

FILE NOTATIONS

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

Checked by Chief
Approval Letter
Disapproval Letter

COMPLETION DATA:

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

Location Inspected
Bond released
State or Fee Land

LOGS FILED

Driller's Log.....
Electric Logs (No.)
E..... I..... Dual I Lat..... GR-N..... Micro.....
BHC Sonic GR..... Lat..... MI-L..... Sonic.....
CBLog..... CCLog..... Others.....

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 Wildcat SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR
 501 AIRPORT DRIVE, FARMINGTON, NEW MEXICO 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 950' FWL x 1900' FNL, Section 7, T9S, R6E
 At proposed prod. zone
 Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 18 miles northeast of Thistle, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 950'

16. NO. OF ACRES IN LEASE 1682.48

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. none

19. PROPOSED DEPTH 13,000'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6766' GL

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
26"	20"	106.5#	150'
17-1/2"	13-3/8"	61#	1500'
12-1/4"	9-5/8"	40 & 43.5#	8500'
8-1/2"	7"	29#	13,000'

Amoco Production Company proposes to drill the above wildcat wells to a depth of 13,000' to test the Subthrust Cretaceous. Completion will be based on open hole logs. Copies of all logs will be furnished upon reaching total depth. Copies of the location plat are attached. Additional information required by NTL-6 for the Application to Drill and a Multi-Point Surface Use Plan are 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 [Signature] TITLE Area Engineer DATE July 6, 1978

(This space for Federal or State office use)

PERMIT NO. 42-049-30007 APPROVAL DATE

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

5. LEASE DESIGNATION AND SERIAL NO.
U-21647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Amoco Gulf Cottonwood Canyon - USA

9. WELL NO. 1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SW/4 NW/4
Sec. 7, T9S, R6E

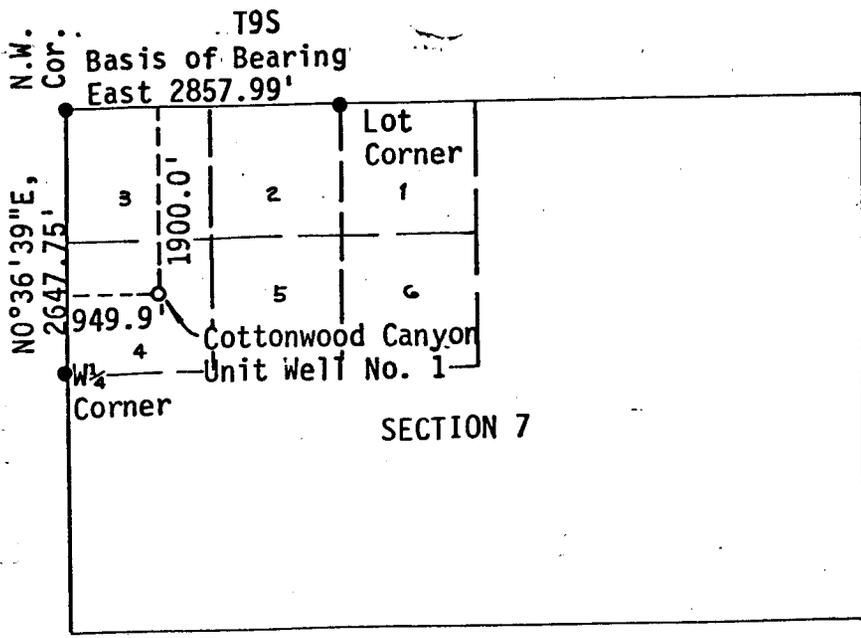
12. COUNTY OR PARISH
Utah

13. STATE
Utah

17. NO. OF ACRES ASSIGNED TO THIS WELL
Wildcat

20. ROTARY OR CABLE TOOL
Rotary

22. APPROX. DATE WORK WILL START*
As soon as permitted



Scale: 1"=2000'

- Hub and Tack
- Found Brass Cap

I, John A. Proffit, of Evanston, Wyoming, certify that in accordance with a request from Pete Krupka and Arlo Cleaver of Farmington, New Mexico for Amoco Production Company, I made a survey on the 21st & 22nd days of June, 1978, for Location and Elevation of the Cottonwood Canyon Unit Well #1 as shown on the above map, the wellsite is in Lot 4 of Section 7, Township 9 South, Range 6 East, of the Salt Lake Base & Meridian, Utah County, State of Utah, Elevation is 6766 feet to top of hub, Datum: spot elevation 7862 in Lot 5, Section 6, T9S, R6E, SLB & M, Rays Valley, Utah Quadrangle.
 Reference point 175 feet North, Elevation 6842.7' to top of bar.
 Reference point 200 feet East, Elevation 6713.0' to top of bar.
 Reference point 50 feet South, Elevation 6739.7' to top of bar.
 Reference point 200 feet West, Elevation 6767.7' to top of bar.

John A. Proffit
 JOHN A. PROFFIT UTAH R.L.S. NO. 2860



DATE: 6/26/78
 JOB NO.: 78-10-11

Uinta Engineering & Surveying, Inc.
 808 Main Street
 Evanston, Wyoming

SUPPLEMENTAL INFORMATION TO FORM 9-331C
 REQUIRED BY NTL-6
 AMOCO-GULF COTTONWOOD-USA NO. 1
 2246' FWL & 1646' FNL, SECTION 7, T-9-S, R-6-E
 UTAH COUNTY, UTAH

The geologic name of the surface formation is the Flagstaff Formation.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>ELEVATION</u>	<u>KB DEPTH</u>
Surface	+ 6790	19
KB	+ 6809	0
Northhorn*	+ 5290	1519
Ankareh	+ 4920	1889
Park City**	- 1520	8329
Diamond Ck.**	- 3170	9979
Kirkland	- 4120	10929
Subthrust Cretaceous**	- 4520	11329
TD	- 6191	13000

* Possible Water

** Possible Hydrocarbons

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
150'	20"	106.5# J-55	26"	375 - Class "G" Neat, 2% CaCl ₂ .
1500'	13-3/8"	61# J-55	17-1/2"	1000 - Class "G", 6% Gel, 200 - Tail in Class "G" Neat.
8500'	9-5/8"	40 & 43.5# N-80 & S-95	12-1/4"	700 - Class "G", 2% Gel Retarded cement.
13000'	7"	29# F-95	8-1/2"	700 - Class "G" Neat, Retarded cement.

All Casing will be new.

Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design. Auxiliary safety equipment will be used: Kellycocks for 4-1/2" drill pipe, floats at the bit, and mud monitoring equipment throughout. A drill pipe safety valve will be employed.

Drilling fluid to TD will be a low solids non-dispersed mud system from 1500' to 13,000'. Ironite will be used if sour gas encountered in Park City formation.

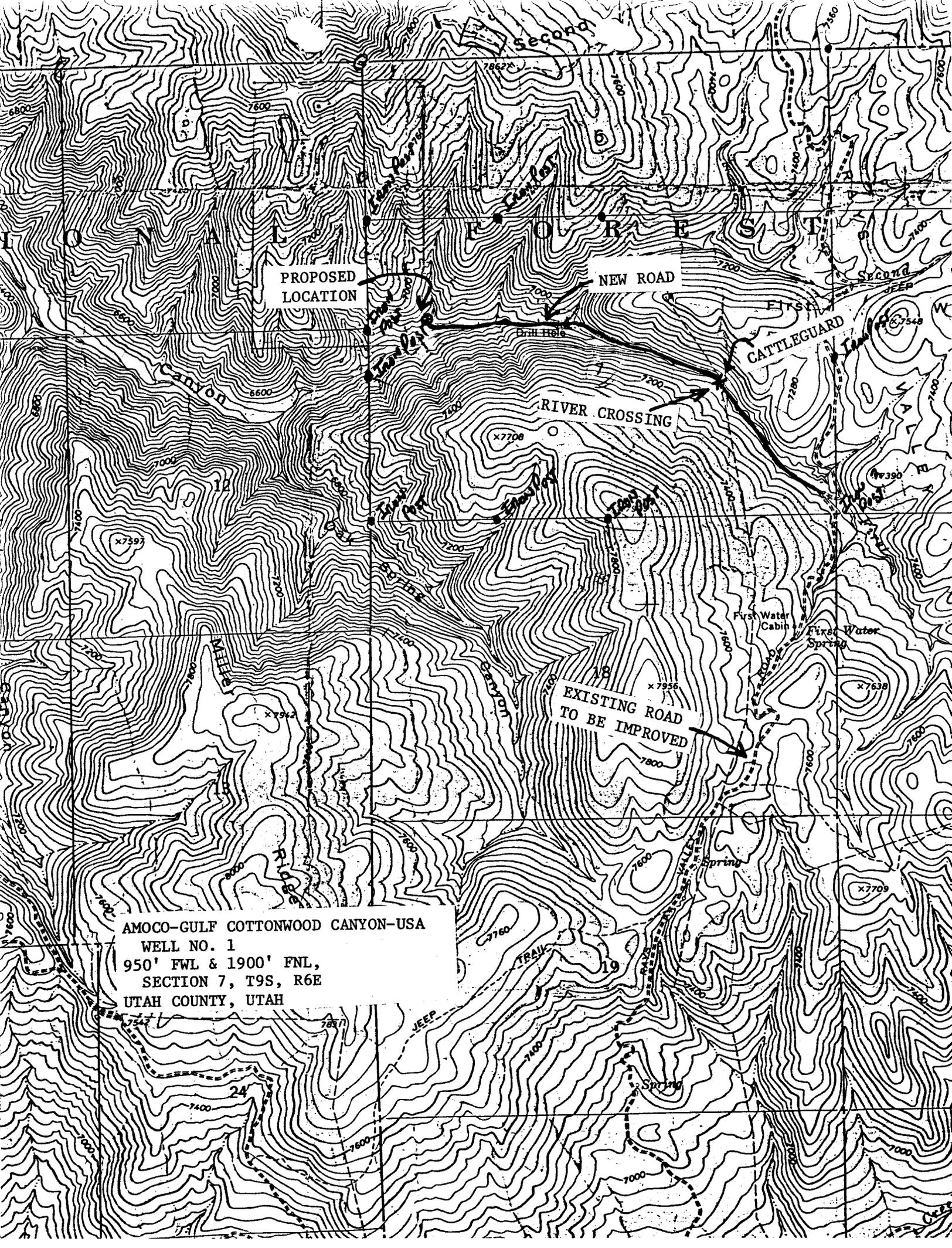
Amoco plans to run the following logs: Dual Induction Lateralog, Formation Density, Compensated Neutron, Sonic Gamma Ray, and Dipmeter will be run from TD to surface casing. No cores are planned. Drill stem tests are planned for the Park City and Cretaceous intervals. A 2-man mud logging unit will be on location from surface casing to TD.

MULTI-POINT SURFACE USE PLAN
AMOCO-GULF COTTONWOOD CANYON USA WELL NO. 1
2246' FWL, 1646' FNL, SECTION 7, T-9-S, R-6-E
UTAH COUNTY, UTAH

1. Existing Roads - The attached well site plat shows the proposed well as staked with directional orientation. The attached transportation sketch shows the route to the well from Spanish Fork, Utah. Access roads to be used and approximate distances from reference points are included. Also shown are roads within 3 miles of the proposed well. These roads are dirt base and poor quality. Portions to be used as access to the subject well will require improvement.
2. Planned Access Roads - The transportation sketch shows the route of planned access roads. Approximately 7.5 miles of existing road will be used and will have to be improved. The road will be improved by cutting into several small hills in order to have the 20' width necessary to move in drilling equipment. Several culverts will be installed as required by the Uintah National Forest Service. Approximately 1.25 miles of new road will be built along First Water Creek. This road is detailed on the attached topographic map. This road will require a river crossing at the point shown using two 4' diameter culverts. Additional culverts will be installed elsewhere along the route as required by the Uinta National Forest. The new road will be 20' wide and bar-ditched on the higher side. One cattleguard will be installed along the fence as indicated on the topographic map. Road surface will be earthen, no construction materials will be brought in for road construction.
3. Location of Existing Wells - No active wells are located within a two mile radius of the proposed well. An abandoned well is located approximately 1200' east and is spotted on the topographic map.
4. Location of Existing and or Proposed Facilities - No production facilities are located within a one mile radius of the subject well.
5. Location and Type of Water Supply - Water will be pumped from First Water Creek with permission from the U. S. Forest Service. Several springs along the road into the location could be used for rig water. Water will be transported via tank truck using the 1.25 mile road to be built.
6. Source of Construction Materials - No construction materials will be utilized in building the location.
7. Methods for Handling Waste Disposal - Waste disposal will be handled as follows:
 - A. Cuttings will be collected in the reserve pit and buried as the pit is backfilled.
 - B. Drilling fluids will be allowed to dry up in the reserve pit, then covered as the pit is backfilled.

- C. Produced oil and water will be collected in steel test tanks and disposed of in a manner acceptable to the U.S.G.S. Gas will be flared on a test basis with permission of the U.S.G.S.
 - D. Sewage will be handled using portable toilet facilities with a septic system dug for trailers on the uphill side of the location. Garbage and other waste materials will be gathered and stored in containers, then hauled to an approved dump site.
8. Ancillary Facilities - No camps or airstrips will be required for this operation.
 9. Well Site Layout - The attached rig schematic and location sketch show the location orientation and well site layout. The location sketch details necessary cuts and fills for this operation.
 10. Plans for Restoration of Surface - Restoration of surface will be accomplished by cleaning up upon completion of the well. The reserve pit will be backfilled and the location will be returned as close to its natural contours as possible. The location will be reseeded per Forest Service Specifications. The 1.5 miles of access roads to be built for this location will be either left for Forest Service use or ripped and reseeded according to Forest Service requirements. Prior to rig release, pits will be fenced and so maintained until clean-up. Any oil that has accumulated on the pit will be removed. Surface restoration will commence immediately after rig move out - if weather permits.
 11. General Location Description - The well site is approximately 200' from First Water Creek. The location will be built on a mild slope. The location is cut north to south by a dry wash. This wash will be diverted along the east edge of the location. The location is covered with scrub and other surface cover. No buildings are within one mile of the proposed location.
 12. A statement of operator's representative is attached.

In the past, drilling in this area has shown that no abnormal pressure or temperatures will be encountered. Hydrogen sulfide gas may be encountered in the Park City formation since correlatable zones yield hydrogen sulfide in the northern Rockies. However, nearby drilling through the Park City has not shown H₂S.



PROPOSED
LOCATION

NEW ROAD

RIVER CROSSING

EXISTING ROAD
TO BE IMPROVED

CATTLEGUARD

AMOCO-GULF COTTONWOOD CANYON-USA
WELL NO. 1
950' FWL & 1900' FNL,
SECTION 7, T9S, R6E
UTAH COUNTY, UTAH

H O N A L L F O U R E S T

CANYON

MEELER

COTTONWOOD

TRAIL

JEEP

First Water Cabin

First Water Spring

Spring

Spring

Drill Hole

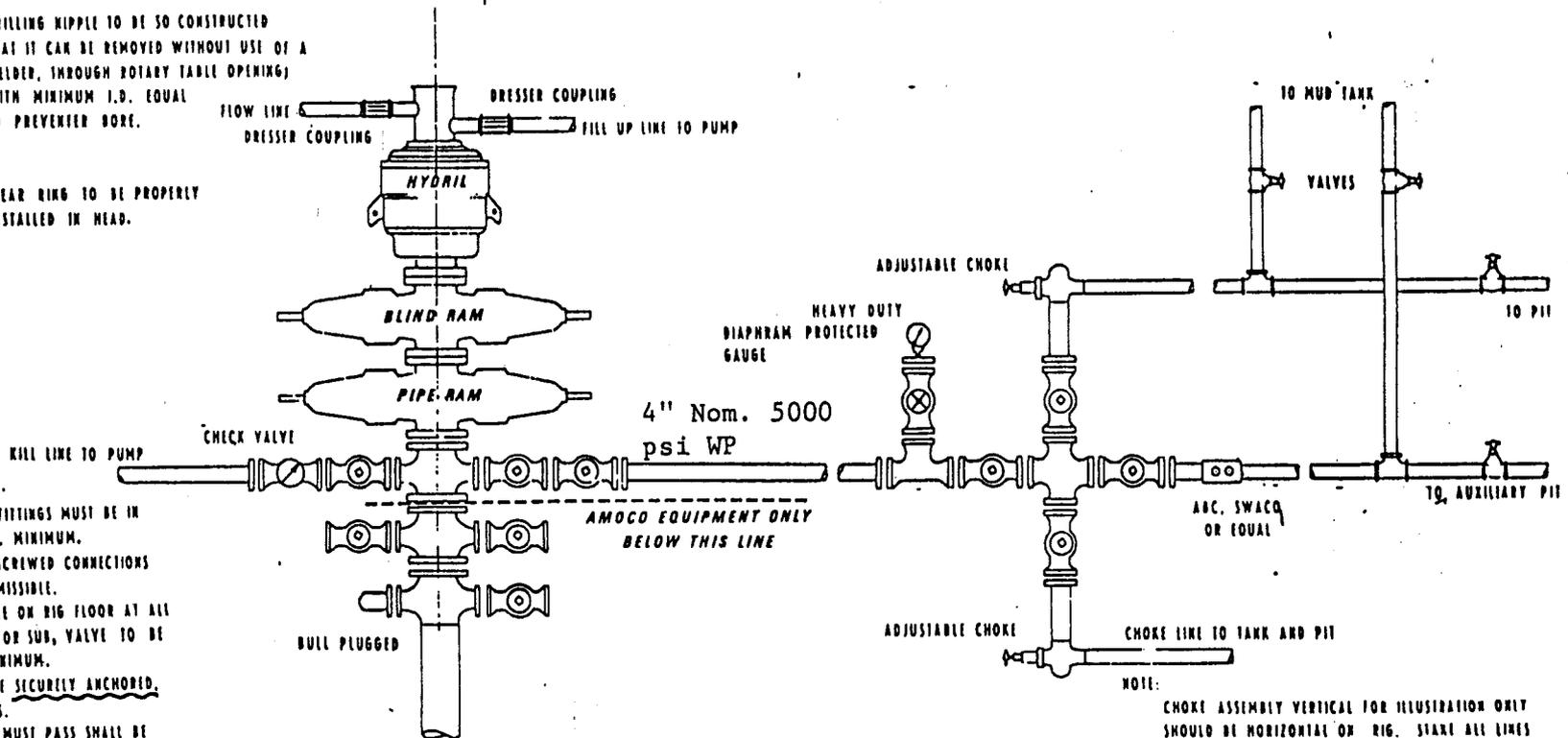
FITSMAN

Second

MINIMUM BLOW-OUT PREVENTER REQUIRMENTS
 3000 psi WP to 9-5/8" Casing Point (8500')
 5000 psi WP 9-5/8" Casing Point to TD.

NOTE:

- 1 DRILLING KIPPLE TO BE SO CONSTRUCTED THAT IT CAN BE REMOVED WITHOUT USE OF A WELDER, THROUGH ROTARY TABLE OPENING) WITH MINIMUM I.D. EQUAL TO PREVENTER BORE.
- 2 WEAR RING TO BE PROPERLY INSTALLED IN HEAD.



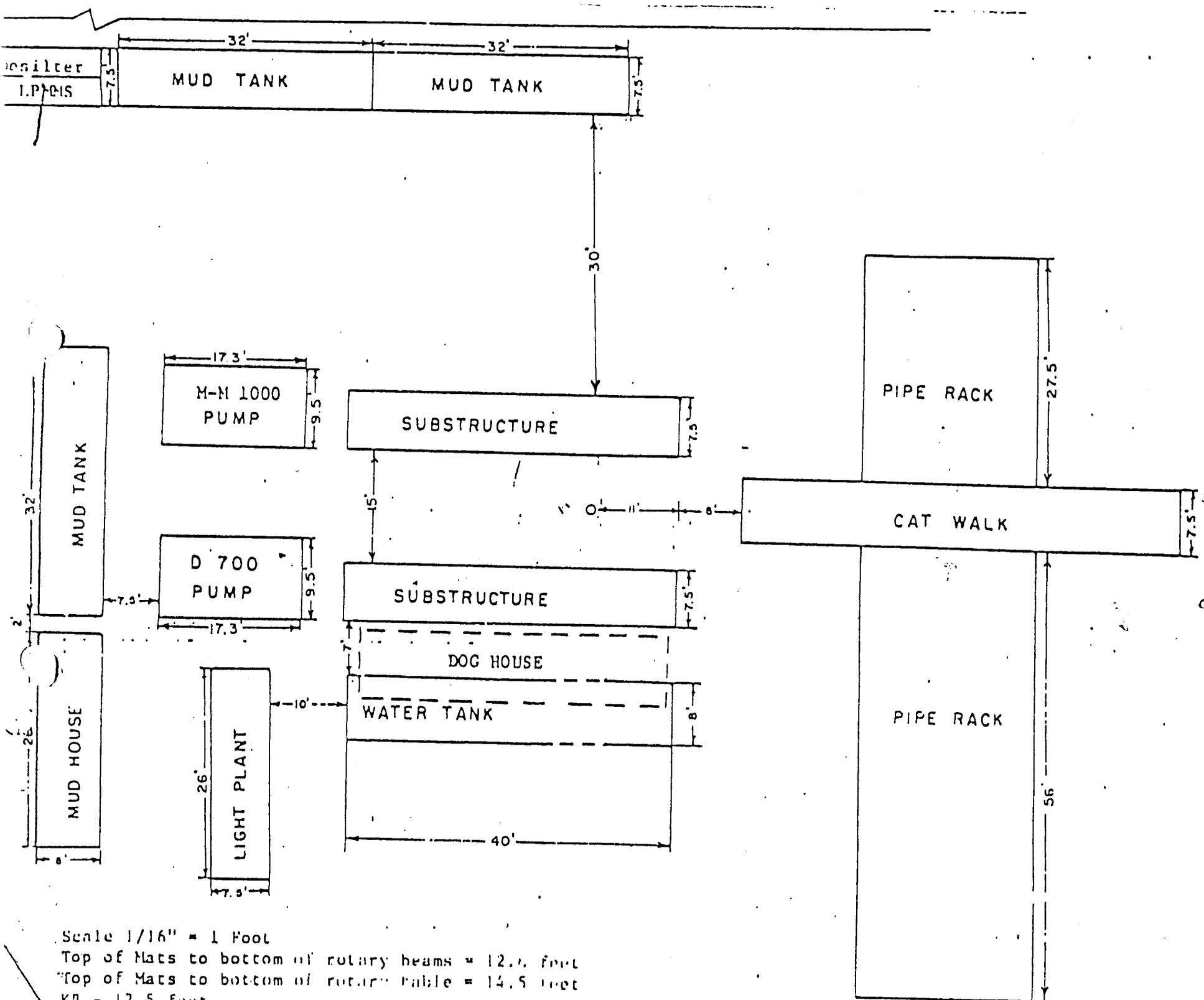
NOTE:

- 1 BLOW-OUT PREVENTERS AND ALL FITTINGS MUST BE IN GOOD CONDITION 3,000 psi W.P. MINIMUM.
- 2 ALL FITTINGS TO BE FLANGED. SCREWED CONNECTIONS DOWNSTREAM FROM CHOKES PERMISSIBLE.
- 3 SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION OR SUB, VALVE TO BE FULL BORE 5,000 psi W.P. MINIMUM.
- 4 ALL CHOKES AND KILL LINES TO BE SECURELY ANCHORED, ESPECIALLY ENDS OF CHOKES LINES.
- 5 EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
- 6 KELLY COCK OR KELLY.
- 7 EXTENSION WRENCHES AND HAND WHEELS TO BE PROPERLY INSTALLED AND BRACED AT ALL TIMES.
- 8 BLOW-OUT PREVENTER CONTROL TO BE LOCATED AS CLOSE TO DRILLING POSITION AS FEASIBLE.
- 9 BLOW-OUT PREVENTER CLOSING EQUIPMENT TO INCLUDE 20 GALLON ACCUMULATOR, TWO INDEPENDENT SOURCES OF PUMP POWER ON EACH CLOSING UNIT INSTALLATION, AND MEET ALL IADC SPECIFICATIONS.

NOTE:
ALL VALVES TO BE FULL OPENING

NOTE:
CHOKES ASSEMBLY VERTICAL FOR ILLUSTRATION ONLY SHOULD BE HORIZONTAL ON RIG. STAKE ALL LINES SECURELY EVERY 30' AND AT END OF LINE.

*Increase to 5000 psi WP below 9-5/8" Casing Point.



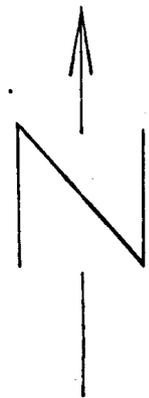
RIG NO. 7

Scale 1/16" = 1 Foot
 Top of Mats to bottom of rotary beams = 12.0 feet
 Top of Mats to bottom of rotary table = 14.5 feet
 KB = 17.5 feet

To Pinedo
13.0 MI
Spanish Fork

16

13.5 Miles



THISTLE

9 Miles

10

Railroad
Rio Grande

Sign
TO STRAWBERRY
RES.

Cottonwood CANYON UNIT Well #1

Cottonwood CANYON

6.25 Miles

Drill Hole

FIRST WATER CREEK

1.5 Miles

Sheep Creek

Amoco Production Company

Amoco-GULF Cottonwood
CANYON USA #1

2246' FWL, 1646' ENL

Sec. 7-95-6E
UTAH COUNTY, UTAH

DR.	CK.	AP.	AP.	NO.
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SCALE DATE

AMOCO-GULF COTTONWOOD CANYON-USA NO. 1
950' FWL & 1900' FNL, SECTION 7, T-9-S, R-6-E
UTAH COUNTY, UTAH

CERTIFICATION

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

July 6, 1978

Date



Area Supt.

Name and Title

Amoco Production Company's Representative:

L. O. Speer, Jr.

Phone: Office: 505-325-8841; Home: 505-325-3247

Address: 501 Airport Drive
Farmington, NM 87401

HYDROGEN SULFIDE CONTINGENCY PLAN

AMOCO - GULF COTTONWOOD CANYON USA WELL NO. 1

Section 7, T-9-S, R-6-E, Utah County, Utah

The following contingency plan will be followed to conduct safe drilling operations through the Park City Formation on the subject well. Though drilling in the immediate area has not indicated hydrogen sulfide, this contingency plan is being prepared since correlatable zones in the Northern Rockies have encountered hydrogen sulfide gas.

