



January 19, 1994

Bureau of Land Management  
Moab District Office  
PO Box 970  
Moab, UT 84532

RECEIVED

JAN 24 1994

DIVISION OF  
OIL, GAS & MINING

RE: Helper Federal A-3  
Section 22-13S-10E  
Carbon County, UT

Gentlemen:

Attached, in triplicate, is Form 3160-3 (Application for Permit to Drill) for the referenced well.

If you have any questions or require additional information, please contact P. A. (Trish) Hambright at (405) 552-6226.

Very truly yours

ANADARKO PETROLEUM CORPORATION

A handwritten signature in cursive script that reads "D. R. Winchester".

D. R. Winchester  
Sr. Staff Drilling Engineer

DRW/pah:eic

Attachment

cc: State of Utah  
Dept. of Natural Resources  
Div. of Oil & Gas & Mining  
355 West North Temple  
3 Triad Center, Ste. 350  
Salt Lake City, UT 84180-1203

Bureau of Land Management  
Attn: Don Stephens  
Price River Resource Area  
900 North, 700 East  
Price, Utah 84501

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN   
 b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  Coalbed Methane   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Anadarko Petroleum Corporation

3. ADDRESS AND TELEPHONE NO.  
 211 N. Robinson, 1 LSS, Ste. 1400, Okla. City, OK 73102-7115

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements\*)  
 At surface  
 1271' FSL & 324' FEL (SE/SE), Sec. 22-13S-10E  
 At proposed prod. zone  
 1271' FSL & 324' FEL (SE/SE), Sec. 22-13S-10E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 7.6 miles north of Price, UT

5. LEASE DESIGNATION AND SERIAL NO.  
 U-58434

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARMOR LEASE NAME WELL NO.  
 Helper Federal A-3

9. AP WELL NO.

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC. T., R., M., OR B.L.E. AND SURVEY OR AREA  
 S.L.B. & M. Sec. 22-13S-10E

12. COUNTY OR PARISH | 13. STATE  
 Carbon | UT

16. NO. OF ACRES IN LEASE  
 1111.44

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 2057'

19. PROPOSED DEPTH  
 4500'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 GR 6536'

22. APPROX. DATE WORK WILL START\*  
 07/01/94

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24.0	300'	200 cu. ft.
7-7/8"	5-1/2"	15.5	4500'	300 cu. ft.

RECEIVED

JAN 24 1994

Attached is the following:

1. Survey Plat.
2. Drilling Plan with BOP Schematic.
3. Surface Use Plan.
4. Topo & Access Map & Area Map.
5. Pit & Pad Layout with cross sections of pit, pad, & rig layout.
6. Self-Certification of Operator.

The Cultural Resource Study will be submitted under separate cover.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Dorell Winchester TITLE D. R. Winchester Sr. Staff Drilling Engr. DATE 01/19/94

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval 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.  
 CONDITIONS OF APPROVAL IF ANY:

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

\*See Instructions On Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>			3. LEASE DESIGNATION AND SERIAL NO. U-58434	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Coalbed Methane SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			8. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Anadarko Petroleum Corporation			7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. 211 N. Robinson, 1 LSS, Ste. 1400, Okla. City, OK 73102-7115			5. FARM OR LEASE NAME WELL NO. Helper Federal A-3	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1271' FSL & 324' FEL (SE/SE), Sec. 22-13S-10E At proposed prod. zone 1271' FSL & 324' FEL (SE/SE), Sec. 22-13S-10E			9. ANWELL NO.	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 7.6 miles north of Price, UT			10. FIELD AND POOL, OR WILDCAT Wildcat	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 324' FEL			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA S.L.B. & M. Sec. 22-13S-10E	
16. NO. OF ACRES IN LEASE 1111.44			12. COUNTY OR PARISH Carbon	
17. NO. OF ACRES ASSIGNED TO THIS WELL N/A			13. STATE UT	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2057'			20. ROTARY OR CABLE TOOLS Rotary	
19. PROPOSED DEPTH 4500'			22. APPROX. DATE WORK WILL START* 07/01/94	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 6536'				

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
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SIGNED Dave Winchester TITLE D. R. Winchester Sr. Staff Drilling Engr. DATE 01/19/94

(This space for Federal or State office use)

