of approximately 8' would occur in the vicinity of a high pressure (500 psi) gas line owned by Mesa Pipeline. In order to avoid this potentially dangerous situation, the location was moved 50' to the south. The new location measures 1200' FSL and 2140' FEL. This did not change the $\frac{1}{4}$ coordinates. Additionally, the access road was changed so that traffic would cross the pipeline only once. (See change on pad layout diagram.) Access would originate from the west and the pipeline would be flagged or marked with signs.

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 Plan 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. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City, Utah.

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 160' wide x 275' long and a reserve pit 125' x 30'. A new access road would be constructed 16' wide x 50' long from an existing and improved road.

The operator proposes to construct production facilities on disturbed area of 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 November 1979 and duration of drilling activities would be about 25 days.

Location and Natural Setting:

The proposed drillsite is approximately 35 miles NW of Mack, Colorado, the nearest town. A fair road runs to within 50' of the location. This well is in the San Arroyo gas field.

Topography:

The proposed location lies in a flat drainage bottom in a moderately narrow canyon surrounded on all sides by steep mountains.

Geology:

The surface geology is Mesa Verde sandstone. The soil is a sandy clay. 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 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.

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 one acre 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. However, if any H₂S or other toxic gases are encountered, the USGS is to be notified immediately.

Precipitation:

Annual rainfall should range from about 8 to 11" 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. This type of storm is rather uncommon as the annual precipitation is around 8".

Winds are medium and gusty, occurring predominantly from southwest to northeast. Air mass inversions are rare. The climate is semiarid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

Surface Water Hydrology:

A spring lies approximately one-half mile to the east of the wellsite, feeding the intermittent main drainage of East Canyon. Construction of the wellsite would block this main drainageway. Rerouting of the drainage 50' to the south end of the pad would mitigate this impact and provide adequate drainage. 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:

Aspen, pinyon pine, sagebrush and meadow grasses are the dominant vegetation types.

Proposed action would remove about one acre 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. Rehabilitation would be conducted in accordance with BLM recommendations.

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 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. 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 covered 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 or any special, restrictive stipulations or modifications to the proposed program would significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. 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.

Proposed Supplemental Conditions of Approval:

- 1) Operator will construct location 50' to the south of the proposed wellsite and redirect access road so as to avoid and/or reduce to a minimum the activities near the high pressure (500 psi) gasoline. Operator will cooperate with owner of pipeline and follow recommendations for construction over it. Pipeline will be marked with signs, or flagged.
- 2) Operator will reroute drainage around the south end of the pad.
- 3) Operator will stockpile 12" of topsoil on the eastern margin of the location away from the reserve pit.
- 4) The blooie line will extend at least 125' away from the wellhead and be directed into a separate blooie pit.
- 5) The reserve pit will be constructed in at least 4' of cut.
- 6) The reserve pit will be fenced on three sides during drilling operations and on four sides after the rig moves off.

Adverse Environmental Effects Which Cannot Be Avoided:

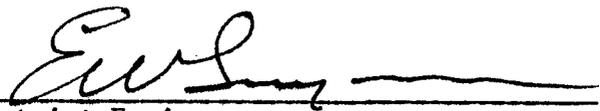
Surface disturbance and removal of vegetation from approximately one acre of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife 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 the East Canyon drainage 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).