1. A two man mud logging unit will be utilized to analyze any gases encountered and provide early detection of H₂S.
2. As drilling depth approaches the Park City Formation top, special attention will be devoted to maintaining access roads clear for immediate escape.
3. Six canister-type gas masks will be maintained for emergency use on the rig floor to permit well control in the event of a hydrogen sulfide gas flow.
4. Ironite sponge will be on stand-by and utilized in the mud system if hydrogen sulfide gas is encountered.
5. An experienced Hydrogen Sulfide Safety Firm will be utilized if hydrogen sulfide gas is encountered.

SUPPLEMENTAL INFORMATION TO FORM 9-331C
 REQUIRED BY NTL-6
 AMOCO-GULF COTTONWOOD CANYON-USA NO. 1
 950' FWL & 1900' FNL, SECTION 7, T-9-S, R-6-E
 UTAH COUNTY, UTAH

The geologic name of the surface formation is the Flagstaff Formation.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>ELEVATION</u>	<u>KB DEPTH</u>
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KB	+6785	0
Northhorn*	+5290	1495
Ankareh	+4920	1865
Park City**	-1520	8305
Diamond Ck.**	-3170	9955
Kirkland	-4120	10905
Subthrust Cretaceous**	-4520	11305
TD	-6215	13000

*Possible Water

**Possible Hydrocarbons

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
150'	20"	106.5# J-55	26"	375 - Class "G" Neat, 2% CaCl ₂ .
1500'	13-3/8"	61# J-55	17-1/2"	1000 - Class "G", 6% Gel, 200 - Tail in Class "G" Neat.
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13000'	7"	29# F-95	8-1/2"	700 - Class "G" Neat, Retarded cement.

All casing will be new.

Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design. Auxiliary safety equipment will be used: Kellycocks for 4-1/2" drill pipe, floats at the bit, and mud monitoring equipment throughout. A drill pipe safety valve will be employed.

Drilling fluid to TD will be a low solids non-dispersed mud system from 1500' to 13,000'. Ironite will be used if sour gas encountered in Park City formation.

Amoco plans to run the following logs: Dual Induction Lateralog, Formation Density, Compensated Neutron, Sonic Gamma Ray, and Dipmeter will be run from TD to surface casing. No cores are planned. Drill stem tests are planned for the Park City and Cretaceous intervals. A 2-man mud logging unit will be on location from surface casing to TD.

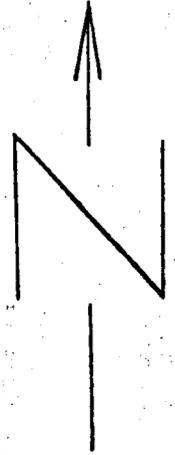
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To Pangu
13.0 mi

Spanish Fork



13.5 Miles



THISTLE

9 Miles



Railroad Rio Grande

7.5 Miles

Sigs
To Strawberry Res.

Cottonwood CANYON UNIT Well #1

Cottonwood CANYON

1.5 Miles

Drill Hole

First Water Creek

Sheep Creek

LOCATION SKETCH

Amoco Production Company

Amoco-GULF Cottonwood
CANYON USA #1

950' FWL, 1900' FNL

Sec. 7-95-6E
UTAH COUNTY, UTAH

DR.	CK.	AP.	AP.	NO.
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SCALE

DATE

MULTI-POINT SURFACE USE PLAN
AMOCO-GULF COTTONWOOD CANYON USA WELL NO.1
2246' FWL, 1646' FNL, SECTION 7, T-9-S, R-6-E
UTAH COUNTY, UTAH

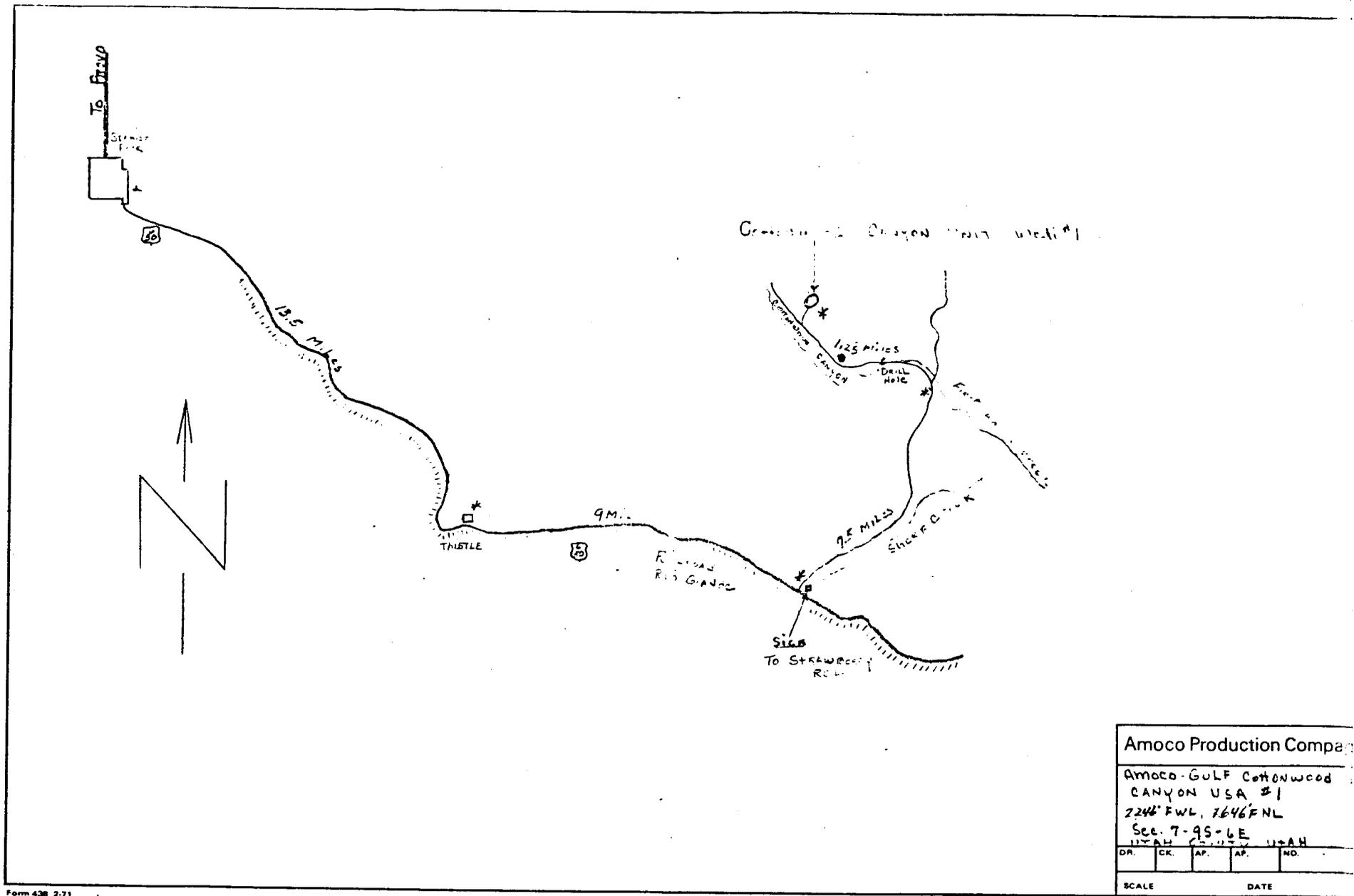
1. Existing Roads—The attached well site plat shows the proposed well as staked with directional orientation. The attached transportation sketch (Exhibit II) shows the route to the well from Spanish Fork, Utah. Access roads to be used and approximate distances from reference points are included. Also shown are roads within 3 miles of the proposed well. These roads are dirt base and poor quality. Portions of the existing access road into the area will require improvement. Where improvements are necessary the general USFS road design criteria attached and referred to as addendum #1 will be adhered to.
2. Planned Access Roads—The transportation sketch show the route of planned access roads. Approximately 7.5 miles of existing road will be used and will have to be improved. The road will be improved by cutting into several small hills in order to have the 20' width necessary to move in drilling equipment. Several culverts will be installed as required by the Uinta National Forest Service. Approximately 1.25 miles of new road will be built along First Water Creek. This road is detailed on the attached topographic map. This road will require a river crossing at the point shown using two 4' diameter culverts. Additional culverts will be installed elsewhere along the route as required by the Uinta National Forest. The new road will be 20' wide and bar-ditched on the higher side. One cattleguard will be installed along the fence as indicated on the topographic map. Road surface will be graveled as necessary to create a firm all weather road base.
3. Location of Existing Wells - No active wells are located within a two mile radius of the proposed well. An abandoned well is located approximately 1200' east and is spotted on the topographic map.
4. Location of Existing and or Proposed Facilities - No production facilities are located within a one mile radius of the subject well.
5. Location and Type of Water Supply - Water will be pumped from First Water Creek with permission from the U. S. Forest Service. Several springs along the road into the location could be used for rig water. Water will be transported via tank using the 1.25 mile road to be built.
6. Source of Construction Material - No construction materials will be utilized in building the location.
7. Methods for Handling Waste Disposal - Waste disposal will be handled as follows:
 - A. Cuttings will be collected in the reserve pit and buried as the pit is backfilled.
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- D. Sewage will be handled using portable toilet facilities with a septic system dug for trailers on the uphill side of the location. Garbage and other waste materials will be gathered and stored in containers, then hauled to an approved dump site.
8. Ancillary Facilities - No camps or airstrips will be required for this operation.
9. Well Site Layout - The attached rig schematic and location sketch show the location orientation and well site layout. The location sketch details necessary cuts and fills required for the drill pad. Amoco plans to have Signal Drilling Company Rig #7 drill this well. A rig orientation schematic is attached for the above referenced rig.
10. Plans for Restoration of Surface - Restoration of surface will be accomplished by cleaning up upon completion of the well. The reserve pit will be backfilled and the location will be returned as close to its natural contours as possible. The location will be reseeded per Forest Service Specifications. The 1.5 miles of access roads to be built for this location will be either left for Forest Service use or ripped and reseeded according to Forest Service requirements. Prior to rig release, pits will be fenced and so maintained until clean-up. Any oil that has accumulated on the pit will be removed. Surface restoration will commence immediately after rig move out - if weather permits.
11. General Location Description - The well site is approximately 200' from First Water Creek. The location will be built on a mild slope. The location is cut north to south by a dry wash. This wash will be diverted along the east edge of the location. The location is covered with scrub and other surface cover. No buildings are within one mile of the proposed location.
12. Representative for Amoco Production Company is Mr. Wayne Todd, P. O. Box 17675, Salt Lake City, Utah 84117, telephone #801-272-9253.
13. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to be best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by AMOCO PRODUCTION COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date: 022879

Name and Title: Wayne Todd

Drum Foreman



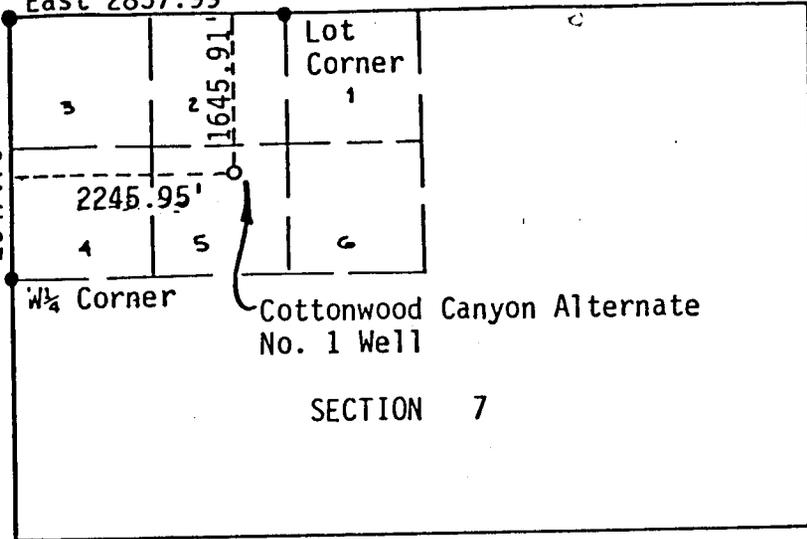
371 F 0 315

EXHIBIT II

N.W. Cor.

T9S
Basis of Bearing:
East 2857.99'

N0°36'39"E,
2647.75'

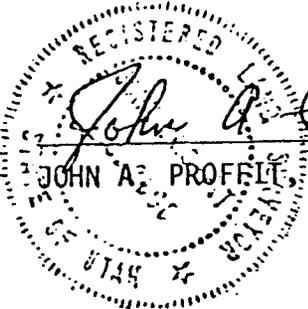


Scale: 1" = 2000'

- Hub & Tack
- Found Brass Cap

I, JOHN A PROFFIT, OF EVANSTON, WYOMING, CERTIFY THAT IN ACCORDANCE WITH A REQUEST FROM JIM KRUPKA OF FARMINGTON, NEW MEXICO, FOR AMOCO PRODUCTION COMPANY, I MADE A SURVEY ON THE 10TH DAY OF AUGUST, 1978, FOR LOCATION AND ELEVATION OF THE COTTONWOOD CANYON ALTERNATE NO. 1 WELL AS SHOWN ON THE ABOVE MAP. THE WELLSIDE IS IN LOT 5 OF SECTION 7, TOWNSHIP 9 SOUTH, RANGE 6 EAST, OF THE SALT LAKE BASE AND MERIDIAN, UTAH COUNTY, STATE OF UTAH.

ELEVATION IS 6789.79 FEET TO THE TOP OF THE HUB, DATUM: SPOT ELEVATION 7862 IN LOT 5, SECTION 6, TOWNSHIP 9 SOUTH, RANGE 6 EAST, SLBM, RAYS VALLEY QUADRANGLE, USGS MAP.



John A. Proffit 8/11/78

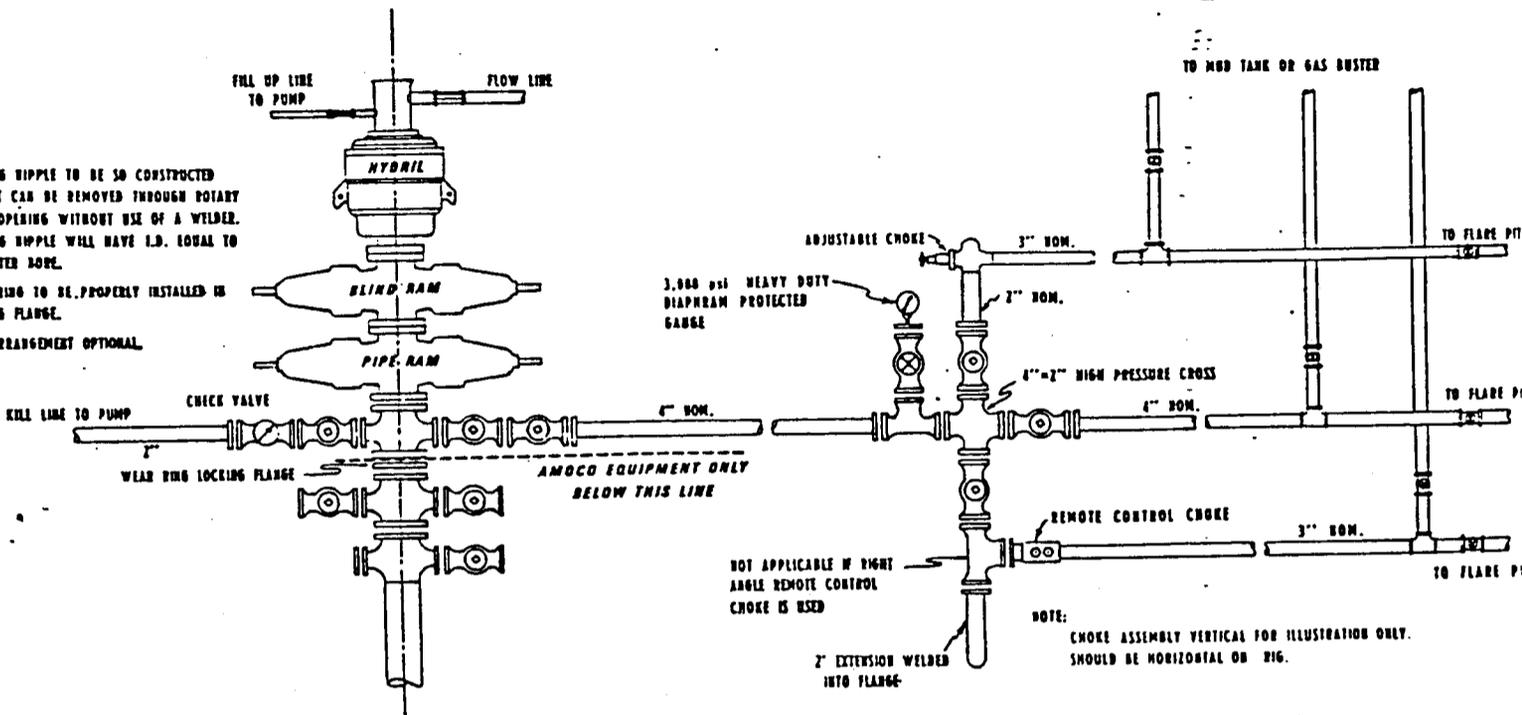
 JOHN A. PROFFIT, UTAH R.L.S. NO. 2860

DATE: 8-11-78
 JOB NO.: 78-10-17

Uinta Engineering & Surveying, Inc.
 808 Main Street
 Evanston, Wyoming

Amoco Production Company
MINIMUM BLOW-OUT PREVENTER REQUIREMENTS
 3,000 psi W.P.
 2/78

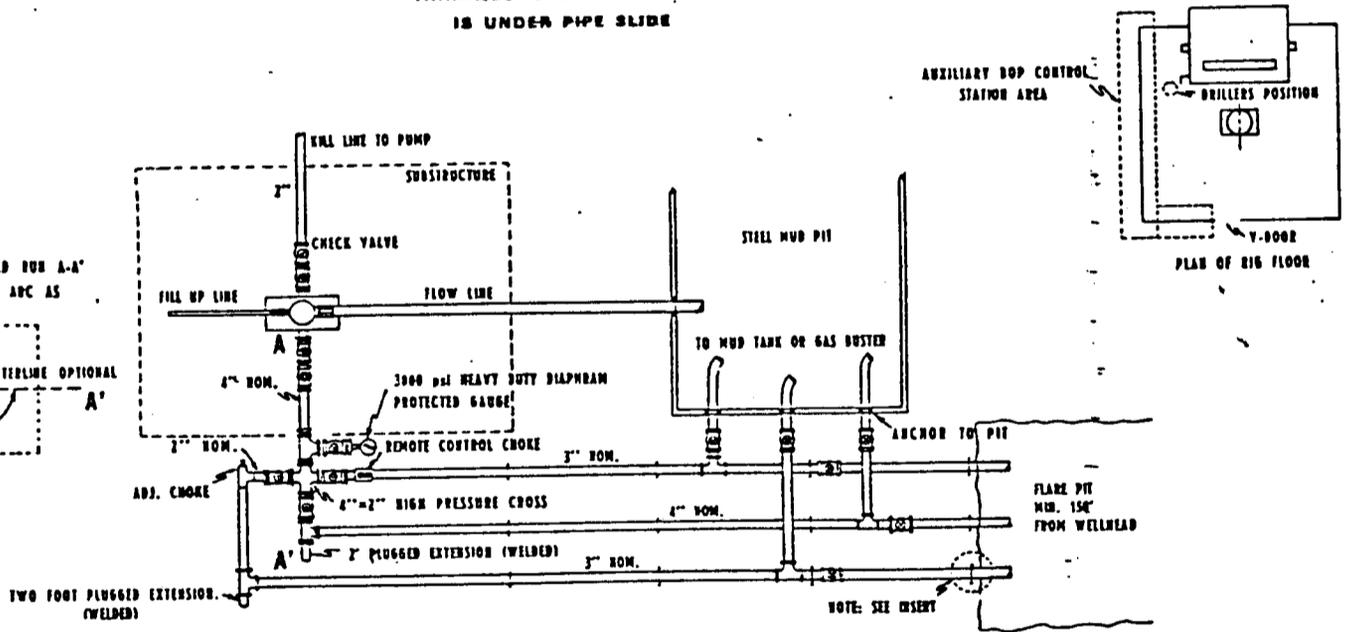
ARRANGEMENT IF MANIFOLD
 IS ON SIDE OF RIG



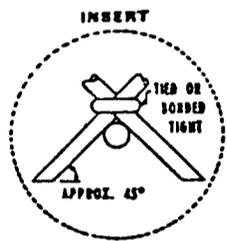
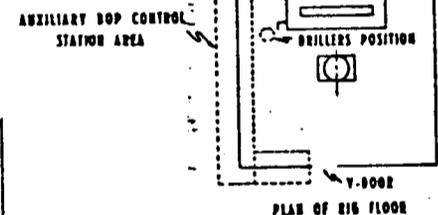
- NOTE:**
- 1 DRILLING RIPLE TO BE SO CONSTRUCTED THAT IT CAN BE REMOVED THROUGH ROTARY TABLE OPENING WITHOUT USE OF A WELDER. DRILLING RIPLE WILL HAVE I.D. EQUAL TO PREVENTER BORE.
 - 2 WEAR RING TO BE PROPERLY INSTALLED IN LOCKING FLANGE.
 - 3 RAM ARRANGEMENT OPTIONAL.

NOTE:
 CHOKE ASSEMBLY VERTICAL FOR ILLUSTRATION ONLY. SHOULD BE HORIZONTAL ON RIG.

