

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
Raymond T. Duncan 303/759-3303

3. ADDRESS OF OPERATOR
1777 S. Harrison, Penthouse 1, Denver, Co. 80210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface
500' FNL & 500' FEL
At proposed prod. zone NE NE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
13 miles NW of Hatch Trading Post

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
2289.44

17. ACRES ASSIGNED TO THIS WELL
40

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

19. PROPOSED DEPTH
6050'

20. TYPE OF WELL
Rotary

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

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12-1/4"	8-5/8"	24#	2500'
7-7/8"	5-1/2"	15.5#	6050'

22. APPROX. DATE WHEN WELL WILL START*
Upon Approval

24. COMMENTS
City to surface
200' of sufficient to cover
none of interest.

Raymond T. Duncan proposes to drill a well to 6050' to test the many Des Creek formations. If productive, casing will be run and the well will be plugged and abandoned as per BLM and State of Utah requirements.

RECEIVED

JUN 19 1984

DIVISION OF OIL
GAS & MINING

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 6/27/84
BY: John R. Bay

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true dip, and give blowout preventer program, if any.

24. SIGNED W. S. Fallin TITLE Production Manager

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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

5. LEASE DESIGNATION AND SERIAL NO.
6-47876
6. INDIAN, ALLOTTEE OR TRIBE NAME
N/A
7. UNIT AGREEMENT
N/A
8. NAME OF LEASE HAVING RIGHTS TO WELL
Wells Federal
9. WELL NO.
1
10. FIELD AND LOCALITY
Wildcat
11. SEC., T. & R. OR NEAREST ROAD OR RAILROAD
Sec 4, T38N, R24E
12. COUNTY OR PARISH AND STATE
San Juan Utah

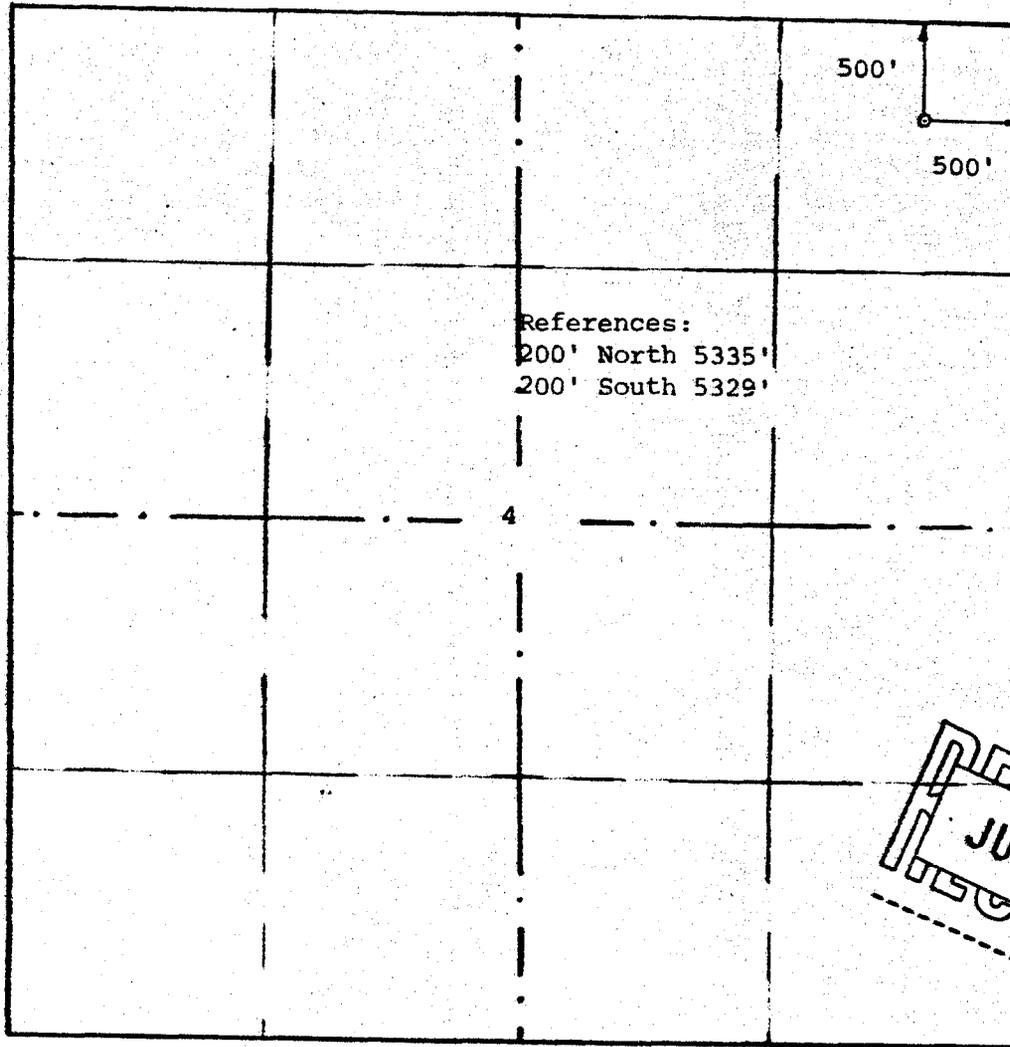


POWERS ELEVATION

Plat #1

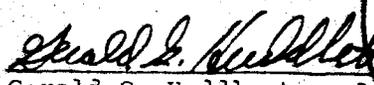
Well Location Plat

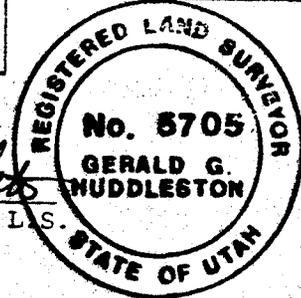
80.00 Chains



79.78 Chains

RECORDED
JUN 13 1984
COUNTY CLERK

Operator R.T. Duncan		Well name Wells Federal #1	
Section 4	Township 38 South	Range 24 East	Meridian S.L.M.
Footages 500' PNL & 500' FEL		County/State San Juan, Utah	
Elevation 5336'	Requested by Lisa Green		
The above plat is true and correct to the best of my knowledge and belief.			
7 May 84		 Gerald G. Huddleston, L.S.	



Raymond T. Duncan
Well No. Wells Federal 1
NENE Sec. 4, T. 38 S., R. 24 E.
San Juan County, Utah
Lease U-47876

Supplemental Stipulation:

1. In the event of a dry hole, the road will be fully reclaimed from the well to the spring. From the well to Perkins Road, the road will be narrowed and the shoulders reclaimed.



1777 SOUTH HARRISON STREET - PENTHOUSE ONE
TELEPHONE (303) 759-3303 - DENVER, COLORADO 80210

May 30, 1984

Bureau of Land Management
Oil and Gas Office
136 E. South Temple
Salt Lake City, UT 84111

ATTN: Edgar Guynn

RE: Wells Federal #1
NE NE 4-38S-24E
San Juan Co., UT

Dear Mr. Guynn:

This letter is to certify that PERMITCO, a petroleum permitting company, is authorized as our agent to prepare the NTL-6 program on our behalf and to attend to any related matters.

You may contact our office if you have questions regarding this permit.

Very truly yours,
RAYMOND T. DUNCAN

W. S. Fallin

W.S. Fallin
Production Manager

WSF:cl

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JUN 19 1984

DIVISION OF OIL
GAS & MINING

ONSHORE OIL & GAS ORDER NO. 1;
Approval of Operations on Onshore

WELLS FEDERAL #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

Prepared For:

RAYMOND T. DUNCAN

By:

PERMITCO
1020-15th Street, Suite 22-E
Denver, Colorado 80202

Copies Sent To:

- 4 - BLM - Moab, Utah
- 1 - BLM - Monticello, Utah
- 1 - Div. of Oil, Gas & Mining, SLC, Utah
- 3 - Duncan - Denver, Colorado

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A Petroleum Permitting Company

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Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

JUN 19 1984

Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

DIVISION OF OIL
GAS & MINING

DRILLING PROGRAM

1. The surface formation and estimated formation tops to be encountered are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Dakota	Surface	
DeChelly	1500'	+3855'
Hermosa	4605'	+ 750'
Ismay	5655'	- 300'
Lower Ismay	5845'	- 490'
Gothic Shale	5895'	- 540'
Desert Creek	5915'	- 560'
Lower Desert Creek	5975'	- 620'
Chimney Rock Shale	6005'	- 650'
T.D.	6050'	- 695'

2. The estimated depths at which oil, gas, water or other mineral bearing zones are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Anticipated Depth</u>
Gas & Oil	Ismay	5700'
Gas & Oil	Lower Desert Creek	5975'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth cased and cemented. All oil and gas shows will be tested to determine commercial potential.

3. Pressure control equipment will consist of a 10", 3000# W.P. BOP. (See BOP Diagram attached.) BOP systems will be consistent with API RP-53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blow-out preventers will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

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Raymond T. Duncan
 Wells Federal #1
 500' FNL & 500' FEL
 Sec. 4, T38S-R24E
 San Juan County, Utah

JUN 19 1984

DIVISION OF OIL
 GAS & MINING

DRILLING PROGRAM (Cont.)

4. a. Casing

The proposed casing program is as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Wt.</u>	<u>Grade</u>	<u>Type</u>	<u>New or Used</u>
Surface	0-2500'	12 $\frac{1}{4}$ "	8-5/8"	24#	K-55	ST&C	New
Prod.	0-6050'	7-7/8"	5-1/2"	15.5#	K-44	ST&C	New

b. Cement

The cementing program will be as follows:

<u>Surface</u>	<u>Type and Amount</u>
0-250'	Class "B" with additives. Sufficient to circulate to surface.

<u>Production</u>	<u>Type and Amount</u>
5000-6050'	200 sx Class "B" with additives; or sufficient to cover zones of interest.

c. Auxiliary equipment will be as follows:

1. Kelly cock.
2. Float above the bit.
3. A sub with a full opening valve will be on the floor when the kelly is not in use.
4. Monitoring of the system will be done visually.

5. Drilling fluid will be as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>F/L</u>
0-4000'	Natural	9.0-9.2	35	10-20
4000-T.D.	Chem Gel	9.5-12.0	45	5-10

through pay zones.

6. Coring, logging and testing programs are as follows:

- a. No cores will be run.

Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

DRILLING PROGRAM (Cont.)

6. Coring, logging and testing programs (Cont.).
 - b. Logs will be run as follows: Dual Induction and BHC Acoustic will be run from 2500' to T.D. A BHC Density/CNL will be run from 4000' to T.D. and a Dipmeter will be run if productive or on the edge of the mound.
 - c. Drill stem tests will be run in the Ismay from 5700'-5800' and in the Desert Creek from 5975'-6000'.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted no later than 15 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.

7. Abnormal conditions, bottom hole pressures and potential hazards.
 - a. The maximum bottom hole pressure to be expected is 3500 psi.
 - b. No abnormal pressures or potential hazards are anticipated.
8. Anticipated starting dates and notification of operations.
 - a. Construction of roads and well pad will commence immediately upon approval of this application.
 - b. Raymond T. Duncan plans to spud the Wells Federal #1 upon approval of this application and intends to complete the well within approximately one month after the well has reached T.D.
 - c. The operator will contact the San Juan Resource Area at 801/587-2201, 48 hours prior to beginning any dirt work on this location.
 - d. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

DRILLING PROGRAM (Cont.)

8. Anticipated starting dates and notifications of operations (Cont.).

- e. The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours of spudding, reporting the spud date and time. The Sundry will be sent to the District Manager.
- f. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations", starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the Moab BLM District Office, P. O. Box 970, Moab, Utah 84532.
- g. If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergencies, verbal approval can be given by the District Petroleum Engineer.
- h. If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, no later than five (5) business days following the date on which the well is placed on production.
- i. No well abandonment operations will begin without the prior approval of the District Manager. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.
- j. Final abandonment will not be approved until surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or his representative, or the appropriate Surface Managing Agency.
- k. A first production conference will be scheduled within 15 days after receipt of the first production notice. The San Juan Area Manager will schedule the conference.

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

DRILLING PROGRAM (Cont.)

8. Anticipated starting dates and notifications of operations (Cont.).
1. Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NTL-3A.
 - m. Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.
 - n. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on a welding torch: Fed, Well number, location by $\frac{1}{4}$ section, township and range, lease number.

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ONSHORE OIL & GAS ORDER NO. 1
Thirteen Point Surface Use Plan

Raymont T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

1. Existing Roads

- a. The proposed well site is located 13 miles from Hatch Trading Post.
- b. Directions to the location from Hatch Trading Post are as follows:

Go north and west on the Perkins Road #206 for 9.2 miles to the intersection of the Montezuma Creek Road. Continue west on Perkins Road #206 for 2.7 miles. Turn north onto existing road and go 4/10 mile to a spring and water trough. Follow flagging northwesterly for approximately 3300' to the location.
- c. Location and description of roads in the area (See Maps #1 & 2.)
- d. Improvement to the existing access will be necessary and will be limited to the total existing disturbed width. The maximum total disturbed width will be 20 feet.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. An encroachment permit will be obtained from the San Juan County Road Department, 801/587-2231, ext. 43.

2. Planned Access Roads

- a. The maximum total disturbed width will be 20 feet and flatbladed only.
- b. Maximum grade will be 10%.
- c. No turnouts are planned.
- d. The access road was centerline flagged at the time of staking.
- e. Drainage will be installed as deemed necessary by the dirt contractor.
- f. No gates, cattleguards or fence cuts will be necessary.
- g. 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.

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

2. Planned Access Roads (Cont.)

- h. The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drilling rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.
- i. 1-18" culvert will be necessary where the new access begins. One dry creek crossing will also be needed. See Map #2.
- j. Surfacing material will not be placed on the access road or location without prior BLM approval.

3. Location of Existing Wells Within a 1-Mile radius of the Proposed Location. See Map #3.

- a. Water Wells - none
- b. Injection or disposal wells - none
- c. Producing Wells - none
- d. Drilling Wells - none

4. Location of Tank Batteries and Production Facilities.

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.
- b. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.
- c. Tank batteries will be placed as shown on Diagram #1.
- d. All loading lines will be placed inside the berm surrounding the tank battery.

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

4. Location of Tank Batteries and Production Facilities (Cont.)

- e. Any necessary pits will be properly fenced to prevent any wild-life entry. The production pit will be flagged overhead.
- f. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.
- g. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
- h. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- i. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.
- j. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Moab District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from the Perkins Ranch artesian wells which are located in Sec. 7, T38S-R25E. Directions to the water source are shown on Map #2.
- b. Water will be trucked to location over the roads marked on Map #2.
- c. No water well is to be drilled on this lease.
- d. Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer, 801/637-1303, and by receiving permission from the land or surface management agency to use the land containing the water source.

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

6. Source of Construction Material

- a. No road surfacing and pad construction material will be obtained from outside sources. Only native material in the surrounding area will be used.
- b. The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3. Construction material will and will not be located on lease.

7. Methods of Handling Waste Disposal

- a. The reserve pit will not be lined. At least half of the capacity will be in cut.
- b. 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.
- c. A trash pit will be constructed near the mud tanks and dug at least six feet into solid, undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free.
- d. A burning permit is required for burning trash between May 1 and October 31. This can be acquired by contacting the State Fire Warden, John Baker, 801/587-2705.
- e. Produced waste water will be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90-day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order.

8. Ancillary Facilities

- a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan Co., Utah

SURFACE USE PLAN (Cont.)

9. Well Site Layout

- a. See Diagram #2 for rig layout. See Diagram #3 for cross section of drill pad. See Diagram #4 for cuts and fills.
- b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities and soil stockpiles will be shown on Diagrams #2 & #4. The location will be laid out and constructed as discussed during the predrill conference.
- c. The top 6 inches of soil material will be removed from the location and stockpiled separate from the trees on the NW and SE side. Topsoil along the access will be reserved in place.
- d. Access to the well pad will be from the NW. See Diagram #2.

10. Reclamation

- a. Immediately on completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- b. The operator or his contractor will contact the San Juan Resource Area office in Monticello, Utah (801/587-2201) 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.
- f. Water bars will be built as follows to control erosion:

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 Feet
2-4%	Every 100 Feet
2-5%	Every 75 Feet
5+%	Every 50 Feet

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

10. Reclamation (Cont.)

- g. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.

2 lbs/acre Indian Ricegrass (*Oryzopsis Hymenoides*)
1 lb /acre Curlygrass (*Hilaria Jamesii*)
1 lb /acre Alkali Sacaton (*Sporobolus Airoides*)
2 lbs/acre Fourwing Saltbush (*Atriplex Confertifolia*)
2 lbs/acre Shadscale (*Atriplex Confertifolia*)
1 lb /acre Wild Sunflower (*Helianthus Annuus*)

- h. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.

- i. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. a. Surface Ownership - Federal

b. Mineral Ownership - Federal

12. Other Information

- a. There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.
- b. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
- c. The dirt contractor will be provided with an approved copy of the surface use plan.
- d. If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are

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Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan Co., Utah

SURFACE USE PLAN (Cont.)

11. Other Information (Cont.)

- d. (Cont.) in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archeological sites will be done by a BLM approved archeologist only if damage occurs.
- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. An archeological study was performed by LaPlata Archeological Consultants. No significant cultural resources were found and clearance is recommended. See archeological report attached.
- g. Your contact with the District Office is: Bob Graff
Office Phone: 801/259-6111
Address: P. O. Box 970
Moab, Utah 84532

Resource Area Manager's Address and Contacts:

Address: P. O. Box 7
Monticello, Utah 84535

Your Contact is: Brian Wood
Office Phone: 801/587-2201
Home Phone: 801/587-2087

13. Lessee's or Operator's Representative and Certification

Permit Matters

Permitco
Lisa L. Green
1020-15th Street
Suite 22-E
Denver, Colorado 80202
303/595-4051

Drilling and Completion Matters

Raymond T. Duncan
1777 S. Harrison St.
Penthouse 1
Denver, Colorado 80210
W. S. Fallin
W - 303/759-3303
H - 303/770-0705

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan Co., Utah

SURFACE USE PLAN (Cont.)

13. Lessee's or Operator's Representative and Certification (Cont.)

Certification

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

6/13/84

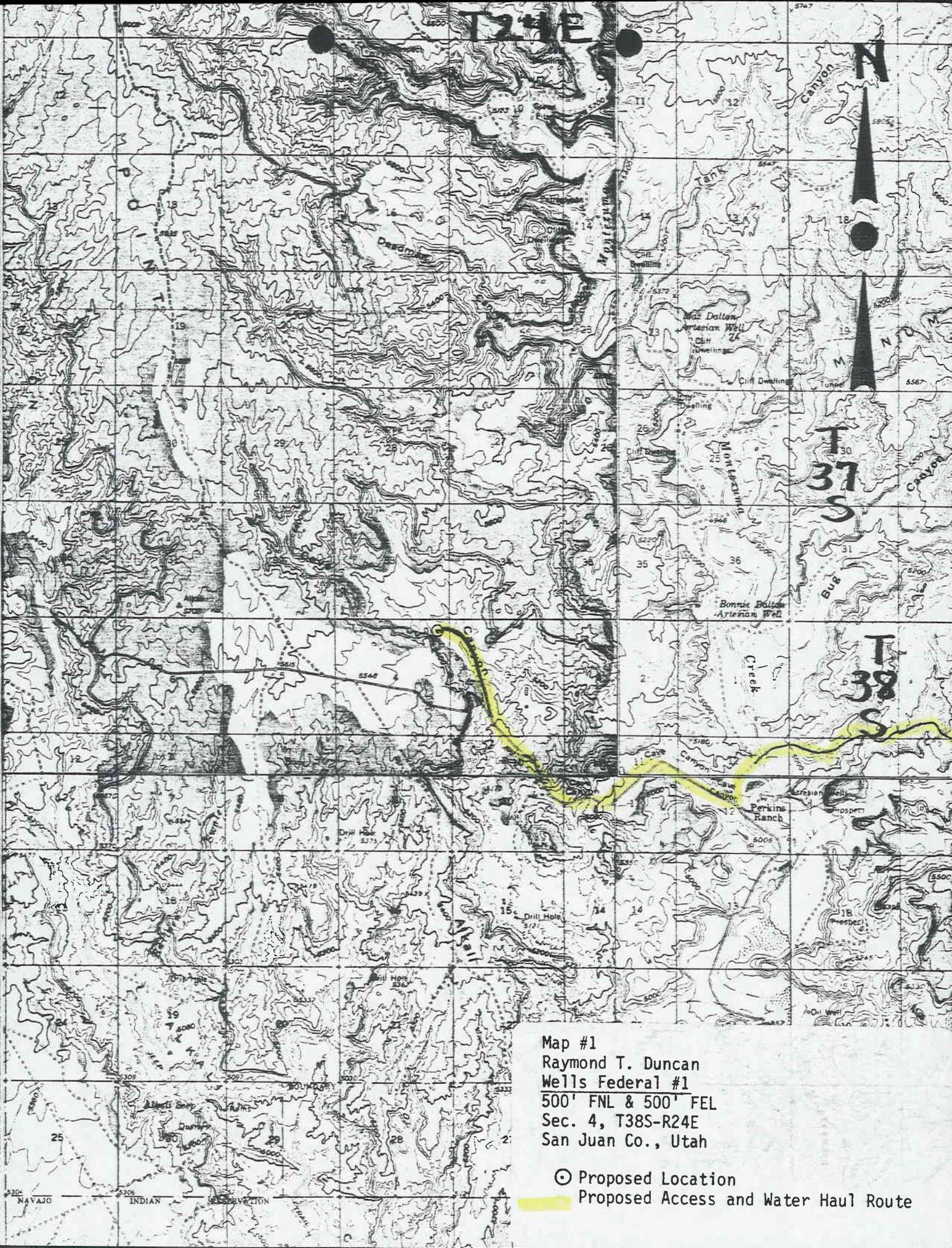
Date: _____

W. S. Fallin

W. S. Fallin - Production Manager
for Raymond T. Duncan

Permitco

A Petroleum Permitting Company



Map #1
Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan Co., Utah

⊙ Proposed Location
Proposed Access and Water Haul Route

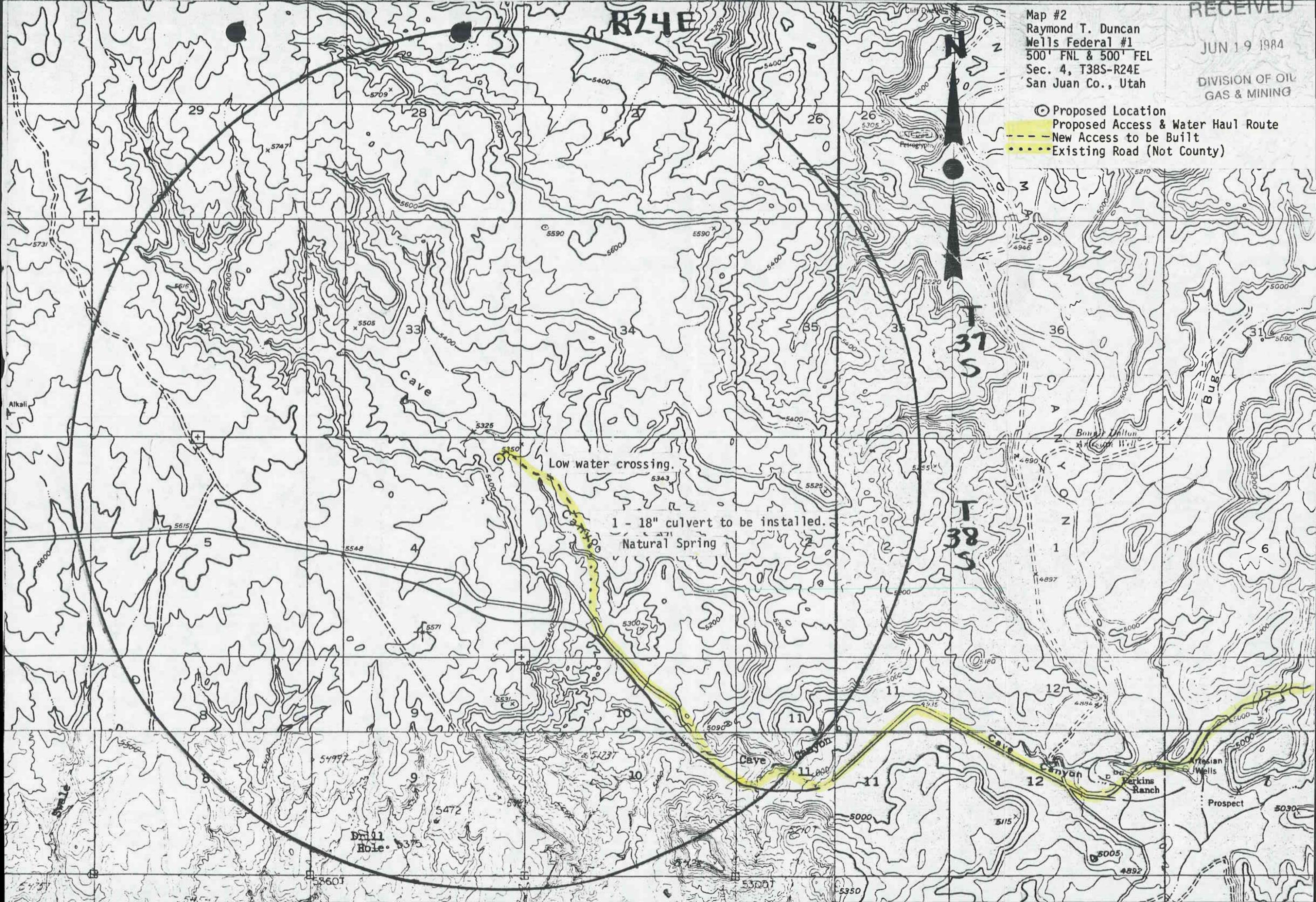
RECEIVED

Map #2
Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan Co., Utah

JUN 19 1984

DIVISION OF OIL
GAS & MINING

- ⊙ Proposed Location
- Proposed Access & Water Haul Route
- - - New Access to be Built
- ⋯ Existing Road (Not County)



R24E



T
37
S

T
38
S

Low water crossing.