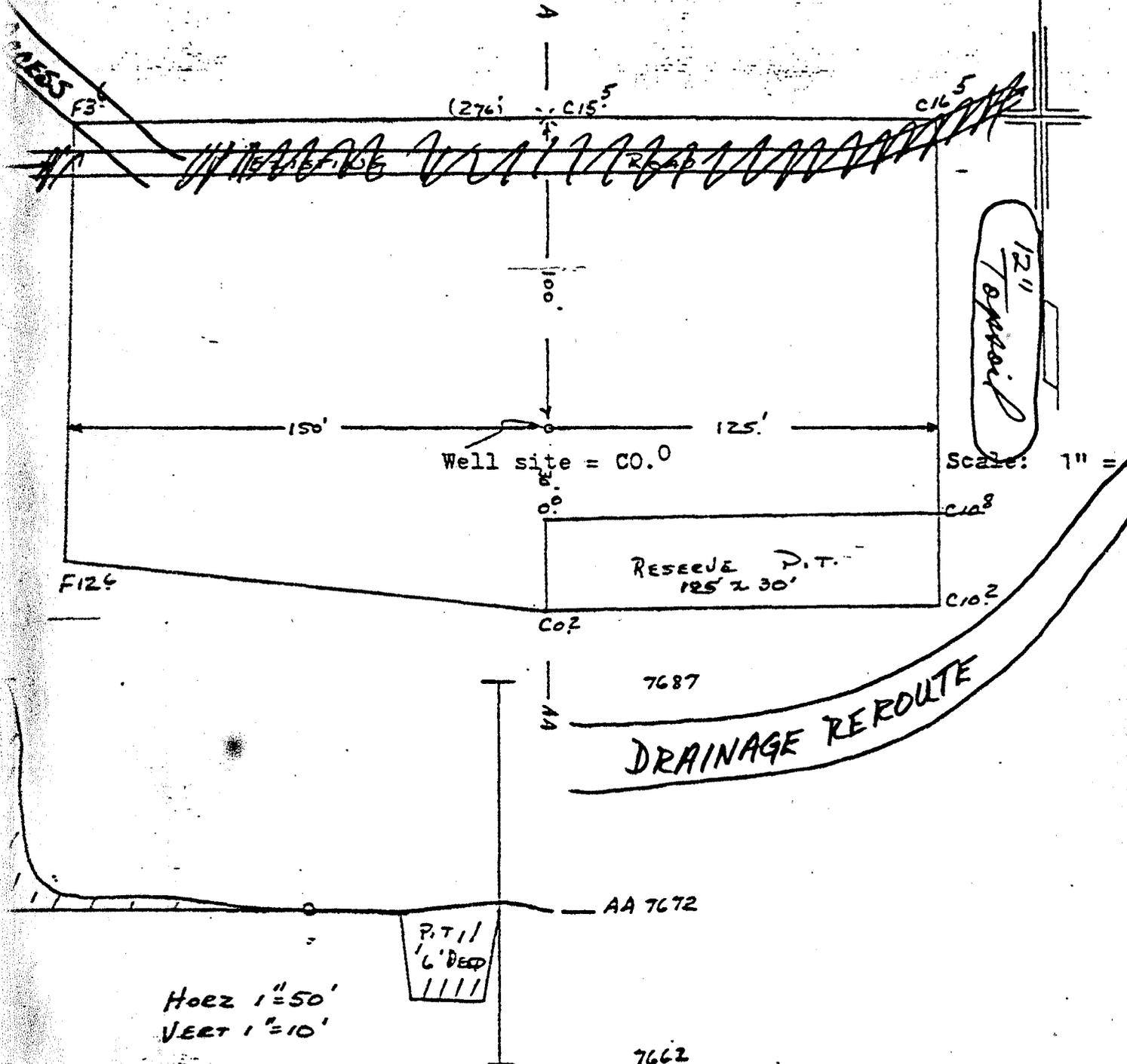
11/26/79
Date


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

Line sign - flag
 Meter - 500 ft
 Meter - corner
 we loc. 50' to J

TEXAS OIL & GAS
 #1 720-HARVEY-FEDERAL
 1250'FS & 2140'FE 5-16-25E
 GRAND COUNTY, UTAH

N

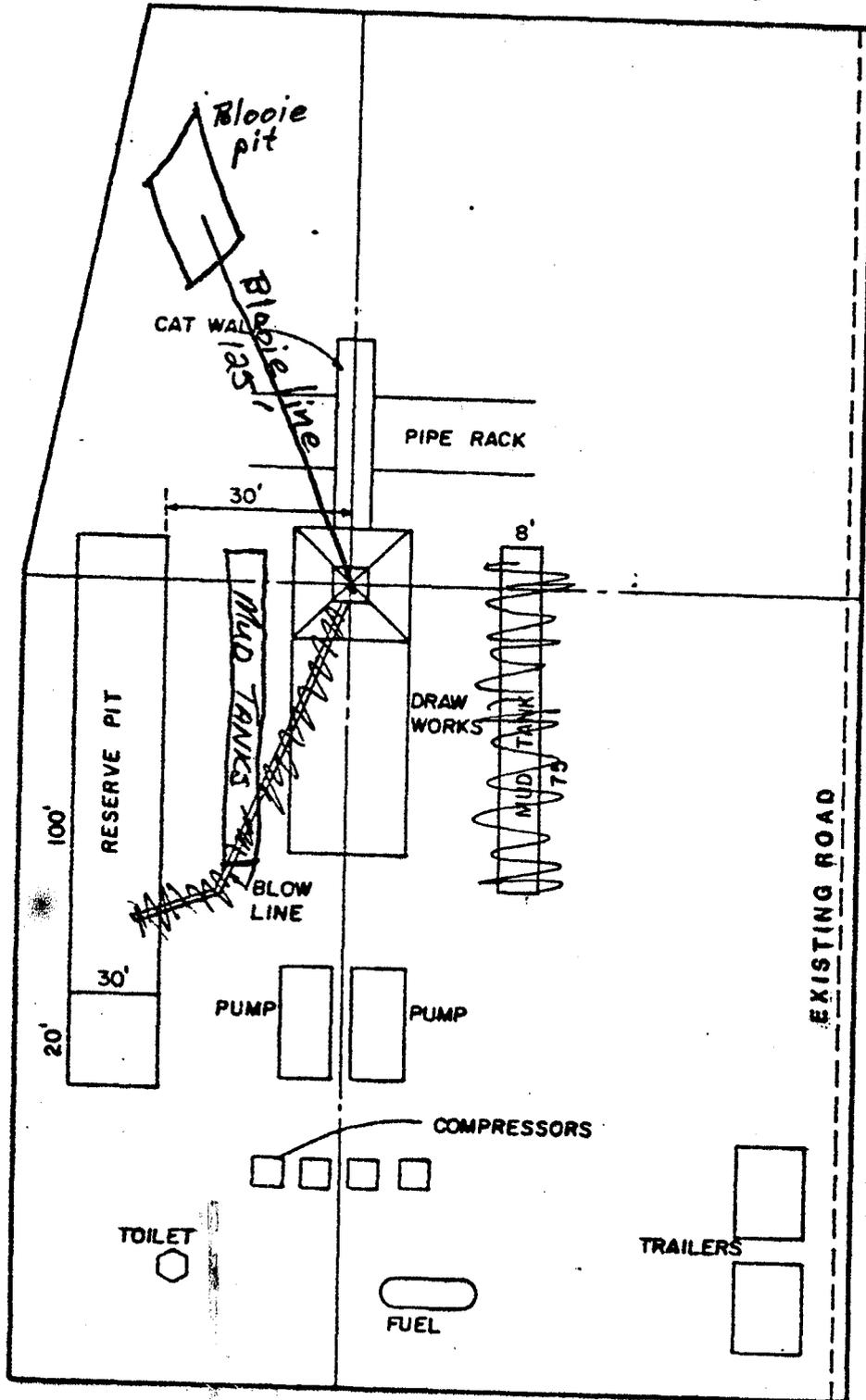


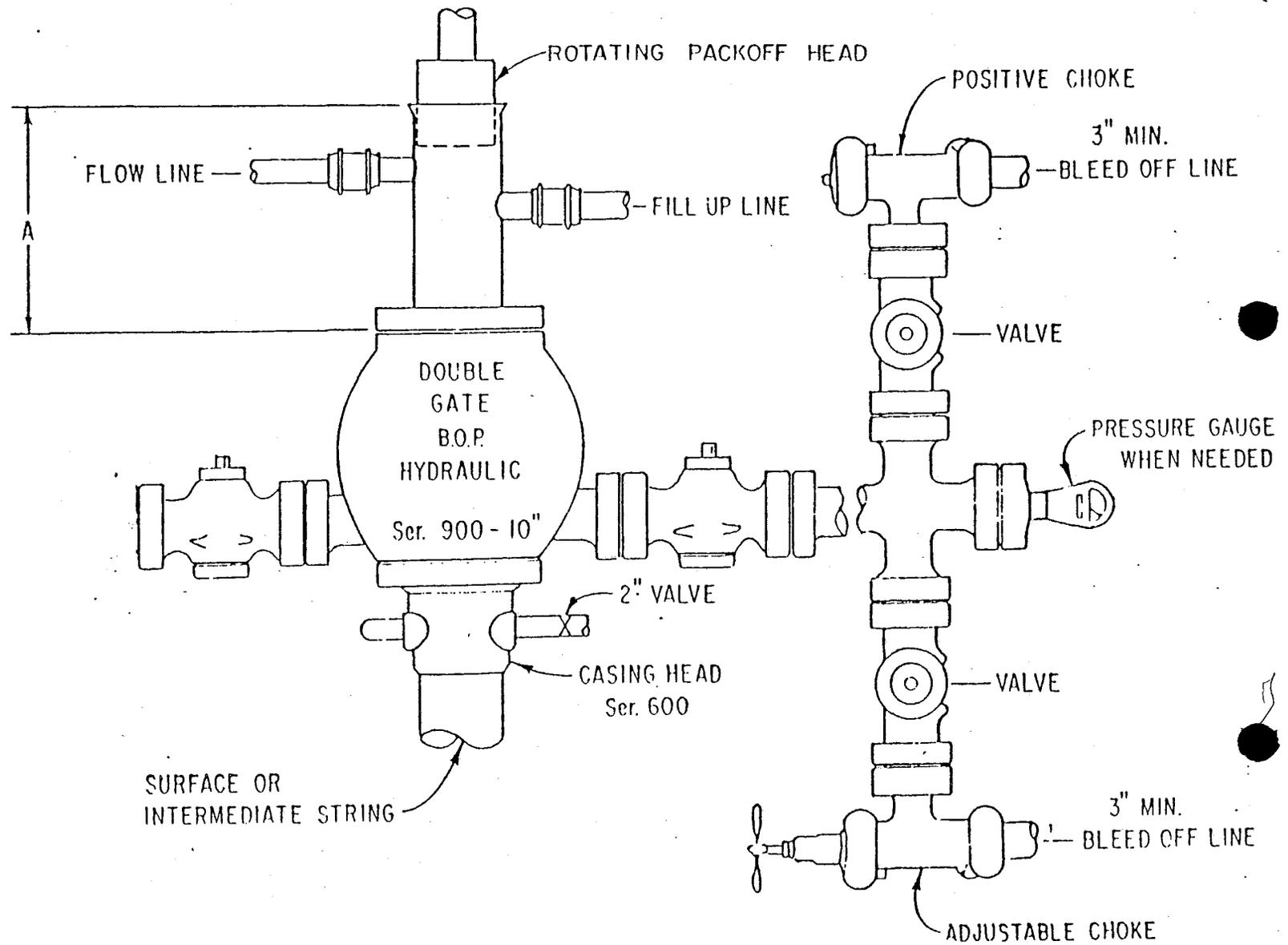
Horiz 1" = 50'
 VERT 1" = 10'

by: L. CHRISTMAN
 Powers Elevation Company, Inc.
 10-9-79

EXHIBIT - 4

DRILL SITE





9-331-C ADDENDUM

TXO Harvey Federal #1
Section 5-T16S-R25E
Grand County, Utah

1. SURFACE FORMATION: Tertiary Wasatch

2. ESTIMATED FORMATION TOPS:

Wasatch	Surface
Mesa Verde	775'
Castlegate	2686'
Mancos	2786'
Dakota Silt	6198'
Dakota	6258'
Morrison	6422'
TD	7000'

3. ESTIMATED DEPTH AT WHICH OIL, GAS, WATER OR OTHER MINERAL BEARING ZONES ARE EXPECTED TO BE ENCOUNTERED:

Possible Castlegate water	2686'
Expected gas zones	Dakota-6258'

4. CASING PROGRAM AS PER FORM 9-331-C.

5. PRESSURE CONTROL EQUIPMENT:

- A. After surface csg is set, a double ram type blow out preventer with blind rams and pipe rams will be installed with minimum working pressure of 2000 psi.
- B. A control choke and fill and kill lines with minimum working pressure of 2000 psi will be installed.
- C. A rotating pack off head will be installed above the blow out preventer to control flow while drilling with air.
- D. The equipment in A and B will be pressure tested to 1500 psi before drilling surface pipe cmt, and the blow out preventer will be tested for operation daily and during trips.
- E. A sketch of the proposed installation is attached (Exhibit 5).

6. MUD PROGRAM:

0	-	2800'	2% KCl water and loss circulation material
2800'	-	7000'	Air

Note: Excess gas flow or other hole problems may require use of mud drilling. Mud materials will be maintained on location to build muds with wt. 8.7 - 8.9 #/gallon, vis of 30-40 sec. API.

7. AUXILIARY EQUIPMENT:

- A. A kelly cock will be used.

- B. A float valve will be run in the drill string above the bit.
- C. A sub with full opening valve will be kept on derrick floor to stab into the DP when kelly is not in use.

