

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

October 12, 1984

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

ATTN: Edgar Guynn

RE: Cave Canyon Federal 4-2
SW NE 4-38S-24E
San Juan Co., UT

Dear Sir:

This letter is to inform you that Permitco is authorized to act as Agent and to sign documents on behalf of Raymond T. Duncan when necessary for filing county, state, and federal permits including Onshore Order No. 1, Right-of-Way applications, etc., for the above-captioned well.

It should be understood that Permitco is acting as Agent only in those matters stated above and is not responsible for drilling, completion, production, or compliance with regulations.

Raymond T. Duncan agrees to accept full responsibility for operations conducted in order to drill, complete and produce the above-captioned well.

Very truly yours,
RAYMOND T. DUNCAN

W.S. Fallin
Production Manager

cl

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

(Other instructions on reverse side)

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

Cave Canyon

9. Well No.

#4-2

10. Field and Pool, or Wildcat

Wildcat Undesignated

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 4, T38S-R24E

12. County or Parrish 13. State
San Juan Utah

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 Street, Penthouse #1, Denver, CO 80210

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface

1820' FNL & 1860' FEL

At proposed prod. zone

SW/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. line, if any)

500'

16. No. of acres in lease

1289.44

17. No. of acres assigned to this well

40

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.

1800'

19. Proposed depth

6260'

20. Rotary or cable tools

Rotary

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

5501'

22. Approx. date work will start*

November 5, 1984

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12 1/4"	8 5/8"	24#	2500'	1100 sx - or sufficient to circ to surf.
7 7/8"	5 1/2"	15.5#	6260'	400 sx - or sufficient to cover zones of interest

Raymond T. Duncan proposes to drill a well to 6260' to test the Ismay & Upper Desert Creek formations. If productive, casing will be run and the well completed. If dry, the well will be plugged & abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 10/31/84
BY: John R. Base

RECEIVED

OCT 25 1984

DIVISION OF OIL
GAS & MINING

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.

Consultant for
Raymond T. Duncan

Signed: Lisa L. Miller

Title: _____

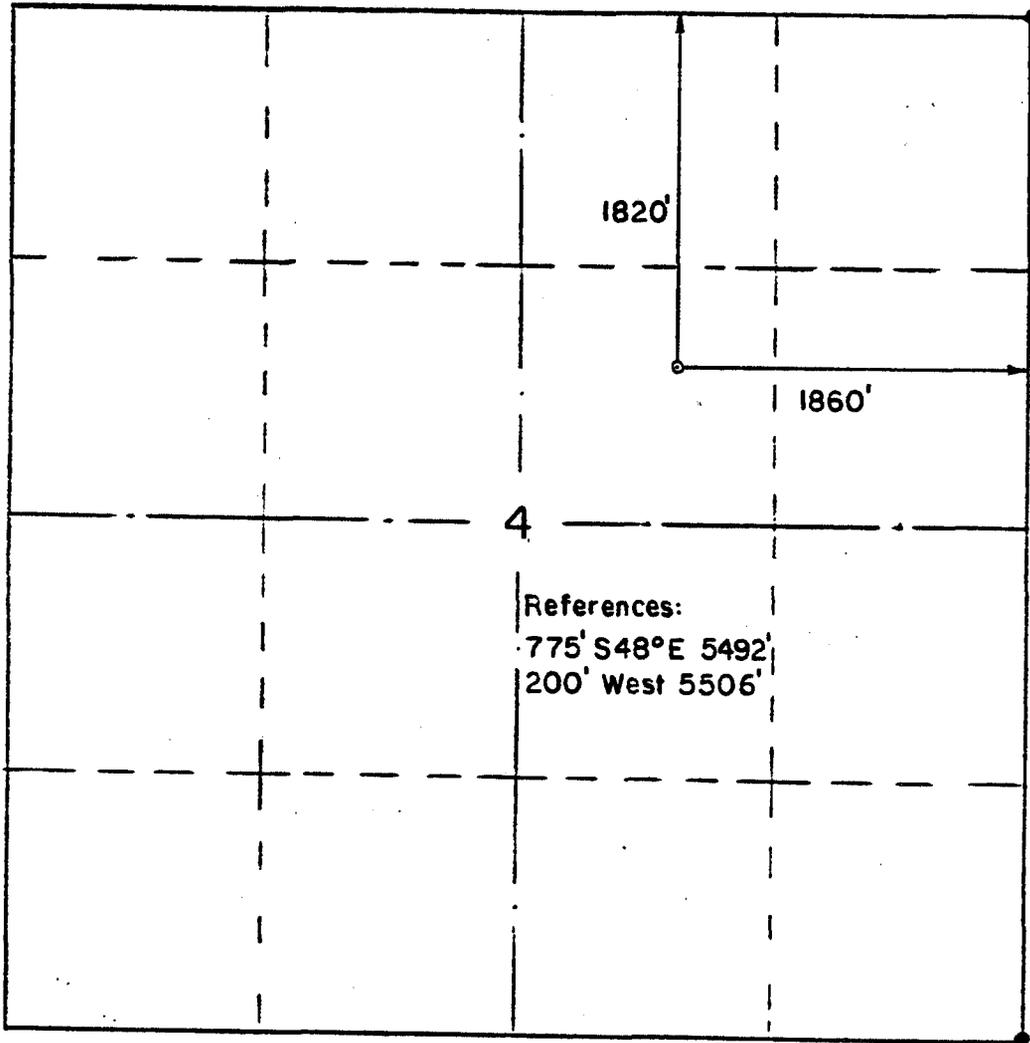
Date: 10/23/84

(This space for Federal or State office use)

Permit No. _____ Approval Date _____

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

WELL LOCATION AND ACREAGE DEDICATION PLAT



Operator R. T. Duncan		Well name 4-2 Cave Canyon	
Section 4	Township 38 South	Range 24 East	Meridian SLM
Footages 1820' FNL & 1860' FEL		County/State San Juan Utah	Elevation 5501'
Formation	Dedicated Acreage	Requested by Lisa Green	
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>12 Oct. 84</p> <p><i>Gerald G. Huddleston</i> Gerald G. Huddleston, D.S.</p>			

ONSHORE OIL & GAS ORDER NO. 1

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

CAVE CANYON #4-2
1820' FNL and 1860' 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 - Raymond T. Duncan - Denver, Colorado

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

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	1705'	+3825'
Hermosa	4805'	+ 725'
Ismay	5855'	- 325'
Lower Ismay	6035'	- 505'
Gothic Shale	6090'	- 560'
Desert Creek	6115'	- 585'
Lower Desert Creek	6180'	- 650'
Chimney Rock Shale	6210'	- 680'
T.D.	6260'	

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	5855'
Gas & Oil	Lower Desert Creek	6180'

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# BOP. (See BOP Diagram attached.)

Permitco

A Petroleum Permitting Company

Raymond T. Duncan

Cave Canyon 4-2

1820' FNL and 1860' FEL

Sec. 4, T38S - R24E

San Juan County, Utah

DRILLING PROGRAM

Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

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>
Conductor	0-110'	17-1/2"	13-3/8"	48#	K-55	ST&C	New
Surface	0-2500'	12-1/4"	8-5/8"	24#	K-55	ST&C	New
Produc.	0-6260'	7-7/8"	5-1/2"	15.5#	K-55	ST&C	New

b. Cement

The cementing program will be as follows:

<u>Conductor</u>	<u>Type and Amount</u>
0-110'	Circulated to surface
<u>Surface</u>	<u>Type and Amount</u>
0-2500'	1100 sx Class B w/additives; or sufficient to circulate to surface.
<u>Production</u>	<u>Type and Amount</u>
	400 sx Class B with additives; or sufficient to cover zones of interest.