1 - 18" culvert to be installed.

Natural Spring

Drill
Hole 5375

Perkins
Ranch

Artesian
Wells

Prospect

Bug

Bonnie Dalton
Artesian Well

Cave

Cave
Canyon

Cave
Canyon

29

28

26

26

3

36

31

34

35

1

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5457

53601

53001

5350

5005

4892

5030

5000

5000

4890

4897

5255

5400

5525

5343

5325

5548

5615

5505

5615

5600

5709

5747

R24E

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S

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1 - 18" culvert to be installed.

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Drill
Hole 5375

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Ranch

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Wells

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Bug

Bonnie Dalton
Artesian Well

Cave

Cave
Canyon

Cave
Canyon

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4890

4897

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5400

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5325

5548

5615

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5600

5709

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R24E

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38

S

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1 - 18" culvert to be installed.

Natural Spring

Drill
Hole 5375

Perkins
Ranch

Artesian
Wells

Prospect

Bug

Bonnie Dalton
Artesian Well

Cave

Cave
Canyon

Cave
Canyon

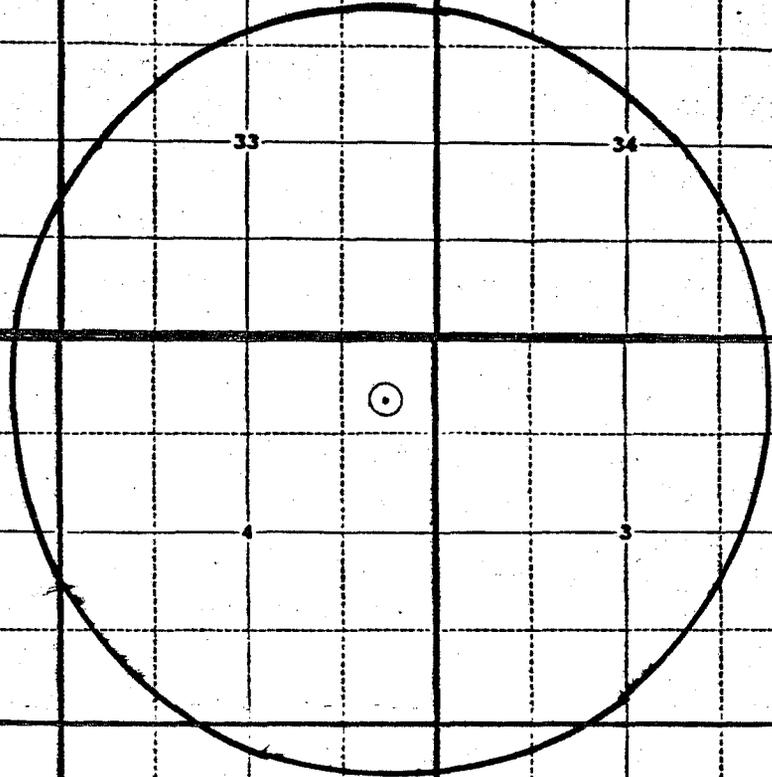
R24E

N



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37
S

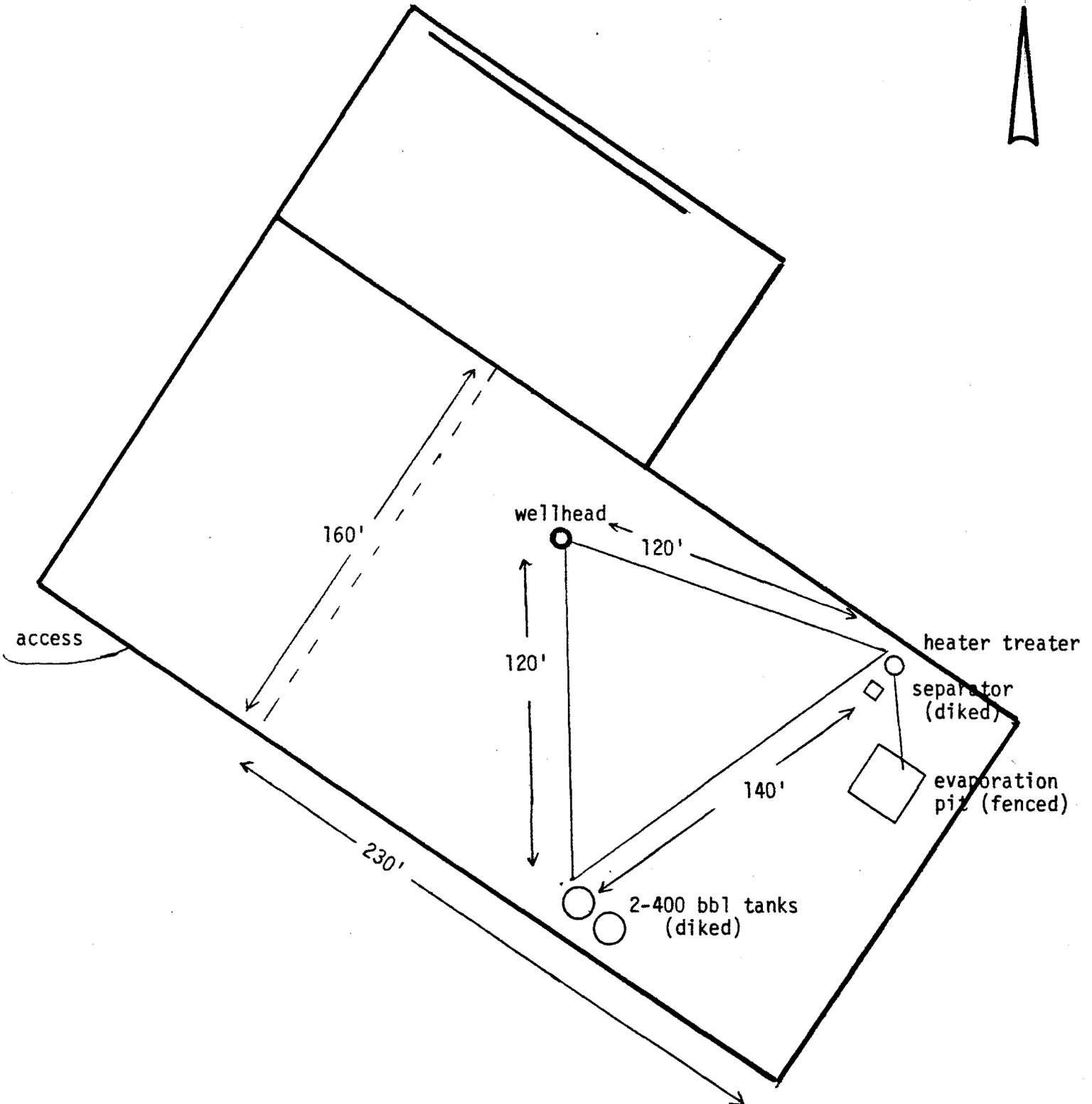
T
38
S



Map #3
⊙ Proposed Location
Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

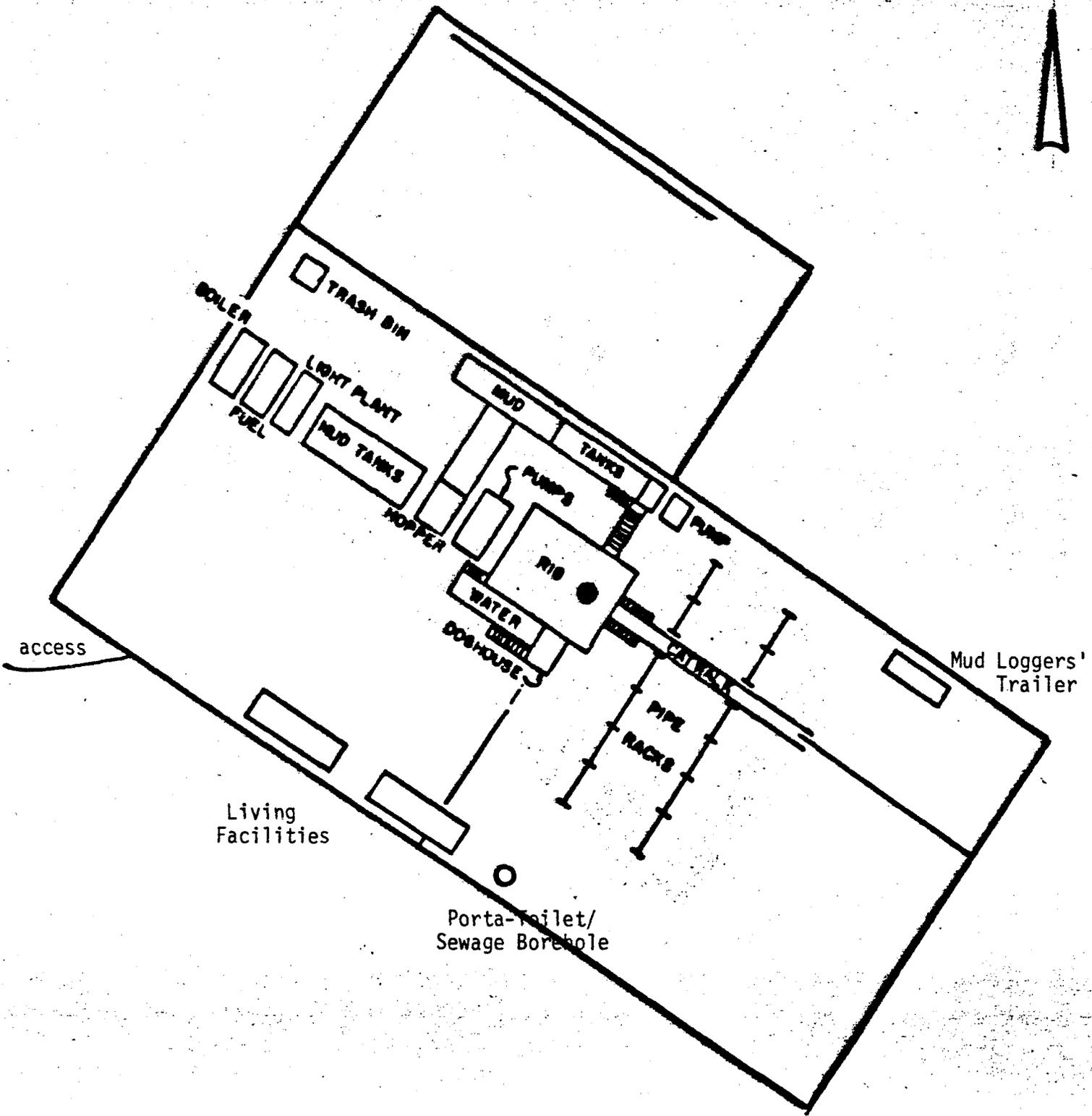
Scale - 1" = 50'

Diagram #1
Production Facility Layout
Raymond R. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah



Scale - 1" = 50'

Diagram #2
Rig Layout
Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah





POWERS ELEVATION

Well Wells Federal #1

OIL WELL ELEVATIONS -- LOCATIONS
ENVIRONMENTAL -- ARCHAEOLOGICAL SERVICES
900 SOUTH CHERRY STREET, SUITE 1201
DENVER, COLORADO 80222
PHONE NO. 303/321-2217

Cut ////////
Fill |||||

Scales: 1"=50'H.
1"=20'V.

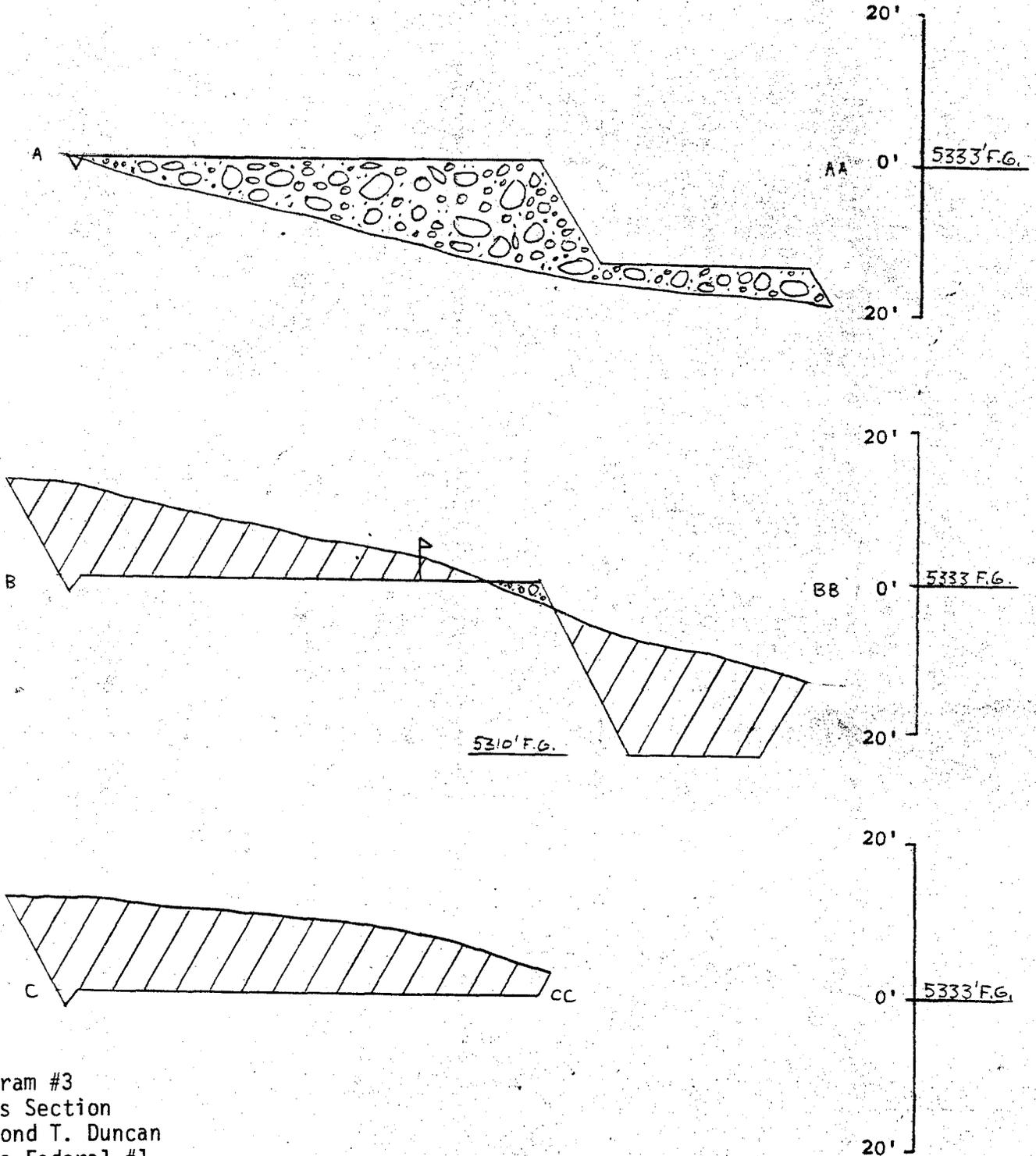


Diagram #3
Cross Section
Raymond T. Duncan
Wells Federal #1
800' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

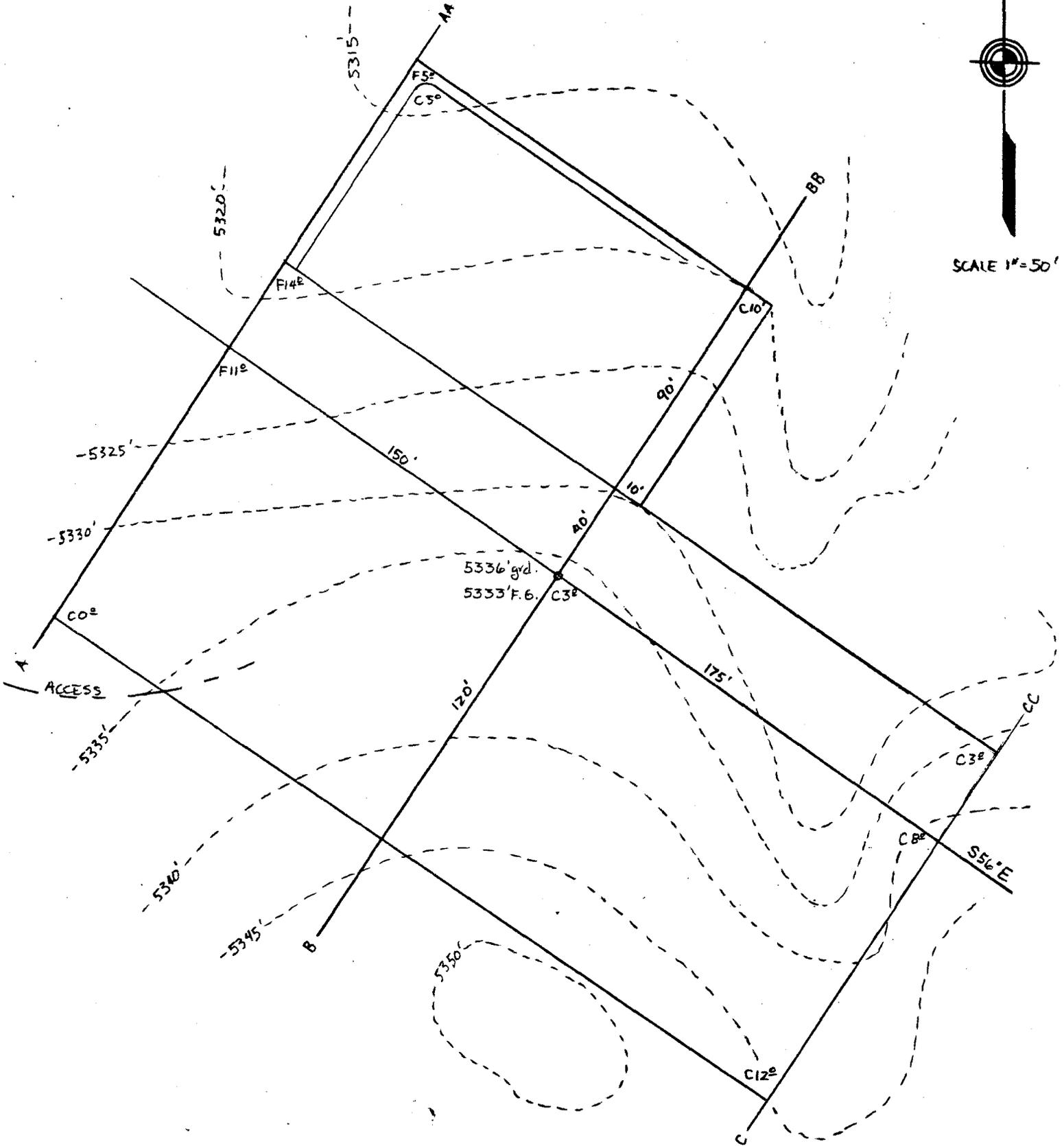


POWERS ELEVATION

Diagram #4
Cuts & Fills
Raymond T. Duncan
Wells Federal #1
500' FNL & 500' FEL
Sec. 4, T38S-R24E
San Juan County, Utah



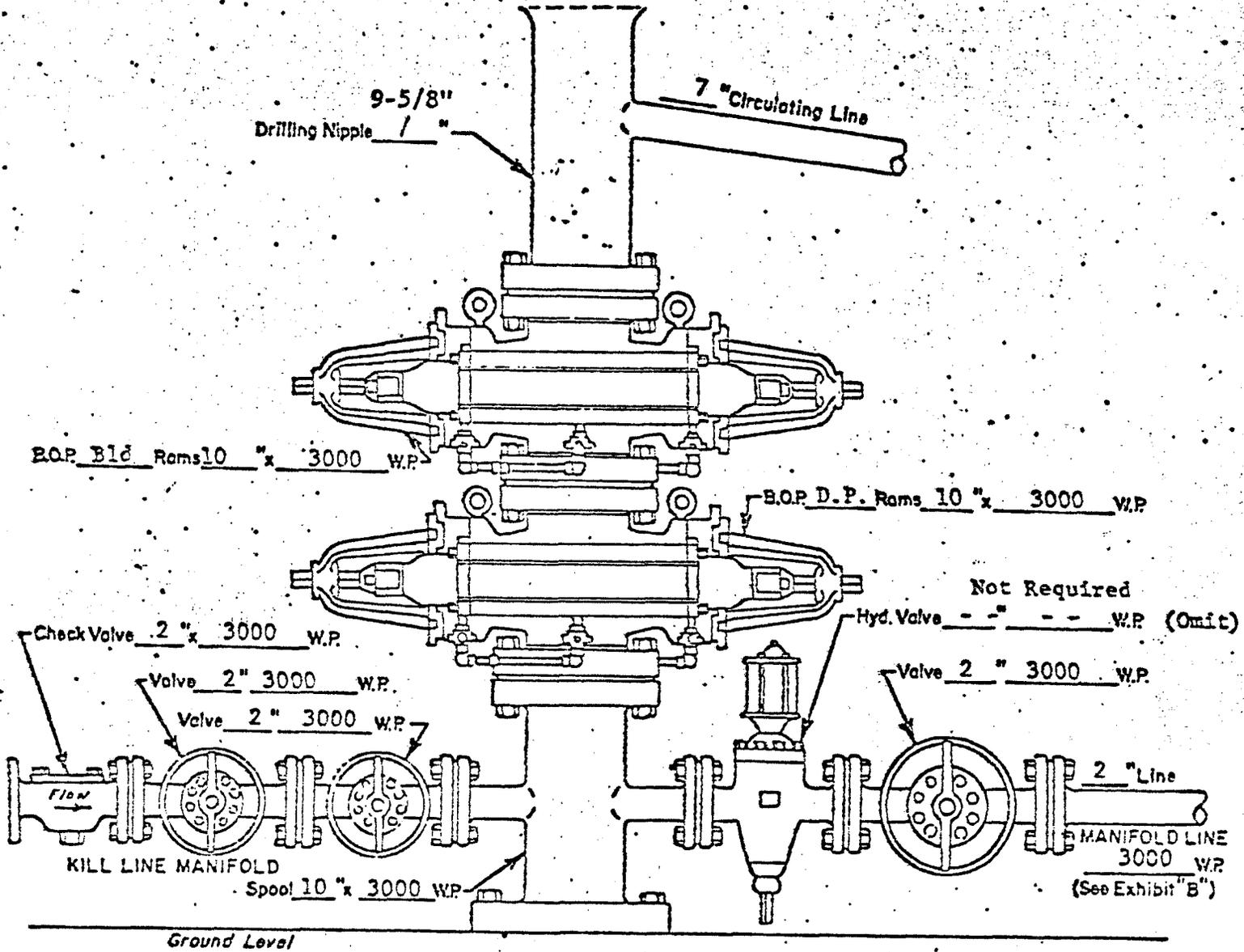
SCALE 1"=50'



COLEMAN DRILLING CO.

WELL NAME: _____

LOCATION: _____



WELL HEAD B.O.P.

3000 # W.P.

Hydraulic



La Plata Archeological Consultants, Inc.

P.O. Box 783
Dolores, Colorado 81323

303-882-4933

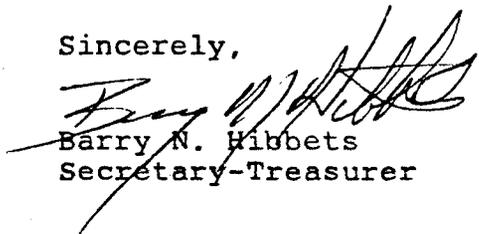
June 11, 1984

Mr. Charles Cartwright
Area Archeologist
Bureau of Land Management
San Juan Resource Area
P.O. Box 7
Monticello, Utah 84535

Mr. Cartwright:

Please find enclosed the archeological survey report for Duncan Oil Properties' Wells Federal No. 1 well site and access road located on BLM lands in San Juan County, Utah. No archeological resources were encountered during the investigation and archeological clearance is recommended.

