

FILE NOTATIONS

Entered in MID File ✓
Location Map Pinned
Card Indexed ✓

Checked by Chief
Approval Letter
Disapproval Letter

COMPLETION DATA:

Well Completed
..... WW..... WA.....
..... OS..... PA.....

Location Inspected
Bond released
State or Fee Land

LOGS FILED

Driller's Log.....
Electric Logs (No.)
E..... I..... Dual I Lat..... GR-M..... Micro.....
BHC Sonic GR..... Lat..... MI-L..... Sonic.....
GBLog..... GCLog..... Others.....

McCulloch Oil and Gas Corporation



July 27, 1979

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

Attn: Mr. Clem B. Fight



Re: McCulloch Oil and Gas Corp.
Federal 19 Well No. 2
1150' FNL & 1050' FWL
Sec. 19, T38S, R26E
San Juan County, Utah

Dear Sir:

Please accept this letter as request for a non-standard location for the subject well. This request is necessitated in order to maintain maximum geological control. The attached plat show the seismic line run across Section 19. It is desirous to drill the proposed well on or at least very near this seismic line.

The ownership of all oil and gas leases within a radius of 660 feet of the proposed location is common with the ownership of the oil and gas leases under the proposed location.

Yours very truly

W.R. Lynn

WRL/ly

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
 McCulloch Oil & Gas Corporation

3. ADDRESS OF OPERATOR
 3033 NW 63rd St. Suite 250-F

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 1150' FNL & 1050' FWL of Section 19, T38S - R26E

At proposed prod. zone
 Same as above NW NW

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

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

16. NO. OF ACRES IN LEASE
 1320

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

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

19. PROPOSED DEPTH
 5700' *akan*

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5104' GR

22. APPROX. DATE WORK WILL START*
 September 1, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36#	300	300 sacks
7 7/8"	4 1/2"	10.5#	5700'	300 sacks

Additional information attached.

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 W.R. Lynn TITLE Dist. Drlg. Engr. DATE 7-25-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

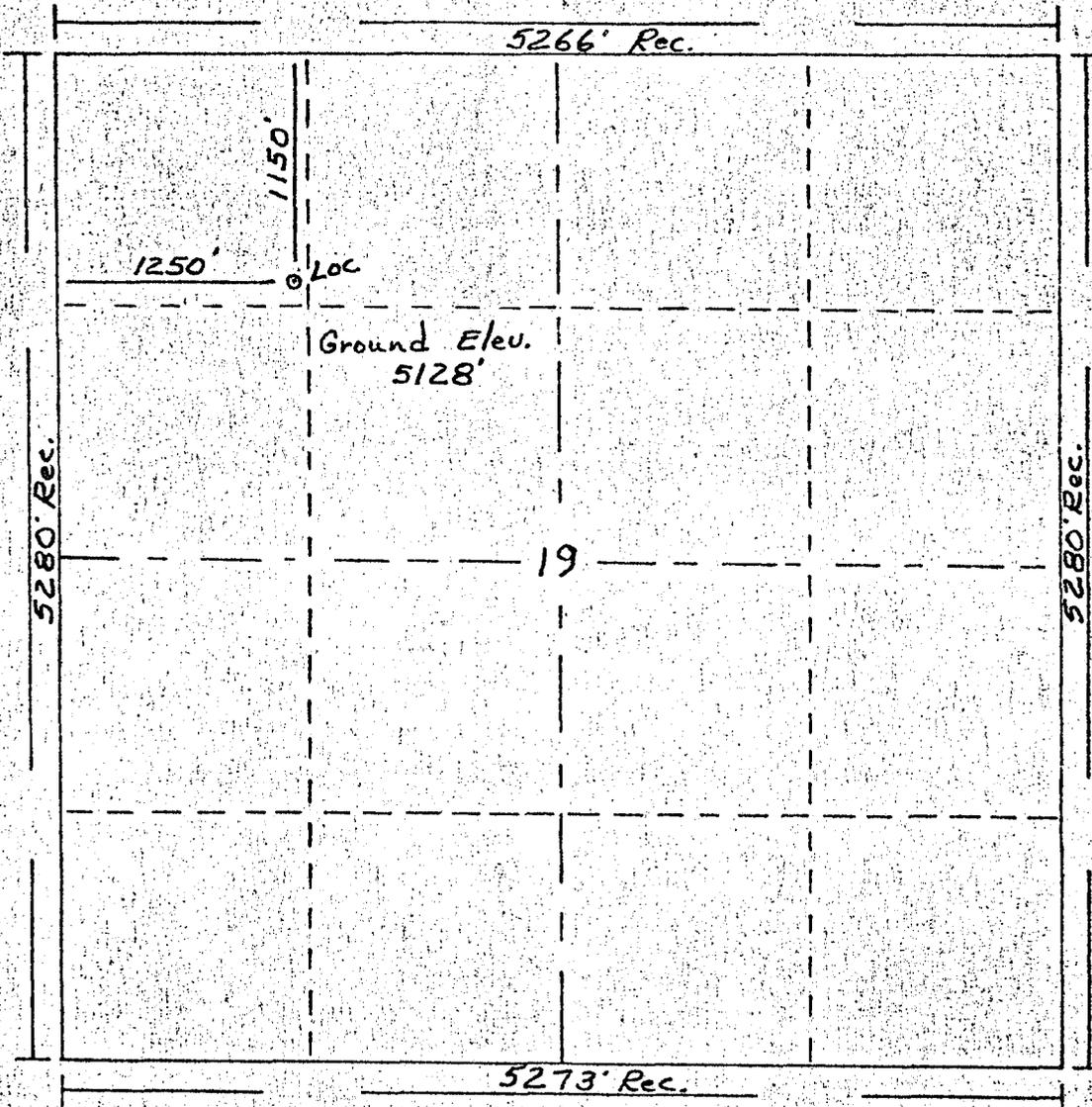
APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side



R. 26 E.



T. 38 S.

Alt. Loc.
 1150 FNL
 1050 FWL
 Elev. 5104

Scale... 1" = 1000'

Powers Elevation Company, Inc. of Denver, Colorado
 has in accordance with a request from Dick Lynn
 for Mc Culloch Oil & Gas Co.

determined the location of 2-19 Federal
 to be 1150 FNL + 1250 FWL Section 19 Township 38 S.
 Range 26 E. Salt Lake Meridian
 San Juan County, Utah

I hereby certify that this plat is an
 accurate representation of a correct
 survey showing the location of 2-19 Federal

Date: 7-18-79

T. Nelson
 Licensed Land Surveyor No 2716
 State of Utah

McCULLOCH OIL & GAS CORPORATION

Formation Information and Drilling Procedures
(continuation of Item 23 Form 9-331C)

WELL

Federal 19 No. 2

LOCATION

1150' FNL & 1050' FWL
Section 19, T38S, R26E
San Juan County, Utah

Federal Lease Number U 40406

1. Geologic name of Surface Formation
Morrison Sandstone

2. Estimated Tops of Important Geologic Markers

Jurassic	Curtis	480'	
	Entrada	580'	
	Carmel	710'	
	Triassis	Navajo	735'
		Kayenta	980'
Permian Penn.		Wingate	1080'
		Chinle	1350'
		Shinarump	2275'
		Moenkopi	2340'
		Cutler	2455'
		U. Hermosa	4205'
		Paradox	5165'
		U. Ismay	5330'
		L. Ismay	5520'
		Desert Creek	5585'
	Akah	5695'	
	Total Depth	5700'	

3. Estimated Depths at which Anticipated Water, Oil, Gas, or Other Mineral Bearing Formations are Expected

700'	Water
2200'	Water
5330'	Oil and Gas
5650'	Oil and Gas

4. Proposed Casing and Cementing Program

Surface Casing: 9 5/8", 36 lb/ft, K-55, ST&C new casing to be set at 300' and cemented to surface with 300 sacks of Class "B" cement containing 2% CaCl₂.

Production Casing: 4 1/2", 10.5 lb/ft, K-55, ST&C new casing to be set at 5700' and cemented with 300 sacks 50:50 pozmix cement containing 10% salt and 0.75% CFR-2. If water flows are encountered in the upper formations, a two stage cementing operation will be performed. The first stage will be as outlined above and the second stage will consist of approximately 400 sacks of lite cement followed by 100 sacks of Class "B" neat cement pumped through a cementing stage tool set 100' below the water flow.

5. Specifications for Pressure Control Equipment

The attached schematic drawings show the pressure control equipment to be used while drilling. All equipment is rated at 3000 psi. The blowout preventer will be tested to 1000 psi prior to drilling from under the surface casing by applying pressuring through a casing valve with the blind rams closed. This procedure will be repeated with the pipe rams closed on a joint of drill pipe. Operation of the hydraulic system will be checked daily.

6. Drilling Fluids

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Water Loss</u>
0 - 300'	Gel-lime	8.6 - 9.0	35-- 40	NC
300 - 5000'	Low solids	8.6 - 9.0	28 - 30	NC - 15
5000 - T.D.	Gel-Chem.	9.0 - 11.0	35 - 45	6 - 8

7. Logging, Coring, and Testing Program

Logging: Dual Induction Laterolog, Gamma Ray Sonic Log, Gamma Ray Compensated Neutron Formation Density Log, and High Resolution Dipmeter.

Coring: The Upper Ismay interval from approximately 5330' to 5450' will be cored.

Drill Stem Tests: DST will be conducted only as warranted by indications of porosity and shows. Most probable candidates will be the Upper Ismay and Desert Creek Formations.

8. Abnormal Pressures, Temperatures, or Potential Hazards

No abnormal pressures or temperatures are expected; however, the precautionary measures listed below will be taken immediately prior to and while drilling the Desert Creek formation.

- Test pressure control equipment to 1000 psi.
- Raise mud weight to at least 11.0 ppg prior to drilling into the Desert Creek formation.
- Check for flow after cutting 5' of a drilling break.
- Have on location adequate water, barite, gel, and chemicals to raise mud weight to 12.5 ppg.
- Have 24 hour supervision on location.

None of the formations to be penetrated are expected to contain any hazardous gasses.

9. Starting Date

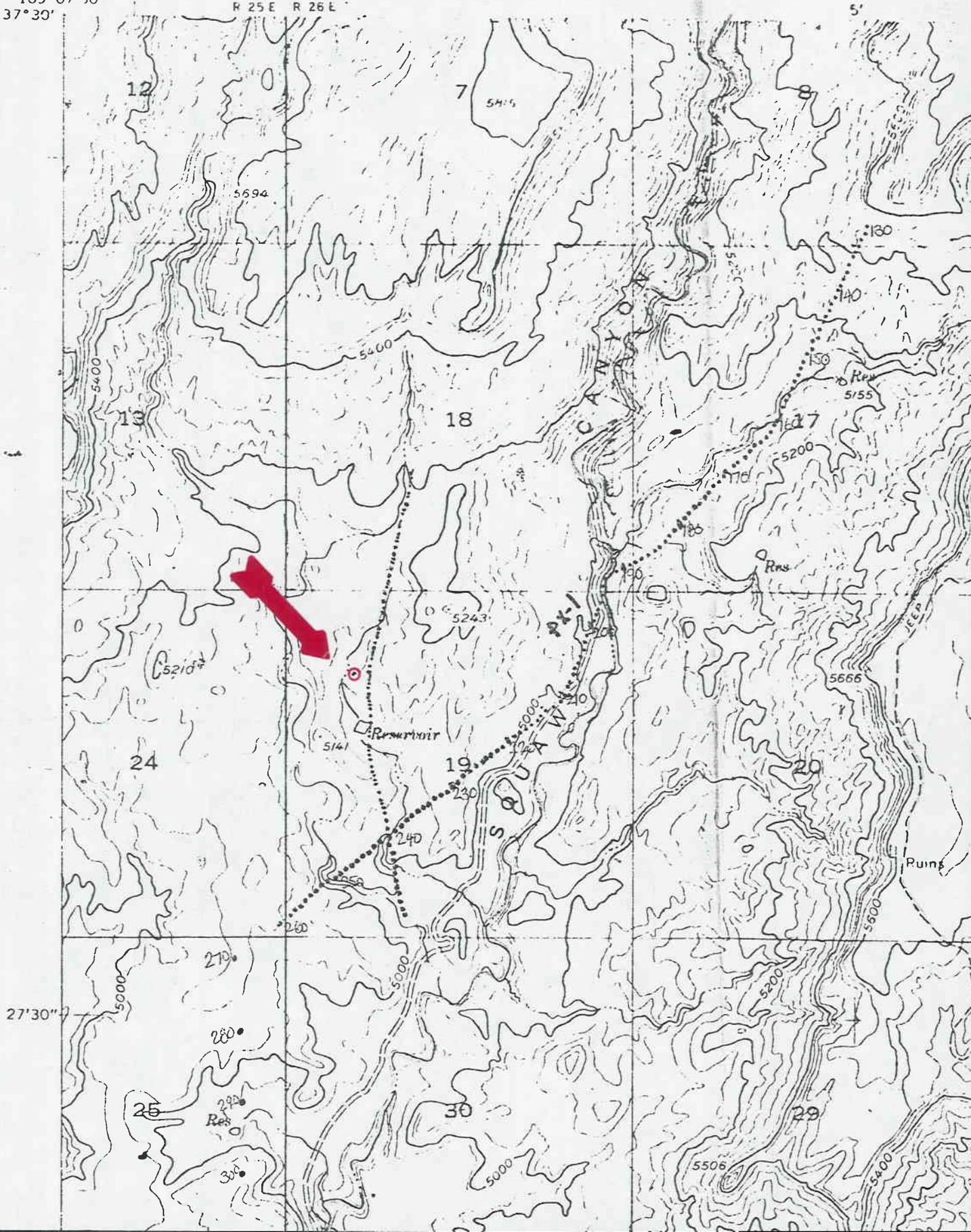
The anticipated starting date is September 1, 1979. Approximately 30 days will be required to build roads and location and then drill the well to total depth. If commercial, completion operations will commence immediately and require an additional 15 days.

