



Getty Oil Company | P.O. Box 3360, Casper, Wyoming 82602

Central Exploration and Production Division

June 30, 1981

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

Re: Getty Oil Company's
Cowboy Well #23-16
1011' FSL and 760' FEL
Section 23-T39S-R22E
San Juan County, Utah

Gentlemen:

By copy of this letter and the attached Application to Drill dated June 22, 1981, Getty Oil Company is hereby making application for well spacing exception. Getty's referenced Cowboy Well #23-16 was staked at a non-standard location due to topographical reasons. Getty has ownership of all oil and gas leases within a radius of 660 feet of the proposed location.

Very truly yours,
GETTY OIL COMPANY

A handwritten signature in black ink, appearing to read "D. W. Bowers".

D. W. Bowers
Area Superintendent

JLF/cs

Attachments

RECEIVED

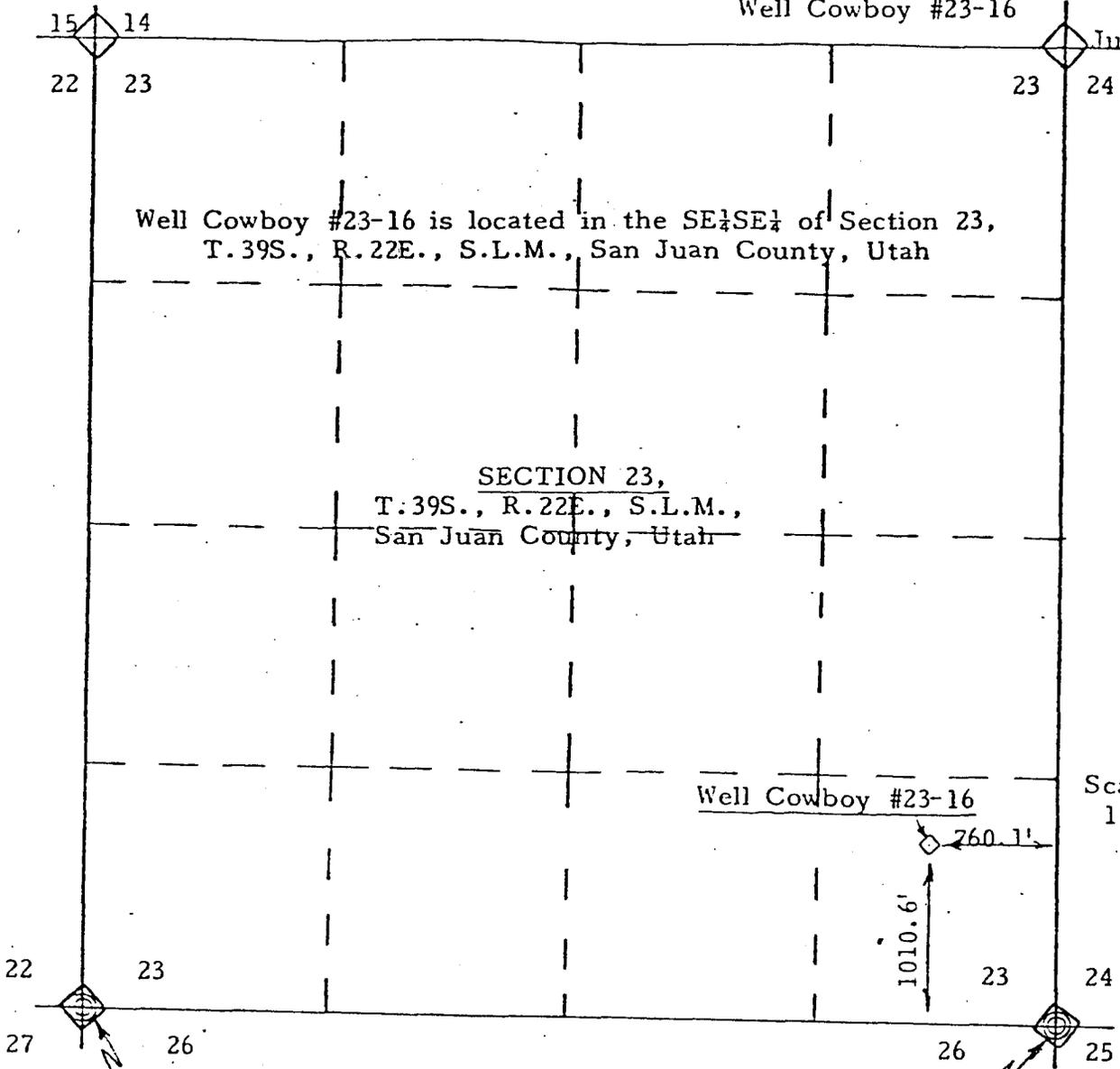
JUL 03 1981

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK				
1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-22762		
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---		
2. NAME OF OPERATOR Getty Oil Company		7. UNIT AGREEMENT NAME ---		
3. ADDRESS OF OPERATOR P.O. Box 3360, Casper, Wyoming 82602		8. FARM OR LEASE NAME Cowboy		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1011' FSL 760' FEL (SESE) At proposed prod. zone SAME		9. WELL NO. 23-16		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 17 miles south of Blanding		10. FIELD AND POOL, OR WILDCAT Wildcat		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 760'		16. NO. OF ACRES IN LEASE 1680	17. NO. OF ACRES ASSIGNED TO THIS WELL 80	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1600'		19. PROPOSED DEPTH 6000'	20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4756' GR		22. APPROX. DATE WORK WILL START* On Permit Approval		
23. PROPOSED CASING AND CEMENTING PROGRAM				
(All New)				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	Culvert	40'	Cement to Surface
12 1/4"	8 5/8"	24# K-55	1800'	550 sx
7 7/8"	5 1/2"	14.0 & 15.5# K-55	6000'	550 sx *
* Cement volume may change due to hole size. Calculate from caliper log.				
Ten (10) Point Resource Protection Plan Attached.				
APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING				
DATE: <u>7/16/81</u>				
BY: <u>[Signature]</u>				
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 <u>Charles E. Mowry</u> Charles E. Mowry		TITLE Area Engineer		DATE June 22, 1981
(This space for Federal or State office use)				
PERMIT NO. _____		APPROVAL DATE _____		
APPROVED BY _____		TITLE _____		DATE _____
CONDITIONS OF APPROVAL, IF ANY: _____				

June 15, 1981



Well Cowboy #23-16 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 23,
 T.39S., R.22E., S.L.M., San Juan County, Utah

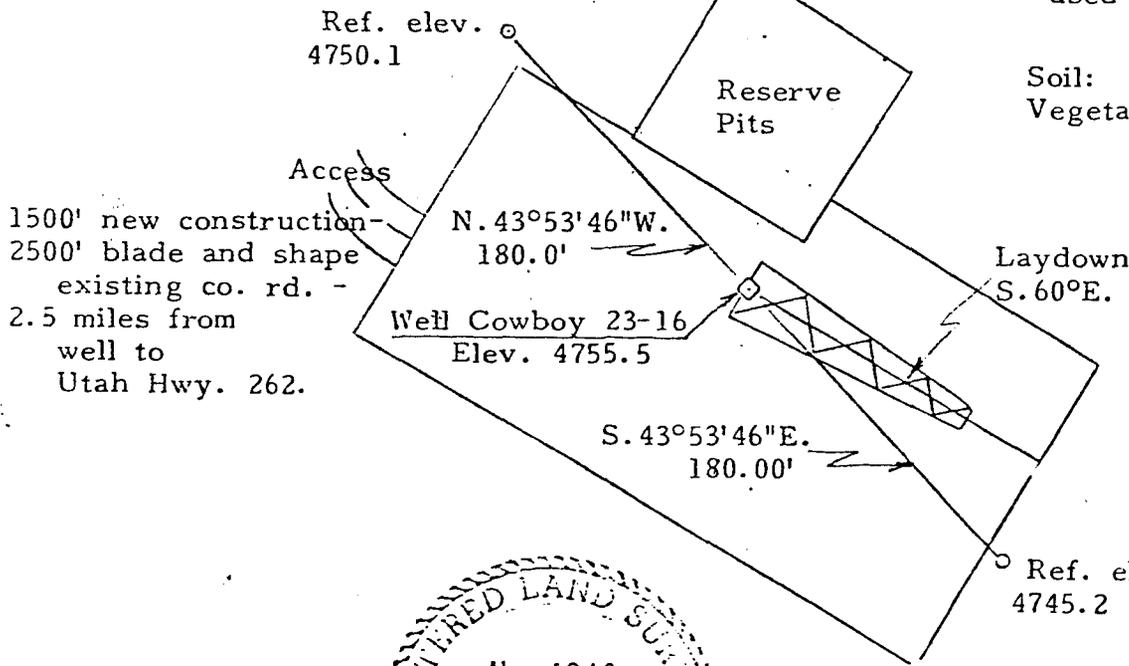
SECTION 23,
 T.39S., R.22E., S.L.M.,
 San Juan County, Utah

Scale: 1" = 1000

U.S.G.L.O. Brass Cap (1912)

U.S.G.L.O. brass cap (1912)
 Elevation on U.S.G.S. map - 4747-
 used as basis of elevation.

Soil: Windblown sand.
 Vegetation: Sparse brush - grass



Scale: 1" = 100'



KNOW ALL MEN BY THESE PRESENTS:
 THAT I, FREDRIC P. THOMAS
 do hereby certify that I prepared this plat from an
 actual and accurate survey of the land and that the
 same is true and correct to the best of my knowledge
 and belief.