8. CORING, LOGGING, TESTING PROGRAM:

- A. No coring is anticipated.
- B. GR induction
SNP-FDC-GR

9. ABNORMAL CONDITIONS:

- A. No abnormal pressures or temperatures are expected.
- B. No hazardous gas such as H₂S is expected.
- C. While drilling with gas or air, return fluids will be directed through the blow line to reserve pit at a point 125' from the well head. All open fires or ignition sources will be prohibited on location while gas or air drilling. A pilot flame will be maintained at the end of the blow line to insure burning of return gasses which are combustible.

10. ANTICIPATED STARTING DATE:

Start location construction	November 10, 1979
Move in drilling rig	November 13, 1979
Drilling time	Approx. 25 days
Completion time	Approx. 60 days
Complete operations	Approx. Feb. 15, 1980

11. Productive zones will be perforated, tested, treated as necessary. Gas will be flared during testing. Produced water will be contained in the unlined drilling reserve pit. The extent of treatment, as warranted, of a zone (acidizing and/or fracing) can only be determined after the zone has been tested. A completion program will be furnished after drilling and logging.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 DRILL DEEPEN PLUG BACK

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

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 Texas Oil & Gas Corp. *303 401-4246*

3. ADDRESS OF OPERATOR
 1800 Lincoln Center Building, Denver, CO 80264

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 At surface
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 At proposed prod. zone

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19. PROPOSED DEPTH
 7000 *Mar 1980*

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
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7. UNIT AGREEMENT NAME

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 TXO Harvey Federal #1

9. WELL NO.
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10. FIELD AND POOL, OR WILDCAT
~~San Arroyo~~ *Underspected*

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 5-T16S-R25E

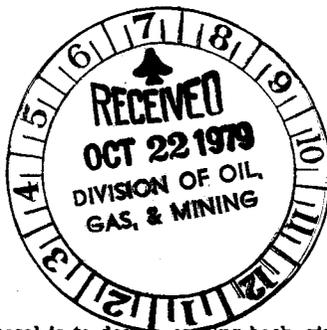
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24. SIGNED *[Signature]* TITLE Environmental Engineer DATE 10/12/79

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PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

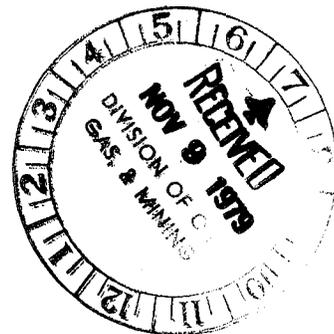
CONDITIONS OF APPROVAL, IF ANY:

TEXAS OIL & GAS CORP.

1800 LINCOLN CENTER BUILDING
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

November 7, 1979



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

Re: Harvey Federal #1
Section 5-16S-25E
Grand County, Utah

Dear Sir:

Enclosed please find copies of the Application to Drill, Staking plat, 10 point plan of operation, and BOP Schematic for the captioned well.

If you require any additional information, please contact this office.

Sincerely,

TEXAS OIL & GAS CORP.

A handwritten signature in cursive script that reads "Virginia Burchard".

Virginia Burchard

/vb
Enclosures

DISTRICT ENGINEER, O&G, SA LAKE CITY, UTAH

APD MINERAL EVALUATION REPORT

LEASE NO. 10427

OR: Texas Oil and Gas Corp.

WELL NO. #1

ON: $\frac{1}{2}$ SW $\frac{1}{2}$ SE $\frac{1}{2}$ sec. 5, T. 16 S, R. 25 E, SLM

Grand County, Utah

Geology: Upper Douglas Creek Mbr of Green River Fm.

Wasatch	200	(+7100)
Mesaverde	775	(+6900)
Castlegate	2686	(+4986)
Mancos	2786	(+4886)
Dakota	6258	(+1414)
Morrison	6422	(+1250)

sh Water:

See attached WRD report.

able Minerals:

Prospectively valuable for coal in the Mesaverde.

ditional Logs Needed: APD program is adequate.

ential Geologic Hazards: None anticipated.

erences and Remarks: USGS Map I-736

Signature:

J. Paul Matheny

Date: 11 - 3 - 79

Depths of fresh-water zones:

Atlantic Richfield Co., San Arroyo 3-C

1, 485' fnl. 1, 880' fwl. sec. 23, T16S, R25E, SLB&M, Grand Co., Utah

Elev. 6, 363 ft, proposed test to 1, 100 ft

<u>Stratigraphic units</u>	<u>Tops, approx.</u>	<u>Quality of water</u>
Price River Fm	surface	useable
Buck Tongue	700 ft	useable
Castlegate Ss	1, 025 ft	useable
Mancos Sh	1, 060 ft	saline

There are no water wells of record in the near vicinity of the proposed test. Fresh or useable water has been reported from the Castlegate Ss in similar tests about 10 miles southwestward, and probably will be found at this site to the top of the Mancos Sh.

USGS - WRD
7-15-71

** FILE NOTATIONS **

DATE: Nov 14, 1979

Operator: Texas Oil and Gas Corp.

Well No: TKO Harvey Federal #1

Location: Sec. 5 T. 16S R. 25E County: Grand

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number 43-019-³⁰⁷⁶²~~30574~~ *also see 43-019-30574*

CHECKED BY:

Geological Engineer: _____

Petroleum Engineer: _____

Director: Z

APPROVAL LETTER:

well fully unit #24, 500' fr boundary + 2000' fr any other gas well producible fr. in sands.

Bond Required:

Survey Plat Required:

Order No. 149-1 Mar 14, 73

O.K. Rule C-3

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

Lease Designation 2nd

Plotted on Map

Approval Letter Written
lctw

#3 plus statement

*NC
PI*

November 15, 1979

Texas Oil and Gas Corporation
1800 Lincoln Center Building
Denver, Colorado 80264

Re: Well No. TXO Harvey Federal #1
Sec. 5, T. 16S, R. 25E.,
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. 149-1 dated March 14, 1973, which states that a well must be 500' from the drilling unit boundary and 2000' from any other gas well producible from the same sands.

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
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 43-019-30574 .