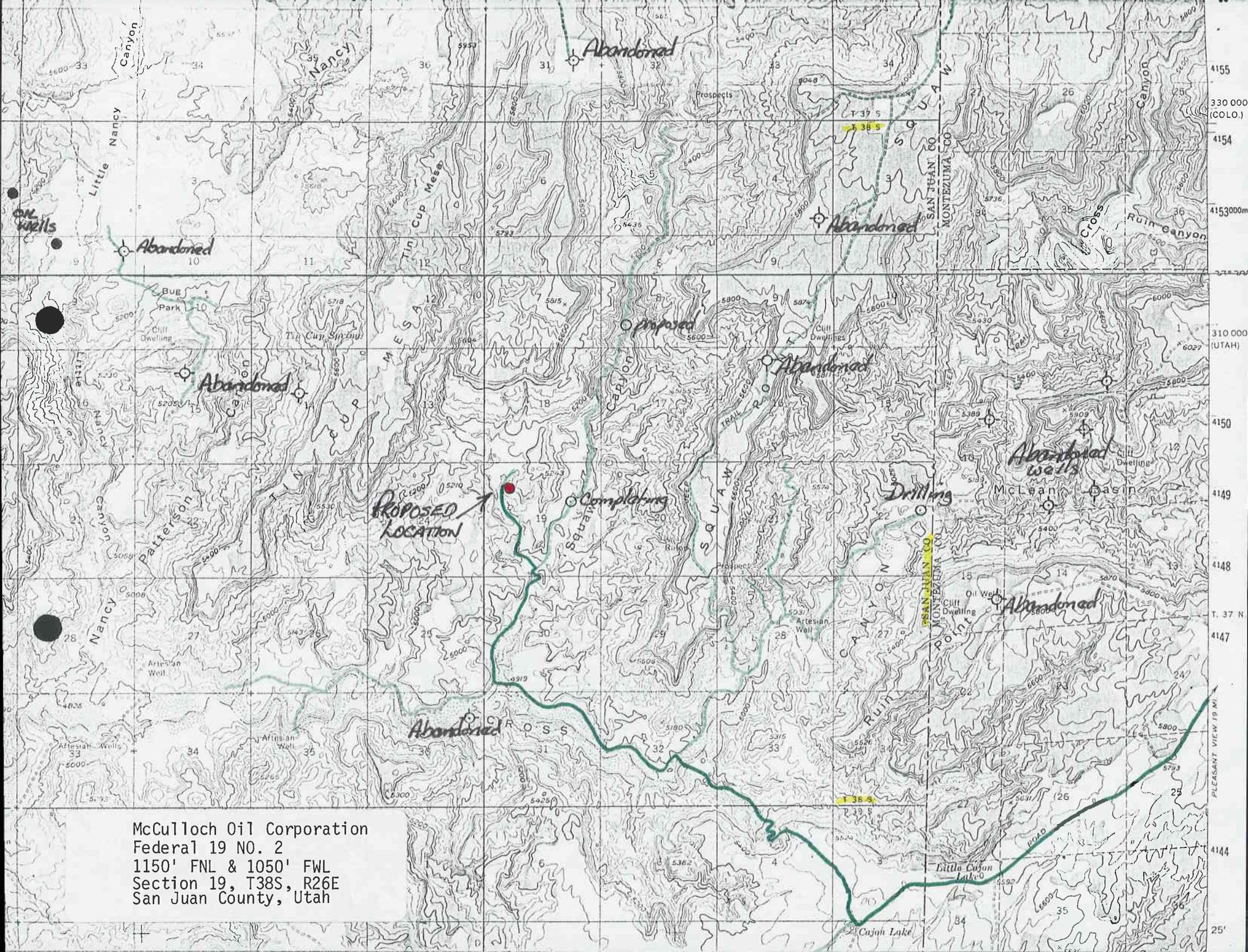
VERDURE SW

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

109°07'30"
37°30'

R 25 E R 26 E





McCulloch Oil Corporation
Federal 19 NO. 2
1150' FNL & 1050' FWL
Section 19, T38S, R26E
San Juan County, Utah

McCULLOCH OIL & GAS CORPORATION

Multi-Point Surface Use and Operations Plan

WELL

Federal 19 No. 2

LOCATION

1150' FNL & 1050' FWL
Section 19, T38S, R26E
San Juan County, Utah

Federal Lease Number U 40406

1. Existing Roads (Shown in green)

The attached topographic map shows all existing roads within three miles of the proposed location. To reach the proposed location go north of Cortez, Colorado on HW. 666 19 miles to the Hovenweep National Monument Road, turn left (west) onto the Hovenweep road and follow it for 23 miles to the Cross Canyon road. Turn right (north) onto the Cross Canyon road and go 2.5 miles just past Cross Canyon wash, then take the road going to the left (west) and go 1.75 miles to the road turning right (north) into Squaw Canyon. Follow this road 1 mile then take the road veering off to the left from the main road. Go approximately 0.75 miles. The location will be 200' to the east. These are all existing roads and are marked in dark green on the attached map.

The existing roads will have to be upgraded to take care of heavy truck traffic. This will require no more than leveling rough spots in the present roadway.

2. Planned Access Road

A short access road approximately 300' long and 20' wide will be necessary to connect the location with the existing road. Drainage will run beside the road, with water bars used where necessary to prevent erosion. All surfacing material will be taken from the roadway. No turnouts will be required. No gates, cattleguards, or fences will be crossed. No major cuts or fills should be required.

3. Location of Existing Wells

All wells (water, abandoned, disposal, and drilling) are shown and so labeled on the topographic map.

4. Location of Tank Batteries, Production Facilities, and Production, Gathering, and Service Lines

McCulloch's Federal 19 No. 1, located 2,971' southeast of the proposed location, is currently being tested. Should it prove commercial, production facilities will be constructed at the site of the No. 1 well and the proposed No. 2 well will be tied into these facilities. In the event the No. 1 well is not productive, production facilities for the proposed well No. 2 will be contained within the location site.

5. Location and Type of Water Supply

Water for drilling will be trucked from the artesian well in Cross Canyon in Section 23, T38S - R26E approximately 5 road miles south and east of the location. This water source is located on federal land.

6. Source of Construction Materials

Any construction material required for roads or location will be excess material accumulated from building of such sites.

7. Method of Handling Waste Disposal

The location of the reserve and burn pit is shown on the attached drill site layout. All trash and burnable material will be burned in the burn pit when safety permits. All nonburnable material (drilling fluids, cuttings, chemicals) will be stored in the reserve pit and then buried when they have dried. Any oil produced while drilling will be trucked from the location prior to leaving pit to dry out. Pits will be completely fenced during drying time, and then back-filled with dirt prior to preparing the location for production or abandonment.

A portable chemical toilet will be supplied for human waste.

8. Ancillary Facilities

No ancillary facilities are planned.

9. Well Site Layout

The attached layout shows the drilling rig with all associated facilities. Cut and fill required is also indicated.

10. Plans for Restoration of Surface

Restoration of the well site and access road will begin within 90 days of well completion, weather permitting.

Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed up and leveled. Both drill site and road will have any top soil replaced and will be reseeded when germination of seeds can take place.

Should the well be commercial, that portion of the location not needed for operation will be repaired as above. The portion of the location needed for daily production operations and the access road will be kept clean and in good repair.

In either case, cleanup of the site will include burning of any safely burnable material, filling of all pits, carrying away of all nonburnable material and any chemicals that cannot be safely buried, and the hauling off of any oil that may have accumulated on the pits while drilling.

11. Other Information

General topography of the area may be seen on the attached map. This location is on a moderately sloping hillside just above a dry wash to the west. The soil is sandy and very rocky. Sparse vegetation consists mostly of sage brush with some native grasses.

The surface agency for the drill site and access road is The Bureau of Land Management.

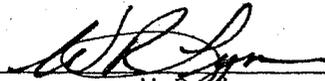
There are no occupied dwellings in the area.

There were no archaeological or cultural sites visible on the location. The archaeologist's report is forthcoming.

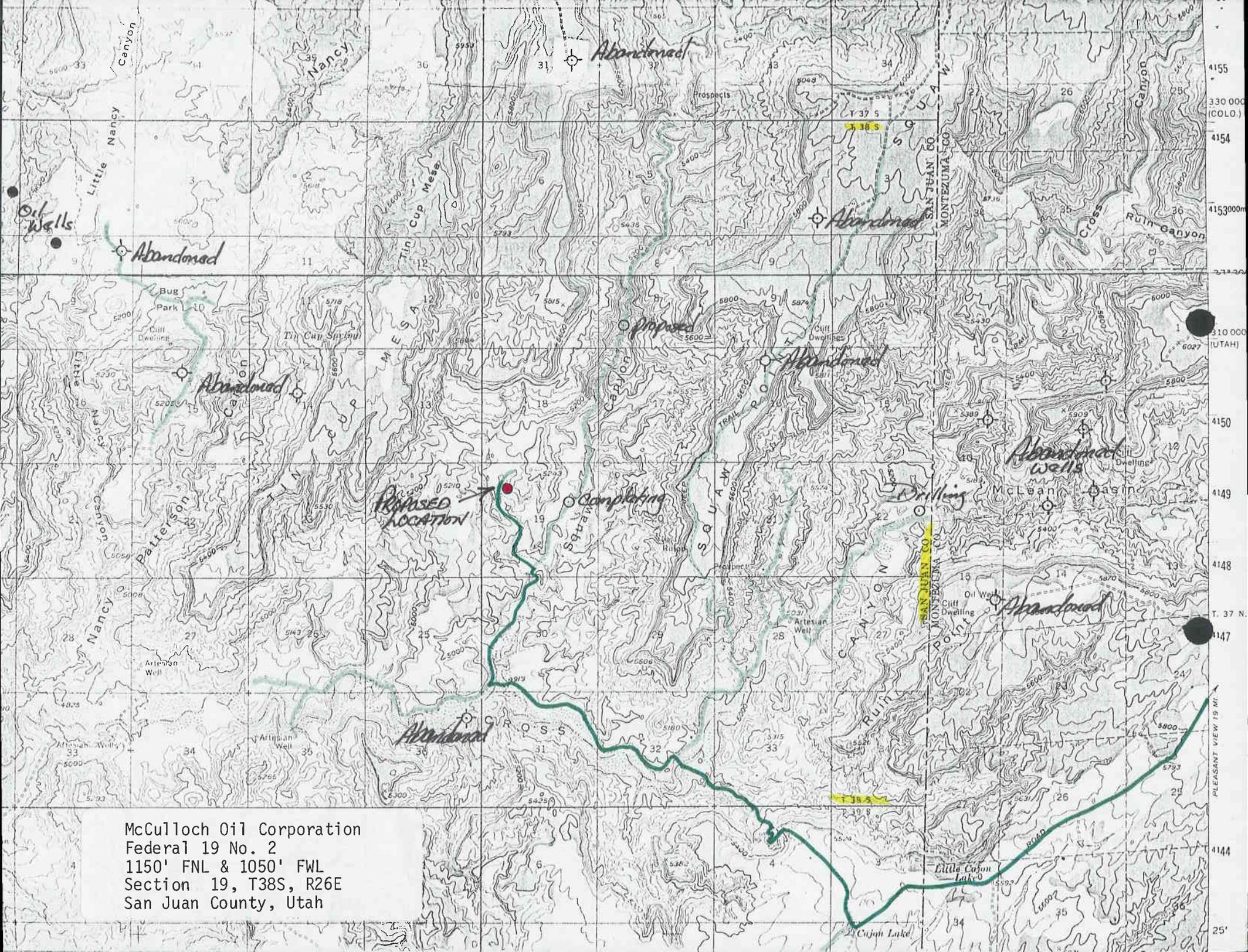
12. W.R. Lynn
McCulloch Oil & Gas Corporation
3033 N.W. 63rd St.
Suite 250-E
Oklahoma City, Oklahoma 73116