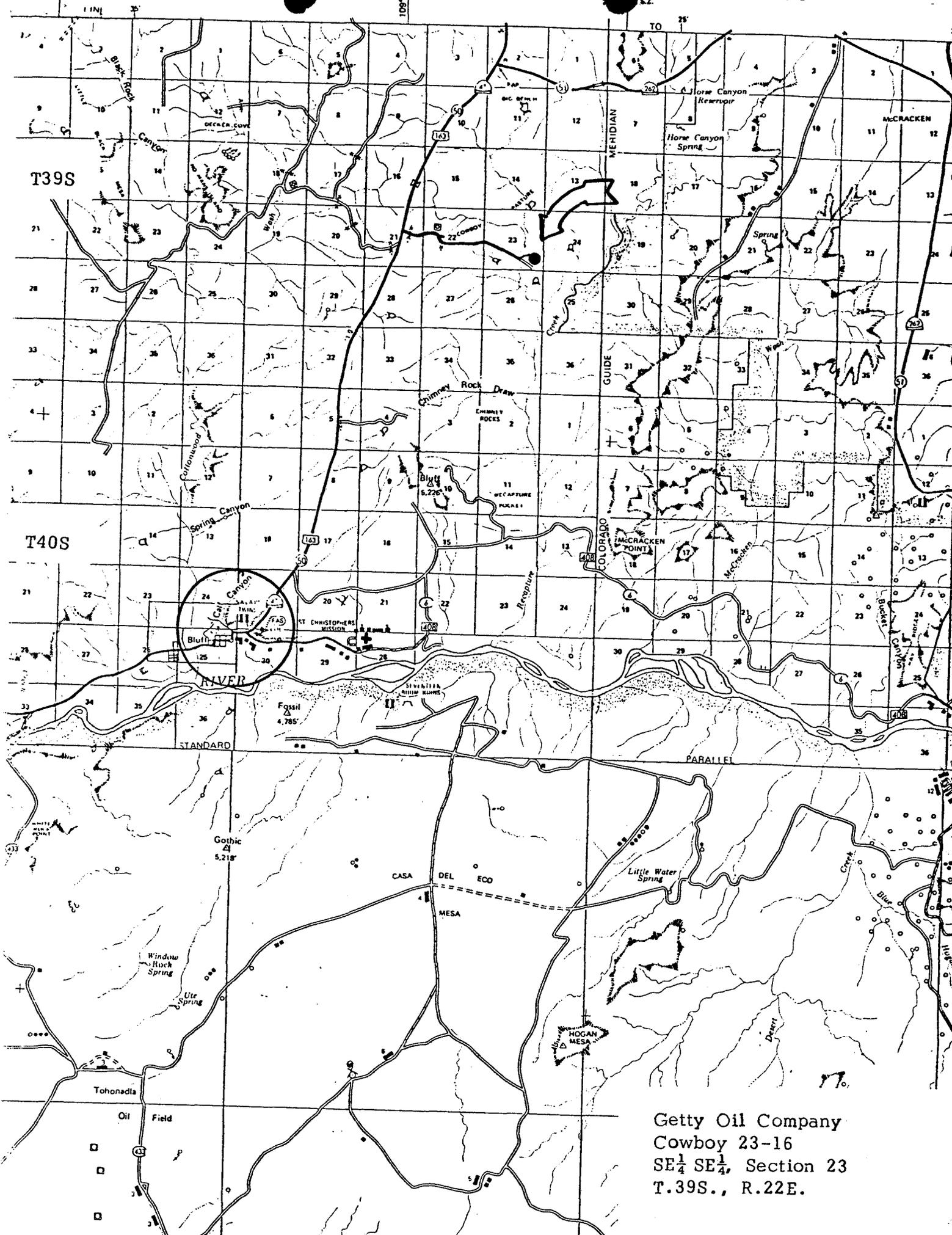
Fredric P. Thomas

FREDRIC P. THOMAS
 Reg. L.S. and P.E.
 Colo. Reg. No. 6728

Utah Reg. No. 4346

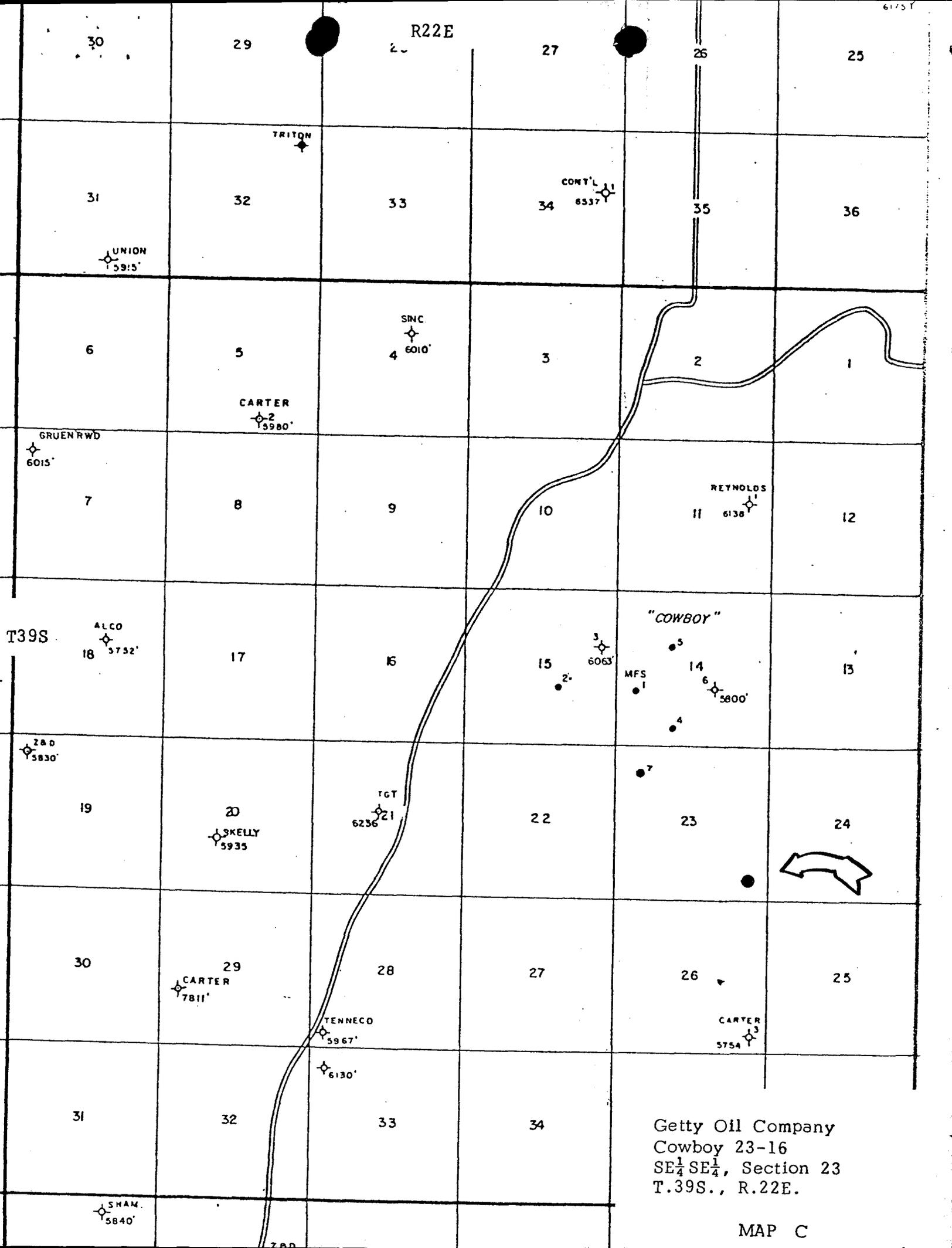
THOMAS Engineering Inc.

215 N. Linden
 Cortez, Colorado
 565-4496



Getty Oil Company
 Cowboy 23-16
 SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 23
 T.39S., R.22E.

R22E



Getty Oil Company
 Cowboy 23-16
 SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 23
 T.39S., R.22E.

MAP C

GETTY OIL COMPANY

23-16 Cowboy

10-Point Program

1. Geologic Name of Surface Formation

Morrison

2. The Estimated Tops of Important Geologic Markers

Navajo	770'	Ismay	5615'
Chinle	1800'	Lower Ismay	5730'
Shinarump	2520'	Desert Creek	5850'
Cutler	3660'	Akah	5980'
Honaker Trail	4785'		

3. The Estimated Depth at Which Anticipated Water, Oil, Gas are to be Encountered

Navajo	770'	Water (?)
Lower Ismay	5730'	Oil and Gas
Desert Creek	5850'	Oil and Gas

All water sands if any, will be protected and reported.

4. The Proposed Casing Program

1800'	8 5/8"	24#	K-55	ST&C	New
4400'	5 1/2"	14#	K-55	ST&C	New
1600'	5 1/2"	15.5#	K-55	ST&C	New

5. The minimum specifications for pressure control equipment which will be provided is included on the schematic diagram attached.

Bottom: 3000# BOP w/4 1/2" pipe rams
3000# BOP w/blind rams
3000# Hydril

Top: Grant rotating head

Manifold includes appropriate valves, positive and adjustable chokes, kill line, and gas/mud separator to control abnormal pressures. BOP's will be tested at installation and will be cycled on each trip.

6. Proposed Mud Program (Visual Monitoring)

<u>Depth</u>	<u>Type of Mud</u>	<u>#/Gal</u>	<u>Vis</u>	<u>WL</u>	<u>Chemicals</u>
0- 120'	Gel/Water/Lime	8.4-8.8	28-32	NC	Gel/Lime
120-2500'	Water/Benex	8.4-8.8	30-32	NC	Gel, Benex
2500-5000'	Low Solids, Non-Disp.	8.8-9.3	42-46	8-10	Gel, Drispac, Caustic Soda
5000-6000'	Lightly Dispersed	8.8-9.5	42-46	4-8	Gel, Mod. Ligno., Casutic

Sufficient weighting material (Barite) will be on location to increase mud weight if abnormal pressure is encountered.

7. The Auxiliary Equipment to be Used
 - A. Kelly cock
 - B. Monitoring equipment on the mud system
 - C. A sub on the floor with a full opening valve to be stabbed into the drillpipe when the kelly is not in the string.

8. The Testing, Logging and Coring Program Proposed

Lower Ismay - 1 core between 5730' and 5850' and 1 DST between 5730' and 5850'
Desert Creek - 1 core between 5850' and 5980' and 1 DST between 5850' and 5980'

Electrical Log Program

Dual Induction-SFL-Surface casing to TD; Detail 5000' to TD (6000')
BHC-Integrated Sonic Log-Surface casing to TD; Detail 5000' to TD
Compensated Neutron-Formation Density Compensated-(Detail only) 5000' to TD
Gamma Ray-Neutron 2" scale only inside surface casing
Fracture Identification Log-5500' to 6000'

9. Any Anticipated Abnormal Pressures of Temperatures Expected to be Encountered

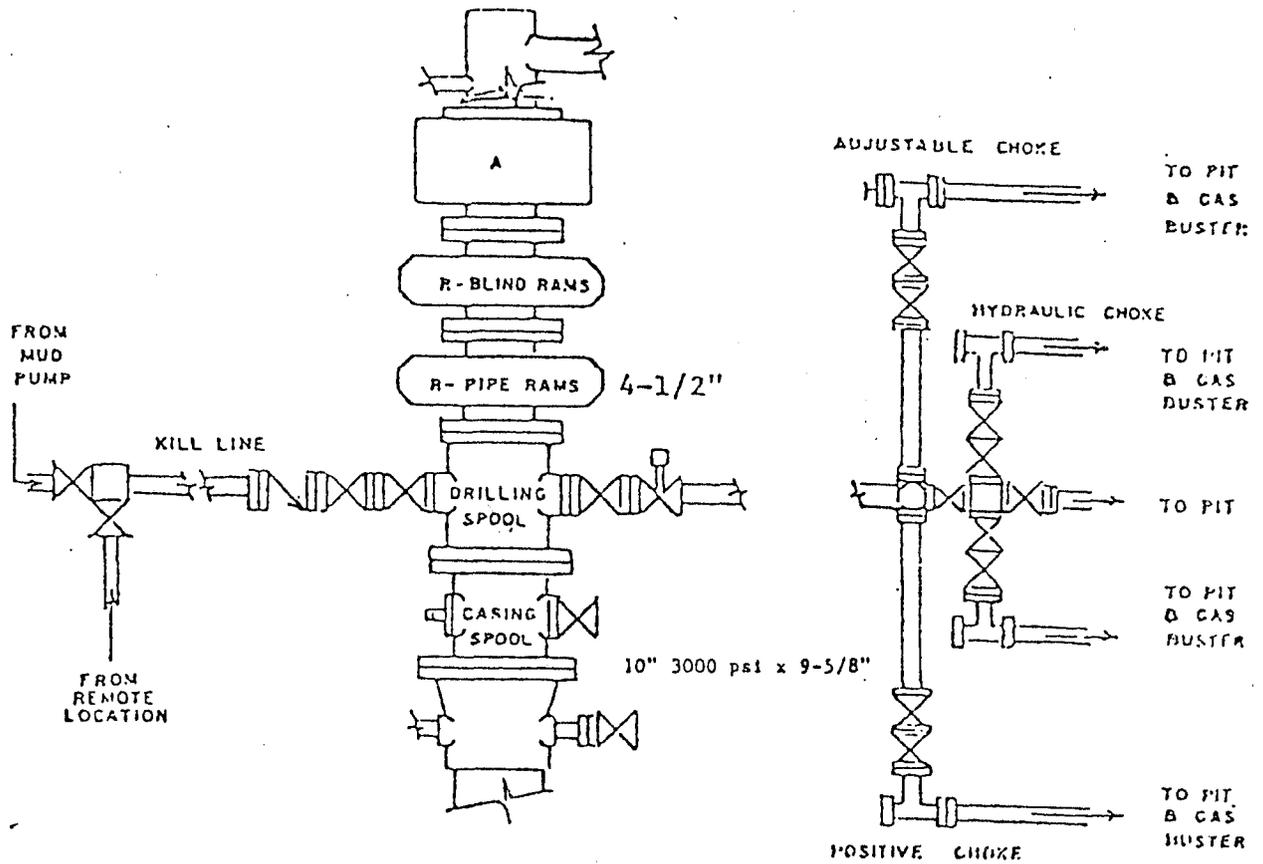
No abnormal pressures or temperatures expected
No hydrogen sulfide expected