Permitco

A Petroleum Permitting Company

DRILLING PROGRAM

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>	<u>PH</u>
0-4000'	Natural	9.0-9.2	35	10-20	
4000-T.D.	Chem Gel	9.5-12.0	45	5-10 through pays	

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

- a. No cores are anticipated.
- b. The logging program will consist of the following:

Dual Induction	2500'-T.D.
BHC Acoustic & BHC Density/CNL	4400'-T.D.
Dipmeter (optional)	5750'-T.D.
- c. Drill Stem Tests will be run in the Ismay and Desert Creek formations.

Whether the well is completed as a dry hole or as a producer, "Well Completion or Recompletion Report and Log" (Form 3160-4) will be submitted not 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.

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

DRILLING PROGRAM

7. Abnormal conditions, bottom hole pressures and potential hazards.
 - a. The maximum bottom hole pressure to be expected is 3500 psi.
 - b. Raymond T. Duncan plans to spud the Cave Canyon Federal #4-2 on November 5, 1984 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.
 - 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.

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

DRILLING PROGRAM

- 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 the first business day 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. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from 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 operator will schedule the conference with the San Juan Area Manager.

Permitco

A Petroleum Permitting Company

WELL NAME: _____

LOCATION : _____

9-5/8"
Drilling Nipple / "

7 "Circulating Line

B.O.P. Bld Rams 10 "x 3000 W.P.

B.O.P. D.P. Rams 10 "x 3000 W.P.

Not Required

Hyd. Valve - - " - - W.P. (Omit)

Check Valve 2 "x 3000 W.P.

Valve 2 " 3000 W.P.

Valve 2 " 3000 W.P.

Valve 2 " 3000 W.P.

2 "Line

MANIFOLD LINE
3000 W.P.

(See Exhibit "B")

KILL LINE MANIFOLD

Spool 10 "x 3000 W.P.

Ground Level

WELL HEAD B.O.P.

3000 #W.P.

Hydraulic

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

SURFACE USE PLAN

ONSHORE OIL & GAS ORDER NO. 1

Thirteen Point Surface Use Plan

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 the Perkins Road #206 for 3.7 miles. Turn north onto new access (flagged) and proceed approximately 1500' to the location.

- c. For location of access roads within a 2-Mile radius, see Maps #1 and #2.
- d. Improvement to the existing access will not be necessary and will be limited to the total existing disturbed width. The maximum total disturbed width will be 26 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 26 feet. The running surface will be approximately 20 feet wide.
- b. The maximum grade will be 4%.
- c. No turnouts are planned.

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

SURFACE USE PLAN

2. Planned Access Roads (cont.)

- 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.
- 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. One 30" culvert will be installed along the access as shown on 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 - one artesian well
- b. Injection or disposal wells - none
- c. Producing Wells - one
- d. Drilling Wells - The Wells Federal #1 is currently being completed.

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO. 1
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

SURFACE USE PLAN

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. The color will be a neutral color that will blend in with the environment.
 - 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.
 - e. Any necessary pits will be properly fenced to prevent any wildlife 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.

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

SURFACE USE PLAN

4. Location of Existing and/or Proposed Facilities (cont.)

- 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 Bonnie Dalton Artesian Well which is located in the NE/4 Sec. 1, T38S - R24E. 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 owner of surface management agency to use the land containing the water source.

6. Source of Construction Material

- a. Road surfacing and pad construction material will be obtained from a commercial source.
- b. The use of materials under BIM jurisdiction will conform with 43 CFR 3610.2.3. Construction material will not be located on lease.

Permitco

A Petroleum Permitting Company

SURFACE USE PLAN

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. Produced waste water will be confined to a 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.

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 Diagram #2 and #4. The location will be laid out and constructed as discussed during the predrill conference.

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Cave Canyon 4-2

1820' FNL and 1860' FEL

Sec. 4, T38S - R24E

San Juan County, Utah

SURFACE USE PLAN

9. Wellsite Layout (cont.)

- c. The top 12 inches of soil material will be removed from the location and stockpiled separate from the trees on the north side. Topsoil along the access will be reserved in place.
- d. Access to the well pad will be from the West.

10. Reclamation

- a. Immediately upon 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.

Grade

Spacing

2%
2-4%
4-5%
5+%

Every 200 Feet
Every 100 Feet
Every 75 Feet
Every 50 Feet

Permitco

A Petroleum Permitting Company

SURFACE USE PLAN10. Plans for Reclamation of Surface (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 Curlygrass (*Hilaria Jamesil*)
2 lbs/acre Western Wheatgrass (*Agropyron Smithii*)
1 lbs/acre Fourwing Saltbush (*Atriplex Canenscens*)
1 lbs/acre Desert Bitterbush (*Purshia Gladulosa*)
1 lbs/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 and 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.

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

SURFACE USE PLAN

12. Other Information (cont.)

- 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 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 BIM 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 Archaeological Consultants. One site was located but will be fenced off during construction and drilling operations. Clearance was recommended. This report will be submitted directly by LaPlata Archaeological Consultants.
- g. A Deer Winter Range Stipulation is in effect on this lease. There will be no drilling operations between December 1st and March 31st, unless otherwise authorized by the District Manager.

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

Permit Matters

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

Drilling & Completion Matters

Raymond T. Duncan
1777 S. Harrison
Penthouse 1
Denver, CO 80210
Steve Fallin
303/759-3303 (W)
303/770-0705 (H)

Permitco

A Petroleum Permitting Company

ONSHORE ORDER NO.
Raymond T. Duncan
Cave Canyon 4-2
1820' FNL and 1860' FEL
Sec. 4, T38S - R24E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

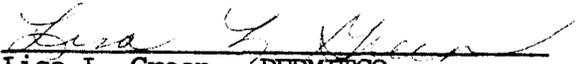
SURFACE USE PLAN

13. Lessee's or Operator's Certification (cont.)

Certification

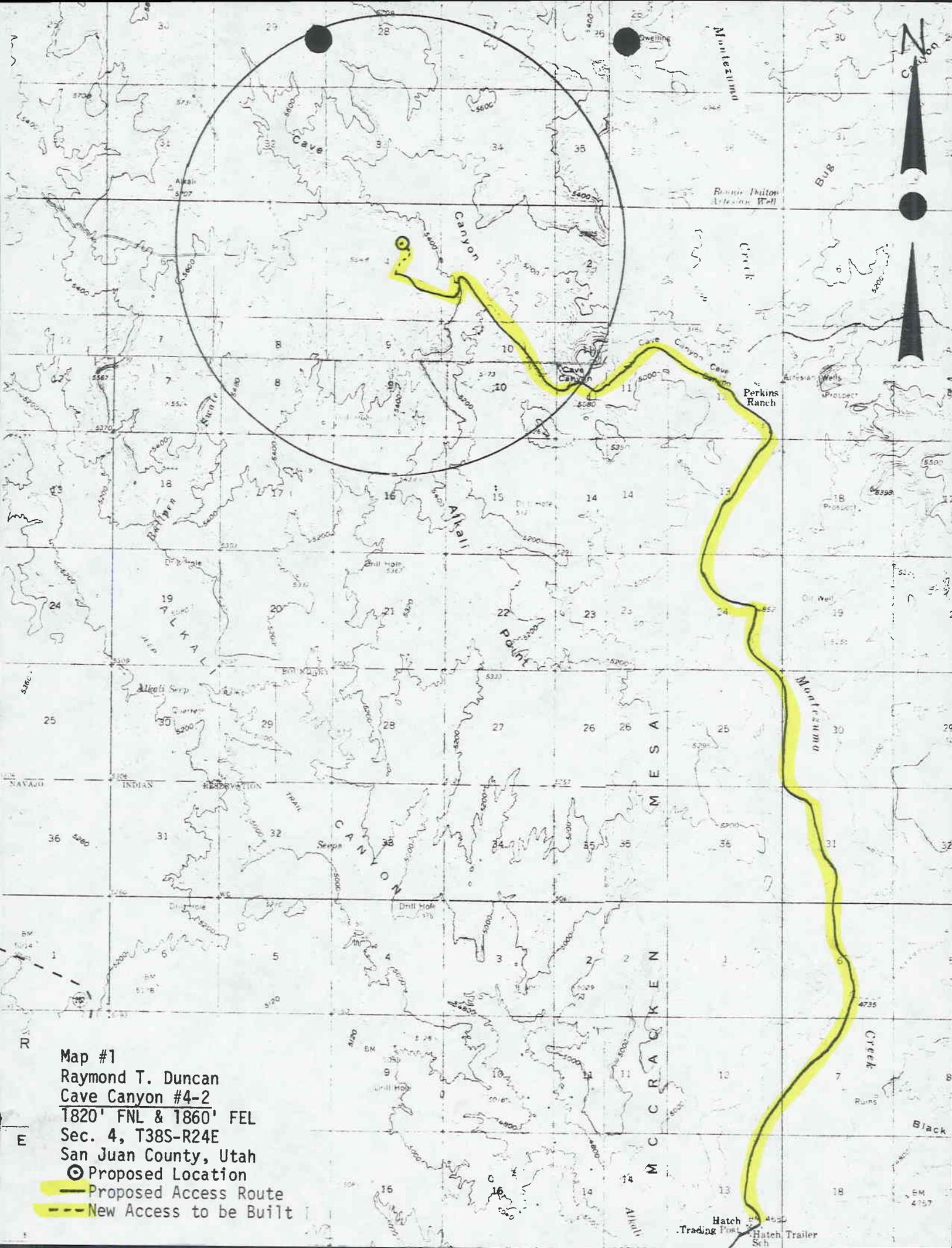
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated 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.