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

July 25, 1979



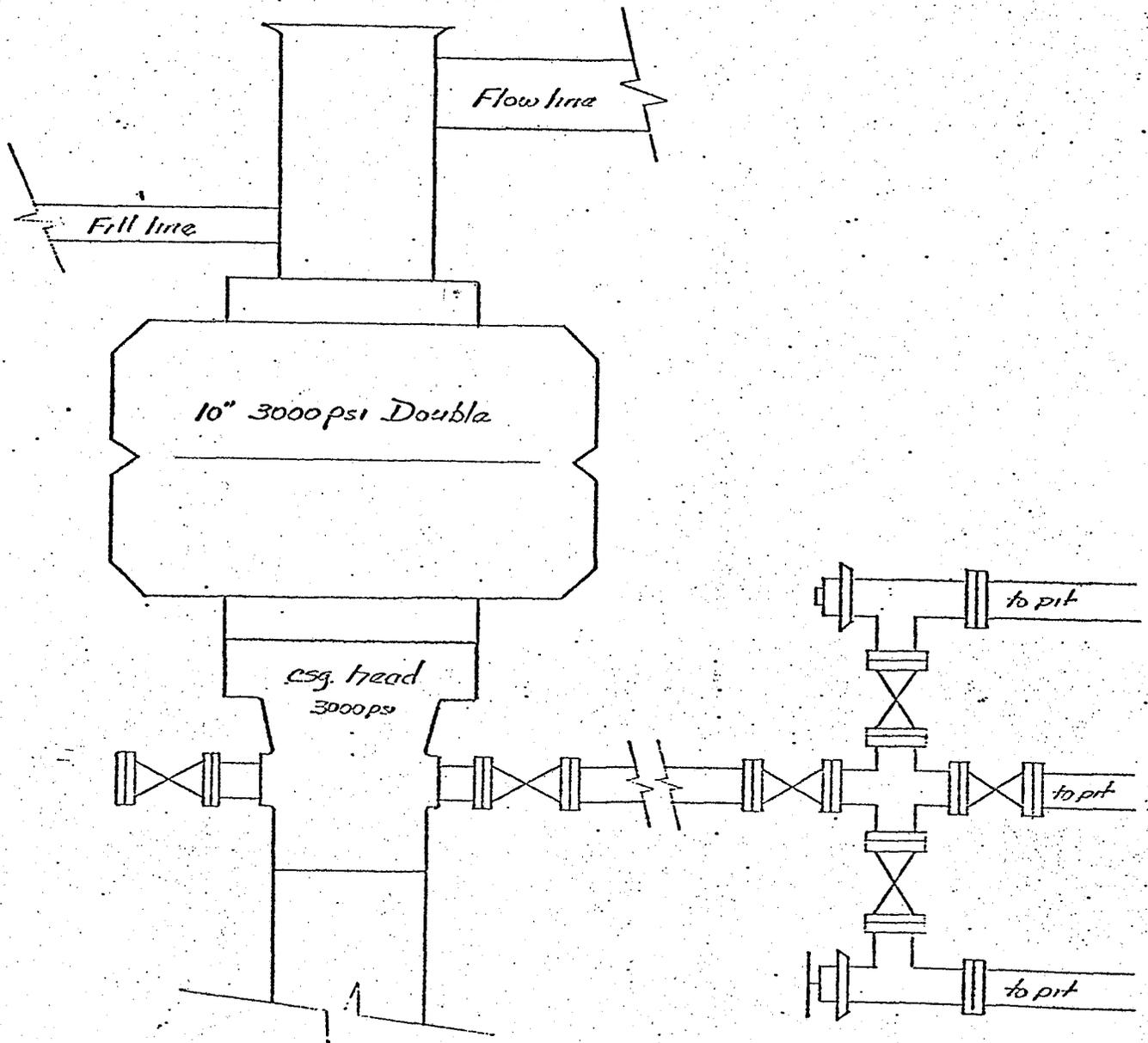
W. R. Lynn



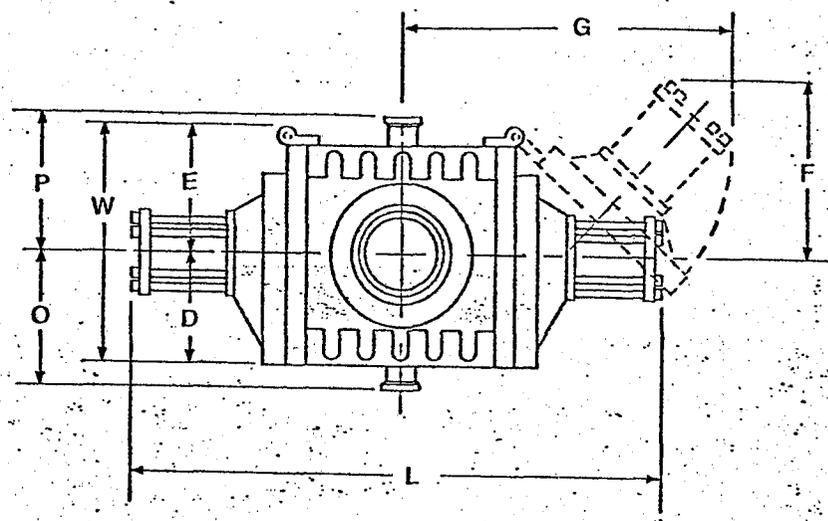
McCulloch Oil Corporation
Federal 19 No. 2
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Section 19, T38S, R26E
San Juan County, Utah

Schematic of Pressure Control Equipment

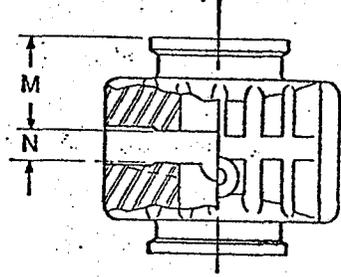
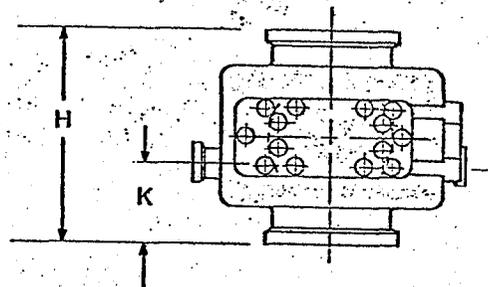
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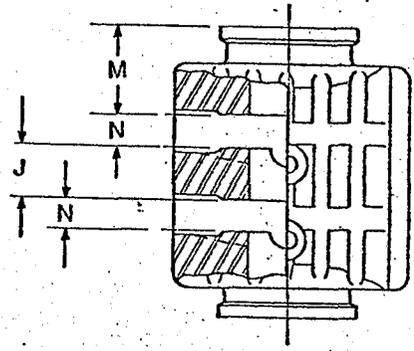
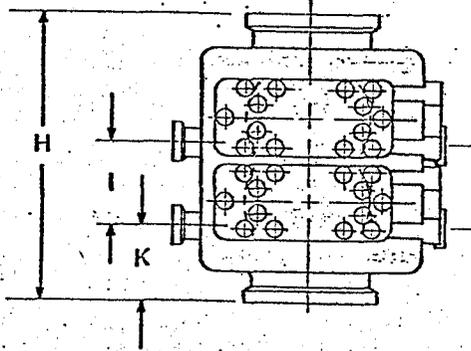
DIMENSION DRAWINGS



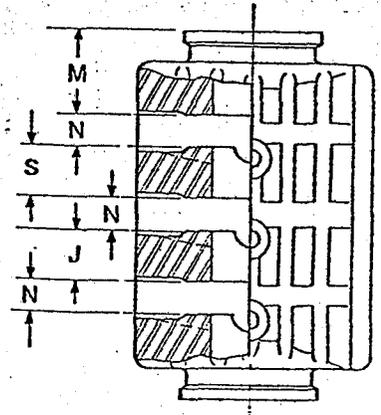
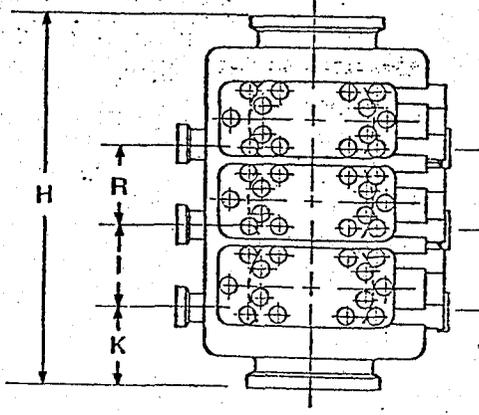
SINGLE



