

**FILE NOTATIONS**Entered in NID File 

Entered On S R Sheet \_\_\_\_\_

Location Map Pinned \_\_\_\_\_

Card Indexed 

IWR for State or Fee Land \_\_\_\_\_

Checked by Chief \_\_\_\_\_

Copy NID to Field Office \_\_\_\_\_

Approval Letter \_\_\_\_\_

Disapproval Letter \_\_\_\_\_

**COMPLETION DATA:**

Date Well Completed \_\_\_\_\_

Location Inspected \_\_\_\_\_

OW \_\_\_\_\_ WW \_\_\_\_\_ TA \_\_\_\_\_

Bond released \_\_\_\_\_

GW \_\_\_\_\_ OS \_\_\_\_\_ PA \_\_\_\_\_

State of Fee Land \_\_\_\_\_

**LOGS FILED**

Driller's Log \_\_\_\_\_

Electric Logs (No. ) \_\_\_\_\_

E \_\_\_\_\_ L \_\_\_\_\_ E-I \_\_\_\_\_ GR \_\_\_\_\_ GRN \_\_\_\_\_ Micro \_\_\_\_\_

Lat \_\_\_\_\_ MI-L \_\_\_\_\_ Sonic \_\_\_\_\_ Others \_\_\_\_\_

*(Signature)*



**Southland Royalty Company**

March 17, 1980

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 the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein be performed by Southland Royalty Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it it approved.

March 17, 1980

L. O. Van Rayn  
District Production Manager

LOVR/ke

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  
 Southland Royalty Company

3. ADDRESS OF OPERATOR  
 P. O. Drawer 570, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At 5000 FNL & 625 FNL  
 500 FNL & 600 FNL NW NW  
 At proposed prod. zone  
 Same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 32 miles Southeast of Hanksville, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)      500'

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

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5063' GR

23. PROPOSED CASING AND CEMENTING PROGRAM

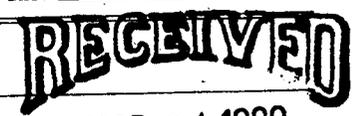
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" New	48#, H-40, ST&C	200' 235 sx	Cl B w/3% CaCl <sub>2</sub> (277 cu. ft.) <i>circ. to surf.</i>
12 1/4"	9 5/8" New	36#, K-55, ST&C	2460' 395 sx	Cl B w/adds. (567 cu. ft.)
7 7/8"	5 1/2" New	15.5#, K-55, ST&C	6400' 475 sx	Cl B w/adds. (645 cu. ft.)

1. Drill 17 1/2" surface hole and set 13 3/8" surface casing at 200' with good returns.
2. Log BOP checks in daily drill reports and drill 12 1/4" hole to 2460'.
3. Run logs and run 9 5/8" casing to 2460'.
4. Log BOP checks in daily drill reports and drill 7 7/8" hole to 6400' with fresh water mud.
5. Run logs and run 5 1/2" casing to 6400'.
6. Run other logs as needed and perforate and stimulate as needed.

EXHIBITS ATTACHED  
 "A" Location and Elevation Plot      "F" Drill Pad Layout and Cut-fill Section  
 "B" The Ten-Point Compliance Program      Production Facilities  
 "C" The Blowout Preventer Diagram      "G" Rehabilitation  
 "D" The Multi-Point Requirements for APD  
 "E" & "E<sub>1</sub>" Access Road Map into Location and Radius Map of Field  
 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.  
 DATE: 3/28/80

24. SIGNED [Signature]      DISTRICT PRODUCTION MANAGER      DATE 3-19-80

PERMIT NO. 43-017-30081      APPROVAL DATE 27 March 80  
 APPROVED BY \_\_\_\_\_      TITLE \_\_\_\_\_      DATE MAR 24 1980



DIVISION OF OIL, GAS & MINING

\*\* FILE NOTATIONS \*\*

DATE: March 24, 1980

Operator: Southland Royalty Company

Well No: Hog Canyon #1

Location: Sec. 8 T. 33S R. 13E County: Garfield

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number 43-017-30081

CHECKED BY:

Geological Engineer: \_\_\_\_\_

Petroleum Engineer: M. J. Minder 3/26/80

Director: \_\_\_\_\_

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. \_\_\_\_\_

O.K. Rule C-3

#1

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

Lease Designation 3d

Plotted on Map

Approval Letter Written

ltw

hl  
PF

March 27, 1980

Southland Royalty Company  
P.O. Drawer 570  
Farmington, New Mexico 87401

Re: Well No. Hog Canyon #1  
Sec. 8, T. 33S, R. 13E.,  
Garfield County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Rule C-3, 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 43-017-30081.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Petroleum Engineer

/b:tm

cc: USGS



**Southland Royalty Company**

April 28, 1980

Bureau of Land Management  
Mr. Lynn Jackson  
Henry Mountain Resource Area  
Hanksville, UT 84734

Dear Mr. Jackson:

Southland Royalty Company wishes to amend the Multi-Point Surface Use Plan which we filed on the Hog Canyon #1 Application for Permit to Drill. The attached revision shows that approximately 2.5 miles of the existing trail which we wish to upgrade for an access road is off of our lease. We would like to apply for a Temporary Use Permit to enable us to use this access road while drilling operations are in progress. Would you please advise this office of the procedure to follow to secure this temporary use permit and what we will have to do if production is established at this site.

Sincerely,

Robert E. Fielder  
Petroleum Engineer

REF/ke

Attachments

cc: E. W. Gynn  
U. S. G. S., SLC, UT

**RECEIVED**

APR 30 1980

DIVISION OF  
OIL, GAS & MINING



# United States Department of the Interior

IN REPLY REFER

3109 (U-504)

BUREAU OF LAND MANAGEMENT  
Henry Mountain Resource Area  
P.O. Box 99  
Hanksville, Utah 84734

May 8, 1980

Mr. Ed Guynn  
U.S. Geological Survey  
Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

Re: Southland Royalty  
Hog Canyon #1  
Sec. 8, T 33 S, R 13 E SLM

Dear Mr. Guynn:

This letter concerns surface protection stipulations that the BLM would like attached to Southland's above referred to well in the Henry Mountain Resource Area.

- 1) Low water crossings will be used to cross all gullies on the access road. Fill sections across the gullies will not be allowed.
- 2) The reserve pit will be lined with an impervious material such as clay or plastic.
- 3) A trash cage, rather than a pit, will be used to store all refuse on site.
- 4) The drill pad and entire access road will be recontoured and reseeded with the following seed mixture:

Species	Lb./acre
Alkali sacaton ( <i>Sporobolus airoides</i> )	3
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	3
Indian ricegrass ( <i>Oryzopsis hymenoides</i> )	3
Fourwing saltbrush ( <i>Atriplex canescens</i> )	4

- 5) No off road travel off the drill site or access road will be permitted.



*Save Energy and You Serve America!*

16 MAY RECD

It must also be noted at this time that 2.5 miles of the proposed access road will be off Southland's lease holdings and will cross federal lands. This portion of the road will require a Temporary-Use-Permit (TUP). Our normal procedure calls for an Environmental Assessment to be prepared to document impacts prior to issuance of the TUP; however, according Department of Interior Instruction Memorandum 80-107, this TUP can be expeditiously granted by the BLM using the G.S. EA as the documentation for the impacts; providing that the G.S. EA addresses such impacts. Therefore, we would like to request at this time that the G.S. EA address the environmental impacts of the proposed access route. This will allow us to simply issue the TUP as soon as the APD has been approved. If there are any problems with this or questions please contact our office.

Finally, based on an archeological survey conducted on the proposed project area by Centuries Research Company during the on-site, archeological clearance is given.

Sincerely,

**ACTING**



Acting HMRA Area Manager

cc: Chuck Horsburgh  
BLM Richfield D.O.

cc: Bob Fielder  
Southland Royalty  
P.O. Box 570  
Farmington, New Mexico 87401



'chasing man through time'

## CENTURIES RESEARCH INC.

BOX 1869 ● MONTROSE, COLORADO 81401  
303/249-2283

RECEIVED

MAY 14 1980

FARMINGTON DISTRICT

May 12, 1980

Mr. Robert Fielder  
Petroleum Engineer  
Southland Royalty  
P.O. Box 570  
Farmington, New Mexico 87401

Dear Mr. Fielder:

We are still awaiting the arrival in the mail of a topographic map to complete the well site report for Fry Canyon #1, Moqui Canyon #1 and Hog Canyon #1. This letter summarizes the results of our cultural resource survey and is intended to expedite your work until the full report is available.

The 800' radius around well sites Fry Canyon #1 and Moqui Canyon #1 is free of significant cultural resources and clearance is recommended at both locations. One isolated find was found at each of these well sites.

Four archaeological sites, 42GA1955 through 42GA1958, surround well site Hog Canyon #1. We recommend the well site be moved 515 ft at an azimuth of 166° from the original staked position, plus rerouting the access road to a position at least 100 ft north of site 42GA1956. It is also recommended that an archaeologist be on hand to monitor all land disturbance activities at Hog Canyon #1. One isolated find was recorded along the right-of-way for the access road to Hog Canyon #1 but no other resources were present and clearance is recommended for the access road as far as the well site area.

Please call if you have any questions. Thank you.

Sincerely,

*Kevin D. Black*

Kevin D. Black  
Staff Archaeologist

Encl.

KDB/j

cc: Marion Revitte, BLM Richfield, Utah (w/encl.)  
Area Manager, BLM Hanksville, Utah (w/encl.)



**Southland Royalty Company**

*Well File  
copy*

May 23, 1980

Mr. Cleon B. Feight  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

RE: HOG CANYON #1

Dear Mr. Feight:

The Hog Canyon #1 well site has been moved from 500' FNL & 500' FWL Section 8, T33S, R13E to 1000' FNL & 625' FWL, Section 8, T33S, R13E. This was done to avoid archaeological sites shown on the attached plat.

Southland Royalty Company applies for exception to Rule C-3 for this new site. All leases within a 660' radius of the site are owned by Southland Royalty Company.

