

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE  WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/abd. \_\_\_\_\_  
 Cng of opu off 1-1-89 890905 Drilling Ext. Approved to 8/11/90.

DATE FILED 8-02-88

LAND: FEE & PATENTED \_\_\_\_\_ STATE LEASE NO. \_\_\_\_\_ PUBLIC LEASE NO. U-1207 \_\_\_\_\_ INDIAN \_\_\_\_\_

DRILLING APPROVED: 8-11-88

SPUDDED IN: \_\_\_\_\_

COMPLETED: \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION: \_\_\_\_\_

GRAVITY A.P.I. \_\_\_\_\_

GOR. \_\_\_\_\_

PRODUCING ZONES: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_

WELL ELEVATION: \_\_\_\_\_

DATE ABANDONED: LA'd ~~10/23/90~~ 10/23/90 per BLM,

FIELD: NATURAL BUTTES

UNIT: DIRTY DEVIL

COUNTY: UINTAH

WELL NO. FEDERAL 1-4 API NO. 43-047-31849

LOCATION 756' FNL FT. FROM (N) (S) LINE. 2515' FWL FT. FROM (E) (W) LINE. NE NW 1/4 - 1/4 SEC 4

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
10S	24E	4	EPS Renewal Corp				

DIRTY DEVIL, L.P.



**EPS Resources Company**

5655 South Yosemite  
Suite 460  
Englewood, CO 80111  
(303) 721-7920

July 27, 1988

**RECEIVED**  
AUG 2 1988

U.S. Department of the Interior  
Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078

DIVISION OF  
OIL, GAS & MINING

Re: Dirty Devil Unit #1-4  
Section 4, T10S-R24E  
Uintah County, Utah

Gentlemen:

Please find enclosed the following documents related to the drilling of the above captioned well:

- 1) Application for Permit to Drill
- 2) Surveyor's Plat
- 3) Plan of Development
- 4) BOP and Pressure Control Specifications
- 5) 13-Point Surface Use Plan
- 6) Archeology Evaluation

Your early response to this application will be appreciated. Should you require any additional information, please contact this office.

Sincerely,

THE DIRTY DEVIL, L.P.

A handwritten signature in cursive script, appearing to read 'Edward Neibauer'.

Edward Neibauer  
Petroleum Engineer

EN/dak

Enclosure

cc: Utah State Bureau of Land Management  
324 South State, Suite 301  
Salt Lake City, Utah 84111-2303

Division of Oil, Gas and Mining  
355 W. North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**  
AUG 2 1988

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

2. NAME OF OPERATOR  
 Dirty Devil, L.P.

3. ADDRESS OF OPERATOR  
 5655 S. Yosemite Suite 460 Englewood, CO 80111 (303) 721-7920

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 2515' FWL 756' FNL NE 1/4 NW 1/4 Sec. 4, T10S-R24E, S.L.B.&M.  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 35 Miles SE of Vernal, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 756'

16. NO. OF ACRES IN LEASE  
 1000±

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 160

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 5000'

19. PROPOSED DEPTH  
 8000' *Mesa Verde*

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 Ungraded 5689' GR 5703' KB Estimated

22. APPROX. DATE WORK WILL START\*  
 Upon Receipt of Approval

5. LEASE DESIGNATION AND SERIAL NO.  
 U-1207

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Dirty Devil Unit

8. FARM OR LEASE NAME  
 Federal

9. WELL NO.  
 1-4

10. FIELD AND POOL, OR WILDCAT  
 Bonanza Natural Buttes

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 4,  
 T10S-R24E, S.L.B.&M.

12. COUNTY OR PARISH  
 Uintah

13. STATE  
 Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48.0#	150'	200SX
12-1/4"	9 5/8"	36.0#	2800'	300SX
7-7/8"	4-1/2"	11.6#	8000'	As needed to protect all productive zones

Operator proposes to drill a Mesaverde Test estimated to 8000'. Intermediate casing will be run and cemented to protect the oil shale section of the Green River Formation. All water flows and significant hydrocarbon shows will be reported. The well will be drilled according to the attached program. Adequate BOP equipment will be maintained at all times. If commercial production is encountered, production casing will be run and cemented adequately to protect the zones of interest. No abnormal pressured or temperatures are anticipated and drilling operations will continue for 16 days upon commencement. The anticipated bottom hole pressure (static) will be approximately 2000 psi.

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 Edward Neibauer TITLE Petroleum Engineer DATE July 24, 1988

(This space for Federal or State office use)  
 PERMIT NO. 43-047-31849 APPROVAL DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_  
 APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING  
 DATE: 8-11-88  
 BY: John R. Bay  
 WELL SPACING: RL65-2-3

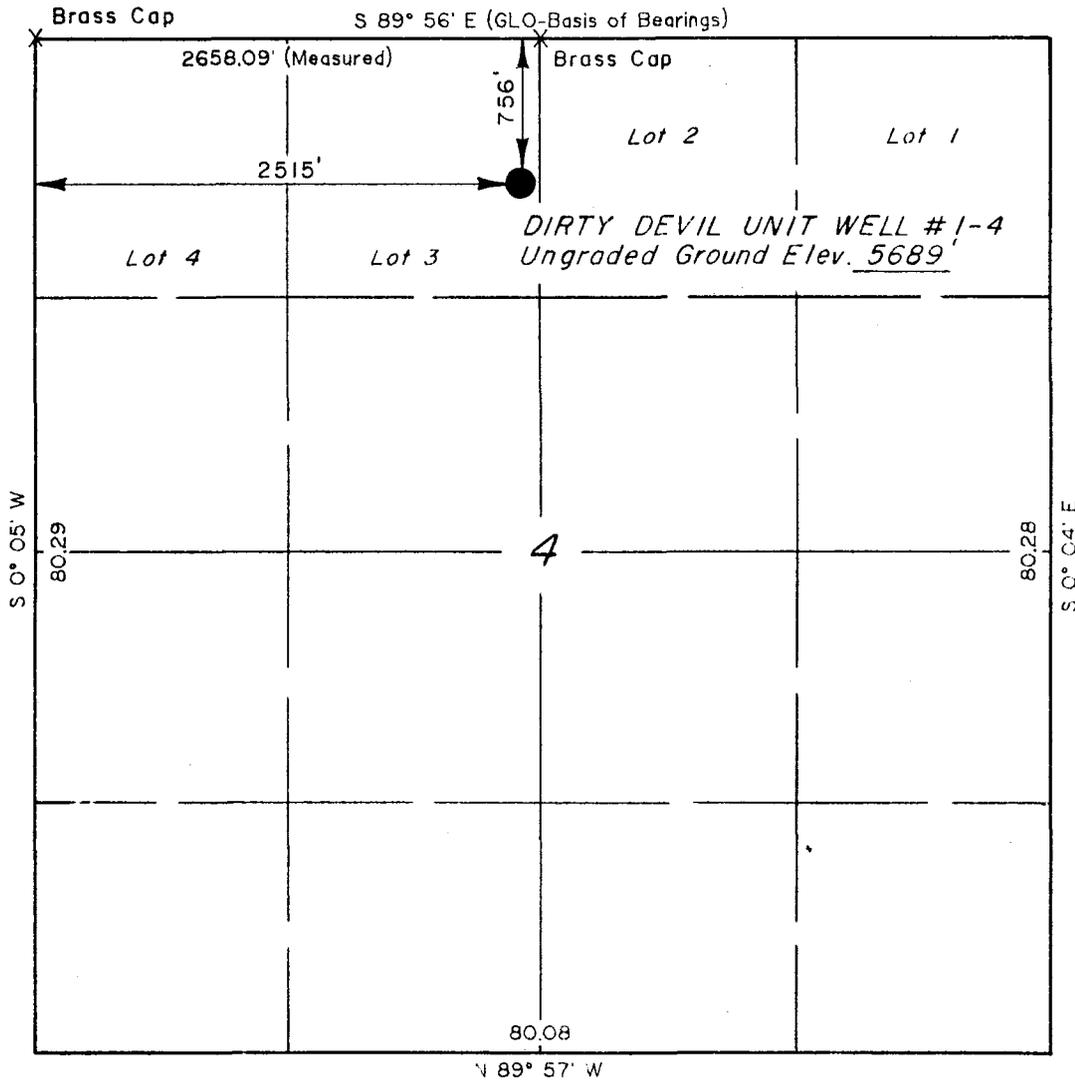
\*See Instructions On Reverse Side

T 10 S , R 24 E , S.L.B. & M.

PROJECT

EPS RESOURCES

Well location, *DIRTY DEVIL UNIT Well # 1-4*, located as shown in the NE 1/4 NW 1/4 Section 4, T 10 S , R 24 E , S.L.B. & M., Uintah County, Utah.