October 23, 1984
Date:


Lisa L. Green - PERMITCO
Authorized Agent for:
RAYMOND T. DUNCAN

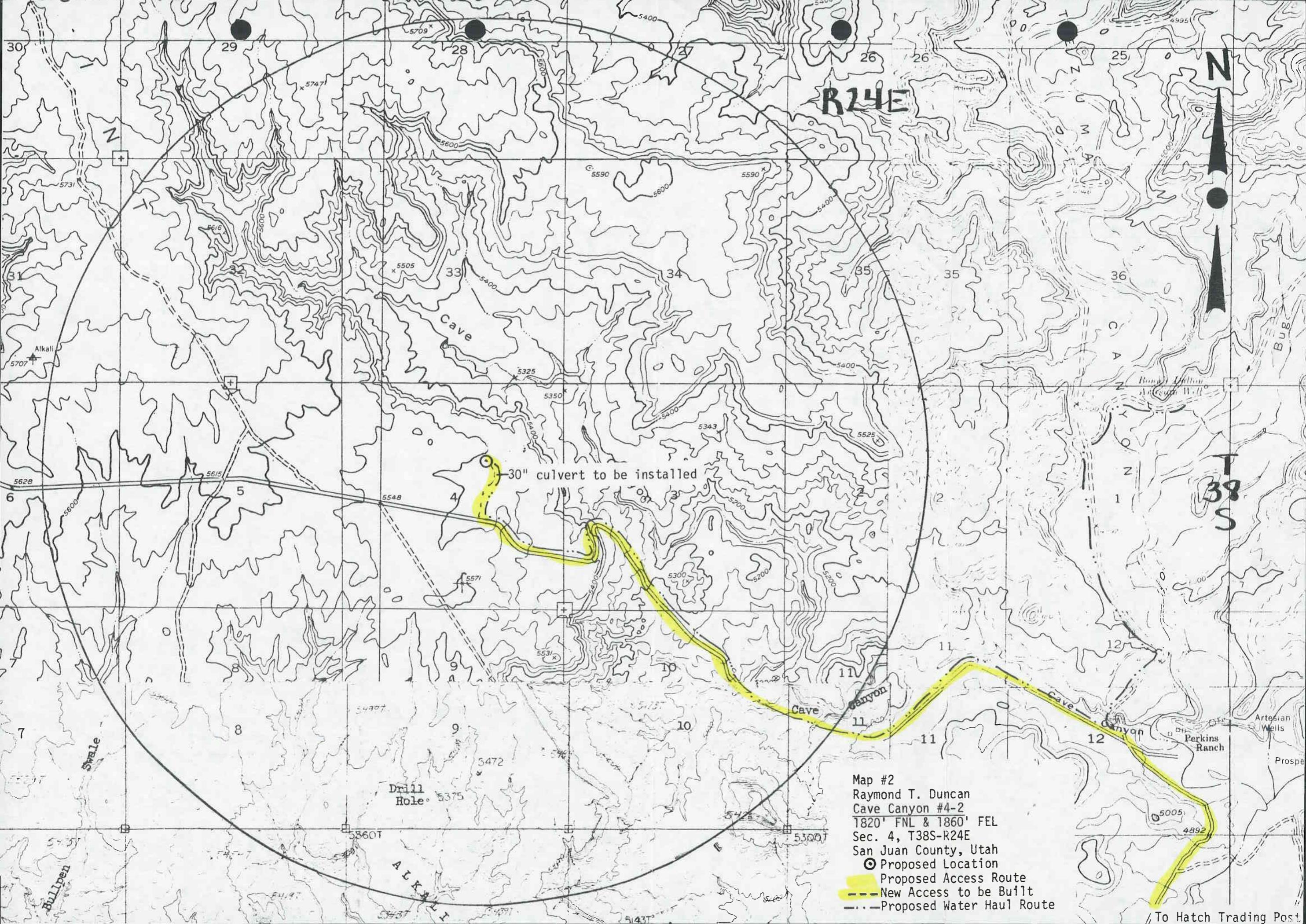
Permitco

A Petroleum Permitting Company



Map #1
 Raymond T. Duncan
 Cave Canyon #4-2
 T820' FNL & T860' FEL
 Sec. 4, T38S-R24E
 San Juan County, Utah

- Proposed Location
- Proposed Access Route
- New Access to be Built



R24E



T
38
S

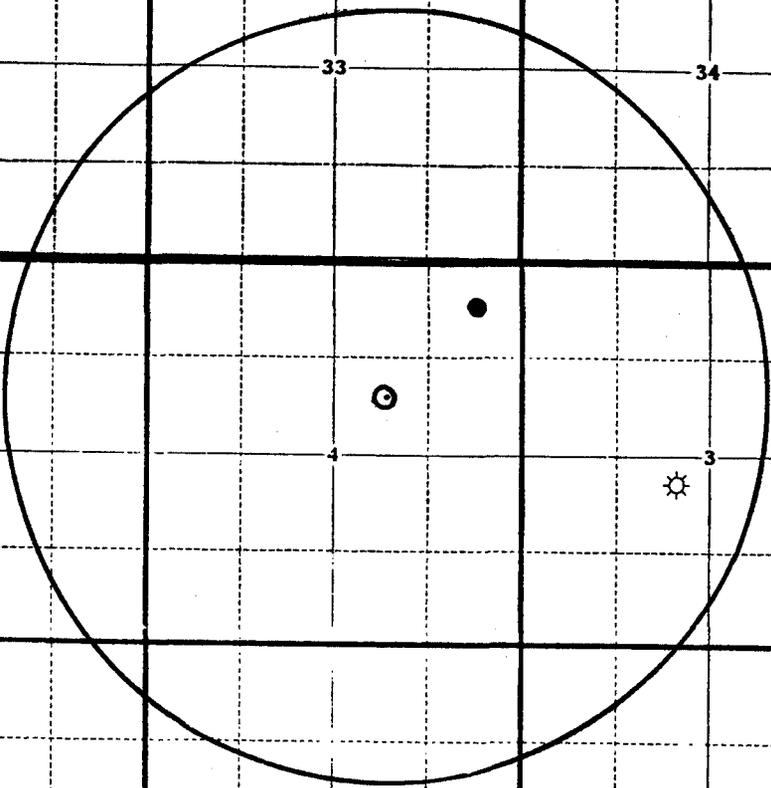
30" culvert to be installed

Map #2
Raymond T. Duncan
Cave Canyon #4-2
1820' FNL & 1860' FEL
Sec. 4, T38S-R24E
San Juan County, Utah
● Proposed Location
— Proposed Access Route
--- New Access to be Built
- - - Proposed Water Haul Route