PERMIT NO. 43-007-30213

APPROVAL DATE

APPROVED BY THE STATE OF UTAH DIVISION OF

OIL, GAS AND MINING

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would require the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

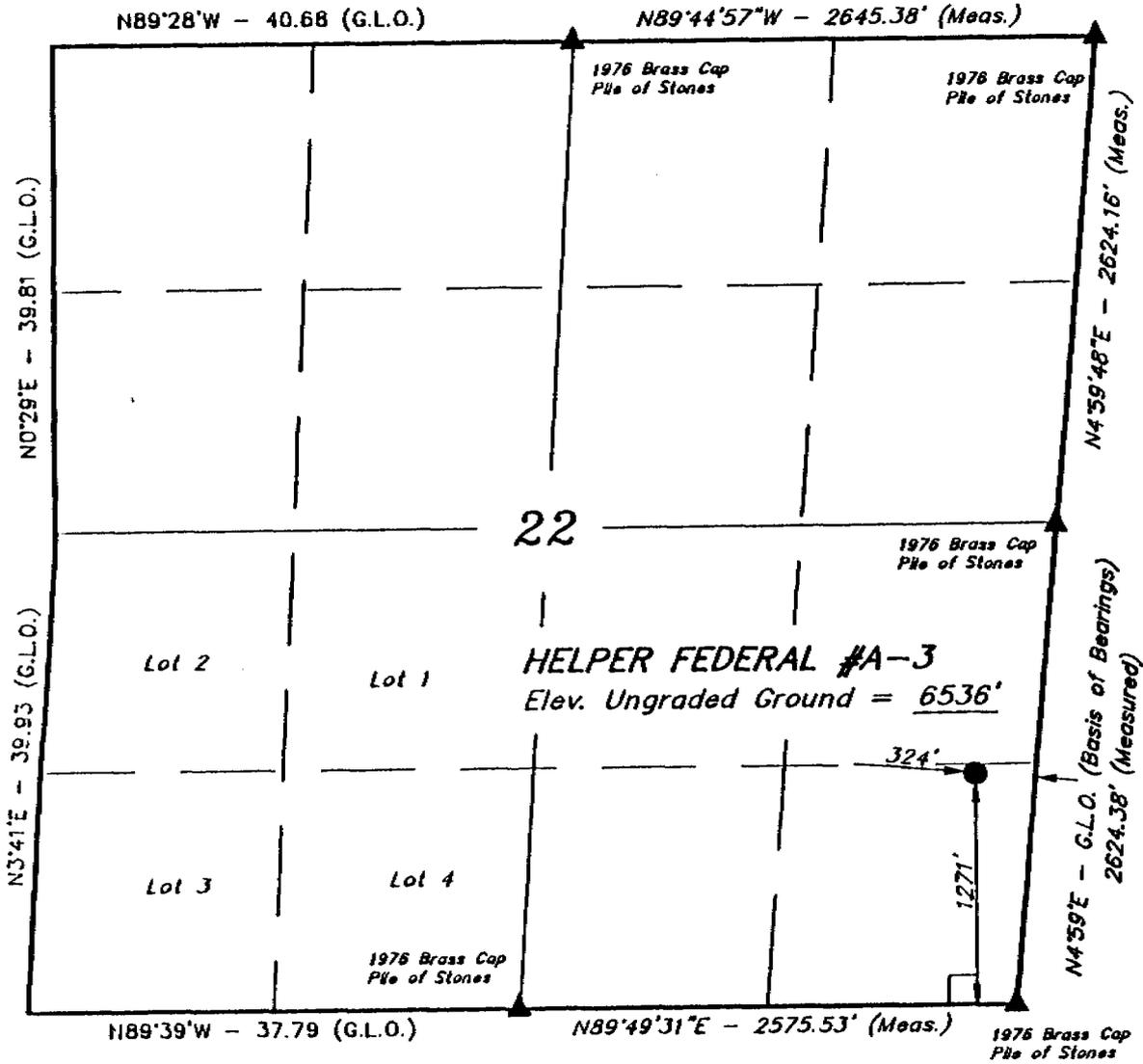
DATE: 9/16/94

BY: [Signature]  
WELL SPACING 1649-33

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

\*See Instructions On Reverse Side

# T13S, R10E, S.L.B.&M.

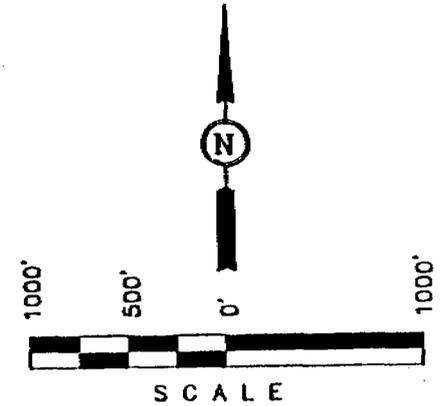


## ANADARKO PETROLEUM CORP.

Well location, HELPER FEDERAL #A-3, located as shown in the SE 1/4 SE 1/4 of Section 22, T13S, R10E, S.L.B.&M. Carbon County, Utah.

### BASIS OF ELEVATION

SPOT ELEVATION AT A ROAD INTERSECTION IN THE SE 1/4 OF SECTION 22, T13S, R10E, S.L.B.&M. TAKEN FROM THE HELPER QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6530 FEET.



### CERTIFICATE

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

*Robert J. King*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 5709  
 STATE OF UTAH

### LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

**UINTAH ENGINEERING & LAND SURVEYING**  
 85 SOUTH 200 EAST - VERNAL, UTAH 84078  
 (801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-13-93	DATE DRAWN: 10-24-93
PARTY D.A. D.G. R.E.H.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE ANADARKO PETROLEUM CORP.	

**DRILLING PLAN**  
**TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL**

Company: Anadarko Petroleum Corporation

Well: Helper Federal A-3

Location: SE/SE Sec. 22-13S-10E

Lease No: U-58434 (Federal)

1271' FSL & 324' FEL, Section 22

Carbon County, Utah

Surface Elevation: 6536'

A. Estimated Tops of Important Geologic Markers:

<u>Geologic Marker</u>	<u>Depth</u>
Pediment Gravels	Surface
Mancos-Bluegate Shale	300'
Ferron Sandstone	3700'
Tununk	4000'

B. Estimated Depth at which Water, Oil, Gas, or other Mineral-Bearing Zones are expected to be encountered:

Gas-bearing Ferron Sandstone is expected to be encountered from 3700-4000'.

All fresh water zones and prospectively valuable mineral zones encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

C. Pressure Control Equipment:

An 11" 3000 psi WP double gate hydraulic BOP with pipe rams and blind rams will be installed on the 8-5/8" casinghead. The BOP stack will be tested prior to drilling below surface casing. The ram preventers will be tested to 70% of the working pressure of the casing. The annular will be tested to 50% of its working pressure. Operational checks will be made daily or on trips. A BOP schematic is shown on attached Exhibit "A".

The BOP system will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. 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. This inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

The accumulator system will meet IADC guidelines concerning pump capacities, storage capacity, and reservoir volume. Closing unit fluid volume will be sufficient to pre-charge the system to operating pressure plus 50% excess. One set of controls will be in the doghouse on the rig floor and one set will be remote on the drilling pad.

D. Casing Program

Surface Casing - 8-5/8" casing will be set at approximately 300'.

Production Casing - 5-1/2" casing will be set at approximately 4500' if well is to be completed.

	<u>Size</u>	<u>Wt./Ft.</u>	<u>Grd.</u>	<u>Thrd.</u>	<u>Condition</u>
Surface	8-5/8"	24.0	K-55	8rd	New
Production	5-1/2"	15.5	K-55	8rd	New

Casing Design Factors

The safety factors on casing strings will equal or exceed the following values:

Collapse	1.0
Joint Strength	1.6
Burst	1.33

Cement Program

Surface - Cement will be circulated to the surface. Casing will be cemented with approximately 200 cu. ft. of API Class 'G' cement.

Production - Casing will be cemented with approximately 300 cu. ft. of API Class 'G' cement. The actual cement volume will be based upon hole depth and gauge, and will be determined from logs.

Additional additives will be used to retard the cement, accelerate the cement, control lost circulation, or control fluid loss. All cementing will be done in accordance with API cementing practices.

E. Mud Program and Circulating Medium:

Fresh water circulated through the reserve pit will be used for drilling the 12-1/4" surface hole to 300'. A low solids, non-dispersed mud system with funnel viscosity of 35-40 seconds, API water loss of 10-20 cc/30 minutes, and 8.8-9.2 ppg mud weight will be used for drilling from below surface pipe at 300' to TD.