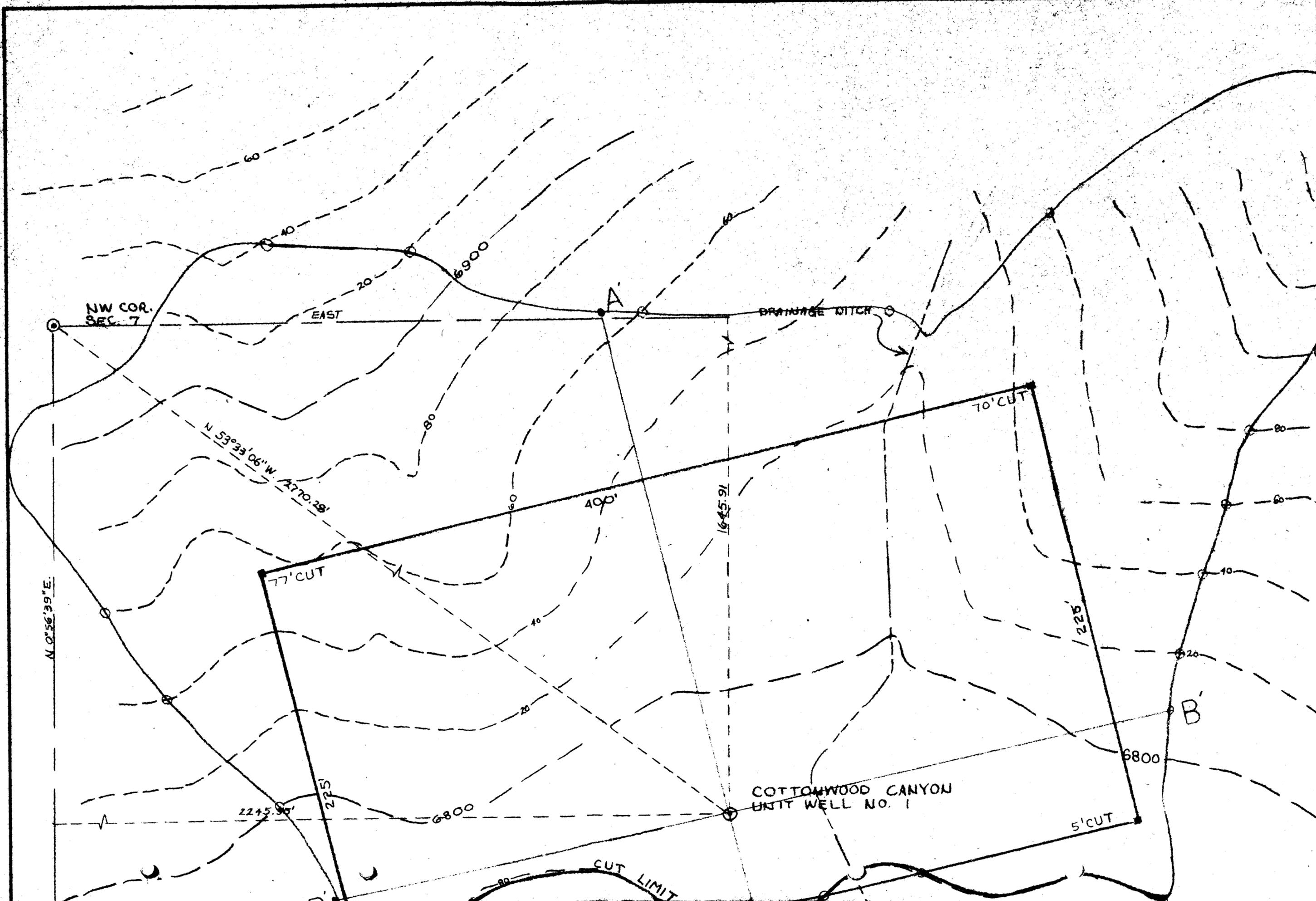
ARRANGEMENT IF MANIFOLD
 IS UNDER PIPE SLIDE

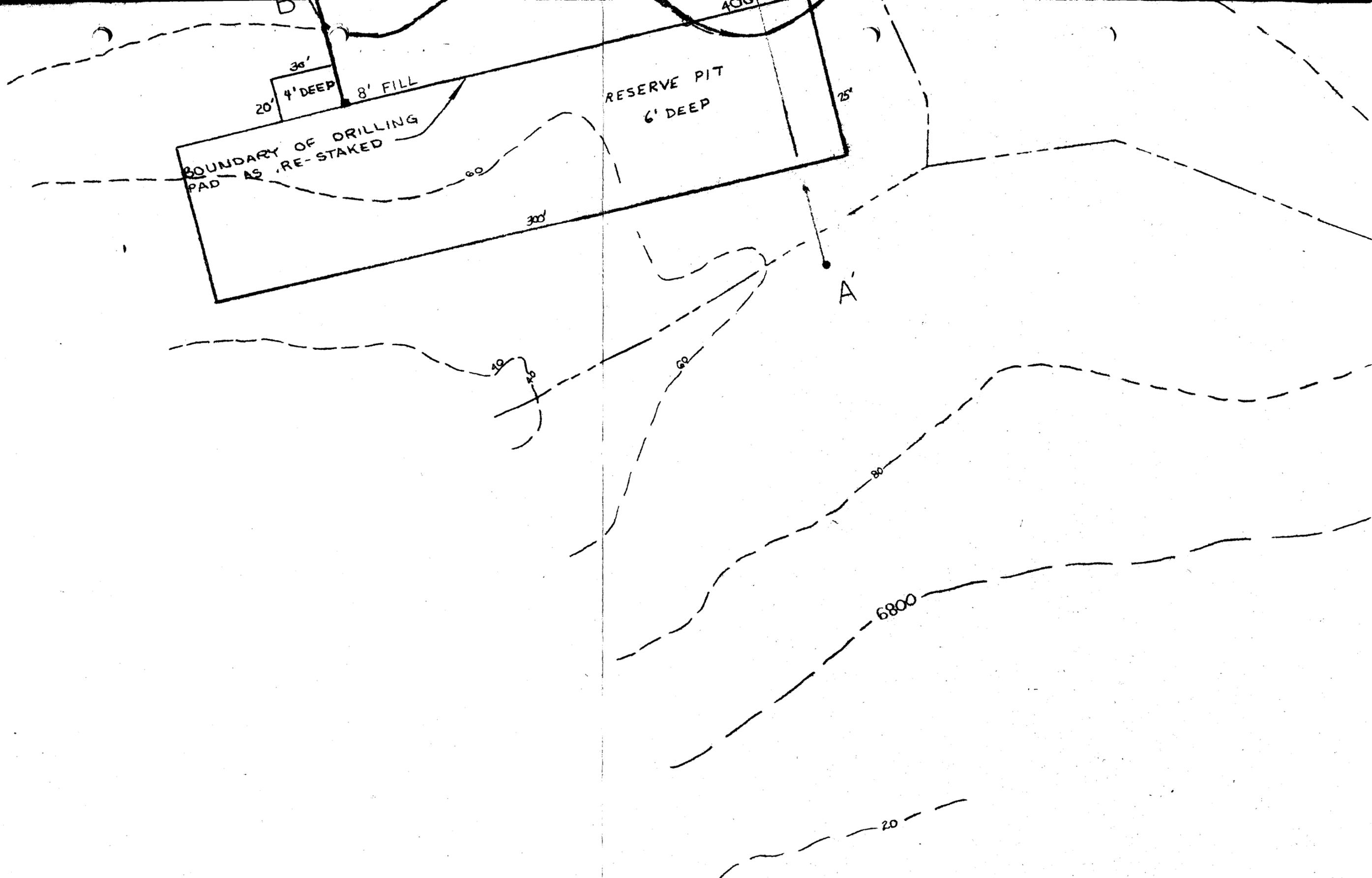


- NOTE:**
 DIRECTION OF MANIFOLD RUN A-A' OPTIONAL WITHIN 90° ARC AS SHOWN BELOW
-



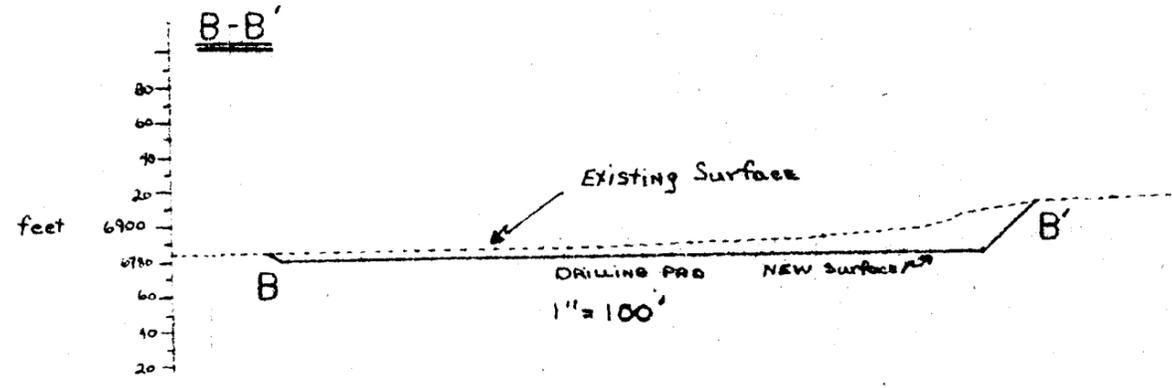
- NOTE:**
- 1 BLOW-OUT PREVENTERS, ALL FITTINGS AND PIPE MUST BE 3,000 psi W.P. MINIMUM.
 - 2 ALL FITTINGS UPSTREAM OF MANIFOLD TO BE FLANGED, SCREWED OR WELDED CONNECTIONS DOWNSTREAM FROM CHOKES PERMISSIBLE. ADJUSTABLE CHOKE MAY HAVE SCREWED CONNECTIONS.
 - 3 ALL VALVES TO BE FULL OPENING, PLUG OR GATE METAL TO METAL SEAL, AND 3,000 psi W.P. MINIMUM.
 - 4 SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION. VALVE TO BE FULL BORE 3,000 psi W.P. MINIMUM.
 - 5 ALL LINES DOWNSTREAM OF CHOKE TO BE SECURELY ANCHORED EVERY 30' AND NEAR END OF CHOKE LINES.
 - 6 EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
 - 7 KELLY COCK OR KELLY.
 - 8 EXTENSION WRENCHES AND HAND WHEELS TO BE PROPERLY INSTALLED AND SEALED AT ALL TIMES.
 - 9 AUXILIARY BLOW-OUT PREVENTER CONTROL STATION TO BE LOCATED AS CLOSE TO DRILLERS POSITION AS FEASIBLE.
 - 10 BLOW-OUT PREVENTER CLOSING EQUIPMENT TO INCLUDE 30 GALLON ACCUMULATOR, AND TWO INDEPENDENT SOURCES OF PUMP POWER ON EACH CLOSING UNIT. INSTALLATION TO BE LOCATED AT LEAST 75' FROM STACK ON DRILLERS' SIDE OF RIG.
 - 11 ALL UNMARKED PIPE MINIMUM 3" O.D. NOM. GRADE S-55 STRONG OR MIN. 3,000 psi W.P. LINE PIPE.
 - 12 REMOTE CONTROL CHOKE INSTALLATION AND LINE TO BE STRAIGHT AS POSSIBLE WITH NO 90° TURNS BELOW CHOKE.





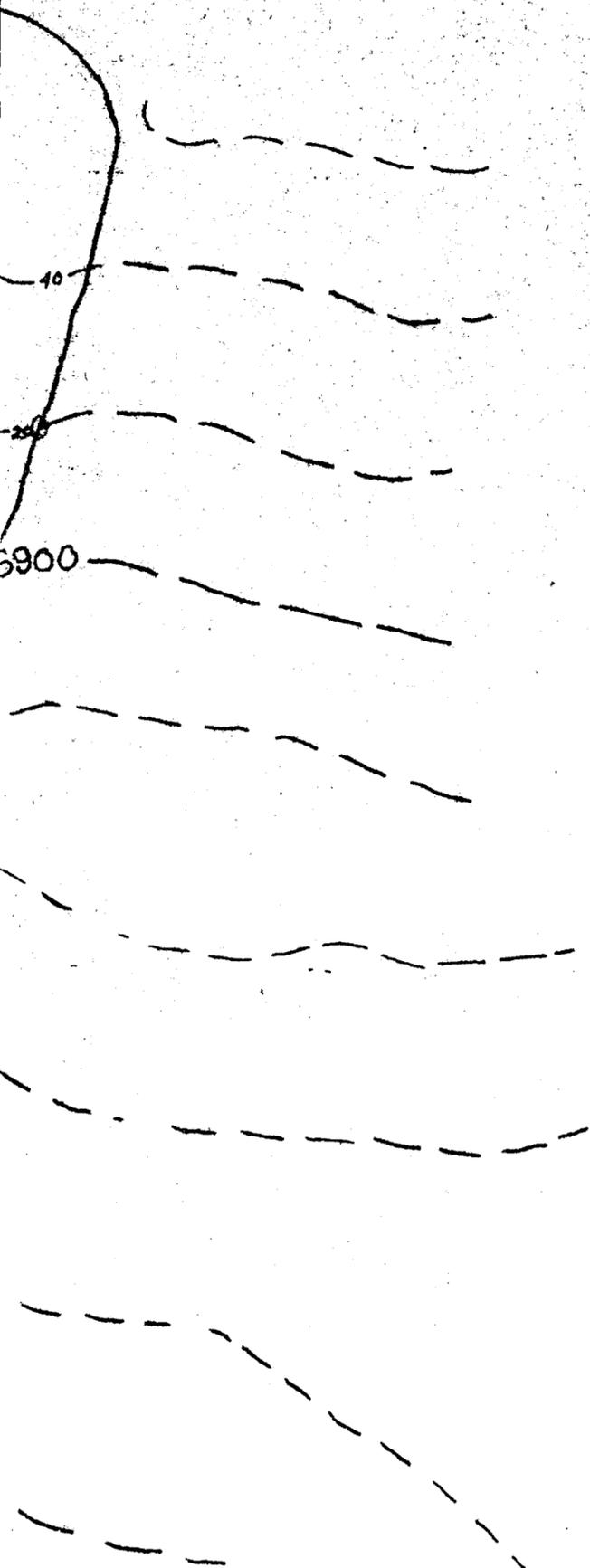
6800

CENTERLINE OF CREEK



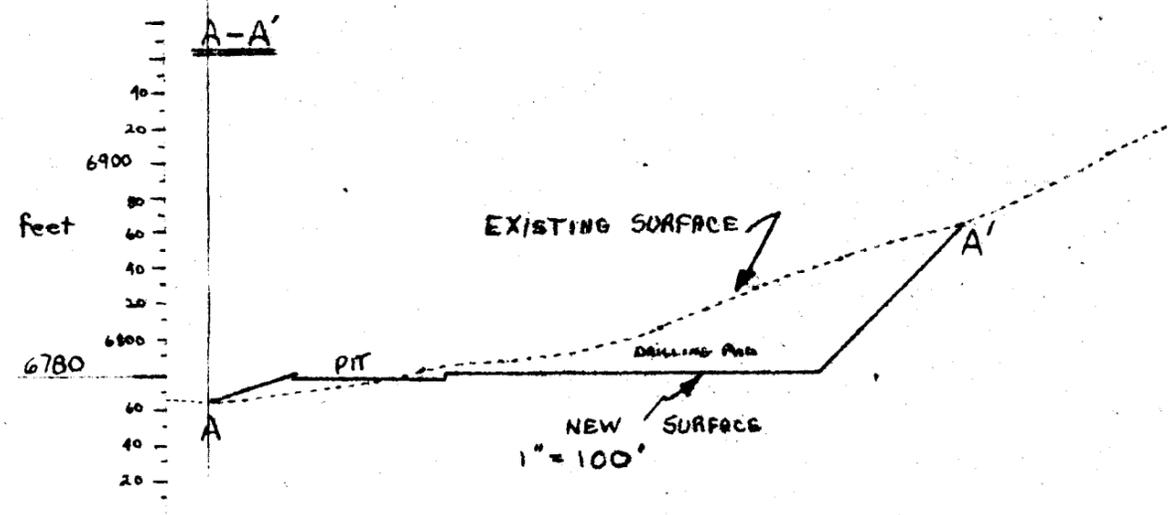
TOPOGRAPHIC MAP OF SITE
 AMOCO - GULF
 COTTONWOOD CANYON USA WELL NO. 1
 LOCATED IN
 LOT 5, SECTION 7,
 T9S, R6E, S.L.B.M.,
 UTAH COUNTY, UTAH

					APPROP. NO. _____					PAN AMERICAN PETROLEUM CORPORATION		
					APPROVED FOR CONSTRUCTION					AMOCO PRODUCTION COMPANY		
					BY _____		DATE _____					
					PROCESS		MECHANICAL					
					BY _____		BY _____					
					DR	AP	AP	DATE	SCALE	FILE NO.	DWG. NO.	
					ck					D-	D-	
REVISION								9-11-78				



SCALE: 1" = 40'

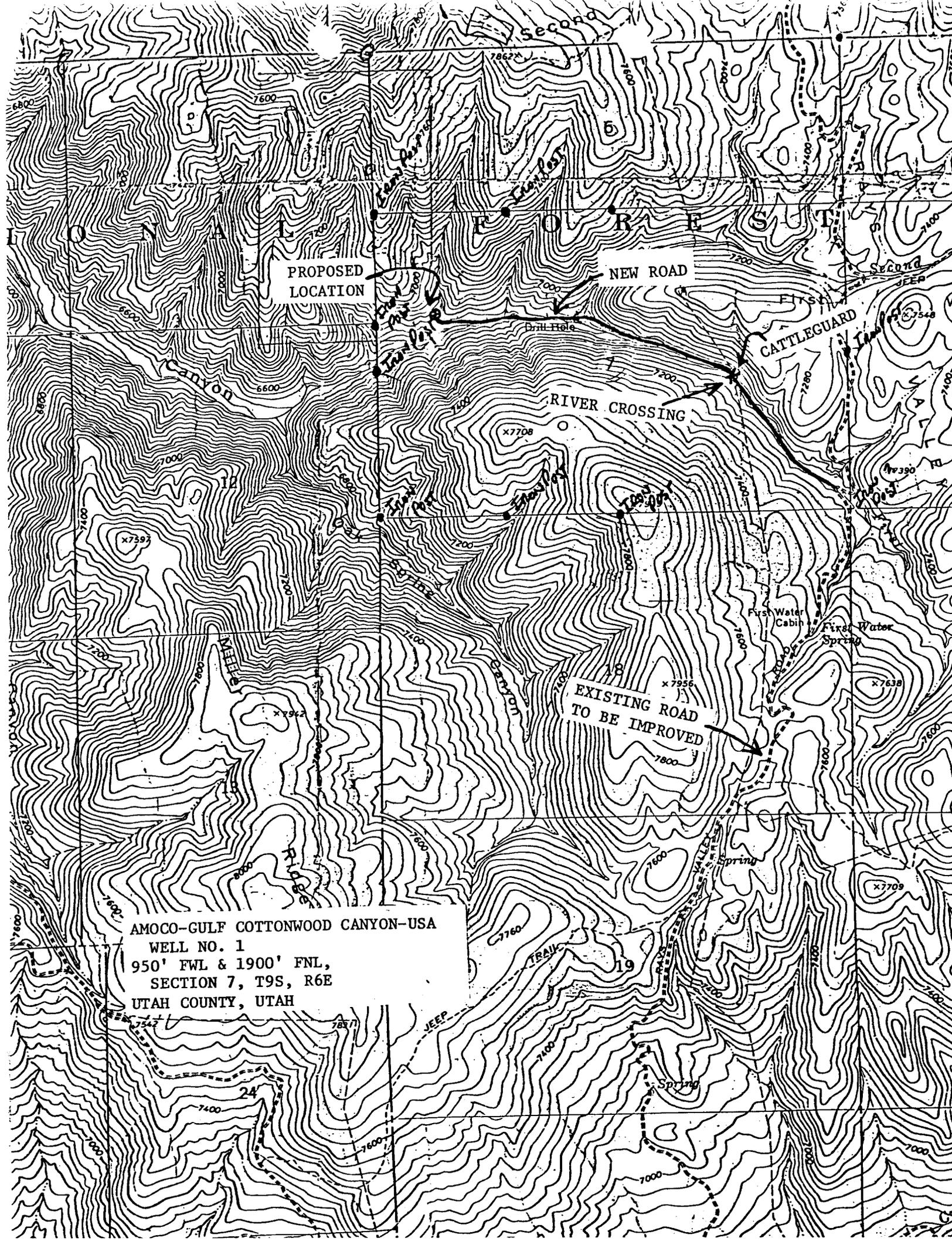
CUT & FILL CROSS SECTIONS



MULTI-POINT SURFACE USE PLAN
AMOCO-GULF COTTONWOOD CANYON USA WELL NO. 1
950' FWL, 1900' FNL, SECTION 7, T-9-S, R-6-E
UTAH COUNTY, UTAH

1. Existing Roads - The attached well site plat shows the proposed well as staked with directional orientation. The attached transportation sketch shows the route to the well from Spanish Fork, Utah. Access roads to be used and approximate distances from reference points are included. Also shown are roads within 3 miles of the proposed well. These roads are dirt base and poor quality. Portions to be used as access to the subject well will require improvement.
2. Planned Access Roads - The transportation sketch shows the route of planned access roads. Approximately 7.5 miles of existing road will be used and will have to be improved. The road will be improved by cutting into approximately 12 small hills in order to have the 20' width necessary to move in drilling equipment. Several culverts will be installed as required by the Uintah National Forest Service. Approximately 1.5 miles of new road will be built along First Water Creek. This road is detailed on the attached topographic map. This road will require a river crossing at the point shown using two 4' diameter culverts. The new road will be 20' wide and bar-ditched on the higher side. One cattle-guard will be installed along the fence as indicated on the topographic map. Road surface will be earthen, no construction materials will be brought in for road construction.
3. Location of Existing Wells - No active wells are located within a two mile radius of the proposed well. An abandoned well is located approximately 2500' east and is spotted on the topographic map.
4. Location of Existing and or Proposed Facilities - No production facilities are located within a one mile radius of the subject well.
5. Location and Type of Water Supply - Water will be pumped from First Water Creek with permission from the U. S. Forest Service. Several springs along the road into the location could be used for rig water. Water will be transported via tank truck using the 1.5 mile road to be built.
6. Source of Construction Materials - No construction materials will be utilized in building the location.

7. Methods for Handling Waste Disposal - Waste disposal will be handled as follows:
 - A. Cuttings will be collected in the reserve pit and buried as the pit is backfilled.
 - B. Drilling fluids will be allowed to dry up in the reserve pit, then covered as the pit is backfilled.
 - C. Produced oil and water will be collected in steel test tanks and disposed of in a manner acceptable to the U.S.G.S. Gas will be flared on a test basis with permission of the U.S.G.S.
 - D. Sewage will be handled using portable toilet facilities with a septic system dug for trailers on the uphill side of the location. Garbage and other waste materials will be gathered and stored in containers, then hauled to an approved dump site.
8. Ancillary Facilities - No camps or airstrips will be required for this operation.
9. Well Site Layout - The attached rig schematic and location sketch show the location orientation and well site layout. The location sketch details necessary cuts and fills for this operation.
10. Plans for Restoration of Surface - Restoration of surface will be accomplished by cleaning up upon completion of the well. The reserve pit will be backfilled and the location will be returned as close to its natural contours as possible. The location will be reseeded per Forest Service Specifications. The 1.5 miles of access roads to be built for this location will be either left for Forest Service use or ripped and reseeded according to Forest Service requirements. Prior to rig release, pits will be fenced and so maintained until clean-up. Any oil that has accumulated on the pit will be removed. Surface restoration will commence immediately after rig move out - if weather permits.
11. General Location Description - The well site is approximately 300' from First Water Creek. The location will be built on the edge of a slope of one vertical to two horizontal. The location is covered with alpine vegetation including pine trees and surface cover. No buildings are within one mile of the proposed location.
12. A statement of operator's representative is attached.



PROPOSED
LOCATION

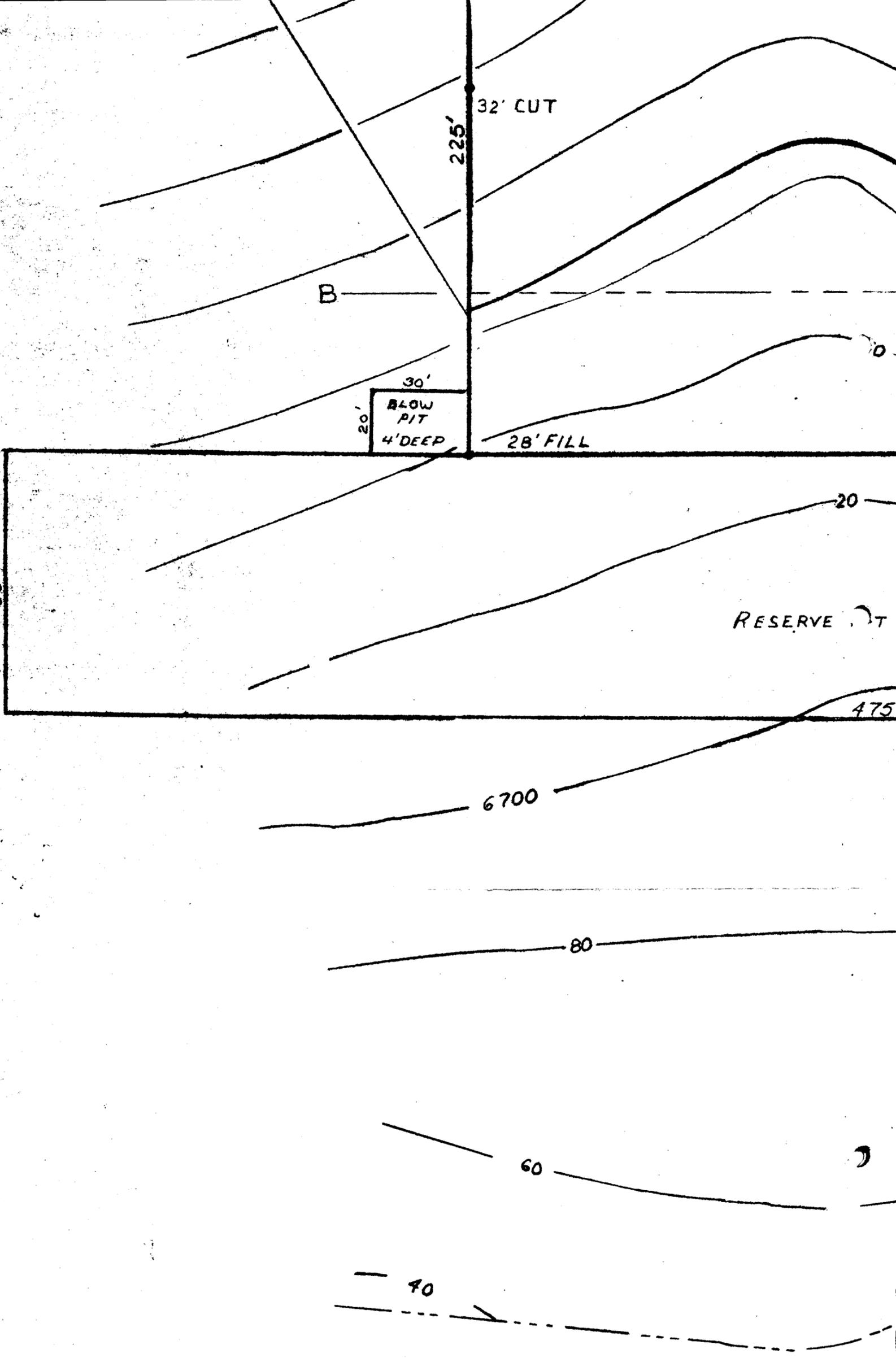
NEW ROAD

CATTELGUARD

RIVER CROSSING

EXISTING ROAD
TO BE IMPROVED

AMOCO-GULF COTTONWOOD CANYON-USA
WELL NO. 1
950' FWL & 1900' FNL,
SECTION 7, T9S, R6E
UTAH COUNTY, UTAH



32' CUT

225'

B

30'
BLOW
PIT
4' DEEP

28' FILL

80'

20

RESERVE

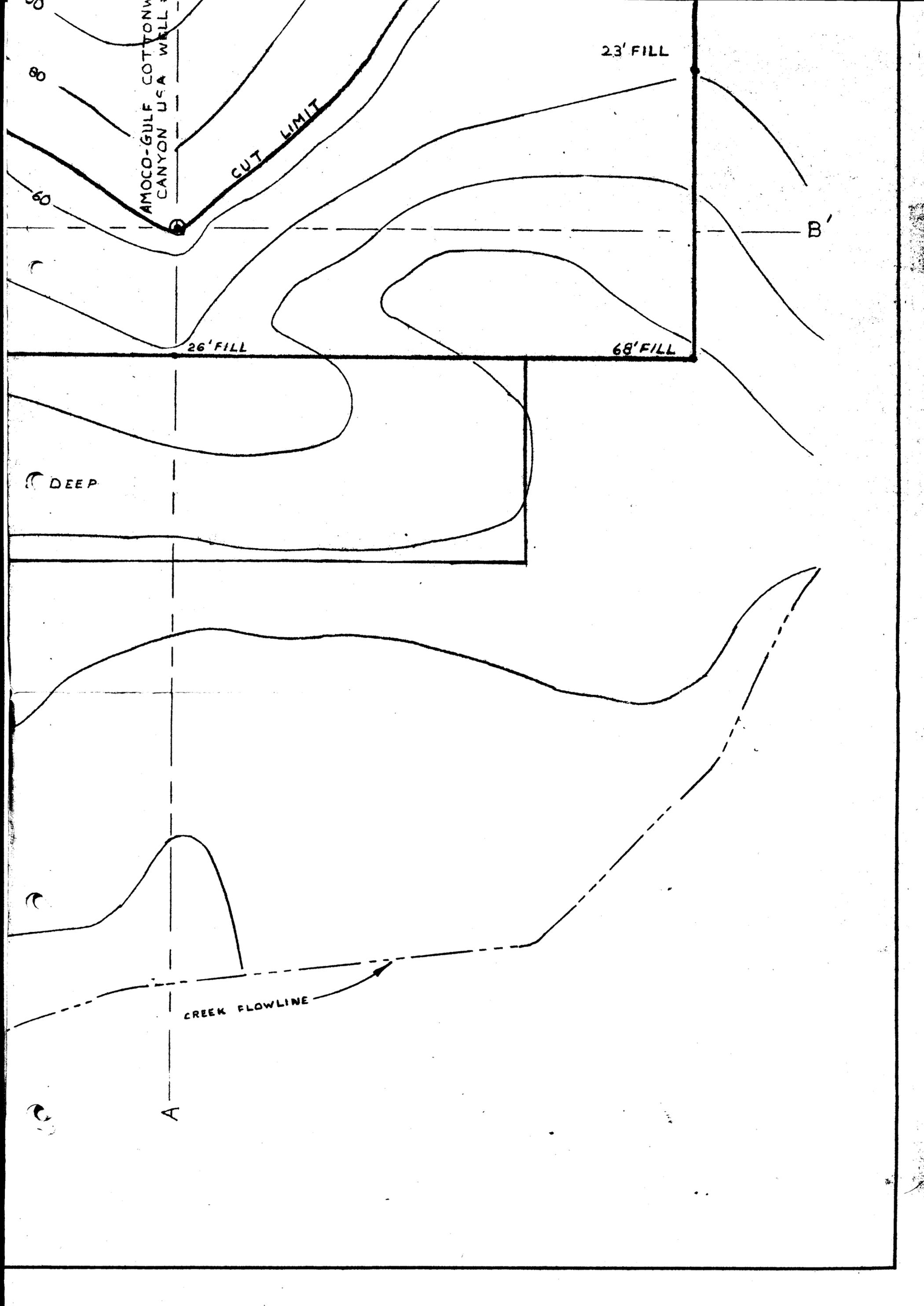
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6700