DOUBLE



TRIPLE



BLOWOUT PREVENTERS

MANUAL LOCK



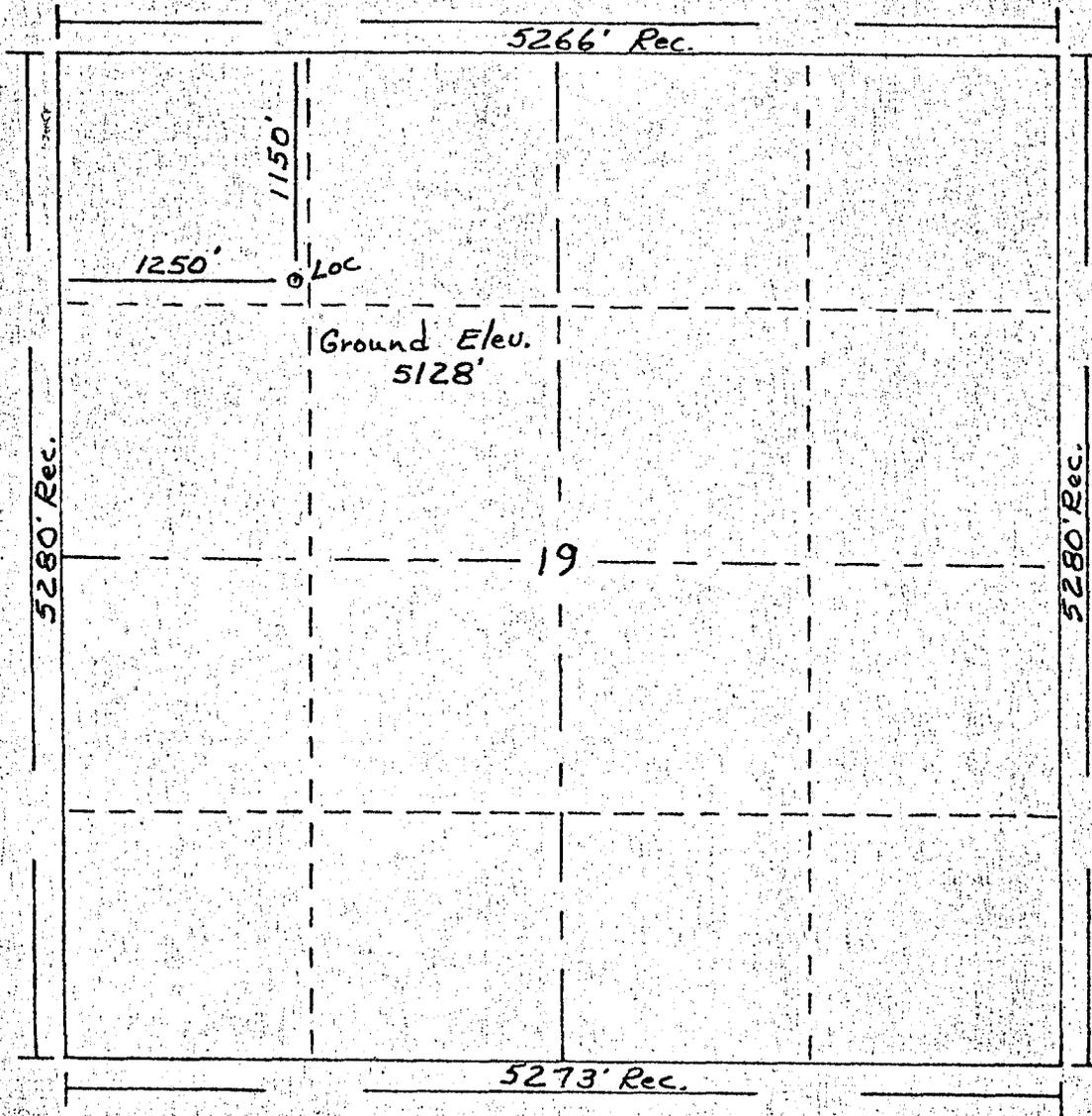
LWS MANUAL LOCK SPECIFICATIONS

Nominal Size (in.)		4 1/2	6	6	7 1/2	7 1/2	8	8	10	10	11	12	13 1/2	13 1/2	16 1/2	16 1/2	18 1/2	20	20	21 1/2			
Working Pressure (psi)		10,000	3,000	5,000	10,000	15,000	15,000	3,000	5,000	3,000	5,000	10,000	3,000	5,000	10,000	10,000	15,000	15,000	3,000	3,000	10,000		
Test Pressure (psi)		15,000	6,000	10,000	15,000	22,500	22,500	6,000	10,000	6,000	10,000	15,000	6,000	10,000	15,000	10,000	15,000	15,000	3,000	4,500	15,000		
Vertical Spine (in.)		4 1/2	7 1/2	7 1/2	7 1/2	7 1/2	9	9	11	11	11	13 1/2	13 1/2	13 1/2	16 1/2	16 1/2	18 1/2	21 1/2	21 1/2	21 1/2			
Cylinder I.D. (in.)		6	6 1/2	6 1/2	14	14	8 1/2	8 1/2	6 1/2	8 1/2	10	8 1/2	8 1/2	14	10	14	14	8 1/2	8 1/2	14			
L (Length, in.)		42 1/2	58	58	74 1/2	74 1/2	132 1/2	73 1/2	22 1/2	89	90 1/2	92 1/2	92 1/2	125 1/2	133 1/2	136 1/2	140 1/2	127 1/2	127 1/2	145			
W (Width, in.)		15 1/2	10 1/2	19 1/2	31 1/2	31 1/2	25 1/2	25 1/2	25 1/2	29 1/2	31 1/2	30 1/2	33 1/2	43	40 1/2	55 1/2	50 1/2	41 1/2	41 1/2	62 1/2			
H (Height, in.)	Single:	Studded	15 1/2	13 1/2	23 1/2	23 1/2	14 1/2	14 1/2	19 1/2	19 1/2	23	23	23	23	23	23	23	23	23	23	23	23	
		Flanged	20 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2
		Hub	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
	Double:	Studded	26 1/2	26 1/2	43 1/2	43 1/2	29 1/2	29 1/2	29 1/2	33	44 1/2	34 1/2	36	46	52 1/2	52 1/2	49 1/2	49 1/2	49 1/2	49 1/2	49 1/2	49 1/2	49 1/2
		Flanged	35 1/2	39 1/2	39 1/2	39 1/2	41 1/2	45 1/2	42	50 1/2	63 1/2	48	49 1/2	64 1/2	67 1/2	67 1/2	63 1/2	63 1/2	60 1/2	60 1/2	73 1/2	73 1/2	73 1/2
		Hub	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2
	Triple:	Flanged	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
		Hub	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
	D (in.)		6 1/2	9 1/2	9 1/2	13 1/2	13 1/2	11 1/2	11 1/2	11 1/2	12 1/2	13 1/2	13 1/2	14 1/2	20 1/2	18 1/2	25 1/2	27 1/2	17 1/2	17 1/2	29 1/2		
E (in.)		9 1/2	12 1/2	12 1/2	18 1/2	18 1/2	14 1/2	14 1/2	14 1/2	15 1/2	18	17 1/2	18 1/2	22 1/2	22 1/2	30 1/2	23 1/2	24	24	33 1/2			
F (in.)		14 1/2	20 1/2	20 1/2	26 1/2	26 1/2	27 1/2	27 1/2	23 1/2	25 1/2	30 1/2	31 1/2	30 1/2	39	45 1/2	41 1/2	39 1/2	42	42	41 1/2			
G (in.)		23 1/2	41 1/2	41 1/2	52 1/2	52 1/2	45 1/2	45 1/2	45 1/2	56 1/2	57 1/2	59	52 1/2	48 1/2	72 1/2	79	77 1/2	70	70	83 1/2			
I (in.)		11 1/2	11 1/2	21 1/2	21 1/2	15	15	14	15 1/2	19 1/2	16 1/2	16 1/2	18	25	19 1/2	19 1/2	26 1/2	26 1/2	19 1/2				
J (in.)		7 1/2	7 1/2	7 1/2	7 1/2	10 1/2	10 1/2	9 1/2	11	13 1/2	12 1/2	12 1/2	11 1/2	19 1/2	11 1/2	11 1/2	20 1/2	20 1/2	11 1/2				
K (in.)	Single:	Studded	3 1/2	3 1/2	6 1/2	6 1/2	3 1/2	3 1/2	4 1/2	4 1/2	7 1/2	4 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2		
		Flanged	7 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	13 1/2	14 1/2	11 1/2	12 1/2	17 1/2	14 1/2	14 1/2	15 1/2	15 1/2	15 1/2	15 1/2		
		Hub	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	
	Double:	Studded	3 1/2	3 1/2	6 1/2	6 1/2	3 1/2	3 1/2	4 1/2	4 1/2	7 1/2	4 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2			
		Flanged	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	13 1/2	17 1/2	11 1/2	11 1/2	17 1/2	11 1/2	11 1/2	14 1/2	14 1/2	14 1/2			
		Hub	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2		
	Triple:	Flanged	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
		Hub	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	M (in.)		3 1/2	4	9 1/2	9 1/2	4 1/2	4 1/2	4 1/2	7	7 1/2	8 1/2	8 1/2	8 1/2	10 1/2	10 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2		
N (in.)		3	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	6	4 1/2	4 1/2	6 1/2	5 1/2	8	8	6	6	8			
O (in.)		10 1/2	13 1/2	15 1/2	17 1/2	15 1/2	15 1/2	15 1/2	15 1/2	18 1/2	17 1/2	17 1/2	18 1/2	20 1/2	25 1/2	23 1/2	23 1/2	29 1/2	20 1/2	21 1/2			
P (in.)		11 1/2	15 1/2	15 1/2	19 1/2	19 1/2	15 1/2	15 1/2	16 1/2	18 1/2	18 1/2	18 1/2	20 1/2	25 1/2	23 1/2	23 1/2	29 1/2	29 1/2	20 1/2	21 1/2			
R (in.)		26 1/2	26 1/2	18 1/2	18 1/2	18	18	19 1/2	18 1/2	20 1/2	21 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2			
Z (in.)		23	19 1/2	30 1/2	30 1/2	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23			
Weight (Total, lbs.)	Single:	Studded	825	1,260	5,450	5,450	2,400	2,400	5,810	4,000	5,500	9,200	12,900	9,300	12,900	12,900	12,900	12,900	12,900	12,900			
		Flanged	975	1,600	5,900	5,900	2,500	2,500	6,500	8,900	12,300	6,500	8,900	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300		
		Hub	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600		
Without Rams	Double:	Studded	2,600	3,000	11,200	11,200	5,300	5,300	5,000	7,650	11,175	7,500	9,500	20,900	37,650	37,650	37,650	37,650	37,650	37,650			
		Flanged	2,330	3,310	5,900	5,900	5,300	5,300	5,300	8,600	12,550	8,200	11,050	23,350	21,150	21,150	21,150	21,150	21,150	21,150	21,150		
		Hub	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200		
Weight (Breakdown, lbs.)	Rams With Holders (2 each)		30	95	95	95	165	165	200	240	295	320	320	500	540	875	1,075	785	785	1,275			
	Door Assembly (1 each)		200	175	175	1,500	1,500	750	750	625	900	1,030	810	950	1,600	2,800	3,000	3,500	2,200	2,200	3,500		
	B	Single:	Studded	430	910	2,450	2,450	1,150	1,150	2,610	2,330	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600		
			Flanged	575	1,250	2,900	2,900	1,250	1,250	2,310	4,415	3,080	5,150	6,000	7,300	4,900	5,800	4,900	5,800	4,900	5,800		
	D	Double:	Studded	1,750	2,300	5,200	5,200	2,300	2,300	2,580	4,050	7,055	4,250	5,700	13,790	25,650	25,650	25,650	25,650	25,650	25,650		
			Flanged	2,130	2,640	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	
Hub		2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500			
Closing Ratio		8.44	4.44	4.44	10.63	10.63	5.57	5.57	4.44	5.57	7.84	5.57	5.57	10.63	7.84	6.97	6.97	5.57	5.57	6.97			
Opening Ratio		4.78	1.84	1.84	19.40	19.40	3.02	3.02	1.16	2.11	2.21	1.75	1.05	3.48	1.59	2.06	1.83	.79	.79	1.63			
Gallons To Close		.59	1.26	1.26	6.57	6.57	2.53	2.53	1.91	2.53	3.62	3.35	3.35	10.59	6.60	13.44	14.25	5.07	5.07	14.42			
Gallons To Open		.52	.59	.59	5.95	5.95	2.27	2.27	1.50	2.62	3.31	2.95	2.95	9.82	6.63	11.79	12.59	4.46	4.46	12.65			
Maximum Ram Size		2 1/2	5 1/2	5 1/2	5 1/2	5 1/2	7	7	8 1/2	8 1/2	8 1/2	10 1/2	10 1/2	10 1/2	13 1/2	13 1/2	16	16	16	16			

*For Flanged side outlets. Studded or hub side outlets are shorter.
 †With 1 1/2" 2" hub (modified 1 1/2" 10,000 psi hub). After a 1 1/2" 10,000 psi clamp connection is designed, this will be approximately 65%*



R. 26 E.



T. 38 S.

Alt. Loc.
 1150 FNL
 1050 FWL
 Elev. 5104

Scale... 1" = 1000'

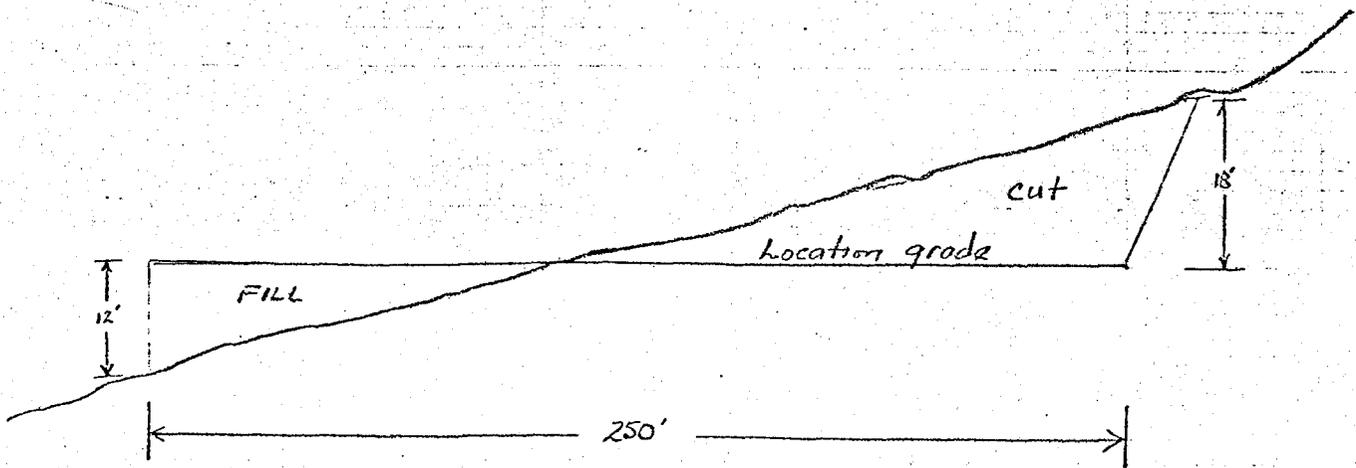
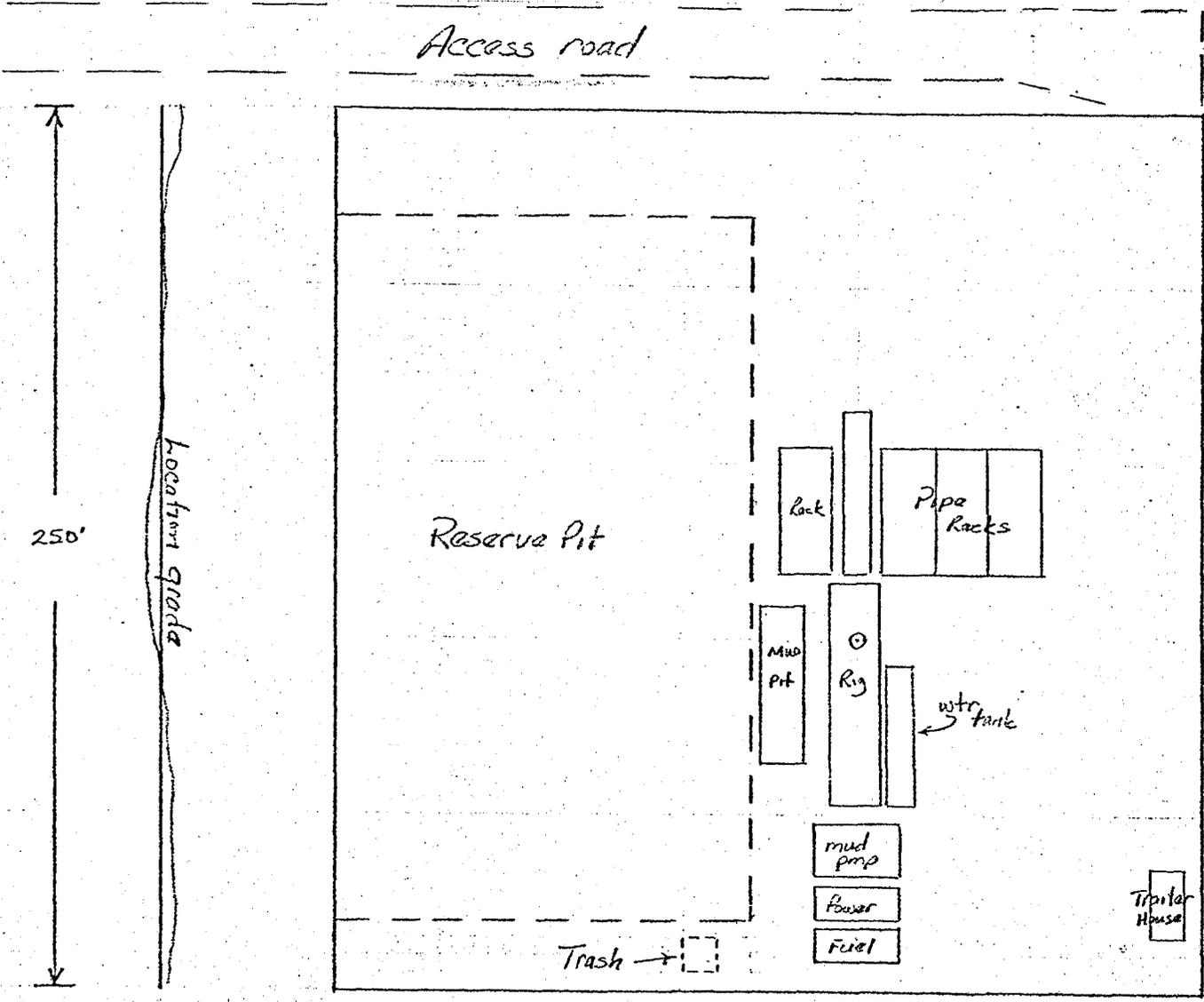
Powers Elevation Company, Inc. of Denver, Colorado has in accordance with a request from Dick Lynn for *McCulloch Oil & Gas Co.* determined the location of *2-19 Federal* to be *1150 FNL & 1250 FWL* Section 19 Township 38 S. Range 26 E. Salt Lake Meridian San Juan County, Utah

I hereby certify that this plat is an accurate representation of a correct survey showing the location of *#2-19 Federal*

Date: 7-18-79

T. Nelson
 Licensed Land Surveyor No. 2711
 State of Utah

WELL SITE LAYOUT
McCulloch Oil Corporation
Federal 19 No 2
1150' FNL & 1050' FWL
Section 19, T38S, R26E
San Juan County, Utah



STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING

** FILE NOTATIONS **

Date: July 30, 1979

Operator: McCulloch Oil & Gas Corp.

Well No: Federal 19-2

Location: Sec. 19 T. 38S R. 26E County: San Juan

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number: 43-037-30494

CHECKED BY:

Administrative Assistant: _____

Remarks:

Petroleum Engineer: M.S. Minder 8-1-79

Remarks:

Director: 7

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. _____

Surface Casing Change
to _____

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

O.K. Rule C-3

O.K. In _____ Unit

Other:

Letter Written/Approved



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple

Salt Lake City, Utah 84116

(801) 533-5771

CHARLES R. HENDERSON
Chairman

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

CLEON B. FEIGHT
Director

August 1, 1979

McCulloch Oil and Gas Corp.
3033 NW 63 rd St. Suite 250-E
Oklahoma City, Oklahoma 73116

Re: Federal 19-2
Sec. 19, T. 38S., R. 26E.,
San Juan County

Dear Sir:

Insofar as this office is concerned, approval to drill the above referred to well on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

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

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

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

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

The API number assigned to this well is 43-037-30494.

Sincerely,

DIVISION OF OIL, GAS AND MINING

M.T. Minder

MICHAEL T. MINDER
GEOLOGICAL ENGINEER

MTM/teh

McCulloch Oil and Gas Corporation



August 13, 1979



U.S. Department of the Interior
Bureau of Land Management
Moab District-San Juan Resource Area
P.O. Box 7
Monticello, Utah 84535

Ref: Designation of Operator
NW/4 & SE/4 Section 19
T-38-S, R-26-E
San Juan County, Utah
(U-40406)

Gentlemen:

Attached for your information is a completed "Designation of Operator" form in which Jerry Chambers designates McCulloch Oil and Gas as the operator of the referenced lease. This lease covers the area in which we have requested approval to drill our Federal Well No. 2-19.