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Geological Engineer

/b:tm

cc: USGS

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUPLICATE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 1250' FSL 2140' FEL, Sec. 5-T16S-R25E
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 34.7 miles northwest of Mack, Colorado

10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)
 1250'

16. NO. OF ACRES IN LEASE
 637.36

17. NO. OF ACRES ASSIGNED TO THIS WELL
 318.7

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

19. PROPOSED DEPTH
 7000'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 7672' GR

22. APPROX. DATE WORK WILL START*
 November 10, 1979

5. LEASE DESIGNATION AND SERIAL NO.
 U-10427

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
 TXO Harvey Federal #1

9. WELL NO.
 #1

10. FIELD AND POOL, OR WILDCAT
 San Arroyo

11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA
 Sec. 5-T16S-R25E

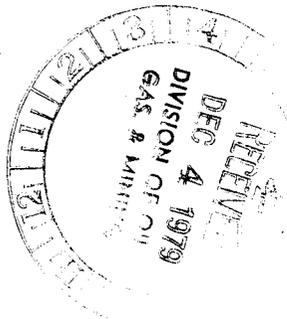
12. COUNTY OR PARISH
 Grand

13. STATE
 Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
30"	20"	Corrugated Iron	20'	None required
12 1/2"	9-5/8"	36# H-40	250'	165 SXS
8-3/4"	7"	20#	2800'	100 SXS
6 1/4"	4 1/2"	10.5# K-55	7000'	380 SXS

All casing to be new casing.



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 Environmental Engineer DATE 10/12/79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE NOV 30 1979