10. The Anticipated Starting Date and Duration of the Operation

Starting date - on Permit Approval and Rig Availability
Duration - 30 days

Blowout Preventer Schematic

3000 psi Working Pressure BOP



Test Procedure

- 1) Flush BOP's and all lines to be tested with water.
- 2) Run test plug on test joint and seat in casing head (leave valve below test plug open to check for leak).
- 3) Test the following to rated pressure:
 - a) inside blowout preventer
 - b) lower kelly cock
 - c) upper kelly cock
 - d) stand pipe valve
 - e) lines to mud pump
 - f) kill line to BOP's
- 4) Close and test pipe rams to rated pressure.
- 5) Close and test Hydril to rated pressure.
- 6) Back off and leave test plug in place. Close and test blind rams to rated pressure.
- 7) Test all choke manifold valves to rated pressure.
- 8) Test kill line valves to rated pressure.

GETTY OIL COMPANY

Lease # U-22762, 23-16 Cowboy
SE¼SE¼ Section 23, T39S, R22E
San Juan County, Utah

Multi-Point Surface Use and Operations Plan

1. Existing Roads: Refer to Maps "A" and "B" (Shown in RED)

- A. The proposed well site is staked and the surveyors plat attached. Four 200 foot reference stakes are present.
- B. To reach the location, proceed north approximately 8.3 miles from Bluff on US Highway 163, thence east approximately 2.2 miles on an existing county road, thence northeast approximately 1500 feet to the location.
- C. Access roads - refer to Maps "A" and "B".
- D. Existing roads within a three-mile radius - refer to Maps "A" and "B".
- E. Not applicable.
- F. The existing road will require minor upgrading and maintenance as necessary to provide access during the drilling operation. This upgrading and maintenance will be restricted to the existing 14 foot road Right-of-Way. The San Juan County Road Department in Monticello will be contacted prior to use of the existing county road (Dick Traister (801) 587-2249).

2. Planned Access Road:

Approximately 1500 feet of new access road will be required.

- A. Width - 18 feet, flat-bladed for drilling and completion operations.
- B. Maximum grade - 7%.
- C. Turnouts - none required.
- D. Drainage design - road will be crowned and ditched with water turnouts as required if production is established.
- E. Culverts, cuts and fills - no culverts will be required for drilling. Maximum cuts and fills will be 7 feet. If production is established, culverts will be installed as required and cut and fill slopes will be sloped to BLM recommendations.
- F. Surfacing material - no outside construction materials will be required.
- G. Gates, cattleguards or fence cuts - two cattleguards will be required.
- H. New access road is flagged.

3. Location of Existing Wells: (Within a Two-Mile Radius)

- A. Water wells - none known.
- B. Abandoned wells - refer to Map "C".
- C. Temporarily abandoned wells - none known.
- D. Disposal wells - none known.
- E. Drilling wells - none known.
- F. Producing wells - refer to Map "C".

3. Location of Existing Wells: Continued

- G. Shut-in wells - none known.
- H. Injection wells - none known.
- I. Monitoring or observation wells - none known.

4. Location of Existing and/or Proposed Facilities Owned by Getty Oil Company:

- A. Existing
 - 1. Tank batteries - none.
 - 2. Production facilities - none.
 - 3. Oil gathering lines - none.
 - 4. Gas gathering lines - none.
- B. New Facilities Contemplated (Refer to Figure #2)
 - 1. All production facilities will be located on the disturbed portion of the well pad and will be painted a neutral color to blend in with the surrounding topography.
 - 2. Production facilities will require an area approximately 175' X 175'.
 - 3. Production facilities will be accommodated on the well pad. Construction materials needed for installation of the production facilities will be obtained from the site, any additional materials needed will be purchased from a local supplier.
 - 4. Any open pits will be fenced to protect livestock and wildlife.
- C. Rehabilitation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as recommended by the BLM.

5. Location and Type of Water Supply:

- A. Drilling water will be obtained from the municipal water supply of the town of Blanding, Utah.
- B. The water will be trucked over existing roads to the well location. No new construction will be required on/along the water haul route.
- C. No water well will be drilled on this location.

6. Source of Construction Materials:

- A. No construction materials will be needed for access road and well pad construction, surface and sub-surface soils will be sufficient.
- B. Not applicable.
- C. If production is obtained, any construction materials needed for surfacing access road and installation of production facilities will be purchased from a local supplier. Surfacing materials will not be placed on the access road or location without prior approval of both the USGS and BLM.
- D. No new access roads for construction materials will be required.

7. Methods of Handling Waste Material Disposal:

- A. Cuttings - the cuttings will be deposited in the reserve pit.

7. Methods of Handling Waste Material Disposal: Continued

- B. Drilling fluids - contained in reserve pit and allowed to evaporate.
- C. Produced fluids - fluids produced during the completion operation will be collected in test tanks. Any spills of oil, gas, salt water or other noxious fluids will be cleaned up and removed.
- D. Sewage - chemical toilets will be provided.
- E. Garbage and other waste material - garbage, trash and flammable wastes will be handled in the trash/burn pit. The trash/burn pit will be constructed near the mud tanks with steep sides and dug at least six feet in solid ground. The trash/burn pit will be completely enclosed with small mesh wire during drilling and will be buried with a minimum of six feet of earth upon completion of operations. A burning permit will be obtained from the State Fire Warden (John Baker (801) 587-2705) prior to burning any trash.
- F. After the rig moves out, all materials will be cleaned up and no adverse materials will be left on the location. Any open pits will be fenced during drilling and kept fenced until such time as the pits are backfilled.

8. Ancillary Facilities:

None.

9. Wellsite Layout:

- A. Figure #1 shows the drill site layout as staked. Cross-sections have been drafted to visualize the planned cuts and fills across the location. Eight inches of topsoil will be stockpiled per BLM specifications and stockpiled on the east side of the location.
- B. Figure #1 is a diagram showing the rig layout. No permanent living facilities are planned. There will be three trailers on location; one each for mud logger, tool pusher and geologist.
- C. Figure #2 shows the proposed production facilities layout.
- D. The reserve pit will be lined with commercial bentonite to prevent seepage.

10. Plans for Restoration of the Surface:

- A. Backfilling, leveling and recontouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried in the reserve pit immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
- B. The soil banked material will be spread over the area with enough topsoil retained to reclaim the remainder of the location at a future date. Revegetation will be accomplished by planting mixed grasses as per formula by BLM:
 - 2 lbs/acre Indian Ricegrass
 - 1 lb/acre Fourwing Saltbush
 - 1 lb/acre Sand Dropseed

10. Plans for Restoration of the Surface: Continued

- Prior to seeding, all disturbed areas will be scarified on the contour to a depth of 4-6 inches. The seed will be broadcast and a harrow dragged over the area to assure seed cover. Revegetation is recommended for road area, as well as around drill pad.
- C. Three sides of the reserve pit will be fenced with four strands of barbed wire during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from becoming entrapped, and the fencing will be maintained until leveling and cleanup are accomplished.
 - D. If any oil is on the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.
 - E. The rehabilitation operations will begin after the drilling rig is removed. The San Juan Resource Area BLM Office in Monticello, Utah will be contacted 48 hours prior to beginning rehabilitation work and upon completion of said work, (801) 587-2201. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best in Fall, 1984, unless requested otherwise.

11. Other Information:

- A. The project area is situated in the Cowboy Pasture of Bluff Bench in an area of sandstone bluffs and outcroppings. This area is typical of the high desert country with the soil consisting of a red sandy-clay composition typical of the Morrison Formation. Flora consists of native grasses, forbs, pinyon pine, juniper, prickly pear cactus and sagebrush. Fauna consists of deer, coyotes, rabbits, raptors and various other small vertebrates.
- B. The primary surface use is for grazing. The well site surface is owned by the Federal Government.
- C.
 - 1. There is no local permanent water source; drainage runs to the intermittent flow of Recapture Creek approximately 1.5 miles east of the location.
 - 2. The closest occupied dwellings are located in the town of Bluff, Utah.
 - 3. There are no known archeological, historical or cultural sites that will be disturbed by this drilling operation. In the event subsurface cultural materials are exposed during construction, work will stop immediately and the BLM office in Monticello notified at once.

12. Lessee's or Operator's Representative:

** Heitzman Drill-Site Services	Getty Oil Company
Dale Heitzman	Chuck Mowry
Robert M. Anderson	P. O. Box 3360
P. O. Box 2361	Casper, Wyoming 82602
Casper, Wyoming 82602	(307) 265-8386
(307) 266-4840	

** Contact for the pre-drill inspection and additional information if required.

13. Certification:

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

JUNE 22 1981

Date



Robert M. Anderson/Agent

AMENDMENTS TO SURFACE USE PLAN

and

RECLAMATION PROCEDURES

Lease No.: 22762

Pre-drill Inspection Date: June 3, 1981

Operator: Getty Oil Company

Participants:

Well Name: Cowboy 23-16

Bob Anderson, Heitzman Drill-Site Services

Mark Kramer, Getty Oil Company

Don Englishman, U.S.G.S.

Bob Turri, B.L.M.

Well Location: T39S, R22E, Sec. 23

Dean McClellan, Dirt Contractor

Allen Rorex, Archeologist

Ernie Maness, Surveyor

Construction:

1. The operator or his contractor will contact the San Juan Resource Area Office in Monticello, Utah (Phone (801) 587-2201) 48 hours prior to beginning any work on public land.
2. The dirt contractor will be furnished with a copy of the Surface Use Plan and any additional BLM stipulations prior to any work.

3. The San Juan County Road Department in Monticello will be contacted prior to the use of county roads for this activity, Mr. Dick Traister at (801) 587-2249.
4. Use of water from sources such as wells, springs, streams or stock ponds for activities associated with this well will be approved, prior to use, by the agency or individual holding the water right.
5. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they will be subject to prosecution if they are caught disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archeological sites will only be done if damage occurs.
6. Improvement to existing access will be necessary and will be limited to a total disturbed width of 14 feet. New construction will be limited to a total disturbed width of 18 feet. Road surface will be flat bladed to remove brush, no ditching or water bars or culverts will be installed.

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Surfacing material will not be placed on the access road or location without prior BLM approval.

7. The top 8 inches of soil material will be removed from the location and stockpiled on the east side of the location. Topsoil along the access will be reserved in place.
8. A trash pit will be constructed near the mud tanks with steep sides and dug at least six feet into solid undisturbed material. It will be totally enclosed with a fine mesh wire before the rig moves onto the location.
9. The reserve pit will be lined with commercial bentonite sufficient to prevent seepage.
10. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
11. A burning permit will be required before burning trash between May 1 and October 31. This can be acquired by contacting the State Fire Warden, John Baker at (801) 587-2705.