Sincerely,

R. E. Fielder  
Petroleum Engineer

Attachments

REF/eg

RECEIVED  
MAY 27 1980

DIVISION OF  
OIL, GAS & MINING

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  gas  other  Wildcat

2. NAME OF OPERATOR  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1000' FNL & 625' FWL *Location change*  
AT TOP PROD. INTERVAL: Same  
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) <u>Move Location</u>			<input checked="" type="checkbox"/>

(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 location was moved to avoid disturbing archaeological sites illustrated on attached diagram prepared by Centuries Research, Inc.*

Attachments: Survey Plat (Exhibit "A")  
Cut and Fill Cross Section (Exhibit "F")  
Vicinity Topographical Map (Exhibit "E1")

ANTICIPATE START OF CONSTRUCTION ON JUNE 20, 1980

APPROVED BY THE DIVISION  
OF OIL, GAS, AND MINING  
DATE: 5-28-80  
BY: M. J. Minder

Set @ \_\_\_\_\_ Ft.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

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

SIGNED \_\_\_\_\_ TITLE Dist. Prod. Mgr. DATE May 23, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**RECEIVED**  
MAY 27 1980

\*See Instructions on Reverse Side

DIVISION OF  
OIL, GAS & MINING

5. LEASE  
U-38771

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Hog Canyon

9. WELL NO.  
1

10. FIELD OR WILDCAT NAME  
Unnamed Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 8, T33S, R13E

12. COUNTY OR PARISH  
Garfield

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5063' GR

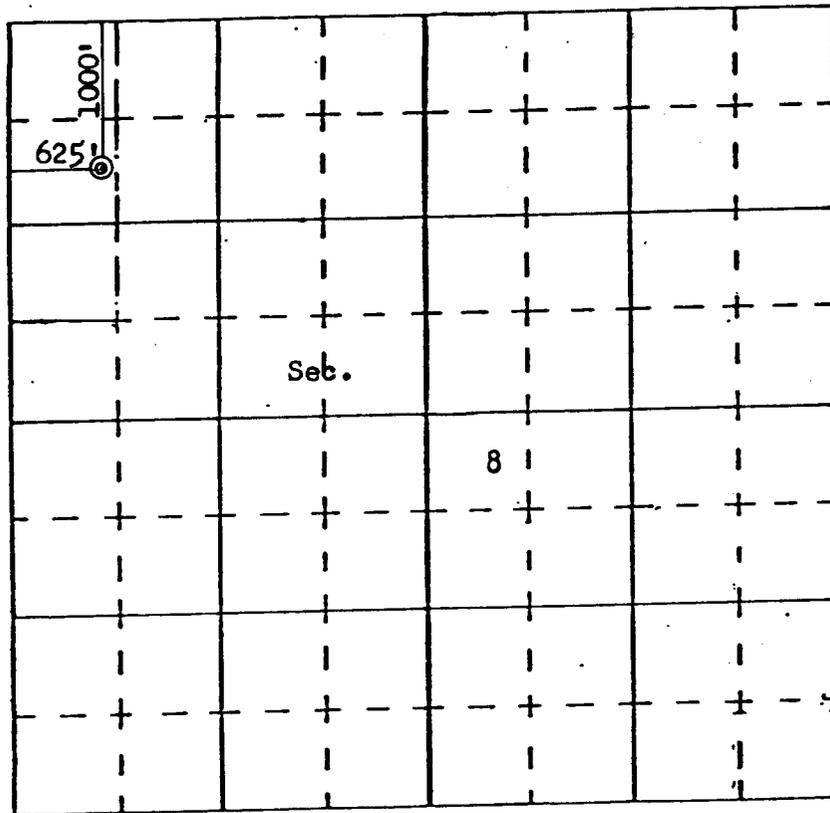
COMPANY SOUTHLAND ROYALTY COMPANY

LEASE HOG CANYON WELL NO. 1

SEC. 8, T. 33S, R. 13E  
GARFIELD COUNTY, UTAH

LOCATION 1000'FNL 625'FWL

ELEVATION 5075 ungraded. ground



SCALE—4 INCHES EQUALS 1 MILE

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

*Fred B. Kerr Jr.*  
Fred B. Kerr Jr.

SEAL:

Registered Land Surveyor.

#3950

SURVEYED May 19, 1980

FIGURE 81

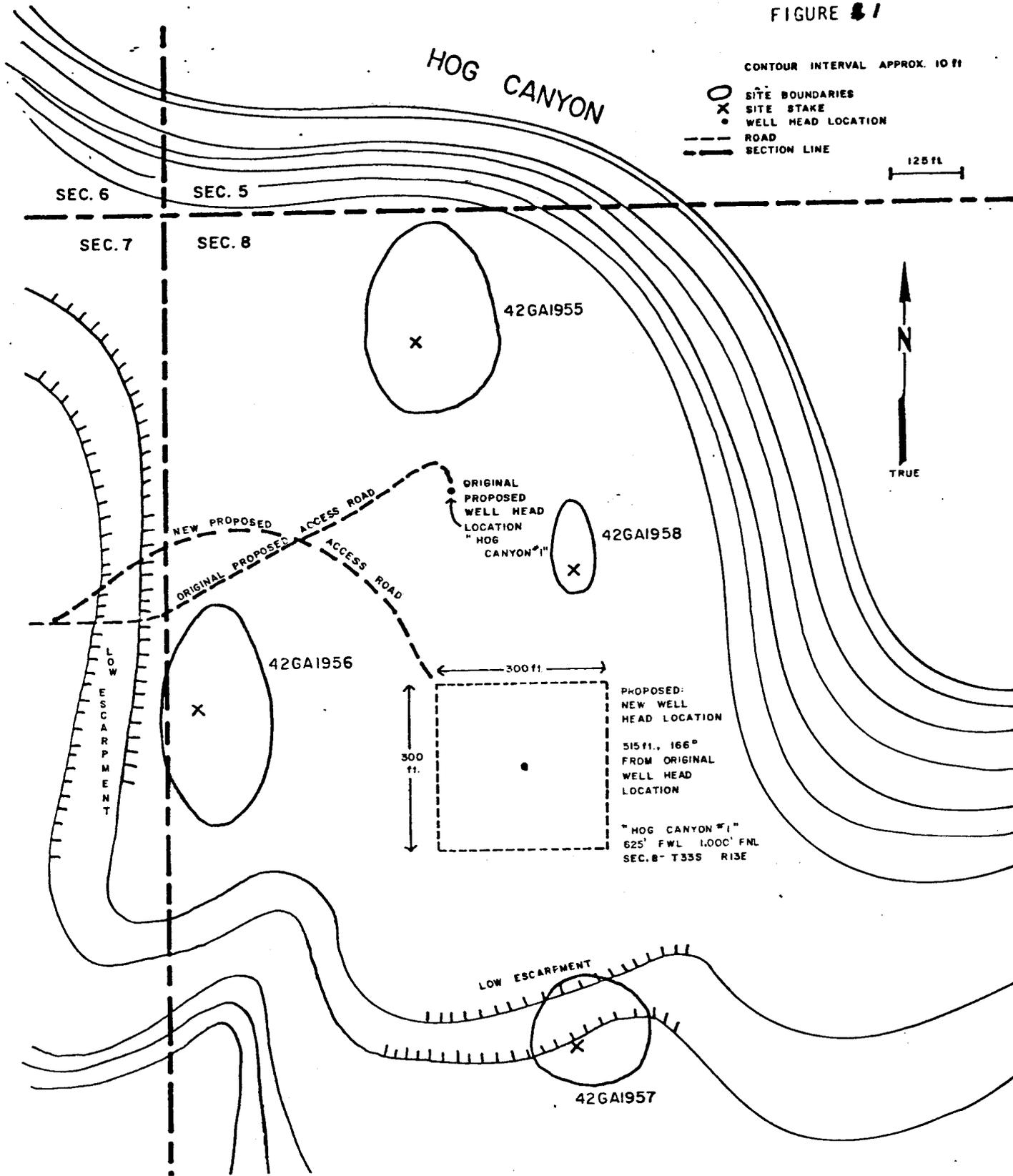


FIGURE 81: Location of archaeological sites 42GA1955 through 42GA1958, proposed Hog Canyon #1 well head site and access road, and new proposed well site and access road to avoid impacts on archaeological sites.



# United States Department of the Interior

IN REPLY REFER

3100 (U-50)

BUREAU OF LAND MANAGEMENT  
Henry Mountain Resource Area  
P.O. Box 99  
Hanksville, Utah 84734

June 2, 1980

USGS Conservation Division  
2000 Administration Building  
1745 W. 1700 S.  
Salt Lake City, Utah 84104

Attention: George Diwachak

Re: Southland Royalty U-38771  
Hog Springs No. 1, Sec 8, T 33 S, R 13 E

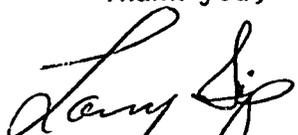
Dear George:

This letter is a verification of our conversation on May 29 concerning the moving of Southland's proposed drill site. We have no problems with the 500 foot well site move in order to protect archeological resources found on the original site. We also feel that due to the shortness of the move and due to the exact type of terrain and topography being found in both areas, another on-site inspection is not necessary.

All surface protection stipulations identified in our letter of May 9 concerning the original location can be carried over and applied to the new location.

If you have any questions, please call.

Thank you,

  
Area Manager

cc: Chuck Horsburgh - Richfield BLM  
Bob Fielder - Southland Royalty  
P.O. Box 570, Farmington, New Mexico, 87401



*Save Energy and You Serve America!*

*Slenn*

8-335-13E

Memorandum

To: District Oil and Gas Engineer, Mr. Edward Guynn

From: Mining, Supervisor, Mr. Jackson W. Moffitt

Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. U-38771 Well No. 1

1. The location appears potentially valuable for:

- strip mining\*
- underground mining\*\*
- has no known potential.

2. The proposed area is

- under a Federal lease for \_\_\_\_\_ under the jurisdiction of this office.
- not under a Federal lease under the jurisdiction of this office.
- Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

\*If location has strip mining potential:

Surface casing should be set to at least 50 feet below the lowest strip minable zone at \_\_\_\_\_ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

\*\*If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in like manner. Except for salines or water-bearing horizons with potential for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

Signed *Allen J. Vance*

60 APR RECD

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  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P. O. Drawer 570, Farmington, NM 87401

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

1000' 500' FNL & 500' FWL  
At proposed prod. zone  
Same as above

*Location change*

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
32 miles Southeast of Hanksville, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 500'

16. NO. OF ACRES IN LEASE 2554'

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. N/A

19. PROPOSED DEPTH 6400'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5063' GR 5075

22. APPROX. DATE WORK WILL START\*  
April 10, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" New	48#, H-40, ST&C	200' 235 sx	Cl B w/3% CaCl <sub>2</sub> (277 cu. ft.)
12 1/4"	9 5/8" New	36#, K-55, ST&C	2460' 395 sx	Cl B w/adds. (567 cu. ft.)
7 7/8"	5 1/2" New	15.5#, K-55, ST&C	6400' 475 sx	Cl B w/adds. (645 cu. ft.)

