

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG ELECTRIC LOGS WATER SANDS LOCATION INSPECTED SUB. REPORT/abd.

12/202 Location abandoned

DATE FILED SEPTEMBER 28, 1994

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. UTU-72028 INDIAN

DRILLING APPROVED: OCTOBER 11, 1994

SPUDDED IN:
COMPLETED: 12/02/96 LA PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 12/02/96 LA'D

FIELD: NATURAL BUTTES FIELD

UNIT: NA

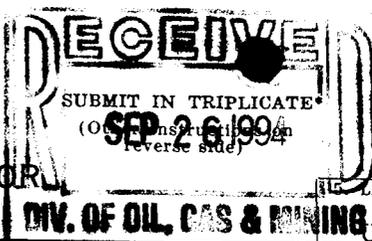
COUNTY: UINTAH

WELL NO. SOUTHMAN CANYON 10-2-F API NO. 43-047-32553

LOCATION 1451' FNL FT. FROM (N) (S) LINE. 1746' FWL FT. FROM (E) (W) LINE. SE NW 1/4 - 1/4 SEC. 10

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
10S	23E	10	SNYDER OIL CORP				

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

LEASE DESIGNATION AND SERIAL NO.

UTU-72028

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

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

2. NAME OF OPERATOR
 Snyder Oil Corporation Phone: (303) 592-8500

3. ADDRESS AND TELEPHONE NO.
 1625 Broadway, Suite 2200; Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 1451' FNL, 1746' FWL (NW¹/₄SE¹/₄NW¹/₄) Section 10, T10S, R23E
 At proposed prod. zone
 Same as above.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Approximately ten (10) miles southwest of Bonanza, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1451'

16. NO. OF ACRES IN LEASE 160.00

17. NO. OF ACRES ASSIGNED TO THIS WELL 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2750' ±

19. PROPOSED DEPTH 8130'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5325' GR

22. APPROX. DATE WORK WILL START*
 November 1, 1994

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 Not Applicable

7. UNIT AGREEMENT NAME
 Not Applicable

8. FARM OR LEASE NAME, WELL NO.
 Southman Canyon 10-2-F

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT
 Southman Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Section 10, T10S, R23E

12. COUNTY OR PARISH
 Uintah

13. STATE
 Utah

PROPOSED CASING AND CEMENTING PROGRAM (All New)

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55	24.0#	0- 400'	300 sx circulated to surface *
7-7/8"	4-1/2" M-75	11.6#	0-8130'	1538 sx cement

* Cement volumes may change due to hole size. Calculate from Caliper Log.

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED.

I hereby certify that Snyder Oil Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the Southman Canyon Federal #10-2-F, Federal Lease #UTU-72028. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Snyder Oil Corporation, Nationwide Bond #WY-2272, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Tim A. Burns TITLE Drilling Engineer DATE August 11, 1994

(This space for Federal or State office use)
 PERMIT NO. 43-047-32553 APPROVAL DATE 10/11/94
 APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:
 DATE: 10/11/94
 BY: Tim A. Burns
 WELL SPACING 179-7

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

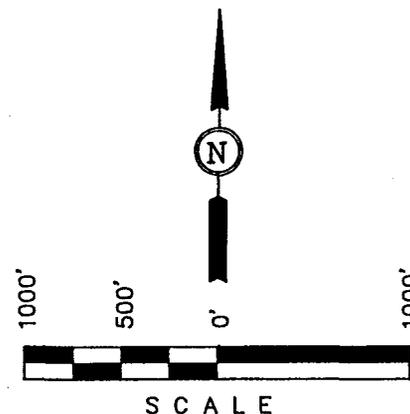
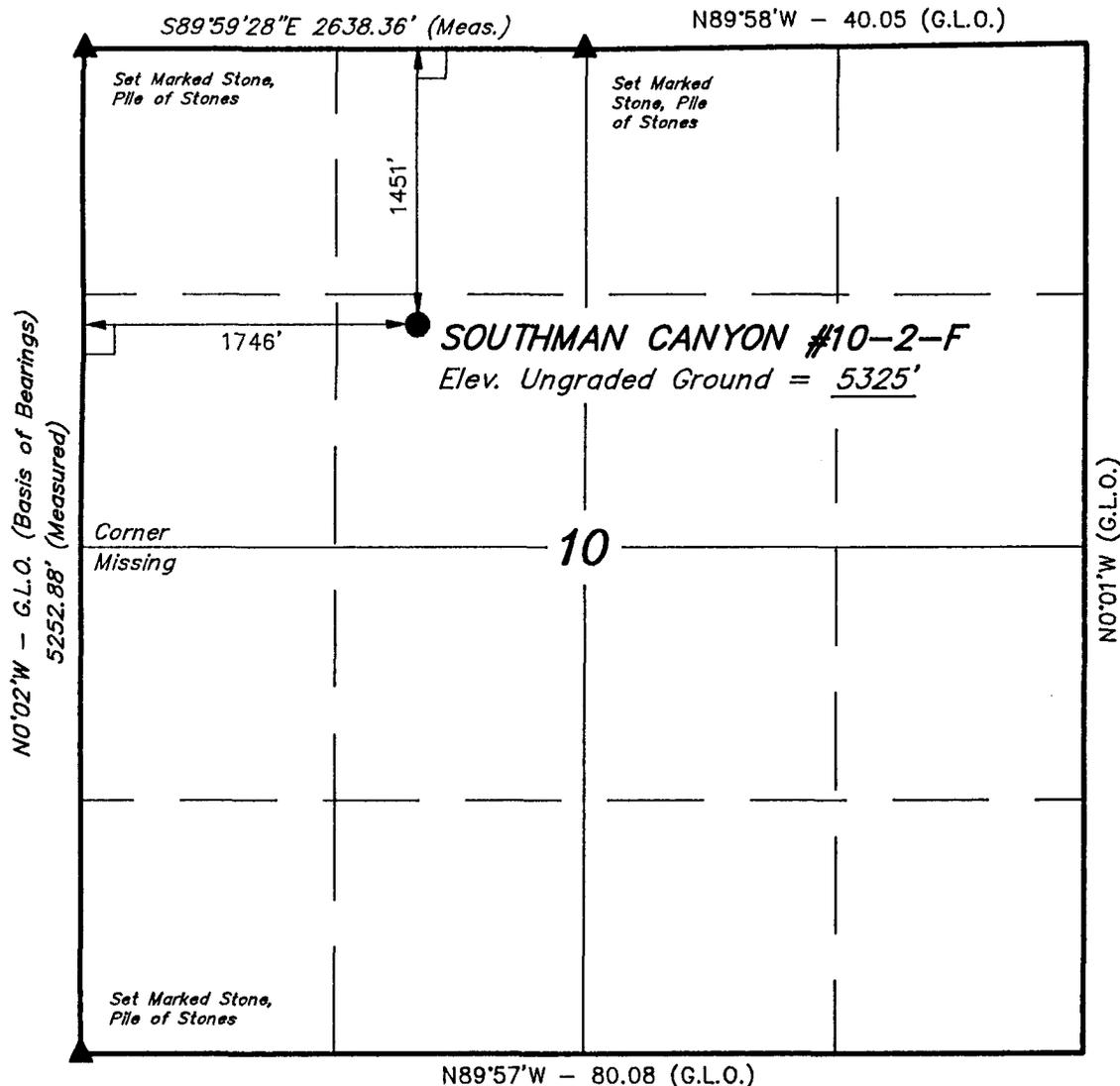
T10S, R23E, S.L.B.&M.

SNYDER OIL CORP.

Well location, SOUTHAM CANYON #10-2-F, located as shown in the SE 1/4 NW 1/4 of Section 10, T10S, R23E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 57 EAM LOCATED IN THE NE 1/4 OF SECTION 10, T10S, R,23E S.L.B.&M. TAKEN FROM THE RED WASH SE, QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5192 FEET.



CERTIFICATE

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

Robert L. Gray
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 181319
 STATE OF UTAH

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (801) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 4-27-94	DATE DRAWN: 5-17-94
PARTY L.D.T. G.O. D.J.S.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE SNYDER OIL CORP.	

SNYDER OIL CORPORATION
 Lease #UTU-72028, Southman Canyon #10-2-F
 NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 10, T10S, R23E
 Uintah County, Utah

DRILLING PROGNOSIS

1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Uinta	Surface	Mesaverde	5705'
Green River	730'	Buck Tongue	8105'
Wasatch	3980'	Total Depth	8130'

2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS

Green River	730'	Water	(Possible)
Wasatch	3980'	Gas	(Primary Objective)
Mesaverde	5705'	Gas	(Primary Objective)

Any shallow water zones encountered will be adequately protected and reported. All potentially productive hydrocarbon zones will be cemented off.

3. PRESSURE CONTROL EQUIPMENT - Schematic Attached

A. Type: Eleven (11) Inch Double Gate Hydraulic BOP with Eleven (11) Inch Annular Preventer and 3,000 psi wellhead.

The Blow-Out Preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
4. Kill line (2-inch minimum).
5. Two (2) kill line valves, one of which will be a check valve (2-inch minimum).
6. 3-inch (minimum) choke line.
7. Two (2) choke line valves (3-inch minimum).
8. Two (2) adjustable chokes.
9. Pressure gauge on choke manifold.
10. Upper kelly cock valve with handle available.
11. Full opening internal blowout preventer or drill pipe safety valve able to fit all connections.
12. Fill-up line above the uppermost preventer.