Sincerely,


Barry N. Hibbets
Secretary-Treasurer

Distribution:
BLM - Salt Lake
Permitco
Walter Duncan Properties

BNH/cs



AN ARCHEOLOGICAL SURVEY OF
DUNCAN OIL PROPERTIES'
WELLS FEDERAL #1 WELL SITE AND ACCESS ROAD
SAN JUAN COUNTY, UTAH

LAC REPORT 8445

by
Barry N. Hibbets

LA PLATA ARCHEOLOGICAL CONSULTANTS, INC.
P.O. BOX 783
DOLORES, COLORADO 81323
(303) 882-4933

JUNE 11, 1984

Federal Antiquities Permit
84-UT-011

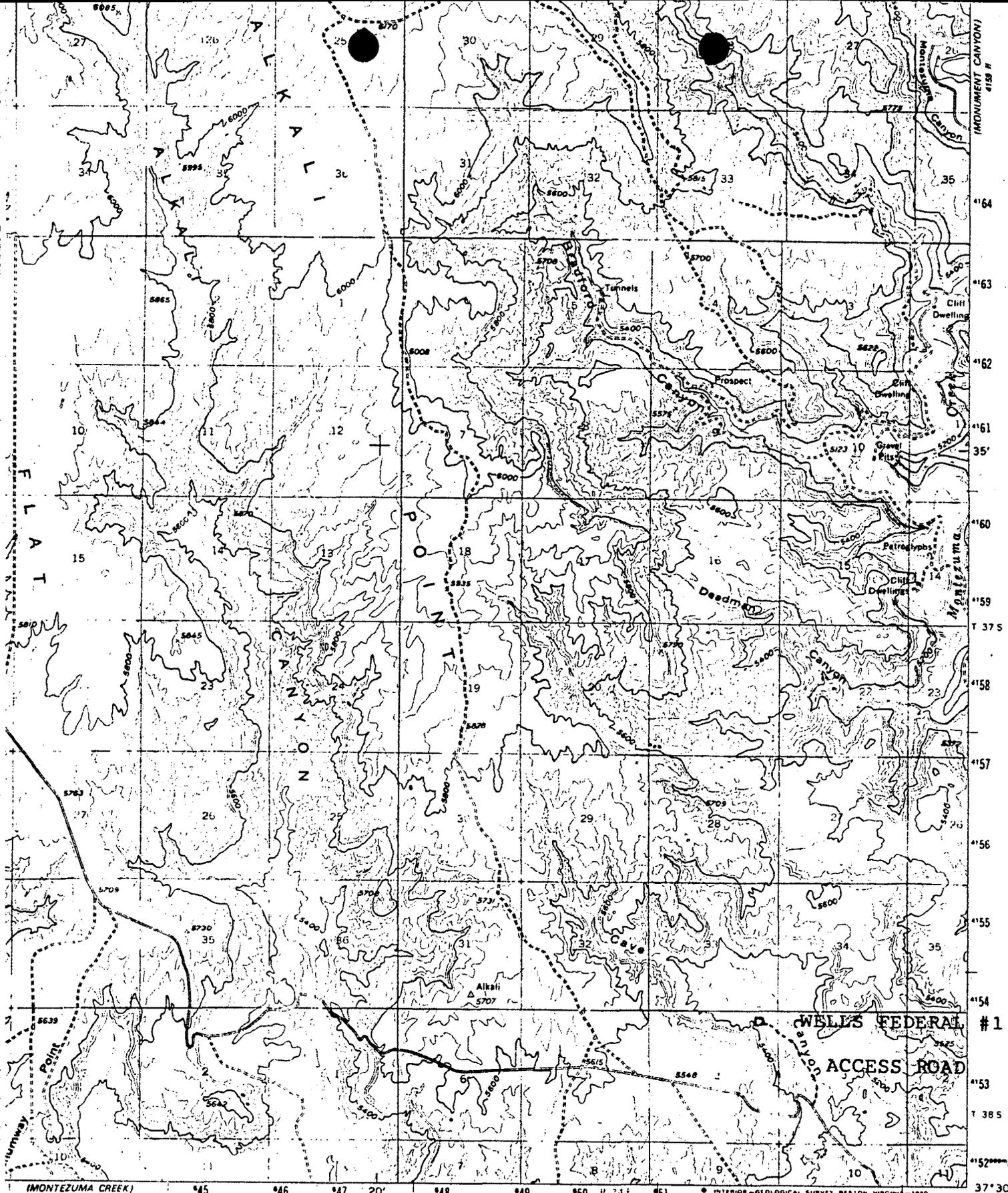
Prepared For:
Walter Duncan Oil Properties
Penthouse 1
1777 S. Harrison
Denver, Colorado 80210

ABSTRACT

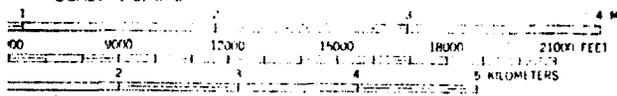
In June, 1984 an archeological survey of Duncan Oil Properties' Wells Federal #1 well site and access road was conducted by personnel of La Plata Archeological Consultants, Inc. The proposed project consists of the construction of a single well pad, improvements to ca. .3 miles of existing access road, and construction of .5 miles of new access. The project area is situated in Cave Canyon immediately below Alkali Point on lands administered by the Bureau of Land Management - San Juan Resource Area in San Juan County, Utah. No cultural resources were encountered during the investigation and archeological clearance is recommended.

INTRODUCTION

In June, 1984 an archeological survey of Duncan Oil Properties' Wells Federal No. 1 well site and access road was conducted by personnel of La Plata Archeological Consultants, Inc. The proposed well pad is located in the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of section 4, Township 38 South, Range 24 East, San Juan County, Utah. The proposed access route, .8 miles in length, is located in the W $\frac{1}{2}$ of section 3 and the NE $\frac{1}{4}$ of section 4. The southern .3 miles of this route will follow an existing road, with only minor improvements required (widening and grade reduction). The northern .5 miles of the route will require new construction. The Bureau of Land Management - San Juan Resource Area administers

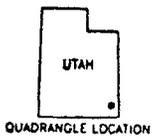


SCALE 1:62,500



CONTOUR INTERVAL 40 FEET
AL GEODETIC VERTICAL DATUM OF 1929

[2]



QUADRANGLE LOCATION

ROAD CLASSIFICATION

- Heavy-duty —————
- Medium-duty - - - - -
- Light-duty ————
- Unimproved dirt - - - - -
- State Route

5 WITH NATIONAL MAP ACCURACY STANDARDS
DATA DERIVED COLORADO 80295 OR RESTON VIRGINIA 22002

BLANDING, UTAH
N3730—W10915/15

all land involved.

The survey was conducted by Mr. Barry N. Hibbets on June 7, 1984 during the pre-drill inspection. Those in attendance were Ms. Lisa Green (Permitco), Brian Wood (BLM), Gerald Huddleston (Powers Elevation), and Jerry Husky (Urado Construction).

PHYSIOGRAPHY AND ENVIRONMENT

The project area is situated in Cave Canyon directly east of (below) the eastern rim of Alkali Ridge. Cave Canyon is one of a series of canyons which drains the eastern side of Alkali Ridge and flows into Montezuma Canyon. Terrain in the area consists of undulating to abrupt ridges, and swales cut by numerous arroyos. The area favors a southeastern aspect. Elevations range from 5280' to 5380' MSL.

The vegetative structure of the area consists of a short bunch grass association dominated by black gramma, galleta, and broom snakeweed. One-seed juniper and shadscale are infrequently distributed throughout the area.

Sediments consist of residual sand and clay interspersed with angular sandstone. Alluvial sand and silt is found along and near the course of Cave Wash.

An improved spring, located along the access route, furnishes a permanent and refreshing source of water. Cave Wash supplies water seasonally, during spring run-off and following late summer thunderstorms.

Avian, reptilian, and mammalian associations are consistent with those of the Upper Sonoran Life Zone found throughout the Colorado Plateau.

SURVEY PROCEDURE

Prior to the initiation of the field work a site file and literature review was conducted at the BLM - San Juan Resource Area Office. The purpose of this review was to determine if any of the project area had been previously inventoried for cultural resources, and if any previously recorded sites are in or near the project area.

The results of this review concluded that a number of linear energy related inventories have been conducted throughout the project area, in addition to numerous linear and well site inventories in the general vicinity. Despite the intensity of coverage in the area no known archeological sites are in close proximity to the project area.

On-the-ground survey was conducted by the single archeologist systematically walking over the project area via a series of north-south transects spaced at 10m intervals. A 660 x 660' square area (10 acres) surrounding the well center stake was inventoried for cultural resources. All arroyo profiles were thoroughly examined for possible buried cultural deposits.

The .3 miles of existing access to be improved was inventoried via 2 sinuous transects 50' on either side of the center-

line.

SURVEY RESULTS

No prehistoric or historic cultural resources were encountered during the examination. Recent roadside trash (beer and soda bottles and cans, wine and liquor bottles, food cans, etc...) abound along the margins of the existing access road.

SUMMARY AND RECOMMENDATIONS

On June 7, 1984 an archeological survey of Duncan Oil Properties' Wells Federal #1 well site and access road was conducted by Mr. Barry N. Hibbets of La Plata Archeological Consultants, Inc. The project consists of the construction of a single well pad; improvements to .3 miles of existing access road, and construction of .5 miles of new access. A 660 x 660' square area (10 acres) surrounding the well center stake was inventoried for cultural resources. No archeological resources were encountered during the examination. Should subsurface cultural deposits be encountered during the construction of the well site, work should be halted and the BLM - San Juan Resource Area Archeologist notified immediately. Measures will then be taken to evaluate the nature of the resource. Given this stipulation archeological clearance for Duncan Oil Properties' Wells Federal No. 1 project is recommended.

OPERATOR Raymond T. Duncan DATE 6/26/84

WELL NAME Wells Federal #1

SEC NE NE 4 T 38S R 24E COUNTY San Juan

43-037-31028
API NUMBER

Fed.
TYPE OF LEASE

POSTING CHECK OFF:

<input type="checkbox"/>	INDEX	<input type="checkbox"/>	HL	<input type="checkbox"/>
<input type="checkbox"/>	NID	<input type="checkbox"/>	PI	<input type="checkbox"/>
<input type="checkbox"/>	MAP	<input type="checkbox"/>		<input type="checkbox"/>

PROCESSING COMMENTS:

No other wells within 1000'

Need water permit

APPROVAL LETTER:

SPACING: A-3 _____ UNIT c-3-a _____ CAUSE NO. & DATE

c-3-b c-3-c

SPECIAL LANGUAGE:

1- Water

RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

AUTHENTICATE LEASE AND OPERATOR INFORMATION

VERIFY ADEQUATE AND PROPER BONDING

AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

APPLY SPACING CONSIDERATION

ORDER _____

UNIT _____

c-3-b

c-3-c

CHECK DISTANCE TO NEAREST WELL.

CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.

IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

June 27, 1984

Raymond T. Duncan
1777 S. Harrison, Penthouse 1
Denver, Colorado 80210

RE: Well No. Wells Federal #1
NEME Sec. 4, T. 38S, R. 24E
500' PNL, 500' FEL
San Juan County, Utah

Gentlemen:

Approval to drill the above referenced oil well is hereby granted in accordance with Rule C-3 (b), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form GGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 533-5771, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

Page 2

Raymond T. Duncan

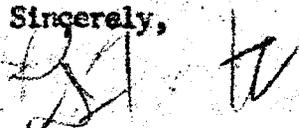
Well No. Wells Federal #7

June 27, 1964

5. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31028

Sincerely,


R. J. Firth
Associate Director, Oil & Gas

RJF/as

cc: Branch of Fluid Minerals

Enclosures

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
 Raymond T. Duncan 303/759-3303

3. ADDRESS OF OPERATOR
 1777 S. Harrison, Penthouse 1, Denver, Co. 80210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 500' FNL & 500' FEL
 At proposed prod. zone NE NE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 13 miles NW of Hatch Trading Post

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.
 None

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

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12-1/4"	8-5/8"	24#	2500'
7-7/8"	5-1/2"	15.5#	6050'

Raymond T. Duncan proposes to drill a well to 6050' to test the Smoky and Desert Creek formations. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED W. S. Fallin TITLE Production Manager DATE 06/13/84

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 Kenneth V. Rhee
 APPROVED BY _____ TITLE Acting DISTRICT MANAGER DATE 13 AUG 1984

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

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

RECEIVED

AUG 17 1984

DIVISION OF OIL GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.
 U-47876
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A
 7. UNIT AGREEMENT NAME
 N/A
 8. FARM OR LEASE NAME
 Wells Federal
 9. WELL NO.
 #1
 10. FIELD AND POOL, OR WILDCAT
 Wildcat
 11. SEC., T., R., N., OR S.W. AND SURVEY OF AREA
 Sec 4, T38S-R24E
 12. COUNTY OR PARISH 13. STATE
 San Juan Utah
 16. NO. OF ACRES IN LEASE
 1289.44
 17. NO. OF ACRES ASSIGNED TO THIS WELL
 40
 20. ROTARY OR CABLE TOOLS
 Rotary
 22. APPROX. DATE WORK WILL START*
 Upon Approval

QUANTITY OF CEMENT:
 Circ to Surface
 200 sx or sufficient to cover zones of interest.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-037-31038

NAME OF COMPANY: RAYMOND T. DUNCAN

WELL NAME: WELLS FEDERAL #1

SECTION NENE 4 TOWNSHIP 38S RANGE 24E COUNTY SAN JUAN

DRILLING CONTRACTOR Arapahoe

RIG # 4

SPUDDED: DATE 9-7-84

TIME 6:00 PM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY John Bettridge

TELEPHONE # 303-759-3393

DATE 9-10-84 SIGNED AS

CONFIDENTIAL: TIGHT HOLE

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

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
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 500' FNL & 500' FEL (NE NE)
AT TOP PROD. INTERVAL: same
AT TOTAL DEPTH:

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

5. LEASE
U-47876

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Wells Federal

9. WELL NO.
#1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 4-38S-24E

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

14. API NO.
43-037-31028

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5336' GL

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 <input type="checkbox"/>	<input type="checkbox"/>

RECEIVED

SEP 12 1984

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

DIVISION OF OIL
GAS & MINING

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.)*

Subject well was spud at 6:00 PM, 9/7/84.

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

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

SIGNED John A. Bettridge TITLE Prod. Supt. DATE 9/10/84

(This space for Federal or State office use)

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

CONFIDENTIAL: TIGHT HOLE

DRILL STEM TEST DATA

Drill Stem Test No. 1: Upper Ismay 5750'-5786' (36'test)

Type: Bottom Hole Conventional with No Cushion

Flows: IF - 15 minutes; open with good blow 9 lbs in 5 minutes (1/8" bubble hose), 14.5 lbs in 10 minutes, 20 lbs in 15 minutes.

ISI- 30 minutes; gas to surface in 5 minutes (gas to surface 20 minutes into test).

FF - 60 minutes; open with good blow, 16 lbs in 5 minutes, (1/8" surface choke), 26 lbs in 15 minutes (1/4" surface choke), 32 lbs in 30 minutes (3/8" surface choke), 135 MCF gas, decreasing to 18 lbs in 60 minutes.

FSI- 120 minutes; surface action slowly died.

Field Pressures:

Location (Depth)	IN (Bottom)	OUT (Top)
IH	5785	5731
IF	3047.9	2931.9
ISI	80-133.4	80.3-133.7
FF	2012	1997.4
FSI	80-213.4	80.3-214.0
FH	2038.6	1997.4
	3047.6	2931.9

Bottom Hole Temperature: 128°F.

Recovery: Drill Pipe - 830' (6.5 barrels) oil reversed out, 40° API gravity at 60°F.

Sample Chamber - 0.42 cu ft gas
850 cc 40° API gravity oil at 60°F
100 psi

Resistivities: PIT - 4.88 at 94°F.

Observations and Comments:

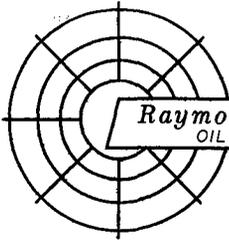
Drill stem test no. 1 was a successful mechanical test. The packers set and held, no fluid was lost downhole, and no mechanical failure was indicated on the test tool.

The results of this test indicate a potential reservoir exists in this zone at this location. Good porosity with fair permeability and a good show from sample examination with no indication of formation water gives this zone great potential.

FORMATION TOPS

K.B. = 5344 feet

	<u>Sample Top</u>	<u>E-Log Top</u>	<u>Subsea</u>
PENNSYLVANIAN PERIOD			
Hermosa Group (Honaker Trail Fm)		4732	+612
Paradox Formation			
Upper Ismay Zone	5690	5692	-348
Lower Ismay Zone	5875	5874	-530
Gothic Shale Zone	5922	5928	-584
Desert Creek Zone	5955	5952	-608
Lower Desert Creek Porosity	6016	6016	-672
Chimney Rock Shale Zone	6032	6044	-700
Akah Zone	6054	6069	-725
T.D.	6080	6081	-737
	SLM 6082		



Raymond T. Duncan
OIL PROPERTIES

1777 SOUTH HARRISON STREET • PENTHOUSE ONE
TELEPHONE (303) 759-3303 • DENVER, COLORADO 80202

RECEIVED

SEP 17 1984

**DIVISION OF OIL
GAS & MINING**

September 14, 1984

State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

CONFIDENTIAL: TIGHT HOLE

RE: Wells Federal #1
Sec. 4-38S-24E
San Juan, Co, UT

Gentlemen:

As operator of the above captioned well, we are requesting that you keep all sundry notices and other reports in CONFIDENTIAL - TIGHT HOLE status for the maximum period allowed.

Thank you for your attention and cooperation in this matter.

Very truly yours,
RAYMOND T. DUNCAN

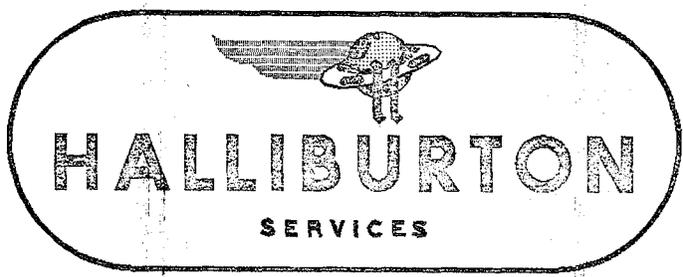
W. S. Fallin

W.S. Fallin
Production Manager

cl

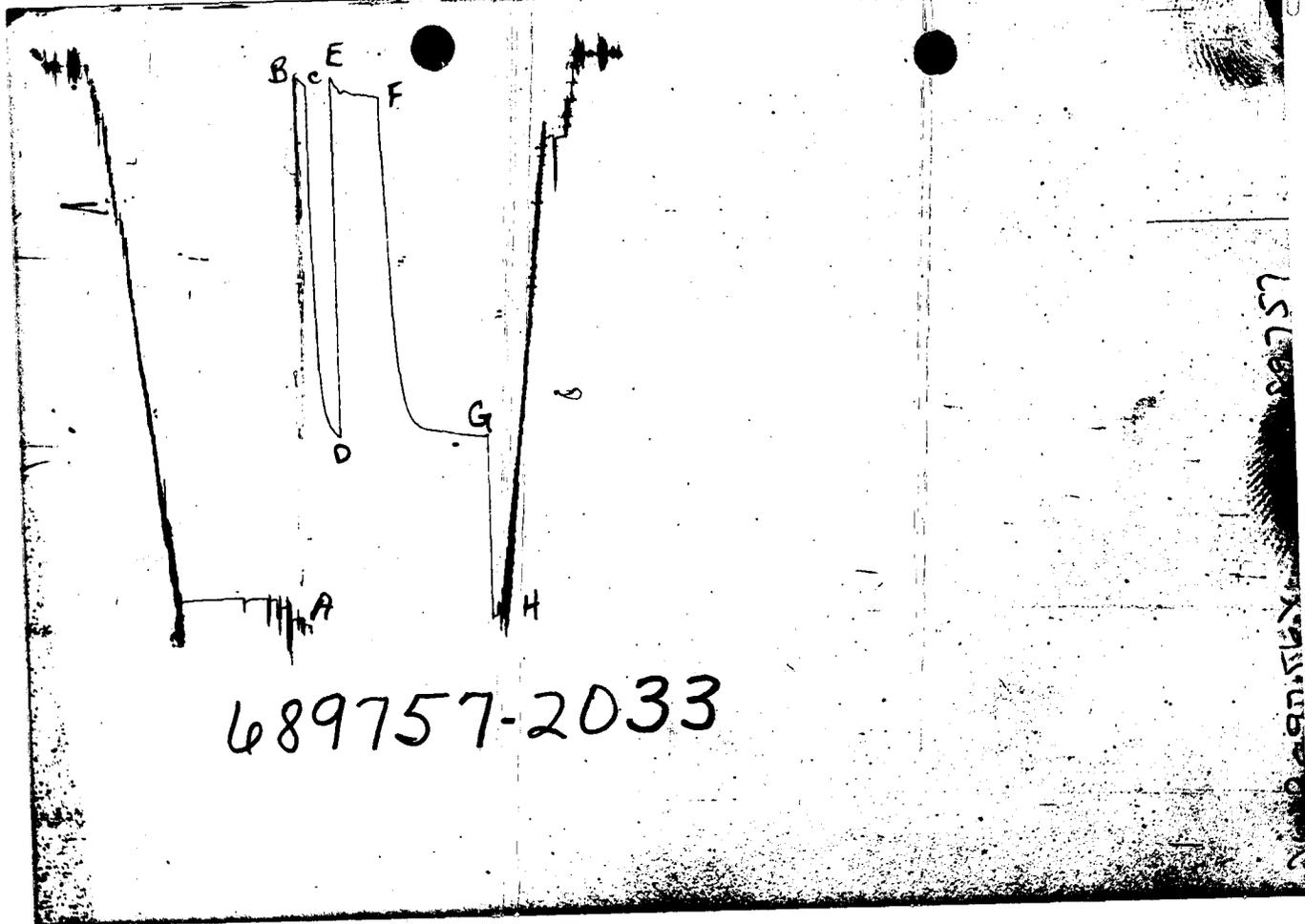
BEST COPY
AVAILABLE

WELLS FEDERAL	1	1	5749.1 - 5786.1	DUNCAN EXPLORATION COMPANY
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. - TWP. - RNG.	4-385-24E	FIELD AREA	WILDGAT	COUNTY
				SRN JURN
				STATE
				UTAH
				BG



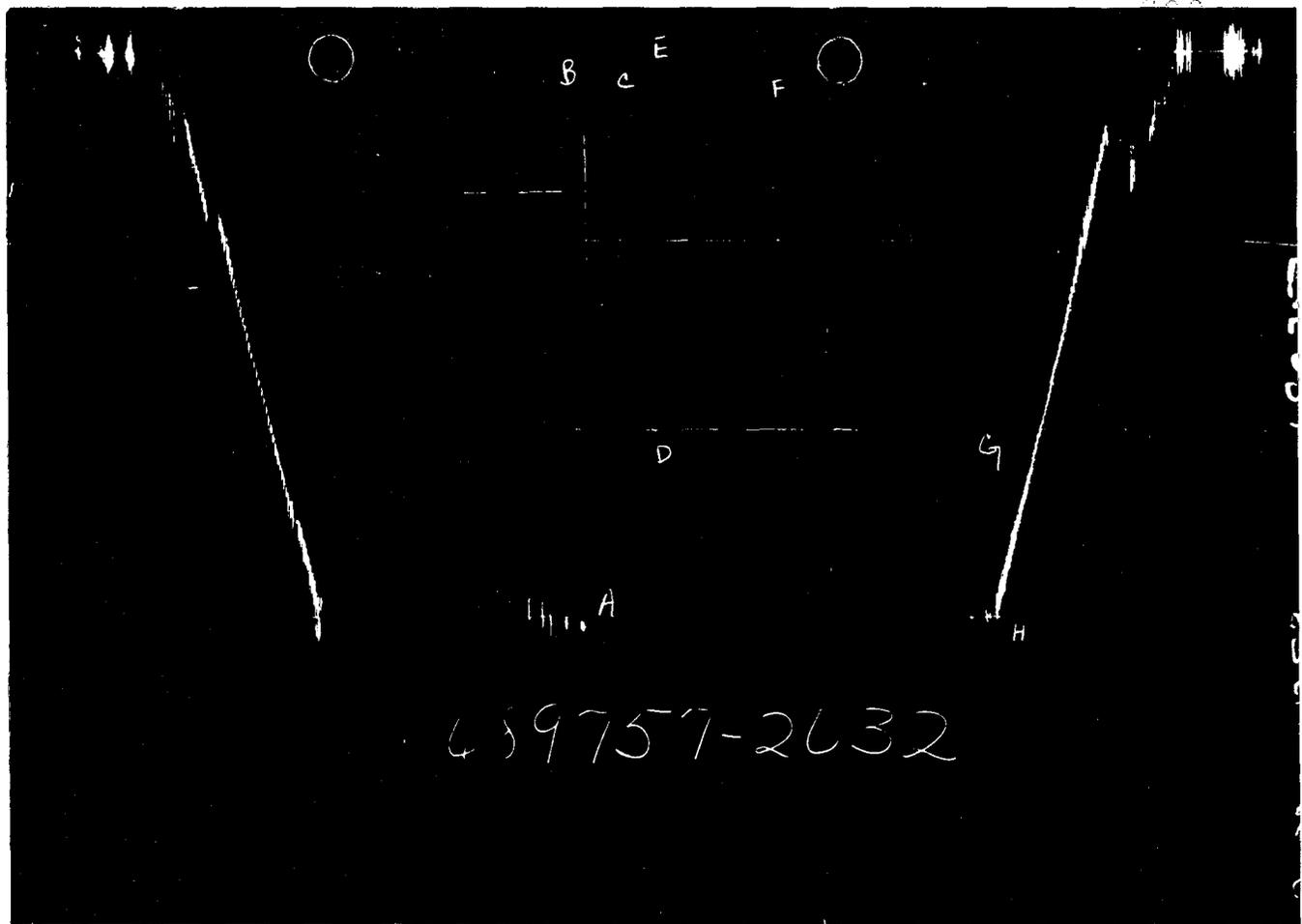
TICKET NO. 68975700
 26-SEP-84
 FARMINGTON