Rehabilitation:

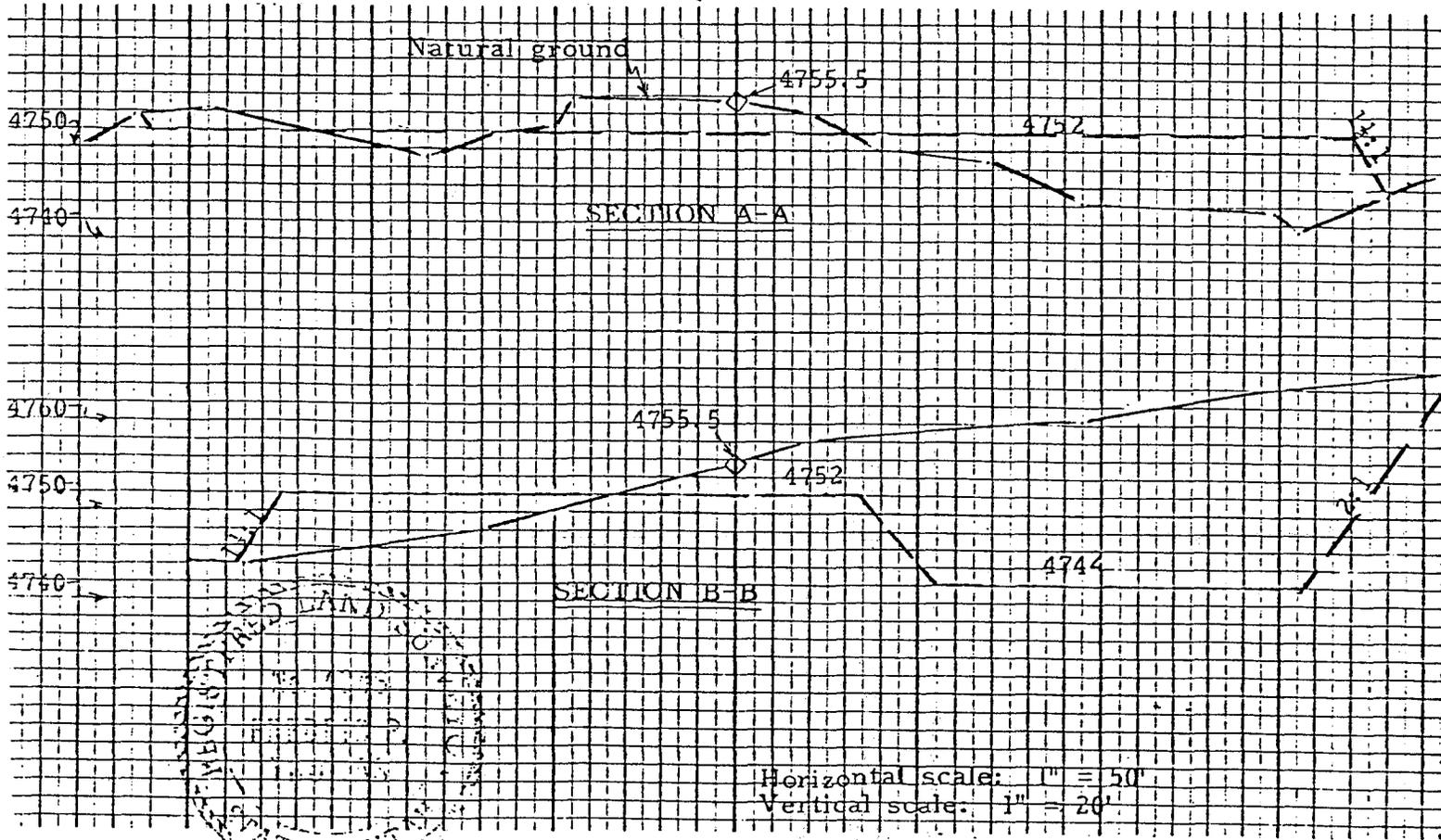
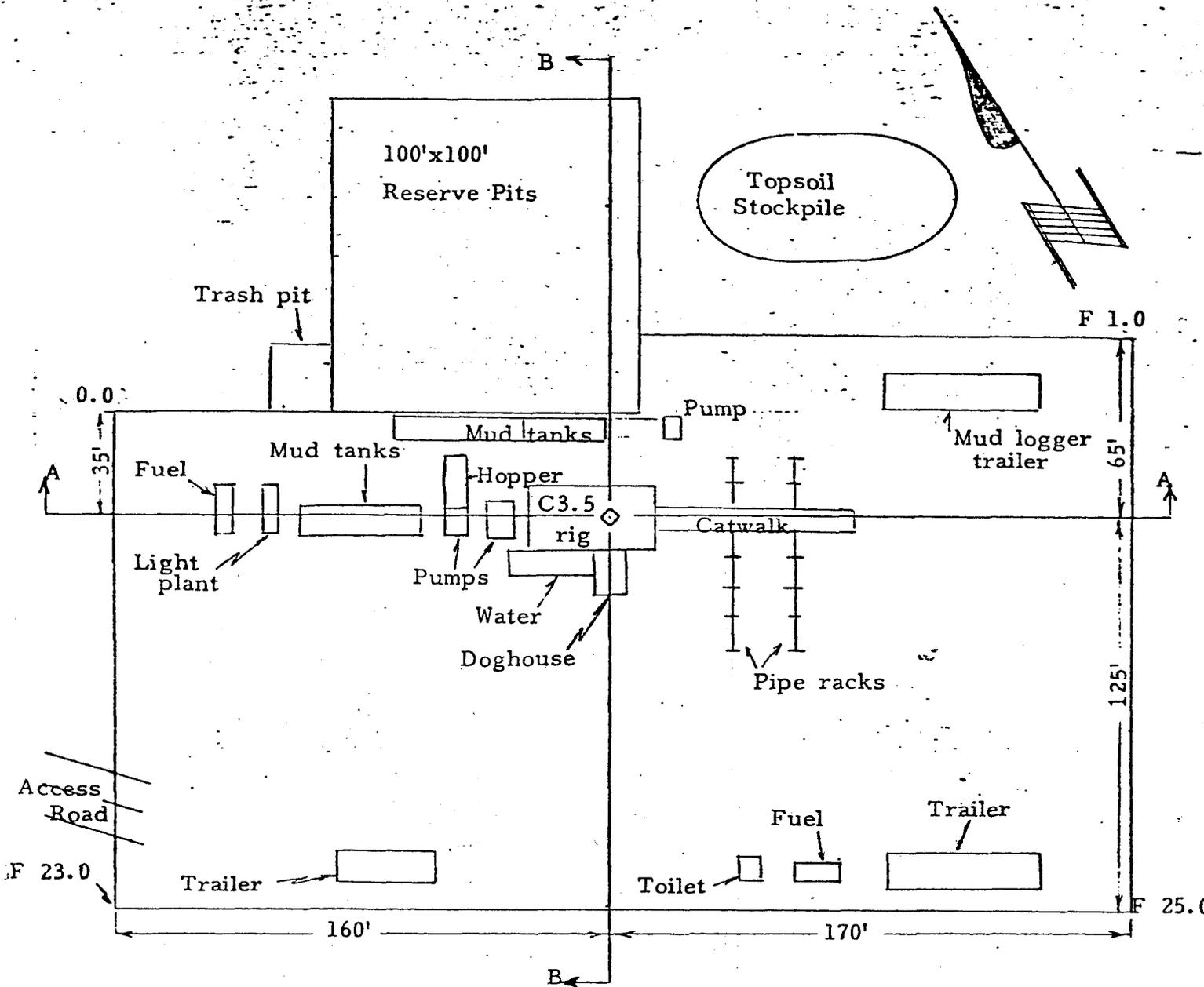
1. Immediately on completion of drilling, the location and surrounding area will be cleared of all debris resulting from the operation. All trash will be disposed of in the reserve pit.
2. The operator or his contractor will contact the San Juan Resource Area BLM office in Monticello, Utah, phone (801) 587-2201, 48 hours prior to starting rehabilitation work that involves earthmoving equipment and upon completion of restoration measures.
3. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
4. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography.
5. The stockpiled topsoil will be evenly distributed over the disturbed area.
6. All disturbed areas will be scarified with the contour to a depth of 4-6 inches.
7. Seed will be broadcast at a time to be specified by the BLM with the following seed prescription. When broadcast seeding, a harrow or some such implement will be dragged over the seeded area to assure seed cover.
 - 2 lbs/acre Indian ricegrass (Oryzopsis hymenoides)
 - 1 lb/acre Fourwing saltbrush (Atriplex canescens)
 - 1 lb/acre Sand dropseed (Sporobolus cryptandrus)

8. Not applicable.

9. Water bars will be constructed as directed by BLM to control erosion. Road will be restored to as near the natural terrain as feasible and reseeded as above.

Production:

1. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the methods described in the rehabilitation section. Enough topsoil will be retained to reclaim the remainder of the location at a future date. The remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.
2. All above-ground production facilities will be painted a neutral color.
3. The access shall be upgraded to the following specifications:
 - A. Slope cut and fills.
 - B. Culverts and water turnouts as required.