B. Pressure Rating: 3,000 psi

3. PRESSURE CONTROL EQUIPMENT - Continued

C. Testing Procedure:

Annular Preventer

At a minimum, the Annular Preventer will be pressure tested to 50% of the rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

- 1) when the annular preventer is initially installed;
- 2) whenever any seal subject to test pressure is broken;
- 3) following related repairs; and
- 4) at thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

Blow-Out Preventer

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

- 1) when the BOP is initially installed;
- 2) whenever any seal subject to test pressure is broken;
- 3) following related repairs; and
- 4) at thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day.

All blowout preventer drills and tests will be recorded in the International Association of Drilling Contractors (IADC) driller's log.

3. PRESSURE CONTROL EQUIPMENT - Continued

D. Choke Manifold Equipment:

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

E. Accumulator:

The accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of the closing unit pumps. The fluid reservoir capacity will be double the accumulator capacity and the fluid level will be maintained at the manufacturer's recommendations.

The BOP system will have two (2) independent power sources to close the preventers. Nitrogen bottles (3 minimum) will be one (1) of these independent power sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in *Onshore Oil & Gas Order Number 2*.

F. Special Drilling Operations:

In addition to the equipment already specified in Items A through E, above, the following equipment will be in place and operational during air/gas drilling:

1. Properly lubricated and maintained rotating head.
2. Spark arresters on engines or water cooled exhaust.
3. Blooie line discharge 100 feet from well bore and securely anchored.
4. Straight run on blooie line.
5. Deduster equipment (not required for aerated water system).
6. All cuttings and circulating medium(s) shall be directed into a reserve or blooie pit.
7. Float valve above bit.

3. PRESSURE CONTROL EQUIPMENT

F. Special Drilling Operations: Continued

8. Automatic igniter or continuous pilot light on the blooie line (not required for aerated water system).
9. Compressors located in the opposite direction from the blooie line and at a minimum of 100 feet from the well bore.
10. Mud circulating equipment, water, and mud materials (does not have to be pre-mixed) sufficient to maintain the capacity of the hole and circulating tanks or pits.

G. Miscellaneous Information:

The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2*.

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub-structure. The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill the Southman Canyon #10-2-F.

A flare line will be installed after the choke manifold, extending 125 feet (minimum) from the center of the drill hole to a separate flare pit.

4. THE PROPOSED CASING AND CEMENTING PROGRAM

A. Casing Program: All New

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft.</u>	<u>Grade</u>	<u>Joint</u>	<u>Depth Set</u>
20 "	16 "	Steel	----	----	0- 60' ¹
12-1/4"	8-5/8"	24.0#	J-55	ST&C	0- 400' ²
7-7/8"	4-1/2"	11.6#	M-75	LT&C	0-8130' ²

¹ Conductor optional.

4. THE PROPOSED CASING AND CEMENTING PROGRAM

A. Casing Program: Continued

² Minimum design factors:

collapse = 1.125	tension (joint) = 1.800
burst = 1.000	tension (pipe body) = 1.500

The surface casing will have centralizers on the bottom three (3) joints joint of casing, with a minimum of one (1) centralizer per joint starting with the shoe joint.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Cementing Program:

Surface Conductor - Set with approximately five (5) cubic yards (yd³) of Redi-Mix cement, circulated back to surface.

Surface Casing - Set with approximately 300 sx of Class "G" cement, circulated back to surface.

Production Casing - Lead with approximately 1038 sx Halliburton "Light" cement.

Tail with approximately 500 sx Class "G" (or 50/50 Poz-Mix) cement, as applicable.

A sufficient quantity of tail cement will be utilized to achieve full coverage across the Mesaverde Formation. Estimated top of cement ≈ 3780'.

The above cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole size and will be determined by running a caliper log on the drilled hole.

4. THE PROPOSED CASING AND CEMENTING PROGRAM

B. Cementing Program: Continued

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. MUD PROGRAM - Visual Monitoring

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0- 400'	Fresh Water/Gel	8.8- 9.2	28-35	No Control
400-8130'	Aerated Brine	8.2- 8.8	30-35	+ 25 cc's
As Needed ¹	Salt Water/Gel	9.8-10.5	35-45	15-25 cc's

¹ The drilling fluids system will consist of air/mist (with brine water as the base fluid) for as long and/or as deep as possible. Should hole conditions deteriorate prior to reaching total depth, an alternative drilling fluids system would be utilized consisting of a salt/gel mud (with brine water as the base fluid).

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

No chromate additives will be used in the mud system on Federal or Indian lands without prior approval of the Bureau of Land Management in order to ensure adequate protection of fresh water aquifers.

Hazardous substances specifically listed by the Environmental Protection Agency as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing or completion operations.

6. EVALUATION PROGRAM

Logs : DLL/SP/GR¹ - from 8130' to 400'
FDC/CNL/SP/GR¹ - from 8130' to 400'

¹ Pull Gamma Ray to surface.

DST's : None anticipated.

Cores : None anticipated.

6. EVALUATION PROGRAM - Continued

The proposed Evaluation Program may change at the discretion of the well site geologist, with prior approval from the Authorized Officer, Bureau of Land Management.

Stimulation : No stimulation or frac treatment has been formulated for this test at this time. The drill site, as approved, will be of sufficient size to accommodate all completion activities.

Whether the well is completed as a dry hole or as a producer, *Well Completion and Recompletion Report and Log* (Form #3160-4) will be submitted to the Vernal District Office not later than thirty (30) days after the completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164.

Two (2) copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form #3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Authorized Officer, Vernal District Office, Bureau of Land Management, 170 South 500 East, Vernal, Utah 84078, Telephone: (801) 789-1362.

7. ABNORMAL CONDITIONS

No abnormal temperatures or pressures are anticipated. No H₂S has been encountered in or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 4,100 psi (as calculated in the Downspacing Hearing Study) and maximum anticipated surface pressure equals approximately 2311 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. ANTICIPATED STARTING DATES AND NOTIFICATION OF OPERATIONS

A. Anticipated Starting Dates:

Anticipated Commencement Date	-	November 1, 1994
Drilling Days	-	Approximately 14 Days
Completion Days	-	Approximately 10 days

8. ANTICIPATED STARTING DATES AND NOTIFICATION OF OPERATIONS

B. Notification of Operations:

Vernal District Office, Bureau of Land Management

Address : 170 South 500 East; Vernal, Utah 84078
Phone : (801) 789-1362
Fax : (801) 789-3634

In the event after-hours approvals are necessary, please contact one of the following individuals:

<u>Contact Title</u>	<u>Contact Name</u>	<u>Home Phone</u>
Petroleum Engineer	Gerald E. Kenczka	(801) 781-1190
Petroleum Engineer	Ed Forsman	(801) 789-7077

The Vernal District Office, Bureau of Land Management will be notified at least twenty-four (24) hours PRIOR to the commencement of the following activities:

1. Spudding of the well. This oral report will be followed up with a Sundry Notice (Form 3160-5);
2. initiating pressure tests of the blow-out preventer and related equipment;
3. running casing and cementing of ALL casing strings.

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR, Part 3160), and this approved Application for Permit to Drill. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved Application for Permit to Drill must be on location during construction, drilling and completion operations. The following items are emphasized:

DRILLING/PRODUCING OPERATING STANDARDS

There shall be no deviation from the proposed drilling and/or workover program as approved. Safe drilling and operating practices must be observed.

8. ANTICIPATED STARTING DATES AND NOTIFICATION OF OPERATIONS

B. Notification of Operations: Continued

All wells, whether drilling, producing, suspended or abandoned shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, the lease serial number, the well number and the surveyed description of the well.

Any changes in operations must have prior approval from the Authorized Officer (AO), Vernal District Office, Bureau of Land Management.

Pressure tests are required before drilling out from under all casing strings set and cemented in place. Blowout preventer controls will remain in use until the well is either completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and this inspection will be recorded on the daily drilling report. All BOP tests must be recorded in the daily drilling report. **NOTIFY RESOURCE AREA PETROLEUM ENGINEER AT LEAST TWENTY-FOUR (24) HOURS IN ADVANCE OF PRESSURE TESTS.**

In accordance with *Onshore Oil & Gas Order Number 1*, this well will be reported on MMS Form #3160-6, *Monthly Report of Operations and Production*, starting with the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with the Royalty Management Program, Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217.

All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL-3A will be reported to the Vernal District Office. Major events will be reported verbally within twenty-four (24) hours and will be followed with a written report within fifteen (15) days. "Other than Major Events" will be reported in writing within fifteen (15) days. "Minor Events" will be reported on the *Monthly Report of Operations and Production* (Form #3160-6)

No well abandonment operations will be commenced without the prior approval of the Authorized Officer. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the Area Petroleum Engineer.

8. ANTICIPATED STARTING DATES AND NOTIFICATION OF OPERATIONS

B. Notification of Operations: Continued

A *Notice of Intention to Abandon* (Form #3160-5) will be filed with the Authorized Officer within fifteen (15) days following the granting of oral approval to plug and abandon.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently placed on the marker with a plate, cap, or beaded-on with a welding torch: Company Name, Well Name and Number, Location by Quarter/Quarter, Section, Township, Range, and the Federal Lease Number.