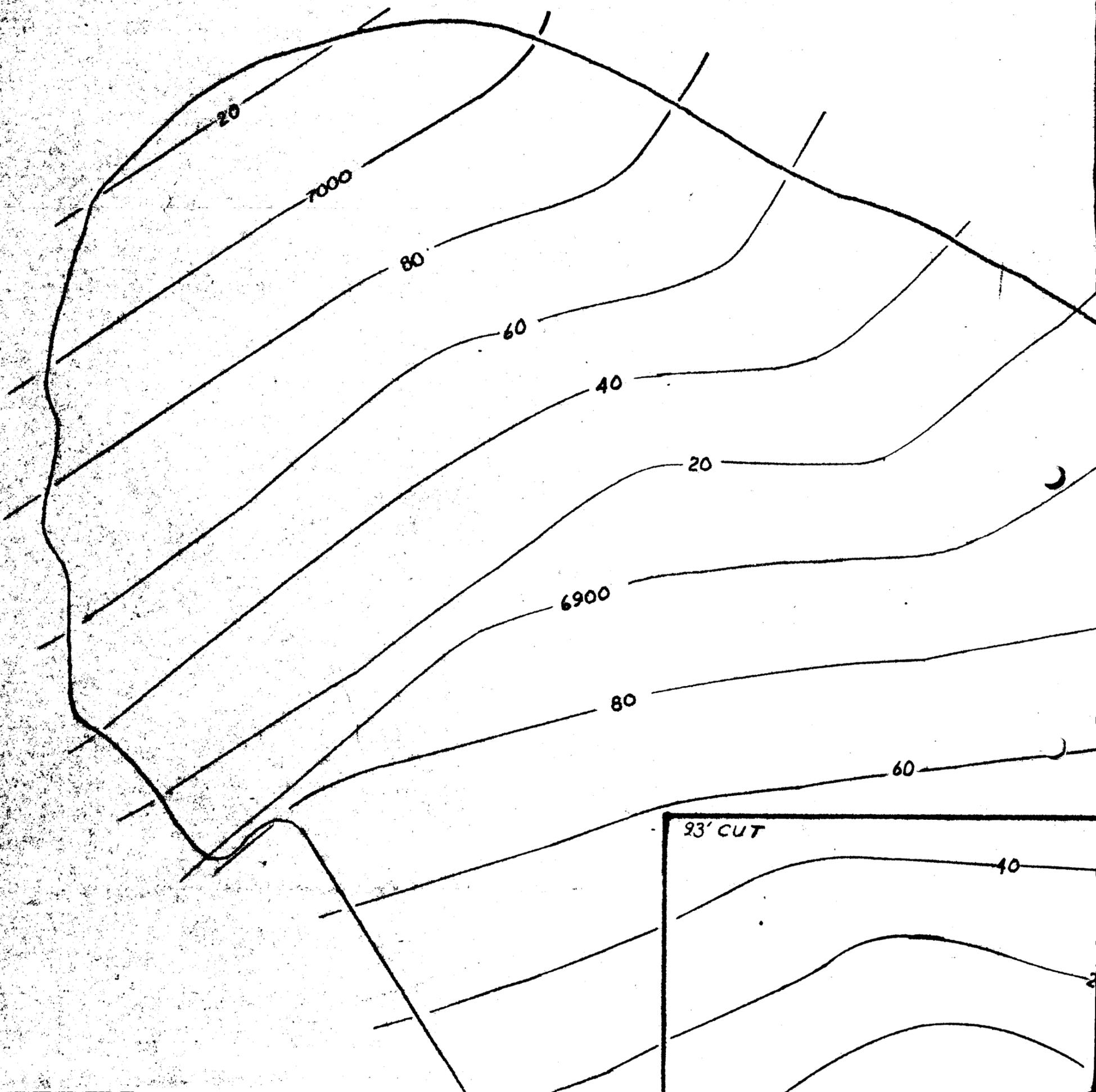
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60

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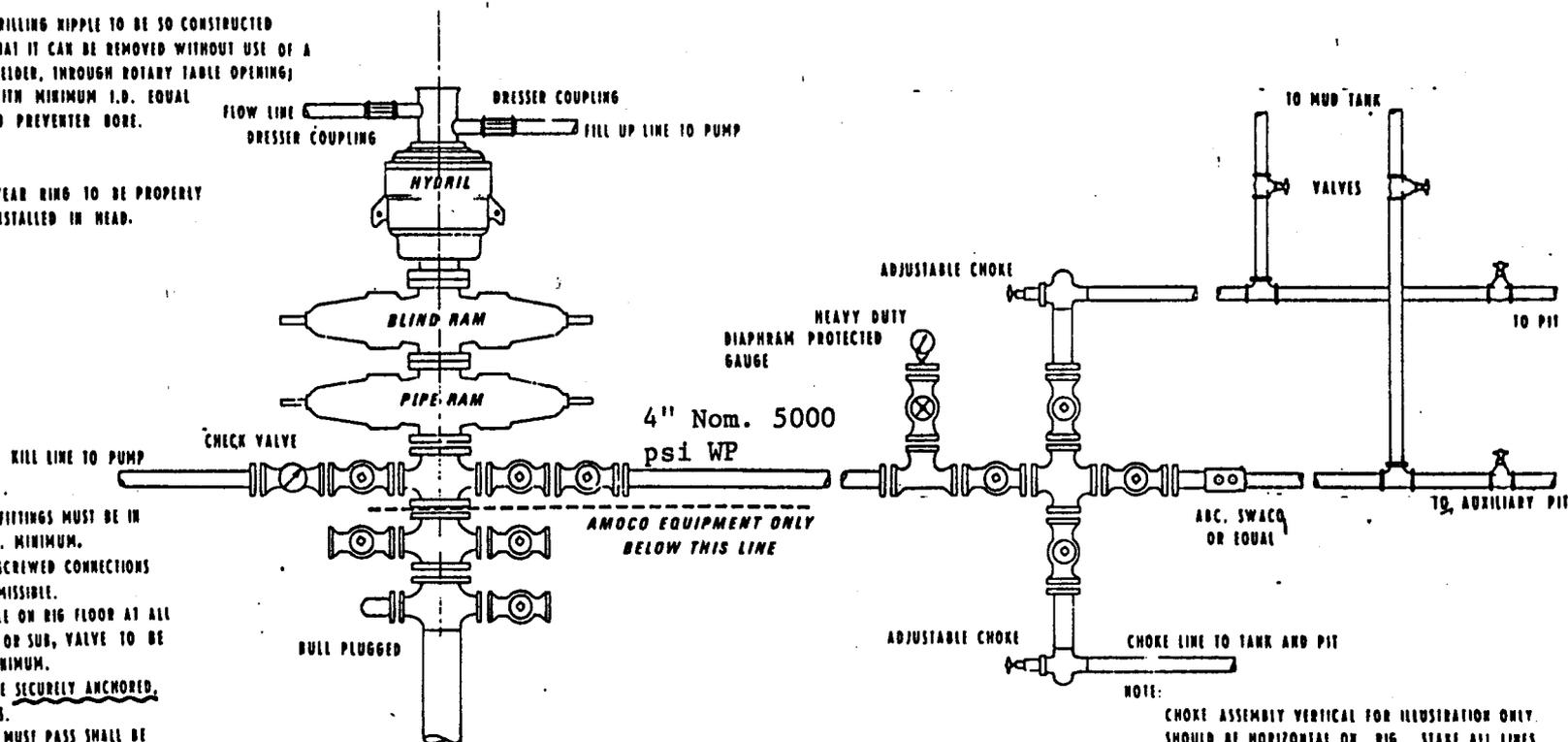


MINIMUM BLOW-OUT PREVENTER REQUIRMENTS
 3000 psi WP to 9-5/8" Casing Point (8500')
 5000 psi WP 9-5/8" Casing Point to TD.

NOTE:

1. DRILLING NIPPLE TO BE SO CONSTRUCTED THAT IT CAN BE REMOVED WITHOUT USE OF A WELDER, THROUGH ROTARY TABLE OPENING; WITH MINIMUM I.D. EQUAL TO PREVENTER BORE.

2. WEAR RING TO BE PROPERLY INSTALLED IN HEAD.



NOTE:

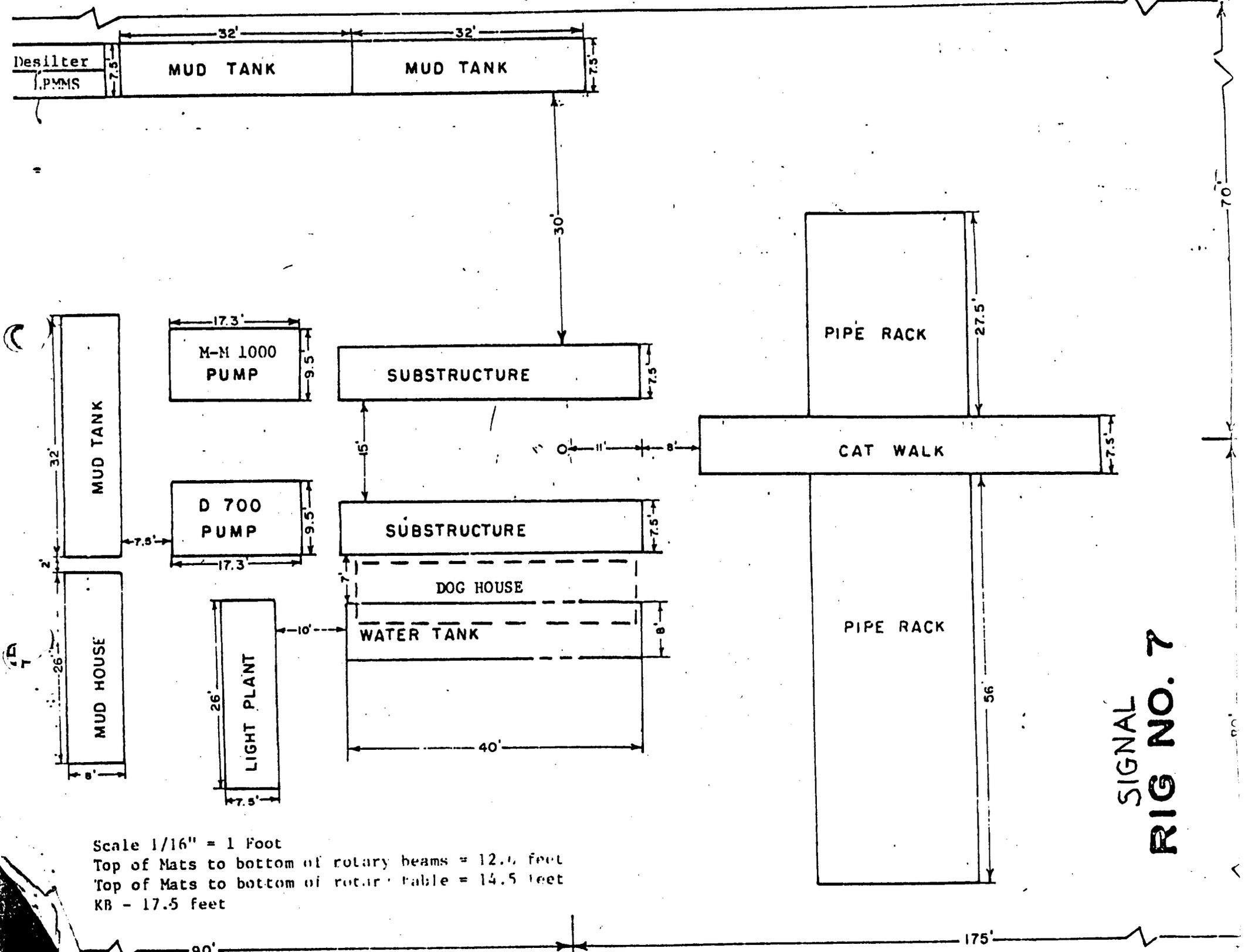
1. BLOW-OUT PREVENTERS AND ALL FITTINGS MUST BE IN GOOD CONDITION 3,000 psi W.P. MINIMUM.
2. ALL FITTINGS TO BE FLANGED. SCREWED CONNECTIONS DOWNSTREAM FROM CHOKES PERMISSIBLE.
3. SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION OR SUB, VALVE TO BE FULL BORE 3,000 psi W.P. MINIMUM.
4. ALL CHOKES AND KILL LINES TO BE SECURELY ANCHORED, ESPECIALLY ENDS OF CHOKES LINES.
5. EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
6. KELLY COCK OR KELLY.
7. EXTENSION WRENCHES AND HAND WHEELS TO BE PROPERLY INSTALLED AND BRACED AT ALL TIMES.
8. BLOW-OUT PREVENTER CONTROL TO BE LOCATED AS CLOSE TO DRILLERS POSITION AS FEASIBLE.
9. BLOW-OUT PREVENTER CLOSING EQUIPMENT TO INCLUDE 30 GALLON ACCUMULATOR, TWO INDEPENDENT SOURCES OF PUMP POWER ON EACH CLOSING UNIT INSTALLATION, AND MEET ALL IADC SPECIFICATIONS.

NOTE:
 ALL VALVES TO BE FULL OPENING

*Increase to 5000 psi WP below 9-5/8" Casing Point.

NOTE:

CHOKES ASSEMBLY VERTICAL FOR ILLUSTRATION ONLY. SHOULD BE HORIZONTAL ON RIG. STAKE ALL LINES SECURELY EVERY 30' AND AT END OF LINE.



SIGNAL
 RIG NO. 7

Scale 1/16" = 1 Foot
 Top of Mats to bottom of rotary beams = 12.0 feet
 Top of Mats to bottom of rotary table = 14.5 feet
 KB - 17.5 feet

SUPPLEMENTAL INFORMATION TO FORM 9-331C
 REQUIRED BY NTL-6
 AMOCO-GULF COTTONWOOD CANYON-USA NO. 1
 950' FWL & 1900' FNL, SECTION 7, T-9-S, R-6-E
 UTAH COUNTY, UTAH

The geologic name of the surface formation is the Flagstaff Formation.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>ELEVATION</u>	<u>KB DEPTH</u>
Surface	+6766	19
KB	+6785	0
Northhorn*	+5290	1495
Ankareh	+4920	1865
Park City**	-1520	8305
Diamond Ck.**	-3170	9955
Kirkland	-4120	10905
Subthrust Cretaceous**	-4520	11305
TD	-6215	13000

*Possible Water

**Possible Hydrocarbons

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
150'	20"	106.5# J-55	26"	375 - Class "G" Neat, 2% CaCl ₂ .
1500'	13-3/8"	61# J-55	17-1/2"	1000 - Class "G", 6% Gel, 200 - Tail in Class "G" Neat.
8500'	9-5/8"	40# & 43.5# N-80 & S-95	12-1/4"	700 - Class "G", 2% Gel Retarded cement.
13000'	7"	29# F-95	8-1/2"	700 - Class "G" Neat, Retarded cement.

All casing will be new.

Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design. Auxiliary safety equipment will be used: Kellycocks for 4-1/2" drill pipe, floats at the bit, and mud monitoring equipment throughout. A drill pipe safety valve will be employed.

Drilling fluid to TD will be a low solids non-dispersed mud system from 1500' to 13,000'. Ironite will be used if sour gas encountered in Park City formation.

Amoco plans to run the following logs: Dual Induction Lateralog, Formation Density, Compensated Neutron, Sonic Gamma Ray, and Dipmeter will be run from TD to surface casing. No cores are planned. Drill stem tests are planned for the Park City and Cretaceous intervals. A 2-man mud logging unit will be on location from surface casing to TD.

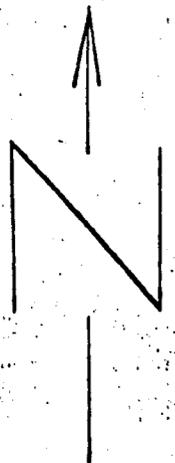
In the past, drilling in this area has shown that no abnormal pressure or temperatures will be encountered. Hydrogen sulfide gas may be encountered in the Park City formation.

To Pangu
13.0 mi

Spanish Fork

10

13.5 Miles



THISTLE

9 Miles

10

Railroad Rio Grande

Sigs
To Strawberry Res.

Cottonwood Canyon Unit Well #1

Cottonwood Canyon

1.5 Miles

Drill Hole

East Water Creek

7.5 Miles

Sheep Creek

LOCATION SKETCH

Amoco Production Company

Amoco-GULF Cottonwood
CANYON USA #1

950' FWL, 7900' FNL

Sec. 7-95-6E
UTAH COUNTY, UTAH

DR.	CK.	AP.	AP.	NO.
-----	-----	-----	-----	-----

SCALE

DATE

MULTI-POINT SURFACE USE PLAN
AMOCO-GULF COTTONWOOD CANYON USA WELL NO. 1
950' FWL, 1900' FNL, SECTION 7, T-9-S, R-6-E
UTAH COUNTY, UTAH

1. Existing Roads - The attached well site plat shows the proposed well as staked with directional orientation. The attached transportation sketch shows the route to the well from Spanish Fork, Utah. Access roads to be used and approximate distances from reference points are included. Also shown are roads within 3 miles of the proposed well. These roads are dirt base and poor quality. Portions to be used as access to the subject well will require improvement.
2. Planned Access Roads - The transportation sketch shows the route of planned access roads. Approximately 7.5 miles of existing road will be used and will have to be improved. The road will be improved by cutting into approximately 12 small hills in order to have the 20' width necessary to move in drilling equipment. Several culverts will be installed as required by the Uintah National Forest Service. Approximately 1.5 miles of new road will be built along First Water Creek. This road is detailed on the attached topographic map. This road will require a river crossing at the point shown using two 4' diameter culverts. The new road will be 20' wide and bar-ditched on the higher side. One cattle-guard will be installed along the fence as indicated on the topographic map. Road surface will be earthen, no construction materials will be brought in for road construction.
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5. Location and Type of Water Supply - Water will be pumped from First Water Creek with permission from the U. S. Forest Service. Several springs along the road into the location could be used for rig water. Water will be transported via tank truck using the 1.5 mile road to be built.
6. Source of Construction Materials - No construction materials will be utilized in building the location.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SW NW
Sec 7

** FILE NOTATIONS **

Date: July 18-

Operator: Ameco Production

Well No: Cottonwood Canyon Unit Well #1

Location: Sec. 7 T. 9S R. 6E County: Utah

File Prepared:
Card Indexed:

Entered on N.I.D.:
Completion Sheet:

API NUMBER: 43-049-30007

CHECKED BY:

Administrative Assistant SW

Remarks: No other wells in Township

Petroleum Engineer Pat

Remarks:

Director 2

Remarks:

*This is a seven bull
Section. Location is
best suited for Rule
C-3. no caution is ok*

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~~

topog

July 21, 1978

Amoco Production Company
501 Airport Drive
Farmington, New Mexico 87401

Re: Well No. Amoco-Gulf-Cottonwood
Canyon USA #1
Sec. 7, T. 9 S, R. 6 E,
Utah County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well 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:

PATRICK L. DRISCOLL - Chief Petroleum Engineer
HOME: 582-7247
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

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

The API number assigned to this well is 43-049-30007.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Location Change

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 **Wildcat** SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
AMOCO PRODUCTION

3. ADDRESS OF OPERATOR
501 Airport Drive, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
2246' FWL x 1646' FWL, Section 7, T9S, R6E
 At proposed prod. zone
Same SE NW

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
18 miles northeast of Thistle, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) **1646'**

16. NO. OF ACRES IN LEASE
1682.48

17. NO. OF ACRES ASSIGNED TO THIS WELL
Wildcat

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. **None**

19. PROPOSED DEPTH
13,000'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6790' GL

22. APPROX. DATE WORK WILL START*
As soon as permitted

5. LEASE DESIGNATION AND SERIAL NO.
U-21647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Amoco Gulf Cretaceous Canyon - USA

9. WELL NO.
1

10. FIELD AND POOL, OR WELDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NW/4 Sec. 7, T9S R6E

12. COUNTY OR PARISH
Utah

13. STATE
Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	106.5#	150'	375 sx
17-1/2"	13-3/8"	61#	1500'	1200 sx
12-1/4"	9-5/8"	40 & 43.5#	8500'	700 sx
8-1/2"	7"	29#	13,000'	700 sx

Amoco Production Company proposes to drill the above wildcat well to a depth of 13,000' to test the Subthrust Cretaceous. Completion will be based on open hole logs. Copies of all logs will be furnished upon reaching total depth. Copies of the location plat are attached. Additional information required by NTL-6 for the Application to Drill and a Multi-Point Surface Use Plan are attached.

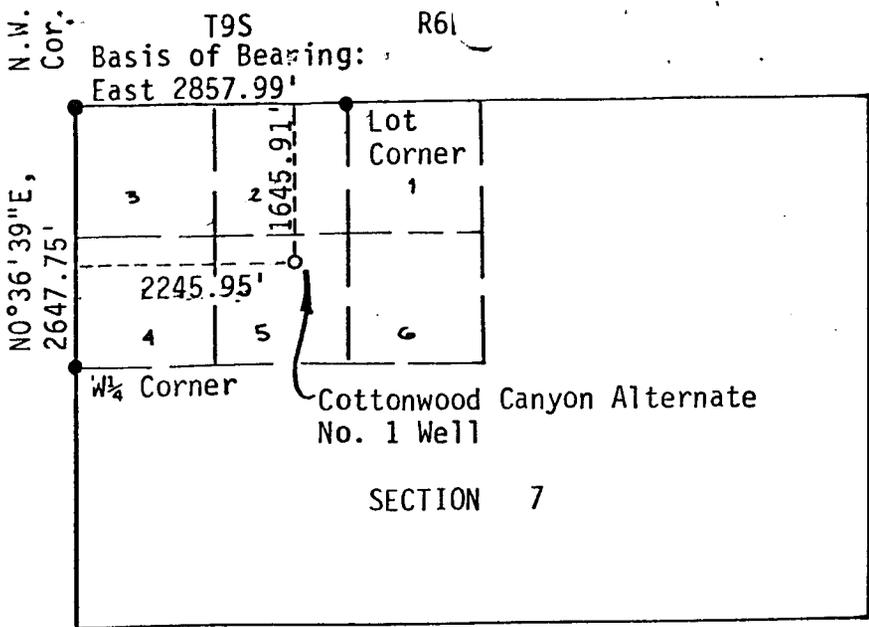
APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
 DATE: 9-10-78
 BY: C. B. Feight



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 J. L. Knoch TITLE Area Engineer DATE September 12, 1978
 (This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:



Scale: 1" = 2000'

- Hub & Tack
- Found Brass Cap

I, JOHN A PROFFIT, OF EVANSTON, WYOMING, CERTIFY THAT IN ACCORDANCE WITH A REQUEST FROM JIM KRUPKA OF FARMINGTON, NEW MEXICO, FOR AMOCO PRODUCTION COMPANY, I MADE A SURVEY ON THE 10TH DAY OF AUGUST, 1978, FOR LOCATION AND ELEVATION OF THE COTTONWOOD CANYON ALTERNATE NO. 1 WELL AS SHOWN ON THE ABOVE MAP. THE WELLSIDE IS IN LOT 5 OF SECTION 7, TOWNSHIP 9 SOUTH, RANGE 6 EAST, OF THE SALT LAKE BASE AND MERIDIAN, UTAH COUNTY, STATE OF UTAH.

ELEVATION IS 6789.79 FEET TO THE TOP OF THE HUB, DATUM: SPOT ELEVATION 7862 IN LOT 5, SECTION 6, TOWNSHIP 9 SOUTH, RANGE 6 EAST, SLBM, RAYS VALLEY QUADRANGLE, USGS MAP.