APPROVED BY (Orig. Sgd.) E. W. GYNN TITLE DISTRICT ENGINEER DATE NOV 30 1979

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

Utah State Oil & Gas

State of Utah, Department of Natural Resources

Division of Oil, Gas, and Mining

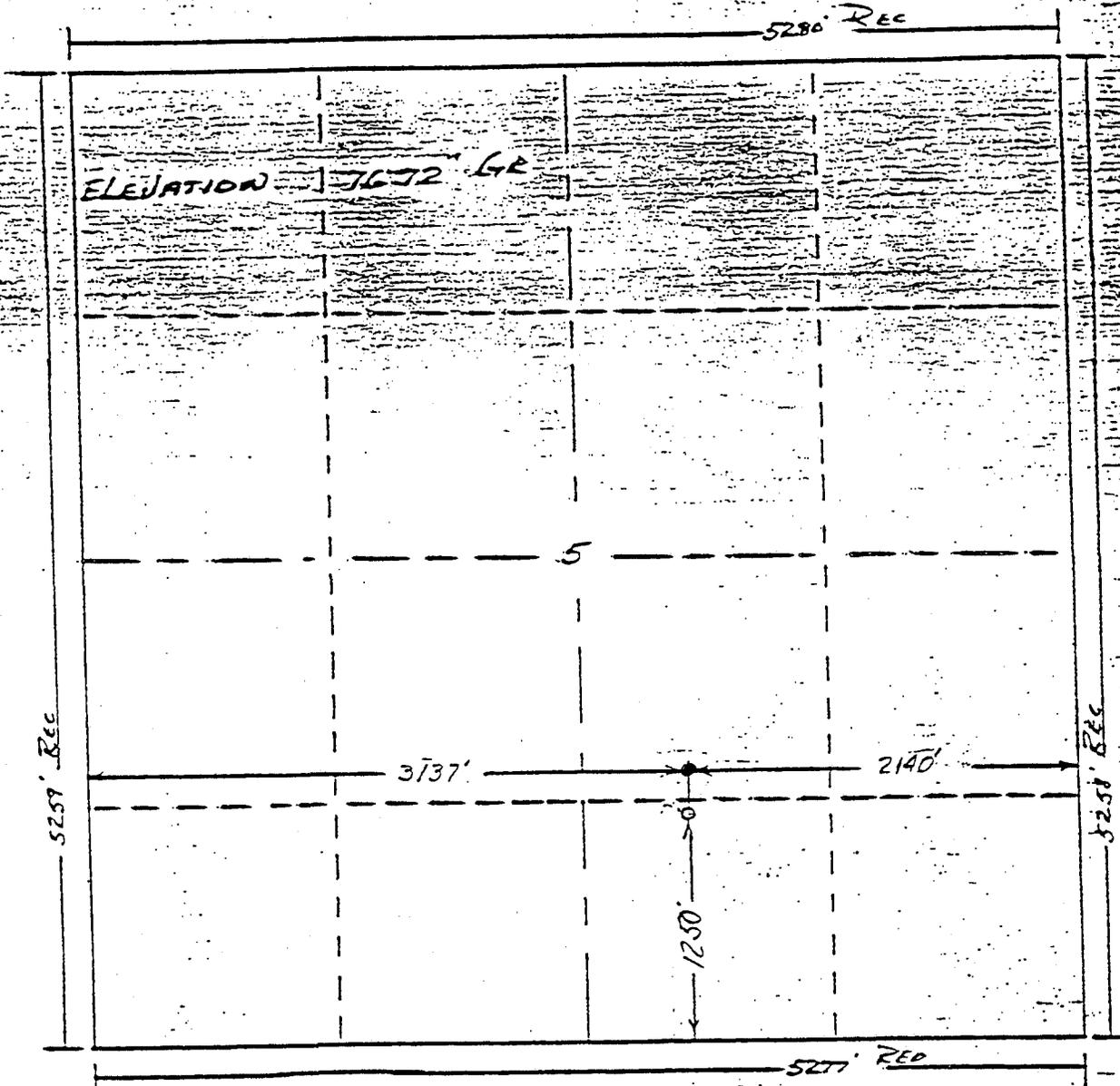
1588 West North Temple

Salt Lake City, Utah 84119

*See Instructions On Reverse Side

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

R. 25 E.



T.
16
S

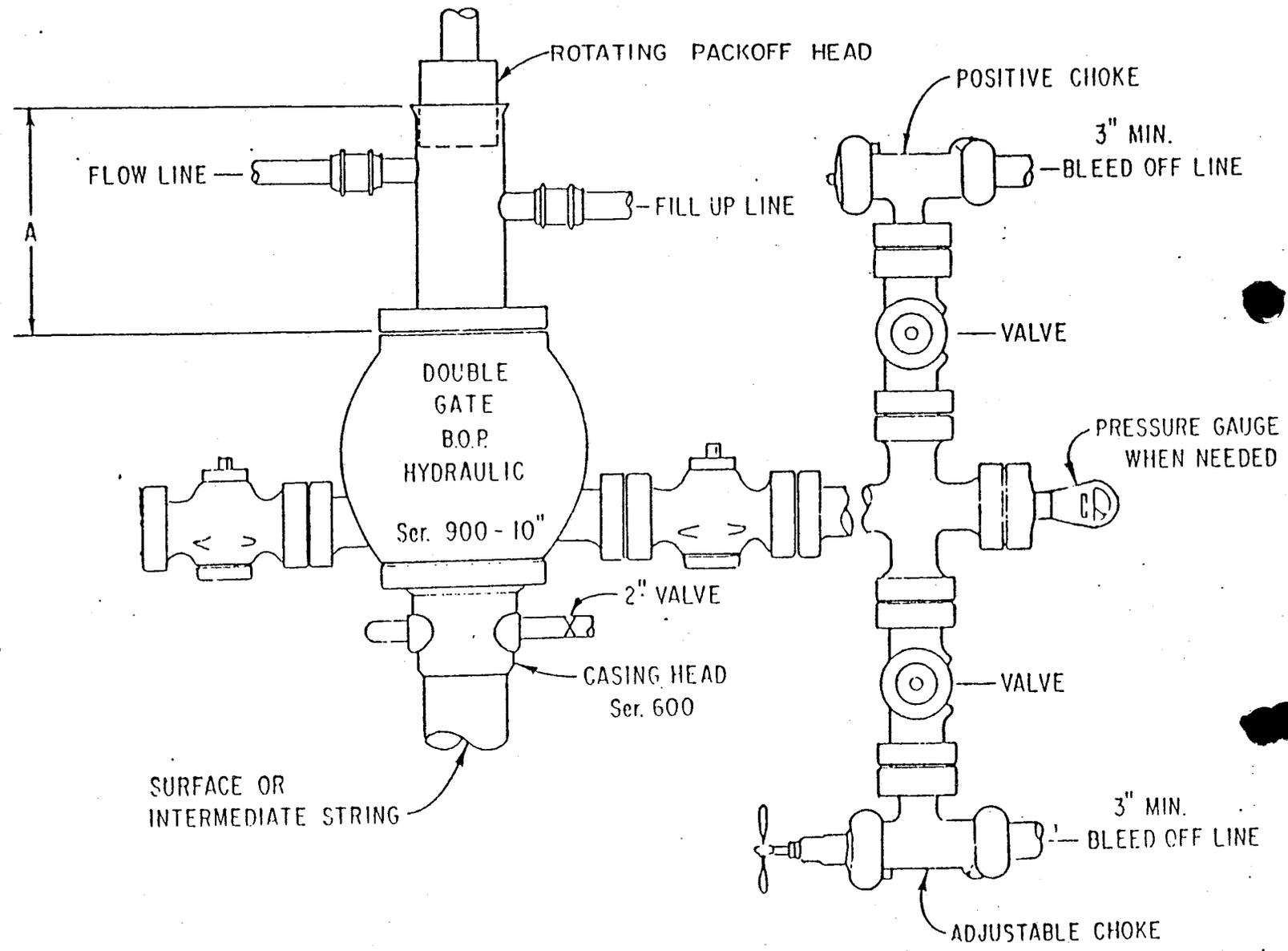
Scale--- 1" = 1000'

Powers Elevation of Denver, Colorado
 has in accordance with a request from DAN DOWMAN
 for TEXAS OIL & GAS COMPANY
 determined the location of #1 TXO-HARLEY-FEDERAL
 to be 1250' FS & 2140' FE Section 5 Township 16 S.
Range 25 E OF THE SALT LAKE BASE Meridian
GRAND County, UTAH

I hereby certify that this plat is an
 accurate representation of a correct
 survey showing the location of
#1 TXO-HARLEY-FEDERAL

Date: 10-9-79

[Signature]
 Licensed Land Surveyor No. 2711
 State of UTAH



TEXAS OIL & GAS CORP.
MULTIPOINT SURFACE USE AND OPERATIONS PLAN

DATE: October 12, 1979

WELL NAME: TXO Harvey Federal #1

LOCATION: 1250' FSL and 2140' FEL Sec. 6-T16-R25E, Grand Co., Utah

1. EXISTING ROADS

A. Proposed well site as staked. Refer to Exhibit 1. The well has been staked 1250' FSL and 2140' FEL of the above mentioned Section. Refer to Map 1.

B. Route and distance from nearest town or locatable reference point to where well access route leaves main road:

The existing access roads to the general area are shown on Map 2. Primary access is west from Mack, Colorado 15.9 miles, then north 5.6 miles to "T". Turn left to fork 0.4 mile. Take right fork and go 6.5 miles to intersection past ranch with sign "East Canyon". Turn right and go 3.9 miles to fork "Polumbus" sign. Take right fork and follow main road 10.7 miles to location. This primary access should be used for the rig move as there are less sharp switch-back turns and grades are somewhat less than the alternate route. Grades do not exceed 8% on either route. The distance from Mack to the location is 43.0 miles via the primary access and 34.7 miles via the alternate route.