FORMATION TESTING SERVICE REPORT



GAUGE NO: 2033 DEPTH: 5731.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2932	2979.0			
B	INITIAL FIRST FLOW	80	90.0			
C	FINAL FIRST FLOW	134	135.2	15.0	14.2	F
C	INITIAL FIRST CLOSED-IN	134	135.2			
D	FINAL FIRST CLOSED-IN	1997	2004.8	30.0	31.0	C
E	INITIAL SECOND FLOW	80	92.9			
F	FINAL SECOND FLOW	214	206.0	60.0	60.4	F
F	INITIAL SECOND CLOSED-IN	214	206.0			
G	FINAL SECOND CLOSED-IN	1997	2019.6	120.0	120.8	C
H	FINAL HYDROSTATIC	2932	2978.5			



489757-2632

GAUGE NO: 2032 DEPTH: 5783.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3048	3022.3			
B	INITIAL FIRST FLOW	80	113.5			
C	FINAL FIRST FLOW	134	150.0	15.0	14.2	F
C	INITIAL FIRST CLOSED-IN	134	150.0			
D	FINAL FIRST CLOSED-IN	2012	2031.6	30.0	31.0	C
E	INITIAL SECOND FLOW	80	103.5			
F	FINAL SECOND FLOW	213	224.4	60.0	60.4	F
F	INITIAL SECOND CLOSED-IN	213	224.4			
G	FINAL SECOND CLOSED-IN	2038	2047.6	120.0	120.8	C
H	FINAL HYDROSTATIC	3048	3016.2			

EQUIPMENT & HOLE DATA

FORMATION TESTED: ISMAY

NET PAY (ft): 30.0

GROSS TESTED FOOTAGE: 37.0

ALL DEPTHS MEASURED FROM: KB

CASING PERFS. (ft): _____

HOLE OR CASING SIZE (in): 7.875

ELEVATION (ft): 5344

TOTAL DEPTH (ft): 5786.0

PACKER DEPTH(S) (ft): 5743, 5749

FINAL SURFACE CHOKE (in): 0.375

BOTTOM HOLE CHOKE (in): 0.750

MUD WEIGHT (lb/gal): 9.90

MUD VISCOSITY (sec): 36

ESTIMATED HOLE TEMP. (°F): _____

ACTUAL HOLE TEMP. (°F): 128 @ 5782.0 ft

TICKET NUMBER: 68975700

DATE: 9-21-84 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: FARMINGTON

TESTER: BELL

WITNESS: BROWNING

DRILLING CONTRACTOR: ARAPAHOE #4

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
<u>PIT</u>	<u>4.880 @ 94 °F</u>	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

SAMPLER DATA

Pstg AT SURFACE: 100

cu.ft. OF GAS: 0.42

cc OF OIL: 850

cc OF WATER: 0

cc OF MUD: 0

TOTAL LIQUID cc: 850

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): 40.0 @ 60 °F

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

GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED: 6 1/2 BARRELS OF GAS CUT OIL

MEASURED FROM
TESTER VALVE

REMARKS:

TICKET NO: 68975700
 CLOCK NO: 9756 HOUR: 24



GAUGE NO: 2033
 DEPTH: 5731.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B	1	0.0	90.0		
	2	2.0	91.7	1.7	
	3	4.0	94.3	2.5	
	4	6.0	100.9	6.7	
	5	8.0	110.3	9.4	
	6	10.0	119.1	8.8	
	7	12.0	128.5	9.4	
C	8	14.2	135.2	6.7	
FIRST CLOSED-IN					
C	1	0.0	135.2		
	2	1.0	859.4	724.3	1.0 1.171
	3	2.0	1042.8	907.7	1.8 0.910
	4	3.0	1166.9	1031.7	2.5 0.763
	5	4.0	1312.4	1177.2	3.1 0.657
	6	5.0	1440.0	1304.9	3.7 0.582
	7	6.0	1553.1	1417.9	4.2 0.530
	8	7.0	1642.1	1507.0	4.7 0.480
	9	8.0	1688.3	1553.1	5.1 0.444
	10	9.0	1745.5	1610.3	5.5 0.412
	11	10.0	1786.7	1651.5	5.9 0.384
	12	12.0	1844.4	1709.2	6.5 0.339
	13	14.0	1884.7	1749.5	7.0 0.305
	14	16.0	1909.3	1774.2	7.5 0.277
	15	18.0	1934.8	1799.6	7.9 0.253
	16	20.0	1955.5	1820.3	8.3 0.233
	17	22.0	1971.6	1836.4	8.6 0.216
	18	24.0	1984.8	1849.6	8.9 0.202
	19	26.0	1994.5	1859.4	9.2 0.190
	20	28.0	2001.7	1866.6	9.4 0.178
	21	30.0	2003.9	1868.7	9.6 0.169
D	22	31.0	2004.6	1869.6	9.7 0.164
SECOND FLOW					
F	1	0.0	92.9		
	2	3.0	123.3	30.3	
	3	6.0	144.1	20.9	
	4	9.0	156.0	11.9	
	5	12.0	177.9	21.9	
	6	15.0	171.0	-7.0	
	7	18.0	167.8	-3.1	
	8	21.0	173.7	5.7	
	9	24.0	180.3	6.7	
	10	27.0	185.2	4.8	
	11	30.0	188.5	3.3	
	12	33.0	188.5	0.0	
	13	36.0	187.2	-1.3	
	14	39.0	190.1	2.9	

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
	15	42.0	190.1	0.0	
	16	45.0	191.3	1.2	
	17	48.0	196.8	5.5	
	18	51.0	197.5	0.7	
	19	54.0	199.2	1.7	
	20	57.0	202.3	3.1	
F	21	60.4	206.0	3.7	
SECOND CLOSED-IN					
F	1	0.0	206.0		
	2	1.0	447.3	241.3	1.0 1.873
	3	2.0	533.2	327.1	1.9 1.591
	4	3.0	621.5	415.5	2.9 1.416
	5	4.0	717.6	511.6	3.8 1.297
	6	5.0	836.3	630.3	4.7 1.199
	7	6.0	917.9	711.9	5.5 1.131
	8	7.0	1041.1	835.1	6.4 1.065
	9	8.0	1150.3	944.3	7.2 1.015
	10	9.0	1268.8	1062.7	8.0 0.968
	11	10.0	1350.9	1144.9	8.8 0.927
	12	12.0	1472.7	1266.7	10.3 0.860
	13	14.0	1565.7	1359.7	11.8 0.802
	14	16.0	1656.0	1450.0	13.2 0.753
	15	18.0	1714.8	1508.8	14.5 0.712
	16	20.0	1777.1	1571.1	15.8 0.675
	17	22.0	1815.5	1609.5	17.0 0.643
	18	24.0	1852.3	1646.3	18.1 0.614
	19	26.0	1881.1	1675.1	19.3 0.588
	20	28.0	1899.2	1693.2	20.4 0.564
	21	30.0	1916.3	1710.3	21.4 0.543
	22	35.0	1944.0	1738.0	23.8 0.496
	23	40.0	1961.2	1755.2	26.0 0.458
	24	45.0	1972.4	1766.4	28.1 0.425
	25	50.0	1977.7	1771.7	29.9 0.397
	26	55.0	1980.8	1774.8	31.7 0.372
	27	60.0	1984.8	1778.8	33.3 0.351
	28	70.0	1992.8	1786.8	36.1 0.315
	29	80.0	2001.5	1795.5	38.6 0.286
	30	90.0	2008.9	1802.9	40.8 0.262
	31	100.0	2013.5	1807.5	42.8 0.242
	32	110.0	2017.6	1811.6	44.5 0.225
G	33	120.8	2019.6	1813.6	46.1 0.209

REMARKS:

TICKET NO: 68975700
 CLOCK NO: 14283 HOUR: 12

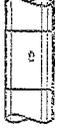


GAUGE NO: 2032
 DEPTH: 5783.0

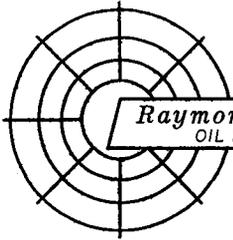
REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B	1	0.0	113.5		
	2	2.0	114.8	1.3	
	3	4.0	116.8	2.0	
	4	6.0	121.1	4.3	
	5	8.0	126.9	5.9	
	6	10.0	134.5	7.6	
	7	12.0	142.0	7.5	
C	8	14.2	150.0	8.0	
FIRST CLOSED-IN					
C	1	0.0	150.0		
	2	1.0	332.7	182.7	1.0 1.169
	3	2.0	468.7	318.7	1.7 0.916
	4	3.0	597.9	447.9	2.5 0.759
	5	4.0	721.3	571.3	3.1 0.661
	6	5.0	851.5	701.5	3.7 0.586
	7	6.0	1008.3	858.3	4.2 0.528
	8	7.0	1153.0	1003.0	4.7 0.482
	9	8.0	1298.6	1148.6	5.1 0.444
	10	9.0	1436.4	1286.4	5.5 0.411
	11	10.0	1543.9	1393.9	5.9 0.384
	12	12.0	1705.7	1555.7	6.5 0.339
	13	14.0	1807.0	1657.0	7.1 0.304
	14	16.0	1866.0	1716.0	7.5 0.276
	15	18.0	1911.5	1761.5	7.9 0.253
	16	20.0	1945.2	1795.2	8.3 0.233
	17	22.0	1969.6	1819.6	8.6 0.216
	18	24.0	1987.6	1837.6	8.9 0.202
	19	26.0	2003.9	1853.9	9.2 0.189
	20	28.0	2016.0	1866.0	9.4 0.178
	21	30.0	2025.9	1875.9	9.6 0.168
D	22	31.0	2031.6	1881.6	9.7 0.164
SECOND FLOW					
E	1	0.0	103.5		
	2	3.0	110.7	7.2	
	3	6.0	138.4	27.7	
	4	9.0	162.7	24.3	
	5	12.0	174.7	12.0	
	6	15.0	197.3	22.7	
	7	18.0	194.9	-2.4	
	8	21.0	186.3	-8.7	
	9	24.0	192.7	6.4	
	10	27.0	199.5	6.8	
	11	30.0	205.3	5.9	
	12	33.0	209.9	4.5	
	13	36.0	205.5	-4.4	
	14	39.0	207.2	1.7	

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
	15	42.0	209.9	2.7	
	16	45.0	208.5	-1.3	
	17	48.0	210.8	2.3	
	18	51.0	220.5	9.7	
	19	54.0	217.1	-3.5	
	20	57.0	218.5	1.5	
F	21	60.4	224.4	5.9	
SECOND CLOSED-IN					
F	1	0.0	224.4		
	2	1.0	332.4	108.0	1.0 1.864
	3	2.0	416.7	192.3	1.9 1.584
	4	3.0	512.3	287.9	2.9 1.407
	5	4.0	591.5	367.1	3.8 1.296
	6	5.0	668.7	444.3	4.6 1.206
	7	6.0	777.1	552.7	5.6 1.128
	8	7.0	889.2	664.8	6.4 1.065
	9	8.0	1003.2	778.8	7.3 1.012
	10	9.0	1108.0	883.6	8.0 0.969
	11	10.0	1213.7	989.3	8.8 0.928
	12	12.0	1401.6	1177.2	10.3 0.859
	13	14.0	1533.7	1309.3	11.8 0.802
	14	16.0	1625.0	1400.6	13.2 0.753
	15	18.0	1701.7	1477.3	14.5 0.712
	16	20.0	1762.8	1538.4	15.8 0.675
	17	22.0	1816.4	1592.0	17.0 0.643
	18	24.0	1854.8	1630.4	18.2 0.613
	19	26.0	1887.6	1663.2	19.3 0.588
	20	28.0	1913.6	1689.2	20.4 0.564
	21	30.0	1936.1	1711.7	21.4 0.542
	22	35.0	1968.4	1744.0	23.8 0.496
	23	40.0	1987.4	1763.0	26.1 0.457
	24	45.0	1999.6	1775.2	28.1 0.424
	25	50.0	2005.3	1780.9	29.9 0.397
	26	55.0	2008.4	1784.0	31.7 0.372
	27	60.0	2011.4	1787.0	33.3 0.351
	28	70.0	2019.4	1795.0	36.1 0.315
	29	80.0	2027.8	1803.4	38.6 0.286
	30	90.0	2034.8	1810.4	40.8 0.262
	31	100.0	2040.4	1816.0	42.7 0.242
	32	110.0	2044.4	1820.0	44.5 0.225
G	33	120.8	2047.6	1823.2	46.1 0.209

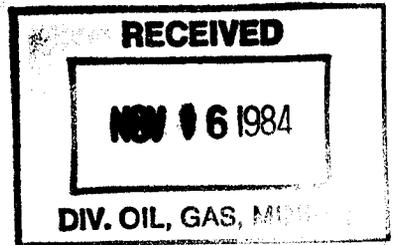
REMARKS:

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	5133.0	
3		DRILL COLLARS.....	6.250	2.250	490.0	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0	5624.0
3		DRILL COLLARS.....	6.250	2.250	90.0	
5		CROSSOVER.....	6.000	3.000	1.0	
13		DUAL CIP SAMPLER.....	5.030	0.870	7.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	5727.0
80		AP RUNNING CASE.....	5.000	2.250	4.0	5731.0
15		JAR.....	5.030	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	5743.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	5749.0
20		FLUSH JOINT ANCHOR.....	5.750	2.440	30.0	
81		BLANKED-OFF RUNNING CASE.....	5.750		4.0	5783.0
TOTAL DEPTH						5786.0

EQUIPMENT DATA



Raymond T. Duncan
OIL PROPERTIES



1777 SOUTH HARRISON STREET · PENTHOUSE ONE
TELEPHONE (303) 759-3303 · DENVER, COLORADO 80210

November 12, 1984

CONFIDENTIAL: TIGHT HOLE

State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

ATTN: Dianne R. Nielson, Director

RE: Wells Federal #1
Sec. 4-38S-24E
San Juan Co., UT
Lease #U-47876
API #43-037-31028

Dear Ms. Nielson:

Duncan started testing the above-captioned well and venting the gas on October 19, 1984. We would like to request venting the casinghead gas from this well for an additional 60-day test period. The well is located in an isolated, undeveloped area with the closest pipeline eight miles away. Marketing this gas would be economically feasible if several wells could be hooked up in the same general area. We are attempting to get pipeline companies to bring a pipeline to the subject well. Their estimated gas prices range from \$1.50 to \$2.00 per MCF.

The well has been averaging 240 MCFD and is decreasing. We would like to produce this well long enough to determine reserves, as one month has not been sufficient to make an accurate appraisal. At this time we estimate potential reserves of 250 MMCF. A recent gas analysis shows this to be good gas with a Specific Gravity of .81, and BTU rating of 1380. We will forward a copy of the analysis as soon as we receive it from the testing agency.

To operate the treater and separator, we estimate on-lease usage of approximately 30 MCFD. If after continued testing, the gas production and pressure remain favorable, Duncan will finalize plans to encourage development of a gas transportation system. We realize that during this testing period there will be a loss of gas revenue, but we feel we need to have an adequate testing period to justify further expenditures.

November 12, 1984

We realize this is short notice but would appreciate any help you could offer in the early approval of our request. We would like to call your office on Friday, November 16, 1984, for verbal approval so as not to interrupt testing procedures. Thank you for your help and consideration. If you have questions or need additional information, please contact our office.

Very truly yours,
RAYMOND T. DUNCAN



W.S. Fallin
Production Manager

WSF:c1

TERRA SERVICES, INC.

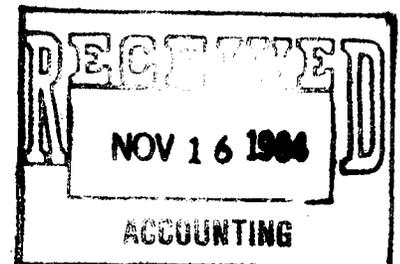
163 SOUTH VAN GORDON ST. • LAKEWOOD, COLORADO 80228
303/988-5111

Raymond T. Duncan, Oil Properties
No. 1 Wells Federal
NE, NE, 4-38S, 24E
San Juan County, Utah

Prepared By:
Terra Services, Inc.
163 South Van Gordon
Lakewood, CO 80228
(303) 988-5111

Supervisors: Joel Parise
Steve Szekula

Loggers: Steve Guzowski
Mike Papacek



Duncan Exploration Company
No. 1 Wells Federal

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Duncan Exploration Company
No. 1 Wells Federal

Well Data

Operation: Duncan Exploration Company
1777 S. Harrison Street
Penthouse One
Denver, CO 80201
(303) 759-3303

Well Name & Location: Raymond T. Duncan, Oil Properties
No. 1 Wells Federal
500' FNL & 500 FEL
NE, NE, Section 4, Township 38S, Range 24E
San Juan County, Utah

Field: Wildcat

Elevation: Ground Elevation 5330'
Kelly Bushing Elevation 5344'

Contractor: Arapahoe Drilling Rig No. 4
Farmington, New Mexico
Pusher: Tom Schrum

Company Representative: J.A. "Arkie" Browning
Box 1058
Cortez, Colorado 81321
(303) 562-3115

Wellsite Geologist: Intermountain Wellsite Geologist
P.O. Box 4007
Casper, Wyoming 82604
(307) 266-2009
Geologist: Jim Holst

Mud Logging Company: Terra Services, Inc.
163 South Van Gordon
Lakewood, Colorado 80228
(303) 988-5111

Logging Services: On September 14th, 1984 (3800')
Through September 23rd a two man unit with
hotwire and chromatograph
released on September 23, 1984

Mud Company: Hughes Drilling Fluids
314 Auburn Suite 125
Farmington, New Mexico
(505) 327-3884
Engineer: Don Bryant

Spud Date: 9/7/84 6:00 p.m.

Completed Drilling Date: 9/22/84

Drill Pipe Size: Drill Pipe: 4 1/2' wt/ft 16.60 grade E
Tool Joint: O.D. 6"
Thread Type: 4 1/2 x/ft
Collars: 6 /14
Thread Type: 4 1/2 xh

Mud Pump Type & Mud Tank: Pump No. 1 National C-250
Stroke length 15
Pump No. 2 Emsco D-300
Stroke length 14
Tank Volume 350 BBLs

Total Depth: Driller Depth: 6080, (6082) after strap
Electric Log Depth: 6081

Electric Log Company: Schlumberger
P.O. Box 250
Farmington, New Mexico 87401
Engineer: Shelly Williams

Casing Program:

13 3/8" Pilot Pipe set at 110'
8 5/8" STC 24J SEt at 2500'

Duncan Exploration Company
No. 1 Wells Federal

Survey Record

Date	Depth	Deviation	Type
9/7/84			
9/8/84	108'	1/4 ⁰	Dropped
9/9/84	711'	3/4 ⁰	Wireline
9/10/84	1208'	1 ⁰	Wireline
9/10/84	1517'	3/4 ⁰	Wireline
9/10/84	1818'	1/2 ⁰	Dropped
9/11/84	2108'	3/4 ⁰	Wireline
9/11/84	2500'	1/2 ⁰	Dropped
9/13/84	2826'	3/4 ⁰	Wireline
9/13/84	3136'	1/2 ⁰	Wireline
9/14/84	3473'	1 1/4 ⁰	Wireline
9/14/84	3720'	1 ⁰	Wireline
9/15/84	4059'	1/2 ⁰	Wireline
9/16/84	4618'	1/2 ⁰	Wireline
9/19/84	5568'	1 1/4 ⁰	Dropped
9/22/84	6080'	1 ⁰	Dropped

Duncan Exploration Company
No. 1 Wells Federal

Bit Record

No/Size	Make	Type	Depth In	Depth Out	Feet Drilled	Hours Drilled
1. 17 1/2	Smith	RR-DT	Surf.	108	108	8 3/4
2. 12 1/4	Smith	RR-F-2	108	1818	1710	34 1/2
3. 12 1/4	Smith	RR-F-2	1818	2500	682	25 1/4
4. 7 7/8	Smith	F-27	2500	4789	2289	82
5. 7 7/8	STC	F-2	4789	5568	779	64 3/4
6. 7 7/8	STC	F-3	5565	5786	218	24 1/2
7. 7 7/8	STC	F-3	5786	6080	294	28 3/4

Duncan Exploration Company
No. 1 Wells Federal

Mud Report

Date	Time	Depth	Wgt	Vis	Ph	Filt	Filter Cake	Cl	Ca	Solids
9/7/84	6:00am	Spud	Dry							
9/8/84	7:00am	108'					No/control			
9/10/84	7:00am	1528'	8.5	27	9.0	N/C	1/32	600	N/C	1.0
9/11/84	7:00am	2188'	8.5	27	8.5	N/C	Film	500	Trace	1.0
9/13/84	6:45am	2888'	8.5	27	9.0	N/C	Film	900	Trace	1.0
9/14/84	6:45am	3621'	8.5	27	7.0	N/C	Film	1750	468	1.0
9/15/84	8:00am	4184'	8.5	27	7.0	N/C	Film	2700	732	1.0
9/16/84	7:30am	4728'	8.5	27	7.0	N/C	Film	3200	688	1.0
9/17/84	5:30am	5008'	9.1	36	11.3	14.4	1/32	600	N/C	48
9/18/84	5:30am	5300'	9.5	35	11.6	12.0	1/32	5100	Trace	70
9/19/84	6:30am	5532'	9.9	36	12.0	11.6	1/32	2950	N/C	10.0
9/20/84	7:00am	5666'	9.5	35	12.5	11.2	1/32	2800	Trace	10.0
9/21/84	7:00am	5796'	10.0	35	10.5	11.2	2/32	3560	440	11.0
9/22/84	7:00am	5931'	10.7	38	12.0	9.6	2/37	2550	440	13.8
9/23/84		6080'	11.0	62	11.5	9.6	1/32	2100	4000	16.0

*mud up at 4850'

Duncan Exploration Company
No. 1 Wells Federal

Drill Stem Tests

Company: Haliburton
Farmington, New Mexico
Tester: Howard Bell

Formation Tested: Ismay (Upper)

Interval: (5750-5786')
Total Feet: 36'
Bottom Packer: 5755'
Top Packer: 5749'

Time Test Tool Opened: 6:00am

Type of Test and Cushion Type: Bottom Hole Conventional - no cushion

Drilling Fluid Properties:

Weight Chlorides	Water Viscosity	Resist Loss	Resist Loss	of Mud	of Filtrate
9.9 36	11.5	4.88			

Flow periods and choke size:

A. Surface choke: 1/8", 1/4", 3/8"
Bottom choke: 3/4"

B. I.F. 15 min. open with good blow 1/8" bubble 9 lbs in 5 min.
14.5 lbs in 10 min. hose 20 lbs in 15 min. (g.t.s. in 20
min. into test)

ISI 30 min. gts. in 5 min. slowly died.

F.F. 60 min. open with good blow 1/8" surface check 16 lbs in
5 min. 26 lbs in 15 min. 32 lbs in 30 min. (3/8" check) 18
lbs in 60 min.

FSI 120 min. surface action slowly died.

Sampler Data:

A. Recovery 0.42 cubic feet gas 850 cc. oil

B. Resistivity pit 4.88 at 94⁰ F.

Instrument Data:

Capacity (psi): 2240cc
Depth: NA
Clock cap hrs: 12/24
Temperature f: 128⁰ F.