Yours very truly,

A handwritten signature in cursive script, appearing to read 'J.D. Rawdon'.

J.D. Rawdon

cc: USGS - Carl Barrick
✓ Utah Oil & Gas Conservation-
Jack Feight

JDR/dj

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Utah
SERIAL NO.: U-40406

and hereby designates

NAME: McCulloch Oil and Gas Corporation
ADDRESS: 10880 Wilshire Boulevard

Los Angeles, California 90024

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

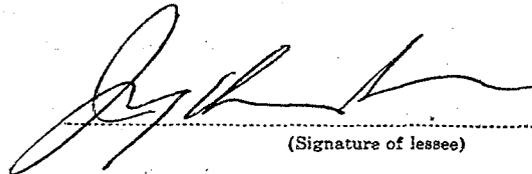
Township 38 South, Range 26 East, SLM, Utah
Section 19: NW $\frac{1}{4}$; SE $\frac{1}{4}$

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

JERRY CHAMBERS



(Signature of lessee)

August 10, 1979

(Date)

3401 West Pershing Road
Chicago, Illinois 60632

(Address)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.
U 40406

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal 19

9. WELL NO.
2

10. FIELD AND POOL, OR WILDCAT
Undesignated

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 19, T38S-R26E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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

2. NAME OF OPERATOR
McCulloch Oil & Gas Corp.

3. ADDRESS OF OPERATOR
3033 N.W. 63rd, Suite 250-E, Okla. City, Okla. 73116

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1150' FNL & 1050' FWL of Section 19, T38S-R26E

14. PERMIT NO.
15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5104'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please be advised of McCulloch's intention to change the proposed casing program for the subject well. We now plan to set surface casing at a depth sufficient to case off anticipated water flows. The revised casing program is outlined in detail on the attached sheet.

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

SIGNED J. D. Rawdon

TITLE District Manager

DATE 8-27-79

(This space for Federal or State office use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

McCulloch Oil & Gas Corp.
Federal 19 No. 2
San Juan County, Utah
Lease No. U 12840

Revised Casing and Cement Program

Conductor Casing: 13 3/8", 48.00#, H-40, ST&C new casing to be set at 80' and cemented to surface with 100 sacks Class "B" cement containing 2% CaCl₂.

Surface Casing: 8 5/8", 24.00#, K-55 & S-80, ST&C new casing to be set at 2450' and cemented to surface with 1000 sacks "Light" cement containing 2% CaCl₂, followed by 200 sacks Class "B" cement containing 2% CaCl₂.

Production Casing: 4 1/2", 10.50#, K-55, ST&C new casing to be set at 5700' and cemented with 300 sacks 50:50 pozmix cement containing 10% salt, and 0.75% CFR-2.

Revised Drilling Fluids

<u>Depth</u>	<u>Type Fluid</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Water Loss</u>
0 - 100'	Spud mud	8.6-9.0	35-40	NC
100-2450'	water	8.4-8.6	28-30	NC
2450-5000'	Gel-Chem.	9.0-10.0	35-45	10-20
5000-TD	Gel-Chem.	9.0-10.0	40-50	6-8

DRILLING RECORD

WELL NAME Federal #2-19 LOCATION 1150' FNL & 1050' FWL, Section 19, T38S-R26E
 DRILL BLOCK & PROSPECT _____ COUNTY San Juan STATE Utah
 CONTRACTOR: Brinkerhoff-Signal FIELD Undesignated
 SPUD DATE: 9-21-79 PROJECTED TD: 5700'
 ELEVATIONS: GR 5104', KB 5114' OBJECTIVE Desert Creek
 WORKING INTEREST _____ PARTNERS & PERCENTAGE _____

Federal #2-19 (MOG) TITE HOLE
 DB - ? Squaw Canyon Pros

9-22: NEW LOCATION: 1150' FNL & 1050' FWL, Section 19, T38S, R26E, San Juan County, Utah. 5700' Desert Creek test. GR 5104', KB 5114'. Spudded 17½" hole @ 1:00PM 9-21-79. Depth 68' (68'), NU flow line & WOC, MW wtr. Set 2 jts (74.46') 13 3/8" 47# H-40 ST&C csg @ 68'. Cmt'd w/100 sx Class "B" w/ 2% CaCl₂, cmt circ.

Federal #2-19 (MOG) TITE HOLE
 DB - ? Squaw Canyon Pros

9-23: Drlg 250' (182'), Dolm, sd, MW wtr.
 9-24: Drlg 1190' (940'), sd, dolm, anhy, MW wtr.
 9-25: Drlg 1631' (441'), sd & anhy, MW 8.9#, Vis 28.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 ? Squaw Canyon Pros

9-26: Drlg 2105' (474'), sd, anhy, MW 8.8#, Vis 28.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 ? Squaw Canyon Pros

9-27: Drlg 2330' (225'), sd, lm, dolm, MW 8.9#, Vis 31
 Costs to date:

	D.H.	Comp.	Total
AFE:	\$377,000	\$133,000	\$510,000
Actual:	101,858	- -	101,858

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 ? Squaw Canyon Pros

9-28: Depth 2470' (140'), WOC, MW 9.1#, Vis 38. Ran BHC Sonic & DILL. Ran 62 jts 2463.76' 8 5/8" 24#, K-55 ST&C csg set @ 2463'. Cmt'd csg w/1000 sx Light cmt w/2% CaCl₂ followed by 200 sx Class "B" w/2% CaCl₂. Cmt cfr.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 ? Squaw Canyon Pros

9-29: Drlg 2469' (6'), sd, MW wtr. SLM Corctd depth by 7'
 9-30: Depth 3343' (874'), Cond mud to control wtr flow, sh, sd, MW 9.0#, Vis 32.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 ? Squaw Canyon Pros

10-1: Drlg 3567' (224'), sh, sd, MW 11.1#, Vis 46.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 d-B-8 Squaw Canyon Pros

10-2: Depth 3894' (327'), Tripping, sd, sh, lm, MW 11.0
 Vis 38.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 d-B-8 Squaw Canyon Pros

10-3: Depth 4103' (209'), Trip for hole in pipe, sd, sh, MW 11.0#, Vis 40.

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 d-B-8 Squaw Canyon Pros

10-4: Depth 4186' (83'), Repairing rig-Change out pump, sh, sd, lm, MW 11.1#, Vis 45.
 Costs to date:

	D.H.	Comp.	Total
AFE:	\$377,000	\$133,000	\$510,000
Actual:	201,181	- -	201,181

Federal #2-19 (MOG) TITE HOLE
 DB 78/79 d-B-8 Squaw Canyon Pros

10-5: Depth 4403' (217'), Circ, MW 11.1#, Vis 45. Drlg break 4350 to 4370'. Had show of oil in samples. Prep to run DST #1.

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

10-6: Depth 4403' , Circ & cond mud to kill wtr flow, MW 10.9#, Vis 43.
10-7: Depth 4403', 1m w/bit, MW 11.1#, Vis 43. DST #1 U. Hermosa from 4340 to 4403'.
Press @ 4399' Press @ 4322'
IH 2592.8 2542.6
15 min IF 79.8-133.0 52.8-79.2 wk to fair blow
60 min ISI 1627.4 1558.4
60 min FF 159.6-212.8 132.3-158.4 wk blow thruout
120 min FSI 1359.7 1319.7
FH 2592.8 2569.2
Temp 114°F

Rec'd 50' free oil + 190' oil cut mud. Sampler recovery: 1250 ml free oil, 900 ml OCM, Press 25 psi, no gas. Oil gravity 34.2° @ 60°F.

10-8: Drlg 4675' (272'), Dolm, sd, 1m, MW 11.1#, Vis 37. Small drlg break 4575-4595' w/show in samples.

10-9: Drlg 4800' (125'), Dolm, sd, MW 11.1#, Vis 40.

UTAH

10-10: Drlg 4967' (167'), 1m, sh, MW 11.2#, Vis 41.

UTAH

10-11: Drlg 5172' (205'), 1m,sh, MW 11.2#, Vis 45. Costs to date:

	D.H.	Comp.	Total
AFE:	\$377,000	\$133,000	\$510,000
Actual:	243,719	- -	243,719

UTAH

10-12: Drlg 5340' (168'), 1m, sh, MW 11.2#, Vis 48.

UTAH

10-13: Depth 5380' (40'), Coring, 1m,sh, MW 11.3#, Vis 47. Started coring Core #1 @ 5360'.

10-14: Depth 5466' (86'), Coring, 1m, anhy, sh, MW 11.2# Vis 48. Finished cutting Core #1 5360-5419'. Rec 18' anhy, 42' 1m & sh, no shows, no fluor. Now Cutting Core #2, started @ 5419'.

10-15: No report, radio out.

UTAH

10-15: Depth 5526' (60'), Making up DST tool, anhy, 1m, MW 11.1#, Vis 44. Core #2 5419-79', cut 60' rec 60'. Core #3 5479-5526', cut 45' rec 45'.

10-16: Depth 5533' (7'), Circ & cond mud, MW 11.2#, Vis 45. DST #2 U. Ismay 5372-5526'. Top @ 5354'. IH - 3049.9; IF - 79.8; FF - 106.4; ISI - 585.4; 2nd IF - 212.8; 2nd FF - 239.4; 2nd SI - 932.0; FH - 3049.9; BHT - 110°F. Rec 446' GC DM & wtr. Sampler recovery: .05 cu ft gas, Press 125 psi, 2150 ml gas cut mud.

UTAH

10-17: Depth 5659' (126'), Trip in to cut Core #4, MW 11.2#, Vis 49.

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/7 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

UTAH
10-18: Depth 5730' (771'), Circulating to run logs, sh, dolo, MW 11.2#, Vis 50. Core #4 5657-5690' Desert Creek. Cut 33' Rec 33'. Shows not sufficient to warrant DST.

Costs to date:

	<u>D.H.</u>	<u>Comp.</u>	<u>Total</u>
AFE:	\$377,000	\$133,000	\$510,000
Actual:	291,794	- -	291,794

UTAH
10-19: Depth 5730', Laying dwn drill pipe, MW 11.4#, Vis 46. Ran DILL, BHC Sonic, & CNL-FDC logs. Prep to run csg.

UTAH
10-20: Depth 5730', ND. Rn 137 jts 4½" K-55 ST&C csg set @ 5728'. Cmt'd w/665 sx 'Light' followed by 710 sx 50:50 pozmix, 0.75% CFR-2, 10#/sx salt, 10#/sx gilsonite, 405 bbls slurry, displ plug w/1% KCl, plug dwn @ 7:10PM 10-19-79. Floa held.

10-21: Rig on stand by @ 7:00AM 10-20-79.

10-22: RDRT.

UTAH
10-23: SI, WOCU.

UTAH
10-24: MI & RU Comp. Unit. RU perforators. RIH w/GR/CCL. Set dwn @ 5640'. PBD 5683'. Prep to drill out cmt.

UTAH
10-25: MI & RU reverse circulating tools.
Costs to date:

	<u>D.H.</u>	<u>Comp.</u>	<u>Total</u>
AFE:	\$377,000	\$133,000	\$510,000
Actual:	356,229	50,683	406,912

UTAH
10-26: Drilled cmt, plug & float from 5670 to 5702'.

UTAH
10-27: POOH w/tbg, Ran GR-CCL from 5702 to 5000'. PBD 5702'. Perf'd Desert Creek from 5669 to 5671' w/2 JSPF. TIH w/tbg & pkr. Set pkr @ 5639'. Swbd dry. SION.

10-28: SITP this AM zero, FL @ 5490'. Pmpd 250 gals 2% HCl acid. Pkr gave way before acid reached perfs. Circ acid out & POOH w/tbg & pkr. SION.

10-29: SI, Sunday.

UTAH
10-30: TIH w/tbg & pkr, testing tbg while GIH. Lack 21 stds being in hole. SION.

UTAH
10-31: Fin tstg tbg in hole. Ran pkr past perfs, spotted acid, & set pkr @ 5643'. Pressured up from 3800 to 4400 psi, could not get perfs to take any acid. SION. Prep to re-perforate.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-1: UTAH
POOH w/tbg & pkr. Re-perforated Desert Creek @ 5669, 5670, 5671' w/2 JSPF. TIH w/tbg & pkr. SION. Prep to acidize this AM.
Costs to date:

	D.H.	Comp.	Total
AFE:	\$377,000	\$133,000	\$510,000
Actual:	362,394	64,995	427,389

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-2: UTAH
Spotted acid across perfs, then acidized w/500 gals 28% HCl acid. Pmpd 3 bbls acid in perfs, shut dwn 5 min., press dropped from 4100 to 3850, pmpd 4 more bbls, shut dwn 5 min, press dropped from 4100 to 4050psi. Fin pmpg acid @ 1/2 BPM w/4150 psi. ISIP 4150, 5 min SIP 4125. (-34 BLW). Opnd to pit, press dropped to zero in 2 min. Swbd dwn to SN @ 5611'. FL @ 5550'. Rec 20 bbls acid wtr & some gas (-14 BLW). SION.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-3: UTAH
SITP 0 psi, FL @ 5100'. Swbd to SN. Rec acid wtr and slight show of gas. 1 run/hr w/no rec. Rel pkr. POOH.

11-4: SIP - 0 psi. RU & set CIBP @ 5556' w/10' cmt. PBTd 5546'. Perf U. Ismay w/2 shots/ft from 5485-88', 5493-5501', 5504-10'. SION.