A *Subsequent Report of Abandonment* (Form #3160-5) will be submitted within thirty (30) days following the actual plugging of the well bore. This report will indicate where plugs were placed and the current status of surface restoration operations. If surface restoration has not been completed at that time, a follow-up report on Form #3160-5 will be filed when all surface restoration work has been completed and the location is considered ready for final inspection.

Pursuant to NTL-4A, lessees and operators are authorized to vent/flare gas during initial well evaluation tests, not exceeding a period of thirty (30) days or the production of fifty (50) MMCF of gas, whichever occurs first. An application must be filed with the Authorized Officer, and approval received, for any venting/flaring of gas beyond the initial thirty (30) day or otherwise authorized test period.

Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than ninety (90) days, the operator shall notify the Authorized Officer by letter or "Sundry Notice", of the date on which such production has begun or resumed. The notification shall provide as a minimum, the following informational items:

- a. Operator name, address, and telephone number
- b. Well name and number
- c. Well location " $\frac{1}{4}$, $\frac{1}{4}$, Section, Township, Range, P.M."

8. ANTICIPATED STARTING DATES AND NOTIFICATION OF OPERATIONS

B. Notification of Operations:

The notification shall provide as a minimum, the following informational items: continued

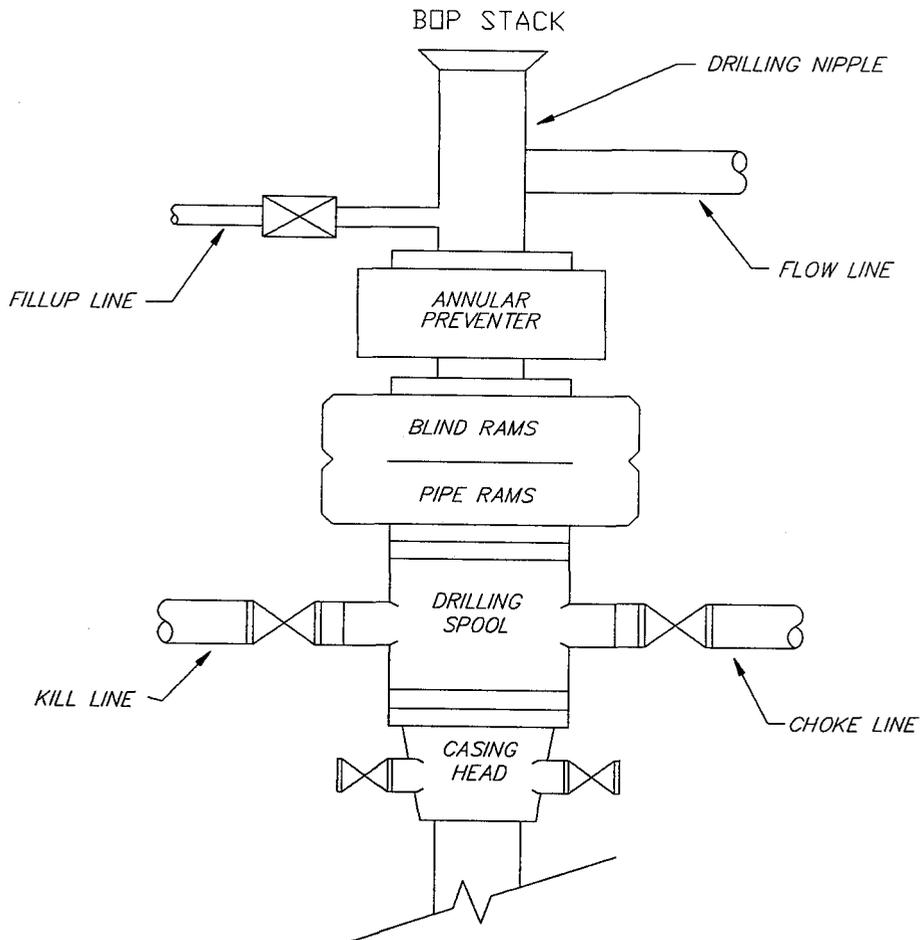
- d. Date well was placed in a producing status
- e. The nature of the wells production, i.e.: crude oil casing gas, or natural gas and entrained liquid hydrocarbons.
- f. The OCS, Federal or Indian lease prefix and number on which the well is located. Otherwise, the non-Federal or non-Indian land category, ie.: state or private.

Within sixty (60) days following construction of a new tank battery, a site facility diagram of the battery showing actual conditions and piping must be submitted to the Authorized Officer. Facility diagrams shall be filed within sixty (60) days after existing facilities are modified. For complete information as to what is required on these diagrams, please refer to 43 CFR 3162.7-4(d).

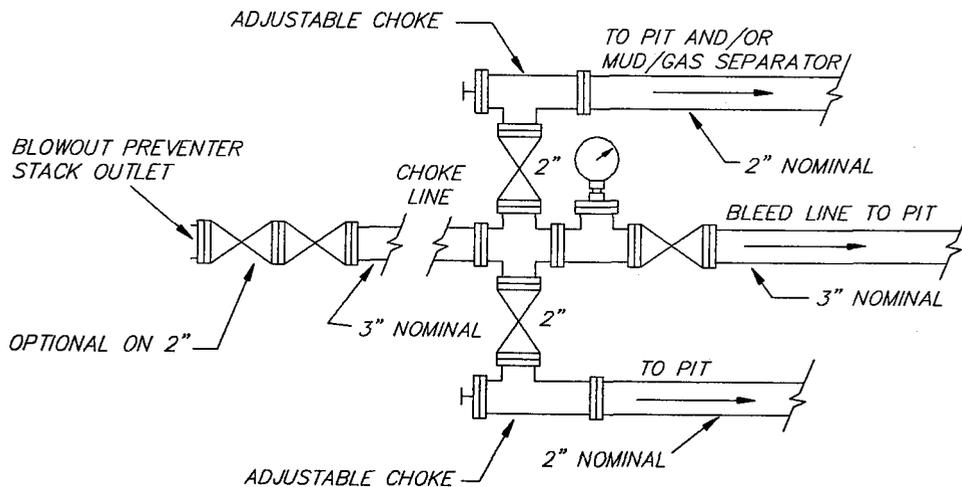
Pursuant to *Onshore Oil & Gas Order Number 1*, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in such a manner which conforms with applicable federal laws and regulations and with state and local laws and regulations to the extent that such State and local laws are applicable to operations on Federal and Indian lands.

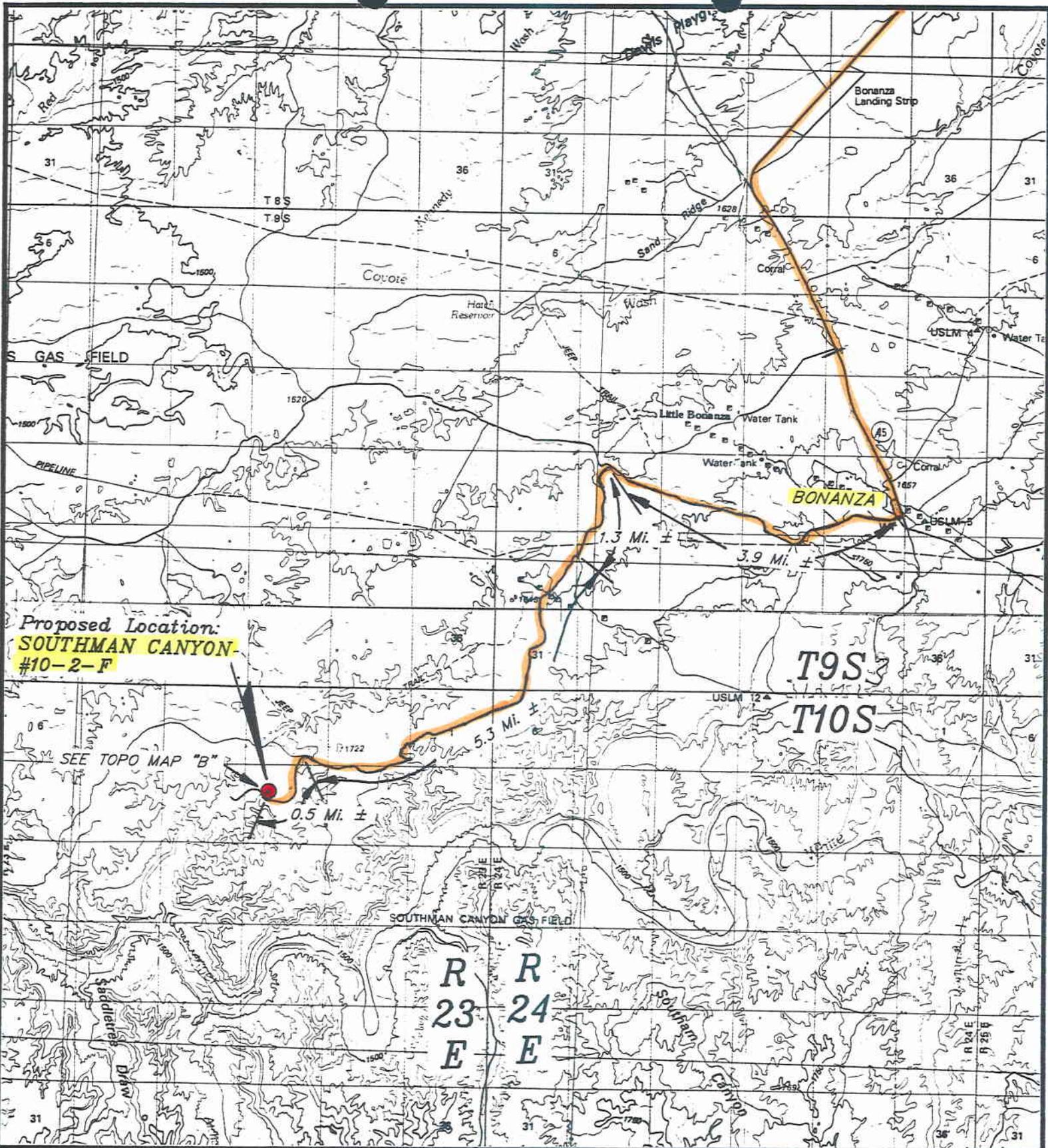
SNYDER OIL CORPORATION

TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER SCHEMATIC



TYPICAL 3,000 p.s.i. CHOKER MANIFOLD SCHEMATIC





Proposed Location:
SOUTHMAN CANYON
#10-2-F

SEE TOPO MAP "B"