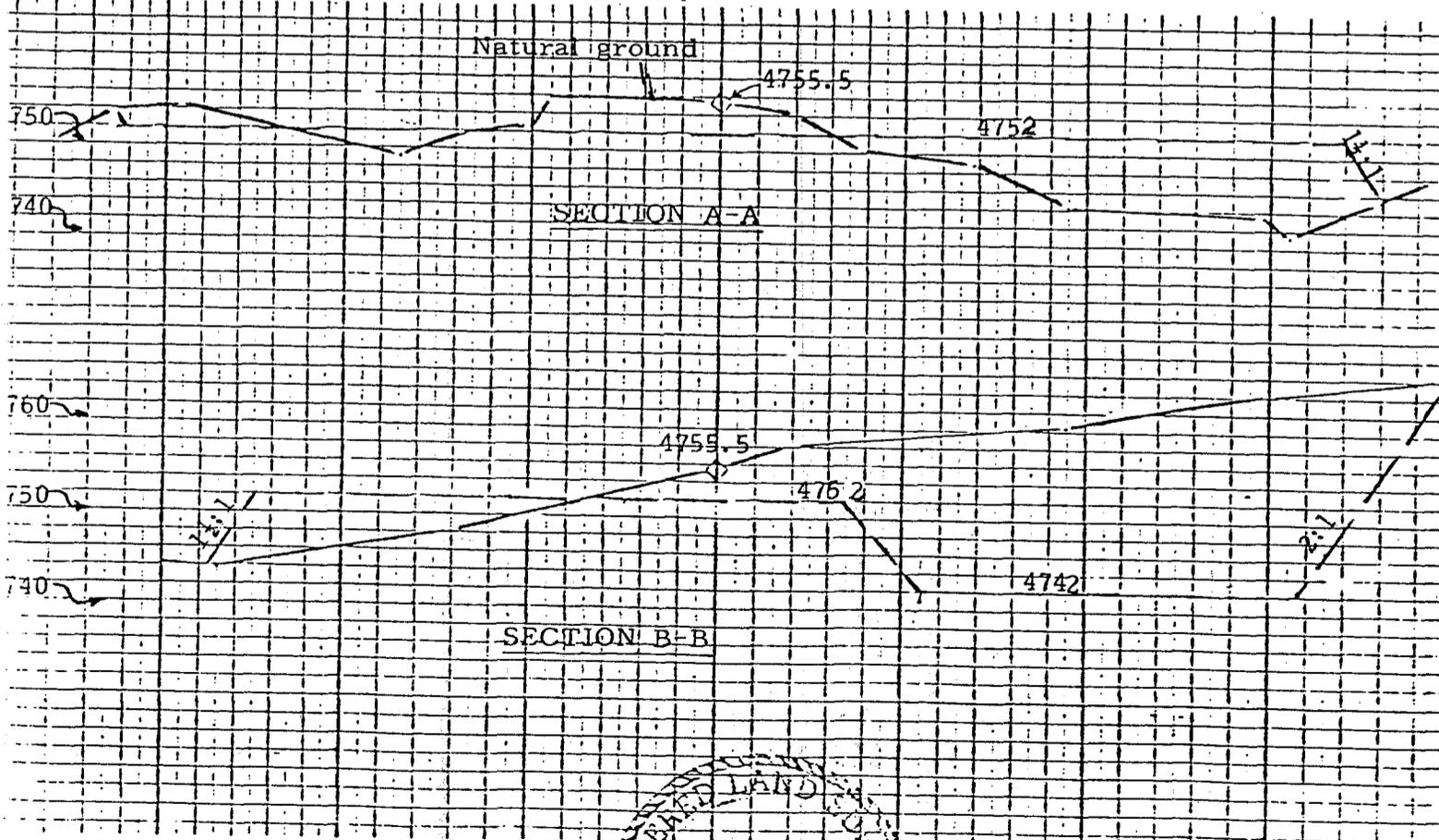
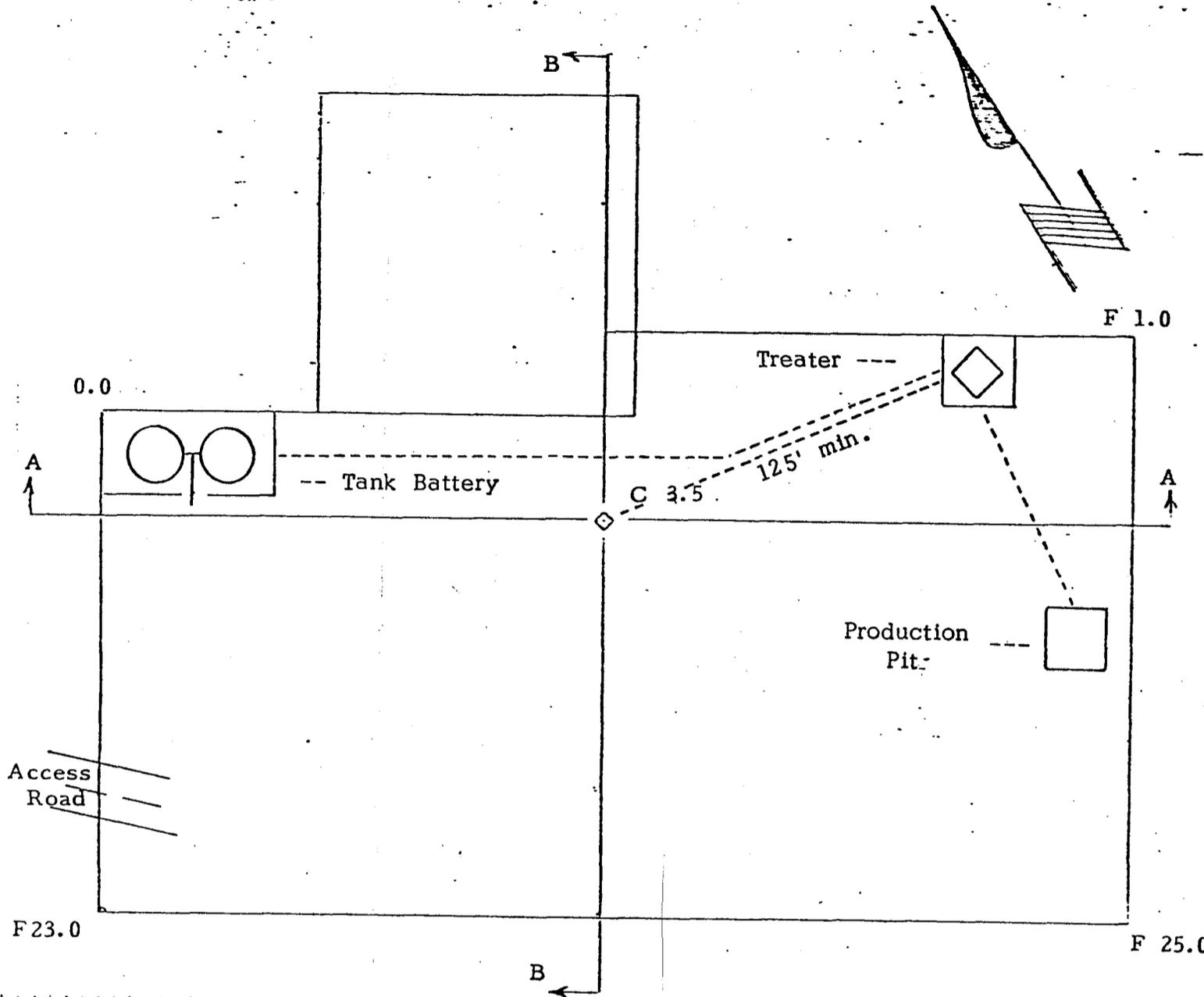


Horizontal scale: 1" = 50'
 Vertical scale: 1" = 20'

FREDRIC P THOMAS
 Reg. L.S. and P.E.
 Colo. Reg. No. 6728

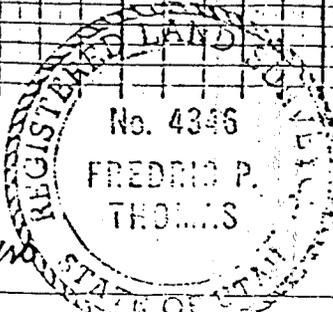
Fredric P Thomas

Figure # 1



FREDRIC P THOMAS
 Reg. L.S. and P.E.
 Colo. Reg. No. 6728

Fredric P Thomas



Horizontal scale: 1" = 50'
 Vertical scale: 1" = 20'

Figure # 2

** FILE NOTATIONS **

DATE: July 8, 1981
OPERATOR: Getty Oil Company
WELL NO: Cowboy #23-116
Location: Sec. 23 T. 39S R. 22E County: San Juan

File Prepared: Entered on N.I.D:
Card Indexed: Completion Sheet:

API Number 43-037-30698

CHECKED BY:

Petroleum Engineer: _____
Director: OK [Signature]
Administrative Aide: OK as per rule C-3(c), OK on any other oil or gas well.

APPROVAL LETTER:

Bond Required: Survey Plat Required:
Order No. _____ O.K. Rule C-3

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

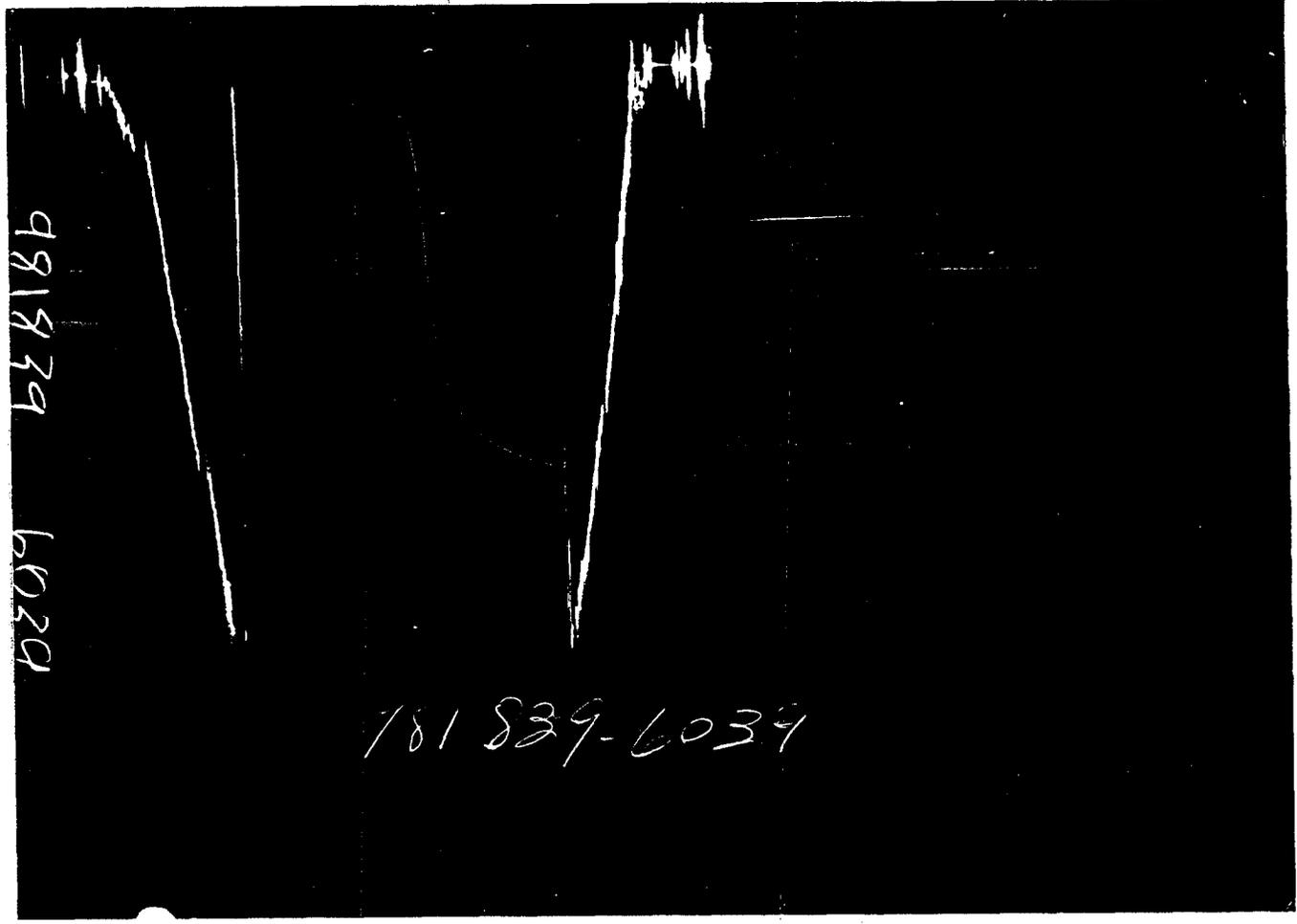
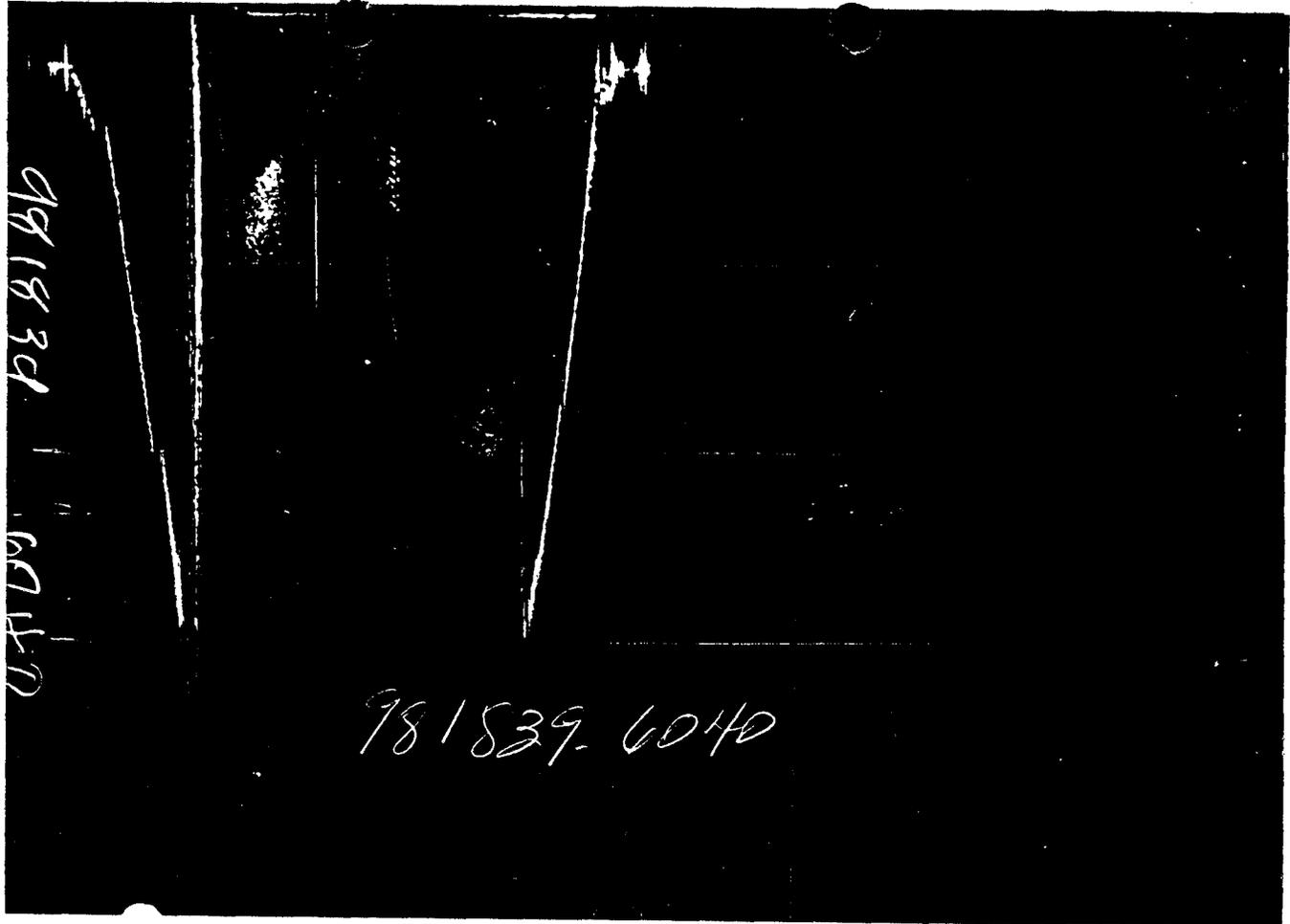
Lease Designation Plotted on Map