S 0° 05' W  
80.29

80.28  
S 0° 04' E

4

80.08  
S 89° 57' W

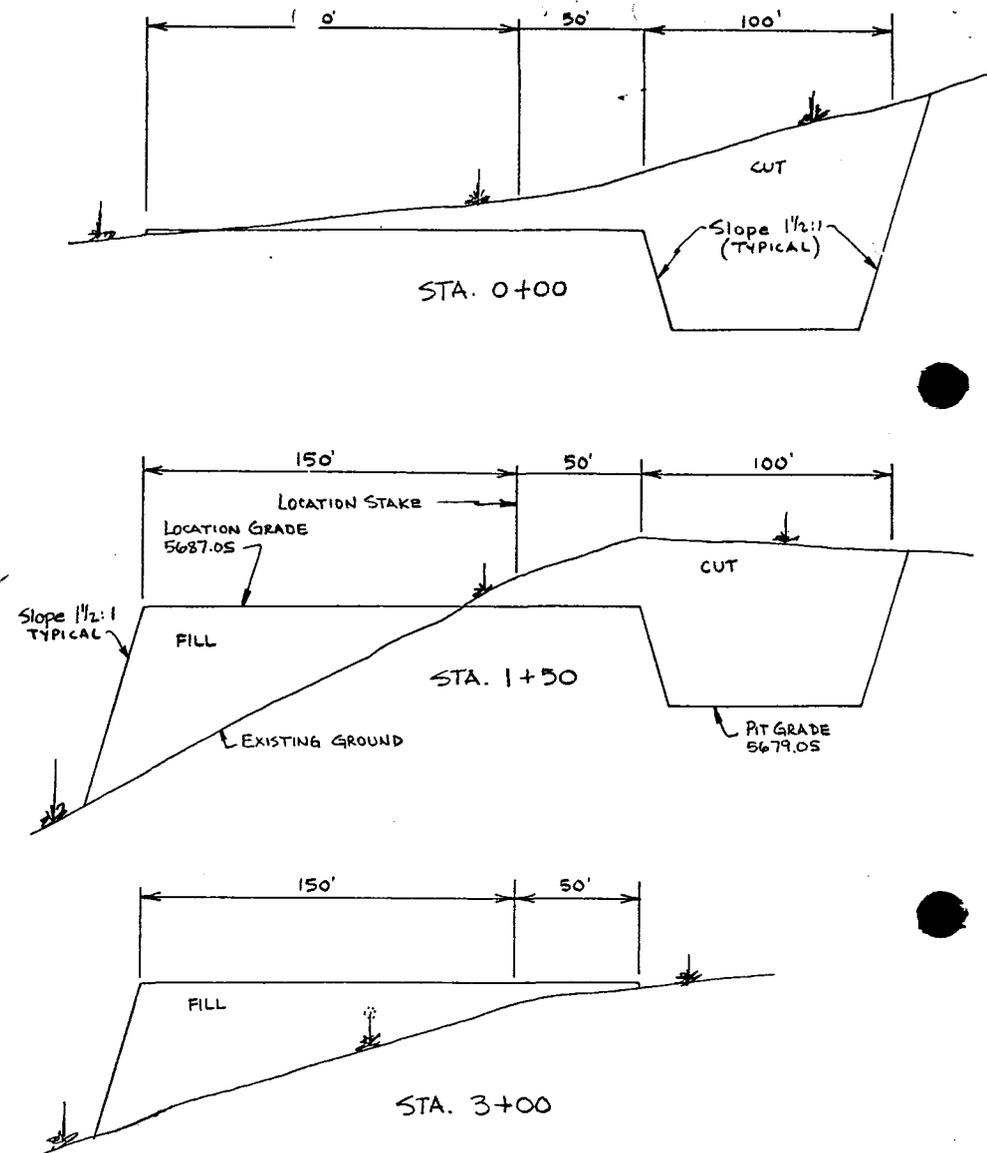
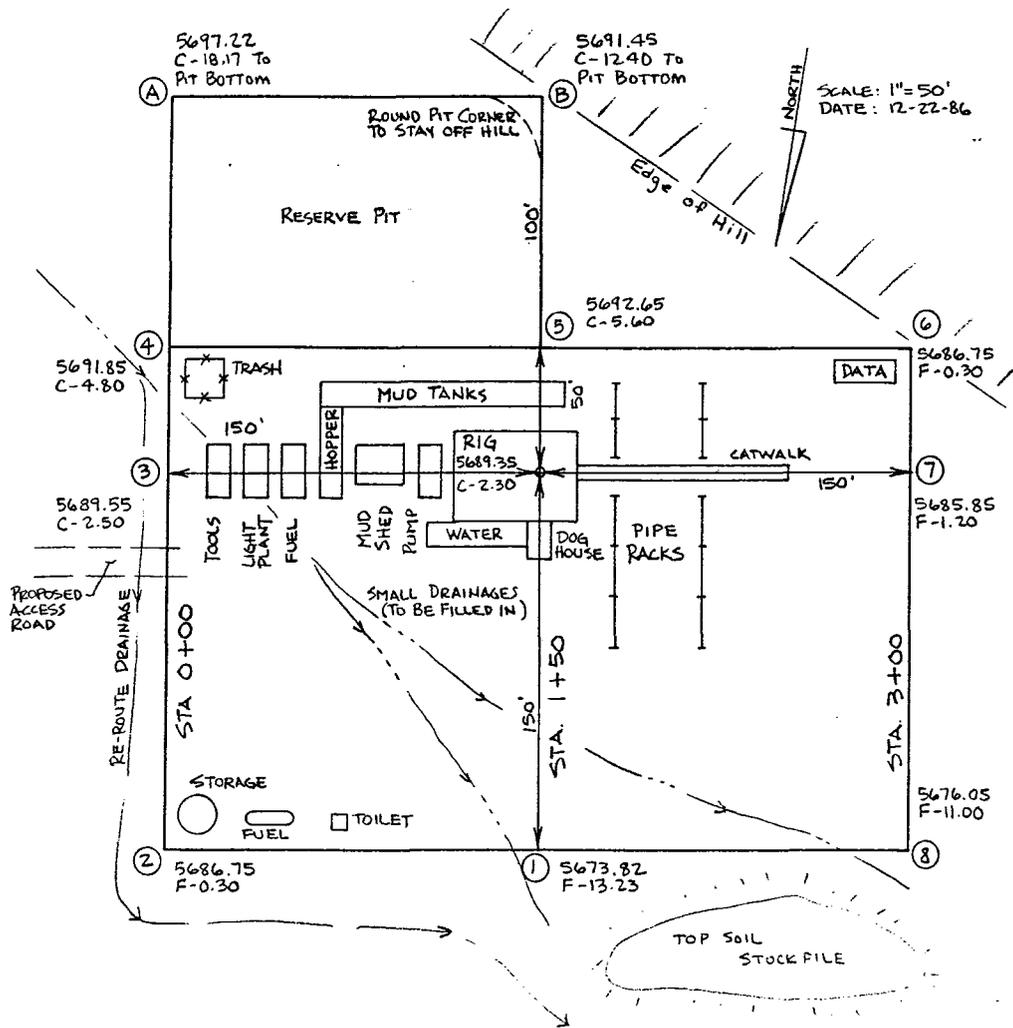


CERTIFICATE OF ACCURACY  
 I HEREBY CERTIFY THAT THE SURVEY WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEY MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
 REGISTERED LAND SURVEYOR  
 NO. 5709  
 ROBERT L. KAY  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 5709  
 STATE OF UTAH

X = Located Section Corners

UINTAH ENGINEERING & LAND SURVEYING P. O. BOX Q - 85 SOUTH - 200 EAST VERNAL, UTAH - 84078	
SCALE 1" = 1000'	DATE 12-12-86
PARTY RK JK DLS	REFERENCES GLO
WEATHER COLD	FILE EPS

**EPS RESOURCES**  
**DIRTY DEVIL UNIT WELL**  
**# 1-4**



1"=10'  
 1"=50'

APPROXIMATE YARDAGES	
CU. YDS. CUT	10801.52
CU. YDS. FILL	8981.33
UNBALANCE OF 2392 CU. YDS. CUT AFTER 20% COMPACTION.	