The mud system will be visually monitored.

A truck-mounted air drilling rig may be used to drill the surface hole to 300' and to pre-set the surface casing before moving a drilling rig on location to drill the rest of the hole to TD.

Sufficient mud materials will be stored at the wellsite to maintain mud requirements and to control minor well control or lost circulation problems.

F. Coring, Logging, and Testing Program:

- a. Rotary sidewall coring in the Ferron Sandstone interval (3700'-4000') may be performed, depending upon shows and hole conditions.
- b. DSTs may be run depending upon shows.
- c. The following logging program is planned:
  1. DIL-ML-SP-GR-CAL over prospective intervals.
  2. SDL-CNL-GR-CAL over prospective intervals.
  3. CNL-CAL-GR TD to Surface (300'-4500' Est.)
- d. A mud logging unit with chromatograph will be used from approximately 2000' to TD.
- e. Productive zones will be swab tested. Water produced during testing will be contained in the temporary reserve pit. All produced oil will be stored and sold. Gas may be flared during testing.

G. Abnormal Conditions and Potential Hazards:

Abnormal conditions such as abnormal temperatures or pressures are not anticipated. Potential hazards such as H<sub>2</sub>S are also not anticipated.

Minimum 6 inches

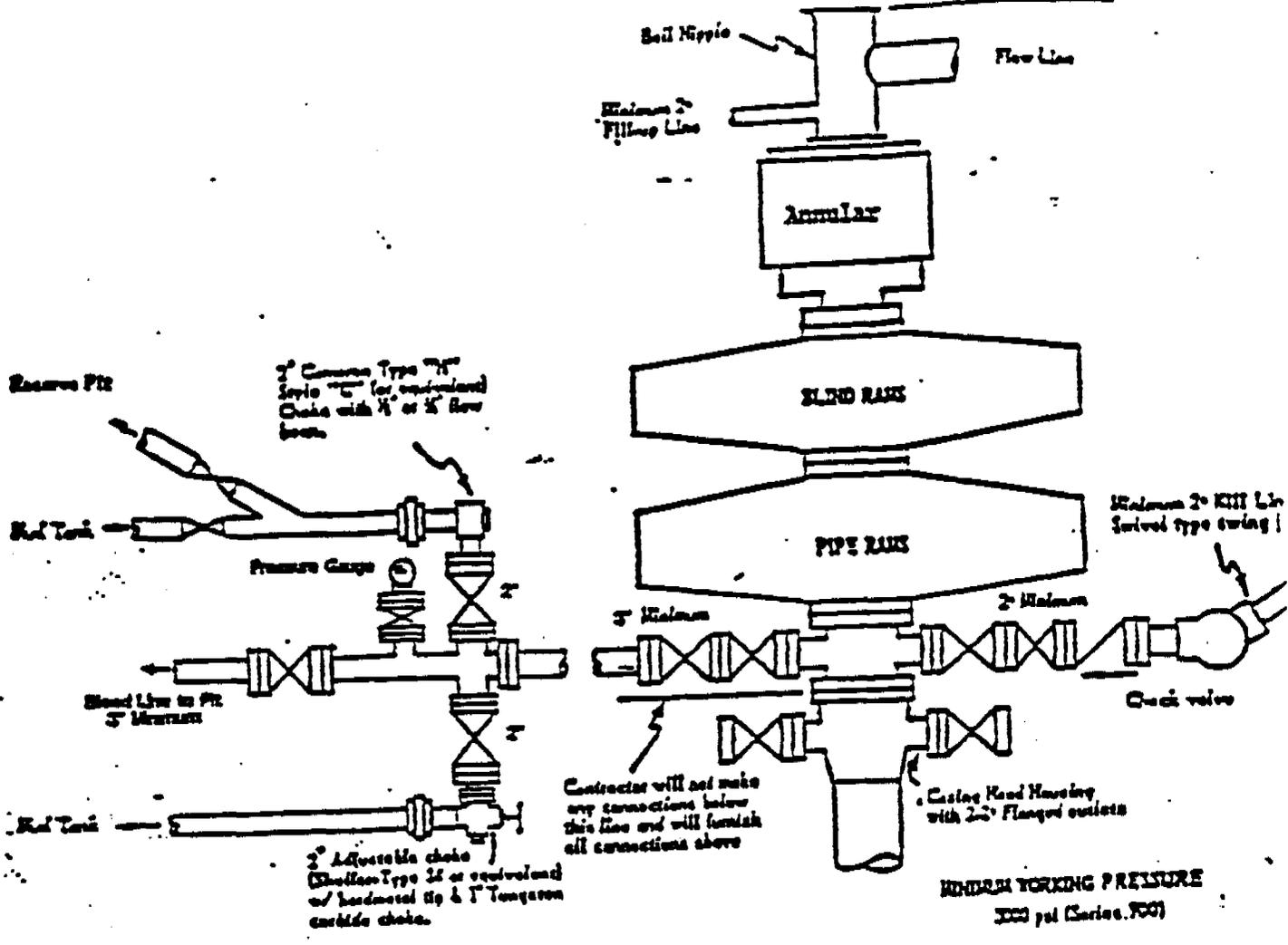


EXHIBIT A



MINIMUM SLOWOUT PREVENTER  
 REQUIREMENTS - NORMAL  
 PRESSURE (SHALLOW) SERVICE

**SURFACE USE PLAN  
TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL**

Anadarko Petroleum Corporation  
Helper Federal A-3  
1271' FSL & 324' FEL of Section 22-T13S-R10E  
Carbon County, Utah

1. Existing Roads: See Map "A" and Map "B"
  - a. Location of proposed well in relation to town or other reference point: Location is approximately 7.6 miles north of Price, Utah.
  - b. Proposed route to location: (See Map "A" for marked access).
  - c. Location and description of roads in the area: (See Map "A" and Map "B").
  - d. Plans for improvement and/or maintenance of existing roads: The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations.
  
2. Planned Access Roads:
  - a. The existing and proposed roads will be crowned, ditched or dipped from the existing County road to the location prior to use for moving the drilling rig onto the site. The maximum disturbed width will not exceed 30' with an eighteen foot running surface. Dust will be controlled by the use of water or an approved dust retardant, as directed by the Area Manager. All roads, including access to drilling water, will be maintained in as good or better condition than existing condition.
  - b. Maximum grades: Maximum grade will be less than 10%.
  - c. Turnouts: None planned.
  - d. Location: Access to the location uses an existing road. New road that will be constructed for access off of the existing road is flagged. (See Map "B").