11-5: No report

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-6: UTAH
CP - 0. TIH w/tbg & pkr. Hydro tstg tbg while GIH. Set pkr @ 5429' w/btm of tailpipe @ 5524'. SION. Prep to acidize Ismay this AM. Correction to report of 11-4-79: Set CIBP @ 5656' w/10' cmt. PBTd 5646'.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-7: UTAH
Acidized U. Ismay w/1000 gals 28% HCl acid. Final treating rate 2 BPM @ 4100psi. Min P 2800 psi @ 1/2 BPM, Max P 4100 psi @ 2 BPM, ISIP 3900, 5 min SIP 3600. Opnd to pit, blew dwn in 2 min. Swbd dwn to SN. Rec load + good blow of gas while swbg. Had trace of oil on last swb run. SION. Prep to re-acidize.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-8: UTAH
SITP 275 psi. Ran swab, FL @ 2500', rec gas & load wtr. Acidized U. Ismay w/6000 gals 28% HCl acid staged w/30 ball sealers. Max P 4200#, Min P 1750#, Avg P 3650#, AIR 1 1/2 BPM. ISIP 3850#, 5 min SIP 3700# (-169 BLW). Opnd to pit, blew to zero in 3 min. Swbd & flwd 120 BLW & gas. Well would flow for 30 to 45 mins, then die. (-49 BLW). SION.
Costs to date:

	D.H.	Comp.	Total
AFE:	\$377,000	\$133,000	\$510,000
Actual:	398,850	86,734	485,584

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

11-9: UTAH
SITP 400 psi. Blew to zero in 4 min. FL @ 2800'. Swbd 10 hrs, Rec 47 BLW & 21 BFW, had show of oil on last swab run. FL remained @ 5000' while swbg. SION.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-10: TP 300 psi, blew dwn in 4 min. FL @3500'. Swbd dwn to Rec gas, wtr, trace oil. FL @ 4500'. Gas has decreased.
11-11: SITP 150 psi. Blew dwn to zero in 2 min. RU to swab. FL @ 3500'. Rec frm wtr, gas, & slight show of oil. Unseat pkr & start 00H w/tbg. SION.
11-12: SI, Sunday.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-13: Set CIBP on wireline @ 5468' & dumped 10' cmt on plug. PBD 5458'. Perf'd L.Hermosa from 4768 to 4778' w/2 JSPF. Picked up pkr & TIH w/2 3/8" tbg. Set pkr @ 4703'. SION. Prep to acidize.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-14: SITP 0 psi. Acidized w/1000 gals 15% NE HCl acid. Spotted acid on perms. Treated @ 1/4 BPM w/4400 psi. Pmp'd flush @ 1 BPM w/4150 psi, ISIP 4000 psi, 5 min SIP 3575 psi. (-45 BLW). Opnd to pit, blew to zero in 45 min. Swbd to SN. Rec acid wtr & some gas. Gas depleting with each swab run. SION.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-15: TP-200. Opened to pit blew to zero. FL @ surface. Swab to SN. Rec 90 BFW, sm gas, show oil. FL @ 4500' while swabbing. SION, prep to plug back.
Costs to date:

	<u>D.H.</u>	<u>Comp.</u>	<u>TOTAL</u>
AFE:	\$377,000	\$133,000	\$510,000
ACTUAL:	397,673	111,671	509,344

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-16: SITP 300 psi. Blew to zero. FL @ surface. Unseated pkr & POOH w/tbg & pkr. Set CIBP on wireline @ 4650'. Dumped 10' cmt on top of plug. PBD 4740'. Perf'd U.Hermosa w/1 JSPF @ following intervals: 4322-4326', 4338-4346', 4386-4394'. SION.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-17: TIH w/tbg & pkr. Set pkr @ 4263'. Acidized w/1500 gals 28% HCl acid, Max P 3800#, Min P 3375#, Avg P 3450#, AIR 2 BPM, ISIP 3000#. (-57 BLW). Open to pit. GTS in 4 min. Oil to surf in 5 min. Put on 1/2" ck, flowed dwn & died. FL @ 800'. Swbd dwn to SN. Rec 57 BLW & 12 BO. SION.
11-18: TP 100#. FL @ 3950'. Swbd from SN, rec 12 BO, no wtr. SION.
11-19: SI, Sunday.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 d-B-8 Squaw Canyon Pros

- UTAH
11-20: TP 50 psi, FL @ 4050'. Swab from SN, Rec 4 BO. SION.

SAN JUAN COUNTY
Federal #2-19 (MOG) TITE HOLE
DB 78/79 B-8 Squaw Canyon Pros

- UTAH
11-21: SI. Waiting on weather to break to acidize.

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 B-8 Squaw Canyon Pros

- UTAH
- 11-22: SD due to weather.
 - 11-23: RU HOWCO, Prep to acidize.
 - 11-24: Acidized w/6000 gals 28% NE HCl. Started swabbing from SN. FL holding @ 2700'. Swab'd & flwd total 43 BO + 9 BW.
 - 11-25: TP 100 psi. Open to tank, bled to zero in 5 min. FL @ 3200'. Swbg from SN. Rec 31 BO. FL @ 3900-4000'.
 - 11-26: Continue to swab.

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 B-8 Squaw Canyon Pros

- UTAH
- 11-27: Released comp. unit. Well SI, WO production equipment.

SAN JUAN COUNTY

Federal #2-19 (MOG) TITE HOLE
DB 78/79 B-9 Cleveland #9 Pros

- UTAH
- 11-28: SI, WO surface equipment. WILL DROP FROM REPORT UNTIL FURTHER ACTIVITY.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: McCullough Oil and Gas Corporation

WELL NAME: Federal 19-2

SECTION 19 NW NW TOWNSHIP 38S RANGE 26E COUNTY San Juan

DRILLING CONTRACTOR Brinkerhoff

RIG # 67

SPUDDED: DATE September 22, 1979

TIME p.m.

HOW _____

DRILLING WILL COMMENCE _____

REPORTED BY _____

TELEPHONE # _____

DATE September 24, 1979

cc: USGS

SIGNED Frank M. Hamner

Frank M. Hamner

WELL REPORT
NO. 2 FEDERAL 19

B I T R E C O R D

<u>NO.</u>	<u>MAKE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>DEPTH OUT</u>	<u>FEET</u>	<u>HOURS</u>	<u>DEVIATION</u>
1	RETIP	17-1/2	--	68	68	8-1/2	
2	STC	12-1/4	ADJ	182	114	11-3/4	3/4° @ 182'
3	STC	12-1/4	F2	1568	1386	42-3/4	1/2° @ 1568'
4	STC	12-1/4	DGHJ	2191	623	30-1/4	3/4° @ 2191'
Rerun 3	STC	12-1/4	F2	2463	272		1/2° @ 2463'
5	STC	7-7/8	F3	3894	1431	55-1/2	1° @ 3463'
6	STC	7-7/8	F3	4111	217	18-1/4	1° @ 3738'
7	STC	7-7/8	F3	4687	576	45-1/2	1° @ 3894'
8	STC	7-7/8	F3	5360	673	73	1-1/4° @ 4403'
9	STC	7-7/8	F3	5730	370	37-1/2	1-1/4° @ 5348'

C O R E A N A L Y S E S

CORE NO. 1, 5360'-5420'; No Analysis
 CORE NO. 2, 5420'-5480'; No Analysis
 CORE NO. 3, 5480'-5520'; Analyzed 5482-5515'

<u>DEPTH</u>	<u>PERMEABILITY</u>	<u>% POROSITY</u>	<u>% OIL</u>	<u>% WATER</u>
5482-83	0.02	2.5	24.0	36.0
5483-84	0.07	9.0	2.2	38.9
5484-85	0.04	6.8	7.4	76.5
5485-86	0.04	2.9	3.4	72.4
5486-87	0.06	2.9	3.4	79.3
5487-88	0.05	4.4	11.4	75.0
5488-89	0.02	3.3	6.1	78.8
5489-90	0.15	18.8	1.1	69.7
5490-91	0.17	18.6	3.2	60.2
5491-92	0.24	20.2	1.0	67.3
5492-93	0.03	1.6	0	68.8
5493-94	0.03	2.0	0	75.0
5494-95	0.04	1.5	0	73.3
5495-96	0.03	2.3	0	73.9
5496-97	0.23	19.7	18.3	54.8
5497-98	0.16	20.0	16.5	55.5
5498-99	0.11	20.5	5.4	68.3
5499-5500	0.06	20.1	9.0	69.2
5500-01	0.14	19.7	2.5	70.1
5501-02	0.18	18.3	2.7	66.1

WELL REPORT
NO. 2 FEDERAL 19

FORMATION TOPS (LOGS) (Continued)

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Upper Ismay Porosity	5480	-364
Hovenweep Shale	5512	-396
Lower Ismay	5540	-424
Lower Ismay Anhydrite	5558	-442
Gothic Shale	5592	-476
Upper Desert Creek	5606	-490
Upper Desert Creek Anhydrite	5622	-506
Lower Desert Creek Anhydrite	5662	-546
Lower Desert Creek Porosity	5670	-554
Chimney Rock Shale	5688	-572
Akah	5707	-591
TOTAL DEPTH	5728 (Logger) 5730 (Driller)	

CHRONOLOGICAL HISTORY

<u>DATE</u>	<u>DEPTH (8:00 A.M.)</u>	<u>DAY OF OPERATION</u>	<u>COMMENTS</u>
9-21-79	-	1	Spud 1:00 P.M. Drilled surface hole. Ran 13-3/8" conductor to 68'.
9-22-79	68	2	WOC
9-23-79	250	3	Drilling.
9-24-79	1190	4	Drilling.
9-25-79	1631	5	Drilling. MW: 8.9, Vis: 28
9-26-79	2105	6	Drilling. MW: 8.8, Vis: 28
9-27-79	2330	7	Drilling. MW: 8.9, Vis: 31
9-28-79	2470	8	WOC. Ran intermediate casing to 2463.76'.
9-29-79	2469	9	Drilling.
9-30-79	3343	10	Weighting mud to kill water flow.
10-1-79	3567	11	Drilling.
10-2-79	3894	12	Tripping. MW: 11.0, Vis: 38
10-3-79	4103	13	Trip for hole in pipe.
10-4-79	4186	14	Repairing rig. Changing mud pumps.
10-5-79	4403	15	Circulating for DST No. 1. MW: 11.1, Vis: 45
10-6-79	4403	16	Conditioning mud to kill water flow.
10-7-79	4403	17	Tripping in for DST No. 1.
10-8-79	4675	18	Drilling.
10-9-79	4800	19	Drilling. MW: 11.1, Vis: 40
10-10-79	4967	20	Drilling. MW: 11.2, Vis: 41
10-11-79	5172	21	Drilling. MW: 11.2, Vis: 45
10-12-79	5340	22	Drilling. MW: 11.2, Vis: 48

WELL REPORT
NO. 2 FEDERAL 19

C H R O N O L O G I C A L H I S T O R Y (Continued)

<u>DATE</u>	<u>DEPTH (8:00 A.M.)</u>	<u>DAY OF OPERATION</u>	<u>COMMENTS</u>
10-13-79	5380	23	Coring. MW: 11.3, Vis: 47
10-14-79	5466	24	Coring - CORE NO. 2
10-15-79	5526	25	Preparing to run DST No. 2
10-16-79	5533	26	Circulating and conditioning mud, MW: 11.2, Vis: 45
10-17-79	5669	27	Trip in for CORE NO. 4.
10-18-79	5730	28	Condition hole for logs. Completed logging approximately 2:00 A.M., 10-19-79. Condition hole for produc- tion casing.

D R I L L S T E M T E S T S

DST NO. 1, 4340-4403'; IFP 15 min., ISIP 60 min., FFP 60 min., FSIP 120 min.
 Opened with a 1" blow, increasing to a three inch blow. Final
 flow opened with a 1/2" blow increasing to a maximum 1" blow after 5 minutes.
 Blow continued throughout remainder of final flow.

Pipe Recovery: 50' Oil
 190' Oil Cut Mud

Sample Recovery: 1250 cc Oil (34° API @ 60°F)
 900 cc Mud
 (Pressure: 25 PSI)

Pressures: IH 2500 FF 94.9-141.4
 IF 21.1-64.6 FSI 1322.2
 ISI 1565 FH 2500

BHT: 112°F

DST NO. 2, 5372-5526'; IFP 30 min., ISIP 60 min., FFP 60 min., FSIP 120 min.
 Blew off bottom of bucket in 3 minutes. Remained off bottom for
 duration of test.