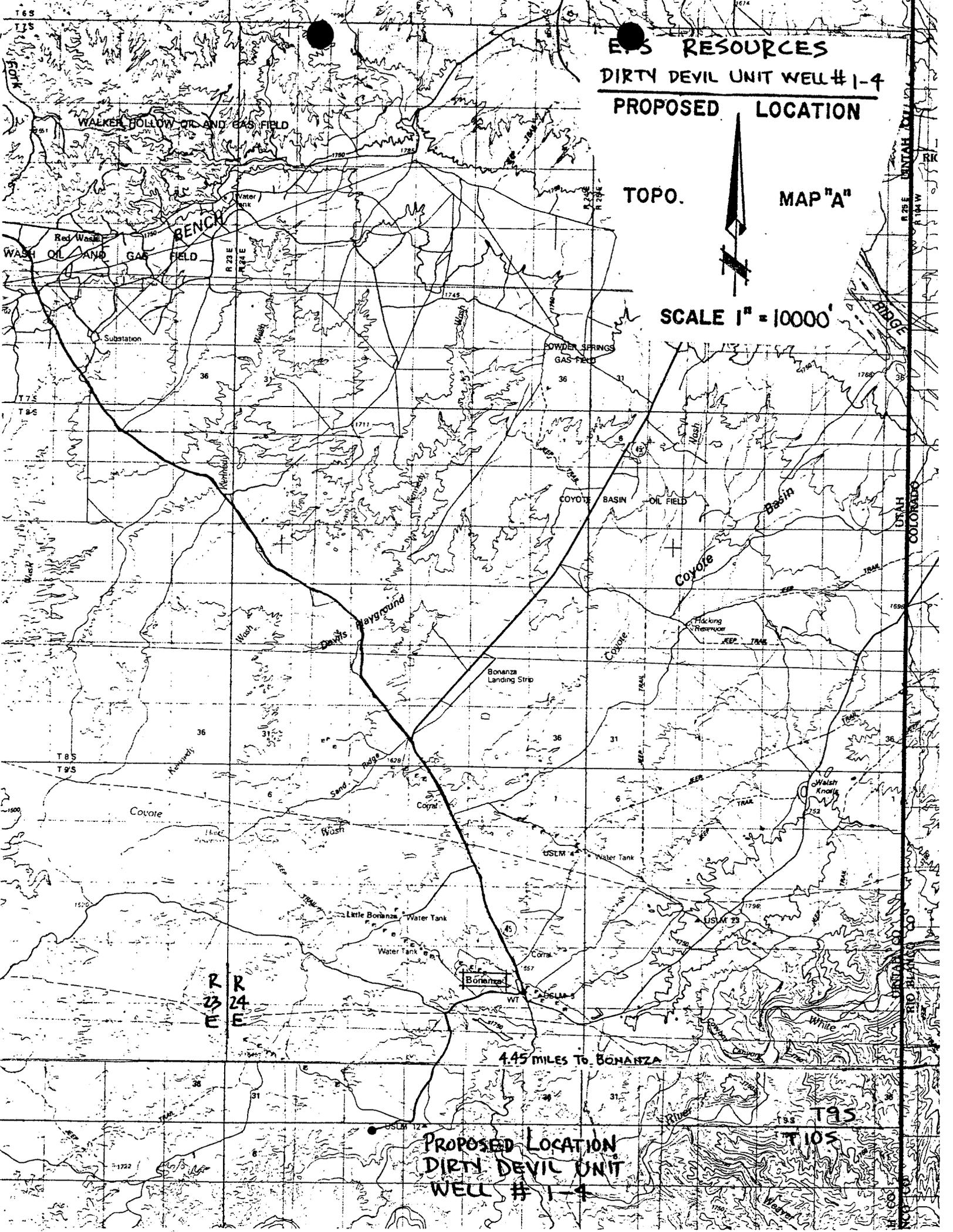
**EPS RESOURCES**  
**DIRTY DEVIL UNIT WELL # 1-4**  
**PROPOSED LOCATION**

TOPO.

MAP "A"



SCALE 1" = 10000'



**PROPOSED LOCATION**  
**DIRTY DEVIL UNIT**  
**WELL # 1-4**

4.45 MILES TO BONANZA



WELL PROGNOSIS

WELL: DIRTY DEVIL UNIT - #1-4

LOCATION: SE4 SW4 Section 4, T10S-R24E, S.L.B.&M

DRILLING CONTRACTOR: To be selected.

ELEVATION: GR 5689' (Ungraded) 5703' KB estimated

<u>FORMATION TOPS:</u>	<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
	Green River		
	Parachute Creek	1388'	+4301
	H-Marker	2868'	+2821
	Wasatch	4213'	+1476
	Mesaverde	6048'	- 359
	Total Depth	8000'	

SAMPLE COLLECTION: Collect cutting samples at ten (10) foot intervals from under surface to total depth. Samples will be collected by drilling crews for the wellsite geologist. Frequency of sample collection may be changed at the wellsite geologist's discretion.

ELECTRICAL

SURVEYS: The following logging program will be followed:

2800 - 8500'            7-7/8" hole below 9-5/8" casing.    Dual Laterolog  
Formation Density Compensated, Compensated Neutron Log,  
GR, SP, and CAL.

MUD LOGGING AND

DRILLING TIME: A portable mud logging unit will be operated by wellsite geologist from below surface casing to total depth. A geologist will be in service from surface casing to total depth.

DRILLSTEM TESTING: No drillstem testing is anticipated.

CORING: No coring operations are anticipated.

PLAN OF DEVELOPMENT  
DRILLING PROGNOSIS

DIRTY DEVIL UNIT:

- 1) Move in air percussion rig and drill 17-1/2" hole to 150'. Set and cement 13-3/8", 48.0#, H-40 casing to surface with approximately 200 sacks cement.
- 2) Move in rotary drilling rig and equipment. Cut off 13-3/8" casing and install 3000# casing flange. Install BOP equipment per BOP and Pressure Containment Data. Pressure test BOP's, manifold and all valves to 2500 psi and annular preventer to 2000 psi prior to drilling casing shoe. Drill 12-1/4" hole to 2800' (+). Prepare hole for intermediate casing.
- 3) Set and cement 9-5/8", 36.0#, K-55 intermediate casing sufficiently to protect any water, oil, gas or other mineral-bearing formations. WOC.
- 4) Land casing and install intermediate spool. Install BOP equipment and retest prior to drilling casing shoe.
- 5) Drill 7-7/8" hole to total depth. Perform drill-stem testing as warranted. Conduct electric logging and prepare hole for production casing.
- 6) Run 4-1/2" or 5-1/2", 11.6#, N-80 or K-55 production casing and cement as necessary across potential zones. The length of the cement column will be determined after the logs have been evaluated.
- 7) Release rotary drilling rig and determine completion procedure.

Special Instructions:

- 1) Run deviation surveys at regular intervals and in conjunction with bit trips.
- 2) Utilize a degasser and necessary solids control equipment.
- 3) Avoid surging hole on trips and fill hole properly when pulling pipe.
- 4) All crew members should be familiar with BOP operations. Functional test pipe rams daily and closed blind rams each trip out of the hole.
- 5) Drilling crews should observe to detect either decrease or increase in fluid level.
- 6) A regular daily mud check should be made by mud engineer.
- 7) Drill stem testing will be determined by the wellsite geologist.

DRILLING FLUID  
PROGRAM:

<u>Interval (Feet)</u>	<u>Mud Weight (lbs/gal)</u>	<u>Viscosity (secs/qt)</u>	<u>Fluid Loss (cc's/30 min)</u>
0 - 150'	-----AIR-----		
Set 13-3/8" casing at 150'.			
150 - 2800'	8.4 - 8.8	27 - 29	No Control

Drill out below surface casing with water. Use gel and lime in the event additional viscosity is required for hole cleaning. If swelling shales are encountered, the drilling fluid salinity should be increased to about 40,000 ppm Na Cl. The salty water will improve hole stability by minimizing the swelling shale tendencies and will allow cuttings to settle out rapidly. Utilize available solids control equipment and circulate the reserve pit if possible. Occasional sweeps of pre-hydrated bentonite may be necessary to insure adequate hole cleaning while drilling this interval and the use of conventional lost circulation materials should control minor losses in this section of the hole. If severe losses are encountered, they should be combatted, if possible, with pill treatments rather than by maintaining lost circulation materials in the system continuously. Lost circulation which cannot readily be controlled by conventional means may justify using cement plugs.

Set 9-5/8" intermediate casing at 2800'.

2800 - 6000'	8.6 - 9.0	27 - 34	No Control
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Drill out below intermediate casing with 3% KCL water. Maintain minimum viscosities and solids by dumping and cleaning mud tanks frequently and utilizing available solids control equipment to prevent recirculating drilled solids. The use of a flocculent will improve the settling of drilled solids. Occasional sweeps of pre-hydrated bentonite, salt gel or asbestos fiber should be used as necessary to clean hole if tight connections are experienced or excessive fill is encountered.

6000 - TD	8.9 - 9.6	32 - 36	12 cc's or less
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As it becomes necessary, or at approximately 6000' mud up by using additions of salt gel, caustic soda, starch and a preservative. Additions of lignosulfonate should be used to obtain needed mud flow properties. Drilling fluid salinity can be adjusted as necessary to increase mud weight without adding additional solids to the system. Seepage and slight lost circulation may occur as the mud weight is increased. Treatments with conventional lost circulation materials may be required to minimize downhold mud losses. Fine mica is

recommended for use to correct minor losses. Wellsite interpretation of hole conditions will aid in determining the fluid properties necessary to ensure satisfactory operations.

Set 4-1/2" or 5-1/2" production casing at TD.

CASING

<u>PROGRAM:</u>	<u>Size,Wt. &amp; Grade</u>	<u>Setting Depth</u>	<u>Hole Size</u>	<u>Cement Require.</u>
	13/3/8", 48.0#, H40 New	150'	17-1/2"	Approximately 200 sacks Class G w/3% Calcium Chloride.
	9-5/8", 36.0#, K55 New	2800'	12-1/4"	Approximately 300 sacks to be verified after caliper log is run.
	4-1/2", 11.6#, N80 New or 5-1/2"	7100'	7-7/8"	Amount will be determined after logs are run. Use regulated fillup and Class "G" type cements.