1. Drill 17 1/2" surface hole and set 13 3/8" surface casing at 200' with good returns.
2. Log BOP checks in daily drill reports and drill 12 1/4" hole to 2460'.
3. Run logs and run 9 5/8" casing to 2460'.
4. Log BOP checks in daily drill reports and drill 7 7/8" hole to 6400' mud.
5. Run logs and run 5 1/2" casing to 6400'.
6. Run other logs as needed and perforate and stimulate as needed.

**REGISTERED**  
JUN 27 1980

EXHIBITS ATTACHED

- "A" Location and Elevation Plot
- "B" The Ten-Point Compliance Program
- "C" The Blowout Preventer Diagram
- "D" The Multi-Point Requirements for APD
- "E" & "E<sub>1</sub>" Access Road Map into Location and Radius Map of Field
- "F" Drill Pad Layout and Cut-fill Section
- Production Facilities
- "G" Rehabilitation

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, describe 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.

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

SIGNED *[Signature]* TITLE District Production Manager DATE 3-19-80

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
FOR E. W. GUYNN DISTRICT ENGINEER DATE JUN 26 1980

APPROVED BY *[Signature]* TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

NOTICE OF APPROVAL

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

*Utah Dr. S*

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM OF NTL-6 APPROVAL OF OPERATIONS

Attached to form 9-331C

Southland Royalty Company  
#1 Hog Canyon  
500' FNL & 500' FWL, Section 8, T33S, R13E  
Garfield County, Utah

1. The Geological Surface Formation

The surface formation is Carmel.

2. The Estimated Tops of Important Geologic Markers

Navajo	65'	Organ Rock	2430'	Pink Trail	5070'
Kayenta	695'	Cedar Mesa	2630'	Molas	5370'
Wingate	910'	Ele Canyon	3450'	Mississippian	5470'
Chinle	1260'	Pennsylvanian	3925'	Ouray	6170'
Moenkopi	1630'	Ismay	4425'	Elbert	6270'
White Rim	2030'	Paradox	4595'	Total Depth	6400'

3. Estimated Depth of Anticipated Water, Oil, Gas or Minerals

Pennsylvanian                      3925'                      Oil and Gas

4. The Proposed Casing Program

- (a) Surface Casing: Set 13 3/8", new, H-40, 48#, ST & C at 200' in 17 1/2" surface hole; cement with 235 sacks of Class "B" with 3% CaCl<sub>2</sub> (100% excess to circulate cement to surface).
- (b) Intermediate Casing: Set 9 5/8", new, K-55, 36#, ST & C at 2460' in 12 1/4" hole; cement with 325 sacks of 50/50 Poz Class "B" cement with 6% gel. Tail in with 70 sacks of Class "B" cement with 2% CaCl<sub>2</sub> (50% excess to cover Chinle).
- (c) Production Casing: Set 5 1/2", new, 15.5#, ST & C at 6400' in 7 7/8" hole; cement with 275 sacks of 50/50 Poz Class "B" cement with 6% gel and .6% Halad 9 and 1/4# gel flake per sack. Tail in with 200 sacks of Class "B" with 2% CaCl<sub>2</sub> (50% excess to cover Pennsylvanian).

5. The Operator's Minimum Specifications for the Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP will be hydraulically tested to 1000 psi prior to drilling surface casing and intermediate casing plugs. Pipe rams will be operationally checked each 24 hour period, as well blind rams on annular preventer each time pipe is pulled out of the hole. Such checks of the BOP will be noted on daily drilling reports.

Accessories to BOP will include an upper kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. The Type and Characteristics of the Proposed Circulating Muds

This well will be drilled to Total Depth with fresh water low solids mud. Mufflers will be installed on all exhaust systems. Other materials will be on site to handle any anticipated downhole problems as well as possible spills of fluid on the surface.

7. The Auxiliary Equipment to be Used

- (a) A kelly cock will be kept in the string at all times.
- (b) A float will be used at the bit at all times.
- (c) A mud logging unit and gas detecting device will be monitoring the system from 1600' to Total Depth.
- (d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. The Testing, Logging and Coring Program to be Followed

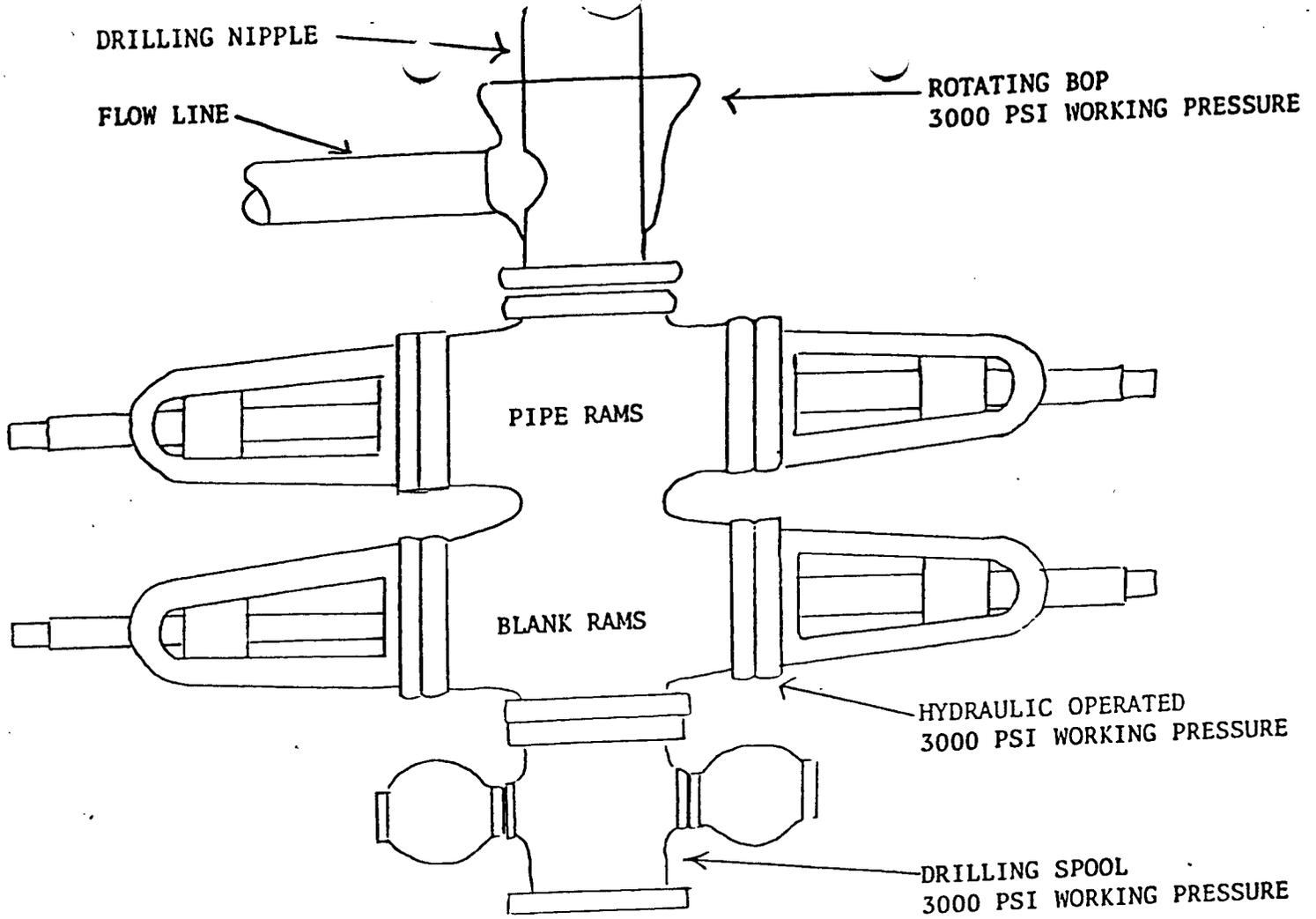
- (a) Four tests below 3900' are anticipated.
- (b) The logging program will consist of a GR Sonic, FDC/CNL with Caliper and a SP/DLL. Other logs will be determined at well site to best evaluate any shows.
- (c) 180' of selective coring in the Paradox formation is anticipated.
- (d) Completion procedure will be determined after evaluation of test, log and core data.

9. Any Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at these depths in the area.

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for April 10, 1980 or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 35 days after spudding the well and drilling to casing point.



PREVENTERS AND SPOOLS ARE TO HAVE  
THROUGH BORE OF 6" - 3000 PSI OR LARGER

HOG CANYON #1  
EXHIBIT "C"  
BLOWOUT PREVENTER DIAGRAM

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A. P. D.

Attached to Form 9-331C

Southland Royalty Company  
#1 Hog Canyon  
500' FNL & 500' FWL, Section 8, T33S, R13E  
Garfield County, Utah

1. Existing Roads

- (a) The proposed well site and elevation plat is shown as EXHIBIT "A".
- (b) The distance from Hanksville, Utah is 32 miles southeast on Highway 95 and 276. Refer to EXHIBIT "E" and EXHIBIT "E<sub>1</sub>".
- (c) All roads are color-coded into location. An access road 4.2 miles from the existing paved road will be required as shown on EXHIBIT "E<sub>1</sub>".
- (d) Not available
- (e) This is an exploration well. All existing roads within a two-mile radius are shown on EXHIBIT "E".
- (f) The existing roads need improvement. Maintenance of location site will be performed as required.

2. Planned Access Roads

- (a) Access will be via an existing seismic trail for 3.9 miles. Approximately 0.3 mile of new road will be required to reach location from seismic trail. See EXHIBIT "E<sub>1</sub>".
- (b) Appropriate water bars will be constructed to assure drainage off location to conform with the natural drainage pattern.
- (c) No culverts will be used unless production is established.
- (d) Surfacing material will be native soil.
- (e) No gates, cattle guards, or fence cuts are needed.
- (f) The access to location have been staked and centerline is flagged as shown on EXHIBIT "E<sub>1</sub>".
- (g) The existing seismic trail goes off Southland's lease as shown on EXHIBIT "E<sub>1</sub>"-approximately 2.5 miles of road is off our lease.