Pipe Recovery: 446' Slightly Gas Cut and Water Cut Mud

Sample Recovery: .05 cu. ft. Gas
 2150 ML Gas Cut Mud
 (Pressure: 125 PSI)

Pressures: IH 3049.9 FF 212.8-239.4
 IF 79.8-106.4 FSI 932.0
 ISI 585.4 FH 3049.9

BHT: 110° F

NOTE: BHT is probably wrong. (BHT 135°F in No. 1 Federal 19)

WELL REPORT
NO. 2 FEDERAL 19

C O R E A N A L Y S I S (Continued)

<u>DEPTH</u>	<u>PERMEABILITY</u>	<u>% POROSITY</u>	<u>% OIL</u>	<u>% WATER</u>
5502-03	0.27	17.2	2.9	63.4
5503-04	0.13	11.0	1.8	63.6
5504-05	0.05	5.3	1.9	54.7
5505-06	0.06	3.6	13.9	69.4
5506-07	0.11	7.1	7.0	52.1
5507-08	0.18	16.6	4.2	63.3
5508-09	0.19	18.6	3.3	57.5
5509-10	0.18	18.0	1.1	63.9
5510-11	0.27	14.7	1.4	72.8
5511-12	0.20	14.6	3.4	67.8
5512-13	0.13	14.0	0.7	72.1
5513-14	0.05	2.8	3.6	75.0
5514-15	0.06	5.9	13.6	72.9

CORE NO. 4, 5657'-5690'; Analyzed 5673-5687'

5673-74	0.07	9.6	0	69.1
5674-75	0.04	10.3	0	82.4
5675-76	0.04	11.5	6.1	64.3
5676-77	0.07	7.3	12.3	50.3
5677-78	0.05	10.7	7.5	52.1
5678-79	0.06	9.5	4.2	92.1
5679-80	0.02	3.4	0	98.0
5680-81	0.04	5.1	0	98.4
5681-82	0.03	5.3	0	98.5
5682-83	0.03	5.3	0	99.1
5683-84	0.03	5.1	0	98.6
5684-85	0.02	3.2	0	98.1
5685-86	0.03	3.8	10.5	77.1
5686-87	0.03	5.0	0	92.6

L O G A N A L Y S I S

<u>INTERVAL</u>	<u>POROSITY (%)</u>	<u>Rt</u>	<u>Rw</u>	<u>Sw(%)</u>	<u>FORMATION</u>
5486-88	21	2.3	.02	40	Upper Ismay
5492-96	25	1.3	.02	45	Upper Ismay
5496-5500	23	.6	.02	71	Upper Ismay
5504-08	21.2	.8	.02	67	Upper Ismay
5670-75	15.5	1.8	.02	58.4	Desert Creek

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N

<u>LOG DEPTH</u>	<u>SAMPLE DEPTH</u>	<u>DESCRIPTION</u>
	4200-4210	SHALE, orange-red, some gypsiferous, silty; SANDSTONE, trace, white to pink, fine to medium grained, angular, arkosic, micaceous.
	4210-4250	Sample, as above.
	4250-4300	Sample, as above.
	4300-4310	Sample, as above.
	4310-4320	Sample, as above.
	4320-4330	Sample, as above, with some LIMESTONE, light grey, mottled, soft, clayey, to dense.
	4330-4340	LIMESTONE, argillaceous, silty in part, some grey-tan, dense, trace CHERT, smoky, translucent, some white orange.
	4340-4350	LIMESTONE, mottled greys, pelletal texture in part (dark pellets in light matrix) no visible porosity. Trace with mottled yellow fluorescence and fair cut - looks tight.
	4350-4360	No sample.
	4360-4370	SILTSTONE; light grey, calcareous, carbonaceous; LIMESTONE, as above, no shows.
	4370-4380	SILTSTONE, as above, increasing; LIMESTONE, as above.
	4380-4390	LIMESTONE, dense, buff-tan, light, some tan, dense, SILTSTONE, as above, decreasing.
	4390-4400	LIMESTONE, mixed, much CHERT, brown, slightly calcareous; SILTSTONE, as above, decreasing.
	4400-4410	LIMESTONE/SHALE, dark grey-brown, dense; LIMESTONE, argillaceous, mottled grey.
	4410-4420	Mixed Sample, as above.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>		
<u>SAMPLE DEPTH</u>		<u>DESCRIPTION</u>
4420-4440		Mixed Sample, as above, SHALE, red, increasing.
4440-4450		SHALE, orange-red.
4450-4460		SHALE, orange-red.
4460-4470		SILTSTONE, light grey to tan, carbonaceous, calcareous; SHALE, mottled grey, calcareous.
4470-4480		Sample, as above.
4480-4490		Sample, as above.
4490-4500		Sample, as above, SILTSTONE, increasingly calcareous.
4500-4510		LIMESTONE, tan-grey, shaly, silty.
4510-4520		LIMESTONE, tan-white, mottled, dense, some silty, no visible porosity.
4520-4530		LIMESTONE, medium to dark pelletal in light finely crystalline matrix, clayey.
4530-4540		SANDSTONE, fine grained, carbonaceous, very calcareous, some LIMESTONE, as above, decreasing.
4540-4550		SILTSTONE/LIMESTONE, grey-tan.
4550-4560		Sample, as above.
4560-4570		LIMESTONE, dark tan-grey, shaly, somewhat silty.
4570-4580		LIMESTONE, tan, mottled, pelletal, fossil fragmental.
4580-4590		LIMESTONE, as above; SHALE, brown, increasing.
4590-4600		SHALE, brown, some orange-red.
4600-4640		SHALE, as above.
4640-4650		LIMESTONE, tan, dense, ivory.
4650-4660		LIMESTONE, grey-tan, ivory, dense, as above.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>	<u>DESCRIPTION</u>
<u>SAMPLE DEPTH</u>	
4660-4670	SHALE, brown, silty; LIMESTONE, as above, decreasing.
4670-4680	Sample, as above with SANDSTONE, fine to very fine grained, argillaceous, carbonaceous.
4680-4690	SHALE, medium grey, calcareous, some brown, as above.
4690-4700	SANDSTONE, very fine grained to silty size, argillaceous, micaceous, calcareous; SHALE, brown, silty, calcareous, micaceous.
4700-4810	SILTSTONE/SANDSTONE, very fine grained, carbonaceous, increasingly calcareous.
4710-4720	LIMESTONE, grey to tan, silty; SILTSTONE, as above.
4720-4730	LIMESTONE/SHALE, medium to dark grey.
4730-4740	Sample, as above.
4740-4750	LIMESTONE, medium grey, silty, shaly.
4750-4760	LIMESTONE, tan to white-grey, dense to chalky, some with mottled tan-grey and white relict clastic texture, some crystalline, no visible porosity or shows.
4760-4770	LIMESTONE, mottled as above; SANDSTONE, mostly fine grained, some medium grained, with some coarse, angular, sand grains.
4770-4780	SANDSTONE, medium to coarse grained, friable, probably good porosity.
4780-4790	SHALE, medium grey, calcareous, silty, micaceous in part; some SANDSTONE, as above, decreasing.
4790-4800	SHALE, as above; SILTSTONE, tan, grey, very calcareous.
4800-4810	SHALE, as above; SHALE, brown, silty, some LIMESTONE, grey, tan, dense to chalky.
4810-4820	Mixed sample, as above.
4820-4840	LIMESTONE, tan-grey, somewhat mottled texture, mostly dense, some crystalline to chalky; SHALES, as above, decreasing.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>	<u>SAMPLE DEPTH</u>	<u>DESCRIPTION</u>
	4840-4850	Sample, as above.
	4850-4860	SILTSTONE/LIMESTONE, medium grey.
	4860-4870	No sample.
	4870-4880	LIMESTONE, light grey-tan, dense.
	4880-4890	LIMESTONE, as above, slightly darker, slightly argilla- ceous.
	4890-4900	LIMESTONE, grey-tan, mottled texture, silty and sandy in part.
	4900-4910	LIMESTONE, as above.
	4910-4920	LIMESTONE, medium grey, shaly.
	4920-4930	LIMESTONE, as above.
	4930-4940	LIMESTONE, tan, dense, some slightly chalky, decreasing- ly shaly.
	4940-4950	LIMESTONE, some as above, some silty and increasingly shaly.
	4950-4960	Sample, as above.
	4960-4970	Mixed SILTSTONE, calcareous; LIMESTONE, tan-grey, dense, some white, chalky.
	4970-4980	LIMESTONE, tan-grey, dense, some medium to dark grey, shaly.
	4980-4990	LIMESTONE, tan-grey, dense, some lighter, finely crystalline to chalky.
	4990-5000	SHALE, medium to dark grey, calcareous, trace LIME- STONE, as above, decreasing.
	5000-5010	SHALE/LIMESTONE, dark grey as above, trace crinoid fragments.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>	<u>DESCRIPTION</u>
<u>SAMPLE DEPTH</u>	
5010-5020	Mixed LIMESTONE, medium dark grey; SILTSTONE and SHALE; grey, calcareous (5023' coal (?) in sample).
5020-5030	Sample, as above, increasingly LIMESTONE, silty, grey-tan.
5030-5040	LIMESTONE, somewhat mottled grey-tan, trace crinoid frag., trace CHERT, tan, translucent.
5040-5050	LIMESTONE, tan-grey, mottled, fine relict clastic texture in part, some fine crystalline; trace CHERT, milky white.
5050-5060	SHALE/LIMESTONE, dark grey-tan.
5060-5070	Sample, as above.
5070-5080	Sample, as above.
5080-5090	Sample, as above.
5090-5100	Sample, mostly as above with increase in LIMESTONE, mottled tan, somewhat shaly.
5100-5110	LIMESTONE, tan, dense, some slightly shaly; trace CHERT, tan, translucent.
5110-5120	Mixed LIMESTONE and SHALE/LIMESTONE and SHALE, medium grey, calcareous.
5120-5130	LIMESTONE, mixed dark tan to light tan white, some black SHALE, calcareous, trace CHERT, tan, translucent.
5130-5140	LIMESTONE, grey-tan, dense to finely crystalline to chalky in part, some light grey.
5140-5150	LIMESTONE, medium to dark tan-grey; SHALE, dark grey, calcareous.
5150-5160	LIMESTONE, mixed light to dark grey, shaly in part; some SHALE, as above.
5160-5170	Sample, as above, with increase in LIMESTONE, light grey-tan.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>	<u>DESCRIPTION</u>
<u>SAMPLE DEPTH</u>	
5170-5180	Sample, as above.
PARADOX (5186) -----	
5180-5190	LIMESTONE, as above; SHALE, medium grey, calcareous.
5190-5200	LIMESTONE, light grey, dense to some finely crystalline in part.
5200-5210	LIMESTONE, as above.
5210-5220	SHALE, dark grey, very calcareous some with fine fossil fragments; some LIMESTONE, light grey, as above, decreasing.
5220-5230	LIMESTONE, dark grey-tan, mottled, fossil fragmental, shaly; SHALE, as above, decreasing.
5230-5240	LIMESTONE, mottled grey-tan, as above.
5240-5250	LIMESTONE, light grey-tan, dense to finely crystalline, some chalky, no visible porosity or shows.
5250-5260	SHALE, dark grey to black, calcareous, some LIMESTONE, mottled, tan.
5260-5270	LIMESTONE, light grey-tan, mostly dense, some chalky.
5270-5280	LIMESTONE, as above, somewhat darker, more mottled texture; CHERT, grey, grey-tan, translucent.
5280-5290	LIMESTONE, medium to dark tan-grey; CHERT, dark tan-grey, translucent.
5290-5300	LIMESTONE, mixed medium to light grey; trace CHERT; some SHALE, dark grey.
5300-5310	SHALE, dark grey, dense calcareous; LIMESTONE, as above, mixed greys.
5310-5320	Mixed SHALE and LIMESTONE, as above.
5320-5330	Sample, as above.
5330-5340	Sample, as above.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

LOG DEPTH

SAMPLE DEPTH

DESCRIPTION

UPPER ISMAY (5348) - - - - -

5340-5350 Sample, as above.

5350-5360 Sample, as above.

CORE POINT - CORE NO. 1, 5360-5420'

5360.0-60.7 SHALE, black.
 5360.7-63.3 ANHYDRITE, nodular
 5363.3-63.7 LIMESTONE, dark grey.
 5363.7-65.0 ANHYDRITE, nodular.
 5365.0-65.8 SHALE, black.
 5365.8-67.0 ANHYDRITE, nodular, small blebs.
 5367.0-68.0 SHALE, interbedded; LIMESTONE, grey.
 5368.0-73.0 LIMESTONE, grey.
 5373.0-74.4 LIMESTONE, shaly.
 5374.4-76.0 LIMESTONE, grey with lamina of shaly LIMESTONE;
 ANHYDRITE, nodular.
 5376.0-82.7 LIMESTONE, grey with lamina of shaly LIMESTONE.
 5382.7-86.4 ANHYDRITE, shaly.
 5386.4-5420 ANHYDRITE, massive.

CORE NO. 2, 5420-5480'

5420-5480 ANHYDRITE, massive (bedded at least in part).

CORE NO. 3, 5480-5526'

5480.0-82.5 ANHYDRITE, massive.
 5482.5-89.0 LIMESTONE, dense, argillaceous (DOLOMITE to 85,
 LIMESTONE on to 89), possible poor chalky porosity.
 5489.0-91.5 DOLOMITE, tan, earthy; LIMESTONE, chalky with ANHY-
 DRITE blebs.
 5491.5-95.8 LIMESTONE, dense, grey with anhydrite blebs.
 5495.8-5505 LIMESTONE, grey-tan, chalky with good odor at 5497,
 good and low permeability (LIMESTONE to 5499.7,
 DOLOMITE to 5503, LIMESTONE to 5505).
 5505.0-5506 LIMESTONE, dense, crinoidal wackestone.
 5506.0-14.2 LIMESTONE, chalky-tan-good and low permeability.
 5514.2-25.0 SHALE, black (Hovenweep)

Slight "ammonia" like odor throughout porous zones except at 97-98 good oil odor. Slight bleeding gas at 5488-89 from vertical fracture. No salty taste in any porous zones, no water seen.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>	<u>DESCRIPTION</u>
<u>SAMPLE DEPTH</u>	
5526-5530	Mixed SHALE, dark grey to black and LIMESTONE, dark grey-tan, dense.
5530-5440	SHALE, dark, grey to black, very carbonaceous, calcareous.
LOWER ISMAY (5540') - - - - -	
5540-5550	SHALE, as above; LIMESTONE, dark grey-tan, shaly; CHERT, white to tan translucent.
5550-5560	SILTSTONE, light to medium grey, very calcareous, tight.
LOWER ISMAY ANHYDRITE (5558') - - - - -	
5560-5570	ANHYDRITE, white to tan translucent, dense to chalky; SILTSTONE and SHALE, as above.
5570-5580	ANHYDRITE, as above.
5580-5590	LIMESTONE, dark grey-tan, anhydritic in part, shaly.
5590-5600	SHALE, some black, mostly medium grey, silty, calcareous.
5600-5610	SHALE, black soft, calcareous.
UPPER DESERT CREEK (5606') - - - - -	
5610-5615	SILTSTONE, light to medium grey-tan, very calcareous.
5615-5620	SILTSTONE, as above.
5620-5625	SILTSTONE, as above.
UPPER DESERT CREEK ANHYDRITE (5622') - - - - -	
5625-5630	ANHYDRITE, white to tan-grey, translucent.
5630-5635	ANHYDRITE, as above some mottled with dark grey dolomite.
5635-5640	SHALE/LIMESTONE, dark grey, carbonaceous.
5640-5645	Sample, as above.