Approval Letter Written

Hot Line P.I.

UUMBUY
Lease Name
981839
Ticket Number
Well No. 23-10
Test No. 1
Camp FARMINGTON
Date 9-13-81
Gauge Number(s) 6040 - 6039
Tested Interval 0840 - 0930
Lease Owner/Company Name GELLY OIL COMPANY





Each Horizontal Line Equal to 1000 p.s.i.

TICKET NO. 981839 DATE 9-13-81 HALLIBURTON CAMP FARMINGTON
 LEASE OWNER GETTY OIL COMPANY IC/pw
 LEASE NAME COWBOY WELL NO. 23-16 TEST NO. 1
 LEGAL LOCATION 23 - 39 S - 22 E FORMATION TESTED DESART CREEK
 FIELD AREA RECAPTURE COUNTY SAN JUAN STATE UTAH
 TYPE OF D.S.T. OPEN HOLE
 TESTER(S) D. AULD - G. HOBBS
 WITNESS MR. KRAMER DRILLING CONTRACTOR ARAPAHOE #4
 DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.)
 TYPE AND SIZE OF GAS MEASURING DEVICE CALCULATED

CUSHION DATA

TYPE _____ AMOUNT _____ WEIGHT (lb./gal.) _____
 TYPE _____ AMOUNT _____ WEIGHT (lb./gal.) _____

RECOVERY (ft. or bbl.):
 100' OF MUD
 91' OF GAS CUT MUD
 20' OF WATER

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
PIT	1.47 @ 91 °F		BOTTOM	.25 @ 82 °F	
TOP	1.56 @ 84 °F		SAMPLER	.40 @ 80 °F	
MIDDLE	1.87 @ 83 °F			@ °F	

REMARKS:
 - SEE PRODUCTION TEST DATA SHEET -

TICKET NO. 981839 DATE 9-13-81 ELEVATION (FT.) 4770'
 TOP OF TESTED INTERVAL (ft.) 5840' BOTTOM OF TESTED INTERVAL (ft.) 5930'
 NET PAY (ft.) 7' TOTAL DEPTH (ft.) 5930'
 HOLE OR CASING SIZE (in.) 7.875" MUD WEIGHT (lb./gal.) 9.5 VISCOSITY (sec.) 47
 SURFACE CHOKE (in.) BUBBLE HOSE BOTTOM CHOKE (in.) .75"
 OIL GRAVITY _____ @ _____ °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) 26 CUBIC FT. OF GAS .026
 C.C.'s OF OIL _____ C.C.'s OF WATER _____
 C.C.'s OF MUD 2000 TOTAL LIQUID C.C.'s 2000

TEMPERATURE (°F)

ESTIMATE _____
 ACTUAL 128
 DEPTH (ft.) 5926'
 H.T.-500 ; THERMOMETER
 T.E. OR R.T.-7 ; OTHER
 SERIAL NO. _____

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

RECORDER AND PRESSURE DATA

CHARTS READ BY D. AULD DATA APPROVED BY M. R. LANO

RECORDERS	GAUGE NUMBER	6040	6039			TIMES (00:00-24:00 HRS.)	
	GAUGE TYPE	1	2			TOOL OPENED <u>0807</u>	
	GAUGE DEPTH (ft.)	5819	5927			DATE <u>9-13-81</u>	
	CLOCK NUMBER	7956X	7276X			BYPASS OPENED <u>1430</u>	
	CLOCK RANGE (HR.)	24	24			DATE <u>9-13-81</u>	
PRESSURES	INITIAL HYDROSTATIC	2887.7	2938.5			PERIOD	MINUTES
	INITIAL FLOW	46.5	92.1			XXX	XXX
	1st. FINAL FLOW	83.9	141.5			1st. FLOW	18 *
	CLOSED-IN	2124.0	2174.5			1st. C.I.P.	123 *
	INITIAL FLOW	120.3	168.4			XXX	XXX
	2nd. FINAL FLOW	193.0	245.7			2nd. FLOW	60 *
	CLOSED-IN	2059.3	2109.8			2nd. C.I.P.	182 *
	INITIAL FLOW					XXX	XXX
	3rd. FINAL FLOW					3rd. FLOW	
	CLOSED-IN					3rd. C.I.P.	
FINAL HYDROSTATIC	2893.0	2942.3			XXX	XXX	

* = See attached incremental reading sheet.....

GETTY OIL COMPANY
 Lease Owner/Company Name _____

981839
 Ticket Number _____

B.T. 6040 _____

B.T. 6039 _____

B.T. _____

Depth 5819' _____

Depth 5927' _____

Depth _____

Time (minutes)	Log $\frac{t - (t)}{(t)}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t - (t)}{(t)}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t - (t)}{(t)}$	PSIG Temp. Corr.
FLOW PERIOD 1			FLOW PERIOD 1					
0		46.5	0		92.1			
3		57.4	3		103.9			
6		64.5	6		115.7			
9		71.4	9		124.3			
12		75.9	12		132.7			
15		82.0	15		139.2			
16.3		83.9	17.0		141.5			
CLOSED IN PERIOD 1			CLOSED IN PERIOD 1					
0		83.9	0		141.5			
10		235.4	10		280.6			
20		914.4	20		918.6			
30		1495.9	30		1526.2			
40		1727.8	40		1773.6			
50		1845.0	50		1900.5			
60		1924.7	60		1981.2			
70		1979.9	70		2035.4			
80		2021.1	80		2075.6			
90		2052.8	90		2106.2			
100		2077.4	100		2132.1			
110		2099.1	110		2152.7			
120		2116.8	120		2169.4			
123.9		2124.0	124.0		2174.5			
FLOW PERIOD 2			FLOW PERIOD 2					
0		120.3	0		168.4			
10		134.5	10		185.0			
20		150.1	20		202.6			
30		160.1	30		211.4			
40		171.4	40		222.4			
50		182.0	50		234.3			
60.5		193.0	60.5		245.7			
CLOSED IN PERIOD 2			CLOSED IN PERIOD 2					
0		193.0	0		245.7			
10		355.8	10		417.2			
20		802.7	20		880.9			
30		1306.8	30		1365.1			
40		1545.8	40		1594.2			
50		1674.6	50		1728.5			
60		1758.9	60		1812.7			
70		1820.0	70		1873.0			
80		1865.5	80		1918.8			

Remarks: _____

Tool Description	O.D.	I.D.	Length	Depth
Drill Pipe	4.5"	3.826"	5275'	
Drill Collars	6.5"	2.5"	435'	
Reversing Sub (Hollow Pin-Impact)	6"	3"	1'	5711'
Drill Collars	6.5"	2.5"	94'	
Crossover	6"	3"	1'	
Dual CIP Sampler	5"	.87"	7'	
Hydrospring Tester	5"	.75"	5'	5817'
AP Running Case	5"	2.5"	4'	5819'
Big John Jar	5"	1.75"	5'	
Safety Jt. VR	5"	1"	3'	
Packer	6.75"	1.53"	6'	5834'
Packer	6.75"	1.53"	6'	5840'
Crossover	6"	3"	1'	
Drill Collars	6.5"	2.5"	62'	
Crossover	6"	3"	1'	
Flush Jt. Anchor	5.75"	3"	20'	
Running Case - Blanked off	5.75"		4'	5927'
TOTAL DEPTH				5930'

NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b₁	= Approximate Radius of Investigation (Net Pay Zone h ₁)	Feet
D.R.	= Damage Ratio	—
EI	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h₁	= Net Pay Thickness	Feet
K	= Permeability	md
K₁	= Permeability (From Net Pay Zone h ₁)	md
m	= Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF₁	= Maximum Indicated Flow Rate	MCF/D
OF₂	= Minimum Indicated Flow Rate	MCF/D
OF₃	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF₄	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_{or}	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q₁	= Theoretical Production w/Damage Removed	bbls/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbls
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	—
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.

July 17, 1981

GETTY Oil Company
P. O. Box 3360
Casper, Wyoming 82602

RE: Well No. Cowboy #23-16
Sec. 23, T. 39S, R. 22E,
San Juan County, Utah

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

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

MICHAEL T. MINDER - Petroleum Engineer
Office: 533-5771
Home: 876-3001

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

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

The API number assigned to this well is 43-037-30698.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

Cleon B. Feight
Director

CBF/db
CC: USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

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

2. NAME OF OPERATOR
 Getty Oil Company

3. ADDRESS OF OPERATOR
 P.O. Box 3360, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface
 1011' FSL 760' FEL (SESE)
 At proposed prod. zone
 SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 17 miles south of Blanding

10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 760'

16. NO. OF ACRES IN LEASE
 1680

17. NO. OF ACRES ASSIGNED TO THIS WELL
 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 1600'

19. PROPOSED DEPTH
 6000'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 4756' GR

22. APPROX. DATE WORK WILL START*
 On Permit Approval

23. (All New) PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	Culvert	40'	Cement to Surface
12 1/4"	8 5/8"	24# K-55	1800'	550 sx <i>Calculate</i>
7 7/8"	5 1/2"	14.0 & 15.5# K-55	6000'	550 sx *

* Cement volume may change due to hole size. Calculate from caliper log.