  - e. Drainage: The road surface will be center crowned with ditches on each side of road. Slopes will have a maximum slope of 3:1.
  - f. There will be no culverts placed in the ditchways during the drilling phase of operations. Further evaluation will be made for the additions of culverts if the road is to have long-term use.

g. Surface materials (source): Surface materials will most likely not be required to be transported to the access road or drillpad for construction purposes. However, if gravel is required, the dirt contractor will be responsible for locating and permitting of any necessary construction material.

3. Location of Existing Wells: (2 mile radius)

No producing wells are located within a two mile radius of the proposed well.

4. Location of Tank Batteries and Production Facilities:

All permanent (on site for six months or longer) structures constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5-State Interagency Committee. This will include all facilities except those required to comply with O.S.H.A. (Occupational Safety and Health Act) regulations. These will be painted the color stipulated by O.S.H.A. All facilities will be painted within six months of installation.

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

If at any time, any off-lease storage, off-lease measurement, or commingling on-lease or off-lease occurs, there shall first be prior written approval from the AO.

Gas meter runs for each well, if needed, 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.

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 Price River Resource 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:

Water supply for drilling and completion purposes will be furnished by a water hauler.

Water supply will be obtained from either the City of Price or from irrigation canals located nearby.

6. Source of Construction Material:

Native material will be used for road surfacing and pad construction.

Should additional construction material be required, it will be the responsibility of the dirt contractor to locate and permit (if necessary) use of that material.

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

7. Methods of Handling Waste Disposal:

The reserve pit will not be lined.

Produced waste water will be confined to an unlined pit for a period not to exceed 90-days after initial production.

Trash will be confined in a covered container and hauled to an approved landfill. Burning of waste or oil is not approved, and spoil material will be kept on site for recontouring.

No bore holes will be used for disposal of waste materials. Human waste will be contained and will be disposed of at an approved sanitary landfill.

8. Ancillary Facilities:

Not applicable for drilling operations in this area.