WELL REPORT
NO. 2 FEDERAL 19

S A M P L E D E S C R I P T I O N (Continued)

<u>LOG DEPTH</u>	<u>SAMPLE DEPTH</u>	<u>DESCRIPTION</u>
	5645-5650	Sample, as above.
	5650-5655	Sample, as above.
LOWER DESERT CREEK ANHYDRITE (5662') - - - - -		
<u>CORE NO. 4, 5657-5690'</u>		
	5657.0-59.0	SHALE, black with anhydrite nodules.
	5659.0-66.5	SHALE, dense, black with silty dolomite interbeds.
	5666.5-72.8	ANHYDRITE.
	5672.8-78.7	DOLOMITE, earthy, dark grey to tan, tight - wet very salty taste, no odor.
	5678.7-5687	LIMESTONE, dark grey, argillaceous, earthy, very fossiliferous with shaly break at 5682 - most fossiliferous below 5682.
	5690-5700	SHALE, dark grey to black, some medium grey, calcareous.
	5700-5710	SHALE, as above.
AKAH (5707') - - - - -		
	5710-5720	Sample, as above; SILTSTONE, medium grey, calcareous.
	5720-5730	Sample, as above, with ANHYDRITE, white to grey tan.

FILE IN TRIPLICATE
FORM OGC-8-X

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Federal Well No. 2-19
Operator McCulloch Oil & Gas Corp. Address 3033 N.W. 63rd St.; Suite 250-E
Oklahoma City, Okla. 73116
Contractor Brinkerhoff-Signal Address Framington, New Mexico
Location NW ¼ NW ¼ Sec. 19 T. 38S R. 26E County San Juan

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	From	To	Flow Rate or Head	Fresh or Salty
1.	3290'	3300'	estimate 2000 gpm	Salty (Cl=18,000 ppm)
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops

Entrada 596, Carmel 724, Navajo 748, Wingate 1155, Chinle 1490,
Shinarump 2268, Cutler 2423, U.Hermosa 4228, Paradox 5186,
U.Ismay 5348, Desert Creek 5606, Akah 5707.

Remarks

- NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

File

MCCULLOCH OIL AND GAS CORPORATION

No. 2 Federal 19

1150' FNL, 1050' FWL,
Section 19, T38S-R26E

San Juan County, Utah

JAMES K. PRICE
Geologist

WELL: No. 2 Federal 19
 OPERATOR: McCulloch Oil and Gas Corporation
 CONTRACTOR: Brinkerhoff-Signal, Rig No. 67
 Toolpusher: Richard Pope
 LOCATION: 1150' FNL, 1050' FWL, Section 19, Township 38 South,
 Range 26 East
 COUNTY: San Juan
 STATE: Utah
 ELEVATION: 5104' G.L. 5116' K.B.
 COMMENCED: September 21, 1979, 1:00 P.M.
 CASING: Conductor: Ran 2 joints, 13-3/8" casing, set at
 68' K.B. with 100 sacks Class B cement,
 2% CaCl.
 Intermediate: 62 joints, 8-5/8", K55, 24# (ST&C),
 1000 sacks light cement, 2% CaCl.
 Tailed in 200 sacks Class B cement,
 2% CaCl.
 CORES: CORE NO. 1, 5360'-5420' (Upper Ismay)
 CORE NO. 2, 5420'-5480' (Upper Ismay)
 CORE NO. 3, 5480'-5526' (Upper Ismay)
 CORE NO. 4, 5657'-5690' (Lower Desert Creek)
 DRILLSTEM TESTS: DST No. 1, 4340-4403' (Upper Hermosa)
 DST No. 2, 5372-5526' (Upper Ismay)
 LOGS: Compensated Neutron-Formation Density, Borehole
 Compensated Sonic, Dual Induction - SFL. (Schlumberger)
 COMPLETED DRILLING: October 18, 1979, 12:13 A.M.
 STATUS: Running production casing.

FORMATION TOPS (LOGS)

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Entrada	596	
Carmel	724	+4392
Navajo	748	+4368
Kayenta	997	+4119
Wingate	1155	+3916
b/Wingate	1370	+3746
Chinle	1490	+3626
Shinarump	2268	+2848
Cutler	2423	+2693
Honaker Trail (Upper Hermosa)	4228	+888
Paradox	5186	-70
Upper Ismay	5348	-232

November 6, 1970

MEMORANDUM

TO: File

FROM: Michael T. Minder *M.*
Geological Engineer
Division of Oil, Gas
and Mining

Re: McCulloch Oil and Gas
Well No. Federal #19-2
Sec. 19, T. 38S, R. 26E.,
San Juan County, Utah

There is a workover rig on this well attempting to complete a frac job. The well appears to be marginal if completed, and is somewhat of a disappointment after the success on their Federal 1-19 well.

The site is cluttered with equipment, but it appears to be stable and will no doubt be cleaned up once the completion is made. However, the reserve pit is about full and should be pumped if any more fluids are encountered.

cc: USGS - Durango

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5

4

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other

2. NAME OF OPERATOR
McCulloch Oil & Gas Corporation

3. ADDRESS OF OPERATOR
3033 N.W. 63rd St.; Suite 250-E, Okla. City, Okla. 73116

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1150' FNL & 1050' FWL

At top prod. interval reported below

At total depth

14. PERMIT NO. _____ DATE ISSUED 8-30-79

5. LEASE DESIGNATION AND SERIAL NO.
U 40406

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal 19

9. WELL NO.
2

10. FIELD AND POOL, OR WILDCAT
~~W. S. S. S.~~ Squaw Canyon

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

Section 19, T38S-R26E

12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUNDED 9-21-79 16. DATE T.D. REACHED 10-17-79 17. DATE COMPL. (Ready to prod.) 11-25-79 18. ELEVATIONS (OF, RES, RT, GR, ETC.)* 5116' KB 5104' GR 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5730 21. PLUG, BACK T.D., MD & TVD 4740 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ROTARY TOOLS 10-5730' CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5322 to 5394' Upper Hermosa 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN CNL-FDC, BHC Sonic, DIL 27. WAS WELL CORED Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48	68	17 1/2"	100 sx Class 'B'	none
8 5/8"	24	2463	12 1/4"	1000 sx Light + 200 sx CI	B' none
4 1/2"	10.5	5728	7 7/8"	665 sx Light + 710 sx 50: 50 Pozmix	none

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 3/8	4402	4263

31. PERFORATION RECORD (Interval, size and number)

Desert Creek: 5669-5671' (0.38") 6 holes	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
U. Ismay: 5485-5488'; 5493-5501'; 5504-5510' (0.38"), 40 holes	DEPTH INTERVAL (MD)
L. Hermosa: 4768-4778' (0.38"), 22 holes	AMOUNT AND KIND OF MATERIAL USED
U. Hermosa: 4322-4326'; 4338-4346'; 4386-4394' (0.38") 23 holes	5669-5671 500 gals Acid; CIBP @ 5656'
	5485-5510 7000 gals Acid; CIBP @ 5468'
	4768-4778 1000 gals Acid; CIBP @ 4750'
	4322-4394 7500 gals Acid

33.* PRODUCTION

DATE FIRST PRODUCTION 11-16-79 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Swab WELL STATUS (Producing or shut-in) Shut-in

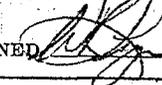
DATE OF TEST 11-24-79 HOURS TESTED 10 hrs CHOKE SIZE 2" PROD'N. FOR TEST PERIOD → OIL—BBL. 31 GAS—MCF. TSTM WATER—BBL. 0 GAS-OIL RATIO TSTM

FLOW. TUBING PRESS. zero CASING PRESSURE zero CALCULATED 24-HOUR RATE → OIL—BBL. 74 GAS—MCF. TSTM WATER—BBL. 0 OIL GRAVITY-API (CORR.) 34.2

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented TEST WITNESSED BY M.N. Hickman

35. LIST OF ATTACHMENTS
Geological Report; Logs (CNL-FDC, Sonic & DIL); Drlg log

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED  for J.D. Rawdon TITLE District Manager DATE 12-6-79

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. **Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
U. Hermosa	4340	4403	DST #1: Rec 50' oil & 190' OCM. 15 min IFP 21-65, 60 min ISIP 1565, 60 min FFP 95-141, 120 min FSIP 1322.
U. Ismay	5372	5526	DST #2: Rec 446' GC & WC mud. 30 min IFP 80-106, 60 min ISIP 585, 60 min FFP 213-239, 120 min FSIP 932.
U. Ismay	5360	5420	Core #1
U. Ismay	5420	5480	Core #2
U. Ismay	5480	5520	Core #3
Desert Creek	5657	5690	Core #4
Cutler	3290	3300	Water Sand

38. GEOLOGIC MARKERS

NAME	MEAS. DEPTH	TOP	TRUE VERT. DEPTH
Entrada	596		
Carmel	724		
Navajo	748		
Kayenta	997		
Wingate	1155		
Chinle	1490		
Shinarump	2268		
Cutler	2423		
U. Hermosa	4228		
Paradox	5186		
U. Ismay	5348		
L. Ismay	5540		
Desert Creek	5606		
Akah	5707		

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: McCulloch Oil and Gas Corp. (J.D. Rowdon)

WELL NAME: Federal #19-2

SECTION 19 NW NW TOWNSHIP 38S RANGE 26E COUNTY San Juan

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

TOTAL DEPTH: 5730'

CASING PROGRAM:

13 3/8" @ 68' circ to surf
8 5/8" @ 2463" circ to surf
4 1/2" @ 5720' TOC @ 2100'
7 7/8" openhole to 5730' washed
out to 11" per caliper log

FORMATION TOPS:

Akah	5705'	Shinarump	2268'
Desert Crk	5605'	Chinle	1490'
L. Ismay	5540'	Wingate	1155'
U. Ismay	5348'	Kayenta	997'
Paradox	5186'	Navajo	748'
U. Hermosa	4228'	Carmel	724'
Cutler	2423'	Entrada	596'

PLUGS SET AS FOLLOWS:

- #1 CIBP @ 4275' with 50' cement on top on 4400' - 4250'
- #2 2525' - 2425'
- #3 Cut & pull 4 1/2" casing spot 100' plug 1/2 in & 1/2 out of stub
- #4 800' - 700'
- #5 50' - surface

11#, 46 vis crilling mud between plugs, celan and restore site, erect regulation dryhole marker

DATE May 20, 1980

SIGNED _____

Original Signed By M. T. Minder

cc: USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.

U 40406

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 19

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 19, T38S-R26E

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

18. ELEVATIONS (DF, REB, RT, GR, ETC.)*

5104' Gd, 5116' KB

19. ELEV. CASINGHEAD

NA

23. INTERVALS DRILLED BY

ROTARY TOOLS

24. CABLE TOOLS

25. WAS DIRECTIONAL SURVEY MADE

27. WAS WELL CORED

Yes

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other **ORIGINALLY COMPLETED AS SIOW-11-25-79**

2. NAME OF OPERATOR
McCulloch Oil & Gas Corporation

3. ADDRESS OF OPERATOR
3033 N.W. 63rd St.; Ste-250E, Oklahoma City, Okla. 73116

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1150' FNL & 1050' FWL
At top prod. interval reported below
At total depth

14. PERMIT NO. 43-037-30494 | DATE ISSUED 8-1-79

15. DATE SPUDDED | 16. DATE T.D. REACHED | 17. DATE COMPL. (Ready to prod.) P&A 6-4-80

20. TOTAL DEPTH, MD & TVD | 21. PLUG, BACK T.D., MD & TVD | 22. IF MULTIPLE COMPL., HOW MANY* | 23. INTERVALS DRILLED BY

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
NA

26. TYPE ELECTRIC AND OTHER LOGS RUN
BHC, Dual Ind., SFL

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
					None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NA				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA		

31. PERFORATION RECORD (Interval, size and number)

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
NA	

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
		P&A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

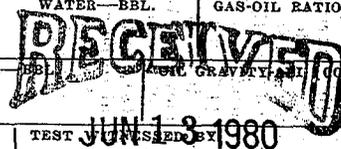
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED J.D. Rawdon TITLE District Manager DATE June 9, 1980

*(See Instructions and Spaces for Additional Data on Reverse Side)



INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. **Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP	TRUE VERT. DEPTH
				Chinle	1490'		
				Cutler	2423'		
				Upper Hermosa	4228'		
				Paradox	5186'		
				Upper Ismay	5348'		
				Desert Creek	5606'		

37. SUMMARY OF POROUS ZONES:
 SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

38. GEOLOGIC MARKERS

June 20, 1980

McCulloch Oil & Gas Corp.
3033 N.W. 63rd St.
Suite 250-E
Oklahoma City, Oklahoma 73116

Re: Well No. McCulloch Federal 19-2
Sec. 19, T. 38S, R. 26E.
San Juan County, Utah

Gentlemen:

Our records indicate that you have not filed a Subsequent Report of Abandonment for the above subject well.

Rule D-2, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed within (30) days after the plugging of any well.

In order that we may keep our records accurate and complete, please complete the enclosed Form OGC-1B and forward it to this office as soon as possible.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, & MINING


JANICE TABISH
CLERK-TYPIST

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO. U-40406
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME Federal 19
9. WELL NO. 2
10. FIELD AND POOL, OR WILDCAT Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sect. 19, T38S-R26E
12. COUNTY OR PARISH San Juan
13. STATE Utah

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 Dry Hole

2. NAME OF OPERATOR
McCulloch Oil & Gas Corporation

3. ADDRESS OF OPERATOR
3033 N.W. 63rd, Suite 250-E, Okla. City, OK.

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface 73116
1150' FNL & 1050' FWL of section

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5104' Gd, 7116' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
(Other) _____		(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 following procedure was used to plug the subject well:

1. Displaced hole with 11 ppg mud.
2. Spotted 461' regular neat cement from 4414 to 3953'.
3. Spotted 100' regular neat cement from 2510 to 2410'.
4. Found free point for 4½" casing at 358' and cut off at 355' and pulled.
5. Spotted 100' regular neat cement from 400' to 300'. (50' inside and 50' outside of 4½" csg)
6. Spotted 50' regular neat cement from 50' to surface.
7. Cut off 8 5/8" csg & welded on steel plate.
8. Erected dry hole marker and commenced restoring location.

RECEIVED
JUN 25 1980

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

SIGNED J.D. Rawdon TITLE District Manager DATE June 23, 1980
J.D. Rawdon
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY: