Exxon #1 Crooked Canyon Federal "B"

T20S, R21E, Eddy County, New Mexico
Federal Lease No. NM 25336

1. The geologic name of the surface formation: Recent

2. The estimated tops of important geologic markers:

Yeso	1145'	Strawn	7000'
Tubb	2745'	Derry	7410'
Abo	3435'	Morrow	7670'
Wolfcamp	4665'	Chester	8090'
Bugh	5740'		
Canyon	6540'		

3. The estimated depths at which anticipated water, oil, gas, or other mineral bearing formations are expected to occur:

Water		60'
Oil	Abo	3435'
	Wolfcamp	4665'
Gas	Morrow	7670'

4. Proposed Casing Program:

String	Size	Weight/Grade	Condition	Depth Interval
Surface	8 5/8"	24#/K-55	New or Used	0-1600'
Production	5 1/2"	14#, 15.5#, 17#/ K-55 & N-80	New or Used	0-8500'

5. Minimum specifications for pressure control equipment.

   a. Wellhead Equipment - Threaded type 3000 psi WP for 8 5/8" x 5 1/2" casing program and 2 7/8" tubing.

   b. Blowout Preventers - Refer to attached drawing and list of equipment titled "Type II-C" for description of BOP stack and choke manifold.

   c. BOP Control Unit - Unit will be hydraulically operated and have at least 3 control stations.

   d. Testing - When installed on 8 5/8" surface casing the BOP stack will be tested to a low pressure (200-300 psi) and to 1500 psi. Casing rams will be tested in like manner when installed prior to running production casing. An operational test of the blowout preventers will be performed on each round trip (but not more than once each day); the annular and pipe ram preventers will be closed on drill pipe, and the blind rams will be closed while pipe is out of the hole.

6. Type and Anticipated Characteristics of Drilling Fluid:

Depth Interval (Feet)	Mud Type	Weight (ppg)	Funnel Visc. (Sec/Qt)	WL (cc)	pH
0-3200	FW	8.6-9.0	30-33	--	10.5
3200-TD	Cut Brine	8.8-9.2	35-40	10-12	10.5

7. Auxilliary Control Equipment:

   a. Kelly Cocks: Upper and lower installed on kelly.

   b. Safety Valve: Full opening ball type to fit each type and size of drill pipe in use will be available on rig floor at all times, in open position for stabbing into drill pipe when kelly is not in the string.

   c. Trip tank to insure that hole is full and takes proper amount of fluid on trips. Will be used during drilling of production hole.

   d. Mud system monitoring equipment and floats at the bit will not be used unless conditions dictate.

8. Testing, logging, and Completion Programs.

   a. Logging:

Surface casing-TD	FDC/DLL
Surface-TD	Gamma Ray
5000'-TD	Dipmeter

   b. Mud Logger from surface casing shoe to TD.

   c. Completion - Formation: Morrow 7670-8090'

      Proposed Completion Procedure: Spot acid across pay zone. Run GR-CCL and perforate. Acidize with 1500 gals. 15% gelled NE HCl.

   d. Production Method: Run packer on 2 7/8" tubing and set above Morrow perforations. Produce Morrow gas up the tubing.

9. Abnormal Pressure or Other Possible Hazards:

   a. No abnormal pressure is anticipated.

   b. No H_2S problem is expected.

10. It is anticipated that the drilling and completion operations will begin about October 1, 1980 and be finished in approximately 12 weeks.

8-29-80

HAE/ch

BLOWOUT PREVENTER SPECIFICATION
EQUIPMENT DESCRIPTION

TYPE II-C

All equipment should be at least 3000 psi WP or higher unless otherwise specified.

1. Bell nipple.
2. Hydril or Shaffer bag type preventer.
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 4-inch and one 2-inch (minimum) outlet.
5. 2-inch (minimum) flanged plug or gate valve.
6. 2-inch by 2-inch by 2-inch (minimum) flanged tee.
7. 4-inch pressure operated gate valve.
8. 4-inch flanged gate or plug valve.
9. Ram type pressure operated blowout preventer with pipe rams.
10. Flanged type casing head with one side outlet (furnished by Exxon).
11. 2-inch threaded (or flanged) plug or gate valve (furnished by Exxon). Flanged on 5000# WP, threaded on 3000# WP or less.
12. Needle valve (furnished by Exxon).
13. 2-inch nipple (furnished by Exxon).
14. Tapped bull plug (furnished by Exxon).
15. 4-inch flanged spacer spool.
16. 4-inch by 2-inch by 2-inch by 2-inch flanged cross.
17. 2-inch flanged plug or gate valve.
18. 2-inch flanged adjustable choke.
19. 2-inch threaded flange.
20. 2-inch XXH nipple.
21. 2-inch forged steel 90^{o} Ell.
22. Cameron (or equal.) threaded pressure gage.
23. Threaded flange.