PRESSURE CONTROL  
EQUIPMENT AND  
SPECIFICATIONS:

Adequate BOP equipment will be maintained as indicated in the attached Pressure Control Specifications. In addition, the BOP equipment will be well-braced with hand controls extending clear of the drilling rig substructure. The accumulator equipment will provide closing pressure in excess of that required with sufficient volume to operate all components. All BOP equipment, auxiliary equipment, standpipe, valves and rotary hose will be tested as per test schedule or to the rated pressure of the equipment at the time of installation. Modification of the pressure control equipment or testing procedure will be approved in writing on tour sheets by the wellsite representative.

Personnel & Mailing Information:

EPS Resources Company  
5655 S. Yosemite  
Suite 460  
Englewood, Colorado 80111  
Office (303)721-7920

Jack Mercer  
P. O. Box 205  
Vernal, Utah 84078  
Mobile Phone (801)789-6241  
Home (801)789-1842

Notification of Shows, DST's and Unusual Problems:

Jack Mercer	Mobile: (801)789-6241	Home: (801)789-1842
Edward Neibauer	Office: (303)721-7920	(303)337-1153

Distribution of Information:

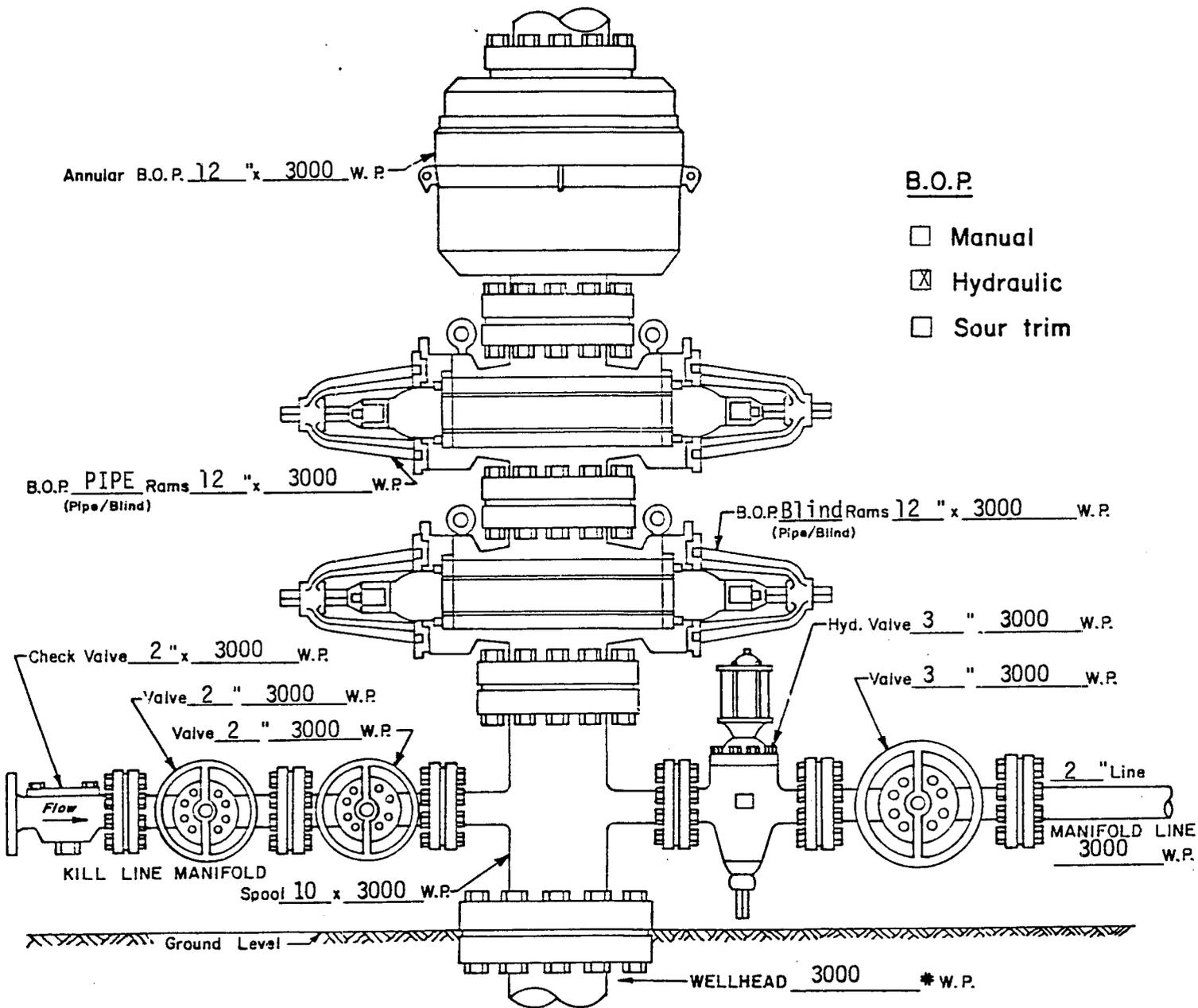
EPS Resources Company  
5655 S. Yosemite  
Suite 460  
Englewood, Colorado 80111  
Attn: Edward Neibauer

State of Utah  
Natural Resources  
Oil, Gas and Mining  
355 W. North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
Attn: Chief Petroleum Engineer

Bureau of Land Management  
U. S. Dept. of the Interior  
170 South 500 East  
Vernal, Utah 84078

# WELLHEAD BLOWOUT CONTROL SYSTEM

COMPANY <b>Dirty Devil, L.P.</b>	WELL NAME AND NUMBER <b>Dirty Devil Unit - #1-4</b>
LOCATION <b>NE 1/4 NW 1/4 Section 4, T10S-R24E S.L.B. &amp; M. Uintah County, Utah</b>	



Fill blanks with applicable information. If not applicable, enter "N.A." or cross-out item shown. Enter other pertinent information below.

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**DIRTY DEVIL, L.P.**

13 Point Surface Use Plan

for

Well Location

#1-4

Located In

Section 4, T10S-R24E, S.L.B. & M.

Uintah County, Utah

**DIRTY DEVIL, L.P.**

Section 4, T10S-R24E, S.L.B. & M.

**1. EXISTING ROADS**

See attached Topographic Map "A", to reach the Dirty Devil Unit well location, located in Section 4, T10-R24E, S.L.B. & M., from Vernal, Utah.

Proceed East out of Vernal, Utah along U.S. Highway 40, 24 miles to the junction of this highway and Utah State Highway 45 to the South; proceed South along this road 22 miles to Bonanza, Utah and the junction of this road and a gravel surface road to the West; proceed Westerly along this road 4.6 miles to the junction of this road and the proposed access road to be discussed in Item #2.

There is no construction anticipated on any of the above described road. It will meet the standards necessary, for the hauling of equipment during the drilling and production of this well.

**2. PLANNED ACCESS ROAD**

See Topographic Map "B" for the proposed access road.

In order to facilitate the anticipated traffic flow necessary to drill and produce this well, the following standards will be met:

A. This proposed access road will be an 18' crown road (9' either side of the center-line) with drain ditches along either side of the proposed road where it is determined necessary in order to handle any run-off from any normal meteorological conditions that are prevalent to this area.

B. Back slopes along the cut areas of the road will be 1 1/2 to 1 slopes and terraced.

C. The road will be center-line flagged prior to the commencement of construction.

D. The grade of this road will vary from flat to 8%, but will not exceed this amount. This road will be constructed from native borrow accumulated during construction.

E. No major cuts, fills or culverts are necessary for construction on the proposed access road.

F. Any fences that are encountered along this access road will be cut and replaced with a cattleguard with a minimum width of 18' and a loading factor large enough to facilitate the heavy trucks required in the drilling and production of this well.

G. If cattleguards are to be located at existing gates they will be installed with the above requirements and with a new gate installed at one end of the cattleguard.

H. The access from the road to the gate will be of such a nature that there will be no impedance of traffic flow along the main access road and no difficulties encountered by traffic utilizing the gate either leaving or entering the proposed access road.

### **3. LOCATION OF EXISTING WELLS**

As shown on Topographic Map "B", the other known wells within a one mile radius are identified as follows:

- (1) Water Wells - None
- (2) Abandoned Wells - 1 (one), PTS #11-20, NWNW, Section 20, T9S-R24E, S.L.B. & M.
- (3) Temporarily abandoned wells - None
- (4) Disposal Wells - None
- (5) Drilling Wells - None
- (6) Producing Wells - 2 (two), Dirty Devil Unit (DDU) #1-18, NWNE, Section 18, T9S-R24E, S.L.B. & M., and the DDU #41-9, NENE, Section 9, T9S-R24E, S.L.B. & M.
- (7) Shut in Wells - DDU #23-17, NESW, Section 17, T9S-R24E S.L.B. & M., and DDU #31-15A, NWNE, Section 15, T9S-R24E S.L.B. & M.
- (8) Injection Wells - None
- (9) Monitoring or observation wells for other purposes - None

### **4. LOCATION OF TANK BATTERIES, PRODUCTION FACILITIES AND PRODUCTION GATHERING LINES AND SERVICE LINES**

All petroleum production facilities are to be contained within the proposed location site.