EXHIBIT "A"

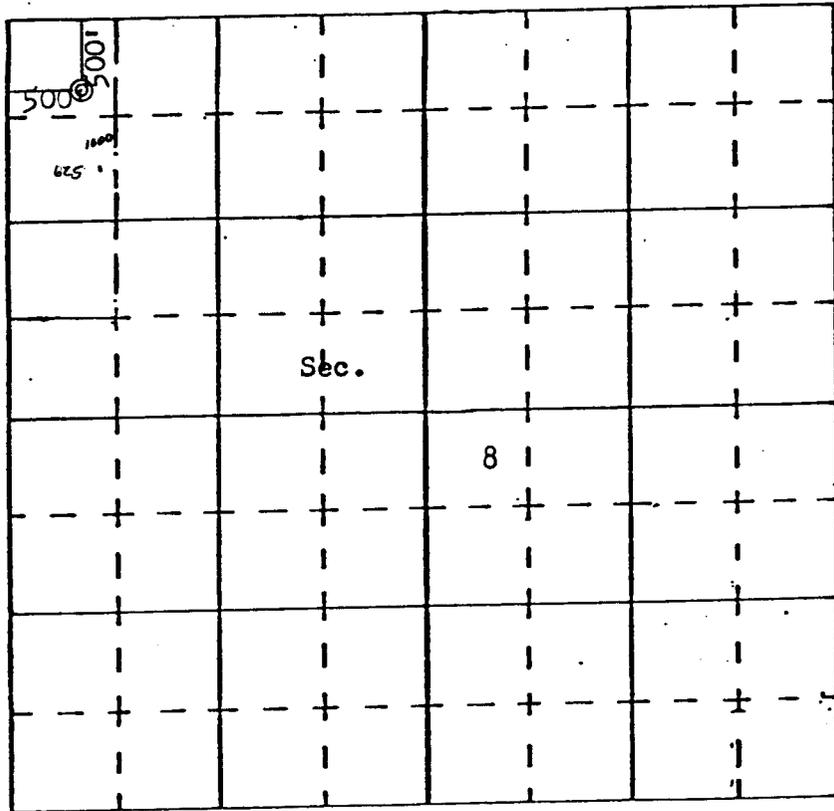
COMPANY SOUTHLAND ROYALTY COMPANY

LEASE HOG CANYON WELL NO. 1

SEC. 8 T 33S R 13E  
GARFIELD COUNTY, UTAH

LOCATION 500'FNL 500'FWL

ELEVATION 5063 ungraded ground



SCALE—4 INCHES EQUALS 1 MILE

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

*Fred B. Kerr Jr.*  
Fred B. Kerr Jr.

SEAL: Registered Land Surveyor.  
#3950

SURVEYED March 1 1980

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A. P. D.

Attached to Form 9-331C

Southland Royalty Company  
#1 Hog Canyon  
500' FNL & 500' FWL, Section 8, T33S, R13E  
Garfield County, Utah

1. Existing Roads

- (a) The proposed well site and elevation plat is shown as EXHIBIT "A".
- (b) The distance from Hanksville, Utah is 32 miles southeast on Highway 95 and 276. Refer to EXHIBIT "E" and EXHIBIT "E<sub>1</sub>".
- (c) All roads are color-coded into location. An access road 4.2 miles from the existing paved road will be required as shown on EXHIBIT "E<sub>1</sub>".
- (d) Not available
- (e) This is an exploration well. All existing roads within a two-mile radius are shown on EXHIBIT "E".
- (f) The existing roads need improvement. Maintenance of location site will be performed as required.

2. Planned Access Roads

- (a) Access will be via an existing seismic trail for 3.9 miles. Approximately 0.3 mile of new road will be required to reach location from seismic trail. See EXHIBIT "E<sub>1</sub>".
- (b) Appropriate water bars will be constructed to assure drainage off location to conform with the natural drainage pattern.
- (c) No culverts will be used unless production is established.
- (d) Surfacing material will be native soil.
- (e) No gates, cattle guards, or fence cuts are needed.
- (f) The access to location have been staked and centerline is flagged as shown on EXHIBIT "E<sub>1</sub>".

3. Location of Existing Wells

For all existing wells within a two mile radius of this exploration well, see EXHIBIT "E<sub>1</sub>".

- (a) There are no water wells within a two mile radius of this location.
- (b) There are no abandoned wells within a two mile radius of this location.
- (c) There are no temporarily abandoned wells within a two mile radius of this location.
- (d) There are no disposal wells within a two mile radius of this location.
- (e) There are no wells presently being drilled within a two mile radius of this location.
- (f) There are no producing wells within a two mile radius of this location.
- (g) There are no shut-in wells within a two mile radius of this location.
- (h) There are no injection wells within a two mile radius of this location.
- (i) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

- (a) Within a one mile radius of location the following existing facilities are owned or controlled by lessee/operator:
  - (1) Tank Batteries: None
  - (2) Production Facilities: None
  - (3) Oil Gathering Lines: None
  - (4) Gas Gathering Lines: None
  - (5) Injection Lines: None
  - (6) Disposal Lines: None

- (b) If production is obtained, new facilities will be as follows:
- (1) Production facilities will be located on solid ground of cut area of drill pad, as shown on EXHIBIT "F".
  - (2) All well flow lines will be buried and will be on the well site and production site.
  - (3) Facilities will be 300 feet long and 150 feet wide.
  - (4) All construction materials for oil storage site and pad will be obtained from site. No additional material from outside sources is anticipated.
  - (5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.
- (c) Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with the restoration plans presented in Item #10 following.

5. Location and type of Water Supply

- (a) The source of water will be Lake Powell, North Wash Access as shown on EXHIBIT "E".
- (b) Water will be transported by truck over existing roadways.
- (c) No water well is to be drilled on this lease.

6. Construction Materials

- (a) No construction materials are needed for drilling and access roads into the drilling location unless production is obtained. The surface soil materials will be sufficient or will be purchased from the dirt contractor as needed.
- (b) No construction materials will be taken off this Federal land.
- (c) All surface soil materials for construction of access roads are sufficient.
- (d) All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

- (a) Drill cuttings will be buried in the reserve pit and covered.
- (b) Drilling fluids will be handled in the reserve pit.
- (c) Any fluids produced during drilling test or while making production test will be collected in a test tank. If a test tank is not available during testing, fluids will be handled in reserve pit. Any spills of oil, gas, salt waters or noxious fluids will be cleaned up and removed.
- (d) Chemical facilities will be provided for human waste.
- (e) Garbage and non-flammable waste and salts and other chemicals produced during drilling or testing will be handled in trash pits. Flammable waste will be disposed of in burn pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on EXHIBIT "F".
- (f) After the rig moves out, all materials will be cleaned out and no adverse materials will be left on location. Any dangerous open pit will be fenced during drilling and kept closed until such time as the pit is leveled. Reserve pit will be fenced on three sides and the fourth side fenced upon removal of the rig. The trash and or burn pit will be totally enclosed with small mesh wire.

8. Ancillary Facilities

No airstrip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

- (a) EXHIBIT "F" is the Drill Pad Layout as staked, with elevations, by Kerr Land Survey of Farmington, New Mexico. Cuts and fills have been drafted to visualize the planned cut across the location spot and to the deepest part of the pad. Topsoil will be stockpiled per BLM specifications determined at time of pre-drill inspection.
- (b) EXHIBIT "F" is a plan diagram of the proposed rig and equipment, reserve pit, burn and trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be trailers on site.

- (c) EXHIBIT "F" includes a diagram showing the proposed production facilities layout.
- (d) The reserve pits will be lined if necessary. Steel mud tanks will be used during drilling operations.

10. Plans for Restoration

The location will be rehabilitated according to BLM specifications as soon as drilling operations are concluded.

11. Other Information

- (a) The soil is blow sand, with sparse scrub vegetation. Topography is rolling dunes dipping into the north. Primary wildlife is rabbits and coyotes.
- (b) The primary surface use is for grazing. The surface is owned by U. S. Government.
- (c) The closest live water is Lake Powell at Northwash, 5 miles south-east from location, as shown on EXHIBIT "E". The closest occupied dwellings are Trachyte Ranch, 4.5 miles west of location as shown on EXHIBIT "E". There are no known archaeological, historical or cultural heritages that will be disturbed by this drilling.
- (d) There are no reported restrictions or reservations noted on the oil and gas lease.
- (e) Drilling is planned for on or about April 10, 1980. It is anticipated that the casing point will be reached within 35 days after commencement of drilling.

12. Lessee's or Operator's Representative

L. O. Van Ryan  
Southland Royalty Company  
P. O. Drawer 570  
Farmington, NM 87401  
(505) 325-1841

13. Certification

See next page.

EXHIBIT "G"

REHABILITATION PLAN

Lease No: U38771 ; Well Name & No: HOG CANYON #1  
Location: 500' FNL & 500' FWL, Sec. 8, T 33S, R 13E

Southland Royalty Company intends to drill a well on surface owned by U. S. Government. The lessee/operator agrees to complete the following rehabilitation work if the well is a producer:

- Yes       No      Maintain access road and provide adequate drainage to road.
- Yes       No      Reshape and reseed any area not needed for maintenance of the pump and support facilities.

Other requirements: \_\_\_\_\_

The following work will be completed when the well is abandoned:

- Yes       No      Pit will be fenced until dry, then filled to conform to surrounding topography.
- Yes       No      Water bars will be constructed as deemed necessary.
- Yes       No      Site will require reshaping to conform to surrounding topography.
- Yes       No      Entire disturbed area will be reseeded. If yes, the following seed mixture will be used:  
As per BLM specifications
- Yes       No      Access road will be closed, rehabilitated and reseeded using the same seed mixture as above.
- Yes       No      Access road will remain for surface owner's use.
- Yes       No      Water bars will be constructed on the access road as deemed necessary.

Other requirements: \_\_\_\_\_

Surface Owner:

Name: BLM Henry Mountain Resource Area  
Address: P. O. Box 99  
City: Hanksville  
State: Utah 84734  
Telephone: \_\_\_\_\_  
Date: \_\_\_\_\_

Operator/Lessee

Name: Southland Royalty Company  
Address: P. O. Drawer 570  
City: Farmington  
State: New Mexico 87401  
Telephone: (505) 325-1841  
Date: 3-19-80

I CERTIFY rehabilitation has been discussed with me, the surface owner:

\_\_\_\_\_  
(Surface Owner's Signature)

This plan covers rehabilitation requirements only and does not affect any other agreements between the lessee/operator and surface owner.