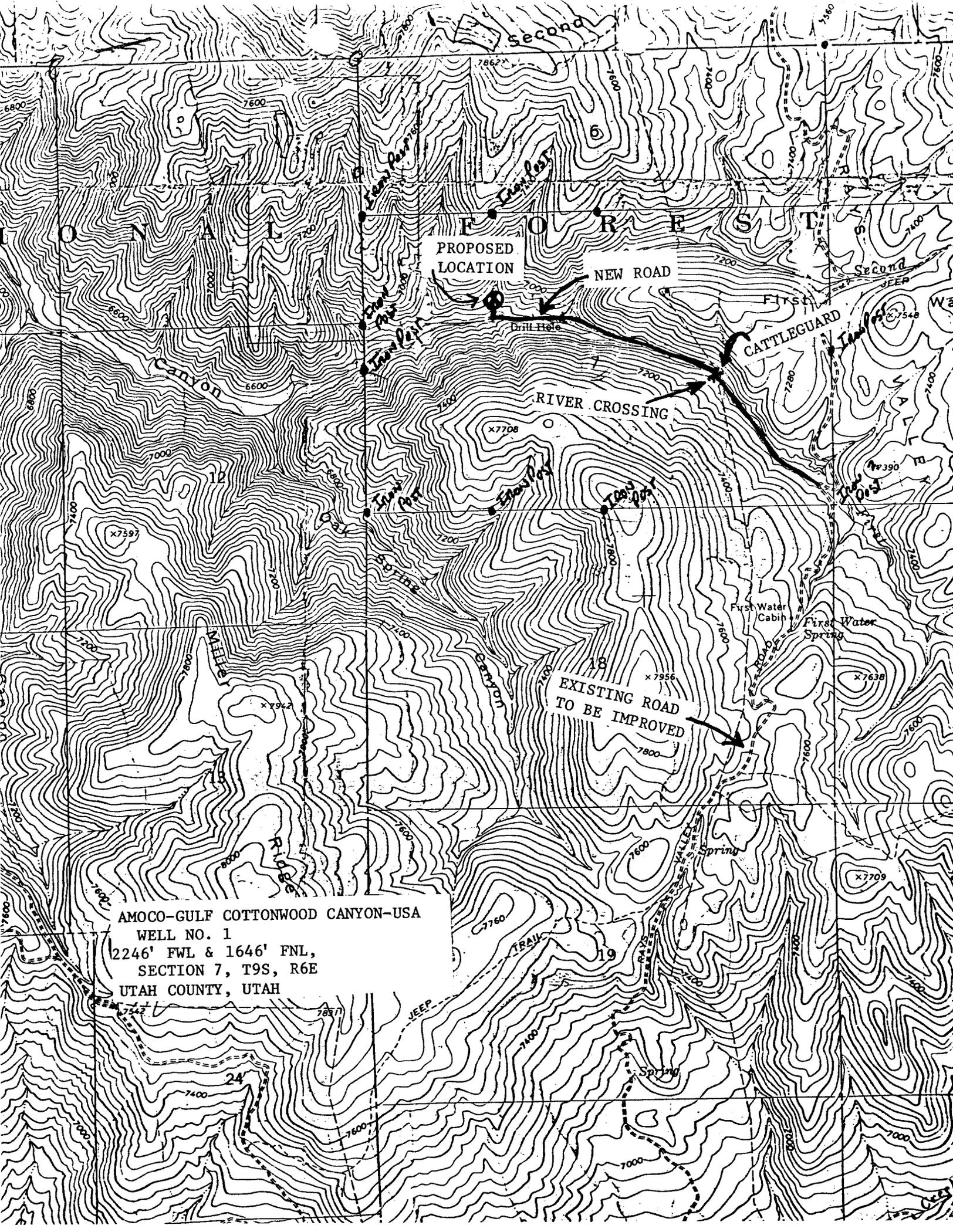


John A. Proffit 8/11/78

 UTAH R.L.S. NO. 2860

DATE: 8-11-78
 JOB NO.: 78-10-17

Uinta Engineering & Surveying, Inc.
 808 Main Street
 Evanston, Wyoming



PROPOSED
LOCATION

NEW ROAD

RIVER CROSSING

EXISTING ROAD
TO BE IMPROVED

CATTLEGUARD

First Water
Cabin

First Water
Spring

AMOCO-GULF COTTONWOOD CANYON-USA
WELL NO. 1
2246' FWL & 1646' FNL,
SECTION 7, T9S, R6E
UTAH COUNTY, UTAH

Second

Second

CANYON

RISE

CANYON

TRAIL

Spring

Spring

Spring

Spring

x7597

x7942

x7708

x7956

x7638

x7709

x7548

7862

7460

7400

7600

7600

6800

7100

7200

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7400

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7280

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SUPPLEMENTAL INFORMATION TO FORM 9-331C
 REQUIRED BY NTL-6
 AMOCO-GULF COTTONWOOD-USA NO. 1
 2246' FWL & 1646' FNL, SECTION 7, T-9-S, R-6-E
 UTAH COUNTY, UTAH

The geologic name of the surface formation is the Flagstaff Formation.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>ELEVATION</u>	<u>KB DEPTH</u>
Surface	+ 6790	19
KB	+ 6809	0
Northhorn*	+ 5290	1519
Ankareh	+ 4920	1889
Park City**	- 1520	8329
Diamond Ck.**	- 3170	9979
Kirkland	- 4120	10929
Subthrust Cretaceous**	- 4520	11329
TD	- 6191	13000

* Possible Water

** Possible Hydrocarbons

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
150'	20"	106.5# J-55	26"	375 - Class "G" Neat, 2% CaCl ₂ .
1500'	13-3/8"	61# J-55	17-1/2"	1000 - Class "G", 6% Gel, 200 - Tail in Glass "G" Neat.
8500'	9-5/8"	40 & 43.5# N-80 & S-95	12-1/4"	700 - Class "G", 2% Gel Retarded cement.
13000'	7"	29# F-95	8-1/2"	700 - Class "G" Neat, Retarded cement.

All Casing will be new.

Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design. Auxiliary safety equipment will be used: Kellycocks for 4-1/2" drill pipe, floats at the bit, and mud monitoring equipment throughout. A drill pipe safety valve will be employed.

Drilling fluid to TD will be a low solids non-dispersed mud system from 1500' to 13,000'. Ironite will be used if sour gas encountered in Park City formation.

Amoco plans to run the following logs: Dual Induction Lateralog, Formation Density, Compensated Neutron, Sonic Gamma Ray, and Dipmeter will be run from TD to surface casing. No cores are planned. Drill stem tests are planned for the Park City and Cretaceous intervals. A 2-man mud logging unit will be on location from surface casing to TD.

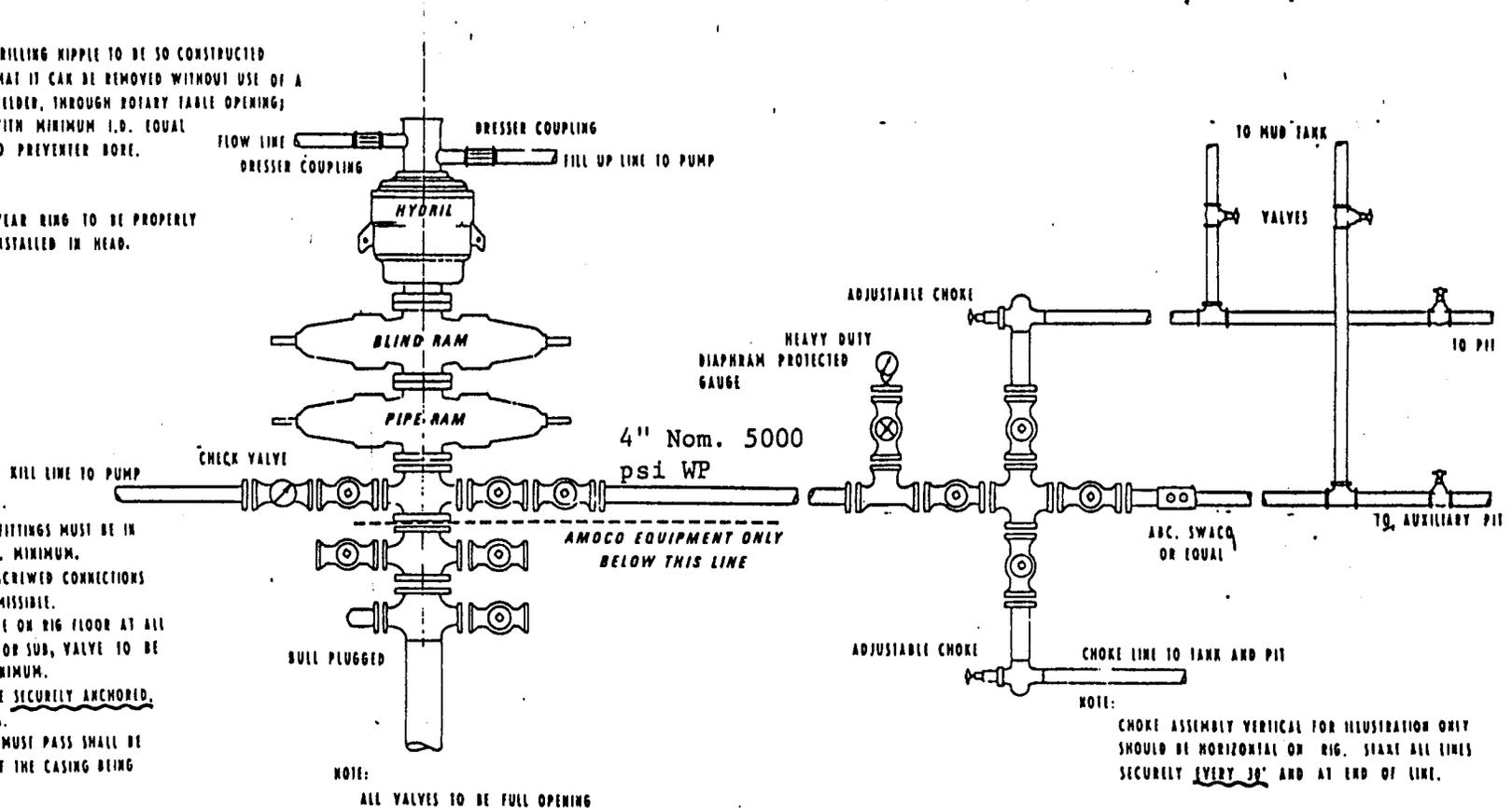
In the past, drilling in this area has shown that no abnormal pressure or temperatures will be encountered. Hydrogen sulfide gas may be encountered in the Park City formation since correlatable zones yield hydrogen sulfide in the northern Rockies. However, nearby drilling through the Park City has not shown H₂S.

MINIMUM BLOW-OUT PREVENTER REQUIREMENTS
 3000 psi WP to 9-5/8" Casing Point (8500')
 5000 psi WP 9-5/8" Casing Point to TD.

NOTE:

1 DRILLING KIPPLE TO BE SO CONSTRUCTED THAT IT CAN BE REMOVED WITHOUT USE OF A WELDER, THROUGH ROTARY TABLE OPENING; WITH MINIMUM I.D. EQUAL TO PREVENTER BORE.

2 WEAR RING TO BE PROPERLY INSTALLED IN HEAD.



NOTE:

- 1 BLOW-OUT PREVENTERS AND ALL FITTINGS MUST BE IN GOOD CONDITION 3,000 psi W.P. MINIMUM.
- 2 ALL FITTINGS TO BE FLANGED. SCREWED CONNECTIONS DOWNSTREAM FROM CHOKES PERMISSIBLE.
- 3 SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION OR SUB, VALVE TO BE FULL BORE 3,000 psi W.P. MINIMUM.
- 4 ALL CHOKES AND KILL LINES TO BE SECURELY ANCHORED, ESPECIALLY ENDS OF CHOKES LINES.
- 5 EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
- 6 KELLY COCK OR KELLY.
- 7 EXTENSION WRENCHES AND HAND WHEELS TO BE PROPERLY INSTALLED AND BRACED AT ALL TIMES.
- 8 BLOW-OUT PREVENTER CONTROL TO BE LOCATED AS CLOSE TO DRILLERS POSITION AS FEASIBLE.
- 9 BLOW-OUT PREVENTER CLOSING EQUIPMENT TO INCLUDE 60 GALLON ACCUMULATOR, TWO INDEPENDENT SOURCES OF PUMP POWER ON EACH CLOSING UNIT INSTALLATION, AND MEET ALL IADC SPECIFICATIONS.

*Increase to 5000 psi WP below 9-5/8" Casing Point.

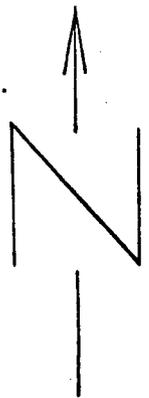
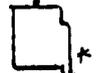
NOTE:
 CHOKES ASSEMBLY VERTICAL FOR ILLUSTRATION ONLY SHOULD BE HORIZONTAL ON RIG. SHIRT ALL LINES SECURELY EVERY 30' AND AT END OF LINE.

MULTI-POINT SURFACE USE PLAN
AMOCO-GULF COTTONWOOD CANYON USA WELL NO. 1
2246' FWL, 1646' FNL, SECTION 7, T-9-S, R-6-E
UTAH COUNTY, UTAH

1. Existing Roads - The attached well site plat shows the proposed well as staked with directional orientation. The attached transportation sketch shows the route to the well from Spanish Fork, Utah. Access roads to be used and approximate distances from reference points are included. Also shown are roads within 3 miles of the proposed well. These roads are dirt base and poor quality. Portions to be used as access to the subject well will require improvement.
2. Planned Access Roads - The transportation sketch shows the route of planned access roads. Approximately 7.5 miles of existing road will be used and will have to be improved. The road will be improved by cutting into several small hills in order to have the 20' width necessary to move in drilling equipment. Several culverts will be installed as required by the Uintah National Forest Service. Approximately 1.25 miles of new road will be built along First Water Creek. This road is detailed on the attached topographic map. This road will require a river crossing at the point shown using two 4' diameter culverts. Additional culverts will be installed elsewhere along the route as required by the Uinta National Forest. The new road will be 20' wide and bar-ditched on the higher side. One cattleguard will be installed along the fence as indicated on the topographic map. Road surface will be earthen, no construction materials will be brought in for road construction.
3. Location of Existing Wells - No active wells are located within a two mile radius of the proposed well. An abandoned well is located approximately 1200' east and is spotted on the topographic map.
4. Location of Existing and or Proposed Facilities - No production facilities are located within a one mile radius of the subject well.
5. Location and Type of Water Supply - Water will be pumped from First Water Creek with permission from the U. S. Forest Service. Several springs along the road into the location could be used for rig water. Water will be transported via tank truck using the 1.25 mile road to be built.
6. Source of Construction Materials - No construction materials will be utilized in building the location.
7. Methods for Handling Waste Disposal - Waste disposal will be handled as follows:
 - A. Cuttings will be collected in the reserve pit and buried as the pit is backfilled.
 - B. Drilling fluids will be allowed to dry up in the reserve pit, then covered as the pit is backfilled.

- C. Produced oil and water will be collected in steel test tanks and disposed of in a manner acceptable to the U.S.G.S. Gas will be flared on a test basis with permission of the U.S.G.S.
 - D. Sewage will be handled using portable toilet facilities with a septic system dug for trailers on the uphill side of the location. Garbage and other waste materials will be gathered and stored in containers, then hauled to an approved dump site.
8. Ancillary Facilities - No camps or airstrips will be required for this operation.
 9. Well Site Layout - The attached rig schematic and location sketch show the location orientation and well site layout. The location sketch details necessary cuts and fills for this operation.
 10. Plans for Restoration of Surface - Restoration of surface will be accomplished by cleaning up upon completion of the well. The reserve pit will be backfilled and the location will be returned as close to its natural contours as possible. The location will be reseeded per Forest Service Specifications. The 1.5 miles of access roads to be built for this location will be either left for Forest Service use or ripped and reseeded according to Forest Service requirements. Prior to rig release, pits will be fenced and so maintained until clean-up. Any oil that has accumulated on the pit will be removed. Surface restoration will commence immediately after rig move out - if weather permits.
 11. General Location Description - The well site is approximately 200' from First Water Creek. The location will be built on a mild slope. The location is cut north to south by a dry wash. This wash will be diverted along the east edge of the location. The location is covered with scrub and other surface cover. No buildings are within one mile of the proposed location.
 12. A statement of operator's representative is attached.

To Panguitch
13.0 MI



13.5 Miles

THISTLE

9 Miles

Railroad
Rio Grande

Cottonwood Canyon Unit Well #1

Cottonwood Canyon

16.25 Miles

Drill Hole

First Water Creek

7.5 Miles

Sheep Creek

Sign
To Strawberry Res.

Amoco Production Company				
Amoco-GULF Cottonwood CANYON USA #1				
2246' FWL, 1646' NL				
Sec. 7-9S-6E				
UTAH COUNTY, UTAH				
DR.	CHK.	AP.	AP.	NO.
SCALE		DATE		

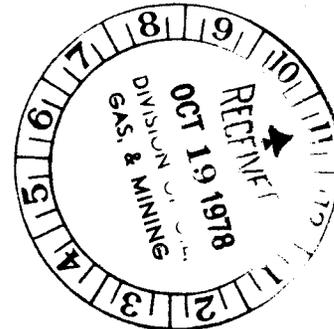


Amoco Production Company

Security Life Building
Denver, Colorado 80202

October 17, 1978

C. B. Feight, Director (6)
Utah Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116



File: MRG-625-986.511

Application For Unorthodox Location
Amoco-Gulf Cottonwood Canyon USA Well No. 1
NW/4 of Section 7 T9S R6E
Wildcat Subthrust Cretaceous
Utah County, Utah

7-21-78 D. L. H. P.
9-20-78 LCH

We respectfully request your administrative approval of this application for an unorthodox wildcat well location due to topography, pursuant to General Rule C-3 (c). The Amoco-Gulf Cottonwood Canyon USA No. 1 well is to be located 1646' FNL and 2246' FWL of Section 7 T9S R6E. Our originally designed location of 1900' FNL and 950' FWL of Section 7 was unacceptable for topographic reasons. It was located at the base of a mountain and extensive dirt work would be required. The new location of 1646' FNL and 2246' FWL of Section 7 is environmentally acceptable and will be much cheaper to build. In referring to the attached topographic map and surveyors plat, please note that the location in this area limits our choices with respect to alternate drilling sites.

43-049-3000

General Rule C-3 (c) requires wells to be located at least 500' from any property or lease line or from the boundary from any legal subdivision comprising a governmental quarter-quarter section. The location requested is therefore too close to a governmental quarter-quarter section boundary in this oversized Section 7 (which is elongated in an east-west direction) and requires this application for an exception. We expect no further difficulty in obtaining approvals from the USGS and the United States Forest Service. Application for these approvals has already been filed.

C. B. Feight, Director (6)
October 17, 1978
PageTwo

We respectfully request your immediate administrative approval of this application, without a hearing, because it is occasioned by topographical conditions and because the ownership of all oil and gas leases within a radius of 660' of the requested unorthodox location is common with the ownership of the oil and gas leases under the requested location. Williams Exploration Company and Hematite Petroleum Inc. farmed out an undivided 1/2 interest in their leasehold in this area equally to Gulf and Amoco, with Amoco designated the operator. Section 7 along with other adjoining acreage has been further pooled into a pooled area of 10,630.48 acres with Phillips Petroleum Company.



R. B. Giles

RBG:jdb

Enclosures

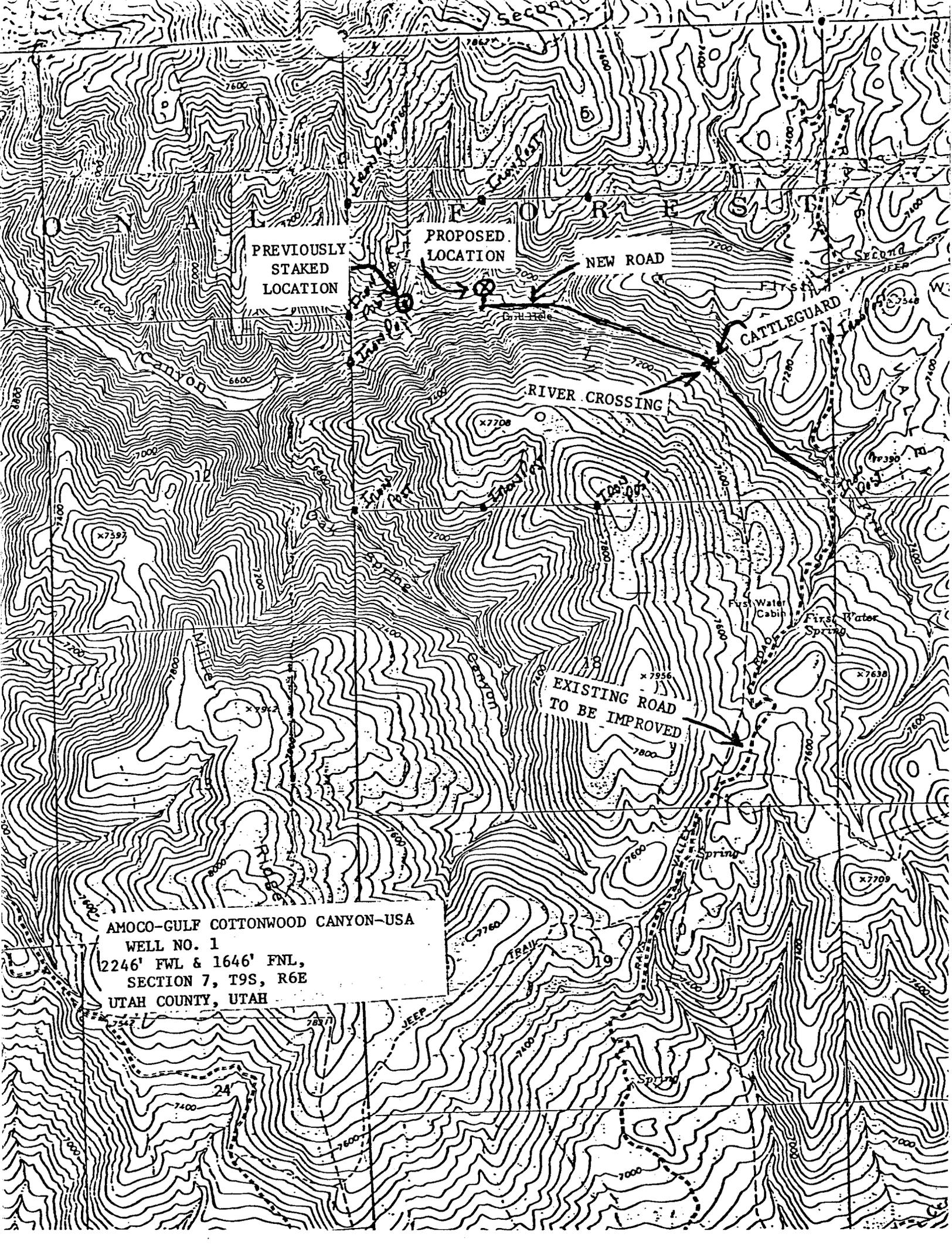
cc: Williams Exploration Company
1 Williams Center
Box 3102
Tulsa, Oklahoma 74101

Hematite Petroleum Inc.
Suite 3215
5555 South Trenton
Englewood, Colorado 80110

Gulf Exploration and Production Company
P. O. Box 2619
Casper, Wyoming 82601

Phillips Petroleum Company
1000 Security Life Building
Denver, Colorado 80202

BC165



PREVIOUSLY
STAKED
LOCATION

PROPOSED
LOCATION

NEW ROAD

RIVER CROSSING

CATTLEGUARD

EXISTING ROAD
TO BE IMPROVED

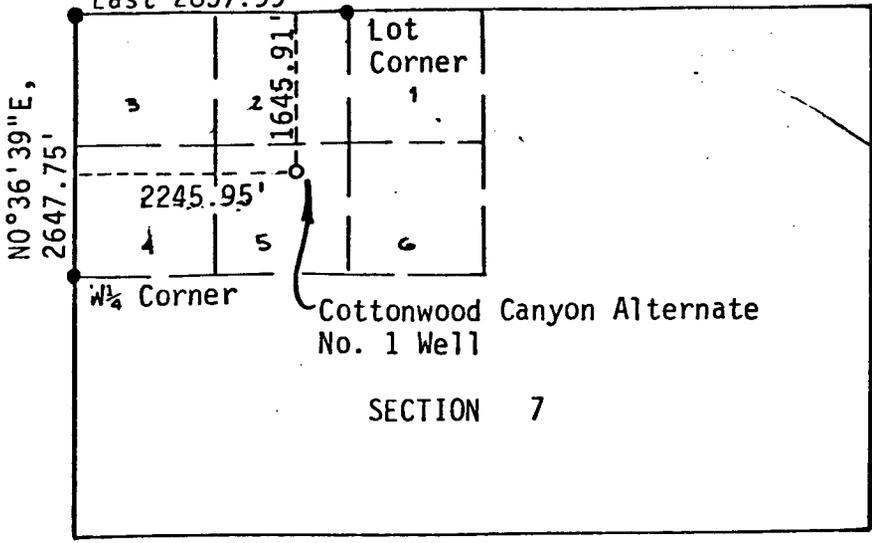
AMOCO-GULF COTTONWOOD CANYON-USA
WELL NO. 1
2246' FWL & 1646' FNL,
SECTION 7, T9S, R6E
UTAH COUNTY, UTAH

N.W. Cor.

T9S

R

Basis of Bearing:
East 2857.99'



Scale: 1" = 2000'

- Hub & Tack
- Found Brass Cap

SECTION 7

I, JOHN A PROFFIT, OF EVANSTON, WYOMING, CERTIFY THAT IN ACCORDANCE WITH A REQUEST FROM JIM KRUPKA OF FARMINGTON, NEW MEXICO, FOR AMOCO PRODUCTION COMPANY, I MADE A SURVEY ON THE 10TH DAY OF AUGUST, 1978, FOR LOCATION AND ELEVATION OF THE COTTONWOOD CANYON ALTERNATE NO. 1 WELL AS SHOWN ON THE ABOVE MAP. THE WELLSIDE IS IN LOT 5 OF SECTION 7, TOWNSHIP 9 SOUTH, RANGE 6 EAST, OF THE SALT LAKE BASE AND MERIDIAN, UTAH COUNTY, STATE OF UTAH.

ELEVATION IS 6789.79 FEET TO THE TOP OF THE HUB, DATUM: SPOT ELEVATION 7862 IN LOT 5, SECTION 6, TOWNSHIP 9 SOUTH, RANGE 6 EAST, SLBM, RAYS VALLEY QUADRANGLE, USGS MAP.



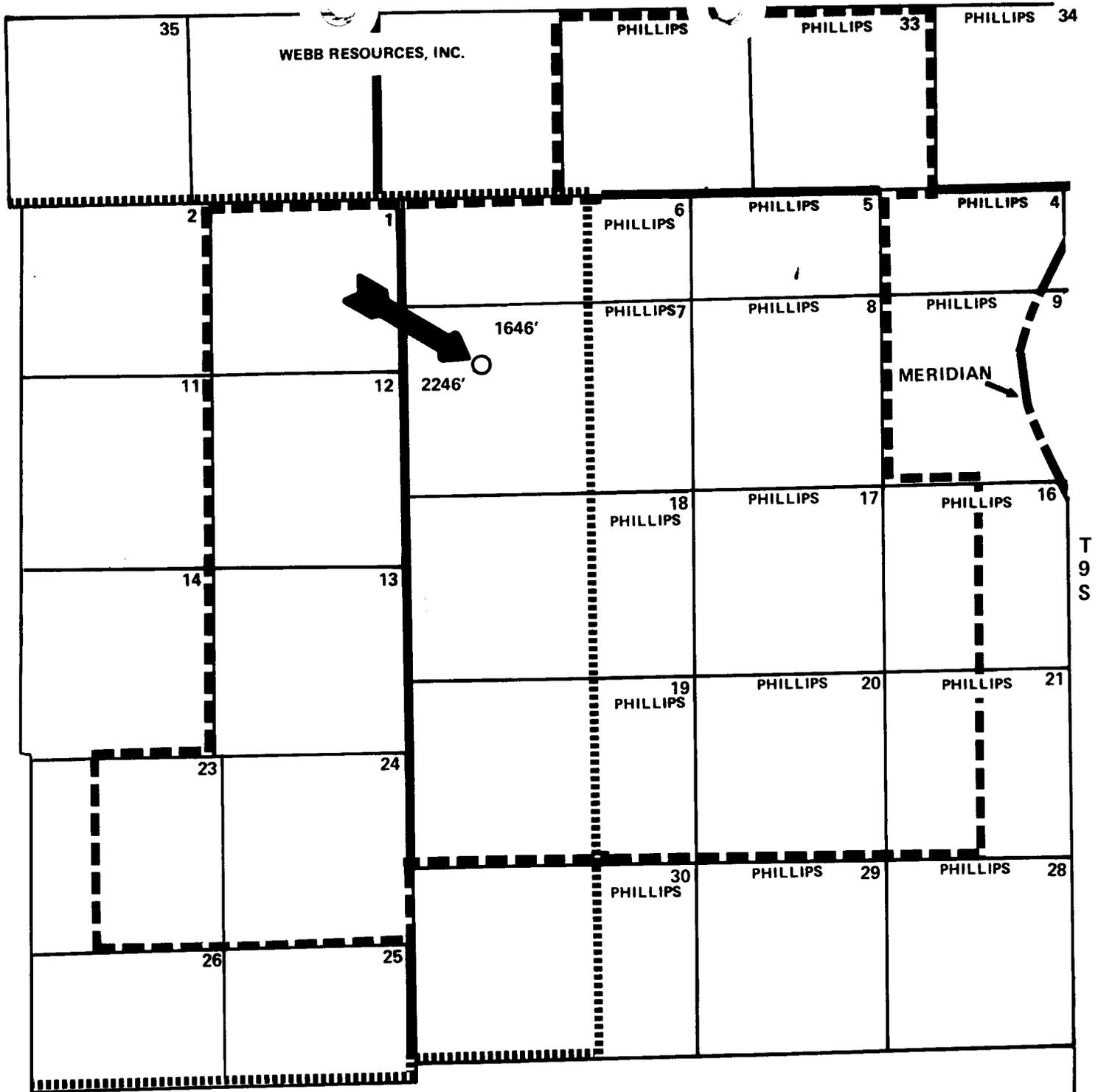
John A. Proffitt 8/11/78

 UTAH R.L.S. NO. 2860

DATE: 8-11-78
 JOB NO.: 78-10-17

Uinta Engineering & Surveying, Inc.
 808 Main Street
 Evanston, Wyoming

R6E



OWNERSHIP PLAT FOR
 AMOCO-GULF COTTONWOOD CANYON USA WELL NO. 1
 NW/4 SECTION 7, T9S, R6E
 WILDCAT SUBTHRUST CRETACEOUS TEST
 UTAH COUNTY, UTAH

LEGEND

- PORTION OF AMOCO-WILLIAMS OPTION AREA
- POOLED AREA (10,630.48 ACRES)

OCTOBER, 1978



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

STATE OF UTAH

I. DANIEL STEWART
Chairman

DEPARTMENT OF NATURAL RESOURCES

CHARLES R. HENDERSON
JOHN L. BELL
THADIS W. BOX
C. RAY JUVELIN

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771
October 23, 1978

Amoco Production Company
Security Life Building
Denver, Colorado 80202

ATTENTION: R.B. Giles

Re: File MRG-625-986,511
Well No. Cottonwood Canyon USA #1
Sec. 7, T. 9 S., R. 6 E,
Utah County, Utah

Dear Mr. Giles:

In reference to your letter of October 17, 1978, requesting administrative approval for the unorthodox location of the above referred to well; please be advised that our records indicate the initial approval for this well was granted July 21, 1978 and approval of the location change indicated was granted on September 20, 1978.

Consequently, approval for said unorthodox topographic site has been granted.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

SCHEREE WILCOX
Administrative Assistant

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

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 Form 9-331-C for such proposals.)

1. oil well gas well other **Wildcat**

2. NAME OF OPERATOR
AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR
501 Airport Drive Farmington, NM 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: **2246' FWL & 1646' FWL, Section 7,**
AT TOP PROD. INTERVAL: **T9S, R6E**
AT TOTAL DEPTH: **Same**

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) Amoco Access Road Plan	

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.)*

Attached is a topographic map showing our revised access road to our proposed Amoco-Gulf Cottonwood Canyon-USA Well No. 1.

The road will be staked as soon as weather permits under the guidance of U. S. Forest Service engineers; however, archaeological clearings will not be possible until late spring due to snow cover. We plan to follow the standard USFS road design criteria attached to this notice.

Subsurface Safety Valve: Manu. and Type _____

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

SIGNED *J. H. [Signature]* TITLE **District Engineer** DATE **1/18/79**

(This space for Federal or State office use)

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

JAN 18 1979

Form Approved.
Budget Bureau No. 42-R1424

5. LEASE **U-2261**

6. IF INDIAN, AGENCY OR TRIBE **None**

7. UNIT AGREEMENT NAME _____

8. FARM OR LEASE NAME **Amoco-Gulf Cottonwood Canyon-USA**

9. WELL NO. **1**

10. FIELD OR WELL NAME **Wildcat**

11. SEC., T., R., BLK. AND QUARTER OR AREA **SW/4 NW/4 Section 7, T9S, R6E**

12. COUNTY OR PARISH **Utah** 13. STATE **Utah**

14. API NO. _____

15. ELEVATIONS (SHOW DEPTHS AND WD) **6750' PL**

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

ROAD DESIGN CRITERIA

- A. Two lanes - 12 ft.
- B. 30 m.p.h. design speed.
- C. Curves should generally be 275' minimum radius.
- D. Widen curves 400/radius.
- E. Minimum stopping sight distance - 200 feet.
- F. Minimum passing sight distance - 1,100 feet.
- G. Maximum super-elevation - 0.06 feet/feet.
- H. Maximum sustained grade - 9 percent.
- I. Where grade exceeds 9 percent for 500 feet, include climbing lanes.
- J. Shoulders as necessary to support the surface structure.
(30' minimum total subgrade width)
- K. Crown and super-elevation - 6 percent maximum.
- L. Traffic control devices conforming to the Manual on Uniform Traffic Control Devices.
- M. Culverts or other drainage structures as required.
- N. Placement of cattleguards where fences are encountered.
- O. All-weather gravel surfacing.

N A T I O N A L F O R E S T

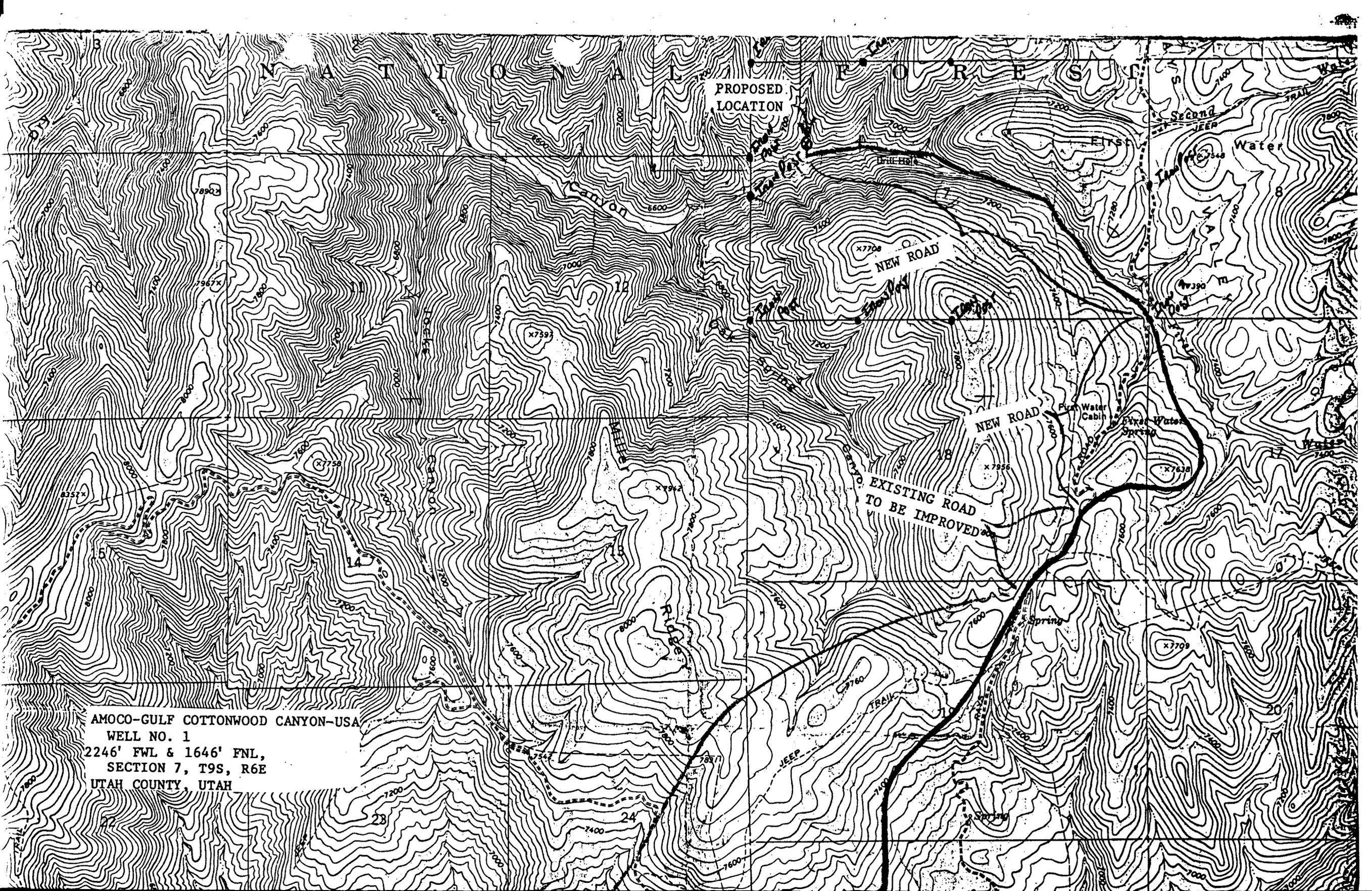
PROPOSED
LOCATION

NEW ROAD

NEW ROAD

EXISTING ROAD
TO BE IMPROVED

AMOCO-GULF COTTONWOOD CANYON-USA
WELL NO. 1
2246' FWL & 1646' FNL,
SECTION 7, T9S, R6E
UTAH COUNTY, UTAH



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 Wildcat SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Amoco Production Company

3. ADDRESS OF OPERATOR
 P. O. Box 17675, Salt Lake City, UT 84117

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

Lot 5 Section 7, 2246' FWL 1646' FNL
 At proposed prod. zone
 Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 18 miles Northeast of Thistle, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)
 1646'

16. NO. OF ACRES IN LEASE
 1682.48

17. NO. OF ACRES ASSIGNED TO THIS WELL
 Wildcat

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

19. PROPOSED DEPTH
 13,000

20. ROTARY OR CABLE TOOLS
 Rotary to TD

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6790' Ungraded Ground

22. APPROX. DATE WORK WILL START*
 As soon as approved.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	106.5#	150'	375 Sx
17 1/2"	13 3/8"	54.5# k-55	1500'	1200 Sx
12 1/4"	9 5/8"	40 & 43.5#	8500'	700 Sx
8 1/2"	7"	29#	13,000'	700 Sx

Amoco Production Company proposes to drill into and test the Subthrust Cretaceous for commercial quantities of hydrocarbons. Completion attempts will be based on open hole logs.

API 43-049-36007

ATTACHMENTS

Unit Agreement Contract # 14-08-0001-17072

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 Original Signed By D. S. DAVIDSON TITLE Dist. Adm. Supervisor DATE 2-27-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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

ATTACHMENT TO FORM 9-331 C

Amoco Gulf Cottonwood Canyon USA Well #1
 2246' FWL 1646' FNL Section 7, T-9-S, R-6-E, Utah County, Utah

1. Geologic name of the surface formation: Price River
2. Estimated tops of geological markers:

<u>Formation</u>	<u>Elevation</u>	<u>KB Depth</u>
Surface	+6790	19
KB	+6809	0
* Northern	+5290	1519
Ankareh	+4920	1889
** Park City	-1520	8329
** Diamond Creek	-3170	9979
Kirkland	-4120	9979
** Subthrust Cretaceous	-4520	11,329
TD	-6191	13,000

3. Estimated depths anticipated to encounter water, oil, gas or other mineral-bearing formations: See #2 above

* Possible Water ** Possible Hydrocarbons

4. Casing Program - See Form 9-331C #23 and below

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
150'	20"	106.5# J-55	26#	375 - Class "G" Neat, 2% CaCl ₂
1500'	13-3/8"	54.4# K-55	17-1/2"	1000 - Class "G", 6% Gel,
8500'	9-5/8"	40 & 43.5#	12-1/4"	200 - Tail in Class "G" Neat. Retarded cement.
13000'	7"	N-80 & S-95 29# F-95	8-1/2"	700 - Class "G" Neat, Retarded cement.

All Casing will be new.

see design section

5. Operators minimum specifications for pressure control equipment are explained on attached schematic diagram. Testing of such is to performed daily and noted on the IADC Daily Drilling Report. After running surface casing and prior to drilling out, BOP and other pressure equipment will be tested to the full working pressure rating as shown on the attached diagram. Thereafter, the BOP will be checked daily for mechanical operations only and will be noted on the IADC Daily Drilling Report.

6. Mud Program:

0'-1500' Native
 1500'-1300 Low solids non-dispersed mud system, Minimum viscosity properties as required to clean hole. Ironite will be used if sour gas is encountered in the Park City formation.

7. Auxiliary Equipment

Kelly Cock: floor sub with a full opening valve. 3" choke manifold with remote control choke, 2500 PSI WP.

Mud loggers (2-man type) on location from base of surface casing to total depth. See Attachment for Hydrogen Sulfide Contingency plan.

8. Testing Program:

Drill Stem tests will be conducted within the Park City and Cretaceous formations at points determined by either the wellsite geologist or Amoco's Denver Exploration Department.

Logging Program

DIL	Base of Surface casing to total depth
FDC - CNL	Base of Surface casing to total depth
Sonic Gamma Ray w/Caliper	Base of Surface casing to total depth
Dipmeter	Base of Surface casing to total depth

Coring Program:

None proposed

Stimulation Program

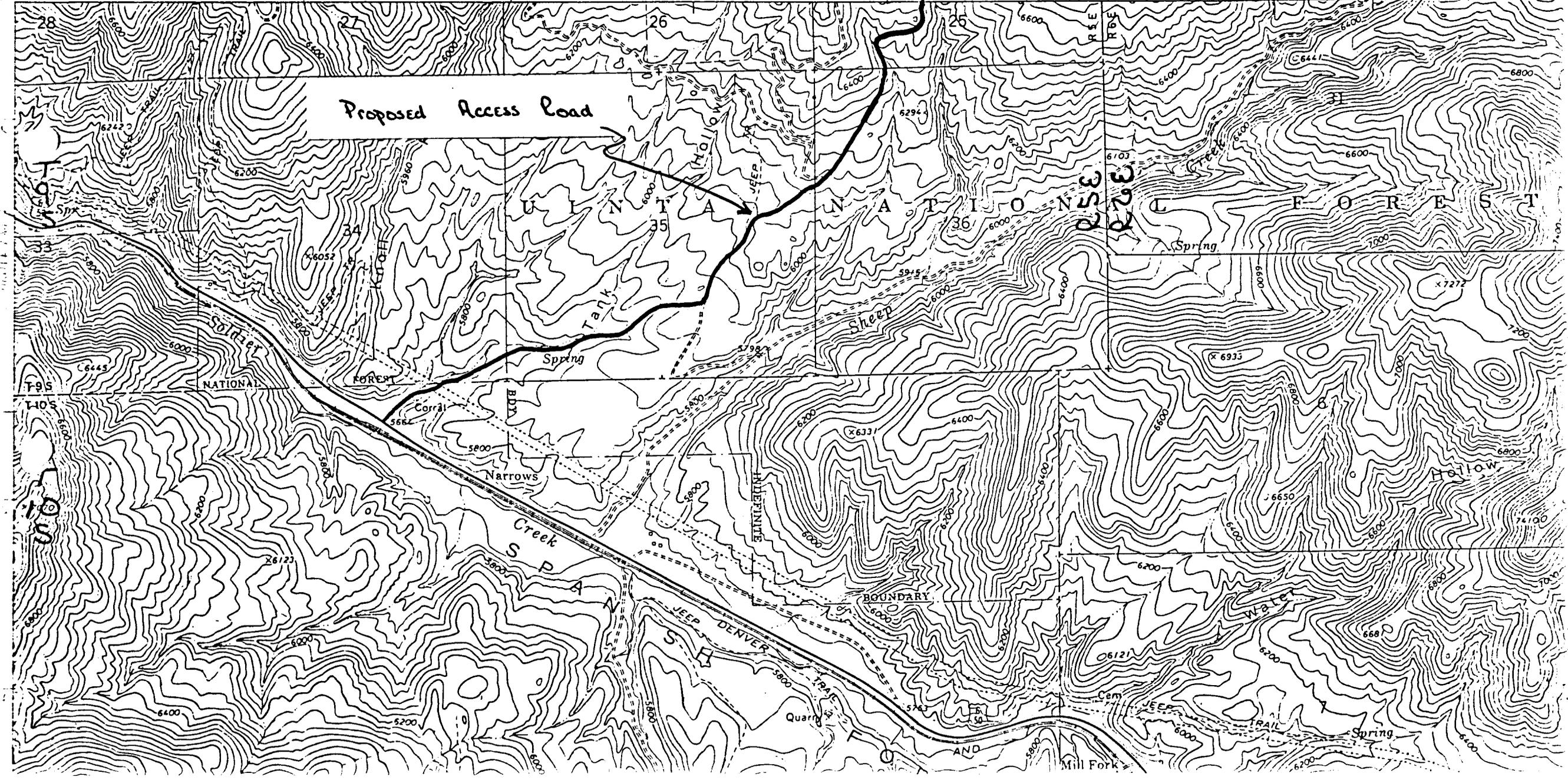
After evaluation of the open hole and cement bond logs to determine possible pay interval, propose to perforate and if necessary acidize perforated intervals with 15% HCL acid in amounts as determined necessary to correspond with pay intervals.

9. No abnormal pressure or temperature or potential hazards are anticipated. Anticipated bottom hole pressure - 6300 PSI. Casing head 13 3/8" 5000# WP. Tubing head, 10" x 5000# x 7 1/16" 10,000 #WP
10. The anticipated starting date will be when approved. The duration of the operations will be approximately sixty days.

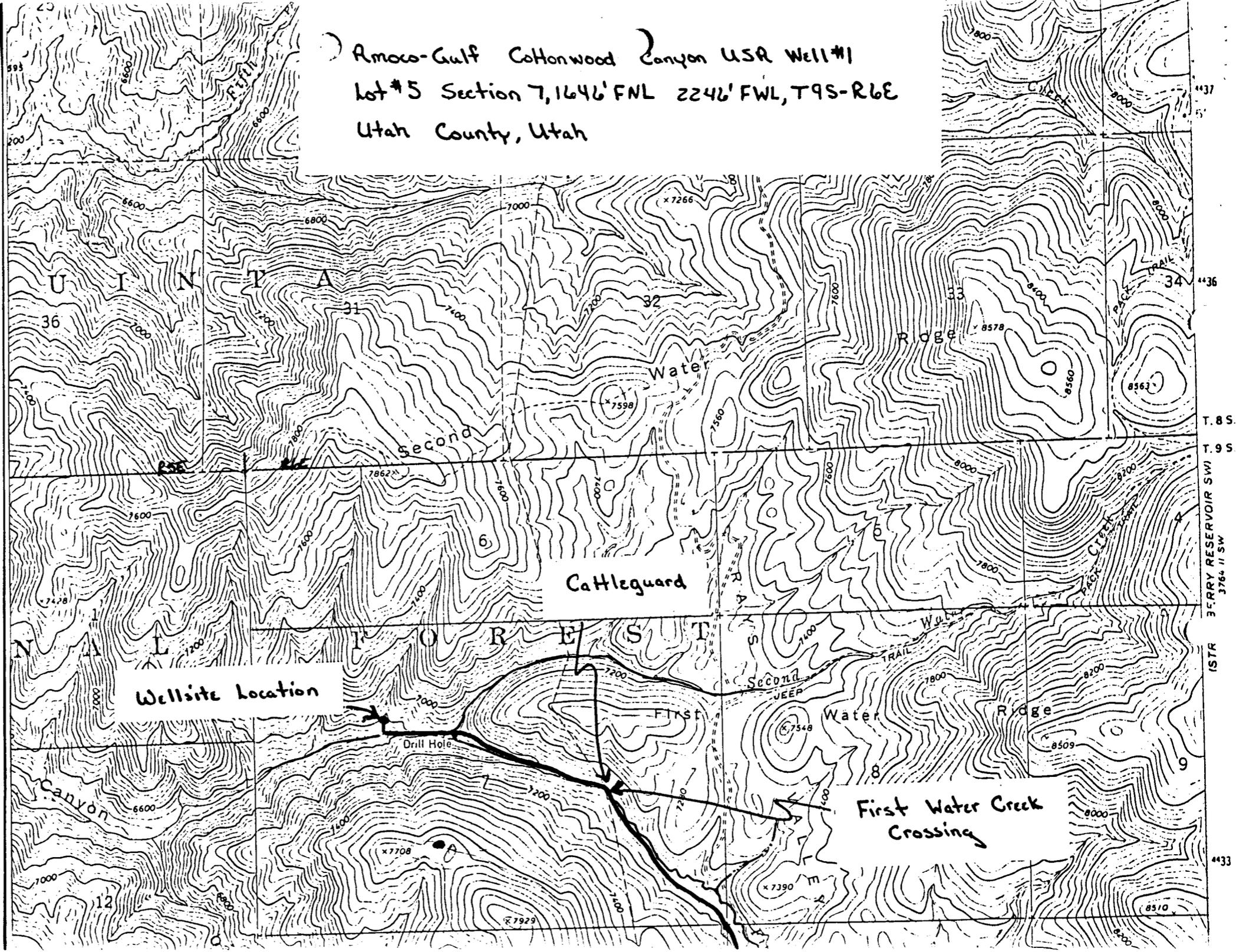
Proposed Amoco Gulf Cottonwood Canyon Well #1 Access Road

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

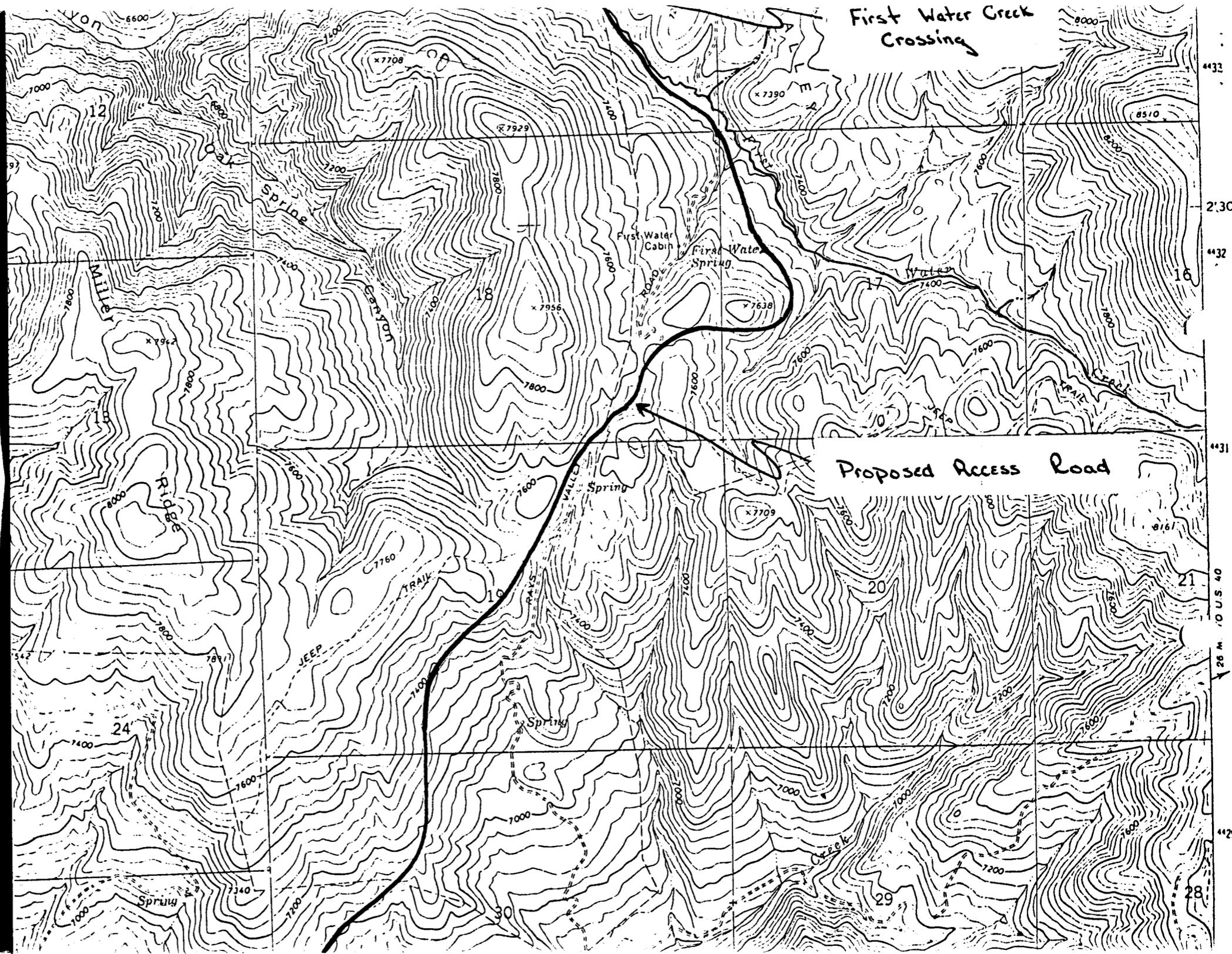
22'30" 469000m E. 470 471 20' 472 473 3764 III SE (RAYS VALLEY) 474 29 MI. TO U.S. 40 475 17'30" 12 060 000 FEET



Amoco-Gulf Cottonwood Canyon USA Well #1
Lot #5 Section 7, 1646' FNL 2246' FWL, T9S-R6E
Utah County, Utah



In Federal Unit



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Form approved.
Budget Bureau No. 42-R1424.

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
Amoco Production Company

3. ADDRESS OF OPERATOR
P. O. Box 17675, Salt Lake City, Utah 84117

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
Lot 5, Section 7, 2246' FWL 1646' FNL

5. LEASE DESIGNATION AND SERIAL NO.
U-21647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Cottonwood Canyon

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

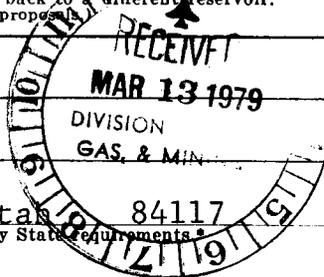
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 7-T9S-R6E

12. COUNTY OR PARISH
Utah

13. STATE
Utah

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6790' Ungraded Ground



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 type="checkbox"/>
(Other)		<u>Name Change</u>	<input checked="" 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)			

(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 accept this Sundry Notice as Amoco Production Company's notification of our intent to change the well name from the Amoco-Gulf Cottonwood Canyon-USA Well #1, as reported in the Application for Permit to Drill dated 2/27/79, to the Cottonwood Canyon Unit Well #1. Future correspondence pertaining to subject well will refer to this well as the Cottonwood Canyon Unit Well #1.

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

Unit Agreement Contract # 14-08-0001-17072

SIGNED Original Signed By D. S. DAVIDSON TITLE Dist. Adm. Supr. DATE 3/9/1979

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

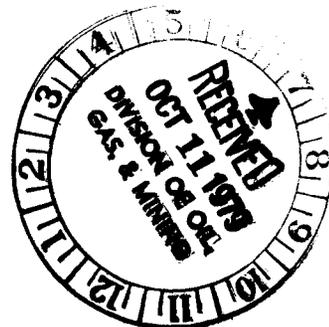


Amoco Production Company

Post Office Box 17675
Salt Lake City, Utah 84117
801-272-9253

W. M. Jones
District Superintendent

October 5, 1979



The State of Utah
Department of Natural Resources
Division of Oil Gas and Mining
1588 West North Temple
Salt Lake City, UT 84116

File: WMJ-1411-WF

Application To Drill Cottonwood Canyon Well No. 1 Located Section 7,
T9S, R6E, Utah County, Utah

Attached is Amoco Production Company's application to drill the above well.

The application has been approved by the United States Geological Survey and the Forest Service, but a review of our files indicates that we do not have a State of Utah API number and we are forwarding a copy of the application for your approval.

W. M. Jones
District Superintendent

Attachment

GWC/crj

Ann Perry Chapman



Amoco Production Company

Post Office Box 17675
Salt Lake City, Utah 84117
801-272-9253

W. M. Jones
District Superintendent



October 16, 1979

E. W. Guynn, District Engineer
United States Department of Interior
Geological Survey, Conservation Division
1745 West 1700 South
Salt Lake City, UT 84104

File: WMJ-1373-980.17/WF

Transmittal of H₂S Contingency Plan Lease No. U21647, Cottonwood Canyon
Unit Well No. 1, Utah County, Utah

In reply to your letter of September 19, 1979 requesting Amoco Production Company's Contingency Plans for drilling the above well.

Attached is Amoco's Action Plan for accidental Release of H₂S, and Emergency Evacuation Plan. Also attached is a memorandum from the State of Utah, outlining requirements for drilling in formation where H₂S may be encountered. Amoco Production employees and Contract personnel will comply with these stipulations. These stipulations are subject to change by the State of Utah; therefore, our contingency plan has been formulated from current requirements.

Subject well should spud during the month of November, 1979. Prior to spud date, Amoco will contract the services of a professional H₂S safety company. At that time the attached contingency plan and emergency evacuation plan will be expanded to include a plat of the well-site, showing briefing areas, wind sock locations, etc.

An archaeological study has been made on all surfaces to be disturbed and

E. W. Guynn
Page 2

a copy of this report will be furnished to the U.S. Forest Service, Spanish Fork Ranger District.



W. M. Jones
District Superintendent

Attachments

cc:

The State of Utah
Department of Natural Resources
Division of Oil Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116
API 43-049-30007



GWC/crj

CONTINGENCY PLAN

AMOCO PRODUCTION COMPANY
P. O. BOX 17675
SALT LAKE CITY, UTAH 84117

ACTION PLAN FOR ACCIDENTAL RELEASE OF H₂S

COTTONWOOD CANYON
UNIT WELL NO. 1
SW/4 NW/4 SECTION 7, T9S-R7E
UTAH COUNTY, UTAH

(This Plan is Subject to Updating)

May 1, 1979

I. PURPOSE:

The purpose of this plan is to safeguard the lives of the public, contract personnel, and company personnel in the event of equipment failures or disaster during the drilling of formations which may contain Hydrogen Sulfide Gas (H_2S).

AMOCO PRODUCTION COMPANY has specified materials and practices for the drilling of this well to protect the safety of all concerned. However, as a precautionary measure this contingency and evacuation plan has been prepared to further assist the safety of all concerned.

II. DESCRIPTION OF HYDROGEN SULFIDE GAS

H_2S is a colorless gas which smells similar to rotten eggs in low concentrations. In large concentrations or over long periods of exposure, the sense of smell may be paralyzed. H_2S is extremely toxic gas that must be treated with extreme care to prevent injury to people. H_2S is heavier than air (specific gravity=1.19) and on still days tends to accumulate in low places. This accumulation could build up and lead to dangerous concentrations. However, if the H_2S gas is warmer than air, it will tend to rise until cooled off and could affect workers above the escaping source.

The toxicity of H_2S is as follows:

Period of Exposure

Prolonged exposure - no adverse effects	10 PPM
Over 1 hour could be hazardous	150 PPM
Possibly fatal in less than ½ hour	300 PPM
Fatal in a few minutes	700 PPM

III. TREATMENT OF HYDROGEN SULFIDE POISONING:

- A. Remove the patient to fresh air, call physician or ambulance if possible.
- B. If breathing is labored or has ceased, give artificial respiration immediately. Continue until physician is available, even if person appears to be not breathing. Should disaster conditions make it impossible to move to fresh air, keep on your mask and use resuscitator on patient.
- C. If giving artificial respiration, and patient is breathing, use resuscitator to help eliminate H_2S from the bloodstream.
- D. Keep patient at rest and prevent chilling.
- E. Get patient to a physician as soon as possible.

IV. EQUIPMENT REQUIREMENTS:

A. General:

All equipment to be exposed to H₂S shall be built to NACE Standard MR-01-75, or Amoco specifications if Amoco specifications are more stringent.

B. Blowout Preventer Requirements

All BOP body and parts (excluding rams and ram shear blades) shall be constructed of a carbon steel or low alloy steel with an HRC 22 maximum hardness. Rams shall be built out of low alloy steels. (i.e., AISI 4130, or like). Shear blades shall be constructed of hard high strength steel to enable the blades to shear the drill pipe in emergency conditions.

The blowout preventer stack will be tested to full working pressure on initial installation and routinely thereafter, not to exceed two weeks. The stack will also be tested any time a seal has been broken, a leak experienced, or a known H₂S bearing formation is to be drilled.

C. Drill String Requirements

All drill string components shall be to API specifications for tubular goods in controlled environments. Typically, grade E drill pipe will be used. All components will be inspected to IADC critical service specifications prior to running in the well. Corrosion will be monitored by coupons.

D. Choke Lines and Kill Manifold

Choke lines and kill manifold shall be constructed of ASTM 106 grade B or A-53 grade B.

E. Casing and Wellhead Equipment

Casing shall be constructed to API requirements for sour gas wells. The casing to be run will be C-75 type 2, L-80 or SS-95.

Wellhead equipment will be constructed to Amoco specifications. From the tubing head up all valves shall have stainless steel balls and seats with monel stems, which complies to a NACE 1 trim. Valve bodies to be made from carbon or low alloy steel with HRC 22 maximum. All welds will be x-rayed and stress relieved.

V. SAFETY AND MONITORING EQUIPMENT

A. Gas Monitoring Equipment:

1. A continuous H₂S monitoring system with two or more H₂S detection heads will be in operation. One will be sampling from the shale shaker and one sampling from the bell nipple below the rotary table. Both units will be monitored in the mud logger's trailer and/or the dog house. Each unit will be set to trigger a blinking light on the rig floor should the amount of H₂S reach 10 PPM, and to trigger an alarm should the amount of H₂S reach 20 PPM. Any time it is necessary to deactivate the alarm (if H₂S is continuously present), a trained operator or H₂S Supervisor will monitor the detection system.

2. When approaching or drilling H₂S formations, crew members may attach 8-hour H₂S electronic personnel monitoring equipment to their person as warranted.

3. Hand sampling gas detectors will be used to check areas not covered by automatic monitoring equipment.

B. Safety Equipment

1. The following safety equipment will be available:

Escape packs:

- 1 - 5 minute escape pack on the derrick
- 5 - 5 minute escape packs on floor
- 4 - 5 minute escape packs at various points along mud tanks
- 1 - 30 minute pack in each trailer
(2 in mud logger's trailer)
- 1 - 30 minute pack at bottom of steps
- 1 - 30 minute pack in mud shed
- 1 - 30 minute pack in tool shed

Total: 10 - 30 minute packs
 10 - 5 minute packs

Cascade System:

- 10 - 380 cu. ft. cylinder air supply system
- 2 - 5 outlet manifold on floor (1 each side)
- 2 - 5 outlet manifolds on mud tanks
- 10 - line masks (same as 5 minute packs)
- 1500' - low pressure air line hose with quick connects

Other Equipment:

- 4 - wind socks
- 36 unit - first aid kit
- 1 - oxygen powered resuscitator with cylinder
- 1 - flare gun with shells
- 1 - stretcher
- 1 - combustionable gas meter
- 1 - safety belt with safety line.

Note: Respirators shall comply with O.S.H.A. standards, part 1910.134, Respiratory Protection.

This equipment is available for persons normally on location. This includes the five man crew, tool pusher, Amoco drilling supervisor and mud loggers. Maximum number of people to be on location during normal drilling operations should range from ten to twelve.

2. Two areas on location will be designated as BRIEFING AREAS. The one that is upwind from the wellbore will be designated as the "SAFE BRIEFING AREA". The "SAFE BRIEFING AREA" will be recognized by the positioning of the "SAFETY" trailer in this area.

3. The H₂S "SAFETY" trailer provided by a safety contractor such as SAFETY INTERNATIONAL, INC., will contain the equipment listed in V.B.1 (above) and will have a wind sock or streamer to indicate wind direction.
4. A second wind sock or streamer will be located at the end of catwalk and visible from the rig floor.
5. A condition warning sign will be displayed on location and at entrance of location regarding current operating condition.
6. The emergency procedure (attached) will be kept on rig floor, contract tool pusher's trailer, Amoco's trailer and in safety trailer.
7. Two barricades will be available to block entrance to location should an emergency occur.
8. An external communication system should be installed in Amoco's trailer, mud logger's unit and on rig floor.
9. An internal communications system should be installed between company trailer house, contract tool pusher's quarters, mud logger's unit, rig floor, shale shaker, mud mixer area and choke manifold.
10. An undulating high and low pitch siren will be installed.

VI. CREW TRAINING AND PROTECTION

A. Blowout Prevention Drills

Pit drill and trip drill training will be held with each crew until proficient in closing the well in. Drills will be held on a regular basis thereafter, with at least one drill per crew with the Drilling Supervisor or contract tool pusher triggering the alarm. Reaction time will be checked from the time the alarm goes off until the well is simulated closed in. Closing time should be under two minutes. A copy of AMOCO PRODUCTION COMPANY's Oil and Gas Blowout Drill Procedure will be posted on the rig floor.

B. H₂S Training and Drills

All personnel shall be instructed and certified for H₂S prior to penetrating 1000' above an expected hydrogen sulfide zone. Training will include: the correct use of the gas masks, wind socks, safety ropes and oxygen resuscitator, instruction on artificial respiration and on the emergency procedure.

H₂S drills will be held periodically. The Amoco representative, along with the tool pusher, shall plan and activate drills. They will activate, without warning, the H₂S alarm and participate in the drill. The crew will proceed to put on a mask and secure well as per posted drilling procedure.

VII. MUD ADDITIVES

A low solids non-dispersed mud system will be used. At one thousand feet above an expected hydrogen sulfide formation the system will be built up to a concentration of 20 lb/bbl. Ironite Sponge. Previous to this, sufficient Ironite Sponge will be on location to treat the mud if the need arises and the mud maintained at a high pH.

VIII. LOCATION OF RESIDENTS

At this time there are no residents within the two mile evacuation area. It is the Amoco Drilling Foreman's responsibility to locate any new residences within the evacuation area to keep that portion of the emergency evacuation plan up to date.

IX. EMERGENCY EVACUATION PLAN

(See Attachment)

IX EMERGENCY EVACUATION PLAN

NOTE: This attachment shall be posted on the bulletin board contained in the dog house, with extra copies contained in the contract tool pushers trailer, Amoco Trailer and in the safety trailer

Designation of Responsibility:

In order to assure the proper execution of this plan, it is essential that one person is responsible for, and in complete charge of, implementing these procedures. Therefore, responsibility shall be designated in the following order, depending on who is on location:

1. Amoco Production Company's Representative (Drilling Foreman or Consultant)
2. Contract Tool Pusher

Definition of Warning Signs:

Condition: Green - Normal Operations

Condition: Yellow - Potential Danger - Caution

Cause for condition:

1. Circulating
2. Trip gas after trips
3. Circulating gas out on choke
4. Poison gas present, but below threshold levels

Condition: Red - EXTREME DANGER

Cause for condition:

1. Uncontrollable well
2. Poison gas present above threshold levels

Emergency procedure:

Condition yellow:

1. Check safety equipment and keep it with you
2. Be alert for a change in condition warning sign
3. Follow instructions

Condition Red:

After any accidental release of potentially hazardous volume of hydrogen sulfide gas, this program shall be initiated immediately.

1. Set off alarm. Evacuate all persons off location to "safe briefing area" that is up wind. Check that all persons are present. If not, proceed with evacuation from hazardous area in the following manner:

- a. Two persons, if available, re-enter hazardous area with air packs and each attached to an assistant via safety line. The assistant shall also be wearing respiratory equipment but outside of hazard area.
- b. Locate and evacuate all other persons in hazardous area to safety briefing area.
- c. Proceed with emergency first aid to all injured. Call hospital emergency ward. Alert them of the problem and have them send rescue vehicle immediately.

MEDICAL PERSONNEL AND FACILITIES

UTAH VALLEY HOSPITAL----- 801-373-7850

Hospital Administrator, Mr. Grant C. Burgon

Dr. Keith Hooker, Director Rural Clinics----- (Office) 801-373-7850
 (Home) 801-225-5084

AMBULANCE ----- 911 or 801-373-7850

PROVO OR ALPINE AVIATION ----- (PROVO) 801-375-7220
 (ALPINE) 801-373-1508

2. Locate, define problem, and proceed with emergency shut-in procedures per Amoco Production Company Blowout Drill Procedure.
3. Stay in "safe briefing area" unless instructed to do otherwise. Continuously monitor air quality in briefing area.
4. Only enter hazardous area with adequate air supply and attended by someone with a safety rope.
5. Call Company personnel in the following order, until one is contacted. Inform him of the problem and what actions have been taken. It is then his responsibility to contact his supervisor.

<u>NAME</u>	<u>OFFICE TELEPHONE</u>	<u>HOME TELEPHONE</u>
A. James E. Stepinski	801-272-9253	801-266-7896
B. Bill Halvorson	801-272-9253	801-943-2243
C. Wayne Todd	801-272-9253	801-272-4706
D. Roy Thornock	801-272-9253	801-943-8836
E. Wink Jones	801-272-9253	801-272-2946

6. Notify the appropriate agencies and law officers that an emergency situation exists and help is needed.

LAW ENFORCEMENT AGENCIES

SHERIFF DEPARTMENT-----911
801-374-2211

SHERIFF, PROVO, UTAH
Mack Holly-----801-375-3601

HIGHWAY PATROL, PAYSON-----801-224-2441

UTAH OIL AND GAS COMMISSION

Oil, Gas, and Mining Division
1588 W. North Temple
Salt Lake City, Utah-----801-533-5771

FIRE DEPARTMENT

Fire Department-----801-465-3611

Highway Patrol, Payson-----801-224-2441

UTAH ENVIRONMENTAL PROTECTION AGENCY

Utah Environmental Health Services
Air Pollution
150 W. North Temple
Salt Lake City, Utah-----801-533-6108

7. The State Police shall contact residents in the two (2) mile danger zone, and start evacuation with those in the down wind direction of the rig.

LIST OF RESIDENCES WITH 2 MILE RADIUS

There are no residences within a required radius of 2 miles of well site.

8. The decision to ignite should be made only when it is clear that:
 - a. Human life is endangered.
 - b. There is no hope of controlling the well under prevailing conditions. Every effort should be made to contact Amoco Personnel if time permits.
9. Meet with appropriate agencies and law officers as soon as practical to brief them on the situation and coordinate evacuation efforts.

STATE OF UTAH

Scott M. Matheson Governor	Department of Natural Resources Division of Oil, Gas, And Mining	Oil Gas & Mining Board
Gordon E. Harmston Executive Director	1588 West North Temple Salt Lake City, Utah 84116	I Daniel Stewart Chairman Charles R. Henderson John L. Bell Thadis W. Box C. Ray Juvelin
Cleon B. Feight Director	(801) 533-5771	

ON-SITE EQUIPMENT AND GENERAL PRACTICES
FOR DRILLING IN KNOWN AREA OR IN A KNOWN
FORMATION CONTAINING HYDROGEN SULFIDE

1. A minimum of three cleared areas designated as crew briefing on safety areas. . These are to be located on less than 250 feet from the BOP stack, and further, are to be placed so that at least one location is always upwind.
2. The drilling rig should be spotted so as the general prevailing wind is blowing towards the pits.
3. The location and the reserve pit should be made larger than normal to allow reasonable safe distances from the well for on-site trailers. The reserve pit is to be larger in order to accommodate safe flaring of gas.
4. There shall be a minimum of three wind sock poles, and each pole shall have two streamers. The lower most streamer shall be located no more than 8 feet above ground level or, when attached to the rig, no more than 8 feet above the rotary table. Streamers shall be illuminated for night operations.
5. The mud logging unit should be no closer that 125 feet from the BOP unit, and the elcetrical generator is to be at least 150 feet from the BOP unit.
6. Well marked, highly visible warning signs are to be located no less that $\frac{1}{2}$ mile on all access roads to the rig.
7. An approved contingency plan must be submitted prior to commencing drilling operations into known formations containing, or suspected of containing hydrogen sulfide.
8. A minimum of 5 self-contained breathing apparatus on the rig floor, and 2 self-contained breathing apparatus for each occupied trailer on locations.
9. At least two "bug fans" on location; one to be located in the cellar area blowing towards the pits, and the other to be located on the rotary floor blowing towards the pits.
10. Prior to drilling into a potentially hazardous formation, the following additional equipment shall be on hand:
 - A. Safety trailer containing no less that 10 - 380 cubic foot bottles of breathing air. The bottles are to be connected to a manifold system that provides outlets on the rig floor for at least 9 men;

on the shale shaker and choke manifold for at least 4 men; and at the mud pump and hopper area for 4 men.

- B. One resuscitator with medical oxygen.
- C. One hand H₂S detector located on the rig floor.
- D. One flare gun located in the rig supervisors trailer
- E. One additional stretcher and one additional first aid kit.
- F. One high pressure air compressor suitable for recharging air cylinders.
- G. One visible and one audible alarm system, complete with monitors located at the shale shaker and at the bell nipple.
- H. A sufficient quantity of 50/50 aqueous ammonia and water to be able to load the drill pipe when pulling a V.S.G.
- I. Radio or telephone communication equipment.

Sincerely,

PATRICK L. DRISCOLL
CHIEF PETROLEUM ENGINEER
DIVISION OF OIL, GAS, AND MINING

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-21647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Cottonwood Canyon Unit

8. FARM OR LEASE NAME

Amoco-Gulf-Cottonwood

9. WELL NO.

Canyon-USA #1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 7, T9S, R6E SLBM

12. COUNTY OR PARISH

Utah

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

AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR

P.O. Box 17675 Salt Lake City, UT 84117

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

Lot 5, Sec. 7

1595' FNL & 2485.1' FWL *

SW NW

(irregular Section)

14. PERMIT NO.

43-049-30007

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

6790' Gr

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

LOCATION CHANGE

XXX

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(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.)*

Unit Agreement No. 14-08-0001-17072

* Request permission to change the surface location of subject well from 1646' FNL & 2246' FWL, to that indicated above (item 4). Said change was made at the request of the U.S. Forest Service in order to reduce amount of cut and fill, prevent excessive diversion of a natural drainage system, and provide for more suitable location rehabilitation.

All other well data previously submitted to remain the same, revised diagrams attached.

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING

DATE: Oct 26, 1979

BY: Frank M. Samuel

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

SIGNED D. S. DAVIDSON

TITLE Dist. Admin. Supervisor

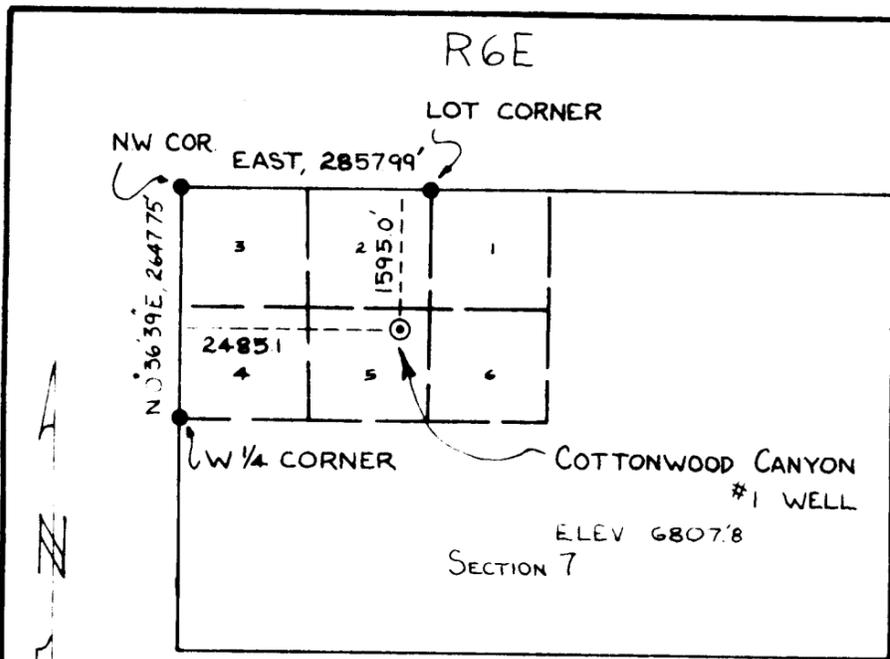
DATE 10/16/79

(This space for Federal or State office use)

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE



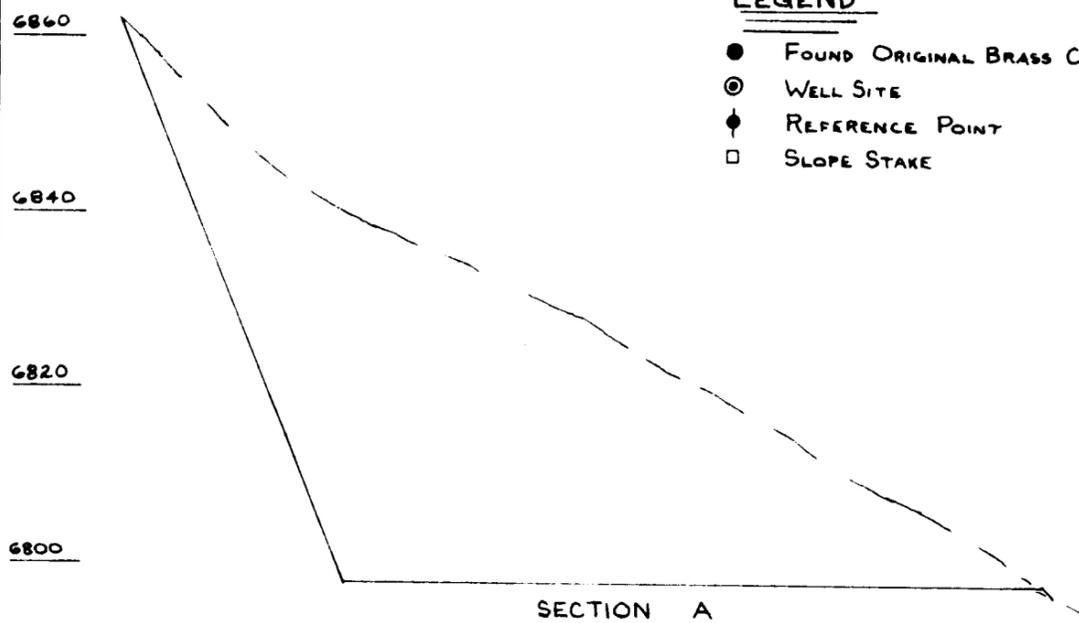
T9S

A
COTTONWOOD
LOT 5 SE
UTAH C

SCALE: 1"=2000'