	IN	OUT
I.H. (psi):	3047.9	2931.9
I.F. (psi):	80-133.4	80.3-133.7
FSI (psi):	2012	1997.4
F.F. (psi):	80-213.4	80.3-214.0
FSI (psi):	2038.6	1997.4
F.H. (psi):	3047.6	2931.9

Recovery Description: Reversed out 830' of gas cut oil (6 1/2 BBL)

Duncan Exploration Company
No. 1 Wells Federal

Formation Tops

GR. 5330'
K.B. 5344'

Unit	M.D.	Subsea Depth	E-Log Tops	Subsea
Dakota		surface		
De Chelly				
Hermosa				
Upper Ismay	5690'	(-346)	5692'	(-348)
Hovenweep	5839'	(-495)	5842'	(-498)
Lower Ismay	5875'	(-531)	5874'	(-530)
Gothic Shale	5922'	(-598)	5928'	(-584)
Desert Creek	5955'	(-611)	5952'	(-608)
Lower Desert Creek	6016'	(-672)	6016'	(-672)
Chimney Rock Shale	6032'	(-688)	6044'	(-700)
T.D.			6081'	(-737)

Duncan Exploration Company
No. 1 Wells Federal

Control Datum

Gulf Oil Corp.	Raymond T. Duncan
Gulf Aztec Fed. No. 1	No. 1-23 Bradford
SE, SE, Sec. 35	NE, SW, Sec. 23
T37S, R24E	T37S, R24E
G.L. 4982'	G.L. 5011'
KB. 4992'	KB. 5026'

Pennsylvanian Period
Paradox Formation

Upper Ismay Zone	-368'	-87'
Lower Ismay Zone	-490'	-289'
Gothic Shale	-530'	-321'
Desert Creek	-558'	-343'
Lower Desert Creek	-606'	-405'
Chimney Rock Shale	-621'	-459'

Duncan Exploration Company
No. 1 Wells Federal

Formation Summary

Cutler Formation

The Cutler Formation consisted of shales, siltstones and sandstones. The shales are gray red, orange, brown, blocky, earthy, silty, soft. The siltstones are medium brown, calcareous, micaeous and firm. The sandstones are white, light gray, fine grained, subrounded, well sorted, calcareous, clean, firm and display tight intergranular porosity.

Honaker Trail Formation

The Honaker Trail Formation consisted of shales, sandstones, and limestones. The limestones are pink, salmon, (upper) to brown, tan, dark brown, to gray. Cryptocrystalline to microcrystalline, microsucrosic, dense, hard, argillaceous, inpart.

The shales are gray, red, brown, blocky, earthy, silty, sandy, inpart, calcareous inpart, and firm.

The sandstones are red, brown, white, clear, very fine grain to fine grained, sub-angular to sub-rounded poor to moderately sorting, calcareous, tight intergranular porosity.

Upper Ismay (5692' - 5841')

The Upper Ismay cycle consist primarily of limestones interbedded with lesser amounts of anhydrite and shales.

The limestones are light brown, to medium gray, cryptocrystalline mesocrystalline dense, to intercrystalline, to intergranular porosity with minor amounts of vugs. There are also argillaceous, anhydritic dolomitic inpart.

The shales, are medium gray, dark gray, blocky, earthy, subwaxy waxy, calcareous carbonaceous, slightly micaceous silty, firm.

Hovenweep (5842' - 5873')

The Hovenweep shale, was dark very dark gray to black, blocky, carbonaceous, silty limey, earthy firm.

Lower Ismay (5874' - 5927')

Consisted of limestones, anhydrite.

The limestone were gray to dark gray, grainy microsucrosic, silty, dolomitic, argillaceous, firm to hard.

Gothic Shale (5928' - 5951')

The Gothic Shale is black, dark gray, carbonaceous, earthy, silty, soft.

Desert Creek (5952' - 6015') Lower (6015' - 6043')

The Desert Creek consisted of dolomite, limestone, anhydrite, and shale.

The dolomite is light to dark brown, gray, microsugrosic, sugrosic, grainy, silty, sandy, argillaceous, microcrystalline to good intercrystalline porosity.

The limestones were light brown, argillaceous dolomitic in part.

The shales were dark gray, blocky, earthy, silty, carbonaceous, calcareous, soft.

Chimney Rock (6044' - T.D.)

The Chimney Rock shale was very dark brown to black, blocky, platy, silty, calcareous, carbonaceous, micaceous, sooty, soft.

Duncan Exploration Company

No. 1 Wells Federal

Well Chronology

Date	Time	Event
9/7/84	8:00 4:00am	Rig Up
	8:00 2:30	Rig Up
	2:30 4:00	Drilling rat hole
	4:00 6:00	Drilling mouse hole
	spud 6:00 12:00 midnight	Drilling surface
9/8/84	12:00 2:45	Drilling
	2:45 3:15	
	3:15 3:45	Survey & trip out
	3:45 8:00am	Run 13 3/8 casing
	8:00 12:00	Wait on welder to weld casing together run 3 joints of 13 3/8
9/9/84	12:00 12:45	Cement
	12:45 4:00	W.O.C.
	12:00 12:30	W.O.C.
	12:30 1:00	Drilling 30' cement
	1:00 2:00	Drilling
9/10/84	2:30 3:00	Clean cement out of flowline
	3:00 8:00	Drilling
	8:00 8:15	Service Rig
	8:15 4:00	Drilling
	4:00 5:30	Drilling
	5:30 5:45	Survey 711' - 3/4 ⁰
	5:45 12:00	Drilling
	12:00 12:45am	Drilling
	12:45 1:00	Wireline survey 1208' 1 ⁰
	1:00 7:00	Drilling
7:00 7:15	Wireline survey 1517' 3/4 ⁰	
7:15 8:00	Drilling	
8:00 8:15	Rig service	
8:15 1:45	Drilling	
1:45 4:00	Survey & trip 1818' 1/2 ⁰	
4:00 4:15	Finish trip	
4:15 12:00	Drilling	

9/11/84	12:00 4:15am	Drilling
	4:15 4:30	Wireline survey 2108' 3/4 ⁰
	4:30 8:00	Drilling
	8:00 8:15	Service Rig
	8:15 4:00	Drilling
	4:00 4:15	Drilling
	4:15 6:00	Trip for hole in pipe 18 STDS.
	6:00 7:45pm	Drilling
	7:45 9:00	Circ.
	9:00 10:30	Trip out survey & lay down 8" collars 2500' 1/2 ⁰
	10:30 12:00	Rig up & run casing
9/12/84	12:00 1:00am	Run 8 5/8 casing
	1:00 3:00	Rig B.J. circ. & W.O.C.
	3:00 4:15	Cement 8 5/8 with B.J.
	4:15 8:00	W.O.C.
	8:00 4:00	W.O.C. & nipple up
	4:00 7:30	W.O.C. nipple, and pressure test pressure up to 2000 (psi) held ok
	7:30 8:00	Drilling cement
	8:00 12:00	Drilling
9/13/84	12:00 4:30am	Drilling
	4:30 4:45	Wireline survey 2838' 3/4 ⁰
	4:45 8:00	Drilling
	8:00 8:15	Service rig check B.O.P.
	8:15 1:00	Drilling
	1:00 1:30	Survey 3136' 1/2 ⁰
	1:30 2:45	Drilling
	2:45 3:30	Work on pump
	3:30 4:00	Drilling
		4:00 12:00

9/18/84	12:00 8:00	Drilling
	(5225-5300') 62-30-1200-64-	38 1/4 hrs.
	5300-5386'	
	8:00 10:00	Drilling
	10:00 10:15	Rig service check B.O.P.
	10:15 4:00	Drilling
	60-30-1200	
9/19/84	5460-5536'	
	12:00 8:00	Drilling
	5536-5568'	
	8:00 8:15	Rig service check B.O.P.
	8:15 11:00	Drilling
	11:00 12:00	Circulate bottoms up
	12:00 12:30	Survey
	12:30 2:30	Trip out SLM 5565
	2:30 4:30	Trip in cut 75' drill line
	58-35-1200-58	
	5568'	
9/20/84	4:00 5:30	Trip in
	5:30 12:00	Drilling
	5608-5675'	
	12:00 8:00	Drilling
	60-35-1200-60 14 1/2 hrs.	
	5675-5742'	
	8:00 10:00	Drilling adjust recorder & tally 5678 5675
	10:00 10:15	Rig service B.O.P.
	10:15 4:00	Drilling
	5742-5786'	
4:00 6:15	Drilling	
6:15 10:00	Circulate bottoms up for DST	
10:00 12:00	Trip out for DST No. 1	

9/14/84	12:00 12:30	Wireline 3473' 1 1/4 ^o
	12:30 8:00	Drilling
	(3440-3630') R.P.M. 75 W.O.B. 25 pp 1100 spm 62	
	33 1/4 hrs. on bit	
	(3630-3802') 8:00 8:15	Service rig check B.O.P.
	8:15 11:15	Drilling
	11:15 11:30	Survey 3720' 1 ^o
	11:30 4:00	Drilling
Hrs. on bit 41 1/4	R.P.M. 70 W.O.B. 25/30 pp 1100 spm 62	
	(3802-3985')	
	4:00 12:00	Drilling
W.O.B. 25/30	R.P.M. 70 pp 1100 spm 62 hrs. on bit 49 1/4	
9/15/84	(3985-4155')	
	12:00 2:00	Drilling
	2:00 2:30	Survey 4059' 1/2 ^o
	2:30 8:00	Drilling
W.O.B. 25/30	R.P.M. 70 pp 1100 spm 62 hrs. 55 3/4	
	(4155-4369')	
	8:00 8:15	Rig service check B.O.P.
	8:15 4:00	Drilling
W.O.B. 25/30k	R.P.M. 70 pp 1100 spm 62	
9/16/84	(4618-4715')	
	12:00 2:00	Drilling
	2:00 2:45	Survey 1/2 ^o change rotary sprocket
	2:45 8:00	Drilling 70-30-1100-62 65-30-1200-64
	8:00 8:15	Rig service
	8:15 11:30	Drilling
	11:30 4:00	Survey F.F. bit
(4715 4789)	R.P.M. 62 W.O.B. 30 pp 1200 spm 64 hrs on bit 82	
	4:00 5:30	Finish trip wash ream 180" to bottom
	5:30 12:00	Drill start to mud up at 4850'
	(4789-4908') 62-30-1200-64	
	NB-STc-F-2- 6 1/2 hrs.	
9/17/84	12:00 8:00	Drilling
	(4908-5030') 62-30-1200-64- 14 1/2 hrs.	
	8:00 8:15	Rig service check B.O.P.
	8:15 4:00	Drilling
	(5030-5139') 62-30-1200-64- 30 1/4 hrs.	

9/21/84

5786'
12:00 12:15
12:15 12:45
12:45 3:30
3:30 6:00
6:00 8:00

Trip for test No. 1
Waiting Haliburton
Pick up DST & RIH
Waiting on daylight
Testing

5786'
8:00 10:00
10:00 11:30
11:30 11:45
11:45 12:15
12:15 1:45
1:45 4:00

Testing
Pull DST No. 1
Reverse out
Finish Trip out
Break & load out test tool
Trip in with bit No. 7

5786-5876'
4:00 12:00
60-36-1150-58- 8 hrs.

Drilling

9/22/84

5876-5942'
12:00 8:00
60-35-58-16 hrs. on bit

Drilling

5942-6009'
8:00 8:30
8:30 4:00
60-35-1200-58-23 1/2 hrs.

Service rig check B.O.P.
& change No. 2 may
Drilling

6009 6080
4:00 9:15
9:15 10:45
10:45 12:00
60-35-1200-58-28 3/4 hrs.

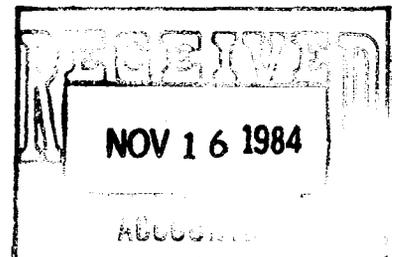
Drilling
Circ.
Slug pipe TOH for E-logs

RAYMOND T. DUNCAN
DUNCAN EXPLORATION COMPANY
NO. 1 WELLS FEDERAL
NE NE SECTION 4, TOWNSHIP 38 SOUTH, RANGE 24 EAST
500 FEET FROM NORTH LINE, 500 FEET FROM EAST LINE
SAN JUAN COUNTY, UTAH

WELLSITE GEOLOGIST: Jim Holst
Intermountain Wellsite Geologists
P. O. Box 4007
Casper, Wyoming 82604
(307) 266-2009

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WELL DATA

OPERATOR: Raymond T. Duncan
Duncan Exploration Company
1777 South Harrison Street
Penthouse One
Denver, Colorado 80210
Don Lehman, Geologist
(303) 759-3303

OTHER INTERESTED PARTIES:

Peter W. Hummel
P. O. Box 10350
Reno, Nevada 89510
(702) 786-4000

WELL NAME: No. 1 Wells Federal

LOCATION: NE NE Section 4, T38S, R24E
500' FNL, 500' FEL
San Juan County, Utah

FIELD: Wildcat

ELEVATIONS: Ground Level - 5330'
Kelly Bushing - 5344'

GEOLOGIST: Jim Holst
Intermountain Wellsite Geologists
P. O. Box 4007
Casper, Wyoming 82604
(307) 266-2009
3800' - T.D.

SPUD DATE: 6:00 pm
September 7, 1984

CEASED DRILLING: 9:22 pm
September 22, 1984

MUDLOGGING: Terra Services, Inc.
163 South Van Gordon Street
Lakewood, Colorado 80228
(303) 988-5111
Two-Man Logging Unit - TM-11
Loggers: M. Papacek and S. Guzowski

COMPANY MAN: J. A. "Arkie" Browning
P. O. Box 1058
Cortez, Colorado 81321
Mobil: (303) 562-3115

CONTRACTOR: Arapahoe Drilling Company
P. O. Box 2078
Farmington, New Mexico 87401
Rig Number 4
(505) 325-5018

TOOLPUSHER: T. H. Schrum

DRILLERS: A. Schmeidler
W. C. Brewer
J. L. Rennett
L. Davis

RIG EQUIPMENT: Type Drawworks - National 50A
Derrick - 136'
Pump #1 - National C-250, 15" x 5 1/2" liner
Pump #2 - EMSCO D-300, 14" x 5 1/2" liner
Drill Pipe - 4 1/2" X-Hole
Drill Collars - 6 1/4" X-Hole

DRILLING FLUIDS: Hughes Drilling Fluids
314 Auburn, Suite 125
Farmington, New Mexico 87401
(505) 327-3884
Engineer - Don Bryant
Mud Type - Dispersed Chem-Gel

SURFACE CASING: Driller - 13 3/8" set at 108'
8 5/8" set at 2500'
Logger - 8 5/8" at 2501'

TOTAL DEPTH: Driller - 6080', S.L.M. (6082')
E-Logger - 6081'

BOTTOM HOLE TEMPERATURE:
130°F. E-Log

SAMPLES: 30' samples from surface to 3800'
10' samples from 3800' to Total Depth

Wet cuts sent to Anderson Stratigraphic, Denver
Colorado, 10' samples dry cut, from 4000' to
Total Depth sent to Duncan Exploration in
Denver, Colorado. Show samples sent to Duncan
in Denver.

CORES: No cores cut.

DRILL STEM TEST #1: Upper Ismay Zone
5750' to 5786', 36' test
Halliburton Services
P. O. Box 960
Farmington, New Mexico 87401
(505) 325-3575
Tester - Howard Bell

DRILL STEM TEST #2: No Lower Desert Creek test.

ELECTRICAL LOGS: Schlumberger Well Services
P. O. Box 250
Farmington, New Mexico 87401
(505) 325-5006
Engineer - Shelley Williams

ELECTRICAL LOGS RUN: DIL with GR and CAL
Base of surface casing (2500') to T.D.
BHC Acoustic with GR and CAL
Base of surface casing (2500') to T.D.
FDC/CNL with GR and CAL
4000' to T.D.
DIPMETER
5650' to T.D.
CYBERLOOK
5600' to T.D.

CHRONOLOGY

September 7, 1984 Rig up and drill rat and mouse hole. Spud at 6:00 pm. Drilled from 0' to 65' with bit no. 1 (STC) DT. Drilling ahead.

September 8, 1984 Drilled from 65' to 108'. Circulate, drop survey, and trip out of hole to run 3 joints of 13 3/8" conductor casing set at 108' K.B. Cement with 130 sacks class B cement with 3% CaCl, 4% Cell flakes per sack. Plug down at 12:45 pm. Wait on cement.

September 9, 1984 Wait on cement. Drilled 30' cement. Drilled from 108' to 1125' with bit no. 2 (STC) F2. Drilling ahead.

September 10, 1984 Drilled from 1125' to 1818'. Drop survey, trip for bit no. 3 (STC) F-2. Drilled from 1818' to 1925'. Drilling ahead.

September 11, 1984 Drilled from 1975' to 2500'. Circulate, drop survey, trip out of hole to run surface casing.

September 12, 1984 Finish tripping out of hole. Run 62 joints 24 lb grade J 8 5/8" casing to 2506', set at 2500' K.B. Cement with 867 sacks BJ Lite with 200 sacks class B with 2% CaCl, plus 50 sacks class B with 2% CaCl from the top. Wait on cement. Nipple up, pressure test B.O.P. to 2000 lbs. Drilling cement. Drilling out from under surface casing at 8:00 pm. Drilled from 2500' to 2607'. Drilling ahead.

September 13, 1984 Drilled from 2607' to 3440'. Drilling ahead. Geologist on location.

September 14, 1984 Drilled from 2440' to 4004'. Drilling ahead. Mudloggers on location.

September 15, 1984 Drilled from 4004' to 4574'. Drilling ahead.

September 16, 1984 Drilled from 4574' to 4789'. Trip for bit no.5 (STC) F-2. Drop survey. Drilled from 4789' to 4917'. Drilling ahead. Mud up at 4850'.

September 17, 1984 Drilled from 4717' to 5231'. Drilling ahead.

September 18, 1984 Drilled from 5231' to 5469'. Drilling ahead.

September 19, 1984 Drilled from 5469' to 5568'. Drop survey, trip out of hole for new bit no. 6 (STC) F-3. Strap out of hole (-3'), no correction made. Drilled from 5568' to 5615'. Drilling ahead.

September 20, 1984 Drilled from 5615' to 5786'. Trip out of hole to run Drill Stem Test No. 1 (Ismay Zone).

September 21, 1984 Pick up test tool, trip into hole with tool. Run DST No. 1. Testing 5750' to 5786', 36' test. Trip out of hole with tool, lay down test tool. Pick up bit no. 7 (STC) RR F-3. Drilled from 5786' to 5884'. Drilling ahead.

September 22, 1984 Drilled from 5884' to 6080'. Circulate to run electrical logs. Trip out of hole to run logs. S.L.M. (6082').

September 23, 1984 Run electrical logs. Trip into hole, circulate, trip out of hole, lay down drill pipe. Run 5 1/2" production casing. Geologist and mudloggers released.

September 24, 1984 Finish running 5 1/2" casing. Cement casing.

DAILY DRILLING SUMMARY

Date	Depth	DSS	WT	VISC	pH	API Water Loss	Fc	PPM Chlor.	PPM Calc.	% Sol.	RPM Rotary	Wt. on Bit 1000 lbs	Pump Pressure
9/7						SPUD MUD					80	All	800
9/8	108	1				WATER					80	All	600
9/9	350	2				WATER					80	20	850
9/10	1528	3	8.5	27	9.0	N/C	1/32	600	Nil	1.0	80	20/25	1000
9/11	2188	4	8.5	27	8.5	N/C	1/32	500	40	1.0	80	30	1000
9/12	2500	5				RUN SURFACE CASING					70	30	1100
9/13	2828	6	8.5	27	9.0	N/C	1/32	900	TR	1.0	70	30	1100
9/14	3624	7	8.5	27	7.0	N/C	1/32	1750	468	1.0	70	25	1100
9/15	4184	8	8.5	27	7.0	N/C	1/32	2700	732	1.0	70	25/30	1100
9/16	4728	9	8.5	27	7.0	N/C	1/32	3200	688	1.0	70	25/30	1100
9/17	5008	10	9.1	36	11.3	14.4	1/32	3600	NIL	4.8	62	30	1200
9/18	5300	11	9.5	35	11.6	12.0	1/32	5100	TR	7.0	62	30	1200
9/19	5532	12	9.9	36	11.6	12.0	1/32	2950	NIL	10.0	60/56	35	1200
9/20	5666	13	9.9	35	12.5	11.2	1/32	2800	TR	10.0	60	35	1200
9/21	5840	14	10.0	35	10.5	11.2	1/32	2550	440	10.0	60	36	1150
9/22	5931	15	10.7	38	12.0	9.6	2/32	2550	440	13.8	60	35	1200
9/23	6081	16				RUN ELECTRICAL LOGS							
9/24	6081	17				RUN 5 1/2" PRODUCTION CASING							

BIT RECORD

<u>Bit No.</u>	<u>Size</u>	<u>Make</u>	<u>Type</u>	<u>Depth Out</u>	<u>Feet Cut</u>	<u>Hours</u>	<u>Average Ft/Hr</u>
1	17 1/2	STC	DT	108	108	8 3/4	12.3
2	12 1/4	STC	F-2	1818	1710	34 1/2	49.6
3	12 1/4	STC	F-2	2500	682	25 1/4	27.0
4	7 7/8	STC	F-27	4789	2289	82	27.9
5	7 7/8	STC	F-2	5568	779	64 3/4	12.0
6	7 7/8	STC	F-3	5785	217	24 1/2	8.9
7	7 7/8	STC	F-3	6080	<u>295</u>	<u>28 3/4</u>	<u>10.3</u>
				TOTALS	6080	268.5	22.6

DEVIATION RECORD

<u>Date</u>	<u>Depth</u>	<u>Degrees Deviation</u>
9/8/84	108	3/4°
9/9/84	711	3/4°
9/10/84	1208	1°
9/10/84	1517	3/4°
9/10/84	1818	1/2°
9/11/84	2108	3/4°
9/11/84	2500	1/2°
9/13/84	2826	3/4°
9/13/84	3136	1/2°
9/14/84	3473	1 1/4°
9/15/84	4059	1/2°
9/16/84	4618	1/2°
9/17/84	4789	1°
9/19/84	5568	1 1/4°
9/22/84	6081	1°

**CONFIDENTIAL:
TIGHT HOLE**

FORMATION TOPS

K.B. = 5344 feet

	<u>Sample Top</u>	<u>E-Log Top</u>	<u>Subsea</u>
PENNSYLVANIAN PERIOD			
Hermosa Group (Honaker Trail Fm)		4732	+612
Paradox Formation			
Upper Ismay Zone	5690	5692	-348
Lower Ismay Zone	5875	5874	-530
Gothic Shale Zone	5922	5928	-584
Desert Creek Zone	5955	5952	-608
Lower Desert Creek Porosity	6016	6016	-672
Chimney Rock Shale Zone	6032	6044	-700
Akah Zone	6054	6069	-725
T.D.	6080	6081	-737
	SLM 6082		

**CONFIDENTIAL:
TIGHT HOLE**

E-LOG CALCULATIONS

Depth	ØN	ØD	ØS	AVE Ø	F ($\frac{1}{\phi^2}$)	Rt	Rwa ($\frac{Rt}{F}$)	Rw	Ro (FRw)	% Sw
Upper Ismay										
5758-60	.155	.03	.07	.085	138.4	200	1.45	.03	4.152	14
5760-62	.20	.09	.09	.127	62	150	2.42	.03	1.86	11
5762-64	.215	.10	.095	.137	53.5	200	2.74	.03	1.61	9
5764-66	.21	.09	.09	.13	59.2	150	2.53	.03	1.78	11
5766-68	.18	.08	.10	.12	69.4	175	2.52	.03	2.08	11
5768-70	.235	.135	.10	.157	40.7	100	2.46	.03	1.22	11
5770-72	.215	.115	.10	.143	48.7	90	1.85	.03	1.46	13
5772-74	.22	.12	.10	.147	46.5	1000	21.5	.03	1.39	4
5774-76	.155	.04	.06	.085	138.4	300	2.17	.03	4.15	12
5776-78	.18	.08	.07	.11	82.6	600	7.3	.03	2.48	6
5778-80	.15	.03	.06	.08	156.3	400	2.56	.03	4.69	11
5780-82	.14	.02	.06	.073	186	50	.27	.03	5.58	33
5782-84	.26	.10	.14	.167	36	15	.42	.03	1.08	27
5784-86	.30	.19	.175	.222	20.4	20	.98	.03	6.1	17
5786-88	.20	.08	.08	.12	69.4	100	1.44	.03	2.08	14
5800-02	.10	.01	.08	.063	249.3	300	1.2	.03	7.48	16
5802-04	.265	.115	.11	.163	37.5	90	2.4	.03	1.12	11
5804-06	.13	.05	.055	.08	162.9	100	.61	.03	4.89	22
5836-37	.18	.04	.06	.093	114.8	200	1.74	.03	3.44	13
5837-38	.23	.09	.09	.137	7.3	60	8.22	.03	2.2	6
AVERAGE				.122	67.2	215	3.2	.03	2.0	10
Lower Desert Creek Porosity										
6016-18	.19	.06	.10	.117	73.5	14	.19	.035	2.57	43
6018-20	.25	.09	.11	.15	44.4	10	.225	.035	1.56	39
6020-22	.255	.13	.095	.16	39.1	17	.43	.035	1.37	28
6022-24	.26	.12	.11	.163	37.5	20	.53	.035	1.31	26
6024-26	.29	.11	.14	.18	30.9	13	.42	.035	1.08	29
6026-28	.30	.135	.155	.197	25.9	55	.21	.035	.905	40
6028-30	.295	.165	.13	.197	25.9	3	.12	.035	.905	55
AVERAGE				.166	36.3	12	.33	.035	1.27	33

Comments: The calculated values always assumed a constant bulk fluid density of 1.0 gm/cc. A resistivity value (Rw) of 0.03 was used for the Ismay and a value of 0.035 was used for the Desert Creek. A limestone matrix was used on CNL and converted to dolomite matrix in the Desert Creek. A grain density scale from 2.0 to 3.0 was used on FDC, 2.71 for limestone and 2.87 for dolomite.