In the event production is established:

(1) Any plans for a gas flow line from this location to existing gathering lines or a main production line will be submitted to the appropriate agencies for approval.

(2) All production facilities will be located on the existing pad.

(3) Construction materials will be native borrow or cut exposed on the site, and will be consistent with accepted oil field standards and good engineering practices.

(4) As described in Item 7, the reserve pit will be fenced on three sides during drilling and completion operations and will be rehabilitated to conform with the provisions of plans for surface restorations. In the event a disposal pit is required for producing this well, it will be completely fenced to protect livestock and wildlife.

### **5. LOCATION OF AND TYPE OF WATER SUPPLY**

A. Water required for drilling operations will be transported by truck over the existing and proposed access roads from Bonanza, Utah. No additional roads or pipelines will be required.

B. No water well will be drilled on the location site or lease.

## **6. SOURCE OF CONSTRUCTION MATERIALS**

Construction materials will be obtained from Federal lands.

The proposed access road under Item 2 will be crossing Federal lands.

## **7. METHODS FOR HANDLING WASTE DISPOSAL**

See Location Layout Sheet.

A reserve pit will be constructed.

A. The reserve pit will be approximately 8' deep and at least one half of this depth shall be below the surface of the existing ground.

B. One half of the reserve pit will be used as a fresh water storage area during the drilling of this well and the other one half will be used to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluids, etc.

C. If deemed necessary by the agencies concerned, to prevent contamination to surrounding areas, the reserve pits will be lined with a gel.

D. The pits will have overhead flagging installed if deemed necessary to protect the water fowl, wildlife, and domestic animals.

E. At the onset of drilling this reserve pit will be fenced on three sides and at the time the drilling activities are completed, it will be fenced on the fourth side and allowed to dry completely prior to the time that backfilling and reclamation activities are attempted.

F. When the reserve pit dries and the reclamation activities commence, the pits will be covered with a minimum of four feet of soil and all requirements in Item #10 will be followed.

G. Garbage and other waste materials will be contained in an enclosed wire mesh trash bin on the location and hauled to the nearest sanitary fill as necessary.

H. A portable chemical toilet will be supplied for human waste.

## **8. ANCILLARY FACILITIES**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

## **9. WELL SITE LAYOUT**

See Location Layout Sheet.

The B.L.M. District Manager shall be notified before any construction begins on the proposed location site.

As mentioned in Item #7, the pits will be unlined unless it is determined by the representatives of the agencies involved that the materials are too porous and would cause contamination to the surrounding area; then the pits will be lined with a gel and any other type material necessary to make it safe and tight.

When drilling activities commence, all work shall proceed in a neat and orderly sequence.

#### **10. PLANS FOR RESTORATION OF SURFACE**

As there is some topsoil on the location site, all topsoil shall be stripped and stockpiled. See Location Layout Sheet and Item #9. When all drilling production activities have been completed, the location site and access road will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area.

Any drainages re-routed during the construction activities shall be restored to their original line of flow as near as possible. Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash pit shall be buried with a minimum of 5' of cover.

As mentioned in Item #7, the reserve pit will be completely fenced and wired and overhead wire and flagging installed, if there is oil in the pits, and then allowed to completely dry before covering.

Any appreciable amount of oil will be removed from the reserve pit prior to restoration activities.

Restoration activities shall begin within 90 days after completion of the well. Once completion activities have begun, they shall be completed within 30 days.

When restoration activities have been completed, the location site and access ramp shall be reseeded with a seed mixture recommended by the B.L.M. District Manager when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said cleanup and restoration activities shall be done and performed in a diligent and most workmanlike manner and in strict conformity with the above mentioned Item #7 and #10.

#### **11. OTHER INFORMATION**

##### **The Topography of the General Area (See Topographic Map "A")**

The area is a basin formed by the Blue Mountain Plateau and Green River to the North and the White River and Roan Plateau to the South.

The basin floor is interlaced with numerous canyons and ridges formed by the non-perennial streams of the area. The sides of these canyons are steep and ledges formed in sandstones, conglomerates, and shale deposits are extremely common to this area.

The surface area is used primarily for grazing domestic sheep and cattle.

The geologic structures of the area that are visible are of the Uintah Formation (Eocene Epoch) Tertiary Period in the upper elevation and the cobblestone and younger Alluvial deposits from the Quaternary Period.

Outcrops of sandstone ledges conglomerate deposits and shale are common in this area.

The topsoil in the area range from a light brownish-gray sandy clay (SM-ML) type soil poorly graded gravels to a clayey (OL) type soil.

The majority of the numerous washes and streams in the area are of a non-perennial nature flowing during the early spring run-off and extremely heavy rain storms of long duration which are extremely rare as the normal annual rainfall in the area is only 8".

The White River to the South of this location is the only perennial stream that is affected by this location site.

Due to the low precipitation average, climatic conditions and the marginal types of soils, the vegetation that is found in the area is common of the semi-arid region we are located in. It consists of areas of sagebrush, rabbitbrush, some grasses and cacti as the primary flora. This is also true for the lower elevations.

The fauna of the area consists predominantly of the mule deer, coyotes, rabbits and varieties of small ground squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domestic sheep and cattle.

The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

#### The Topography of the Immediate Area (Topographic Map "B")

The location is on top of a small ridge which slopes to the Northeast.

The majority of the drainages in the area around this location run in a Northerly direction into Coyote Wash which is a tributary to the White River, and are non-perennial streams.

The terrain in the vicinity of the location slopes to the Northwest from the top of a small ridge through the location site at approximately a 2% grade into a small wash to the North.

The vegetation in the immediate area surrounding the location site is predominantly sagebrush and grasses. There are no occupied dwellings or other facilities of this nature in the general area. There are no visible archaeological, historical, or cultural sites within any reasonable proximity of the proposed location site. (See Topographic Map "B").

**12. LESSEE'S OR OPERATOR'S REPRESENTATIVE**

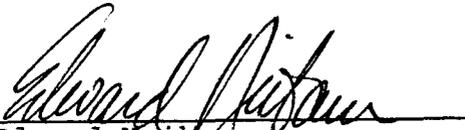
Jack Mercer  
P. O. Box 205  
Vernal, Utah 84078

(Home) 801-789-1842  
(Mobile) 801-789-6241

**13. CERTIFICATION**

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site 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 and belief, true and correct; that the work associated with the operations proposed herein will be performed by Dirty Devil, L.P. and its contractors and sub-contractors in conformity with this plan and terms and conditions under which it is approved.

DIRTY DEVIL, L.P.  
c/o EPS Resources Company

  
Edward Neibauer  
Petroleum Engineer

4/9/87  
Date



# ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

P.O. Box 853 Bountiful, Utah 84010  
Tel: (801) 292-7061, 292-9668

January 16, 1986

**Subject:** CULTURAL RESOURCE EXAMINATION OF FOUR  
PROPOSED WELL LOCATIONS IN THE BONANZA  
LOCALITY OF UINTAH COUNTY, UTAH

**Project:** EPS Resources Corporation - Dirty Devil Units  
No. 1-4, 1-5, 1-8 and 1-9

**Project No.:** EPSR-87-1

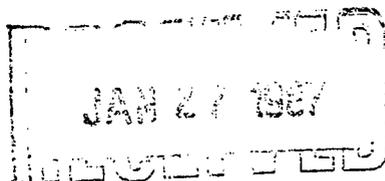
**Permit No.:** Utah State Number U-87-AF-4b  
Dept. of Interior Ut-86-54937

**To:** ✓ EPS Resources Corporation, 10200 E. Girard Ave.,  
Bldg. B, Suite 225, Denver, Colorado 80231

District Manager, Bureau of Land Management, 170  
South 500 East, Vernal, Utah 84078

**Info:** Mr. James Dykman, Preservation Section, Division  
of State History, 300 Rio Grande, Salt Lake City, Utah  
84101

Mr. Rich Fike, BLM State Archeologist, Bureau of  
Land Management, CFS Financial Center Bldg., 324 South  
State, Salt Lake City, Utah 84111-2303



Summary Report of  
 Inspection for Cultural Resources

B O N A N Z A L O C A L I T Y W E L L U N I T S

1. Report Title . . . . . 11 EPS Resources Units: Dirty Devil Nos. 1-4, 1-5,  
 2. Development Company 1-8 and 1-9  
 0 1 1 9 1 9 8 7 86-UT-54937  
 3. Report Date . . . . . 41 42 43 46 4. Antiquities Permit No. \_\_\_\_\_  
 5. Responsible Institution . . . . . A E R C E P S R - 8 7 - 1 U I N T A H  
 6. Fieldwork . . . . . 0 9 S 2 4 E 0 8 0 9  
 Location: TWN . . . . . RNG . . . . . Section. . . . .  
 62 65 66 69 70 71 72 73 74 75 76 77  
 7. Resource . . . . . 1 0 S 2 4 E 0 4 0 5  
 Area TWN . . . . . RNG . . . . . Section. . . . .  
 .B.C. TWN 78 81 82 85 86 87 88 89 90 91 92 93  
 110 111 TWN . . . . . RNG . . . . . Section. . . . .  
 94 97 98 101 102 104 106 108