SOUTHMAN CANYON GAS FIELD

T9S
T10S

R
23
E
R
24
E

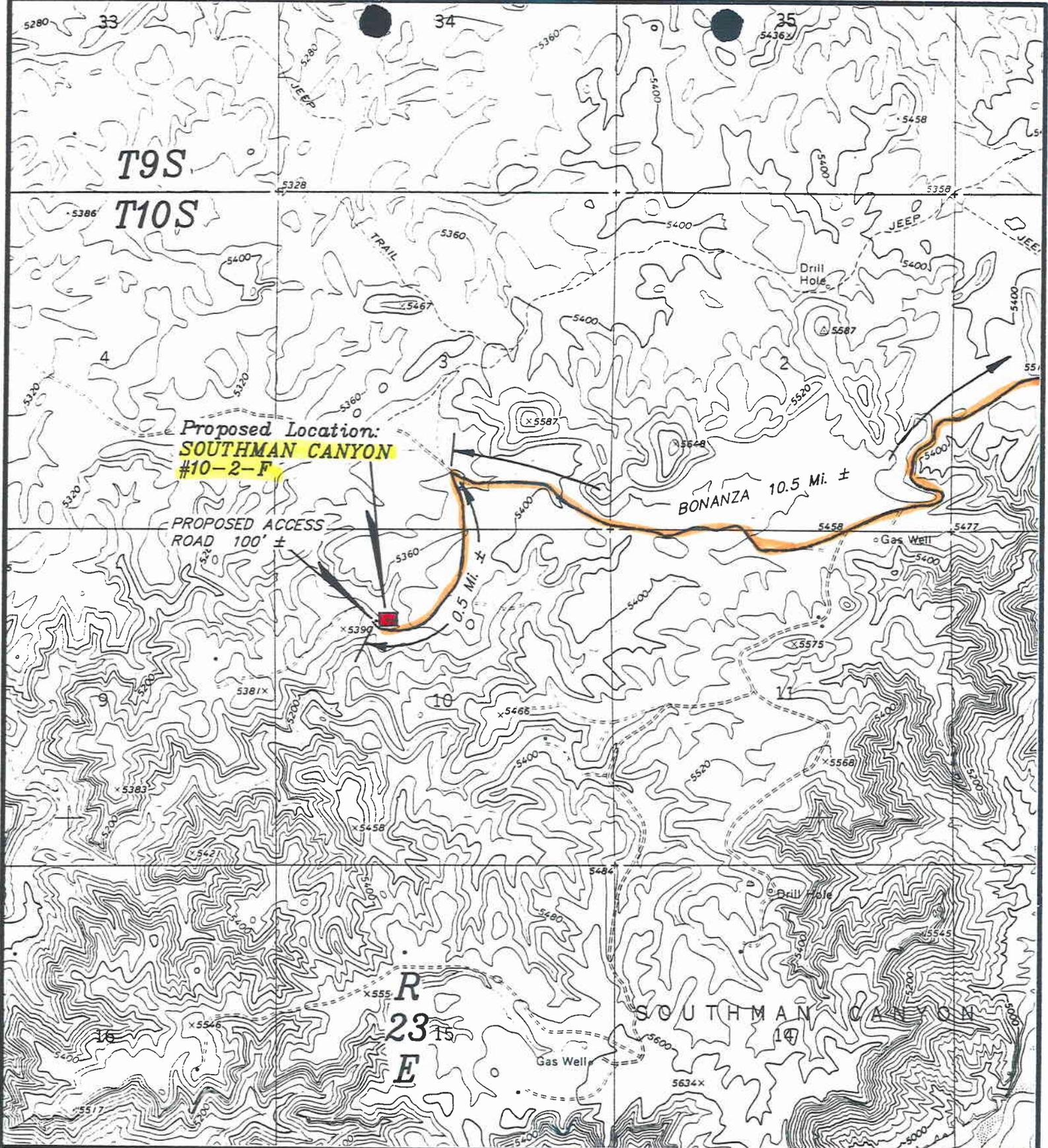
SNYDER OIL CORP.

SOUTHMAN CANYON #10-2-F
SECTION 10, T10S, R23E, S.L.B.&M.
1451' FNL 1746' FWL

TOPOGRAPHIC
MAP "A"

DATE: 5-2-94 C.B.T.

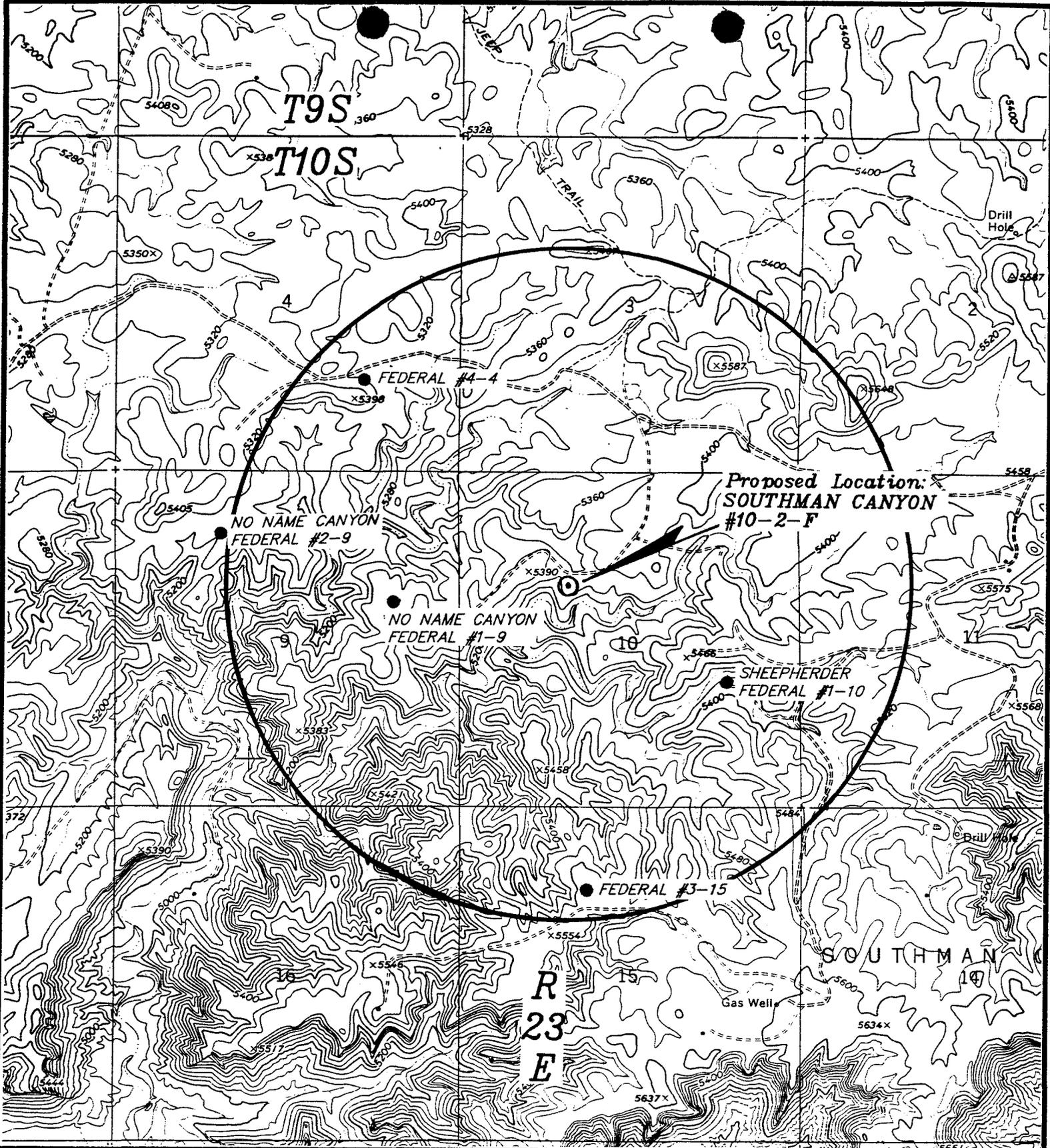




TOPOGRAPHIC
 MAP "B"
 SCALE: 1" = 2000'
 DATE: 5-18-94 C.B.T.