To Hatch Trading Post

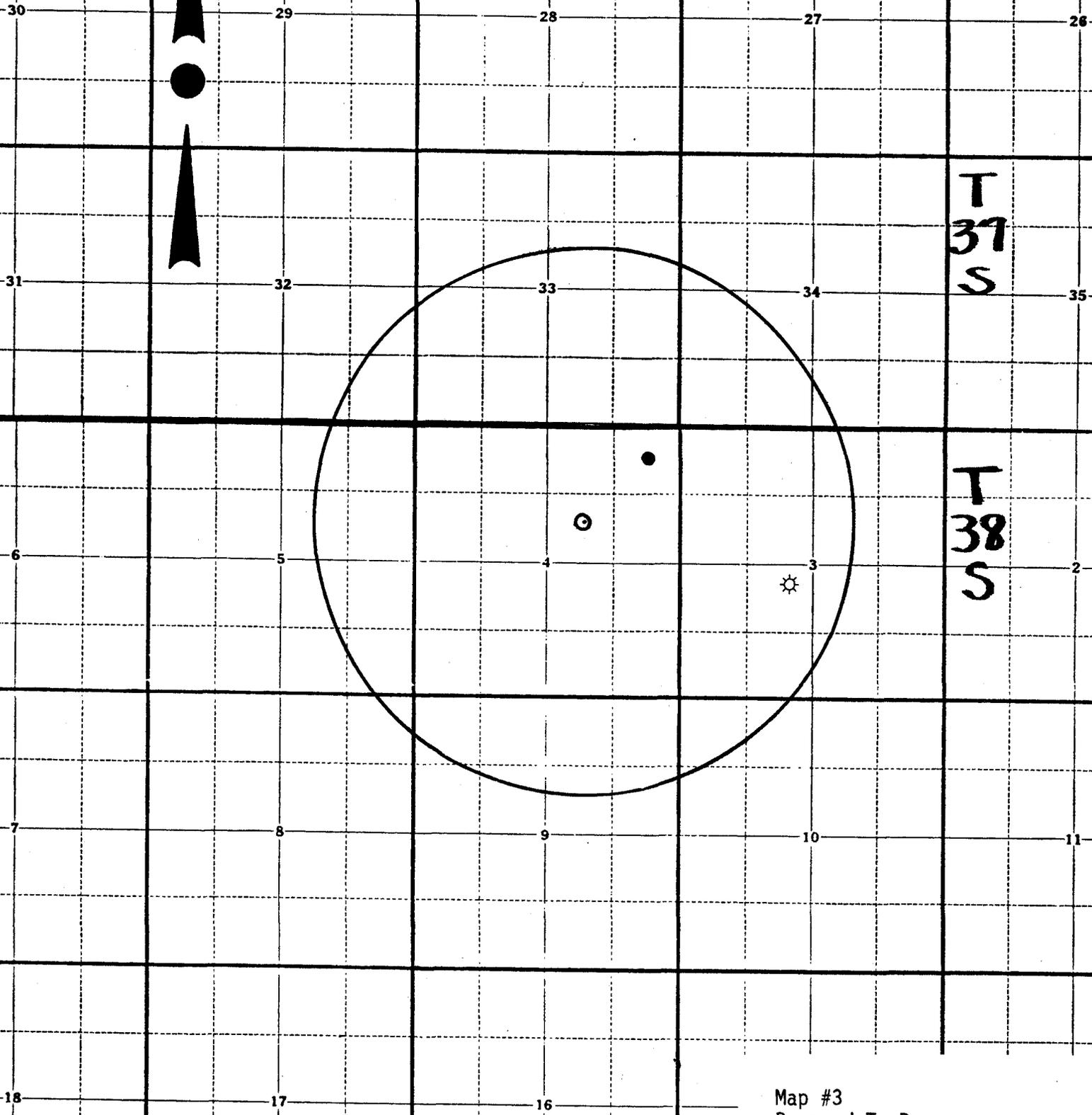
N

R24E



T
37
S

T
38
S



Map #3
 Raymond T. Duncan
 Cave Canyon #4-2
 1820' FNL & 1860' FEL
 Sec. 4, T38S-R24E
 San Juan County, Utah
 ● Proposed Location
 ☆ Water Well
 ● Well Being Completed

Scale: 1" = 50'

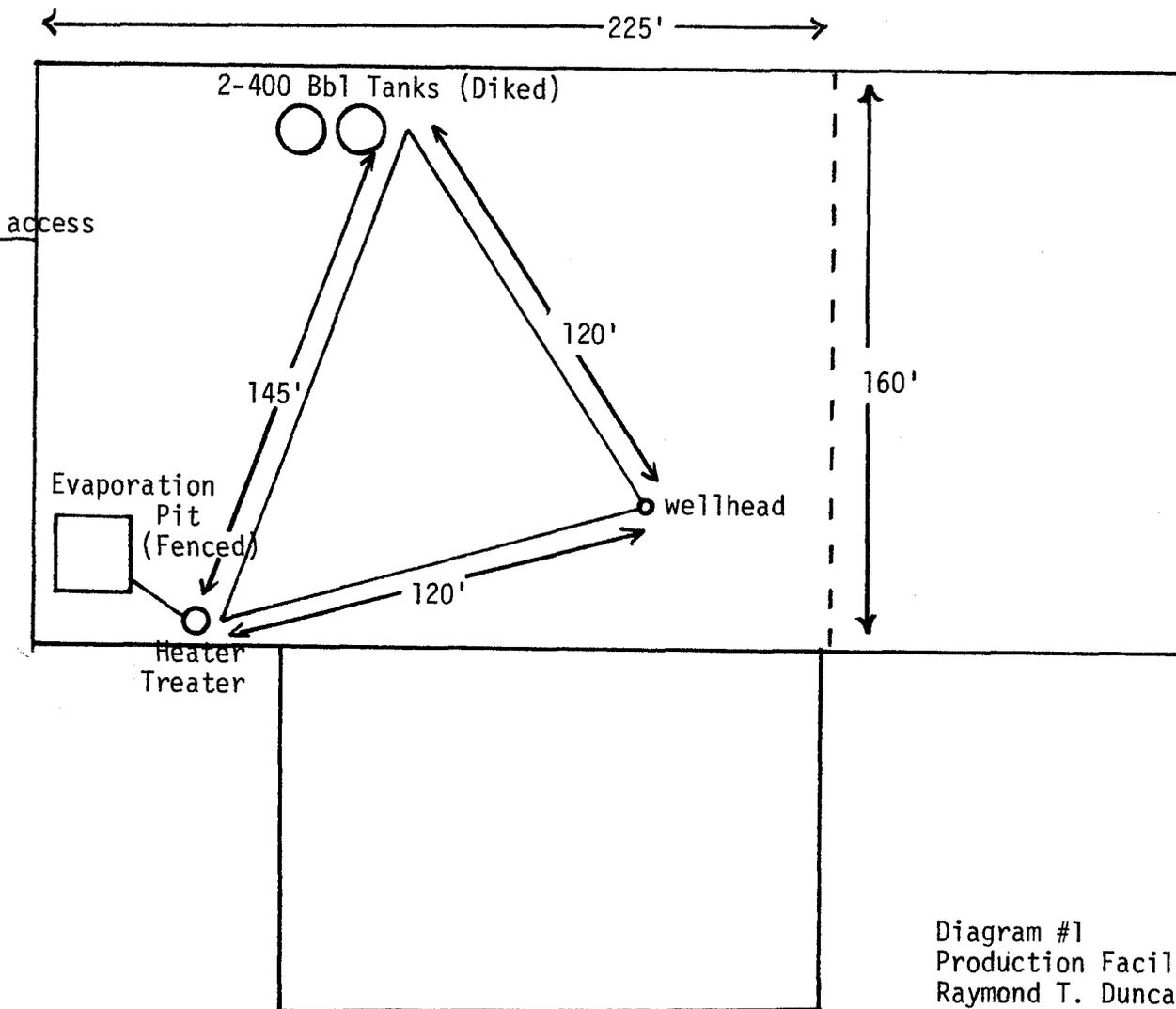


Diagram #1
Production Facility Layout
Raymond T. Duncan
Cave Canyon #4-2
1820' FNL & 1860' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