8. Description of Examination Procedures:  
 The archeologist, F.R. Hauck, walked a series of 15 to 20 meter wide transects within three of the four proposed well locations (1-4, 1-8 and 1-9). Unit 1-5 was not examined since it was situated in a 80 acre sample unit which had previously been intensively evaluated. A ten acre parcel was examined at Units 1-8 and 1-9 since the on-site inspection has not been held. Half of Unit 1-4 had previously been examined within an 80 acre sample area. For this reason, only the eastern half of this well location was evaluated during the current survey. Ten meter wide transects flanking the center line of the staked access roads were also examined. continued

9. Linear Miles Surveyed . . . . . 1 . 7 5  
 and/or 112 117  
 Definable Acres Surveyed . . . . .  
 and/or 118 123  
 Legally Undefinable Acres Surveyed . . . . . 2 3  
 124 129  
 10. Inventory Type . . . . . I  
 R = Reconnaissance  
 I = Intensive  
 S = Statistical Sample

11. Description of Findings:  
 No cultural sites of any historic or prehistoric period were found during the evaluations at these locations.  
 12. Number Sites Found . 0 . . . . .  
 (No sites = 0) 131 135  
 13. Collection: . N .  
 Y = Yes, N = No) 136

14. Actual/Potential National Register Properties Affected:  
 The National Register of Historic Places (NRHP) has been consulted and no registered properties will be affected by the proposed developments.

15. Literature Search, Location/ Date: Utah SHPO - 1-87  
 Vernal District BLM Office - 1-8-87

16. Conclusion/ Recommendations:  
 AERC recommends that a cultural resource clearance be granted to EPS Resources Corporation based upon adherence to the following stipulations: (see reverse)

17. Signature of Administrator & Field & Field Supervisor  
 Administrator J. R. Hauck  
 Field Supervisor \_\_\_\_\_

8. continued:

Projects conducted in the operational area include the Seep Ridge Sampling study reported in 1981 by Larrald and Chandler, and several studies conducted by Nickens & Associates on the Moon Lake Project, i.e., "Known Cultural Resource Data Compilations for the Proposed Transmission Line Corridor for the Moon Lake Project" dated 1979, and the companion work "Archaeological Investigation of the Coal Development Areas and Coal Transportation Corridor for the Moon Lake Project, Rio Blanco County, Colorado and Uintah County, Utah".

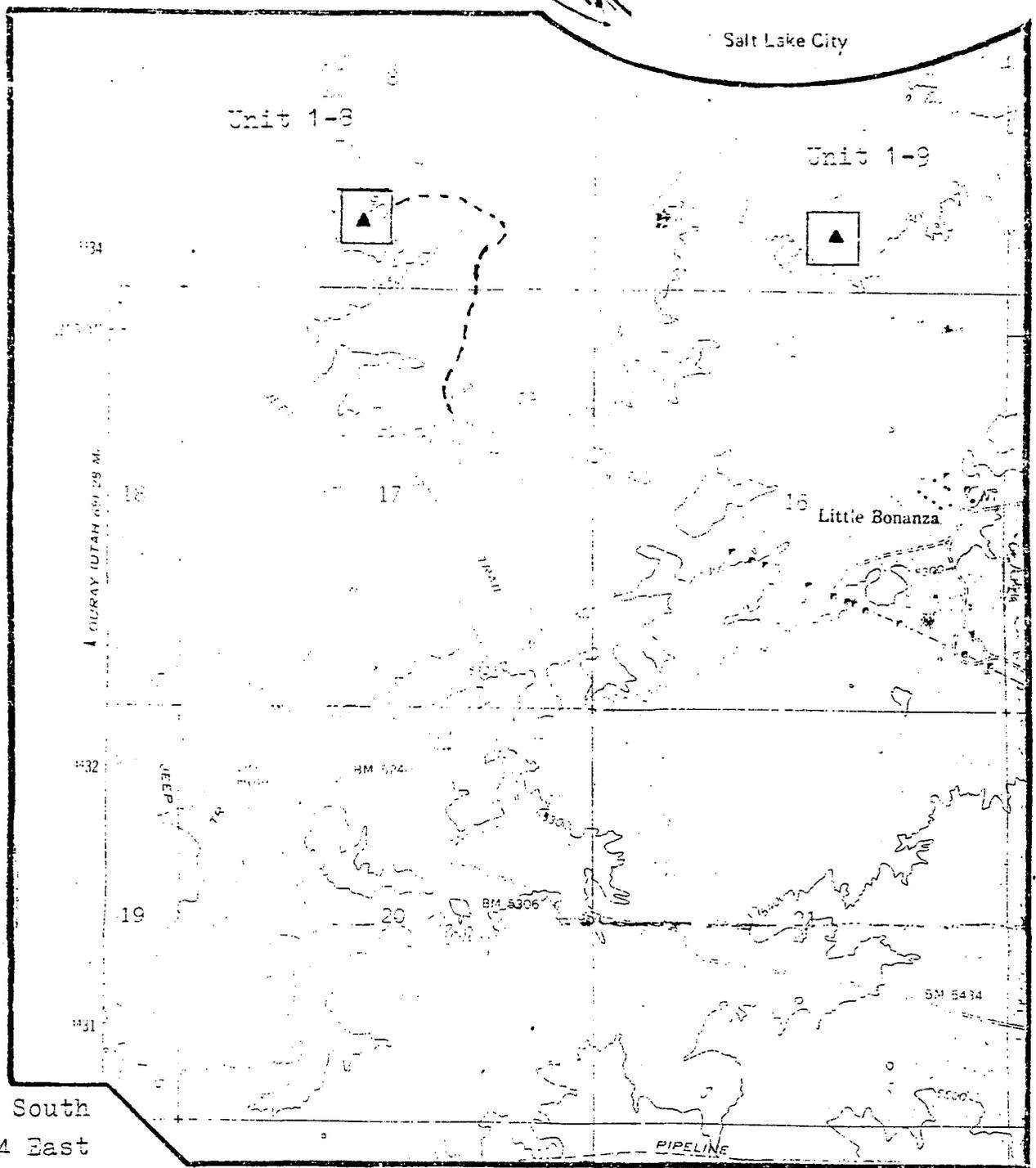
16. continued:

1. All vehicular traffic, personnel movement, and construction should be confined to the locations examined as referenced in this report, and to the existing roadways and/or evaluated access routes.

2. All personnel should refrain from collecting artifacts and from disturbing any cultural resources in the area.

3. The authorized official should be consulted should cultural remains from subsurface deposits be exposed during construction work or if the need arises to relocate or otherwise alter the location of the construction area.

Salt Lake City



T. 9 South  
R. 24 East

Meridian: Salt Lake E. & M.

Quad: Bonanza, Utah  
7.5 minute-USGS

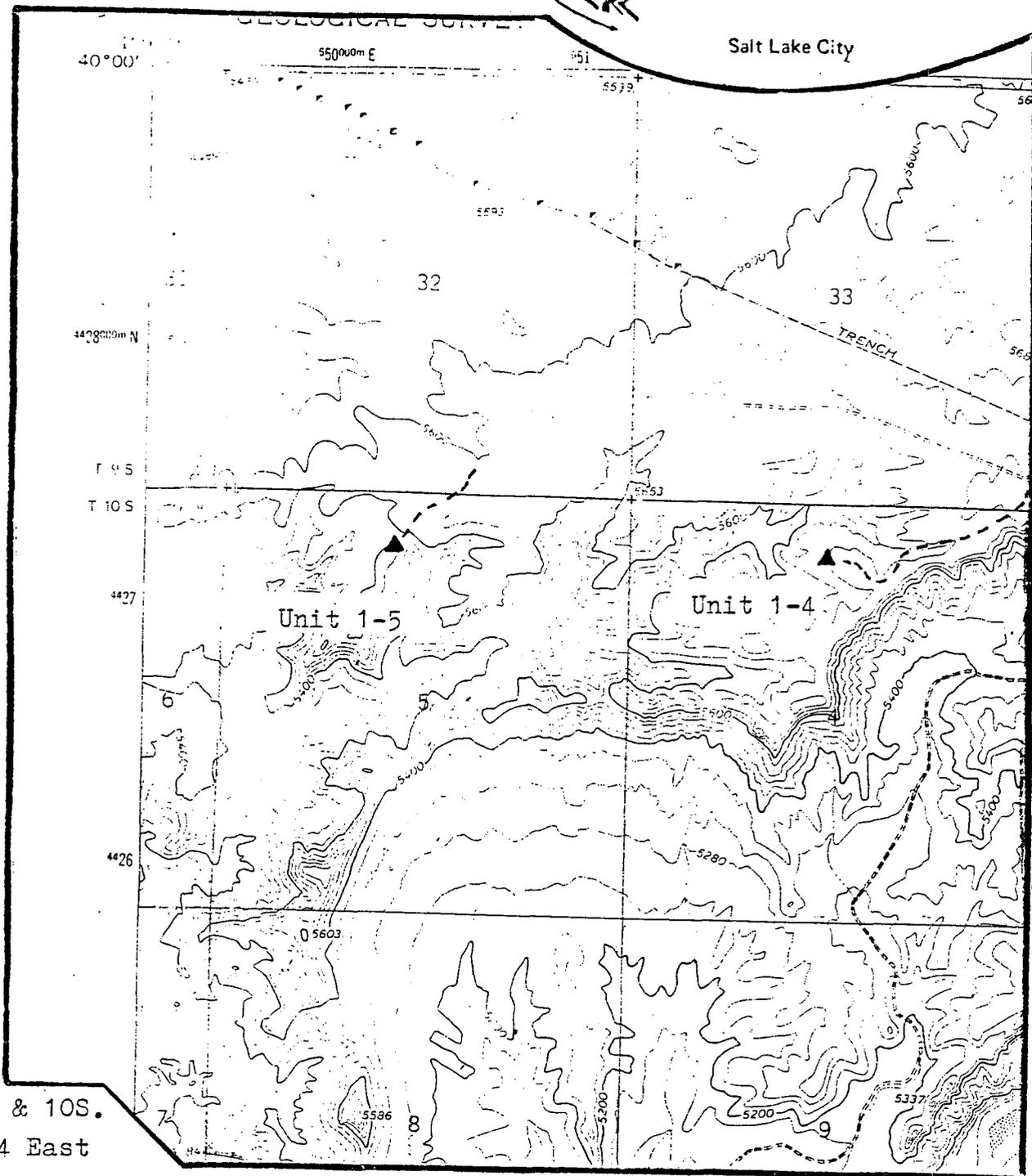
Project: EFSR-87-1  
 Series: Uinta Basin  
 Date: 1-15-87