SNYDER OIL CORP.
 SOUTHMAN CANYON #10-2-F
 SECTION 10, T10S, R23E, S.L.B.&M.
 1451' FNL 1746' FWL



LEGEND:

- ⊙ = Water Wells
- = Abandoned Wells
- = Temporarily Abandoned Wells
- ⊙ = Disposal Wells
- = Drilling Wells
- = Producing Wells
- = Shut-in Wells



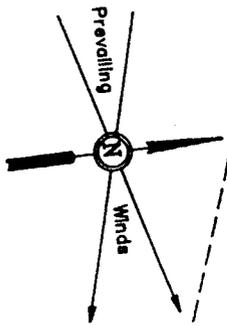
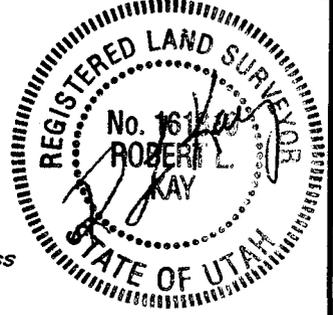
SNYDER OIL CORP.

SOUTHMAN CANYON #10-2-F
SECTION 10, T10S, R23E, S.L.B.&M.

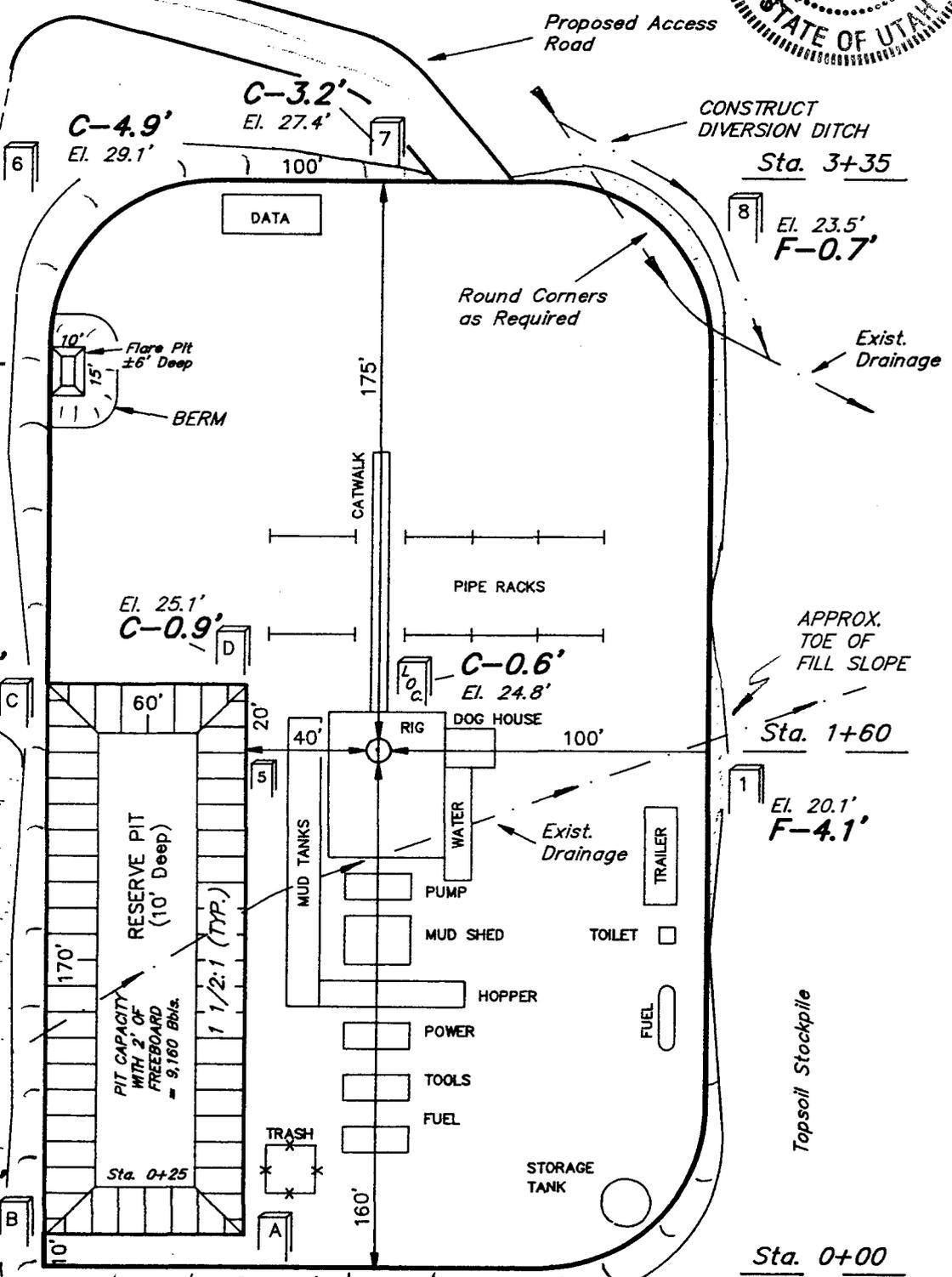
TOP O MAP "C"

DATE: 5-2-94 C.B.T.

SNYDER OIL CORP.
LOCATION LAYOUT FOR
SOUTHMAN CANYON #10-2-F
SECTION 10, T10S, R23E, S.L.B.&M.
1451' FNL 1746' FWL



SCALE: 1" = 50'
 DATE: 5-17-94
 Drawn By: D.J.S.

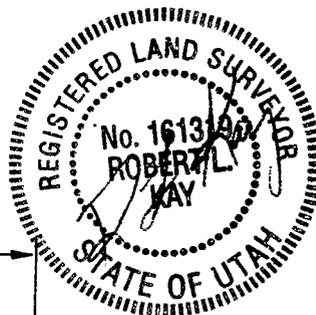


NOTE:
 FLARE PIT IS TO BE LOCATED A MINIMUM OF 100' FROM THE WELL HEAD.

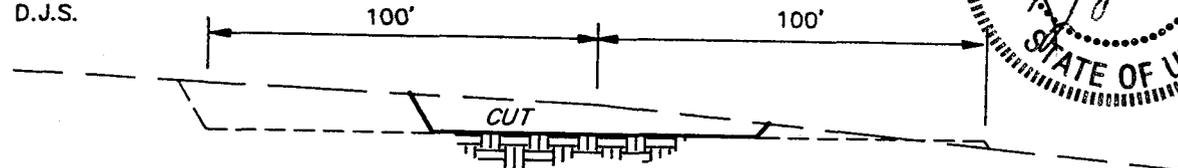
Elev. Ungraded Ground at Location Stake = **5324.8'**
 Elev. Graded Ground at Location Stake = **5324.2'**

FIGURE #1

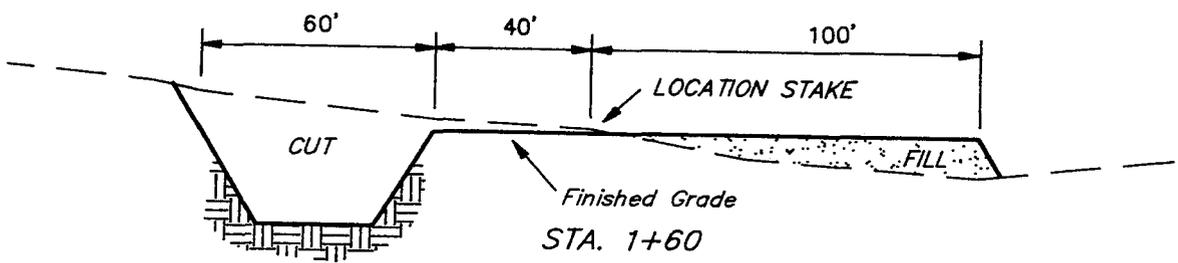
SNYDER OIL CORP.
TYPICAL CROSS SECTIONS FOR
SOUTHMAN CANYON #10-2-F
SECTION 10, T10S, R23E, S.L.B.&M.
1451' FNL 1746' FWL



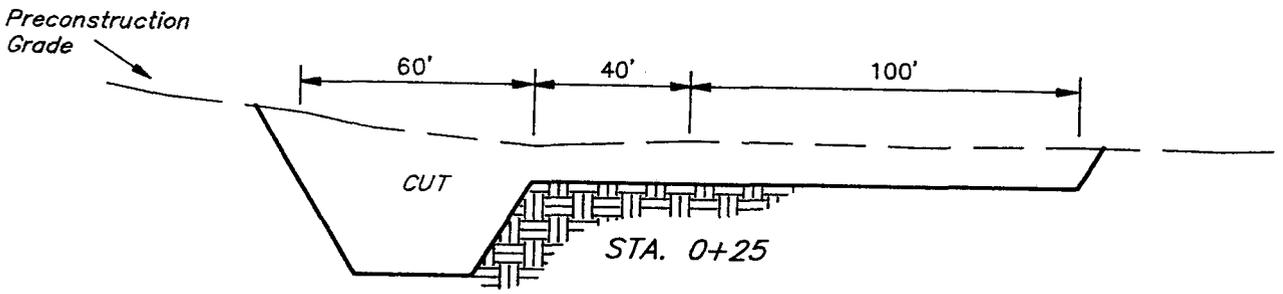
1" = 20'
 X-Section Scale
 1" = 50'
 DATE: 5-17-94
 Drawn By: D.J.S.