Scale: 1" = 50'

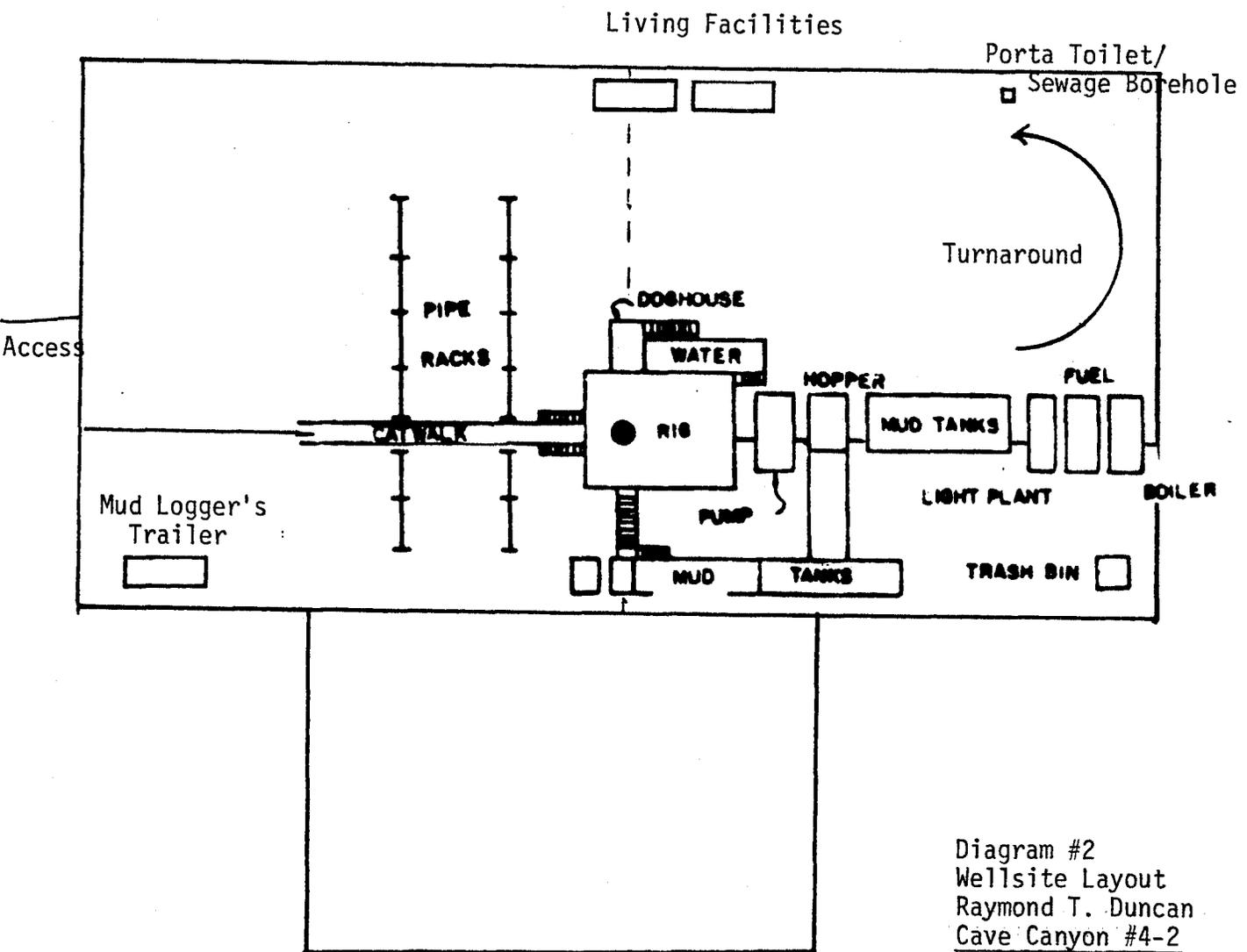


Diagram #2
Wellsite Layout
Raymond T. Duncan
Cave Canyon #4-2
1820' FNL & 1860' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

WELL PAD CROSS-SECTION

Well 4-2 Cave Canyon

Cut /////
Fill

Scales: 1"=50' H.
1"=30' V.