MAP 1  
 Cultural Resource Survey  
 of Dirty Devil Units 1-8  
 and 1-9 in the Bonanza  
 Area of Uintah County

- Legend:
- Well Location 
  - Ten Acre Survey Area 
  - Access Route 



2.64" = 1 mile  
Scale



T. 9 & 10S.  
R. 24 East

Meridian: Salt Lake E. & M.

Quad:

Project: EPSR-87-1  
Series: Uinta Basin  
Date: 1-15-87

MAP 2  
Cultural Resource Survey  
of Dirty Devil Units 1-4  
and 1-5 in the Bonanza  
Area of Uintah County

Southam Canyon,  
Utah  
7.5 minute-USGS



Legend:

Well Location   
Access Route 



2.64" = 1 mile  
Scale

OPERATOR Dirty Devil L.P. <sup>N5001</sup> DATE 8-2-88

WELL NAME Federal 1-4

SEC NENW 4 T 10S R 24E COUNTY Wintah

43-047-31849  
API NUMBER

Fed.  
TYPE OF LEASE

CHECK OFF:

PLAT

*ok per Bfm-Vernal*  
 BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

No other well within 920'  
Need water permit  
Unit P.O.D. 1988 received 4-1-88.

APPROVAL LETTER:

SPACING:  R615-2-3 Dirty Devil  R615-3-2  
UNIT

CAUSE NO. & DATE  R615-3-3

STIPULATIONS:

1-Water Permit



# 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

August 11, 1988

Dirty Devil, L.P.  
5655 S. Yosemite, Suite 460  
Englewood, Colorado 80111

Gentlemen:

Re: Federal 1-4 - NE NW Sec. 4, T. 10S, R. 24E - Uintah County, Utah  
756' FNL 2515' FWL

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule R615-2-3, Oil and Gas Conservation General Rules, 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 as required by Chapter 3, Title 73, Utah Code Annotated.

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

1. Spudding notification within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
3. Submittal of the Report of Water Encountered During Drilling, Form OGC-8-X.
4. Prompt notification if it is necessary to plug and abandon the well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or Jim Thompson, Lead Inspector, (Home) 298-9318.
5. Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Page 2  
Dirty Devil, L.P.  
Federal 1-4  
August 11, 1988

6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
7. 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 43-047-31849.

Sincerely,



R. J. Firth  
Associate Director, Oil & Gas

lr  
Enclosures  
cc: Branch of Fluid Minerals  
D. R. Nielson  
8159T

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.  
U-1207

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Dirty Devil Unit

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
1-4

10. FIELD AND POOL, OR WILDCAT  
Bonanza

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 4,  
T10S-R24E, S.L.B.&M.

12. COUNTY OR PARISH  
Uintah

13. STATE  
Utah

RECEIVED  
SEP 20 1988  
MESAVERDE ZONE

1a. TYPE OF WORK  
DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Dirty Devil, L.P.

3. ADDRESS OF OPERATOR  
5655 S. Yosemite Suite 460 Englewood, CO 80111 (303) 721-7920

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
2515' FWL 756' FNL NE $\frac{1}{4}$  NW $\frac{1}{4}$  Sec. 4, T10S-R24E, S.L.B.&M.  
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
35 Miles SE of Vernal, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 756'

16. NO. OF ACRES IN LEASE 1000±

17. NO. OF ACRES ASSIGNED TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5000'

19. PROPOSED DEPTH 8000'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
Ungraded 5689' GR 5703' KB Estimated

22. APPROX. DATE WORK WILL START\*  
Upon Receipt of Approval

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17- $\frac{1}{2}$ "	13-3/8"	48.0#	150'	200SX
12- $\frac{1}{2}$ "	9 5/8"	36.0#	2800'	300SX
7-7/8"	4-1/2"	11.6#	8000'	As needed to protect all productive zones

Operator proposes to drill a Mesaverde Test estimated to 8000'. Intermediate casing will be run and cemented to protect the oil shale section of the Green River Formation. All water flows and significant hydrocarbon shows will be reported. The well will be drilled according to the attached program. Adequate BOP equipment will be maintained at all times. If commercial production is encountered, production casing will be run and cemented adequately to protect the zones of interest. No abnormal pressured or temperatures are anticipated and drilling operations will continue for 16 days upon commencement. The anticipated bottom hole pressure (static) will be approximately 2000 psi.

RECEIVED  
AUG 1988  
BUREAU OF LAND MANAGEMENT  
1131618

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 Edward Neibauer TITLE Petroleum Engineer DATE July 26, 1988

(This space for Federal or State office use)

PERMIT NO. 43-047-31849 APPROVAL DATE ASSISTANT DISTRICT MANAGER MINERALS

APPROVED BY [Signature] TITLE ASSISTANT DISTRICT MANAGER MINERALS DATE Sept 6, 1988

CONDITIONS OF APPROVAL, IF ANY:

Revised October 1, 1985

Date APD Received 8/3/88

CONDITIONS OF APPROVAL  
FOR THE SURFACE USE PROGRAM OF THE  
APPLICATION FOR PERMIT TO DRILL

Company/Operator Dirty Devil L.P.

Well Name & Number 1-4

Lease Number U-1207

Location NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 4 T. 10S. R. 24E.

Surface Ownership Federal

THIRTEEN POINT SURFACE USE PROGRAM:

1. Existing Roads--describe the following and provide a legible map, labeled and showing:

All travel will be confined to existing access road rights-of-way.

Access roads and surface disturbing activities will conform to standards outlined in the USGS Publication (1978) Surface Operating Standards for Oil and Gas Development.

The road shall be upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Upgrading shall include ditching, draining, graveling, crowning, and capping the roadbed as necessary to provide a well constructed safe road. Prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30 foot right-of-way will not be allowed. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided.

2. Location of Existing and/or Proposed Facilities

If a tank battery is constructed on this lease, the battery or the well pad will be surrounded by a dike of sufficient capacity to contain  $1\frac{1}{2}$  times the storage capacity of the battery. The integrity of the dike must be maintained.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

The required paint color is Desert Tan.

### 3. Methods for Handling Waste Disposal

Burning will not be allowed. All trash must be contained in a trash cage and hauled away to an approved disposal site at the completion of the drilling activities.

#### On BLM administered lands:

The reserve pit shall be lined with gel and bentonite if deemed necessary after the pit has been constructed.

\*If the pit is lined, it shall be constructed so as not to leak, break, or allow discharge.

For the following reasons the reserve pit will be lined:

To conserve water (because of operator's request).

\*If a plastic nylon reinforced liner is used it shall be torn and perforated before backfilling of the reserve pit.

To protect the environment (without a chemical analysis).

Produced waste water will be confined to a lined pit or, if deemed necessary, a storage tank for a period not to exceed 90 days after first production. During the 90-day period an application for approval of a permanent disposal method and location, along with required water analysis, will be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance.

### 4. Well Site Layout

All pits will be fenced with a wire mesh fence and topped with at least one strand of barbed wire. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off the location. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed. Pits will be fenced and maintained until clean-up.

The fence will be constructed as prescribed in the USGS Publication (1978) Surface Operating Standards for Oil and Gas Development. Alternatives to the prescribed standards shall be submitted to the Authorized Officer for approval.

Well Site Layout: The location should be rotated 25° and the reserve pit located on the northeast side of the location. The blooie pit will be located on the east side of the reserve pit at least 150' from the rig.