35. 2-inch flanged tee.
36. 3-inch (minimum) hose. (Furnished by Exxon).
37. Trip tank. (Furnished by Exxon).
38. 2-inch flanged plug or gate valve.
39. 2-1/2-inch pipe, 300' to pit, anchored.
40. 2-1/2-inch SE valve.
41. 2-1/2-inch line to steel pit or separator.

NOTES:

1. Items 3, 4 and 9 may be replaced with double ram type preventer with side outlets between the rams.

2. The two valves next to the stack on the fill and kill line to be closed unless drill string is being pulled.

3. Kill line is for emergency use only. This connection shall not be used for filling.

4. Replacement pipe rams and blind rams shall be on location at all times.

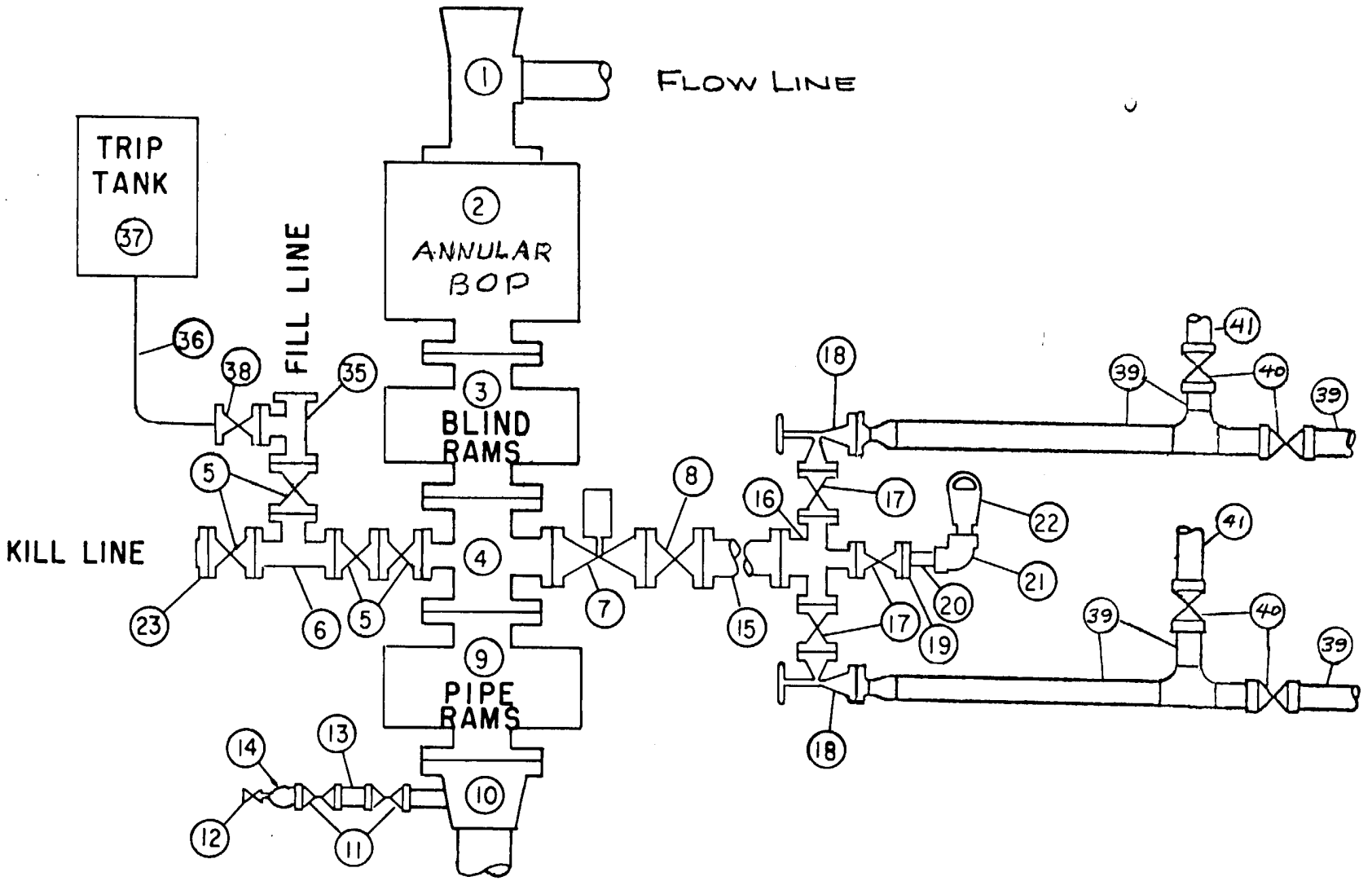
5. Only type U, LWS and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.

6. Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.

MIDLAND DRILLING ORGANIZATION

BLOWOUT PREVENTER SPECIFICATION

TYPE II - C



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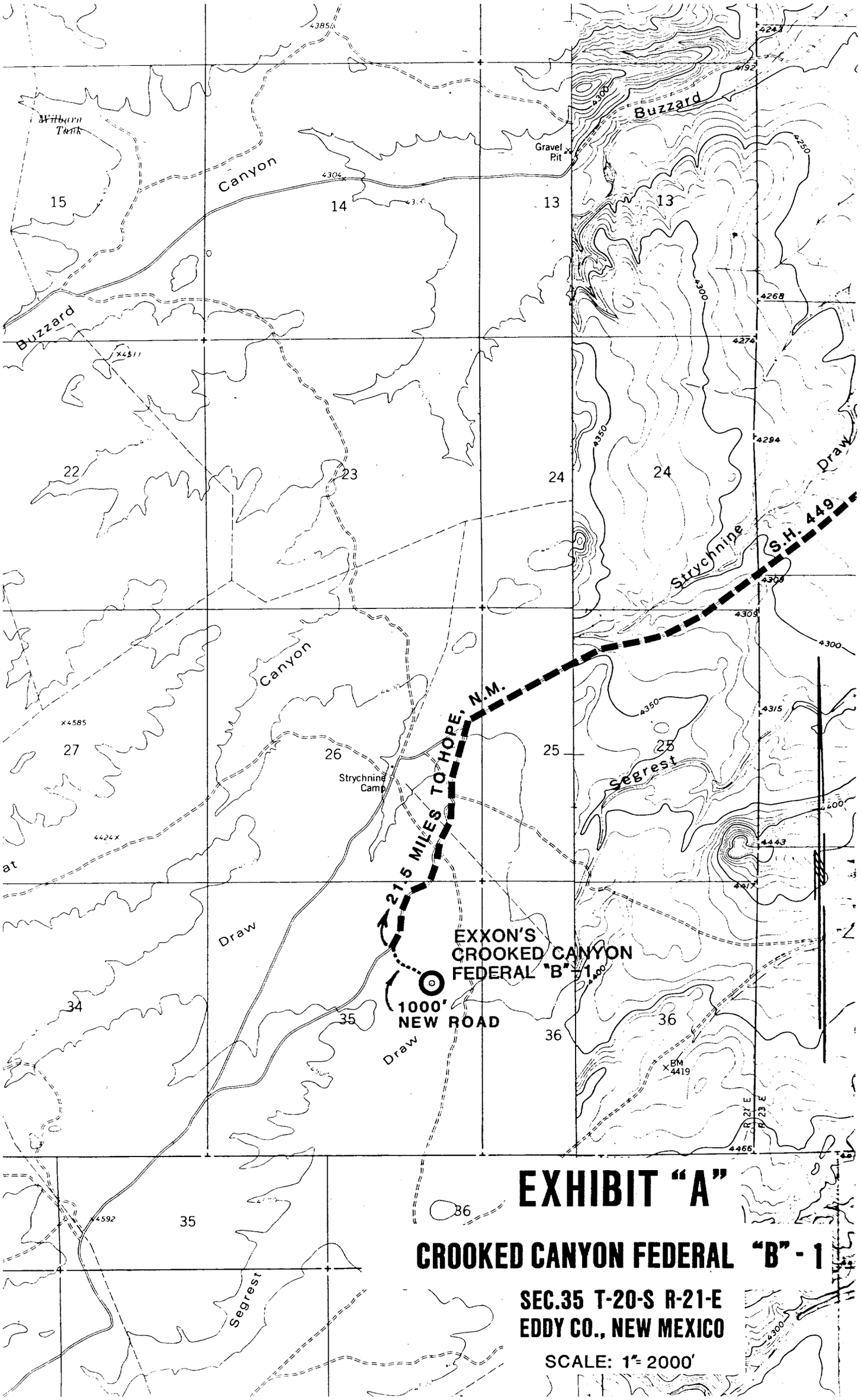

EXHIBIT "A"

CROOKED CANYON FEDERAL "B" - 1

SEC.35 T-20-S R-21-E
EDDY CO., NEW MEXICO

SCALE: 1"= 2000'