1.7 Vertical Exaggeration

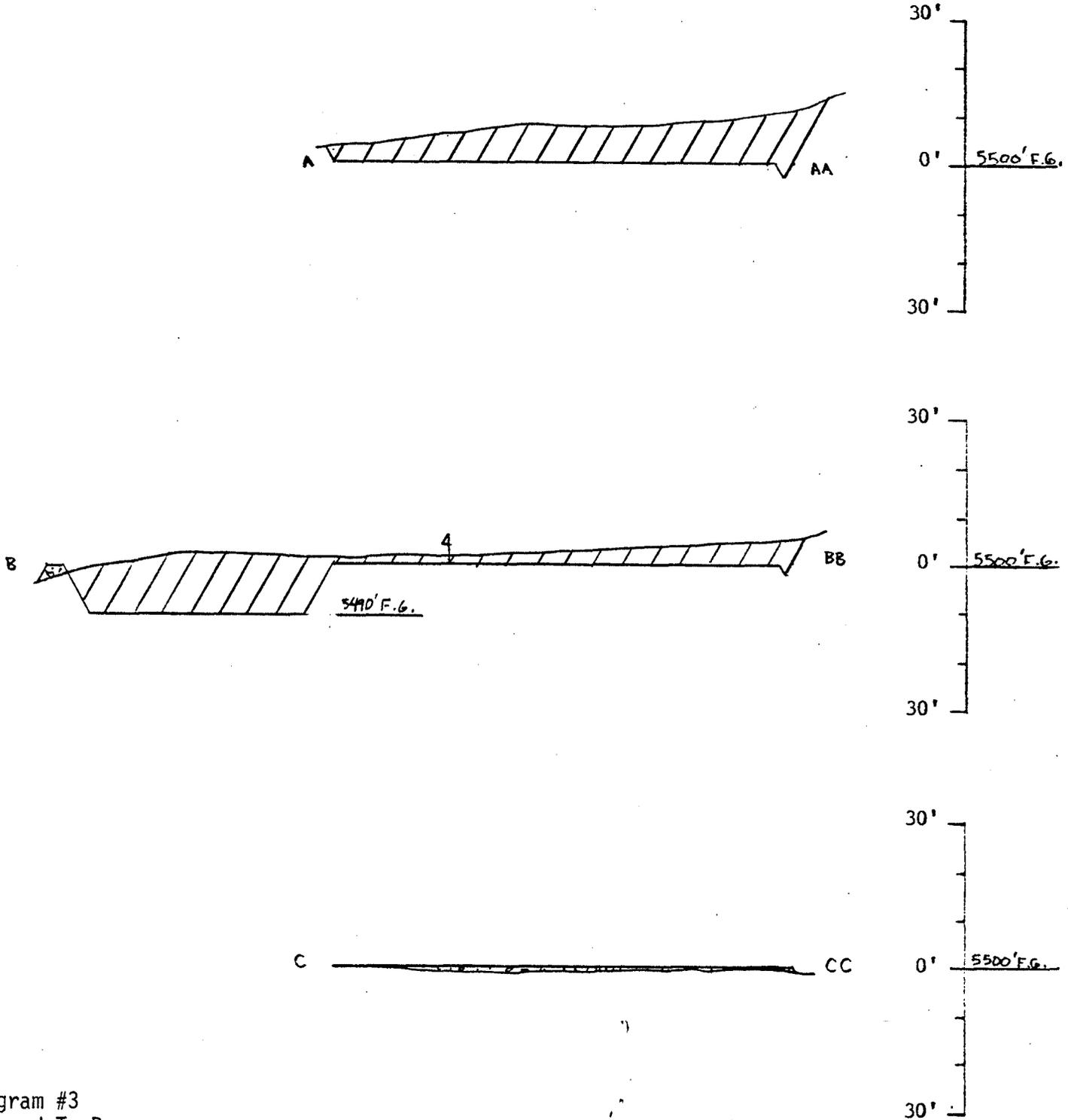


Diagram #3
Raymond T. Duncan
Cave Canyon #4-2
1820' FNL & 1860' FEL
Sec. 4, T38S-R24E
San Juan County, Utah

Diagram #4
 Raymond T. Duncan
 Cave Canyon #4-2
 T820' FNL & T860' FEL
 Sec. 4, T38S-R24E
 San Juan County, Utah

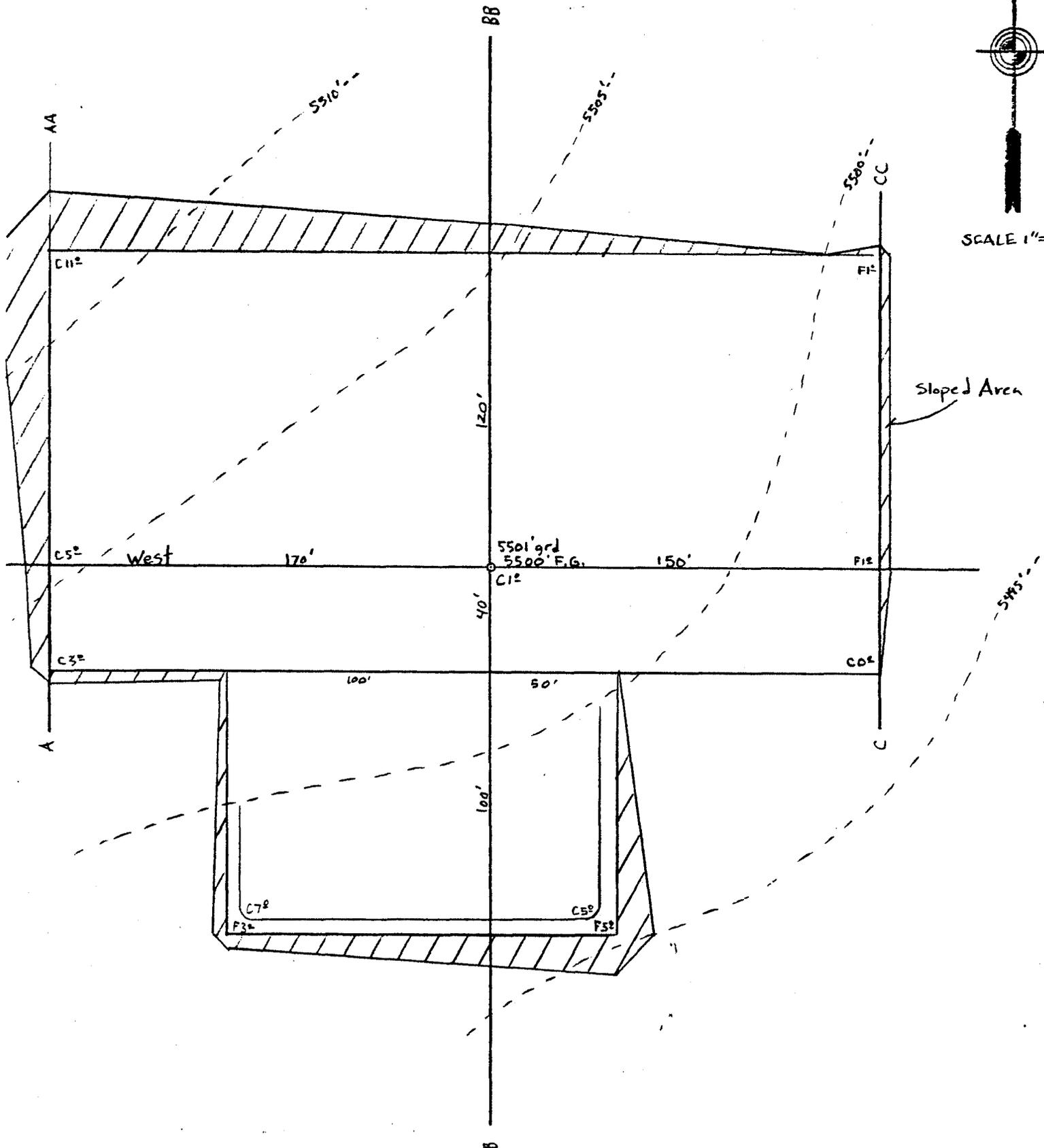
WELL PAD PLAN VIEW

Well 4-2 Cave Canyon

N



SCALE 1"=50'



082005

OPERATOR Raymond T. Duncan

DATE 10-29-84

WELL NAME Core Canyon #4-2

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

43-037-31096
API NUMBER

Lease
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: STIPULATIONS

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.



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

October 31, 1984

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

Gentlemen:

Re: Well No. Cave Canyon #4-2 - SW NE Sec 4, T. 38S, R. 24E
1820' FNL, 1860' FEL - San Juan County, Utah

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:

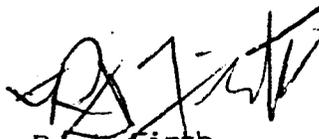
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. 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. Cave Canyon #4-2
October 31, 1984

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 43-037-31096.

Sincerely,



R. J. Firth
Associate Director, Oil & Gas

as
Enclosures
cc: Branch of Fluid Minerals

CONFIDENTIAL "TIGHT HOLE"

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425.

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

APPLICATION FOR RECEIVED, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [] PLUG BACK []
b. TYPE OF WELL: OIL WELL [X] GAS WELL [] OTHER [] SINGLE ZONE [X] MULTIPLE ZONE []
2. NAME OF OPERATOR: Raymond T. Duncan
3. ADDRESS OF OPERATOR: 1777 S. Harrison, Penthouse #1, Denver, CO 80210
4. LOCATION OF WELL: 1820' FNL & 1860' FEL
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.: 500'
16. NO. OF ACRES IN LEASE: 1289.44
17. NO. OF ACRES ASSIGNED TO THIS WELL: 40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1800'
19. PROPOSED DEPTH: 6260'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5501
22. APPROX. DATE WORK WILL START*: November 5, 1984

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: Cave Canyon
9. WELL NO.: #4-2
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 4, T38S-R24E
12. COUNTY OR PARISH: San Juan
13. STATE: Utah

PROPOSED CASING AND CEMENTING PROGRAM

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Row 1: 12 1/4", 8 5/8", 24#, 2500', 1100 sx - or sufficient to circ to surf. Row 2: 7 7/8", 5 1/2", 15.5#, 6260', 400 sx - or sufficient to cover zones of interest

Raymond T. Duncan proposes to drill a well to 6260' to test the Ismay and Lower 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.

See Onshore Order No. 1 attached.