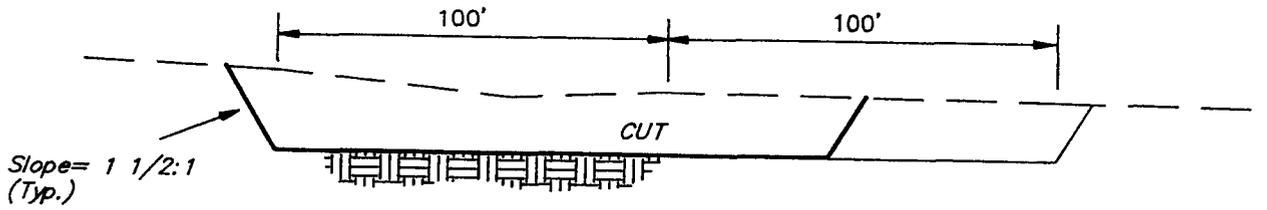
STA. 3+35



STA. 1+60



STA. 0+25



STA. 0+00

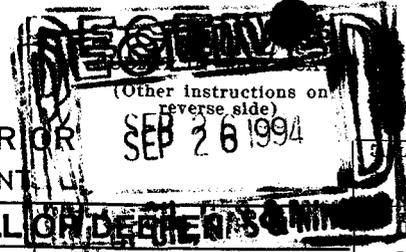
APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,240 Cu. Yds.
Remaining Location	= 7,990 Cu. Yds.
TOTAL CUT	= 9,230 CU.YDS.
FILL	= 2,030 CU.YDS.

EXCESS MATERIAL AFTER	
5% COMPACTION	= 7,090 Cu. Yds.
Topsoil & Pit Backfill	= 2,550 Cu. Yds.
(1/2 Pit Vol.)	
EXCESS CUT MATERIAL	= 4,540 Cu. Yds.

FIGURE #1A

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

LEASE DESIGNATION AND SERIAL NO. UTU-72028
INDIAN, ALLOTTEE OR TRIBE NAME _____

1a. TYPE OF WORK
DRILL DEEPEN

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

2. NAME OF OPERATOR
Snyder Oil Corporation Phone: (303) 592-8500

3. ADDRESS AND TELEPHONE NO.
1625 Broadway, Suite 2200; Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 1451' FNL, 1746' FWL (NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$) Section 10, T10S, R23E
At proposed prod. zone Same as above.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approximately ten (10) miles southwest of Bonanza, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1451'

16. NO. OF ACRES IN LEASE 160.00

17. NO. OF ACRES ASSIGNED TO THIS WELL 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2750' ±

19. PROPOSED DEPTH 8130'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5325' GR

22. APPROX. DATE WORK WILL START* November 1, 1994

23. PROPOSED CASING AND CEMENTING PROGRAM (All New)

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55	24.0#	0-400'	300 sx circulated to surface *
7-7/8"	4-1/2" M-75	11.6#	0-8130'	1538 sx cement

* Cement volumes may change due to hole size. Calculate from Caliper Log.

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED.

I hereby certify that Snyder Oil Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the Southman Canyon Federal #10-2-F, Federal Lease #UTU-72028. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Snyder Oil Corporation, Nationwide Bond #WY-2272, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Tim A. Burns TITLE Drilling Engineer DATE August 11, 1994

(This space for Federal or State office use)

PERMIT NO. 43-047-32553 APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY: _____

APPROVED BY _____ TITLE _____

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 10/11/94
BY: J.P.V. Matthews
WELL SPACING: 179-7

*See Instructions On Reverse Side

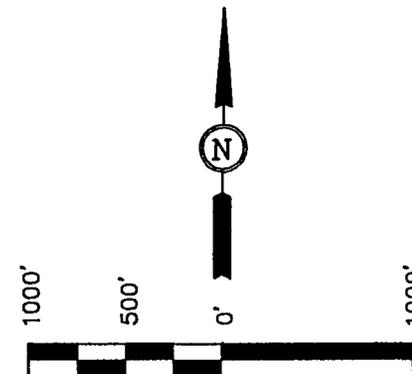
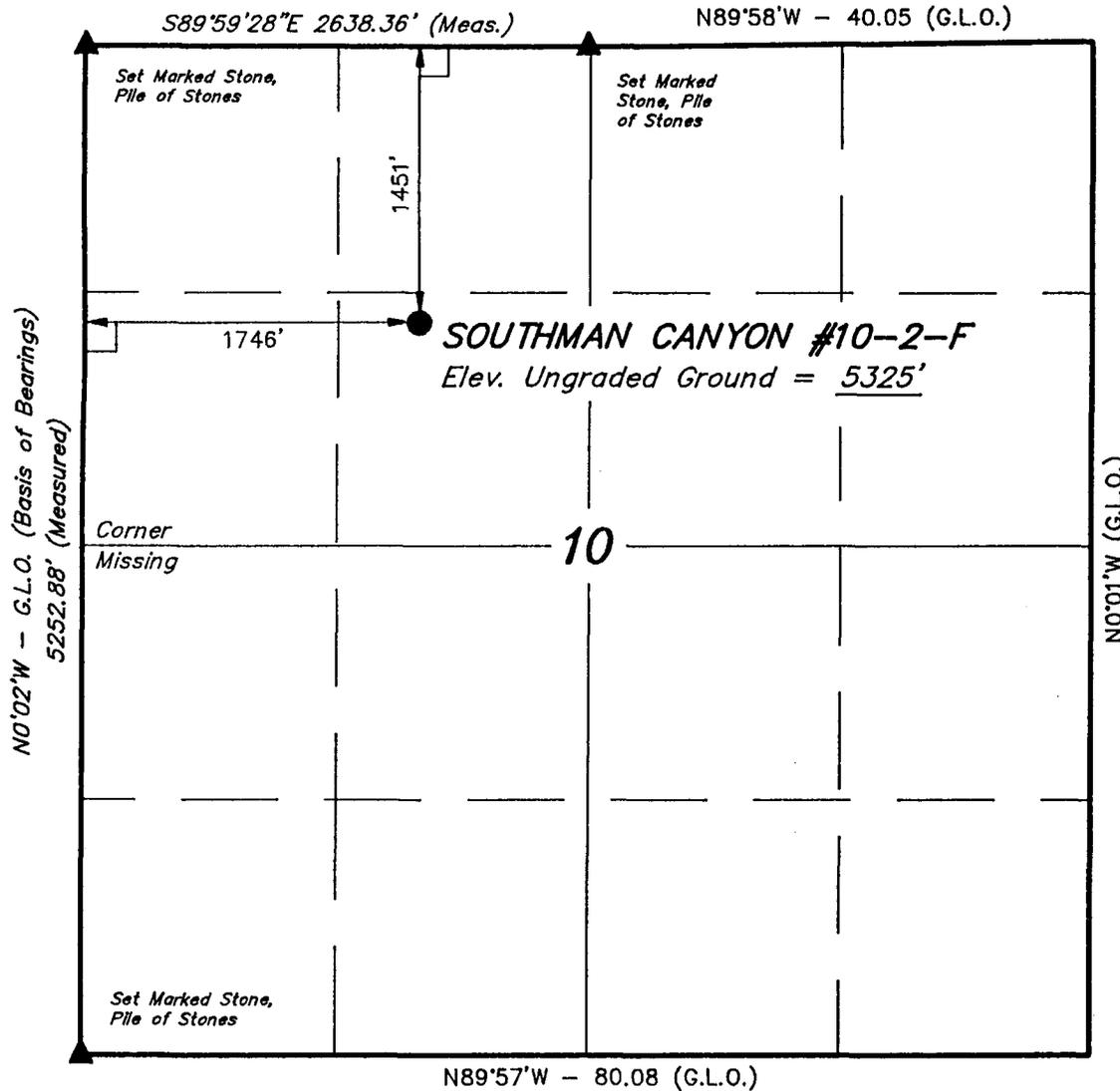
T10S, R23E, S.L.B.&M.

SNYDER OIL CORP.

Well location, SOUTHAM CANYON #10-2-F, located as shown in the SE 1/4 NW 1/4 of Section 10, T10S, R23E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 57 EAM LOCATED IN THE NE 1/4 OF SECTION 10, T10S, R,23E S.L.B.&M. TAKEN FROM THE RED WASH SE, QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5192 FEET.



CERTIFICATE

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

Robert L. Gray
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (801) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 4-27-94	DATE DRAWN: 5-17-94
PARTY L.D.T. G.O. D.J.S.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE SNYDER OIL CORP.	