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E-LOG COMPARISONS

CONTROL DATA

FORMATION	Gulf Oil Corp. Gulf Aztec Fed 1 35, 37S, 24E GL-4982' KB-4992'	Marathon Oil Co. McCraken #1-31 31, 37S, 24E GL-5684' KB-5698'	Raymond T. Duncan 1-23 Bradford 23, 37S, 24E GL-5011' KB-5026'	Raymond T. Duncan #1 Wells Federal 4, 38S, 24E GL-5330' KB-5344'
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PENNSYLVANIAN PERIOD

PARADOX FORMATION

Upper Ismay Zone	-368	-291	- 87	-348
Lower Ismay Zone	-490	-464	-269	-530
Gothic Shale	-530	-512	-321	-584
Desert Creek Zone	-558	-544	-343	-608
Lower Desert Creek Zone	-606	-603	-405	-672
Chimney Rock Shale	-621	-617	-459	-700

DRILL STEM TEST DATA

Drill Stem Test No. 1: Upper Ismay 5750'-5786' (36'test)

Type: Bottom Hole Conventional with No Cushion

Flows: IF - 15 minutes; open with good blow 9 lbs in 5 minutes (1/8" bubble hose), 14.5 lbs in 10 minutes, 20 lbs in 15 minutes.

ISI- 30 minutes; gas to surface in 5 minutes (gas to surface 20 minutes into test).

FF - 60 minutes; open with good blow, 16 lbs in 5 minutes, (1/8" surface choke), 26 lbs in 15 minutes (1/4" surface choke), 32 lbs in 30 minutes (3/8" surface choke), 135 MCF gas, decreasing to 18 lbs in 60 minutes.

FSI- 120 minutes; surface action slowly died.

Field Pressures:

Location (Depth)	IN (Bottom)	OUT (Top)
	5785	5731
IH	3047.9	2931.9
IF	80-133.4	80.3-133.7
ISI	2012	1997.4
FF	80-213.4	80.3-214.0
FSI	2038.6	1997.4
FH	3047.6	2931.9

Bottom Hole Temperature: 128°F.

Recovery: Drill Pipe - 830' (6.5 barrels) oil reversed out, 40° API gravity at 60°F.

Sample Chamber - 0.42 cu ft gas
850 cc 40° API gravity oil at 60°F
100 psi

Resistivities: PIT - 4.88 at 94°F.

Observations and Comments:

Drill stem test no. 1 was a successful mechanical test. The packers set and held, no fluid was lost downhole, and no mechanical failure was indicated on the test tool.

The results of this test indicate a potential reservoir exists in this zone at this location. Good porosity with fair permeability and a good show from sample examination with no indication of formation water gives this zone great potential.

LITHOLOGY

3800 - 3850

Shale - red, gray, purple, varicolored, blocky to splintery, soft to moderately firm, non calcareous to slightly calcareous, traces of limy, scattered silty in part, subwaxy in part, traces of soft black coal.

Sandstone - white, clear, light gray, light red, light purple, scattered very fine grained to mostly fine grained, scattered medium grained, subrounded to subangular, slightly calcareous, tight, clay filled.

3850 - 3950

Shale - predominantly red, brick red, gray, varicolored, blocky, soft to moderately firm, scattered hard, non calcareous to traces of limy, silty to slightly sandy in part, subwaxy in part, scattered black, soft coal.

Sandstone - clear to gray, scattered pink to light purple, very fine grained to scattered medium grained, subrounded to subangular, slightly calcareous, tight, no visible porosity, no show.

Siltstone - brick red, red, blocky, slightly sandy in part, calcareous.

3950 - 4150

Shale - gray, red, brick red, purple, varicolored, blocky, scattered splintery, soft to moderately firm, non calcareous, traces of scattered slightly limy, subwaxy, silty in part, scattered coal.

Sandstone - gray, clear, light gray, white, light pink, fine grained to coarse grained, tight, clay filled, poor to moderately sorted, slightly calcareous, moderately firm, scattered hard, no visible porosity.

Siltstone - red, light red, blocky, sandy in part, calcareous to slightly calcareous.

4150 - 4300

Shale - gray, red, brick red, brown, varicolored, blocky, scattered splintery, soft to moderately firm, non calcareous to scattered limy, silty in part, scattered soft, black coal.

Sandstone - white, light gray, light pink, coarse grained, scattered fine grained, poor to moderately sorted, tight, clay filled, subangular to subrounded, no stain, no fluorescence, no cut.

Siltstone - red, blocky, soft, calcareous.

4300 - 4500

Sandstone - white, light red, light gray, medium to coarse grained, scattered fine grained, poor to moderately sorted, subangular to subrounded, calcareous, clay filled, no stain, no fluorescence, no cut.

Shale - light to medium gray, red, brick red, brownish red, blocky, scattered splintery, non-calcareous to scattered limy, silty, subwaxy in part.

Siltstone - predominantly red, blocky, soft to moderately firm, calcareous.

4500 - 4600

Shale - red, brick red, dark reddish brown, gray, blocky to splintery, noncalcareous to limy in part, soft to moderately firm, scattered firm, silty in part, subwaxy in part, traces of white gypsum and scattered soft, black coal.

Limestone - pink, cryptocrystalline, dense, no visible porosity, argillaceous, no show.

Sandstone - white, light gray, pink to clear, fine grained to traces of coarse grained, subangular to subrounded, calcareous, clay filled, tight, firm, no visible porosity, no stain, no fluorescence, no cut.

4600 - 4700

Shale - predominantly gray to dark reddish brown, red, brick red, blocky to splintery in part, calcareous to scattered limy in part, soft to moderately firm, scattered hard, scattered silty, subwaxy in part, scattered soft, black coal.

Limestone - pink, salmon, light gray, cryptocrystalline, dense, no visible porosity, argillaceous, no stain, no fluorescence.

Sandstone - light gray, light red, white, fine grained, scattered medium to coarse grained, subrounded to subangular, moderately sorted, calcareous, predominantly clay filled and tight, no stain, no fluorescence, no cut.

4700 - 4800

Shale - gray, scattered dark gray, red, blocky to splintery, non calcareous to scattered limy in part, silty to scattered sandy in part, soft to moderately firm.

Sandstone - light gray, gray, white, clear, light red, fine grained to medium grained, subrounded, calcareous, clay filled, tight, no stain, no fluorescence, no cut.

- Scattered Limestone - light brown, tan, light gray, cryptocrystalline, dense, argillaceous in part.
- 4800 - 4910 Shale - light to medium gray, dark brown to medium brown, splintery to blocky, soft to moderately firm, calcareous to limy in part, scattered pyrite.
- Limestone - light brown, tan, buff, light gray, dense, cryptocrystalline, argillaceous, no stain, no fluorescence, no cut.
- Scattered Sandstone - white, clear, light gray, very fine grained to fine grained, subrounded to subangular, calcareous, clay filled, tight, no stain, no fluorescence, no cut.
- 4910 - 4920 Limestone - light gray, light brown, tan to white, dense, cryptocrystalline, scattered slightly argillaceous, no visible porosity, no stain, no fluorescence, no cut, scattered light brown chert.
- 4920 - 4930 Shale - dark brown, brownish gray, medium gray, splintery to blocky, soft to moderately firm, calcareous to slightly limy, silty in part, subwaxy.
- Limestone - light brown, tan, dense, cryptocrystalline.
- 4930 - 4940 Shale - light to medium gray, greenish gray, blocky to splintery, soft, calcareous to limy in part, with:
- Limestone - light tan, light brown, white, dense, cryptocrystalline.
- 4940 - 4960 Shale - dark brown, dark grayish brown, greenish gray, blocky to splintery, calcareous to slightly limy, soft, silty in part, subwaxy.
- Limestone - brown, dense, cryptocrystalline, traces of scattered:
- Sandstone - clear, white, light gray, fine grained to medium grained, subrounded to subangular, calcareous, moderately sorted, tight, no stain, no fluorescence, no cut. Scattered dark brown chert.
- 4960 - 4980 Shale - dark brownish red, dark brown, blocky to splintery, calcareous to limy in part, soft to firm, silty, slightly sandy in part.

- Limestone - brown, dense, cryptocrystalline, no stain, no cut.
- 4980 - 5000 Limestone - light brown, light gray, light grayish brown, dense, cryptocrystalline, no visible porosity, no cut.
- Shale - dark brown, dark brownish gray, blocky to splintery, soft to firm, calcareous to limy, silty, micaceous.
- Sandstone - light gray, light greenish gray, clear, very fine grained to fine grained, subrounded, calcareous, moderately sorted, no stain, no cut.
- 5000 - 5010 Shale - dark brown, dark grayish brown, dark reddish brown, gray, splintery to blocky, soft, scattered moderately firm, silty, calcareous to limy, subwaxy.
- Limestone - light gray, dense, cryptocrystalline, no stain, no fluorescence, no cut.
- 5010 - 5020 Sandstone - clear light gray, fine grained to coarse grained, subangular, tight, hard, poorly sorted, calcareous, no visible porosity, no stain, no fluorescence, no cut, scattered coarse grained unconsolidated quartz grains.
- 5020 - 5030 Limestone - brown, gray, grayish brown, light brown, light gray, dense, cryptocrystalline, no visible porosity, no cut.
- Shale - gray, blocky to splintery, moderately firm, calcareous to limy, silty.
- 5030 - 5040 Limestone - light brown, light gray, white, dense, cryptocrystalline, slightly argillaceous in part, fossiliferous, oolitic.
- 5040 - 5080 Shale - dark brown, gray to dark gray, dark reddish brown, splintery to blocky, soft to moderately firm, calcareous to limy in part, silty in part.
- Limestone - light brown, light gray, dense, argillaceous in part, cryptocrystalline.
- Sandstone - light gray, white, fine grained, subrounded, calcareous, clay filled.
- 5080 - 5090 Sandstone - gray, light gray, greenish gray, fine grained to medium grained, clay filled, tight, micaceous, moderately sorted, subrounded to

- subangular, very poor porosity, no stain, no fluorescence, no cut.
- 5090 - 5110 Limestone - light brown, brown, grayish brown, cryptocrystalline to slightly sucrosic, sandy in part, argillaceous in part, no visible porosity, no stain, no fluorescence, no cut.
- 5110 - 5140 Shale - dark gray, dark brownish gray, dark brown, splintery to blocky, silty in part, soft to moderately firm, calcareous to limy in part, scattered dark brown chert.
- Limestone - light to medium gray, light brownish gray, argillaceous in part, cryptocrystalline, fossiliferous.
- 5140 - 5160 Sandstone - white, light gray, clear, very fine grained to fine grained, scattered medium grained, clay filled, tight, calcareous, subangular to subrounded, moderately sorted, very poor porosity, no stain, no fluorescence, no cut.
- 5160 - 5180 Shale - dark brown, medium to dark brownish gray, splintery to blocky, soft to moderately firm, calcareous to limy in part, silty in part.
- Limestone - brown, cryptocrystalline, silty to sandy in part.
- 5180 - 5200 Limestone - brown, light brown, cryptocrystalline to microcrystalline, argillaceous in part, dense, no visible porosity, no stain, no fluorescence, no cut, scattered brown chert, scattered fossils.
- 5200 - 5210 Shale - medium to dark gray, dark brown, dark brownish gray, blocky to splintery, silty, slightly sandy in part, calcareous to limy in part.
- Limestone - brown, cryptocrystalline, slightly argillaceous in part.
- 5210 - 5230 Shale - dark brownish gray, blocky, silty in part, calcareous to limy in part.
- 5230 - 5250 Limestone - light brown, buff, cryptocrystalline, slightly argillaceous in part, no visible porosity, no stain, no fluorescence, no cut, abundant light to medium brown chert.
- 5250 - 5270 Shale - dark brown, dark gray to black, splintery to slightly platy, scattered blocky, moderately firm to firm, slightly silty in part, calcareous to limy in part.

- 5270 - 5300 Limestone - medium brown, medium grayish brown, dense, argillaceous, cryptocrystalline, no visible porosity, no stain, no fluorescence, no cut.
- Shale - dark brown, splintery to platy, moderately firm, calcareous to limy.
- 5300 - 5310 Limestone - light to medium gray, light brownish gray, cryptocrystalline to microcrystalline, fossiliferous, no visible porosity, no stain, no fluorescence, no cut.
- 5310 - 5330 Shale - medium gray, dark brown, blocky to splintery, moderately firm, calcareous to limy, silty in part.
- Limestone - light to medium brown, dense, cryptocrystalline, argillaceous in part, scattered pyrite.
- 5330 - 5340 Limestone - medium brown, scattered light brown, cryptocrystalline to microcrystalline, dense, no visible porosity, no stain, no cut, no fluorescence, abundant light to medium brown chert, argillaceous in part.
- 5340 - 5390 Shale - medium to dark brownish gray, dark brown, dark gray to black, splintery to platy, scattered blocky, moderately firm to firm, silty in part, calcareous to limy in part, scattered soft black coal.
- Limestone - light brown, medium brown, dense, cryptocrystalline, trace scattered fossils, no stain, no cut.
- 5390 - 5410 Limestone - light to medium brown, cryptocrystalline to scattered microcrystalline, dense, argillaceous in part, trace scattered fossils, no stain, no fluorescence, no visible porosity, no cut, scattered light brown chert.
- Shale - medium to dark brownish gray, dark grayish brown, blocky, calcareous to limy in part, slightly silty in part.
- 5410 - 5420 Shale - dark brown, dark grayish brown, blocky to splintery, moderately firm to firm, calcareous to limy, scattered chert.
- Limestone - light to medium gray, light to medium brownish gray, dense, argillaceous in part.

- 5420 - 5440 Shale - dark gray, blocky to splintery in part, calcareous to limy, moderately firm to scattered firm, slightly silty in part.
- 5440 - 5460 Shale - dark gray to black, splintery to platy, moderately firm to firm, calcareous to limy in part, silty in part.
- 5460 - 5470 Limestone - medium brown, dense, cryptocrystalline to scattered microcrystalline, no visible porosity, no stain, no cut, argillaceous in part, no fluorescence.
- Shale - dark brown, scattered medium to dark gray, splintery to blocky, moderately firm, slightly calcareous to scattered limy in part.
- 5470 - 5510 Limestone - light to medium brown, tan, argillaceous in part, cryptocrystalline to microcrystalline, scattered slightly sucrosic, no visible porosity, no stain, no fluorescence, no cut.
- 5510 - 5540 Shale - medium gray, medium brownish gray, blocky to splintery, moderately firm to firm, slightly calcareous to slightly limy in part, silty in part.
- Limestone - light to medium brown, dense, cryptocrystalline to microcrystalline, argillaceous in part.
- 5540 - 5550 Limestone - medium brown, medium grayish brown, dense, cryptocrystalline to microcrystalline, argillaceous in part, no visible porosity, no stain, no fluorescence.
- Shale - medium gray, scattered dark gray, blocky to splintery in part, calcareous to scattered limy in part, silty in part, calcareous crystalline, traces of white, soft anhydrite.
- 5550 - 5560 Limestone - light brown, light gray, light grayish brown, medium brown, dense, argillaceous to scattered very argillaceous, blocky to splintery, anhydritic to calcareous filled, no visible porosity, no stain, no fluorescence, no cut, scattered fossils, firm.
- 5560 - 5570 Limestone - medium to dark brown, medium grayish brown, splintery to blocky, moderately firm to hard, dense, argillaceous to scattered very argillaceous, anhydritic and calcite filled, no visible porosity, no stain, no fluorescence, no cut.

- 5570 - 5620 Limestone - dark brown, dark grayish brown, scattered brown, blocky to splintery, hard, dense, anhydritic and calcite filled, no visible porosity, no stain, no fluorescence, no cut, argillaceous, traces of scattered fossils.
- 5620 - 5670 Limestone - light to medium brown, light to medium grayish brown, cream, dense, argillaceous in part, no visible porosity, no stain, no fluorescence, no cut, traces of scattered fossils.
- Shale - dark brown, dark gray, splintery to platy, moderately firm, calcareous to slightly limy in part, scattered light to medium brown chert.
- 5670 - 5690 Shale - medium to dark gray, scattered black, blocky to slightly splintery, moderately firm, calcareous to slightly limy.
- Upper Ismay (5692' E-Log)
- 5690 - 5700 Limestone - light to medium grayish brown, dense, argillaceous in part, cryptocrystalline to slightly microcrystalline, no stain, no fluorescence, no cut.
- 5700 - 5710 Anhydrite - white, cream, soft.
- 5710 - 5730 Shale - black, dark gray, splintery to blocky, scattered platy, moderately firm, slightly calcareous to slightly limy in part, scattered silty in part.
- Limestone - medium grayish brown, medium brown, cryptocrystalline to microcrystalline, dense, argillaceous in part, anhydritic in part, no visible porosity, no stain, no fluorescence, no cut, scattered white, soft anhydrite.
- 5730 - 5755 Anhydrite - creamy white, dense, soft.
- 5755 - 5790 Limestone - dark gray to dark brownish gray to black, microcrystalline to microsucrosic, scattered sucrosic, dolomitic, very slightly argillaceous, scattered anhydritic infilling, abundant pin point to abundant small vugs, abundant black to dark brown stain, oil lined vugs, good abundant yellowish green fluorescence, good bleeding to streaming yellowish green cut.
- 5790 - 5800 Limestone - light to medium brownish gray, cryptocrystalline to slightly sucrosic in part, anhydritic in part, dense, slightly argillaceous in part, no visible to poor pin point porosity,

scattered traces of black stain, scattered green fluorescence, traces of poor slight milky cut.

5800 - 5840 Limestone - light gray, white, cream to light brown, cryptocrystalline to microcrystalline, dense, slightly argillaceous in part, scattered anhydrite, scattered traces of fossils, no visible porosity, no stain, no fluorescence, no cut.

Hovenweep Shale (5842' E-Log)

5840 - 5870 Shale - black, dark gray, dark brownish gray, splintery to platy, soft to moderately firm, slightly calcareous to calcareous, slightly silty in part, scattered carbonaceous in part.

Lower Ismay (5874' E-Log)

5870 - 5880 Limestone - light brownish gray, microcrystalline to sucrosic, dolomitic, slightly argillaceous in part, dense, no visible porosity, no stain, no fluorescence, no cut.

5880 - 5890 Shale - medium to dark gray, blocky to splintery, moderately firm to firm, calcareous to limy in part, scattered soft, white to cream anhydrite.

5890 - 5910 Anhydrite - soft, white to cream.

Limestone - light to medium brownish gray, cryptocrystalline to microcrystalline, very anhydritic, argillaceous in part, dolomitic, no visible porosity.

5910 - 5920 Limestone - medium gray, microcrystalline to slightly sucrosic, firm to hard, anhydritic in part, dolomitic, argillaceous, no visible porosity, no stain, no fluorescence, no cut.

Gothic Shale (5928' E-Log)

5920 - 5950 Shale - black, splintery to platy, very soft, carbonaceous in part, slightly silty in part, calcareous to slightly limy.

Desert Creek (5952' E-Log)

5950 - 5960 Dolomite - medium gray, medium brownish gray, microsucrosic to sucrosic, dense, no visible porosity, no stain, no fluorescence, no cut, scattered anhydritic, argillaceous.

5960 - 5980 Anhydrite - white, cream, soft.

5980 - 5990 Dolomite - medium brown, scattered light brownish gray, cryptocrystalline to slightly sucrosic, argillaceous, dense, trace of scattered fossils, no visible porosity, no stain, no fluorescence, no cut.

Shale - dark brownish gray, dark gray, blocky to splintery, soft to moderately firm, calcareous to limy in part.

5990 - 6000 Shale - dark greenish gray, dark gray, splintery to slightly platy, calcareous to limy in part, soft to moderately firm, traces of scattered white anhydrite.

6000 - 6010 Anhydrite - white, cream, soft.

Lower Desert Creek Porosity (6016' E-Log)

6010 - 6030 Dolomite - medium brown, microsucrosic to sucrosic, limy in part, abundant pin point to small vugs, good dull green hydrocarbon fluorescence, slightly argillaceous in part, scattered fair black to dark brown stain, light yellowish residue cut.

6030 - 6040 Dolomite - medium grayish brown, cryptocrystalline to microcrystalline, scattered microsucrosic, dense, argillaceous, limy in part, no visible porosity, no stain, no fluorescence, no cut.

Chimney Rock Shale (6044' E-Log)

6040 - 6070 Shale - black, dark grayish brown, splintery to platy, soft, calcareous, carbonaceous in part.

Akah (6069' E-Log)

6070 - 6080 Limestone - gray, microcrystalline to microsucrosic, dense, argillaceous, dolomitic, no visible porosity, no stain, no fluorescence, no cut.

SHOW ANALYSIS

Hermosa (Honaker Trail Formation) E-Log 5140' - 5158'

The white to light gray to clear fine grained to scattered medium grained sandstones had fair porosity, averaging 10% to 12%. The sandstone broke down from 4-4½ minutes per foot to 2 minutes per foot. The sand at this location was clay filled, however, and as a result were poorly sorted and tight. Only a slight increase in total gas was present at this location, from 1-2 units to 5 units. The limestones of the Hermosa did not exhibit any porosity and only slight to no increases in background gas was observed.

Upper Ismay Zone (Paradox Formation) E-Log 5758'-5790', 5800'-5806', 5836'-5839'

The dark gray to dark brownish gray to black dolomitic limestones of this zone broke down in drilling from 6-7 minutes per foot to an average of 1.5 to 2 minutes per foot. These limestones were micro-sucrosic to sucrosic with abundant visible pin point to small vugs in the samples. Excellent hydrocarbon fluorescence and cut was also observed from examination of the samples. Limestone porosity values averages 12% throughout the pay zones and combined with high resistivity values averaging 215 ohms to a calculated water saturation average value of only 10%. Gas increases in background was small, however, an increase from 2 units to 41 units. This may be an indication of a relatively small gas/oil ratio. Gas to surface with a measured 140 mcf was attained during a drill stem test. No indication of formation water was seen during the drilling, testing, and electrical logging of this zone.

Lower Ismay Zone (Paradox Formation)

The light brownish gray, microcrystalline to slightly sucrosic, slightly dolomitic limestones of this zone were dense with no visible porosity or gas shows.

Upper Desert Creek Zone (Paradox Formation)

The medium brownish gray dolomites of this zone were microsucrosic to sucrosic with no visible porosity. They also exhibited anhydritic and argillaceous infilling and matrix. No significant increases in total gas was observed and no hydrocarbon shows was observed from examination of the samples.

Lower Desert Creek Zone (Paradox Formation) E-Log 6016' - 6031'

Excellent porosity was observed in the medium brown, microsucrosic to sucrosic, limy dolomites of this zone. These dolomites broke down in drilling from 6-7 minutes per foot to 1 minute per foot indicating good porosity. Good hydrocarbon fluorescence and fair stain with a good gas kick; 900 total gas units with significant amounts of heavy gases, methane 6080+, ethane 4480+, propane 2496, and total iso and normal butanes 768 units gas, makes this zone an

excellent pay zone. An average porosity value of 16.6% with an average resistivity value of 12 ohms combined to give an average water saturation value of only 33%. This gives this interval of the Lower Desert Creek excellent potential in making a good oil well.

FINAL ANALYSIS

The Raymond T. Duncan No. 1 Wells Federal was drilled to a total depth of 6081 feet (E-Log). This wildcat well was drilled to explore a seismic high for hydrocarbon potential in the Paradox Formation. The well was drilled with no major problems in engineering or geology. The crews of Araphahoe Drilling Rig No. 4 performed thier jobs satisfactorily and efficiently. The mudlogging crew from Terra Services also did a fine job. Sample quality was good throughout the driling of the well.

Final examination of all the potential pay zones in the Paradox Formation penetrated at this location indicate that pay zones exist in two zones, the Upper Ismay Zone and the Lower Desert Creek Zone.

The Upper Ismay zone has 40' of potential pay with average porosity of 12% limestone porosity, and a water saturation value averaging 10% with no indication of formation water. The only slight question-able problem with this zone may be permeability. This may have resulted in recovering only 830' (6.5 bbls) oil with 140 mcf gas. This permeability can be greatly enhanced with acid frac during completion. The limestones of this interval will fracture with acid easily, making an excellent reservoir.

The Lower Desert Creek zone has a possible 14' of potential pay with average porosity of 16% to 17% and a water saturation value averaging 33%. We did not drill stem test this zone but all indications are that a good reservoir exists in this interval of the Lower Desert Creek. The zone can be tested through casing.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

CONFIDENTIAL:
TIGHT HOLE

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
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 500' ENL: 500' FEL (NE NE)

At top prod. interval reported below same

At total depth

14. PERMIT NO. DATE ISSUED
API 43-037-31028 8-15-84

RECEIVED
DEC 10 1984
DIVISION OF OIL, GAS & MINING

15. DATE SPUNDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, REB, RT, GR, ETC.) 19. ELEV. CASINGHEAD
9/7/84 9/23/84 11/25/84 5330' GL: 5344' KB

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY 23. INTERVALS DRILLED BY 24. ROTARY TOOLS 25. CABLE TOOLS
6080' 5940' N/A → 0-6080

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)
Ismay 5757-90'

25. WAS DIRECTIONAL SURVEY MADE
No

26. TYPE ELECTRIC AND OTHER LOGS RUN
FDC/CNL, DIL, BHC Sonic HDT, HDT Geologist Sample

27. WAS WELL CORED
No

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	68# H-40	108'	17 1/2	130 sx C1 B + Add.	
8 5/8	24# J-55	2500'	12 1/2	1117 sx C1 B + Add.	
5 1/2	15.5# K-55	6080'	7 7/8	400 sx C1 B + Add.	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A					2 7/8"	5713'	5713'

31. PERFORATION RECORD (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
INTERVAL	SIZE	NUMBER	GRAMS	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6017-31'	4 JSPF	56 holes	22 gram	6017-31	1500 gal 28% HCL (acidize) then acid frac w/18,000 gal WF-40 in 6 stages.
5757-90'	4 JSPF	152 holes			
5801-06'	4 JSPF			5757-90, 5801-06	3500 gal 28% HCL (acidize)

33. PRODUCTION
DATE FIRST PRODUCTION 10/1/84
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing
WELL STATUS (Producing or shut-in) Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11/25/84	28	1 1/2"	→	120	239	0	2000
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
35#	0	→	103	205	0	41.4	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
Vented during testing; will be sold
TEST WITNESSED BY Robert Knuckles

35. LIST OF ATTACHMENTS
Geologic Report

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED W.S. Fallin TITLE Production Manager DATE 12/6/84



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

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

December 12, 1984

Mr. Raymond T. Duncan
1777 South Harrison Street
Penthouse One
Denver, Colorado 80210

Dear Mr. Duncan:

Re: Well No. Wells Federal #1 - Sec. 4, T. 38S., R. 24E.
San Juan County, Utah - API #43-037-31028

Our records indicate that you have not filed the monthly drilling reports for the months of September 1984 to the present on the above referred to well.

We have enclosed reporting forms for your convenience.

We will be happy to acknowledge receipt of response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgement should avoid unnecessary mailing of a second notice from our agency.

Sincerely,

A handwritten signature in cursive script that reads "Claudia L. Jones".

Claudia L. Jones
Well Records Specialist

cc: Dianne R. Nielson
Ronald J. Firth
John R. Baza
File

0017S/10

well file

Duncan Oil Co.
Wells Federal #1
Sec. 4, T38S, R24E
San Juan Co.

Mr. Steve Fallin
Duncan Oil, Denver
(303) 759-3303

- BLM has granted 60-day flare permit to be terminated in mid-January. Duncan Oil intends to shut-in well at this time until they can approve a gas sales contract.
- Recommend allowing a flaring permit for the time granted by BLM. Will review w/ Duncan over the next month and bring update to Board in Jan.

Prod.: 95-100 BOPD x 200 MCFD
GOR: 1900 - 2000

- 8 mi to nearest gas line - Mtn. Fuel
- SI well on Saturday, Jan. 19th.
- They do not foresee continued testing or flaring.
- They hope to have gas line contract to sell gas by May 1st. Will leave well SI until then.

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.)

RECEIVED
FEB 4 1985
DIVISION OF OIL & GAS & MINING

1. oil well gas well other

2. NAME OF OPERATOR
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY IN space 17 below.)
AT SURFACE: 500' FNL: 500' FEL (NE NE)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-47876

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Wells Federal

9. WELL NO.
#1

10. FIELD OR WILDCAT NAME
Cave Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 4-38S-24E

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

14. API NO.
43-037-31028

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5344' KB

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)	<input type="checkbox"/>		<input type="checkbox"/>

Shut in

(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.)*

Subject well was shut in January 19, 1985 in compliance with the flaring order limitations.

We are now in process of BHP testing the subject well.

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

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

SIGNED W.S. Fallin TITLE Prod. Manager DATE 1/28/85
W.S. Fallin

(This space for Federal or State office use)

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



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

September 13, 1985

Raymond T. Duncan
1777 South Harrison, P-1
Denver, Colorado 80210

Gentlemen:

Re: Well No. Wells Federal 1 - Sec. 4, T. 38S., R. 24E.,
San Juan County, Utah - API #43-037-31028

This letter is to advise you that Sec. 38, Geologic Markers, on the back side of the "Well Completion or Recompletion Report and Log" for the above referenced well was not filled in when this report was submitted.

We are sure this was an oversight on your part and we request that you complete the enclosed Form OGC-3 and forward it to this office as soon as possible, but not later than September 27, 1985.

Sincerely,

A handwritten signature in cursive script that reads "Pam Kenna".

Pam Kenna
Well Records Specialist

Enclosure

cc: Dianne R. Nielson
Ronald J. Firth
John R. Baza
File

0170S/22

RECEIVED

Form 9-331
Dec. 1973

OCT 28 1985

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
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1 Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 500' FNL: 500' FEL (NE NE)
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) Ready for Inspection

5. LEASE
U-47876

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Wells Federal

9. WELL NO.
#1

10. FIELD OR WILDCAT NAME
Cave Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 4-38S-24E

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

14. API NO.
43-037-31028

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5344' KB

(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.)*

Subject well is ready for final inspection. Pits have been restored, and seeded.

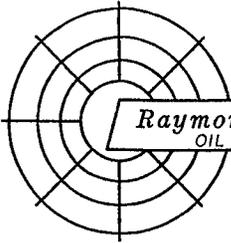
Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED John A. Bettridge TITLE Oper. Supt. DATE 10/23/85
John A. Bettridge

(This space for Federal or State office use)

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



Raymond T. Duncan
OIL PROPERTIES

1777 SOUTH HARRISON STREET • PENTHOUSE ONE
TELEPHONE (303) 759-3303 • DENVER, COLORADO 80210

RECEIVED
DEC 12 1988

DIVISION OF
OIL, GAS & MINING

December 9, 1988

Bureau of Land Management
P. O. Box 970
Moab, Utah 84532

Re: Cave Canyon Battery
T38S-R24E
San Juan Co., Utah

Gentlemen:

Enclosed is the sundry notice regarding the installation of a LACT Unit on the above captioned battery.

Please contact me if you have any questions or need additional information.

Very truly yours,

RAYMOND T. DUNCAN

J. A. Betteridge

J. A. Betteridge
Operations Superintendent

JAB:nr
Enclosures

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

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

Form Approved
 Budget Bureau No. 1064-0115
 Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED
 DEC 12 1988

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Central-Battery</u>		3. LEASE DESIGNATION AND SERIAL NO. U-47876	
2. NAME OF OPERATOR Raymond T. Duncan		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. ADDRESS OF OPERATOR 1777 So. Harrison St., PH-1, Denver, CO 80210		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NE SW		8. FARM OR LEASE NAME Cave Canyon Federal	
14. PERMIT NO. N/A		9. WELL NO. Central Battery	
15. ELEVATIONS (Show whether DF, ST, GR, etc.) N/A		10. FIELD AND POOL, OR WILDCAT Wildcat	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA T38S-R24E	
		12. COUNTY OR PARISH San Juan	13. STATE UT

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF
 FRACTURE TREAT
 SHOOT OR ACIDIZE
 REPAIR WELL
 (Other)

PULL OR ALTER CASING
 MULTIPLE COMPLETE
 ABANDON*
 CHANGE PLANS

WATER SHUT-OFF
 FRACTURE TREATMENT
 SHOOTING OR ACIDIZING
 (Other) Operations

REPAIRING WELL
 ALTERING CASING
 ABANDONMENT*

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

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

LACT Unit has been installed on the main battery. LACT was proved and put into operation on December 2, 1988. Proving was witnessed by Mike Wade of the BLM. Updated site security diagram will be sent.

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

SIGNED

J. A. Bertridg

TITLE

Operations Superintendent

DATE

Dec. 9, 1988

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

SUBMIT IN TRIPLICATE
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

UTU 47876

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

Cave Canyon Lease Waterflood

8. FARM OR LEASE NAME

Wells Federal

9. WELL NO.

No. 1-4

10. FIELD AND POOL, OR WILDCAT

Cave Canyon

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

Sec. 4-T38S-R24E

12. COUNTY OR PARISH 13. STATE

San Juan

UT

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED
JUL 11 1990

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Raymond T. Duncan

3. ADDRESS OF OPERATOR

1777 S. Harrison St., PH-1, Denver, CO 80210

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

500' FNL & 500' FEL NE NE Sec. 4

14. PERMIT NO.

43-037-31028

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

5344' KB 5330' GL

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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

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

The subject well was acidized on May 24, 1990 as follows: Pumped 500 gals of Xylene at 7 BPM @ 2000 psi, pumped 4000 gals 15% FE gelled acid at 7 BPM, flushed to perfs w/2000 gals water. ISIP 640 PSI, 5 min 0. SD for 30 min to allow acid to work. Pumped 2000 gals 28% FE pad acid @ 2 BPM @ 0 psi, flushed to perfs w/2000 gals water. Took 28% acid w/0 psi TP. Swbd back 84 BLW. Last run, 15% oil. Put well on production. Avg producing rate before acid job-15 BOPD; Avg producing rate after job-25 BOPD.

OIL AND GAS	
DFN	RJF
JFB	GLH
DIS	SLS
1-DNE	
2-MICROFILM ✓	
3-FLE	

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

SIGNED J. A. Bettridge
J. A. Bettridge

TITLE Operations Superintendent

DATE June 28, 1990

(This space for Federal or State office use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DUNCAN ENERGY COMPANY

PENTHOUSE ONE
1777 SOUTH HARRISON STREET
DENVER, COLORADO 80210-3925
TELEPHONE (303) 759-3303
FAX (303) 757-0252

RECEIVED
JAN 23 1991

January 21, 1991

Bureau of Land Management
P.O. Box 970
Moab, Utah 84532

DIVISION OF
OIL, GAS & MINING

Gentlemen:

Enclosed please find sundry notice for the change of operatorship from Raymond T. Duncan to Duncan Energy Company for the Cave Canyon Lease Waterflood.

If you require further data please contact Marie O'Keefe of this office.

Sincerely,

Marie O'Keefe

Marie O'Keefe
Engineering Technician

/mo

cc: State of Utah
3 Triad Center #350
Salt Lake City, UT 84180-1203

Effective 6-21-90
per Marie O'Keefe *for*

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for proposals

5. Lease Designation and Serial No.

UTU40751

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

Cave Canyon Lease
Waterflood

8. Well Name and No.

Cave Canyon Fed. 1-33

9. API Well No.

43-037-31276

10. Field and Pool, or Exploratory Area

Cave Canyon Ismay

11. County or Parish, State

San Juan, UT

SUBMIT IN TRIPLICATE

RECEIVED
JAN 23 1991

DIVISION OF
OIL, GAS & MINING

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

Raymond T. Duncan

3. Address and Telephone No.

1777 S. Harrison St. P-1 Denver, CO 80210 303-759-3303

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

T37S R24E Sec 33 SWSE

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other <u>Change of Operator</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

13. 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.)*

Raymond T. Duncan was the previous operator of the referenced well. Duncan Energy Company is now the operator of record. Offices, personnel and all operations will continue to be the same for Duncan Energy Company as they were for Raymond T. Duncan. Duncan Energy Company is responsible under the terms and conditions of the lease for operations conducted on the leased lands. This referenced well is in the Cave Canyon Lease Waterflood.

cc: State of Utah

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

Signed

W. S. Falls

Title Production Manager

Date January 21, 1991

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE

RECEIVED
JAN 23 1991

1. Type of Well
 Oil Well Gas Well Other See Below

2. Name of Operator
Raymond T. Duncan

3. Address and Telephone No.
1777 S. Harrison St. P-1 Denver, CO. 80210 303-759-3303

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
See Below

5. Lease Designation and Serial No.
U-47876

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
Cave Canyon Lease
Waterflood

8. Well Name and No.
See Below

9. API Well No.
See Below

10. Field and Pool, or Exploratory Area
Cave Canyon Ismay

11. County or Parish, State
San Juan, Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Change of Operator</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

13. 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.)*

Raymond T. Duncan was the previous operator of the Cave Canyon Lease Waterflood. Duncan Energy Company is now the operator of record for the Cave Canyon Lease Waterflood. Offices, personnel and all operations will continue to be the same for Duncan Energy Company as they were for Raymond T. Duncan. Duncan Energy Co. is responsible under the terms and conditions of the lease for operations conducted on the leased lands.

WELL NAME	LOCATION	WELL STATUS	API #
Cave Canyon 3-2	T38S R24E Sec 3	NESW Producing Oil Well	43-037-31120
Cave Canyon 4-3	" " " 4	NENE " " "	43-037-31414
Cave Canyon 3-3	" " " 3	SESW Shut in Oil Well	43-037-31413
Wells Federal 1-4	" " " 4	NENE Producing Oil Well	43-037-31028
Cave Canyon 3-1	" " " 3	SWNW Water Injection Well	43-037-31095
1-Cave Canyon WSW	" " " 3	NESW Water Supply Well	43-037-99998
Cave Canyon 4-4	" " " 4	NENE Producing Oil Well	43-037-31539
Cave Canyon 12-3	" " " 3	SWNW Completing Oil Well	43-037-31567
Cave Canyon 13-3	" " " 3	NWSW Approved Drlg Location	43-037-31570
Cave Canyon 3-4	" " " 3	NWNW " " "	43-037-31542
Cave Canyon 3-5	" " " 3	NWSE " " "	43-037-31541

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

Signed J. J. Fallon Title Production Manager Date January 21, 1991

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Division of Oil, Gas and Mining
PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

Well File _____

(Location) Sec ___ Twp ___ Rng ___
(API No.) _____

Suspense
(Return Date) _____
(To - Initials) _____

Other
OPERATOR CHANGE
FILE. _____

1. Date of Phone Call: 1-28-91 Time: 10:00

2. DOGM Employee (name) L. ROMERO (Initiated Call)
Talked to:

Name MARIE O'KEEFE (Initiated Call) - Phone No. (303) 759-3303

of (Company/Organization) DUNCAN ENERGY COMPANY/N3370

3. Topic of Conversation: EFFECTIVE DATE OF OPERATOR CHANGE.

4. Highlights of Conversation: EFFECTIVE DATE 6-21-90, ALSO NO DOCUMENTATION
REQUIRED FROM RAYMOND T. DUNCAN (DUNCAN ENERGY COMPANY & RAYMOND T. DUNCAN ARE
ONE IN THE SAME COMPANY).



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

January 30, 1991

Duncan Energy Company
PH 1, 1777 S. Harrison St.
Denver, Colorado 80210

Gentlemen:

RE: Transfer of Authority to Inject - Cave Canyon #3-1 Well, Sec. 3, T. 38S,
R. 24E - San Juan County, Utah

The Division has received a request of operator change for the Cave Canyon #3-1 Well, from Raymond T. Duncan to Duncan Energy Company.

Please complete and return to our office the enclosed UIC Form 5, as required by R615-8-21 of the Oil and Gas Conservation General Rules.

If I can be of assistance, please contact me at (801)538-5340.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gil Hunt".

Gil Hunt
UIC Manager

lr
Enclosure

1-
2-
3-
4-
5-
6-

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold) Designation of Agent
- Designation of Operator Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: _____)

TO (new operator)	<u>DUNCAN ENERGY COMPANY</u>	FROM (former operator)	<u>DUNCAN, RAYMOND T.</u>
(address)	_____	(address)	_____
	_____		_____
	_____		_____
phone ()	_____	phone ()	_____
account no. <u>N 3370</u>	_____	account no. <u>N0360</u>	_____

Well(s) (attach additional page if needed):

Name: <u>CAVE CANYON FED 13-3/DRL</u>	API: <u>4303731570</u>	Entity: <u>99999</u>	Sec <u>3</u> Twp <u>38S</u> Rng <u>24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CYN FED 3-4/DRL</u>	API: <u>4303731542</u>	Entity: <u>99999</u>	Sec <u>3</u> Twp <u>38S</u> Rng <u>24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CYN FED 3-5/DRL</u>	API: <u>4303731541</u>	Entity: <u>99999</u>	Sec <u>3</u> Twp <u>38S</u> Rng <u>24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CANYON #1-33/ISMY</u>	API: <u>4303731276</u>	Entity: <u>9775</u>	Sec <u>33</u> Twp <u>37S</u> Rng <u>24E</u>	Lease Type: <u>U-40751</u>
Name: <u>CAVE CANYON 1 (WSW)</u>	API: <u>(NOT ON SYS)</u>	Entity: _____	Sec <u>3</u> Twp <u>38S</u> Rng <u>24E</u>	Lease Type: <u>U-47876</u>
Name: <u>(Water Rights)</u>	API: _____	Entity: _____	Sec _____ Twp _____ Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____ Twp _____ Rng _____	Lease Type: _____

OPERATOR CHANGE DOCUMENTATION

- ___ 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form).
- ___ 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form).
- ___ 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) ___ If yes, show company file number: _____.
- ___ 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
- ___ 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above.
- ___ 6. Cardex file has been updated for each well listed above.
- ___ 7. Well file labels have been updated for each well listed above.
- ___ 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission.
- ___ 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 5, Entity Action Form).
2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
2. A copy of this form has been placed in the new and former operators' bond files.
3. The former operator has requested a release of liability from their bond (yes/no) ____ . Today's date _____ 19__ . If yes, division response was made by letter dated _____ 19__ .

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated _____ 19__ , of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
2. Copies of documents have been sent to State Lands for changes involving State leases.

MICROFILMING

1. All attachments to this form have been microfilmed. Date: _____ 19__ .

FILED

1. Copies of all attachments to this form have been filed in each well file.
2. The original of this form and the original attachments have been filed in the Operator Change file.

REMARKS

Routing:

1- LCR	<input checked="" type="checkbox"/>
2- DTS	<input checked="" type="checkbox"/>
3- VLC	<input checked="" type="checkbox"/>
4- RJF	<input checked="" type="checkbox"/>
5- RWM	<input checked="" type="checkbox"/>
6- LCR	<input checked="" type="checkbox"/>

Attach all documentation received by the division regarding this change.
 Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold) Designation of Agent
 Designation of Operator Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 6-21-90)

TO (new operator) <u>DUNCAN ENERGY COMPANY</u>	FROM (former operator) <u>DUNCAN, RAYMOND T.</u>
(address) <u>PH 1, 1777 S. HARRISON ST.</u>	(address) <u>1777 S. HARRISON ST., PH 1</u>
<u>DENVER, CO 80210</u>	<u>DENVER, CO 80210</u>
phone (303) <u>759-3303</u>	phone (303) <u>759-3303</u>
account no. <u>N 3370</u>	account no. <u>N 0360</u>

Well(s) (attach additional page if needed):

Name: <u>CAVE CANYON #3-2/ISMY</u>	API: <u>4303731120</u>	Entity: <u>9775</u>	Sec <u>3</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CYN FED 4-3/ISMY</u>	API: <u>4303731414</u>	Entity: <u>9775</u>	Sec <u>4</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CYN FED 3-3/ISMY</u>	API: <u>4303731413</u>	Entity: <u>9775</u>	Sec <u>3</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>
Name: <u>WELLS FED #1/ISMY</u>	API: <u>4303731028</u>	Entity: <u>9775</u>	Sec <u>4</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CANYON #3-1/ISMY</u>	API: <u>4303731095</u>	Entity: <u>9775/wiw</u>	Sec <u>3</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CANYON FED 4-4/ISMY</u>	API: <u>4303731539</u>	Entity: <u>9775</u>	Sec <u>4</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>
Name: <u>CAVE CANYON FED 12-3/DR</u>	API: <u>4303731567</u>	Entity: <u>9775</u>	Sec <u>3</u> Twp <u>38SRng24E</u>	Lease Type: <u>U-47876</u>

OPERATOR CHANGE DOCUMENTATION

1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec. 1-23-91)
2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec. 1-23-91)
3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) yes If yes, show company file number: # 110244. (1-28-91)
4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (1-31-91)
6. Cardex file has been updated for each well listed above.
7. Well file labels have been updated for each well listed above.
8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission.
9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) NO (If entity assignments were changed, attach copies of Form 5, Entity Action Form). *Cave Lyr. Unit / Ismy PA.*
- 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

- 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- 2. A copy of this form has been placed in the new and former operators' bond files.
- 3. The former operator has requested a release of liability from their bond (yes/no) _____. Today's date _____ 19____. If yes, division response was made by letter dated _____ 19____.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

- 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated _____ 19____, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
- 2. Copies of documents have been sent to State Lands for changes involving State leases.

MICROFILMING

1. All attachments to this form have been microfilmed. Date: February 5 1991.

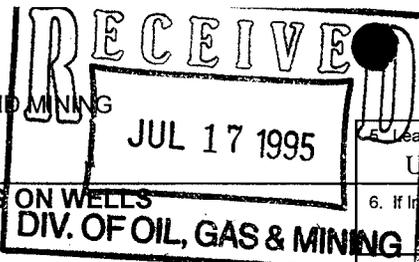
FILED

- 1. Copies of all attachments to this form have been filed in each well file.
- 2. The original of this form and the original attachments have been filed in the Operator Change file.

REMARKS

910128 Bfm/meab Have received documentation, bonding looks ok. Is not approved as of yet. will call when approved.

910129 Bfm Approved all wells eff. 6-21-90. (Unit Oper. Duncan Energy Company)



5. Lease Designation and Serial Number:

UTU 47876

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

7. Unit Agreement Name:

Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well:

OIL GAS OTHER:

8. Well Name and Number:

Wells Federal 1-4

2. Name of Operator:

Giant Exploration & Production Company

9. API Well Number:

43-037-31028

3. Address and Telephone Number:

P.O. Box 2810, Farmington, New Mexico 87499 (505)326-3325

10. Field and Pool, or Wildcat:

Cave Canyon

4. Location of Well:

Footages: 500' FNL, 500' FEL

County: San Juan

QQ, Sec., T.,R.,M.: NE/4, NE/4, Sec. 4, T38S, R24E

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT

(Submit in Duplicate)

- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recompletion
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

SUBSEQUENT REPORT

(Submit Original Form Only)

- Abandonment *
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other Change of Operator
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Giant Exploration & Production Company purchased the above mentioned well from Duncan Energy Company effective 06-23-95.

13.

Name & Signature

Jeffrey R. Vaughan

Title:

Vice President/Operations

Date:

JUL 14 1995

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SUDDRY NOTICES AND REPORTS ON WELLS**

95 JUL 10 11 11 AM '95

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir,
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. UTU47876
2. Name of Operator Giant Exploration & Production Company	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 2810, Farmington, New Mexico 87499 (505)326-3325	7. If Unit or CA. Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	8. Well Name and No.
	9. API Well No.
	10. Field and Pool, or Exploratory Area Cave Canyon
	11. County or Parish, State San Juan, Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

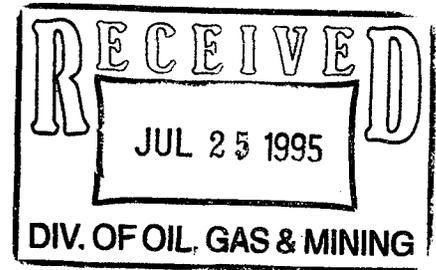
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Change of Operator</u>	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all 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.)*

Giant Exploration & Production Company purchased the above mentioned lease from Duncan Energy Company effective 06-23-95. Giant's bond number is SLR 111 3289 3097.

Listed below is the purchased well and API # for Lease Number UTU47876:

- Cave Canyon Federal 3-1 - API # 43-037-31095
- Cave Canyon Federal 3-2 - API # 43-037-31120
- Cave Canyon Federal 3-3 - API # 43-037-31413
- Cave Canyon Federal 4-3 - API # 43-037-31414
- Cave Canyon Federal 4-4 - API # 43-037-31539
- Cave Canyon Federal 4-5 - API # 43-037-31695
- Cave Canyon Federal 12-3 - API # 43-037-31567
- Cave Canyon WSW 1 - API # 43-037-99998
- Wells Federal 1-4 - API # 43-037-31028



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

Signed Jeffrey R. Vaughan Title Vice President/Operations Date JUL 14 1995

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

Associate District Manager
CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Giant Exploration & Production Company
Several Wells
Secs. 3 & 4, T. 38 S., R. 24 E.
San Juan County, Utah
Lease UTU47876

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Giant Exploration & Production Company is considered to be the operator of the above wells and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by NM1759 (Principal - Giant Exploration & Production Company) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

m OGCC-1 b*

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. UTU47876	
2. NAME OF OPERATOR Duncan Energy Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS OF OPERATOR 1777 South Harrison Street, P-1, Denver, CO 80210		7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) AT SURFACE See Below		8. FARM OR LEASE NAME	
14. PERMIT NO.		9. WELL NO.	
15. ELEVATIONS (Show whether by, ft, or, etc.)		10. FIELD AND FOOT, OR WILDCAT Cave Canyon	
		11. SEC. T. R. M. OR BLK. AND SURVEY OR AREA	
		12. COUNTY OR PARISH San Juan	13. STATE Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

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

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.)*

Effective 6-23-95, Giant Exploration & Production Company has taken over operations of the above-mentioned lease. Listed below are the purchased wells and API #s for Lease Number UTU47876:

- Cave Canyon Federal 3-1 - API #43-037-31095, Sec. 3-T38S-R24E
- Cave Canyon Federal 3-2 - API #43-037-31120, Sec. 3-T38S-R24E
- Cave Canyon Federal 3-3 - API #43-037-31413, Sec. 3-T38S-R24E
- Cave Canyon Federal 4-3 - API #43-037-31414, Sec. 4-T38S-R24E
- Cave Canyon Federal 4-4 - API #43-037-31539, Sec. 4-T38S-R24E
- Cave Canyon Federal 4-5 - API #43-037-31695, Sec. 4-T38S-R24E
- Cave Canyon Federal 12-3 - API #43-037-31567, Sec. 3-T38S-R24E
- Cave Canyon WSW 1 - API #43-037-99998, Sec. 3-T38S-R24E
- Wells Federal 1-4 - API #43-037-31028, Sec. 4-R38S-R24E

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

SIGNED Van E. Spence
(This space for Federal or State office use)

TITLE Sr. Production Engineer

DATE 8/4/95

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

Routing:

1-LEC / GIL
2-LWP / 7-PL
3-DTS / 8-SJ
4-VLC / 9-FILE
5-RJE
6-LWR

Attach all documentation received by the division regarding this change.
 Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold) Designation of Agent
 Designation of Operator Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 6-23-95)

TO (new operator)	<u>GIANT EXPLOR & PROD CO</u>	FROM (former operator)	<u>DUNCAN ENERGY COMPANY</u>
(address)	<u>PO BOX 2810</u>	(address)	<u>1777 S HARRISON ST PH #1</u>
	<u>FARMINGTON NM 87499</u>		<u>DENVER CO 80210</u>
	phone (505) <u>326-3325</u>		phone (303) <u>759-3303</u>
	account no. <u>N 0075</u>		account no. <u>N 3370</u>

Well(s) (attach additional page if needed): **(CAVE CANYON SECONDARY RECOVERY UNIT)**

Name:	<u>CAVE CANYON FED 12-3/IS</u>	API:	<u>43-037-31567</u>	Entity:	<u>9775</u>	Sec	<u>3</u>	Twp	<u>38S</u>	Rng	<u>24E</u>	Lease Type:	<u>U47876</u>
Name:	<u>WELLS FEDERAL 1/ISMY</u>	API:	<u>43-037-31028</u>	Entity:	<u>9775</u>	Sec	<u>4</u>	Twp	<u>38S</u>	Rng	<u>24E</u>	Lease Type:	<u>U47876</u>
Name:	_____	API:	_____	Entity:	_____	Sec	_____	Twp	_____	Rng	_____	Lease Type:	_____
Name:	_____	API:	_____	Entity:	_____	Sec	_____	Twp	_____	Rng	_____	Lease Type:	_____
Name:	_____	API:	_____	Entity:	_____	Sec	_____	Twp	_____	Rng	_____	Lease Type:	_____
Name:	_____	API:	_____	Entity:	_____	Sec	_____	Twp	_____	Rng	_____	Lease Type:	_____

OPERATOR CHANGE DOCUMENTATION

- lec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). *(Reg. 7-18-95) (Rec'd 8-4-95)*
- lec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). *(Rec'd 7-17-95)*
- N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: _____.
- lec 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
- lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. *(8-8-95)*
- lec 6. Cardex file has been updated for each well listed above. *8-14-95*
- lec 7. Well file labels have been updated for each well listed above. *8-14-95*
- lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. *(8-8-95)*
- lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- Lee* 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- N/A* 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

- N/A* 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- Lee* 2. A copy of this form has been placed in the new and former operators' bond files.
- Lee* 3. The former operator has requested a release of liability from their bond (yes/no) no. Today's date _____ 1995. If yes, division response was made by letter dated _____ 1995.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

- Lee* 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 1995, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested. *OTS 8/15/95*
- Lee* 2. Copies of documents have been sent to State Lands for changes involving State leases.

FILMING

1. All attachments to this form have been microfilmed. Date: August 21 1995.

FILING

1. Copies of all attachments to this form have been filed in each well file.
2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

950725 Bim/meab Aprv. eff. 6-23-95.

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

DIANE G JARAMILLO
 GIANT EXPLOR & PROD CO
 PO BOX 2810
 FARMINGTON NM 87499

UTAH ACCOUNT NUMBER: N0075

REPORT PERIOD (MONTH/YEAR): 8 / 96

AMENDED REPORT (Highlight Changes)

Well Name API Number Entity Location	Producing Zone	Well Status	Days Oper	Production Volumes		
				OIL(BBL)	GAS(MCF)	WATER(BBL)
NAVAJO TRE 125 #2 4303715542 05990 41S 25E 28	DSCR			1420603700		
NAVAJO TR 125 #4 4303715543 05990 41S 25E 28	DSCR			"		
MCELMO CR Q-29 4303715524 05995 41S 25E 29	DSCR			"		
GOTHIC MESA 7-41 4303715032 06008 41S 23E 7	DSCR			1420603239	Gothic mesa unit / New.	
GOTHIC MESA 6-34 4303715034 06008 41S 23E 6	DSCR			1420602243	"	
GOTHIC MESA 8-12 4303715035 06008 41S 23E 8	IS-DC			1420603239	"	
GOTHIC MESA 7-21 4303715036 06008 41S 23E 7	DSCR			1420603239A	"	
GOTHIC MESA 8-33 4303715037 06008 41S 23E 8	DSCR			1420603239	"	
GOTHIC MESA 6-23 4303715039 06008 41S 23E 6	DSCR			"	"	
GOTHIC MESA 17-31 4303715040 06008 41S 23E 17	DSCR			1420603240	"	
GOTHIC MESA UNIT 16-13A 4303731454 06008 41S 23E 16	ISMY			1420604243	"	
GOTHIC MESA UNIT #6-43 4303731643 06008 41S 23E 6	DSCR			1420603239	"	
WELLS FEDERAL #1 4303731028 09775 38S 24E 4	ISMY			647876	Cave Cyn Unit	
TOTALS						

COMMENTS: _____

I hereby certify that this report is true and complete to the best of my knowledge. Date: _____
 Name and Signature: _____ Telephone Number: _____

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

U-47876

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

6. If Indian, Allottee or Tribe Name:

NA

7. Unit Agreement Name:

NA

1. Type of Well:

OIL GAS OTHER:

8. Well Name and Number:

Wells Federal 1-4

2. Name of Operator:

Central Resources, Inc.

9. API Well Number:

43-037-31028

3. Address and Telephone Number:

1775 Sherman Street, Suite 2600 Denver, CO 80203 303-830-0100

10. Field and Pool, or Wildcat:

Cave Canyon, Ismay

4. Location of Well:

Footages: 500' FNL & 500' FEL
QQ. Sec., T.,R.,M.: NE NE Sec. 4-T38S-R24E

County: San Juan
State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Multiple Completion
- Other
- New Construction
- Pull or Alter Casing
- Recompletion
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandonment *
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other Change of Operator
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

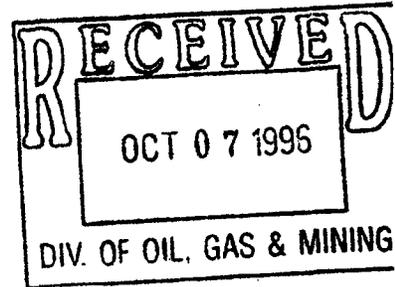
Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Effective 9/1/96 operations of the subject well were transferred from Giant Exploration & Production Company to Central Resources, Inc.



Giant Exploration & Production Company

Name & Signature *Daniel Orumillo*

Title: Production/Regulatory Manager Date: August 30, 1996

13. Central Resources, Inc.

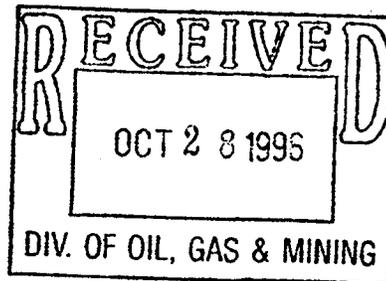
Name & Signature *Jane Martey*

Title: Engineering Technician Date: August 30, 1996

CENTRAL

RESOURCES, INC.

October 23, 1996



Ms. Lesha Cordova
State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Re: Monthly Oil & Gas Production Report

Dear Ms. Cordova:

Central Resources, Inc. purchased all assets from Giant Exploration & Production Company effective September 1, 1996.

Central is in the process of acquiring a Utah Account Number. However, to avoid mailing the enclosed Monthly Oil and Gas Production Report late, the account number on the report has been left blank.

If you have any questions regarding this matter, please contact Edna Wageman or myself at (505) 326-3325.

Sincerely,

Diane G. Jaramillo ^{by EW}

Diane G. Jaramillo
Office Supervisor

DGJ/

** 9/6/028 Not. Licd Oper. NL935 "Central Res. Inc."
(Clg. not finalized yet!)*

Enclosure

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

Central Resources, Inc.

3. Address and Telephone No.

1775 Sherman Street, Suite 2600, Denver, Colorado 80203 (303)830-0100

4. Location of Well (Footage, T, R, M, or Survey Description)

500' FNL & 500' FEL
NE NE Sec. 4-T38S-R24E

5. Lease Designation and Serial No.

UTU47876

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Wells Federal 1-4

9. API Well No.

43-037-31028

10. Field and Pool, or Exploratory Area

Cave Canyon, Ismay

11. County or Parish, State

San Juan, UT

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

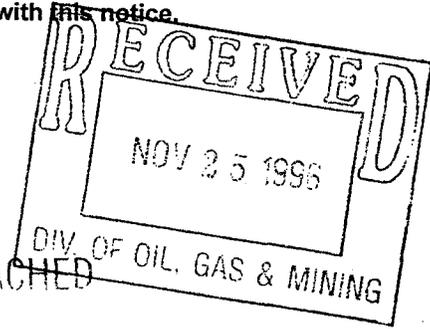
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing	
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off	
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection	
	<input type="checkbox"/> Surface Casing/Cementing	<input type="checkbox"/> Dispose Water	
	<input checked="" type="checkbox"/> Other: CHANGE OF OPERATOR		

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

13. 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 markets and zones pertinent to this work.)*

Please be advised that effective September 1, 1996, Central Resources, Inc. assumed operatorship of the referenced well. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Central Resources, Inc. under their statewide bond, BLM Bond No. B06175. They will be responsible for compliance under the lease terms and conditions for that portion of the lease associated with this notice.



CONDITIONS OF APPROVAL ATTACHED

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

Signed: *Steve Martens*

Title: Engineering Technician

Date: November 1, 1996

(This space for Federal or State office use)

Approved by: */s/ Brad D. Palmer*

Assistant Field Manager,

NOV 19 1996

Title: Resource Management

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Central Resources, Inc.
Well No. Cave Canyon 1-4
NENE Sec. 4, T. 38 S., R. 24 E.
San Juan County, Utah

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Central Resources, Inc., is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased land.

Bond coverage for this well is provided by BLM Bond UT1053 (Principle - Central Resources, Inc.) as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

OPERATOR CHANGE WORKSHEET

1-LEE ✓	6-LEE ✓
2-SEE ✓	7-KDR ✓
3-DTS ✓	8-SJ ✓
4-VLD ✓	9-FILE
5-RJF ✓	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold) Designation of Agent
 Designation of Operator Operator Name Change Only

The operator of the well(s) listed below has changed, effective: 9-1-96

TO: (new operator) CENTRAL RESOURCES INC
 (address) 1775 SHERMAN ST STE 2600
DENVER CO 80203-4313
IRENE MARTINEZ
 Phone: (303)830-0100
 Account no. N6935 (10-25-96)

FROM: (old operator) GIANT EXPLOR & PROD CO
 (address) PO BOX 2810
FARMINGTON NM 87499
DIANE JARAMILLO
 Phone: (505)326-3325
 Account no. N0075

WELL(S) attach additional page if needed: *CAVE CANYON UNIT

Name: **SEE ATTACHED**	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____
Name: _____	API: _____	Entity: _____	S _____	T _____	R _____	Lease: _____

OPERATOR CHANGE DOCUMENTATION

- Yes 1. (r649-8-10) Sundry or other legal documentation has been received from the FORMER operator (attach to this form). *(rec'd 10-7-96)*
- Yes 2. (r649-8-10) Sundry or other legal documentation has been received from the NEW operator (Attach to this form). *(rec'd 10-7-96)*
- Yes 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is the company registered with the state? (yes/no) _____ If yes, show company file number: #C0193111. *(r# 8-2-96)*
- Yes 4. FOR INDIAN AND FEDERAL WELLS ONLY. The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of Federal and Indian well operator changes should ordinarily take place prior to the division's approval, and before the completion of steps 5 through 9 below.
- Yes 5. Changes have been entered in the Oil and Gas Information System (3270) for each well listed above. *(11-25-96)*
- Yes 6. Cardex file has been updated for each well listed above. *(11-25-96)*
- Yes 7. Well file labels have been updated for each well listed above. *(11-25-96)*
- Yes 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. *(11-25-96)*
- Yes 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- YIC 1. (r649-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- N/A 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been notified through normal procedures of entity changes.

BOND VERIFICATION - (FEE WELLS ONLY)

- N/A 1. (r649-3-1) The NEW operator of any fee lease well listed above has furnished a proper bond.
- YIC 2. A copy of this form has been placed in the new and former operator's bond files.
- ___ 3. The FORMER operator has requested a release of liability from their bond (yes/no) _____, as of today's date _____. If yes, division response was made to this request by letter dated _____.

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

- N/A 1. Copies of documents have been sent on _____ to _____ at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.

FILMING

- YB 1. All attachments to this form have been microfilmed. Today's date: 12-30-96.

FILING

- ___ 1. Copies of all attachments to this form have been filed in each well file.
- ___ 2. The original of this form, and the original attachments are now being filed in the Operator Change file.

COMMENTS

9/6/25 BLM/Moab Aprv. 11-19-96.

5. Lease Designation and Serial Number:
U-47876

6. If Indian, Allottee or Tribe Name:
N/A

7. Unit Agreement Name:
N/A

8. Well Name and Number:
Wells Federal 1-4

9. API Well Number:
43-037-31028

10. Field and Pool, or Wildcat:
Cave Canyon, Ismay

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL GAS OTHER: _____

2. Name of Operator:
Elm Ridge Resources, Inc.

3. Address and Telephone Number:
312 W. LaPlata Street, Farmington, New Mexico (505) 326-7099

4. Location of Well:
Footages: 500' FNL & 500' FEL
County: San Juan
QQ, Sec., T., R., M.: NE NE Sec. 4-T38S-R24E
State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recom
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandonment *
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other Change of Operator
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Effective October 1, 2000, operations of the subject well were transferred from Central Resources, Inc. to Elm Ridge Resources, Inc.

RECEIVED
OCT 10 2000
DIVISION OF
OIL, GAS AND MINING

Central Resources, Inc.
Name & Signature *Jane Martinez* Title: Engineering Technician Date: 09/29/00

13. Elm Ridge Resources, Inc.
Name & Signature *Dery Erdelyi* Title: Operations Manager Date: 09/29/00

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
 Elm Ridge Resources, Inc.

3. Address and Telephone No.
 312 W. LaPlata Street, Farmington, New Mexico (505) 326-7099

4. Location of Well (Footage, T, R, M, or Survey Description)
 500' FNL & 500' FEL
 NE NE Sec. 4-T38S-R24E

5. Lease Designation and Serial No.
 UTU47876

6. If Indian, Allote or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
 Wells Federal 1-4

9. API Well No.
 43-037-31028

10. Field and Pool, or Exploratory Area
 Cave Canyon, Ismay

11. County, or Parish, State
 San Juan, UT

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Surface Casing/Cementing
	<input checked="" type="checkbox"/> Other: CHANGE OF OPERATOR
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

13. 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 markets and zones pertinent to this work.)*

Please be advised that ~~effective October 1, 2000~~, Elm Ridge Resources, Inc. assumed operatorship of the referenced well. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Elm Ridge Resources, Inc. under their statewide bond, BLM Bond No. ~~205706~~. They will be under the lease terms and conditions for that portion of the lease associated with this notice.

*Bond obtained 3/20/01
Change of operator effective 4/1/01
BLM Bond # UT 1216*

RECEIVED
BLM FIELD OFFICE
2000 OCT 17 P 2:17
DEPT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JUN 11 2001
DIVISION OF
OIL, GAS AND MINING
070 FARMINGTON, NM
2000 OCT 10 PM 2:36

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

Signed: Wendy Lindley Title: Operations Manager Date: September 29, 2000

(This space for Federal or State office use)

Approved by: William Sturges Title: Assistant Field Manager,
Division of Resources Date: 6/6/01

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

cc: UDOGm 6/6/01

CONDITIONS OF APPROVAL ATTACHED

Elm Ridge Resources, Inc.
Well No. 1-4
NENE Sec. 4, T. 38 S., R. 24 E.
Lease UTU47876
San Juan County, Utah

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Elm Ridge Resources, Inc. is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT1216 (Principal - Elm Ridge Resources, Inc.) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

RECEIVED

JUN 11 2001

DIVISION OF
OIL, GAS AND MINING

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH		4-KAS	<input checked="" type="checkbox"/>
2. CDW	<input checked="" type="checkbox"/>	5-LP	<input checked="" type="checkbox"/>
3. JLT		6-FILE	<input checked="" type="checkbox"/>

Enter date after each listed item is completed

X Change of Operator (Well Sold)

Designation of Agent

Operator Name Change (Only)

Merger

The operator of the well(s) listed below has changed, effective: **04-01-2001**

FROM: (Old Operator):
CENTRAL RESOURCES INC
Address: P. O. BOX 189
FARMINGTON, NM 87499-189
Phone: 1-(505)-632-3476
Account N6935
CA No.

TO: (New Operator):
ELM RIDGE RESOURCES INC
Address: P. O. BOX 189
FARMINGTON, NM 87499-189
Phone: 1-(505)-632-3476
Account N1440
Unit: CAVE CANYON PROJECT

WELL(S)

NAME	API NO.	ENTITY NO.	SEC. TWN RNG	LEASE TYPE	WELL TYPE	WELL STATUS
CAVE CANYON 1-33	43-037-31276	9775	33-37S-24E	FEDERAL	OW	P
CAVE CANYON 3-2	43-037-31120	9775	03-38S-24E	FEDERAL	OW	P
CAVE CANYON 3-3	43-037-31413	9775	03-38S-24E	FEDERAL	OW	S
CAVE CANYON 12-3	43-037-31567	9775	03-38S-24E	FEDERAL	OW	S
CAVE CANYON 13-3	43-037-31766	9775	03-38S-24E	FEDERAL	OW	S
CAVE CANYON 1-4	43-037-31028	9775	04-38S-24E	FEDERAL	OW	P
CAVE CANYON 4-3	43-037-31414	9775	04-38S-24E	FEDERAL	OW	S
CAVE CANYON 4-4	43-037-31539	9775	04-38S-24E	FEDERAL	OW	P
CAVE CANYON 4-5	43-037-31695	9775	04-38S-24E	FEDERAL	OW	P

OPERATOR CHANGES DOCUMENTATION

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 10/10/2000
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 10/10/2000
- The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 06/12/2001
- Is the new operator registered in the State of Ut YES Business Number: 4830075-1150
- If **NO**, the operator was contacted on: _____
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the (merger, name change, or operator change for all wells listed on Federal or Indian leases on: 06/06/2001
- Federal and Indian Units:** The BLM or BIA has approved the successor of unit operator for wells listed on: N/A

8. **Federal and Indian Communization Agreements ("CA"):** The BLM or the BIA has approved the operator change for all wells listed involved in a CA on: N/A

9. **Underground Injection Control ("UIC"):** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** 06/12/2001
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 06/12/2001
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE BOND VERIFICATION:

1. State well(s) covered by Bond No.: N/A

FEE WELLS - BOND VERIFICATION/LEASE INTEREST OWNER NOTIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed has furnished a bond: N/A
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A
3. (R649-2-10) The **FORMER** operator of the Fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

FILMING:

1. All attachments to this form have been **MICROFILMED** on: 7/12/01

FILING:

1. **ORIGINALS/COPIES** of all attachments pertaining to each individual well have been filled in each well file on: _____

COMMENTS:

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

FORM 9.

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: Elm Ridge Exploration Company, LLC <i>N2985</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 12225 Greenville, Suite 950 CITY Dallas STATE TX ZIP 75243		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: _____ COUNTY: _____ QTR/CTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____ STATE: UTAH		8. WELL NAME and NUMBER: See attached Exhibit "A"
PHONE NUMBER: (972) 889-2100		9. API NUMBER:
		10. FIELD AND POOL, OR WILDCAT:

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
Effective February 18, 2005, Elm Ridge Resources, Inc. transferred all responsibility of Operations for the wells described on the attached Exhibit "A" to Elm Ridge Exploration Company, LLC.

Current Operator:

Name Elm Ridge Resources, Inc. N1440 Title Land Manager
Signature Cathleen Colby Date December 1, 2005

New Operator:

NAME (PLEASE PRINT) Elm Ridge Exploration Company, LLC TITLE Land Manager
SIGNATURE Cathleen Colby DATE December 1, 2005

(This space for State use only)

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DEC 05 2005

Exhibit "A"
Operator Change
Effective February 18, 2005

Old Operator:	Elm Ridge Resources, Inc.									
New Operator:	Elm Ridge Exploration Company, LLC									
Lease Designation / Serial Number	Indian, Allottee or Tribe Name	Unit or CA Agreement	Well Name and Number	API Number	Type Well	Field and Pool or Wildcat	Location of Well Footages at Surface	1/41/4 Section Township, Range	County	State
14-20-603-239A	Navajo	Gothic Mesa Unit	Gothic Mesa 7-41	43-037-15032	Oil Well	Gothic Mesa	625' FNL, 710' FEL	NENE-7-41S-23E	San Juan	UT
14-20-603-239A	Navajo	Gothic Mesa Unit	Gothic Mesa 6-34	43-037-15034	Oil Well	Gothic Mesa	660' FSL, 1980' FEL	SWSE-6-41S-23E	San Juan	UT
14-20-603-240	Navajo	Gothic Mesa Unit	Gothic Mesa 17-31	43-037-15040	Oil Well	Gothic Mesa	820' FNL, 2140' FEL	NWNE-17-41S-23E	San Juan	UT
UTU-47876	N/A	N/A	Wells Federal 1-4	43-037-31028	Oil Well	Cave Canyon	500' FNL, 500' FEL	NENE-4-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon 3-2	43-037-31120	Oil Well	Cave Canyon	1925' FSL, 1925' FWL	NESW-3-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon 1-33	43-037-31276	Oil Well	Cave Canyon	535' FSL, 2025' FEL	SWSE-33-37S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon 3-3	43-037-31413	Oil Well	Cave Canyon	2635' FNL, 1390' FWL	SENW-3-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon Federal 4-3	43-037-31414	Oil Well	Cave Canyon	1310' FNL, 200' FEL	NENE-4-38S-24E	San Juan	UT
ST of UT ML-43698	N/A	N/A	Gage Foster 1	43-037-31463	Oil Well	Road Canyon	2180' FNL, 1780' FWL	SENW-32-37S-23E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon 4-4	43-037-31539	Oil Well	Cave Canyon	1150' FNL, 1070' FEL	NENE-4-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon Federal 12-3	43-037-31567	Oil Well	Cave Canyon	1610' FNL, 1300' FWL	SWNW-3-38S-24E	San Juan	UT
14-20-603-239	Navajo	Gothic Mesa Unit	Gothic Mesa 6-43	43-037-31643	Oil Well	Gothic Mesa	1900' FSL, 500' FEL	NESE-6-41S-23E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon Federal 4-5	43-037-31695	Oil Well	Cave Canyon	50' FNL, 1800' FEL	NWNE-4-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon 13-3	43-037-31766	Oil Well	Cave Canyon	2045' FSL, 1180' FWL	NWSW-3-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	WSW. No. 1	43-037-31820	Water Source	Cave Canyon	1800' FSL, 1845' FWL	NESW-3-38S-24E	San Juan	UT
UTU-47876	N/A	N/A	Cave Canyon 3-1	43-037-31095	Water Injection	Cave Canyon	2140' FNL, 200' FWL	SWNW-3-38S-24E	San Juan	UT
14-20-603-243	Navajo	Gothic Mesa Unit	Gothic Mesa 16-11	43-037-15042	Water Disposal	Gothic Mesa	500' FNL, 500' FWL	NWNW-16-41S-23E	San Juan	UT

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: not yet

8. Federal and Indian Units:

The BLM or BIA has approved the successor of unit operator for wells listed on: not yet

9. Federal and Indian Communization Agreements ("CA"):

The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. Underground Injection Control ("UIC") The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 12/7/2005

DATA ENTRY:

1. Changes entered in the Oil and Gas Database on: 12/8/2005
2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 12/8/2005
3. Bond information entered in RBDMS on: 12/8/2005
4. Fee/State wells attached to bond in RBDMS on: 12/8/2005
5. Injection Projects to new operator in RBDMS on: 12/8/2005
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UT00126

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 886936C

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 1116000107

2. The **FORMER** operator has requested a release of liability from their bond on: n/a
The Division sent response by letter on: _____

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