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

24. SIGNED: [Signature] TITLE: Consultant for Raymond T. Duncan DATE: 10/23/84

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY: Kenneth V. Rhea TITLE: Acting DISTRICT MANAGER DATE: 08 NOV 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

ONSITE

DATE: October 15, 1984

PARTICIPANTS:

TITLES:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Your contact with the District Office is: Robert (Bob) Graff, Petroleum Engineer

Office Phone: 801-259-6111 Ext 216 Home Phone: 801-259-6088

Address: 82 East Dogwood, P.O. Box 970

City: Moab

State: Utah 84532

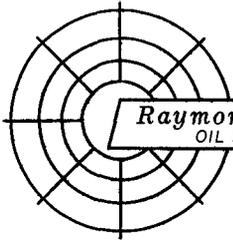
Resource Area Manager's address and contacts are: San Juan Resource Area

Address: 480 South First West, P.O. Box 7, Monticello, Utah 84535

Your contact is: Rich McClure

Office Phone: 801-587-2201

Home Phone: 801-587-2874



Raymond T. Duncan
OIL PROPERTIES

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

November 30, 1984

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

**CONFIDENTIAL:
TIGHT HOLE**

ATTN: Dianne R. Nielson
Director

RE: Cave Canyon Fed. 4-2
SW NE 4-38S-24E
San Juan Co., UT

Gentlemen:

Duncan is requesting that all information for the above-captioned well be held in CONFIDENTIAL STATUS - TIGHT HOLE for the maximum period allowable. Thank you for your consideration in this matter.

Please contact our office if you have questions or need additional information.

Very truly yours,
RAYMOND T. DUNCAN

W. S. Fallin

W.S. Fallin
Production Manager

cl

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

**CONFIDENTIAL:
TIGHT HOLE**

SUNDRY NOTICES AND REPORTS ON WELLS <small>(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.)</small>		3. LEASE DESIGNATION AND SERIAL NO. U-47876	
1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
2. NAME OF OPERATOR Raymond T. Duncan		7. UNIT AGREEMENT NAME N/A	
3. ADDRESS OF OPERATOR 1777 So. Harrison, P-1 Denver, CO 80210		8. FARM OR LEASE NAME Cave Canyon Fed.	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1820' FNL 1860' FEL		9. WELL NO. 4-2	
14. PERMIT NO. 43-037-31096		10. FIELD AND POOL, OR WILDCAT Wildcat	
15. ELEVATIONS (Show whether of, to, or, etc.)		11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA Sec. 4-38S-24E	
		12. COUNTY OR PARISH San Juan	13. STATE UT

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"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(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.)

Duncan respectfully requests an extension of time for the Permit to Drill the above-captioned well. The application was approved by the State of Utah on 10/31/84 for a period of one year. We would like to extend the application through 12/31/85.

We would like to apply for an additional one year period of time to maintain CONFIDENTIAL - TIGHT HOLE STATUS effec. immediately. Duncan expects to spud this well approximately November 16, 1985.

**CONFIDENTIAL:
TIGHT HOLE**

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 9/17/85
BY: John R. Dura

Federal approval of this action
is required before commencing
operations.

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

SIGNED W.S. Fallin TITLE Production Manager DATE 9/12/85
W.S. Fallin

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
COORDINATOR'S OF APPROVAL, IF ANY:

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-037-31096

NAME OF COMPANY: RAYMOND T. DUNCAN

WELL NAME: CAVE CANYON FEDERAL 4-2

SECTION SW NE 4 TOWNSHIP 38S RANGE 24E COUNTY San Juan

DRILLING CONTRACTOR Coleman

RIG # 4

SPUDDED: DATE 11-5-85

TIME 10:30 PM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Carolyn

TELEPHONE # 303-759-3303

DATE 11-6-85 SIGNED _____ AS _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DIVISION OF
GAS & MINING

RECEIVED
NOV 08 1985

CONFIDENTIAL:
TIGHT HOLE

Approved.
Bureau No. 42-R1424

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use 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: 1820' FNL: 1860' FEL
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) Spud	<input type="checkbox"/>		<input type="checkbox"/>

5. LEASE
-47876

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

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Cave Canyon Federal

9. WELL NO.
4-2

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
San Juan

13. STATE
UT

14. API NO.
43-037-31096

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5514' GL; 5528' 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 spud @ 10:30 PM on 11/5/85. Duncan requests complete confidentiality on all records for the maximum period allowable.

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 11/6/85
W.S. Fallin

(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

SUBMIT IN TRIPL
(Other instructions
verse side)

Form approved.
Budget Bureau No. 1004-0135
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.)

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR **Raymond T. Duncan** 303/759-3303

3. ADDRESS OF OPERATOR
1777 S. Harrison Street, Penthouse #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
1820' FNL & 1860' FEL

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5501' GR

RECEIVED

NOV 08 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
Cave Canyon

9. WELL NO.
#4-2

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 4, T38S-R24E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

10. 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 checked="" type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <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.)*

The amount of surface casing to be run was incorrectly stated in the previously submitted A.P.D. 2100' of 8 5/8", 24# casing will be run rather than 2500'.

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

SIGNED Lisa S. Duncan TITLE Consultant for Raymond T. Duncan DATE 10/26/84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL: Federal approval of this action is required before commencing operations.

ACCEPTED
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

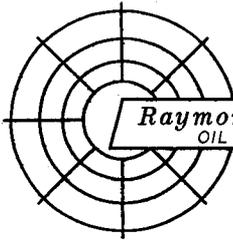
cc: 3-BLM-Moab, Ut
1 - Raymond T. Duncan

*See Instructions on Reverse Side
DATE: 11/19/84
BY: [Signature]

11/22/85
JRB

Duncan Oil Co.
Cave Canyon 4-2
Sec. 4, T38S, R27E
San Juan Co.

Plugged & abandoned @ 0.700 hrs.
on 11/21/85. Notified & got approval
from BCM. Inadvertently failed to
notify State. They will send in
written notice of work completed.



Raymond T. Duncan
OIL PROPERTIES

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

RECEIVED

NOV 25 1985

DIVISION OF OIL
GAS & MINING

November 22, 1985

Division of Oil, Gas & Mining
355 W. North Temple
Salt Lake City, UT 84180

**CONFIDENTIAL:
TIGHT HOLE**

RE: Cave Canyon Fed. 4-2
Sec. 4-38S-24E
San Juan Co., UT

Gentlemen:

Enclosed are three copies of the Plugging Sundry for the captioned well. The subsequent report of plugging will be sent when the pits and location are completely restored and seeded.

A completion report will follow shortly. Duncan requests that all information be kept in CONFIDENTIAL - TIGHT HOLE STATUS for the maximum allowable period.

Please contact our office if you have questions or need additional information.

Very truly yours,
RAYMOND T. DUNCAN

John A. Bettridge
Operations Superintendent

cl
encl.

**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 Dry Hole

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: 1820' FNL: 1860' FEL
AT TOP PROD. INTERVAL: N/A
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
Cave Canyon Federal

9. WELL NO.
4-2

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
San Juan

13. STATE
UT

14. API NO.
43-037-31096

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5514' GL; 5528' 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 checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
(other)			

RECEIVED

NOV 25 1985

(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.)*

Verbal Permission to plug was received from Greg Noble @ BLM at 11:30 AM 11/21/85. Subject well was plugged @ 12:30 a.m. 11/22/81. Rig was released @ 7:00 a.m. Plugs were set as follows:

4950-4850'	35 sx
2150-2050'	35 sx
50- 0'	20 sx surface

Log Tops:

Ismay	5945 (-417)
Hovenweep Shale	6083 (-555)
Lower Ismay	6090 (-562)
Gothic Shale	6133 (-605)
Desert Creek	6163 (-635)
L. Desert Creek	6216 (-688)
Chimney Rock Shale	6233 (-705)

Subsequent Report of Plugging will be sent upon restoration and seeding of location and pits. Completion report to follow shortly.