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 09/26/94

API NO. ASSIGNED: 43-047-32553

WELL NAME: SOUTHMAN CANYON 10-2-F
OPERATOR: SNYDER OIL CORPORATION (N1305)

PROPOSED LOCATION:
 SENW 10 - T10S - R23E
 SURFACE: 1451-FNL-1746-FWL
 BOTTOM: 1451-FNL-1746-FWL
 UINTAH COUNTY
 NATURAL BUTTES FIELD (630)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED
LEASE NUMBER: UTU-72028

PROPOSED PRODUCING FORMATION: WSMVD

RECEIVED AND/OR REVIEWED:

Y Plat
Y Bond: Federal [Y State [] Fee []
 (Number WY-2272)
N Potash (Y/N)
N Oil shale (Y/N)
Y Water permit
 (Number _____)
 RDCC Review (Y/N)
 (Date: _____)

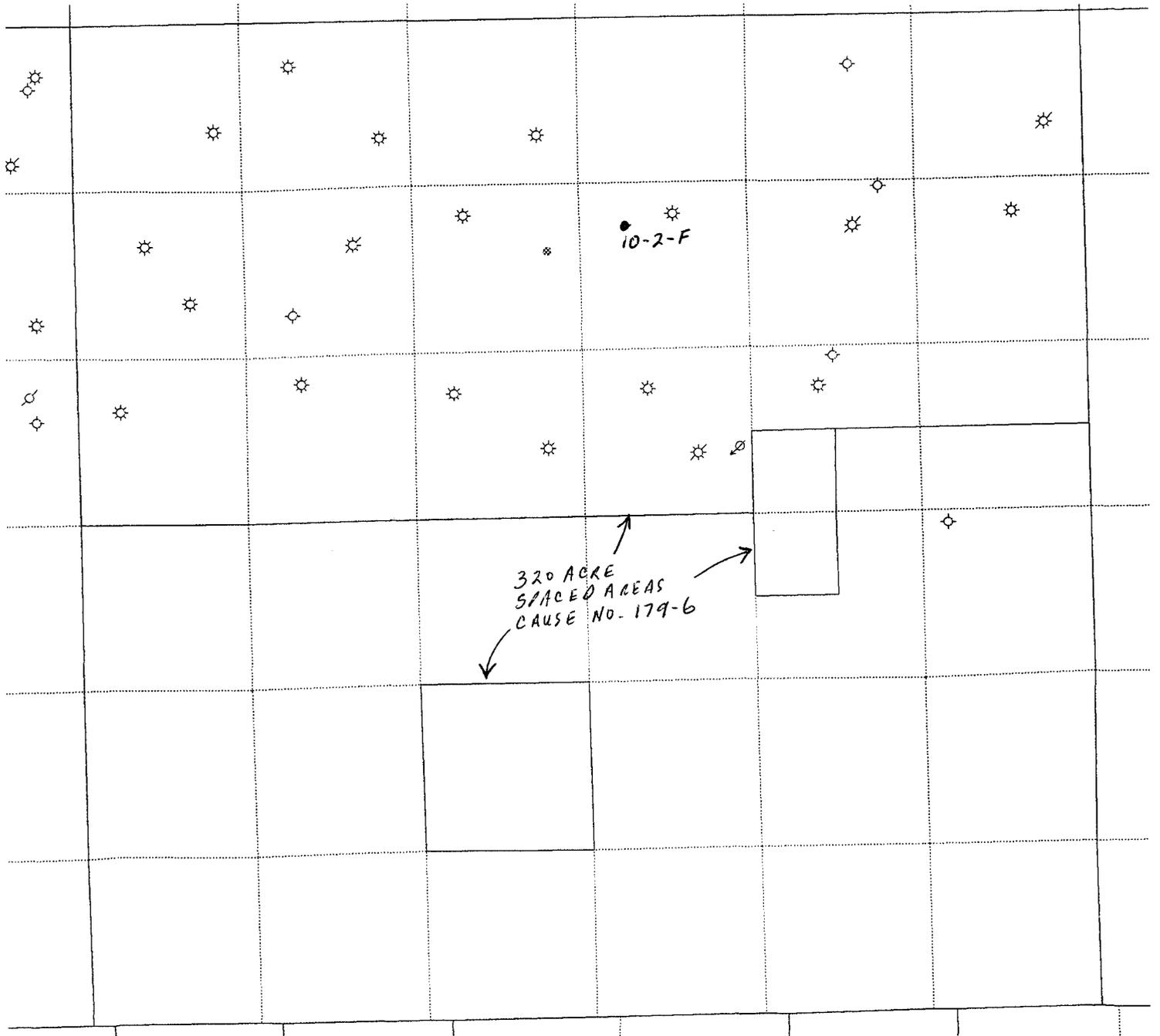
LOCATION AND SITING:

___ R649-2-3. Unit: _____
 ___ R649-3-2. General.
 ___ R649-3-3. Exception.
 Drilling Unit.
 Board Cause no: 179-7
 Date: 5/27/94

COMMENTS: _____

STIPULATIONS: _____

SNYDER OIL CORP
SOUTHMAN CANYON DEVELOPMENT
SECTIONS 4,5,8,10 T10S, R23E
UINTAH COUNTY





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

October 11, 1994

Snyder Oil Corporation
1625 Broadway, Suite 2200
Denver, Colorado 80202

Re: Southman Canyon 10-2-F Well, 1451' FNL, 1746' FWL, SE NW, Sec. 10, T. 10 S., R. 23 E., Uintah County, Utah

Gentlemen:

Pursuant to the order issued by the Board of Oil, Gas and Mining in Cause No. 179-7 dated May 27, 1994, and Utah Admin. R.649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

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

1. Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules.
2. Notification to the Division within 24 hours after drilling operations commence.
3. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.
4. Submittal of the Report of Water Encountered During Drilling, Form 7.
5. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or K. Michael Hebertson, Reclamation Specialist, (Home) (801)269-9212.

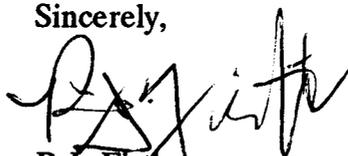


Page 2
Snyder Oil Corporation
Southman Canyon 10-2-F Well
October 11, 1994

6. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-047-32553.

Sincerely,



R.J. Firth
Associate Director

ldc
Enclosures
cc: Uinatah County Assessor
Bureau of Land Management, Vernal District Office
WOI1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

DOGMA

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

OCT 17 1994

1a. TYPE OF WORK

DRILL

DEEPEN

DEPT. OF OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.

UTU-72028

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Not Applicable

7. UNIT AGREEMENT NAME

Not Applicable

8. FARM OR LEASE NAME, WELL NO.

Southman Canyon 10-2-F

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT

Southman Canyon

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

Section 10, T10S, R23E

12. COUNTY OR PARISH 13. STATE

Uintah Utah

b. TYPE OF WELL

OIL WELL

GAS WELL

OTHER

SINGLE ZONE

MULTIPLE ZONE

2. NAME OF OPERATOR

Snyder Oil Corporation

Phone: (303) 592-8500

3. ADDRESS AND TELEPHONE NO.

1625 Broadway, Suite 2200; Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1451' FNL, 1746' FWL (NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$) Section 10, T10S, R23E

At proposed prod. zone

Same as above.

43-047-32553

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approximately ten (10) miles southwest of Bonanza, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any) 1451'

16. NO. OF ACRES IN LEASE

160.00

17. NO. OF ACRES ASSIGNED TO THIS WELL

80

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

2750' ±

19. PROPOSED DEPTH

8130'

20. ROTARY OR CABLE TOOLS

Rotary

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

5325' GR

22. APPROX. DATE WORK WILL START*

November 1, 1994

23. PROPOSED CASING AND CEMENTING PROGRAM (All New)

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55	24.0#	0-400'	300 sx circulated to surface *
7-7/8"	4-1/2" M-75	11.6#	0-8130'	1538 sx cement

SEP 26 1994

* Cement volumes may change due to hole size. Calculate from Caliper Log.

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED.

I hereby certify that Snyder Oil Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the Southman Canyon Federal #10-2-F, Federal Lease #UTU-72028. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Snyder Oil Corporation, Nationwide Bond #WY-2272, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

SIGNED Tim A. Burns TITLE Drilling Engineer DATE August 11, 1994

(This space for Federal or State office use)

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

PERMIT NO.

NOTICE OF APPROVAL

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

Harold R. Cleavage

TITLE

ASSISTANT DISTRICT MANAGER MINERALS

DATE

OCT 12 1994

Ut 080-4m-155

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

OCT 17 1992

DEPT. OF OIL, GAS & MINING

Company/Operator: Snyder Oil Corporation

Well Name & Number: Southman Canyon 10-2-F

API Number: 43-047-32553

Lease Number: UTU-72028

Location: SENW Sec. 10 T.10S R. 23E

NOTIFICATION REQUIREMENTS

- Location Construction - at least forty-eight (48) hours prior to construction of location and access roads.
- Location Completion - prior to moving on the drilling rig.
- Spud Notice - at least twenty-four (24) hours prior to spudding the well.
- Casing String and Cementing - at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and Related Equipment Tests - at least twenty-four (24) hours prior to initiating pressure tests.
- First Production Notice - within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

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

Report ALL water shows and water-bearing sands to Tim Ingwell of this office. Copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

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

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a 3M system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

The Vernal District Office shall be notified, at least 24 hours prior to initiating the pressure tests, in order to have a BLM representative on location during pressure testing.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Mahogany Oil Shale zone, identified at \pm 2051 ft.. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

The Vernal District Office shall be notified at least 24 hours prior to the running and cementing of all casing strings, in order to have a BLM representative on location while running and cementing all casing strings.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

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

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to \pm 1851 ft. and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours prior to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

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

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

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the appropriate District Office within thirty (30) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

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

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

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried or anchored down from the wellhead to the meter and within 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

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

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approvals are necessary, please contact one of the following individuals:

Ed Forsman (801) 789-7077
Petroleum Engineer

Wayne Bankert (801) 789-4170
Petroleum Engineer

BLM FAX Machine (801) 781-4410

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

Well: Southman Canyon 10-2F

CONDITIONS OF APPROVAL

Surface Use Plan of Operations

A silt catchment dam and basin will be constructed according to BLM specifications approximately 200 feet northwest of the location, where flagged.