HOG CANYON #1  
EXHIBIT "E"  
ACCESS ROAD INTO LOCATION

SOUTHLAND ROYALTY COMPANY  
#1 HOG CANYON  
NW/NW, Section 8, T33S, R13E  
Garfield County, Utah

WATER SUPPLY  
CLOSEST LIVE WATER

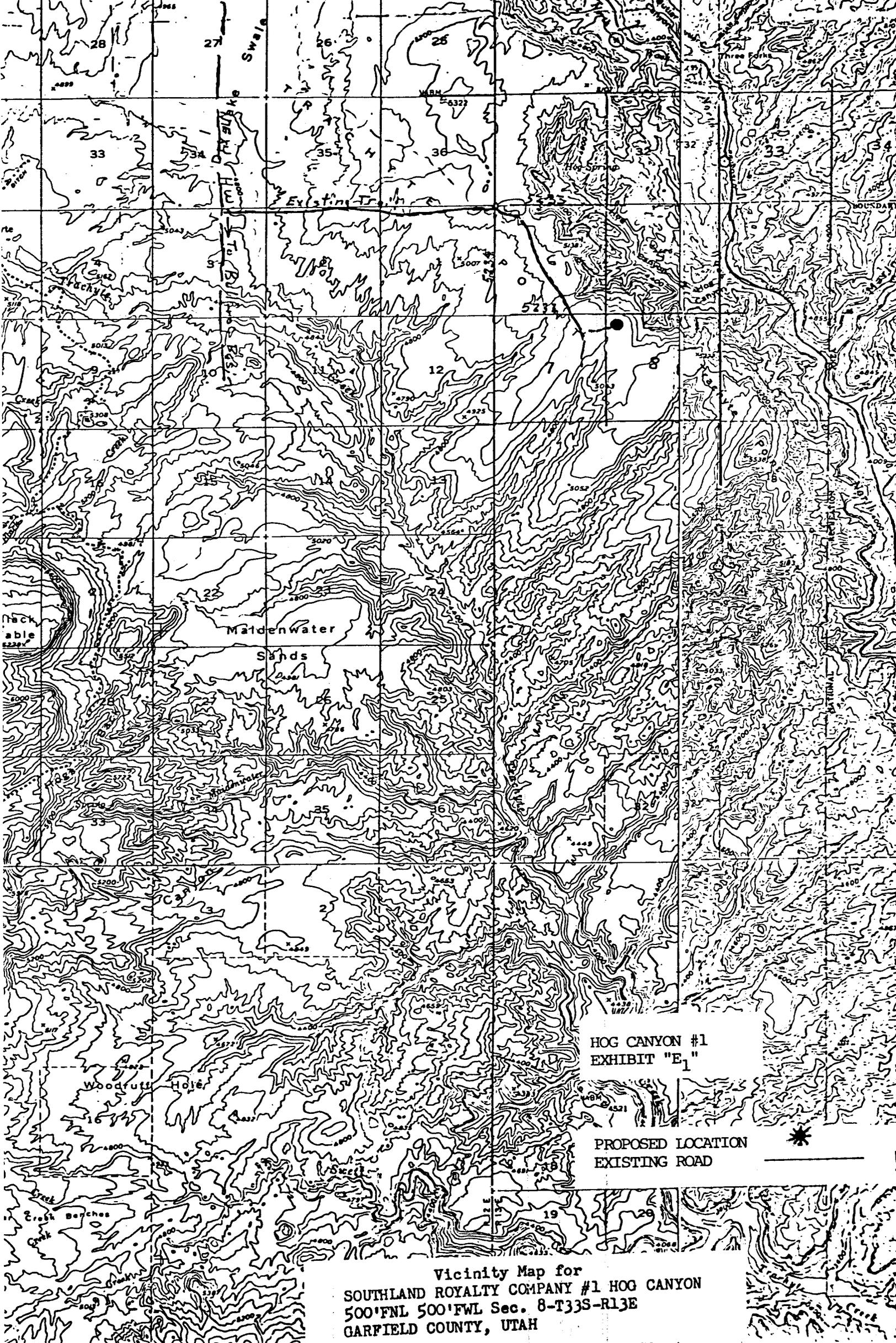
LEGEND

- OIL ROAD ———
- GRAVEL ROAD - - -
- EXISTING ROAD ———
- NEW ACCESS ROAD .....

MT. HILLERS QUADRANGLE  
UTAH-GARFIELD CO.  
15 MINUTE SERIES (TOPOGRAPHIC)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

2280000 FEET 1:45000



Vicinity Map for  
SOUTHLAND ROYALTY COMPANY #1 HOG CANYON  
500'FNL 500'FWL Sec. 8-T33S-R13E  
GARFIELD COUNTY, UTAH



EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM OF NTL-6 APPROVAL OF OPERATIONS

Attached to form 9-331C

Southland Royalty Company  
#1 Hog Canyon  
500' FNL & 500' FWL, Section 8, T33S, R13E  
Garfield County, Utah

1. The Geological Surface Formation

The surface formation is Carmel.

2. The Estimated Tops of Important Geologic Markers

Navajo	65'	Organ Rock	2430'	Pink Trail	5070'
Kayenta	695'	Cedar Mesa	2630'	Molas	5370'
Wingate	910'	Ele Canyon	3450'	Mississippian	5470'
Chinle	1260'	Pennsylvanian	3925'	Ouray	6170'
Moenkopi	1630'	Ismay	4425'	Elbert	6270'
White Rim	2030'	Paradox	4595'	Total Depth	6400'

3. Estimated Depth of Anticipated Water, Oil, Gas or Minerals

Pennsylvanian                      3925'                      Oil and Gas

4. The Proposed Casing Program

- (a) Surface Casing: Set 13 3/8", new, H-40, 48#, ST & C at 200' in 17 1/2" surface hole; cement with 235 sacks of Class "B" with 3% CaCl<sub>2</sub> (100% excess to circulate cement to surface).
- (b) Intermediate Casing: Set 9 5/8", new, K-55, 36#, ST & C at 2460' in 12 1/4" hole; cement with 325 sacks of 50/50 Poz Class "B" cement with 6% gel. Tail in with 70 sacks of Class "B" cement with 2% CaCl<sub>2</sub> (50% excess to cover Chinle).
- (c) Production Casing: Set 5 1/2", new, 15.5#, ST & C at 6400' in 7 7/8" hole; cement with 275 sacks of 50/50 Poz Class "B" cement with 6% gel and .6% Halad 9 and 1/4# gel flake per sack. Tail in with 200 sacks of Class "B" with 2% CaCl<sub>2</sub> (50% excess to cover Pennsylvanian).

5. The Operator's Minimum Specifications for the Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP will be hydraulically tested to 1000 psi prior to drilling surface casing and intermediate casing plugs. Pipe rams will be operationally checked each 24 hour period, as well blind rams on annular preventer each time pipe is pulled out of the hole. Such checks of the BOP will be noted on daily drilling reports.

Accessories to BOP will include an upper kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. The Type and Characteristics of the Proposed Circulating Muds

This well will be drilled to Total Depth with fresh water low solids mud. Mufflers will be installed on all exhaust systems. Other materials will be on site to handle any anticipated downhole problems as well as possible spills of fluid on the surface.

7. The Auxiliary Equipment to be Used

- (a) A kelly cock will be kept in the string at all times.
- (b) A float will be used at the bit at all times.
- (c) A mud logging unit and gas detecting device will be monitoring the system from 1600' to Total Depth.
- (d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. The Testing, Logging and Coring Program to be Followed

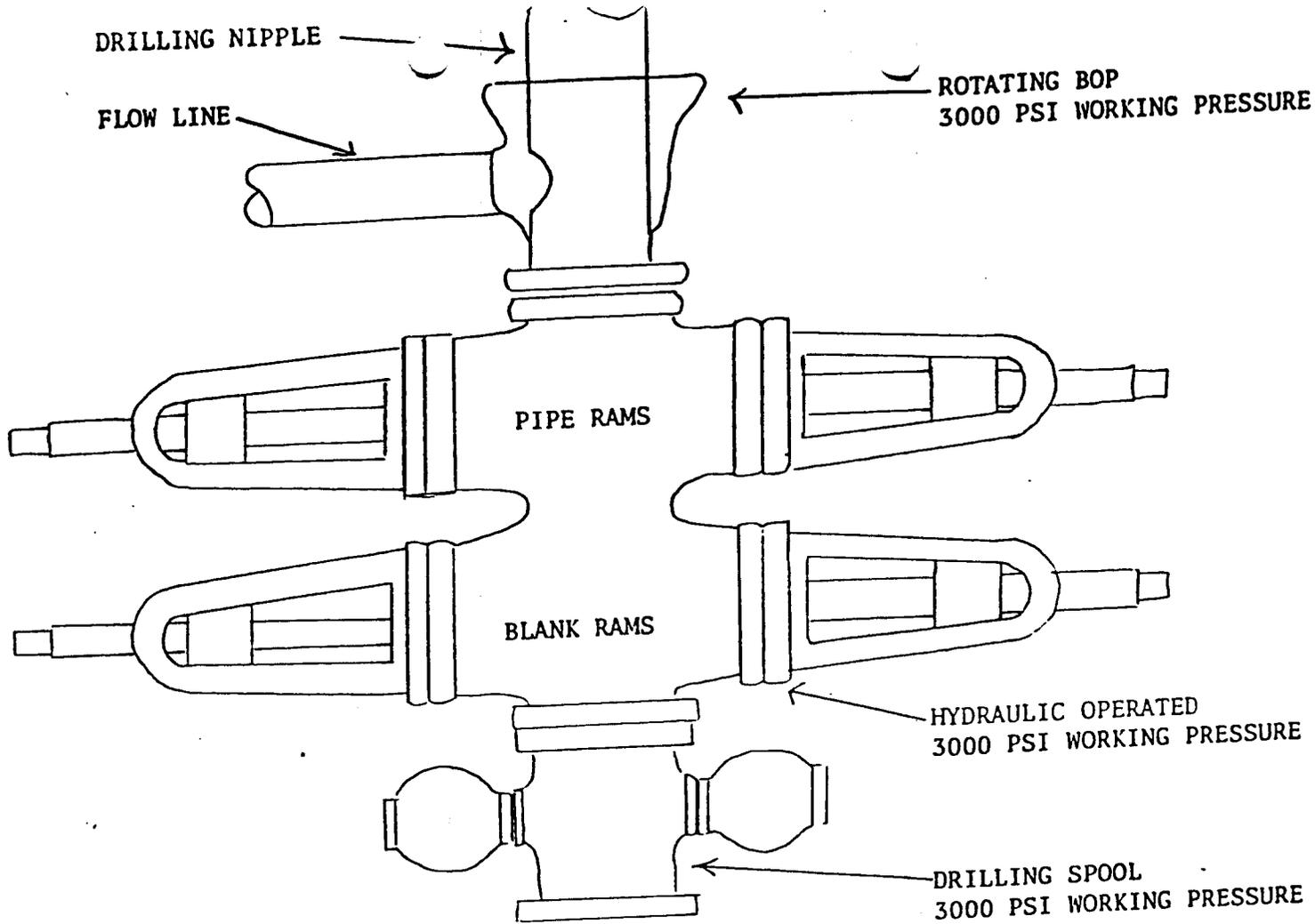
- (a) Four tests below 3900' are anticipated.
- (b) The logging program will consist of a GR Sonic, FDC/CNL with Caliper and a SP/DLL. Other logs will be determined at well site to best evaluate any shows.
- (c) 180' of selective coring in the Paradox formation is anticipated.
- (d) Completion procedure will be determined after evaluation of test, log and core data.

9. Any Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at these depths in the area. ✓

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for April 10, 1980 or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 35 days after spudding the well and drilling to casing point.



PREVENTERS AND SPOOLS ARE TO HAVE THROUGH BORE OF 6" - 3000 PSI OR LARGER

HOG CANYON #1  
EXHIBIT "C"  
BLOWOUT PREVENTER DIAGRAM

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A. P. D.

Attached to Form 9-331C

Southland Royalty Company  
#1 Hog Canyon  
500' FNL & 500' FWL, Section 8, T33S, R13E  
Garfield County, Utah

1. Existing Roads

- (a) The proposed well site and elevation plat is shown as EXHIBIT "A".
- (b) The distance from Hanksville, Utah is 32 miles southeast on Highway 95 and 276. Refer to EXHIBIT "E" and EXHIBIT "E<sub>1</sub>".
- (c) All roads are color-coded into location. An access road 4.2 miles from the existing paved road will be required as shown on EXHIBIT "E<sub>1</sub>".
- (d) Not available
- (e) This is an exploration well. All existing roads within a two-mile radius are shown on EXHIBIT "E".
- (f) The existing roads need improvement. Maintenance of location site will be performed as required.

2. Planned Access Roads

- (a) Access will be via an existing seismic trail for 3.9 miles. Approximately 0.3 mile of new road will be required to reach location from seismic trail. See EXHIBIT "E<sub>1</sub>".
- (b) Appropriate water bars will be constructed to assure drainage off location to conform with the natural drainage pattern.
- (c) No culverts will be used unless production is established.
- (d) Surfacing material will be native soil.
- (e) No gates, cattle guards, or fence cuts are needed.
- (f) The access to location have been staked and centerline is flagged as shown on EXHIBIT "E<sub>1</sub>".

3. Location of Existing Wells

For all existing wells within a two mile radius of this exploration well, see EXHIBIT "E<sub>1</sub>".

- (a) There are no water wells within a two mile radius of this location.
- (b) There are no abandoned wells within a two mile radius of this location.
- (c) There are no temporarily abandoned wells within a two mile radius of this location.
- (d) There are no disposal wells within a two mile radius of this location.
- (e) There are no wells presently being drilled within a two mile radius of this location.
- (f) There are no producing wells within a two mile radius of this location.
- (g) There are no shut-in wells within a two mile radius of this location.
- (h) There are no injection wells within a two mile radius of this location.
- (i) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

- (a) Within a one mile radius of location the following existing facilities are owned or controlled by lessee/operator:
  - (1) Tank Batteries: None
  - (2) Production Facilities: None
  - (3) Oil Gathering Lines: None
  - (4) Gas Gathering Lines: None
  - (5) Injection Lines: None
  - (6) Disposal Lines: None

- (b) If production is obtained, new facilities will be as follows:
- (1) Production facilities will be located on solid ground of cut area of drill pad, as shown on EXHIBIT "F".
  - (2) All well flow lines will be buried and will be on the well site and production site.
  - (3) Facilities will be 300 feet long and 150 feet wide.
  - (4) All construction materials for oil storage site and pad will be obtained from site. No additional material from outside sources is anticipated.
  - (5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.
- (c) Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with the restoration plans presented in Item #10 following.

5. Location and type of Water Supply

- (a) The source of water will be Lake Powell, North Wash Access as shown on EXHIBIT "E".
- (b) Water will be transported by truck over existing roadways.
- (c) No water well is to be drilled on this lease.

6. Construction Materials

- (a) No construction materials are needed for drilling and access roads into the drilling location unless production is obtained. The surface soil materials will be sufficient or will be purchased from the dirt contractor as needed.
- (b) No construction materials will be taken off this Federal land.
- (c) All surface soil materials for construction of access roads are sufficient.
- (d) All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

- (a) Drill cuttings will be buried in the reserve pit and covered.
- (b) Drilling fluids will be handled in the reserve pit.
- (c) Any fluids produced during drilling test or while making production test will be collected in a test tank. If a test tank is not available during testing, fluids will be handled in reserve pit. Any spills of oil, gas, salt waters or noxious fluids will be cleaned up and removed.
- (d) Chemical facilities will be provided for human waste.
- (e) Garbage and non-flammable waste and salts and other chemicals produced during drilling or testing will be handled in trash pits. Flammable waste will be disposed of in burn pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on EXHIBIT "F".
- (f) After the rig moves out, all materials will be cleaned out and no adverse materials will be left on location. Any dangerous open pit will be fenced during drilling and kept closed until such time as the pit is leveled. Reserve pit will be fenced on three sides and the fourth side fenced upon removal of the rig. The trash and or burn pit will be totally enclosed with small mesh wire.

8. Ancillary Facilities

No airstrip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

- (a) EXHIBIT "F" is the Drill Pad Layout as staked, with elevations, by Kerr Land Survey of Farmington, New Mexico. Cuts and fills have been drafted to visualize the planned cut across the location spot and to the deepest part of the pad. Topsoil will be stockpiled per BLM specifications determined at time of pre-drill inspection.
- (b) EXHIBIT "F" is a plan diagram of the proposed rig and equipment, reserve pit, burn and trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be trailers on site.

- (c) EXHIBIT "F" includes a diagram showing the proposed production facilities layout.
- (d) The reserve pits will be lined if necessary. Steel mud tanks will be used during drilling operations.

10. Plans for Restoration

The location will be rehabilitated according to BLM specifications as soon as drilling operations are concluded.

11. Other Information

- (a) The soil is blow sand, with sparse scrub vegetation. Topography is rolling dunes dipping into the north. Primary wildlife is rabbits and coyotes.
- (b) The primary surface use is for grazing. The surface is owned by U. S. Government.
- (c) The closest live water is Lake Powell at Northwash, 5 miles south-east from location, as shown on EXHIBIT "E". The closest occupied dwellings are Trachyte Ranch, 4.5 miles west of location as shown on EXHIBIT "E". There are no known archaeological, historical or cultural heritages that will be disturbed by this drilling.
- (d) There are no reported restrictions or reservations noted on the oil and gas lease.
- (e) Drilling is planned for on or about April 10, 1980. It is anticipated that the casing point will be reached within 35 days after commencement of drilling.

12. Lessee's or Operator's Representative

L. O. Van Ryan  
Southland Royalty Company  
P. O. Drawer 570  
Farmington, NM 87401  
(505) 325-1841

13. Certification

See next page.



EXHIBIT "G"

REHABILITATION PLAN

Lease No: U38771 ; Well Name & No: HOG CANYON #1  
Location: 500' FNL & 500' FWL , Sec. 8 , T 33S , R 13E

Southland Royalty Company intends to drill a well on surface owned by U. S. Government. The lessee/operator agrees to complete the following rehabilitation work if the well is a producer:

- Yes       No      Maintain access road and provide adequate drainage to road.
- Yes       No      Reshape and reseed any area not needed for maintenance of the pump and support facilities.

Other requirements: \_\_\_\_\_

The following work will be completed when the well is abandoned:

- Yes       No      Pit will be fenced until dry, then filled to conform to surrounding topography.
- Yes       No      Water bars will be constructed as deemed necessary.
- Yes       No      Site will require reshaping to conform to surrounding topography.
- Yes       No      Entire disturbed area will be reseeded. If yes, the following seed mixture will be used:  
As per BLM specifications
- Yes       No      Access road will be closed, rehabilitated and reseeded using the same seed mixture as above.
- Yes       No      Access road will remain for surface owner's use.
- Yes       No      Water bars will be constructed on the access road as deemed necessary.

Other requirements: \_\_\_\_\_

Surface Owner:  
 Name: BLM Henry Mountain Resource Area  
 Address: P. O. Box 99  
 City: Hanksville  
 State: Utah 84734  
 Telephone: \_\_\_\_\_  
 Date: \_\_\_\_\_

Operator/Lessee  
 Name: Southland Royalty Company  
 Address: P. O. Drawer 570  
 City: Farmington  
 State: New Mexico 87401  
 Telephone: (505) 325-1841  
 Date: 3-19-80

I CERTIFY rehabilitation has been discussed with me, the surface owner:

\_\_\_\_\_  
(Surface Owner's Signature)

This plan covers rehabilitation requirements only and does not affect any other agreements between the lessee/operator and surface owner.

Oil and Gas Drilling

EA #334-80

United States Department of the Interior  
Geological Survey  
2000 Administration Bldg.  
1745 West 1700 South  
Salt Lake City, Utah 84104

USUAL ENVIRONMENTAL ASSESSMENT

Date 6-6-80

Operator: SouthLand Royalty Co. Project or Well Name and No. 1 Hog Canyon  
Location : 1000' FNL & 625' FWL Section: 8 Township: 33 S. Range: 13 E.  
County. Garfield State: Utah Field/Unit: Wildcat  
Lease No. U-38771 Permit No. N/A  
Joint Field Inspection Date. 4-29-80

Prepared By George Diwachak & Craig Hansen

Field Inspection Participants, Titles and Organizations.

Craig Hansen USGS-Vernal  
Ronald Sutton USPS-Hite  
Lynn Jackson BLM-Hanksville  
Larry Geahart BLM-Hanksville  
Bob Fielder SouthLand Royalty Co.  
Gaylen States Veco Drilling Co.