Ten (10) Point Resource Protection Plan Attached.

RECEIVED

JUN 29 1981

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

"APPROVAL TO FLARE GRANTED WHILE DRILLING AND TESTING."

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 Charles E. Mowry TITLE Area Engineer DATE June 22, 1981
 (This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY John L. Price TITLE District Supervisor DATE 7/15/81
 CONDITIONS OF APPROVAL, IF ANY:

UTAH DIVISION of OIL, GAS & MINING
 1588 W. NORTH TEMPLE
 SALT LAKE CITY, UT. 84116

STIPULATIONS ATTACHED

APPROVED FOR A PERIOD NOT TO EXCEED 1 YEAR.

[Handwritten signature]

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

2. NAME OF OPERATOR
Getty Oil Company

3. ADDRESS OF OPERATOR
P.O. Box 3360, Casper, WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1011' FSL & 760' FEL (SE/SE)
AT TOP PROD. INTERVAL: Same
AT TOTAL DEPTH: Same

5. LEASE
U-22762

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Cowboy

9. WELL NO.
23-16

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 23-T39S-R22E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4756' GL

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) Spud and Set Surface Casing		

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

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.)*

Spudded @ 8:30 P.M. on 8-26-81.

Ran surface casing as follows:

Hole Size	Casing Size	Wt. #/Ft.	Depth Set	Cement Information
12 1/2"	8 5/8"	24#	1784'	Dowell cemented w 900 sx. Lite cmt. + 425 sx. Class B cement. Circulat 25 sx. of good cm to surface.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED *Alv Bawa* TITLE Area Superintendent DATE 9/10/81

(This space for Federal or State office use)

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

RECEIVED
SEP 24 1981

M

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
DIVISION OF OIL, GAS & 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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Getty Oil Company

3. ADDRESS OF OPERATOR
P.O. Box 3360, Casper, WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1011' FSL & 760' FEL (SE/SE)
AT TOP PROD. INTERVAL: Same
AT TOTAL DEPTH: Same

5. LEASE
U-22762

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Cowboy

9. WELL NO.
23-16

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 23 - T39S-R22E

12. COUNTY OR PARISH | 13. STATE
San Juan | Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4756' GL

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 checked="" type="checkbox"/>
(other)		

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

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.)*

This well was spudded 8-26-81 and 8 5/8" casing was set @ 1784'. It was drilled ahead to a T.D. of 5930'.
Verbal approval was received from the U.S.G.S. on 9-14-81 to plug and abandon (also with a plugging procedure).

Ran in hole open-ended and spotted cement plugs (with 9.5 ppg mud between them) as follows:

5930'-5630' (300 ft.) - 105 sx. of Class "B" Cement w/ 1/4 #/sk. of Flocele.
4725'-4575' (150 ft.) - 90 sx. of Class "B" Cement w/ 1/4 #/sk. of Flocele.
2850'-2700' (150 ft.) - 100 sx. of Class "B" Cement w/ 1/4 #/sk. of Flocele.
1840'-1740' (100 ft.) - 45 sx. of Class "B" Cement w/ 1/4 #/sk. of Flocele.
50'-5' (45 ft.) - 20 sx. of Class "B" Cement w/ 1/4 #/sk. of Flocele.

Welded on steel plate and set dry hole marker.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED *Des Bann* TITLE Area Superintendent DATE 9/21/81

(This space for Federal or State office use)

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

December 14, 1981

Getty Oil Company
P. O. Box 3360
Casper, Wyoming 82602

Re: Well No. Cowboy #23-16
Sec. 23, ~~R.~~ 39S, R. 22E
San Juan County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING


CARI FURSE
CLERK TYPIST

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

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

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

2. NAME OF OPERATOR
Getty Oil Company

3. ADDRESS OF OPERATOR
P.O. Box 3360, Casper, Wyoming 82602

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

At surface 1011' FSL & 760' FEL(SE/SE)

At top prod. interval reported below Same

At total depth Same

14. PERMIT NO. 43-037-30698 DATE ISSUED 7-17-81

15. DATE SPUDDED 8-26-81 16. DATE T.D. REACHED 9-13-81 17. DATE COMPL. (Ready to prod.) P&A 9-14-81 18. ELEVATIONS (DP, RSS, RT, OR, ETC.)* 4756' GL 19. ELEV. CASINGHEAD _____

20. TOTAL DEPTH, MD & TVD 5930' 21. PLUG, BACK T.D., MD & TVD Plugged & Abandon 22. IF MULTIPLE COMPL., HOW MANY* _____ 23. INTERVALS DRILLED BY 0-5930' ROTARY TOOLS _____ CABLE TOOLS _____

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 Schlumberger DIL-SFL from TD 5930 to surface casing-sonic from TD to Surface Pipe CNL-FDC from TD to 4900' 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
8 5/8	24#	1784'	12 1/4	Cemented with 1325 sks and circulated 25 sks	None

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number) None

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33. PRODUCTION

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

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
Logs, Core Analysis and DST

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

SIGNED [Signature] TITLE _____ DATE 12-18-81

*(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	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
See Attached			
88.	GEOLOGIC MARKERS		
	NAME	MEAS. DEPTH	TOP
			THRU VERT. DEPTH



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY GETTY OIL COMPANY FIELD WILDCAT FILE RP-3-3132
 WELL GETTY 23-16 COWBOY COUNTY SAN JUAN DATE 9-14-81
 LOCATION SE SE SEC. 23-T39S-R22E STATE UTAH ELEV. 4747' GL

CORE-GAMMA CORRELATION

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions are those of Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production, operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

RECEIVED

JAN 06 1982

VERTICAL SCALE: 5" = 100'

CORE-GAMMA SURFACE LOG
(PATENT APPLIED FOR)