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 11/22/85

(This space for Federal or State office use)

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

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 11/26/85
BY: John R. B...

CONFIDENTIAL INFORMATION

FORMATION TOPS

KB = 5528'

<u>Formation</u>	<u>Sample</u>	<u>E-Log</u>	<u>Subsea</u>	<u>Thickness</u>
Pennsylvanian Period				
Hermosa Group				
(Honaker Trail Formation)	4912	4915	+ 613	1030
Paradox Formation				
Upper Ismay Zone	5940	5945	- 417	
Lower Ismay Zone	6099	6090	- 562	43
Gothic Shale Zone	6137	6133	- 605	30
Desert Creek Zone	6165	6163	- 635	53
Lower Desert Creek Porosity	6242	6216	- 688	17
Chimney Rock Shale Zone	6235	6233	- 705	24
Akah	6259	6257	- 729	
T.D.	6294	6292	- 764	

LOGS RUN

Dual Laterolog/MSFL with Gamma Ray and Caliper/S.P.

Base of Surface Casing to Total Depth

MSFL 5900' - Total Depth

Litho-Density/Compensated Neutron with Gamma Ray and Caliper

4800' - Total Depth

Borehole Compensated Sonic with Gamma Ray and Caliper

4800' - Total Depth

Dipmeter (3 passes)

5700' - 6200'

Cyberlook

5900' - Total Depth

EVALUATION OF LOG QUALITY

Electrical malfunction caused tool problems at 5190'. Logged up with gamma ray and caliper on the dual laterolog. Rest of logs appeared to be of good quality.

CONFIDENTIAL INFORMATION

DRILL STEM TEST DATA

Drill Stem Test No. 1: 6020' - 6100' Upper Ismay Zone

Test Type: Bottom Hole Conventional

Corrected Test Interval: 6018' - 6098'

Packer Setting Depths: 5992'; 5996'; 6096'

Choke Sizes: Surface choke - 1/4"; Bottom hole choke - 3/4"

Flow and Shut-In Descriptions:

Initial Flow (15 minutes) - tool open with weak blow increasing to 6" on bubble hose in 15 minutes.

Initial Shut-In (60 minutes) - surface action died.

Final Flow (60 minutes) - tool open with good blow to bottom of bucket in 5 minutes, increasing to 6 oz in 10 minutes, to 18.5 oz in 35 minutes, remained at 18.5 oz rest of flow.

Final Shut-In (180 minutes) - surface action died.

Test Pressures:

	Inside	Outside
Depth	5992	5996
Initial Hydrostatic	3158.9	3125
Initial Flow	63.2-84.3	80.5-93.9
Initial Shut-in	294.8	308.4
Final Flow	126.4-147.4	107.3-134.1
Final Shut-in	379	375.4
Final Hydrostatic	3158.9	3125

Bottom Hole Temperature: 134°F

Drill Pipe Recovery: 267' heavily gas cut mud
88' mud
255' total recovery in drill pipe

Sampler Recovery: 650 cc sl gas cut mud, .704 cu ft gas
Sampler pressure - 128 psi
Total volume of sampler - 2400 cc

Resistivity Data:

	Res. at Temp.	Equiv ppm Cl
Make up water		
Mud pit sample	8.8 at 60°F	2000
Top pipe recovery	1.92 at 58°F	
Sampler recovery	3.5 at 58°F	

**CONFIDENTIAL
INFORMATION**

Comments Regarding the Chart Profile:

No problem mechanically, the tool worked properly, packers set and pulled loose easily.

General Overview of the Test:

No indication of water, low porosity and low permeability.

EXPRESS MAIL ROUTING SLIP

PAM
TAMI
VICKY
CLAUDIA
STEPHANE
CHARLES
RULA
MARY ALICE
CONNIE
MILLIE

1-27	2:30
1-27	2:45
	2:55
	3:40
4403	1-27
CP	1-27 4:12
MAP	1-27 4:35
MAP	1-28 8:27
CD	1-28 8:47

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

**CONFIDENTIAL
INFORMATION**

7

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 1820' FNL: 1860' FEL
 At top prod. interval reported below N/A
 At total depth N/A

RECEIVED

swne JAN 23 1986

DIVISION OF OIL
GAS MINING

14. PERMIT NO. 43-037-31096 11/8/84

15. DATE SPURRED 11/5/85 16. DATE T.D. REACHED 11/20/85 17. DATE COMPL. (Ready to prod.) N/A 18. ELEVATIONS (DF, REB, RT, GR, ETC.) 5528' KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 6294' 21. PLUG, BACK T.D., MD & TVD N/A 22. IF MULTIPLE COMPL., HOW MANY 23. INTERVALS DRILLED BY 0-6294' ROTARY TOOLS CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) N/A 25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Laterolog; Compensated Neutron/GL; Compensated Sonic/GR, Cyberlook 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"	54.5#	119'	17 1/2"	150 sx. CT "B" + Add.	
8 5/8"	24#	2101'	12 1/4"	1000 sx Lite, + 350 sx. C	"B"

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A					N/A		

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
N/A	

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
N/A	N/A	Dry hole D+A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
N/A							

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

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

35. LIST OF ATTACHMENTS
Geological Report

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

SIGNED John A. Bettridge TITLE Operations Superintendent DATE 1/10/86



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

August 27, 1986

Raymond T. Duncan
1777 South Harrison St. #1
Denver, Colorado 80210

Gentlemen:

Re: Well No. Cave Canyon Federal 4-2 - Sec. 4, T. 38S., R. 24E.,
San Juan County, Utah - API #43-037-31096

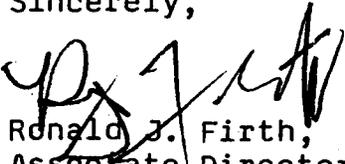
A review of our records indicates that the Dual Laterolog, Compensated Neutron/GL, Compensated Sonic/GR and Cyberlook logs that were run on the referenced well as indicated on the Well Completion Report dated November 22, 1985 have not been received.

Rule 312, Oil and Gas Conservation General Rules, requires that copies of the well logs be submitted within 90 days of the date of completion.

Please use the address listed below to provide the requested information the required at your earliest convenience, but not later than September 10, 1986.

Utah Division of Oil, Gas and Mining
Attention: Suspense File - Norm Stout
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Sincerely,


Ronald J. Firth,
Associate Director

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

0431S/7

TRANSFER OF GEOLOGICAL DATA

Date 8-29-86

TO: Utah Division of Oil, Gas & Mining Attention Suspense File - Norm Stout
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah, 84110-1203

FROM:

Duncan Oil
1777 South Harrison Street
Penthouse One
Denver, Colorado 80210

RE: _____

QUANTITY

DESCRIPTION OF DATA

1	Cave Canyon 3-1	CNL/POC
1	Cave Canyon 3-1	Sonic
1	Cave Canyon 3-1	DI-SFL
1	Cave Canyon 3-1	Dipmeter
1	Cave Canyon 4-2	CNL/POC
1	Cave Canyon 4-2	Sonic
1	Cave Canyon 4-2	DLI/MSFL
1	Cave Canyon 4-2	CEL

INSTRUCTIONS: Please acknowledge receipt promptly.

RECEIVED BY: _____ DATE: _____

Aug 28, 1986

090222

Utah Division of Oil, Gas + Mining
Attention: Suspense File Norm Stout
355 West North Temple
3 Triad Center Suite 350
Salt Lake City, Utah 84180-1203

RECEIVED

SEP 02 1986

DIVISION OF
OIL, GAS & MINING

Dear Mr. Stout:

Here are the copies of the logs you requested. Please sign and return 1 copy of the transmittal for our records. Thank you.

Sincerely,
Ruth Hummel
Duncan Oil