The stockpiled topsoil will be stored on the northwest side of the pad.

The access road should stay on the east and south side of the main wash and enter the well pad on the southeast corner of the location.

5. Plans for Restoration of Surface

Immediately upon well completion, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry and all cans, barrels, pipe, etc. will be removed. The reserve pit and that portion of the location and access road not needed for production facilities/operations will be reclaimed. The reserve pit will be reclaimed within 180 days from the date of well completion.

All disturbed areas will be recontoured to the approximate natural contours.

The stockpiled topsoil will be evenly distributed over the disturbed areas.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage and the seed mixture will be proportionately larger (double the lbs. per acre).

An appropriate seed mixture will be determined by the BLM at the time restoration activities are scheduled to begin.

All seeding will be done from September 30 until the ground freezes.

At such time as the well is plugged and abandoned, the operator will submit a surface reclamation plan to the Surface Management Agency for prescribed seed mixtures and reseeding requirements.

If the seeding is unsuccessful, the lessee/operator may be required to make subsequent seedings.

6. Surface Ownership: Public land administered by the BLM.

7. Other Additional Information

If, during operations, any archaeological or historical sites, or any object of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites are to be suspended and the discovery reported promptly to the Surface Management Agency.

On BLM administered land, it is required that a proposed use of pesticide, herbicide or other possible hazardous chemicals shall be cleared for use prior to application.

Additional Surface Stipulations for BLM, BIA, FS, DWR, or Private Surface Lands:

The operator or his contractor shall contact the BLM Office at (801) 789-1362 and the BIA Office at (801) 722-2406 between 24 and 48 hours prior to construction activities. Contact the Book Cliffs Resource Area.

Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities. (The BLM does not seek to compete with private industry. There are commercial facilities available for stacking and storing drilling rigs.)

The operator will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. A list of noxious weeds may be obtained from the BLM, BIA, FS, or the appropriate County Extension Office.

On BLM administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.

Production Facilities - More than one pit for produced water on production facilities must be justified.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

The dirt contractor will be provided with an approved copy of the Surface Use Plan from the APD.

This drilling 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.

Onsite Date: 8-17-88

Participants on Joint Inspection

Byron Tolman

Glade Holmes

Keith Chapman

Ernie Buist

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL  
WITHIN THE UINTAH OURAY RESERVATION

Company Dirty Devil, L.P. Well No. 1-4  
Location Sec. 4 T.10S., R.24E. Lease No. U-1207  
Onsite Inspection Date August 17, 1988

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.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report ALL water shows and water-bearing sands to Wayne Svejnoha of this office. Copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All fresh water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

Fresh water may be encountered from + 800 - 1000 ft. in the Uinta formation; and from + 1500 - 2000 ft. in the Green River formation. The Mahogany oil shale zone has been identified from + 1850 - 1940 ft.. Therefore, the resources will be isolated and/or protected via the cementing program for the intermediate casing string, i.e., cement top shall be at least 200 ft. above the Bird's Nest aquifer identified by this office to occur from + 1500 - 2000 ft.

2. Pressure Control Equipment

All BOPE and testing procedures will be consistent with API RP 53, with individual components operable as designed. 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. BOPE pressure tests shall be conducted for at least 10 minutes. The Vernal District Office shall be notified, with sufficient lead time, in order to have a BLM representative present while pressure testing.

The District Office shall be notified, with sufficient lead time, in order to have a BLM representative on location during pressure testing.

3. Casing Program and Auxiliary Equipment

The District Office shall be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

4. Mud Program and Circulating Medium

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

It is understood from conversations with the operator that the well may be drilled with a conventional mud system from 0 - 150 ft. due to prohibitive air compressor charges. Should air drilling be utilized as per APD, the following stipulations apply:

1. The following equipment shall be in place during air/gas drilling:
  - a. Properly lubricated and maintained rotating head
  - b. Spark arresters on engines or water cooled exhaust
  - c. Blooie line discharge 150 ft. from well bore and securely anchored.
  - d. Straight run on blooie line

- e. Deduster equipment
- f. Containment of all cuttings and circulating medium
- g. Float valve above bit
- h. Automatic igniter and continuous pilot light on blooie line.
- i. Compressors located in opposite direction from the blooie line a minimum of 125 ft. from well bore.
- j. Mud circulating equipment, water, and enough mud (does not have to be pre-mixed) to maintain hole capacity and circulate through the pits.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

A cement bond log (CBL), or some other means acceptable to the authorized officer, shall be utilized to determine to top of cement (TOC) for the intermediate and production casing.

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 not later than 30 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 analyses, well-test data, geologic summaries, sample description, 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 authorized officer (AO).

6. Notifications of Operations

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 AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the AO within 48 hours after spudding. If the spudding occurs on a weekend or holiday, the report will be submitted on the following regular work day. The oral report will be followed up with a Sundry Notice.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 3160-6 "Monthly Report of Operations", starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed, in duplicate, to the Vernal BLM District Office, 170 South 500 East, Vernal, Utah 84078.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

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 AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than 5 days following the date on which the well is placed on production.

Pursuant to NTL-2B, with the approval of a District Engineer, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During the period so authorized, an application for approval of the permanent disposal method, along with the required water analysis and other information, must be submitted to the District Engineer.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the appropriate District Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in 43 CFR 3162.7 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.

A first production conference will be scheduled within 15 days after receipt of the first production notice.

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO 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.

Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

Pursuant to Onshore Oil and Gas Order No. 1, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which conforms with applicable Federal laws and regulations and with State and local laws and regulations to the extent that such State and local laws are applicable to operations on Federal or Indian lands.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried or anchored down 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.

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 AO 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 Vernal District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or work-over program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"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 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An additional one (1) year approval period may be granted if requested prior to the expiration of the original approval period.

In the event after-hour approvals are necessary, please contact one of the following individuals:

Gerald E. Kenczka (801) 781-1190  
Petroleum Engineer

Ed Forsman (801) 789-7077  
Petroleum Engineer

Craig M. Hansen (801) 247-2318  
Assistant District Manager  
for Minerals



**EPS Resources Corporation**

5655 South Yosemite  
Suite 460  
Englewood, CO 80111  
(303) 721-7920

July 20, 1989

**RECEIVED**  
JUL 25 1989

DIVISION OF  
OIL, GAS & MINING

U.S. Department of the Interior  
Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078

RE: Extension of APD  
Well #1-4  
Section 4, T10S-R24E  
Lease No. U-1207  
API #43-047-31849

Gentlemen:

EPS Resources Corporation (Dirty Devil L.P.), operator of the Dirty Devil Unit, respectfully requests an extension on the APD for the #1-4 well which was approved in August, 1988.

This letter also confirms that no surface disturbance has been made to date for this drill site.

We will await approval for this extension of application. Should you require any additional information, please contact this office.

Sincerely,

*Edward Neibauer* <sup>CAS</sup>

Edward Neibauer  
President

CS/ntm

✓ cc: State of Utah  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

*Approval extended to 8-11-90*

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

DATE: 9-5-89  
BY: John R. Day

RECEIVED  
OCT 15 1990

DIVISION OF  
OIL, GAS & MINING

3162.35  
U-08438

October 10, 1990

Federal 1-4 43-047-31849  
Sec. 4, T10S, R24E

Federal 1-5 43-047-31850  
Sec. 5, T10S, R24E

EPS Resources Corporation  
5655 South Yosemite, Suite 460  
Englewood, CO 80111

Re: Rescind Application for  
Permit to Drill  
Well Nos. 1-4 and 1-5  
Section 4 & 5, T10S, R24E  
Uintah County, Utah  
Lease No. U-1207

The Applications for Permit to Drill the above-referenced wells were approved on September 6, 1988. A request for a one (1) year extension to the APDs was submitted and approved. According to our records, no known activity has transpired at the approved locations. In view of the foregoing, this office is rescinding the approval of the referenced applications as of September 6, 1990. If you intend to drill at these locations at a future date, new Applications for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for these drill sites. Any surface disturbance associated with the approved locations of these wells is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,

Howard B. Cleavinger II  
Assistant District Manager  
for Minerals

bc: State Div. OG&M  
Well File  
U-922/943  
U-942  
RA  
AIRS

MHerrmann:dj:0304h:10/09/90

OIL AND GAS	
DFN	RJF
JFB	GLH
DIS	SLS
+ Drive ✓	
2-	MICROFILM ✓
2-	FILE

DKTA

✓



# 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

October 23, 1990

EPS Resources Corporation  
5655 South Yosemite, Suite 460  
Englewood, Colorado 80111

Gentlemen:

Re: Well No. Federal 1-4, Sec. 4, T. 10S, 24E, Uintah County, Utah  
API No. 43-047-31849

In concert with action taken by the U.S. Bureau of Land Management, approval to drill the above referenced well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

A handwritten signature in cursive script that reads "Don Staley".

Don Staley  
Administrative Supervisor  
Oil and Gas

DME/lde

cc: R.J. Firth  
Bureau of Land Management - Vernal  
Well file

WOI196