GAMMA RAY
RADIATION INCREASE →

COREGRAPH

DIVISION OF
OIL, GAS & MINING

TOTAL WATER _____
PERCENT TOTAL WATER
80 60 40 20 0

PERMEABILITY _____
MILLIDARCYs
100 50 10 .5 .1

POROSITY _____
PERCENT
20 10 0

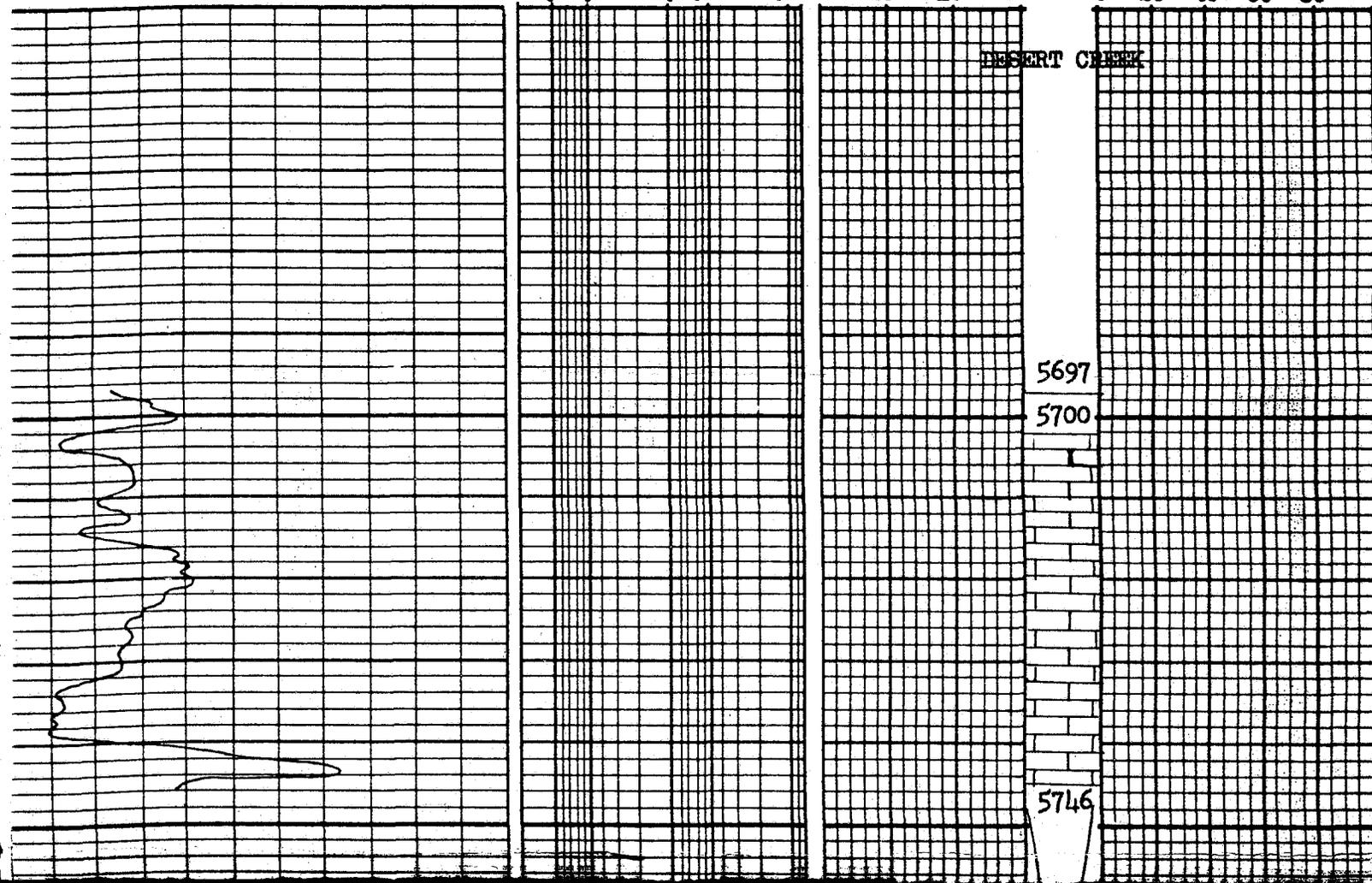
OIL SATURATION _____
PERCENT PORE SPACE
0 20 40 60 80

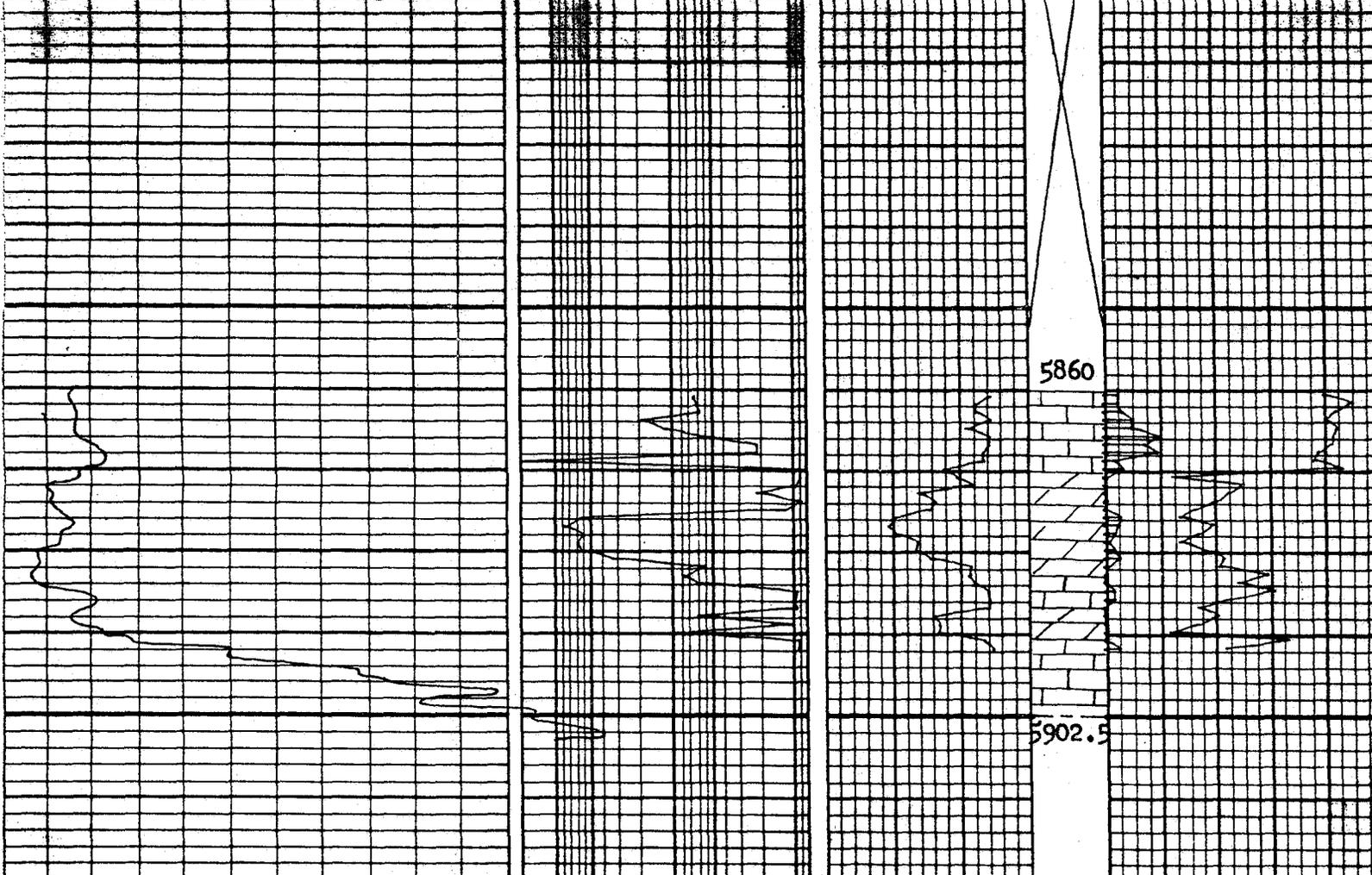
DESERT CREEK

5697

5700

5746





CL-529

CORE SUMMARY AND CALCULATED RECOVERABLE OIL

FORMATION NAME AND DEPTH INTERVAL: **Desert Creek - 5860.0-5368.0 Feet**

FEET OF CORE RECOVERED FROM ABOVE INTERVAL	8	AVERAGE TOTAL WATER SATURATION: PER CENT OF PORE SPACE	17.0
FEET OF CORE INCLUDED IN AVERAGES	8	AVERAGE CONNATE WATER SATURATION: PER CENT OF PORE SPACE	15 (e)
AVERAGE PERMEABILITY: MILLIDARCY	0.69	OIL GRAVITY: °API	42 (e)
PRODUCTIVE CAPACITY: MILLIDARCY-FEET	5.52	ORIGINAL SOLUTION GAS-OIL RATIO: CUBIC FEET PER BARREL	
AVERAGE POROSITY: PER CENT	6.3	ORIGINAL FORMATION VOLUME FACTOR: BARRELS SATURATED OIL PER BARREL STOCK-TANK OIL	1.45 (e)
AVERAGE RESIDUAL OIL SATURATION: PER CENT OF PORE SPACE	11.1	CALCULATED ORIGINAL STOCK-TANK OIL IN PLACE: BARRELS PER ACRE-FOOT	287

Calculated maximum solution gas drive recovery is _____ barrels per acre-foot, assuming production could be continued until reservoir pressure declined to zero psig. Calculated maximum water drive recovery is _____ barrels per acre-foot, assuming full maintenance of original reservoir pressure, 100% areal and vertical coverage, and continuation of production to 100% water cut. (Please refer to footnotes for further discussion of recovery estimates.)

(c) Calculated (e) Estimated (m) Measured (*) Refer to attached letter.

INTERPRETATION OF DATA

5860.0-5868.0 Feet - Condensate and/or oil productive.
 5868.0-5892.0 Feet - Water productive.

These recovery estimates represent theoretical maximum values for solution gas and water drive. They assume that production is started at original reservoir pressure; i.e., no account is taken of production to date or of prior drainage to other areas. The effects of factors tending to reduce actual ultimate recovery, such as economic limits on oil production rates, gas-oil ratios, or water-oil ratios, have not been taken into account. Neither have factors been considered which may result in actual recovery intermediate between solution gas and complete water drive recoveries, such as gas cap expansion, gravity drainage, or partial water drive. Detailed predictions of ultimate oil recovery to specific abandonment conditions may be made in an engineering study in which consideration is given to overall reservoir characteristics and economic factors.

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc., and its officers and employees assume no responsibility and make no warranty or representation as to the productivity, proper operation, or profitability of any oil, gas or mineral well or sand in connection with which such report is used or relied upon.



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

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

Mail TO

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
D. W. BOWERS, Division Director
Clean B. Feight, Division Director

DEC 18 1981

December 14, 1981

Getty Oil Company
P. O. Box 3360
Casper, Wyoming 82602

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*Mailed
12-21-81*

Re: Well No. Cowboy #23-16
Sec. 23, T. 39S, R. 22E
San Juan County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

CARI FURSE
CLERK TYPIST

RECEIVED
JAN 06 1982

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OIL, GAS & MINING

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CORE ANALYSIS RESULTS FOR
GETTY OIL COMPANY
GETTY 23-16 COWBOY
WILDCAT
SAN JUAN COUNTY, UTAH

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DIVISION OF
OIL, GAS & MINING

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

PAGE NO. 1

GETTY OIL COMPANY
 GETTY 23-16 COWBOY
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
 DRLG. FLUID: WATER BASE MJD
 LOCATION : SE SE SEC. 23-T39S-R22E
 STATE : UTAH

DATE : 9-14-81
 FILE NO. : RP-3-3132
 ANALYSTS : GG:DS
 ELEVATION: 4747' GL

WHOLE CORE ANALYSIS--BOYLE'S LAW HELIUM POROSITY

SAMP. NO.	DEPTH	PERM. TO AIR (MD) MAX.	90 DEG.	POR. B.L.	FLUID OIL	SATS. WATER	GR. DNS.	DESCRIPTION
	5697-5746							LIME - SHALE - NO ANALYSIS
	5746-5860							DRILLED
1	5860-61	0.64	0.61	5.2	5.0	20.0	2.69	LM GY FN-XLN SL/VJG
2	5861-62	0.60	0.50	7.3	5.0	10.0	2.74	LM GY FN-XLN SL/VJG
3	5862-63	0.56	0.51	7.0	6.4	15.4	2.73	LM GY FN-XLN SL/VJG
4	5863-64 P	1.7		5.2	9.8	19.6	2.72	LM GY FN-XLN SL/VJG
5	5864-65	1.1	0.96	8.8	9.6	15.4	2.75	LM GY FN-XLN SL/VJG
6	5865-66	0.54	0.53	5.3	19.4	16.7	2.74	LM GY FN-XLN SL/VJG
7	5866-67	0.19	0.13	5.4	14.3	17.1	2.72	LM GY FN-XLN SL/VJG STY
8	5867-68	0.19	0.19	6.3	18.9	21.6	2.74	LM GY FN-XLN SL/VJG
9	5868-69	18	0.33	5.9	4.0	24.0	2.76	LM GY FN-XLN SL/VJG
10	5869-70 P	0.02		12.0	6.7	13.3	2.83	LM GY-BRN FN-XLN DOLO STY
11	5870-71 P	0.01		10.2	1.0	74.0	2.83	DOLO GY-BRN FN-XLN LM
12	5871-72	0.06	0.04	7.7	1.0	48.6	2.84	DOLO GY-BRN FN-XLN LM
13	5872-73	0.19	0.13	15.8	0.7	53.6	2.84	DOLO GY-BRN FN-XLN LM
14	5873-74	*	0.01	(13.3)	1.5	57.9	0.01	DOLO GY-BRN FN-XLN LM
15	5874-75	0.11	0.07	14.2	0.0	65.8	2.86	DOLO GY-BRN FN-XLN LM
16	5875-76	5.5	5.3	19.1	5.8	71.4	2.90	DOLO BRN FN-XLN
17	5876-77	7.7	7.0	20.3	4.7	59.5	2.86	DOLO BRN FN-XLN
18	5877-78	5.4	3.3	19.1	3.6	64.5	2.86	DOLO BRN FN-XLN
19	5878-79 P	6.0		15.9	1.4	71.6	2.84	DOLO BRN FN-XLN
20	5879-80	5.5	5.3	16.3	3.6	63.0	2.85	DOLO BRN FN-XLN
21	5880-81	3.0	2.8	14.1	5.5	55.6	2.83	DOLO BRN FN-XLN LM
22	5881-82 P	0.53		8.1	1.3	57.6	2.81	DOLO DRK GY FN-XLN LM
23	5882-83	0.78	0.47	8.4	0.0	40.4	2.83	DOLO DRK GY FN-XLN LM

*SAMPLE UNSUITABLE FOR ANALYSIS

UNSUITABLE FOR WHOLE CORE, CONVENTIONAL PLUG USED

() SUMMATION OF FLUIDS POROSITY

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

PAGE NO. 2

GETTY OIL COMPANY
 GETTY 23-16 COWBOY
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
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WHOLE CORE ANALYSIS--BOYLE'S LAW HELIUM POROSITY

SAMP. NO.	DEPTH	PERM. TO AIR (MD) MAX.	90 DEG.	POR. B.L.	FLUID SATS. OIL	WATER	GR. DNS.	DESCRIPTION
24	5883-84	0.61	0.60	7.6	0.0	50.8	2.81	DOLO GY-BRN FN-XLN LM
25	5884-85	0.05	0.03	5.6	3.3	37.7	2.77	LM GY FN-XLN
26	5885-86	0.08	0.07	5.2	3.6	53.6	2.77	LM GY FN-XLN
27	5886-87	0.04	0.04	5.4	0.0	65.0	2.82	LM GY FN-XLN
28	5887-88	0.60	0.25	13.4	0.7	57.8	2.86	DOLO BRN FN-XLN LM
29	5888-89 P	0.10		12.7	0.7	64.8	2.82	DOLO BRN FN-XLN LM
30	5889-90 P	0.92		13.0	0.5	75.0	2.80	DOLO BRN FN-XLN LM
31	5890-91	0.03	0.01	6.3	0.0	33.0	2.79	LM LT BRN FN-XLN DOLO
32	5891-92	0.04	0.03	4.9	5.0	55.0	2.79	LM GY FN-XLN
	5892-5897							LIMESTONE - NO ANALYSIS
	5897-5899							LIME - SHALE - NO ANALYSIS
	5899-5903							SHALE - NO ANALYSIS

*SAMPLE UNSUITABLE FOR ANALYSIS

P = UNSUITABLE FOR WHOLE CORE, CONVENTIONAL PLUG USED