Avoid archaeology site north of the pad when constructing the catchment dam. This site is plotted NNE of the location in the Arch Report (42 UN 2109 Site Number).

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INDIVIDUAL WELL RECORD

	o		
	10		

Sec. 10

T. 10S

R. 23E

SLB+ Mer.

Ref. No. _____

Date October 13, 1994

FEDERAL

State Utah

Lease No. U-72028

County Uintah

Lessee Snyder Oil

Field Southman Canyon

Operator Snyder Oil

Unit/CA _____

Well Name & No. 10-2-F

District Vernal

A.P.I. Well No. 43-047-32553

Subdivision SENW

Location 1451' FNL & 1746' FWL

Date Drilling Approved October 12, 1994

Well Elevation 5325' GR Feet

Date Drilling Commenced _____

Total Depth _____ Feet

Date Drilling Ceased _____

Initial Production _____

Date Completed For Production _____

Gravity A.P.I. _____

Date Abandonment Approved (Final) _____

Initial Reservoir Pressure _____

GEOLOGIC FORMATIONS

PRODUCTIVE HORIZONS

SURFACE

LOWEST TESTED

NAME

DEPTHS

CONTENTS

SURFACE MANAGEMENT AGENCY	<u>BLM</u>
MINERAL OWNERSHIP	<u>FED</u>
LEASE EXPIRATION	<u>6/30/2003</u>

WELL STATUS

YEAR	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.

First Production Memorandum _____ Lease Extension Memorandum _____ Confirmation _____

Remarks _____

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

PHONE CONVERSATION DOCUMENTATION FORM

This is the original form or a copy

Route this form to:

WELL FILE See Below

SUSPENSE

OTHER

Return date _____

MKH

To: initials _____

Section _____ Township _____ Range _____

API number _____

Date of phone call: 10/16/95

Time: 8:30 Am t

DOGME employee (name) Don Staley

Initiated call?

Spoke with:

Name SALLY

Initiated call?

of (company/organization) BLM - Vernal

Phone no. 801-781-4400

Topic of conversation: Rescind / Extension of APDs

Highlights of conversation: _____

According to Sally, Snyder Oil Corp. has requested a one year extension for the following APDs:

<u>Southman Canyon</u>	<u>4-2-L</u>	<u>43-047-32550</u>	<u>4-105-23E</u>
<u>"</u>	<u>" 5-3-H</u>	<u>} - } - 32551</u>	<u>5-105-23E</u>
<u>"</u>	<u>" 8-3-D</u>	<u>} - } - 32552</u>	<u>8-105-23E</u>
<u>"</u>	<u>" 10-2-F</u>	<u>} - } - 32553</u>	<u>10-105-23E</u>
<u>Horse shoe Bend</u>	<u>6-12</u>	<u>} - } - 32578</u>	<u>6-75-22E</u>



Snyder Oil Corporation

P.O. Box 695
Vernal, Utah 84078
801/789-0323

February 29, 1996

Utah State Division of Oil Gas & Mining
3 Triad Center, Suite #350
355 W. North Temple
Salt Lake City, UT 84180-1203

MAR - 1 1996

RE: Site Security Diagrams

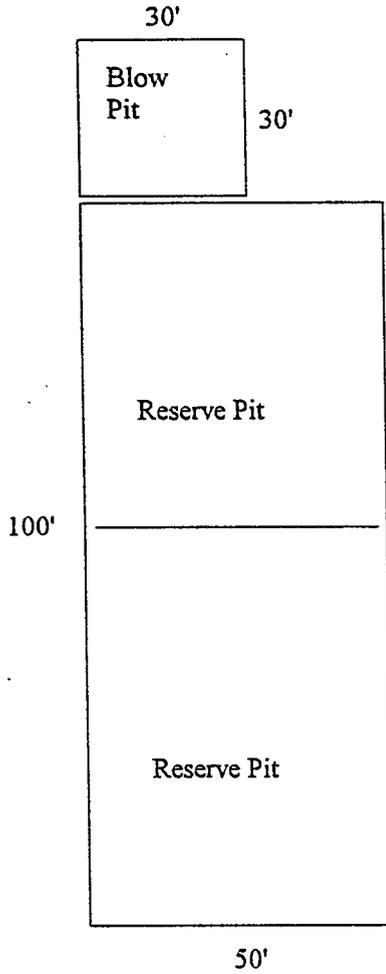
Gentlemen:

Enclosed are copies of Site Security Diagrams for wells operated by Snyder Oil Corporation. We will send you copies of the rest of the diagrams when we receive them from Buys and Associates. If you have any questions, please contact me at 801-789-0323.

Sincerely,

A handwritten signature in cursive script that reads 'Lucy Nemecek'.

Lucy Nemecek
Senior Clerk



SITE SECURITY PLAN LOCATED AT:

SNYDER OIL CORPORATION
P.O. BOX 695
VERNAL, UT 84078

42-097-32557

Snyder Oil Corporation

SOUTHMAN CANYON 10-2F
SE NW SEC 10 T10S R23E
UINTAH, COUNTY, UT
Lease # U-72028

Prepared By: TM 01/15/96

BUYS & ASSOCIATES, INC.
Environmental Consultants

SNYDER OIL CORPORATION

VALVING DETAIL

(Site Security Diagram Attachment)

Position of Valves and Use of Seals for Tanks in Production Phase

Valve	Line Purpose	Position	Seal Installed
E	Overflow/Equalizer	Closed	Yes
F	Fill	Open	No
W	Water	Closed	Yes
D	Drain	Closed	Yes
S	Sales	Closed	Yes

Position of Valves and Use of Seals for the Tank in Sales Phase

Valve	Line Purpose	Position	Seal Installed
E	Overflow/Equalizer	Closed	Yes
F	Fill	Closed	Yes
W	Water	Closed	Yes
D	Drain	Closed	Yes
S	Sales	Closed*	Yes

*The sales line will be opened by the purchaser at the time of sale. Until that time the sales line will remain closed and sealed.

12/6/96

United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Vernal District Office

170 South 500 East

Vernal, Utah 84078-2799

Phone: (801) 781-4400

Fax: (801) 781-4410

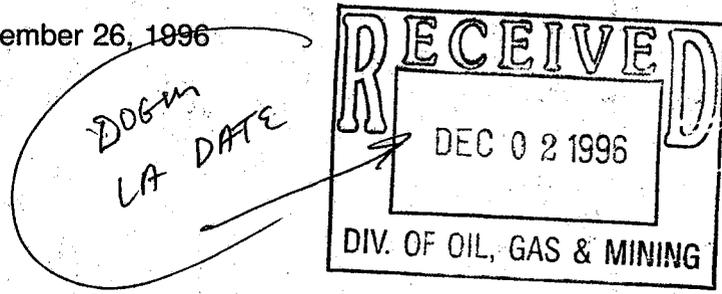
IN REPLY REFER TO:

3162

UT08438

November 26, 1996

Snyder Oil Corporation
1625 Broadway, Suite 2200
Denver, CO 80202



Re: Notification of Expiration
Well No. Southman Canyon 10-2-F
Section 10, T10S, R23E
Lease No. U-72028
Duchesne County, Utah

42-047-32553

Gentlemen:

The Application for Permit to Drill the above-referenced well was approved on October 12, 1994. Snyder Oil Corporation requested an extension of the original APD approval for an additional year. The request was reviewed and the extension approved until October 12, 1996. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you the approval of the referenced application has expired. If you intend to drill at this location at 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 be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,

Margie Herrmann
Legal Instruments Examiner

cc: State Div. OG&M
Snyder, Vernal Office

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reser
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

UTU-72028

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

1. Type of Well

Oil Well Gas Well Other

8. Well Name and No.

SOUTHMAN CANYON 10-2-F

9. API Well No.

47-047-32553

2. Name of Operator

SNYDER OIL CORPORATION

3. Address and Telephone No.

1625 Broadway, Suite 2200, Denver, CO 80202

10. Field and Pool, or Exploratory Area

SOUTHMAN CANYON

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1451' FWL & 1746' FWL

NWSENW Sec. 10-T10S-R23E

11. County or Parish, State

UINTAH, UTAH

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHE

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Reclamation</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

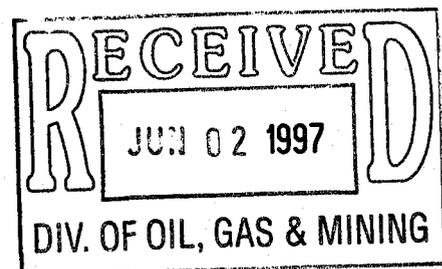
(Note: Report results of multiple completion Completion or Recompletion Report and Lo

13. 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 direc ally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Snyder Oil Corporation completed the following work on this well on 5/1/97:

- 1) Pushed dirt back onto location
- 2) Restored original grade on road & location and
- 3) Spread top soil evenly over all road & location area.

Native plant seeds will be broadcast over reclaimed road and location in September, 1997.



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

Signed

[Signature]

Title **Sr. Operations Engineer**

Date **28-May-97**

(This space for Federal or State office use)

Approved by _____

Title _____

Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side