Alternate access is via Highway 6 going west from Mack, Colorado 8.4 miles to "2 Road", then north on "2 Road" 16.2 miles to the San Arroyo Gas Treating Plant. Go past gas plant gate winding up hill 3.1 miles to Well #2 location. Bear left and go 4.2 miles to radio tower, keeping to right. Cross intersection and go .5 mile to intersection, take sharp left down winding road 2.7 miles to location.

C. Access roads to location color coded in red and labeled. Refer to ~~Map 2~~

D. For development well, all existing roads within one mile color coded in yellow. Refer to ~~map 1~~.

E. Plans for improvement and maintenance of existing roads:

The existing roads are in normal passable condition and routinely heavily travelled by trucks, workers, ranchers and tourists. No changes are contemplated, but grade maintenance may be required under wet conditions.

2. PLANNED ACCESS ROAD

Show all necessary roads to be constructed or reconstructed. This site is staked adjacent to the primary access to the north. There is no access road required or planned.

3. LOCATION OF EXISTING WELLS

Map 3 is a one-mile radius locating and identifying the following:

- A. Water Wells - None observed
- B. Abandoned Wells - None observed
- C. Temporarily Abandoned Wells - None observed
- D. Disposal Wells - None observed
- E. Drilling Wells - TXO Arco Federal #1, Sec. 6-T16-R25E
800' FSL - 800' FEL
- F. Producing Wells - Tidewater 23 East Canyon, Sec. 8-T16S-R25E
1508' FSL - 2535' FEL
- G. Shut In Wells - None observed
- H. Injection Wells - None observed
- I. Monitoring or Observation Wells for Other Reasons - None observed

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. Map 1 is a one-mile radius locating the following existing facilities owned by the lessee/operator:

- 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

Map 1 depicts the nearest gas gathering line, owned by Mountain Fuel Supply Company.

B. If new facilities are contemplated, in the event of production show:

- 1. Proposed location and attendant lines by flagging them off the well pad. See Exhibit 2.
- 2. Dimensions of facilities. See Exhibit 2.
- 3. Construction methods and materials: Water production will be contained in a bar production pit according to NTL-2B Specification, a production unit will be set. All connection work will be done by an oil field service company using standard oil field material.
- 4. Protective devices and measures to protect livestock and wildlife. Flare pit (if necessary) will be fenced with woven-wire and flagged to protect animals. Drilling reserve pit will be fenced to protect animals until it can be properly restored. Reserve will be fenced on three sides while drilling, and on the fourth side after the rig moves off location.

5. LOCATION AND TYPE OF WATER SUPPLY

A. Location and type of water supply: It is proposed to obtain water from the Westwater Creek near the entrance to the East Canyon.

If this location is on private land, permits, if required, will be obtained from the appropriate Utah State authority.

- B. Method of transporting water: Water will be transported via truck over the primary access road described above. No new roads will be required.
- C. If water well is to be drilled so state: No water well is contemplated.

6. SOURCES OF CONSTRUCTION MATERIALS

- A. Show information either on map or by written description.

It is not anticipated that any materials for construction will be required beyond materials from cut on the location itself.

- B. Identify if from Federal or Indian Land.

All involved land is Federal and under the management of the United States Bureau of Land Management.

- C. Describe where materials such as sand, gravel, stone and soil material are to be obtained and used.

None to be transported.

- D. Show any needed access roads crossing Federal or Indian Lands. Refer to map 2.

7. METHODS OF HANDLING WASTE DISPOSAL

- A. Cuttings- Will be contained and disposed of in an unlined reserve pit.
- B. Drilling fluids - Will be contained and disposed of in an unlined reserve pit. When drilling with air or gas, a dust arresting system will be installed on the blow line.
- C. Produced fluids - Will be directed to steel tanks for disposal after testing.
- D. Sewage - Portable toilet will be provided.
- E. Garbage - And other trash will be placed in a trash pit, fenced and covered with small mesh wire for burning and burial after completion of work.
- F. Statement regarding proper cleanup when rig moves out. When the rig moves out, all trash and refuse will be disposed of by burial in the trash pit or by removal from the location. All pits will be filled after drying and all areas restored as under Item #10.

8. ANCILLARY FACILITIES

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods: None planned.

9. WELL SITE LAYOUT ATTACHMENT AND PROPOSED RIG LAYOUT

- A. Cross section of drill pad with cuts and fills. See Exhibit 1.
- B. Location of mud tank, reserve pit, burn pit, trash pit, pipe racks and living facilities. See Exhibit 3.
- C. Rig orientation, parking area. See Exhibit 4.

10. PLANS FOR RESTORATION OF SURFACE

- A. Backfilling, levelling, contouring and waste disposal. Upon completion of the well, the site will be cleared of all debris, rat hole and mouse hole filled, and reserve pit and trash pit filled. Areas not needed for further operations, production, etc., will be reshaped.
- B. Revegetation and rehabilitation. Topsoil will be stockpiled during site construction and redistributed on unused areas. The area will be disked, recontoured and reseeded as directed by BLM.
- C. Prior to rig release, pits will be fenced and so maintained until clean-up can be properly done.
- D. If any oil is on the pit, it will be removed or overhead flagging will be installed.
- E. Time table for comment and completion of rehabilitation operations. Rehabilitation will commence when drilling operations are completed, about February 15, 1980, and rehabilitation is expected to be completed by April 15, 1980.

11. OTHER INFORMATION

General description of:

- A. Topography, soil characteristics, geologic features, flora, fauna. The general area is sloping towards an intermittent stream to the south. Vegetation consists of scattered sage (*Artemisia-Agropyron*), live oak (*Prosopis*), conifers, and some annual grasses.
- B. Other surface-use activities and surface ownership of all involved lands. The lands involved in this area are all owned by the U.S. Government. There are no other surface uses in the immediate area other than oil and gas operation.
- C. Proximity of water, occupied dwellings, archeological, historical or cultural sites. A spring feed intermittent stream is adjacent to the well location. Additional intermittent flow can be expected from precipitation. There are radio towers about 0.75 mile to the east. There are no other occupied dwellings in the area. There are no known archeological, historical or cultural values on the site; however, an inspection has been made by an approved archeologist, and his report will be submitted upon completion.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Texas Oil and Gas

WELL NAME: TXO Harvey Federal #1

SECTION 5 SW SE TOWNSHIP 16S RANGE 25E COUNTY Grand

DRILLING CONTRACTOR Veco

RIG # 5

SPUDDED: DATE 12/28/79

TIME 11:00 p.m.