LEGEND

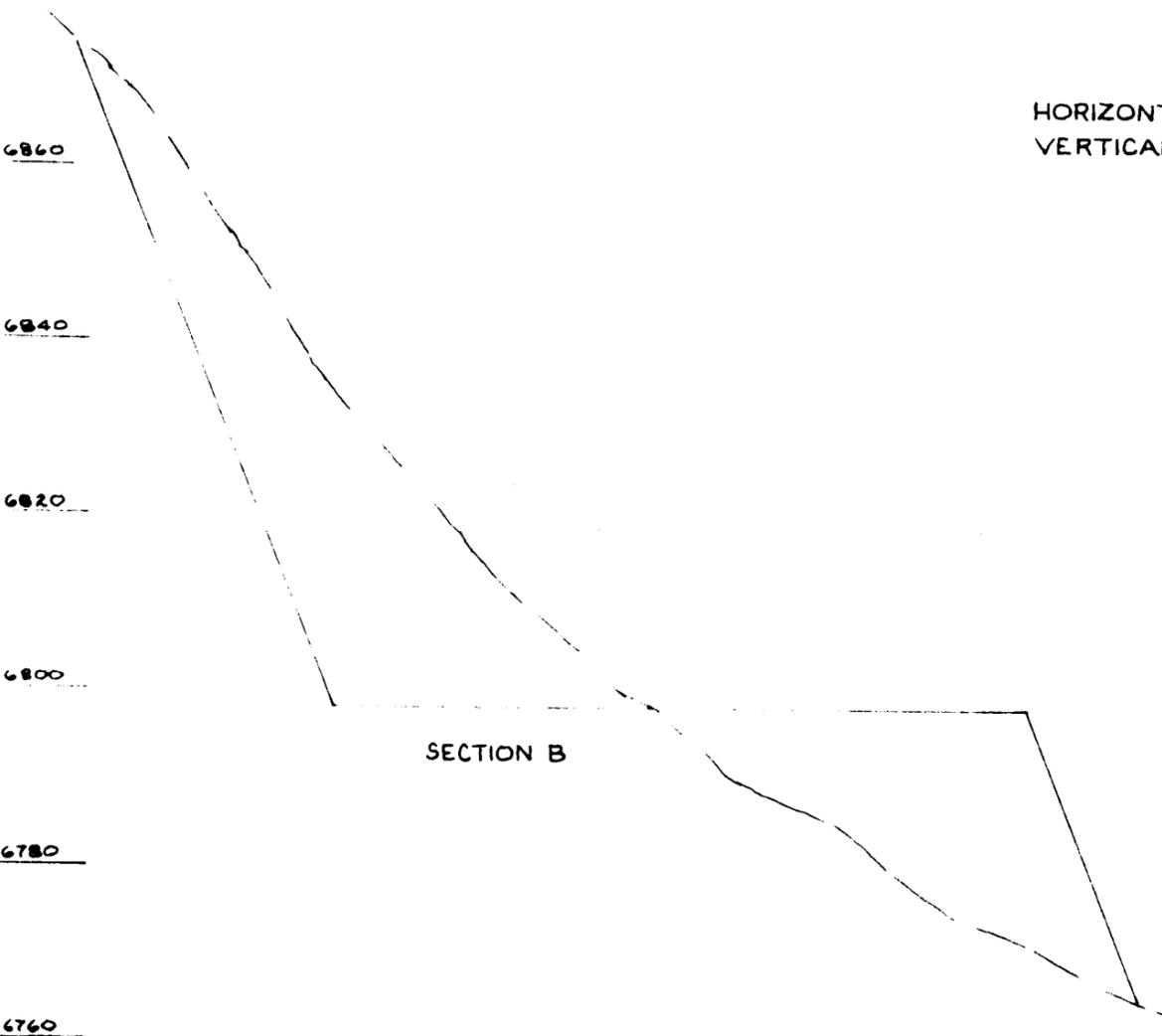
- FOUND ORIGINAL BRASS CAP
- ⊙ WELL SITE
- ⊕ REFERENCE POINT
- SLOPE STAKE



6800

SECTION

6780



HORIZONTAL SCALE 1"=50'
VERTICAL SCALE 1"=20'

CUT 49185 cu. yds.
FILL 39132 cu. yds.
TOPSOIL 3151 cu. yds.
SPOIL 6901 cu. yds.
PIT CAPACITY
45181 BARRELS

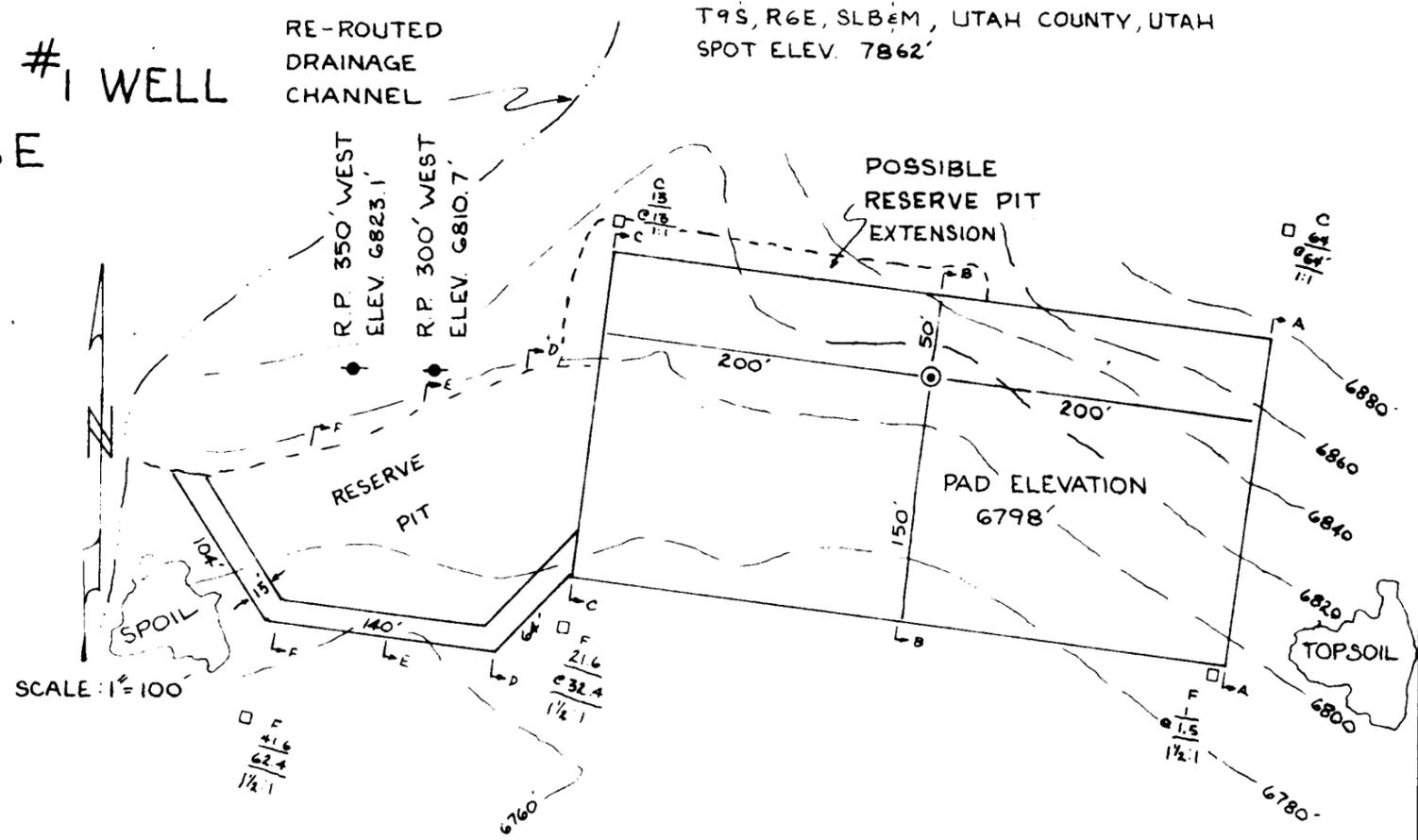
AUTHORIZED BY R.C. BUCKLEY

SUR

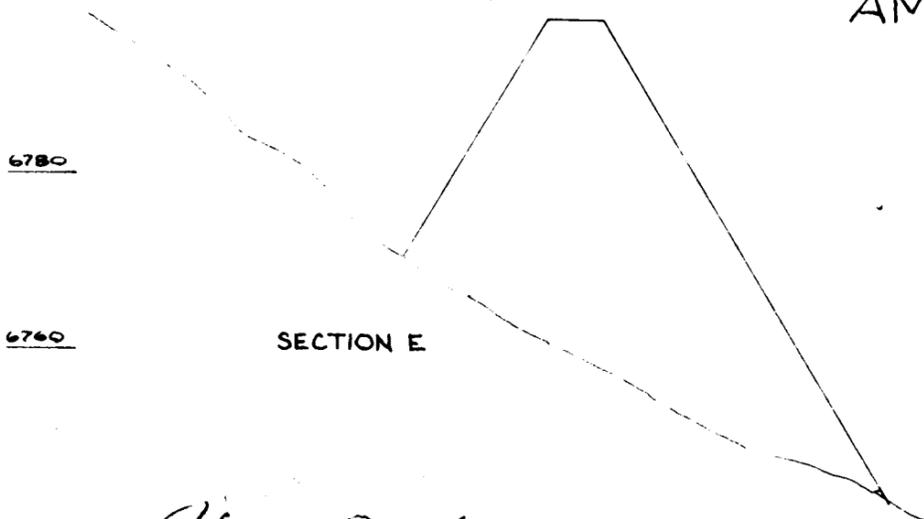
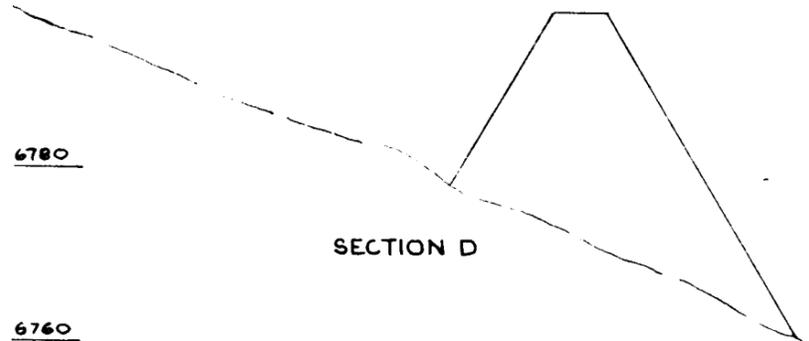
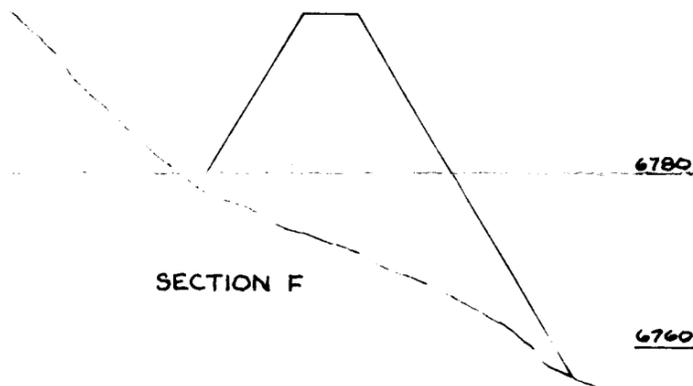
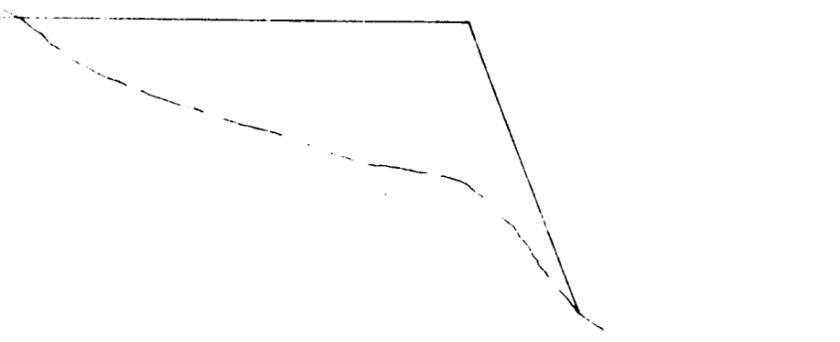
AMOCO

OD CANYON #1 WELL
T. 7, T9S, R6E
B & M
COUNTY, UTAH

ELEV. DATUM: USGS. QUAD. MAP - RAYS VALLEY LOT 5 SEC. 6
T9S, R6E, SLB & M, UTAH COUNTY, UTAH
SPOT ELEV. 7862'



- ◆ R.P. 300' SOUTH
ELEV. 6801.1'
- ◆ R.P. 375' SOUTH
ELEV. 6821.5'



MAP TO ACCOMPANY
APPLICATION FOR PERMIT
TO DRILL
APPLICANT:
AMOCO PRODUCTION COMPANY
P.O. BOX 17675
S.L.C., UTAH

9-18-79
78-10-17

DESIGNED BY: *John A. Proffit* 4/19/79
JOHN A. PROFFIT, UTAH RLS. 2860

UNTA ENGINEERING & SURVEYING, INC.
EVANSTON, WYOMING



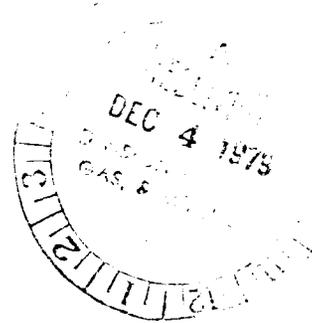
Amoco Production Company

Post Office Box 17675
Salt Lake City, Utah 84117
801 - 272-9253

W. M. Jones
District Superintendent

November 27, 1979

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



File: WMJ-1778/WF

Monthly Report of Amoco Utah Wells

Reference your letter of November 14, 1979, the current status of Amoco operated wells is as follows:

1. Champlin 470 Amoco "A" #1, Sec. 25, T3N, R8E, Summit County
- location abandoned, well not to be drilled.
2. Champlin 846 Amoco "A" #1, Sec. 25, T5N, R7E, Summit County
- Spudded 11/16/79, Brinkerhoff/Signal Rig #73, drilling at a depth of 648' on 11/21.
3. Bertagnole Investment #1, Sec. 36, T3N, R3E, Summit County
- location abandoned, well not to be drilled.
4. Island Ranching "B" #1, Sec. 22, T4N, R7E, Summit County
- Spudded 11/10/79, True Rig #15, drilling at a depth of 1505', setting surface casing as of 11/12.
5. Cottonwood Canyon #1, Sec. 7, T9S, R6E, Utah County
- Drilling contractor will be Rio Grande Rig #2, moving in on location.

All of the following wells are suspended awaiting authorization to drive anchor pilings. Amoco does intend to drill said wells as per original APD's, however, operations on the Great Salt Lake allow the drilling of only one well at a time.

1. State of Utah "A" #1, Sec. 20, T3N, R4W, Davis County
July 1979 thru' November, 1979



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

CLEON B. FEIGHT
Director

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

February 28, 1980

Amoco Production Co.
P.O. Box 17675
Salt Lake City, 84117

Re: See enclosed sheet for wells

Gentlemen:

Our records indicate that you have not filed the monthly drilling reports for the months indicated above on the subject wells.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1B, (U.S. Geological Survey Form 9-331) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

JANICE TABISH
CLERK TYPIST

- (1) Well No. Cottonwood Can. Unit well no. 1
Sec. 7, T. 9S, R. 6E.
Utah County, Utah
December 1979-February 1980
- (2) Well No. Island Ranching B-#1
Sec. 22, T. 4N, R. 7E
Summit County, Utah
December 1979-February 1980
- (3) Well No. Champlin 846-Amoco A1
Sec. 25, T. 5N, R. 7E.
Summit County, Utah
December 1979-February 1980
- (4) Well No. Champlin 239 Amoco B1
Sec. 1, T. 2N, R. 7E.
Summit County, Utah
December 1979-February 1980
- (5) Well No. Champlin 225 B #1
Sec. 29, T. 3N, R. 6E.
Summit County, Utah
January-February 1980
- (6) Well No. Champlin 372 Amoco B 1
Sec. 35, T. 4N, R. 7E.
Summit County, Utah.
January-February 1980

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

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

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. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. U-21647
2. NAME OF OPERATOR AMOCO PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. Box 17675 Salt Lake City, UT 84117		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1646' FNL & 2246' FWL		8. FARM OR LEASE NAME Cottonwood Canyon
14. PERMIT NO.		9. WELL NO. #1
15. ELEVATIONS (Show whether DF, RT, OR, etc.) 6790' Gr		10. FIELD AND POOL, OR WILDCAT Wildcat
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 7, T9S, R6E
		12. COUNTY OR PARISH Utah
		18. STATE Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <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 type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	
STATUS REPORT <input checked="" type="checkbox"/>			

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.)*

SPUD DATE: 11/27/79

Casing Set: 13 3/8" set at 1905'

Current Status: Drilling at 7554'

Drilling Contractor: Rio Grande Drilling, Rig #2

TIGHT HOLE

RECEIVED

MAR 17 1980

DIVISION OF
OIL, GAS & MINING

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

SIGNED _____ TITLE Dist. Admin. Supervisor DATE 3/7/80

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

April 24, 1980

Amoco Production Co.
P.O. Box 17675
Salt Lake City, Utah

Re: Well No. Cottonwood Canyon #1
Sec. 7, T. 9S, R. 6E.
Utah County, Utah
Months due: December 1979-April 1980

Gentlemen:

Our records indicate that you have not filed the monthly drilling reports for the months indicated above on the subject well.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1B, (U.S. Geological Survey Form 9-331) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING



JANICE TABASH
CLERK-TYPIST

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIP
(Other Instructions
reverse side)

F*
re-

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-21647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

7. UNIT AGREEMENT NAME

Cottonwood Canyon

8. FARM OR LEASE NAME

Cottonwood Canyon

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 7 T9S, R6E

14. PERMIT NO.

43-049-30007

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

6790' GR

12. COUNTY OR PARISH

Utah

13. STATE

Utah

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

Well Status

(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.)*

Status of said well as of 4-21-80 is as follows:

See Attachment A

TIGHT
HOLE

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

SIGNED

D. S. Davidson

TITLE District Administrative
Supervisor

DATE 4-28-80

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

~~CONFIDENTIAL~~

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Amoco Production Company (Curt Under 272-9253 ex 248)

WELL NAME: Cottonwood Canyon Unit #1

SECTION 7 SW NW TOWNSHIP 9S RANGE 6E COUNTY Utah

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

TOTAL DEPTH: 13,000'

CASING PROGRAM:

20" @ 334' circ to surface
13 3/8" @ 1905 circ to surface
9 5/8" @ 8888' (TOC 2200' to surf)
8 3/4" openhole TD

FORMATION TOPS:

Thaynes 5935'
Woodside 8044'
Park City 8815'
Oquirrh 9800'

DST:

#1 3250' - 3544' H₂O
#2 8888' - 9056' 5000' H₂O
#3 12649 - 739' 3200' H₂O

PLUGS SET AS FOLLOWS:

#1 13000 - 12800'
#2 9900' - 9700'
#3 8950' - 8750'
#4 retainer set @ 3900'
#5 squeeze and place 200' plug inside
9 5/8" 4100' - 3900'
#6 2050' - 2250'
#7 50' - surface

8.8# gel base abandonment mud between plugs, clean and grade site and erect regulation dryhole marker

DATE May 21, 1980

SIGNED _____

Original Signed By M. T. Winder

cc: USGS



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

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.)		5. LEASE DESIGNATION AND SERIAL NO. U-21647
1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Amoco Production Company		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR P.O. Box 17675, Salt Lake City, UT 84117		8. FARM OR LEASE NAME Cottonwood Canyon
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1646' FNL & 2246' FWL		9. WELL NO. #1
14. PERMIT NO. 43-049-30007		10. FIELD AND POOL, OR WILDCAT Wildcat
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6790' GR		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 7, T9S, R6E
		12. COUNTY OR PARISH Utah
		13. STATE Utah

CONFIDENTIAL

CONFIDENTIAL

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 type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	(Other) <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.)*

Plans to P & A the subject well have been changed and drilling is continuing.

T.D. on 6-11-80: 14,573'

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

SIGNED [Signature] TITLE Dist. Admin. Supervisor DATE 6-12-80

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

~~CONFIDENTIAL~~

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM - Partial

NAME OF COMPANY: Amoco Production Company (Curt Under 272-9253)

WELL NAME: Cottonwood Canyon #1

SECTION 7 SW NW TOWNSHIP 9S RANGE 6E COUNTY Utah

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

TOTAL DEPTH: 15,000' (previous 13,000')

CASING PROGRAM:

FORMATION TOPS:

14,938' show of gas

PLUGS SET AS FOLLOWS:

1. 15,000 - 14,800'
2. 12,200' - 12,000'
3. 9,300' - 9,100'

above 9,100' same as previous program dated May 21, 1980. Testing above 9,1--'.

DATE June 24, 1980 (9:00 a.m.) SIGNED M. J. Menden

cc: USGS

approval given by USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Form approved.
Budget Bureau No. 42-R1424.
5. LEASE DESIGNATION AND SERIAL NO.

U - 21647

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 P & A

2. NAME OF OPERATOR
Amoco Production Company

3. ADDRESS OF OPERATOR
P. O. Box 17675, Salt Lake City, UT 84117

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
Lot 5, Section 7 1595' FNL & 2485.1' FWL

14. PERMIT NO.
43-049-30007

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6790' GR

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Cottonwood Canyon

8. FARM OR LEASE NAME
Cottonwood Canyon Unit

9. WELL NO.
#1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 7, T9S-R6E

12. COUNTY OR PARISH
Utah

13. STATE
Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <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) <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.)*

Plans to plug and abandon the subject well as follows:

TD: 15,000'

Casing: 20" conductor set at 344'
13 3/8" casing set at 1905'
9 5/8" casing set at 8888'
7" Liner at 8520' - 9244'

Plugs 80 sx plug at 14,800' - 15,000'
In 80 sx plug at 12,000' - 12,2000'
Place: 80 sx plug at 9,250' - 9350'

Verbal Approval - 7-30-80 9:30 a.m.
Bill Martin to Kurt Unger (USGS)
State of Utah notified 7-30-80
9:30 a.m. - Jack Fight.

See Attachment for procedure.

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

Original Signed By
SIGNED E. R. NICHOLSON TITLE Administrative Supervisor DATE 9-12-80

(This space for Federal or State office use)

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

Pertinent Date:

9 5/8" csg. string

Top to Bottom					<u>100%</u> <u>Collapse</u>	<u>80%</u> <u>Burst</u>
1211'	9 5/8"	K-55	40#	LT&C	2570'	3160'
4000'	9 5/8"	K-55	40#	ST&C	2570'	3160'
3749'	9 5/8"	K-55	40#	LT&C	4230'	4600'

ATTACHMENT "A" FOR FORM 9-331

Cottonwood Canyon No. 1

7-115-6e

Date Spudded: 11-28-79

Casing:

<u>Size</u>	<u>Weight lb/ft.</u>	<u>Depth</u>	<u>Cementing</u>
20"	94#	334'	1000 sx
13 3/8"	54.5#	1905'	1700 sx
9 5/8"	40#	8888'	250 sx

Logs:

DIL-FSL, Sonic-GR, CNL-FDC-GR, Dipmeter-FIL, CBL-GR-DT-DMPL-VDL,
DLL, Temperature, Tracer

DST

- #1 Recovered 2,840' water Interval 3250-3544
IHP 1551, IOP 1268-1290, ISIP 1290-1296, FOP 1290-1306,
FSIP 1306, FHP 1532
- #2 Recovered 4799' water Interval 8888-9056
IHP 4084, IOP 1168-1331, ISIP 1331-3552, FOP 1526-2209,
FSIP 2209-3651, FHP 3906

Drilling ahead at 11,081

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See instructions on reverse side)

STATE

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

6

5. LEASE DESIGNATION AND SERIAL NO.

U-21647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Cottonwood Canyon

8. FARM OR LEASE NAME

Cottonwood Canyon Unit

9. WELL NO.

#1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 7 T9S-R6E

12. COUNTY OR PARISH
Utah

13. STATE
Utah

14. PERMIT NO. DATE ISSUED
43-049-30007

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER P & A

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK OTHER

2. NAME OF OPERATOR
Amoco Production Company

3. ADDRESS OF OPERATOR
P.O. Box 17675 Salt Lake City UT 84117

4. LOCATION OF WELL (Report location clearly and in accordance with State requirements)*
At surface Lot 5, Section 7, 1595 FTL 248 1 ENL
At top prod. interval reported below
At total depth

15. DATE SPUNNED 11-27-79 16. DATE T.D. REACHED 6-22-80 17. DATE COMPL. (Ready to prod.) 8-3-80 18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 6801' 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 15,000' 21. PLUG, BACK T.D., MD & TVD Surface 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY Surface-TD

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* NONE 25. WAS DIRECTIONAL SURVEY MADE Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN CNL-FDC, DIL, DLL, Sonic, FIL, Dipmeter, Temperature, Directional 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
20"	94#	344'	26"	1000 SX	
13-3/8"	54.5 & 61#	1905'	17 1/2"	1755 SX	
9-5/8"	40#	8888'	12 1/4"	825 SX	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
7"	8520'	9244'	250 SX			NONE	

31. PERFORATION RECORD (Interval, size and number) 9060'-9088' 4 JSPF .39 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. NONE

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
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

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

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 Original Signed By NICHOLSON TITLE Administrative Supervisor DATE 10-7-80

*(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		38. GEOLOGIC MARKERS				
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
Core #1	11,021'	11,051'	cut 30' rec 25' hard, tight sand dolomite	Nugget	2850'	
Core #2	12,701'	12,739'	cut 38' rec 38' dolomite-hard, fine, tight	Ankareh Thaynes Woodside Park City Oquirrh	4100' 5935' 8044' 8815' 9800'	
DST #1	3250'	3534'	2400 cc water			
DST #2	8888'	9056'	2220-2240 cc water 20 cc oil			
DST #3	12,649'	12,739'	12.80 cc drilling mud			
DST #4	14,613'	14,730'	2200 cc water cut mud			

June 18, 1981

Amoco Production Company
P. O. Box 17675
Salt Lake City, Utah 84117

Re: Cottonwood Canyon Unit #1
Sec. 7, T. 9S, R. 6E
Utah County, Utah

Gentlemen:

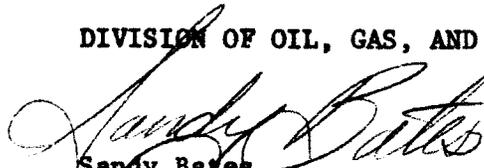
According to our records, a "Well Completion Report" filed with this office 10-7-80, from above referred to well indicates the following electric logs were run: CNL-FDC, DIL, DLL, Sonic, FIL, Dipmeter, Temperature, Directional. As of today's date this office has not received these logs. CNL-FDC, DIL, DLL, Sonic, FIL, Dipmeter, Directional.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS, AND MINING



Sandy Bates
Clerk-Typist



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

August 19, 1982

Amoco Production Company
P. O. Box 17675
Salt Lake City, Utah 84117

Re: Well No. Cottonwood Canyon
Unit #1
Sec. 7, T. 9S, R. 6E.
Utah County, Utah

Gentlemen:

Our office contacted you on June 18, 1981, requesting that you send in the electric logs for the above referred to well.

According to our records, a "Well Completion Report" filed with this office October 7, 1980, from above referred to well, indicates the following electric logs were run: CNL-FDC, DIL, DLL, Sonic, FIL, Dipmeter, Temperature, Directional. As of today's date, this office has not received these logs.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

**You are in violation of the above rule. If we do not receive the above logs within fifteen (15) days, we will turn this file over to the Attorney at the Division of Oil, Gas and Mining for legal action and we will not approve any more applications from your company.

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS AND MINING

A handwritten signature in cursive script that reads "Cari Furse". The signature is written in dark ink and is positioned above the typed name and title.

Cari Furse
Clerk Typist