Related Environmental Documents.

sk  
6-19-80

*Admin Council?*  
*PGS 175 x 300*  
*87 100 Vior*  
*3/10 mi x 20' new ocean*  
*x 3/10 mi x 20' at 1/2 mi SW*  
*13 ac*  
*x 0.25 mi x 20' - Road on SW*  
*Could be 1/2 7*  
*1-10*



The following elements of the proposed action would/could result in environmental impacts:

1. A drill pad 175' wide x 301' long and a reserve pit 100' x 100' would be constructed. Approximately 0.3 mile of new access road averaging 18' driving surface, would be constructed and approximately 3.9 miles of existing seismic trail would be reconstructed to 18' driving surface from a maintained road. About 13 acres of disturbed surface would be associated with the project. Maximum disturbed width of access road would be limited to 24'

Approximately 4 miles of the Seismic trail to be upgraded lies outside the lease boundary (see oil and gas plat with APD, lease U-38771 encompasses sections 1, 7, 8, and 21 of T 33S, R13E and not Sec 6 as assumed in APD, Temporary Use Permit request and BLM letter of Surface Protection Stipulations). Since extensive trail upgrading is necessary, all road construction from Utah State Highway 276 should meet the specifications outlined in Item 2 of the 13-Point Surface Use plan of the APD and any USGS and BLM recommended road requirements.

2. Drilling
3. Waste disposal A trash cage would be used for solid wastes and removed to an appropriate dump site.
4. Traffic
5. Water requirements-Water for drilling would be obtained from North Wash Access of Lake Powell. A State of Utah water use permit is necessary.
6. Completion
7. Production Facilities were not detailed in the APD and cannot be approved with the limited information available.
8. Transportation of hydrocarbons was not requested with the APD.

Details of the proposed action are described in the Application for Permit to Drill.

The location was moved to avoid an archaeological site. See attached BLM letter dated June 2, 1980.

#### Environmental Considerations of the Proposed Action.

Regional Setting/Topography. The location is within the Burr Desert on a flat sandy ridge with steep cliffs to the East of the location. Access traverses similar terrain with no excessive grades present.

## PARAMETER

## A. Geology

1. Other Local Mineral Resources to be Protected. Geothermal resources may be present in the area.

Information Source: Mineral Evaluation Report.

2. Hazards:

- a. Land Stability: The area is unstable due to drifting sands. Removal of sand to bedrock for location placement would stabilize the pad area.

Information Source. Field observation.

- b. Subsidence None anticipated.

Information Source APD, Field observation.

- c. Seismicity. The wellsite is in an area of moderate seismic risk. The operating plan does not account for this.

Information Source "Geologic Atlas of the Rocky Mountain Region." APD.

- d. High Pressure Zones/Blowout Prevention. None expected.

Information Source: Mineral Evaluation Report, APD.

B. Soils:

1. Soil Character: Area soils are well mixed wind blown sand and clay eroded from the Carmel Formation.

Information Source: Field observation.

2. Erosion/Sedimentation: Erosion would increase with vegetation removal. Proper construction of access road (drainage design) and drill pad would reduce impacts. Drainage/sedimentation is to Lake Powell.

Information Source. Field observation.

- C. Air Quality: The location is in a Class II attainment area. Air quality would decrease temporarily from vehicle and equipment emissions and fugitive dust from travel over unpaved roads.

Information Source: Utah State Dept. of Health.

- D. Noise Levels: Ambient noise would increase temporarily from equipment and vehicle operations distracting wildlife primarily in a distributional sense.

Information Source: Field observation.

E. Water Resources1. Hydrologic Character

a. Surface Waters: The area drains via sheet erosion to North Canyon and eventually to Lake Powell about 5 miles Southeast of the location. Water for drilling would be obtained from Lake Powell. A State of Utah Water Use Permit is necessary.

Information Source: Field observation.

b. Ground Waters: Useable groundwater could be found in the Moenkopi and White Rim Formations. Deeper units may contain saline water. The Wingate and Cedar Mesa Formations are potential fresh water aquifers. The proposed casing program may require adjustments to protect fresh water aquifers and prevent commingling of aquifers.

Information Source Mineral Evaluation Report, APD.

2. Water Quality

a. Surface Waters There are no perennial surface waters nearby. Although slight, the potential for a spill of oil, water, drilling fluids, etc. reaching Lake Powell is possible. Lining the reserve pit to insure fluid retention would reduce risk.

Information Source: Field observation.

b. Ground Waters: Contamination of ground waters from the introduction of drilling fluids is possible. Potential freshwater aquifers in the Wingate and Cedar Mesa Formations could be contaminated by saline aquifers. An additional 85-90 sacks of cement circulated in the intermediate casing string would protect the Wingate Formation provided no lost circulation zones are encountered. Adequate logging to determine potential fresh water in the Cedar Mesa Formation would identify so that proper cementing and casing would be accomplished.

Information Source. Field observation. Mineral Evaluation Report.

F. Flora and Fauna1. Endangered and Threatened Species Determination

Based on the informal comments received from BLM on April, we determine that there would be no effect on endangered and threatened species and their critical habitat.

2. Flora: Blackbrush, hyja, opuntia, Indian rice grass, galleta grass, yucca, shrub oak, and cacti vegetate the area. Vegetation would be removed from pad and road area requiring revegetation upon completion /abandonment.

Information Source: BLM, Field observation.

3. Fauna: Deer, antelope, reptiles, birds, raptors and rodents inhabit the area.

Information Source: Field observation.

G. Land Uses

1. General: Grazing and recreation are primary land users of area and would be impacted slightly by drilling.

Information Source. BLM, Field observation.

2. Affected Floodplains and/or Wetlands: Not applicable.

Information Source: Field observation.

3. Roadless/Wilderness Area. The location is within a Wilderness Study Area that has been released by the BLM, Hanksville, Utah.

Information Source: BLM.

H. Aesthetics: The operation does not blend in with area surroundings and would present a visual intrusion until rehabilitation is completed. Painting any permanent equipment a color to blend with the surroundings would reduce visual impacts.

Information Source: Field observation.

I. Socioeconomics. Insignificant impacts from an individual well.

Information Source: Field observation.

J. Cultural Resources Determination: Based on the Formal comments received from BLM on June 2, 1980, we determine that there would be no effect on cultural resources.

Information Source: BLM

K. Other: None.

Information Source.

L. Adequacy of Restoration Plans: The restoration plan meets the minimum requirements of NTL-6. Additional rehabilitation recommendations have been supplied by the BLM.

Information Source: APD, Field observation, BLM.

Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.
2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

Adverse Environmental Effects:

1. If approved as proposed:
  - a. About 13 acres of vegetation would be removed, increasing and accelerating erosion potential.
  - b. Pollution of groundwater systems could occur with the introduction of drilling fluids into the aquifer(s). The potential for interaquifer leakage and lost circulation is ever-present, depending on the casing program.
  - c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.
  - d. The potential for fires, leaks, spills of gas and oil or water exists.
  - e. During construction and drilling phases of the operation, noise and dust levels would increase.
  - f. Distractions from aesthetics during the lifetime of the project would exist.
  - g. Erosion from the site would eventually be carried as sediment in Lake Powell. The potential for pollution to Lake Powell and North Wash would exist through leaks and spills.
  - h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.

## 2. Conditional Approval:

All adverse impacts described in section one above would occur, except:

- a. Painting permanent equipment a color to blend with the natural surroundings would reduce visual impacts.
- b. Adequate road design and pit lining would reduce erosion and spill potential.
- c. Adjustments to the casing/cementing program would protect potential fresh water aquifers.
- d. Utilization of a trash cage instead of a trash pit would reduce fire hazard and avoid burial of containments.
- e. Restricting off road travel would reduce safety hazards.

Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

1. See attached Lease Stipulations. *None*
2. See attached BLM Stipulations.
3. The reserve pit will be lined with an impervious material to insure fluid retention.
4. No off road travel off the access road or drill site will be permitted.
5. A State of Utah Water Use Permit is necessary prior to drilling.  
*Southland has contract with Bureau of Reclamation for 500,000 gal of water*
6. A trash cage, rather than a pit will be used at the site and all refuse will be hauled to an appropriate sanitary landfill.
7. The upgrading of 3.9 miles of seismic trail will follow the specifications outlined in Item #2 of the 13-Point Surface Use Plan.
8. Low water crossings will be used to cross all washed and gullies on the access road. No fill material is to be deposited in the crossings.
9. An additional 85 sacks of cement will be used while cementing the intermediate casing string to cement above the Wingate Formation which may contain Fresh Water aquifers.
10. Since fresh water is possible in the Cedar Mesa Formation, logging should include this Formation. If fresh water is present the aquifer must be cased off and cemented.

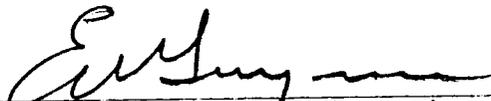
Controversial Issues and Conservation Division Response:

None.

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination:

I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102 (2)(C).

  
DISTRICT ENGINEER  
Signature & Title of Approving Official

JUN 23 1980  
Date



South end #, Hog Canyon.  
Looking north.

FROM: : DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH

*Glenn*

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-38771

OPERATOR: Southland Royalty Co.

WELL NO. 1

LOCATION: NW 1/4 NW 1/4 NW 1/4 sec. 8, T. 33 S., R. 13 E., S.L.M.

Garfield County, Utah

1. Stratigraphy: Operator tops appear reasonable

Formation	Surface	Depth (ft)
Carmel		
Moenkopi	1630	(+3433)
White Rim	2030	(+3033)
Pennsylvanian	3925	(+1138)
Paradox	4575	(+468)
Mississippian	5470	(-207)
Elbert	6270	(-1007)
TD	6400	(-1137)

2. Fresh Water:

Water report 12 miles north (Twp 31 S., 13 E.) reports useable water in Sinbad Ls (of Moenkopi Fm) and in Cutler Fm. (White Rim ss). Deeper units (Hermosa Fm & Molas Fm) contain more saline water.

3. Leasable Minerals: Wingate & Cedar mesa are potential Freshwater aquifers.

4. Additional Logs Needed: Adequate

5. Potential Geologic Hazards: None anticipated

6. References and Remarks: Warm Spring Canyon Geothermal KGS lies less than 6 miles to So-East

Signature: Gregory W Wood

Date: 4-5-80

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Southland Royalty Company

WELL NAME: Hog Canyon #1

SECTION 8 NW NW TOWNSHIP 33S RANGE 13E COUNTY Garfield

DRILLING CONTRACTOR Veco Drilling

RIG # 3

SPUDED: DATE 8/8/80

TIME 5:00 p.m.