How rotary

DRILLING WILL COMMENCE ASAP

REPORTED BY Hugh Harvey

TELEPHONE # 303-861-4246

DATE January 3, 1980

SIGNED M. J. Munder

cc: USGS

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Texas Oil and Gas (Hugh Harvey 303-861-4246)

WELL NAME: TXO Harvey Federal #1

SECTION 5 SW SE TOWNSHIP 16S RANGE 25E COUNTY Grand

VERBAL APPROVAL GIVEN TO PLUG THE ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 930'

CASING PROGRAM:

10 3/4" @ 297'

Top of fish at 600' (10' drill collar)

FORMATION TOPS:

PLUGS SET AS FOLLOWS:

#1 600' - 500'

#2 350' - 250'

#3 50' - surface

60 vis 9# mud between plugs

DATE January 8, 1980

SIGNED

M. J. Winder

cc: USGS

TEXAS OIL & GAS CORP.

1800 LINCOLN CENTER BUILDING
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

January 14, 1980

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

*Well
file
copy*

Re: TXO Harvey Federal #1
Section 5-T16S-R25E
Grand County, Utah

LOCATION change

Gentlemen:

Enclosed please find for your approval the original and two copies of the Sundry Report of Abandoning and Skidding Rig for the above captioned well.

If there are any questions concerning this matter, please advise.

Very truly yours,

TEXAS OIL & GAS CORP.

Hugh E. Harvey, Jr.

Hugh E. Harvey, Jr.
Engineer

b1
Encl.

bcc: State of Utah

RECEIVED

JAN 18 1980

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-10427

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR
Texas Oil & Gas Corp.

8. FARM OR LEASE NAME

3. ADDRESS OF OPERATOR
1800 Lincoln Center Bldg., Denver, CO 80264

TXO Harvey Federal

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

San Arroyo

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

Section 5-T16S-R25E

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)
7672' GR

12. COUNTY OR PARISH 13. STATE

Grand

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
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

(Other) Abandon and skid rig

(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.)*

The above well was abandoned at a depth of 930' KB on 1-8-80 because of down hole mechanical difficulties. A "fish" consisting of 9 drill collars was left in the hole from 900' to 629'. A 100' cement plug was set from 629'-529'. A 100' cement plug was set across the base of surface casing at 307'. A 20 sx plug was set at the surface. A regulation dry hole marker will be set after the rig moves off. The rig has been skidded 25' to the west and the new well will be designated the Harvey Federal 1-X.

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING
DATE: 1-21-80
BY: W. J. Miner

RECEIVED

JAN 18 1980

DIVISION OF
OIL, GAS & MINING

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

SIGNED

L. A. Varela

TITLE

Manager Drilling & Production

DATE

Jan. 14, 1980

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
 1588 WEST NORTH TEMPLE
 SALT LAKE CITY, UTAH 84116
 533-5771

State Lease No. _____
 Federal Lease No. U-10427
 Indian Lease No. _____
 Fee & Pat. _____

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Grand FIELD/LEASE San Arroyo/Harvey Federal #1

The following is a correct report of operations and production (including drilling and producing wells) for the month of:
December, 1979.

Agent's Address _____
1800 Lincoln Center Building
Denver, CO 80264
 Phone No. 303/861-4246

Company Texas Oil & Gas Corp.
 Signed B. Laughlin
 Title Production Clerk

Sec. and 1/4 of 1/4	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SW SE 5	16S	25E	1	-0-	-0-	-	-0-	-0-	-0-	Spud on 12-28-79. ✓ 1-8-80: plug well & prep to skid rig. (Spud Harvey Federal 1-X on 1-13-80.)

533NW 3 STG TO
 27 FEB 1980
 0861 8 2 JAN
 1980

GAS: (MCF)
 Sold -0-
 Flared/Vented -0-
 Used On/Off Lease -0-

OIL or CONDENSATE: (To be reported in Barrels)
 On hand at beginning of month -0-
 Produced during month -0-
 Sold during month -0-
 Unavoidably lost -0-
 Reason:
 On hand at end of month -0-

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. **THIS REPORT MUST BE FILED**



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

081206

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

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

August 12, 1986

TO: Well File
FROM: Claudia Jones
RE: API Number Change

When entering the history on this well a problem was encountered regarding the API number. The same number was assigned to the original well and to the rig skid.

In order to minimize the corrections on production and disposition in the automated system, it was decided to change the API number on the original well, the TXO Harvey Fed #1 to 43-019-31230 and leave Harvey Federal #1-X with 43-019-30574.

A copy of this memo should be placed in well file to verify this change.



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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

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

Aug.25, 1986

TO: Well File
FROM: Mary Alice Peterson
RE: API Number for The TXO Harvey Federal #1 Well :
Operator, Texas Oil & Gas Corp., located 16S 25E sec.
5 Grand County

This well was originally assigned the API number 43-019-30574. The well was a rig skid and the API no. was left with the new well (The Harvey Federal #1-X). The Harvey Federal #1 well was issued a new number, 43-019-30762 because the Harvey 1-X has production and is being reported by the operator under the old API number. The new number was not properly recorded and subsequently two other numbers were assigned to this well and then cancelled and assigned to new wells when it was discovered a valid number was already assigned to the well. The two numbers that are not valid but may at sometime come up are 43-019-31230 and 43-019-20413. These numbers were both cancelled and reassigned to other wells.

map
0176S 40