HOW rotary

DRILLING WILL COMMENCE ASAP

REPORTED BY Esther Greveyes

TELEPHONE # 505-325-1841

DATE August 11, 1980

SIGNED *M. J. M.*

cc: USGS

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  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1000' FNL & 625' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

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)		<u>Spud and Casing Rpts</u>	<input checked="" type="checkbox"/>

5. LEASE  
U-38771

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Hog Canyon

9. WELL NO.  
1

10. FIELD OR WILDCAT NAME  
Unnamed Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 8, T33S, R13E

12. COUNTY OR PARISH  
Garfield

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5075' GR

(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.)\*

8/08/80 Spudded 17-1/2" surface hole at 5:00 P.M. on 8-08-80.

8/09/80 Drilled 17-1/2" surface hole to 250'. Ran 6 joints (232') of 13-3/8", 48#, H-40 casing set at 242'. Cemented with 250 sacks of Class "B" with 3% CaCl<sub>2</sub>. Plug down at 10:15 P.M. 8-09-80. Circulated cement to surface.



Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED [Signature] TITLE Dist. Prod. Mgr. DATE August 11, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**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  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1000' FNL & 625' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

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

5. LEASE  
U-38771

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Hog Canyon

9. WELL NO.  
1

10. FIELD OR WILDCAT NAME  
Unnamed Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 8, T33S, R13E

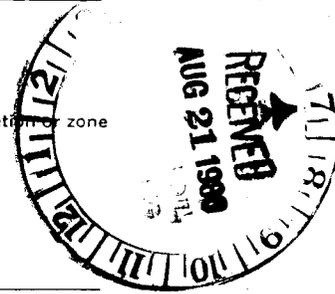
12. COUNTY OR PARISH    13. STATE  
Garfield                      Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

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) <u>Casing Report</u>		<u>X</u>

(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.)\*

8/17/80    Ran 54 joints (2378') of 9-5/8", 36#, K-55 casing set at 2377'.  
Cemented with 325 sacks of Class "B" 50/50 Poz with 6% gel followed by 70 sacks of Class "B" with 2% CaCl<sub>2</sub>. Plug down at 7:30 P.M.  
8-17-80. Ran temperature survey - TOC @ 900'.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED [Signature] TITLE Dist. Prod. Mgr. DATE August 18, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
(FORM 9-329)  
(2/76)  
OMB 42-RO 356

MONTHLY REPORT  
OF  
OPERATIONS

Lease No. 46-03877  
Communitization Agreement No. \_\_\_\_\_  
Field Name Wildcat  
Unit Name \_\_\_\_\_  
Participating Area \_\_\_\_\_  
County Garfield State Utah  
Operator Southland Royalty Company  
 Amended Report Well Name Hog Canyon

The following is a correct report of operations and production (including status of all unplugged wells) for the month of August, 19 80

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
1	8 NWNW	33S	13E	DRG					Spudded Well August 8, 1980.  Drilling.

\*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	_____	_____	_____
*Sold	_____	_____	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	_____	XXXXXXXXXXXXXXXXXX
*Used on Lease	_____	_____	XXXXXXXXXXXXXXXXXX
*Injected	_____	_____	_____
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	_____
*Other (Identify)	_____	_____	_____
*On hand, End of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	_____	_____	XXXXXXXXXXXXXXXXXX

Authorized Signature: *[Signature]*  
Title: District Production Manager

Address: P.O. Drawer 570, Farmington, N.M. 87401

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  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, N.M. 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1000' FNL & 625' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

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

5. LEASE  
U-38771

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Hog Canyon

9. WELL NO.  
1 Hog Canyon #1

10. FIELD OR WILDCAT NAME  
Unnamed Field Wildest

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 8, T33S, R13E

12. COUNTY OR PARISH  
Garfield

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5075' GR



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) <u>Coring</u>		<input checked="" type="checkbox"/>

(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.)\*

- 9/03/80    Cored #1 from 4691'-4707', recovered 3' chert - rest crumbly no solid core.
- 9/04/80    Cored #2 from 4707'-4723', recovered 16'. Lost 200 barrels mud.
- 9/06/80    Cored #3 from 4723'-4743', recovered 20'.
- 9/07/80    Cored #4 from 4743'-4766', recovered 23'.
- 9/08/80    Cored #5 from 4766'-4784', recovered 17', 60% chert.
- 9/10/80    Cored #6 from 4784'-4841', recovered 57'.
- 9/11/80    Cored #7 from 4841'-4901', recovered 60'.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED R. E. Filder TITLE District Engineer DATE September 16, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**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 X Wildcat

2. NAME OF OPERATOR  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, New Mexico

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1000' FNL & 625' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

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)	<input type="checkbox"/>	<input 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.)\*

9/25/80 Plug #1 - 4310'-4100', cemented with 70 sacks  
 Plug #2 - 2477'-2272', cemented with 85 sacks in the 9-5/8" casing.  
 Plug #3 - 250'-142', cemented with 40 sacks in the 9-5/8" casing.  
 Plug #4 - 30'- surface, cemented with 10 sacks in the 9-5/8" casing.  
 Plug #5 - Cemented with 1" pipe from 13-3/8" X 9-5/8" annulus from 242' to 130' with 35 sacks.  
 Plug #6 - Cemented with 1" pipe from 13-3/8" X 9-5/8" annulus from 34' to surface with 10 sacks.  
 Cut off casing head.  
 Installed dry hole marker.  
 Location will be cleaned up at a later date.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED [Signature] TITLE Dist. Prod. Mgr. DATE September 26, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

5. LEASE  
U-38771

6. IF INDIAN, ALLOTTEE OR TRIBES NAME \_\_\_\_\_

7. UNIT AGREEMENT NAME \_\_\_\_\_

8. FARM OR LEASE NAME  
Hog Canyon

9. WELL NO.  
1

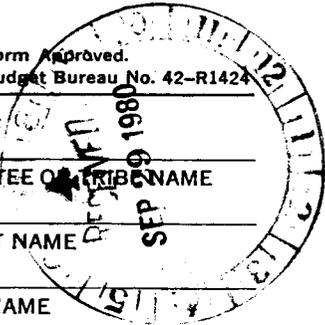
10. FIELD OR WILDCAT NAME  
Unnamed Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 8, T33S, R13E

12. COUNTY OR PARISH Garfield 13. STATE Utah

14. API NO. \_\_\_\_\_

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5075' GR



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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

(FORM 9-329)

(2/76)

OMB 42-RO 356

MONTHLY REPORT  
OF  
OPERATIONS

Lease No. 46-038771  
Communitization Agreement No. \_\_\_\_\_  
Field Name Wildcat  
Unit Name \_\_\_\_\_  
Participating Area \_\_\_\_\_  
County Garfield State Utah  
Operator Southland Royalty Company  
 Amended Report Well Name Hog Canyon

The following is a correct report of operations and production (including status of all unplugged wells) for the month of September, 19 80

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
1	8 NWNW	33S	13E	P&A					Installed Dry Hole Marker 09/25/80.

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OCT 22 1980  
DIVISION OF  
OIL, GAS & MINING

\*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	_____	_____	_____
*Sold	_____	_____	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	_____	XXXXXXXXXXXXXXXXXX
*Used on Lease	_____	_____	XXXXXXXXXXXXXXXXXX
*Injected	_____	_____	_____
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	_____
*Other (Identify)	_____	_____	_____
*On hand, End of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	_____	_____	XXXXXXXXXXXXXXXXXX

Authorized Signature: *[Signature]*  
Title: District Production Manager

Address: P.O. Drawer 570, Farmington, N.M. 87401  
Page One of One

September 29, 1981

Southland Royalty Company  
P.O. Drawer 570  
Farmington, NM 87401

Re: Well No. Hog Canyon #1  
Sec. 8, T. 33S, R. 13E  
Garfield 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, in 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

TERRI REID  
CLERK-TYPIST

Enclosure

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See instructions on reverse side)

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

4

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_  
 b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P. O. Drawer 570, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
 At surface 1000' FNL & 625' FWL *NWNN*  
 At top prod. interval reported below  
 At total depth

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5. LEASE DESIGNATION AND SERIAL NO.  
U-38771

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Hog Canyon

9. WELL NO.  
#1

10. FIELD AND POOL, OR WILDCAT  
Hog Canyon Field

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

Section 8, T38S, R13E  
 12. COUNTY OR PARISH  
Garfield  
 13. STATE  
Utah

14. PERMIT NO. 43-017-30081 | DATE ISSUED 3-27-80

15. DATE SPUDDED 8-8-80 | 16. DATE T.D. REACHED 9-21-80 | 17. DATE COMPL. (Ready to prod.) 9-25-80 | 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5075' GR | 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 6625' | 21. PLUG, BACK T.D., MD & TVD | 22. IF MULTIPLE COMPL., HOW MANY\* | 23. INTERVALS DRILLED BY | ROTARY TOOLS | CABLE TOOLS  
 → 0'-6625'

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
 No perforations

25. WAS DIRECTIONAL SURVEY MADE  
 Deviation

26. TYPE ELECTRIC AND OTHER LOGS RUN  
 DLL, BHC-Sonic, GR-CNL/FC, Micro, Dipmeter, Velocity Survey

27. WAS WELL CORED  
 Yes

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48#	242'	17 1/2"	250 sacks	
9 5/8"	36#	2377'	12 1/4"	395 sacks	

29. LINER RECORD | 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number) | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

31. No perforations

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	No Stimulation

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 No 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 *[Signature]* TITLE District Prod. Manager DATE 12-12-80

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





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

January 18, 1982

Southland Royalty Company  
P. O. Drawer 570,  
Farmington, New Mexico 87401

RE: Well No. Hog Canyon Unit #1  
Sec. 8, T. 33S, R. 13E  
Garfield County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office December 12, 1980, from above referred to well, indicates the following electric logs were run: DLL, BHC-Sonic, GR-CNL/FC, Micro, Dipmeter, Velocity Survey. As of today's date, this office has not received these logs: Micro, Velocity, Survey.

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

A handwritten signature in cursive script that reads "Cari Furse".

Cari Furse  
Clerk Typist



**Southland Royalty Company**

January 25, 1981

State of Utah  
Division of Oil, Gas and Mining  
Ms. Cari Furse  
4241 State Office Building  
Salt Lake City, UT 84114

RE: Hog Canyon #1  
Sec. 8, T33S, R13E  
Garfield, UT

Dear Cari:

You requested a copy of the microlog and velocity survey on the subject well. I believe the microlog referenced is the mirco SFL portion of the dual laterlog.

The velocity survey was a seismic service and is not considered a part of our normal logging program. We would prefer not to have this information public record and would like to defer its release if possible.

Sincerely,

Robert E. Fielder  
District Engineer

REF/ke

**RECEIVED**  
JAN 27 1982

**DIVISION OF  
OIL, GAS & MINING**