9. Wellsite Layout:

A plat showing access to the well-pad and the location of the reserve pit are attached.

The location and access road will be cleared of trees prior to any construction. Stumps will be scattered or buried in an area designated by the BLM. Any stump left in place will be cut so that

the stump height does not exceed 12 inches. All slash less than four inches in diameter will be chipped or scattered outside the cleared area and must be within 24 inches of the ground at all points. All material four inches in diameter or greater will be removed from Federal land, unless otherwise directed. All of the above will take place prior to placement of drilling facilities.

Topsoil and vegetation will be stripped together to a depth of 6-8 inches and stockpiled by wind-row on the northeast edge of the location. No topsoil stripping will be allowed when soils are saturated to a depth of 3 inches, or frozen below the stripping.

The reserve pit will be fenced on three sides prior to drilling activity and closed off on the fourth side after drilling is finished. Fencing will be four strands of barbed wire or 48-inch woven wire with one strand of barbed wire above the woven wire. All corners will be braced with a wooden H-type brace. The fence construction will be on cut or undisturbed ground and the fence will be maintained in a livestock tight condition.

10. Plans for Restoration of Surface:

The Price River Resource Area Manager will be notified at least 24-hours prior to commencing reclamation work.

Immediately upon completion of drilling, 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.

If the well is a producer:

Unneeded areas of the location will be reclaimed as soon as the reserve pit has dried. Upgrade and maintain the access roads as necessary to prevent soil erosion and accommodate year-round traffic. Reshape areas unnecessary to operations, rip or disk on the contour, and seed all disturbed area outside the work area according to the seed mixture specified below. Save the topsoil for use during final reclamation unless the site can be recontoured to blend with the natural topography as required for final abandonment. Perennial vegetation must be established. Additional work will be required in case of seeding failures. All permanent facilities placed on the location will be painted to blend with the natural environment.

If the well is abandoned/dryhole:

Restore the access road and location to blend with the natural topography. During reclamation of the site, push the fill material into cuts and up over the backslope. Leave no depressions that will trap water or form ponds. Distribute topsoil evenly over the location and seed using a seed mixture approved by the Area Office. The access road and location will be ripped or disked prior to seeding.

Prepare seed-bed by contour cultivating four to six inches deep. Drill seed 1/2 to 1 inch deep following the contour. In areas that cannot be drilled, broadcast seed at 1.5 times the application rate and cover 1/2 to 1 inch deep with a harrow or drag-bar.

Fall seeding will be completed after September 1 and prior to ground frost. Spring seeding will be completed after the frost has left the ground and prior to June 1.

11. Surface and Minerals Ownership:

United State of America, Department of the Interior, Bureau of Land Management.

12. Other Information:

There will be no deviation from the proposed drilling and/or workover 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 CFT 3162.2.

"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 3162.2.

The dirt contractor will be provided with an approved copy of the surface use plan.

An archaeology inspection will be performed by an authorized contractor. Their report on this inspection will be sent directly to the Price River Resource Area Office.

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts or fossils. The Operator will immediately bring to the attention of the Price River Resource Area

Manager any and all antiquities or other objects of historic or scientific interest including, but not limited to, historic or prehistoric ruins, artifacts, or fossils discovered as a result of operations under this permit. The operator will immediately suspend all activities in the area of the object and will leave such discoveries intact until told to proceed by the Area Manager. Notice to proceed will be based upon evaluation of the cultural significance of the object. Evaluation will be by a qualified professional selected by the Area Manager from a Federal Agency insofar as practical. When not practical, the Operator will follow the mitigation requirements set forth by the Area Manager concerning protection, preservation, or disposition of any sites or material discovered. Within five working days the Area Manager will inform the Operator as to:

whether materials appear eligible for the National Register of Historic Places;

the mitigation measure(s) the Operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary; and,

a time frame for the Area Manager to complete an expedited review under 36 CFR 800.11 to conform, through the State Historic Preservation Officer, that the findings of the Area Manager are correct and that mitigation is appropriate.

If the Operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Area Manager will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, in those situations where the Area Manager determines that mitigation, data recovery and/or salvage excavations are necessary, the Operator will bear the cost. The Area Manager will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Area manager that the required mitigation has been completed, the Operator will then be allowed to resume construction.

13. Lessee's or Operator's Representatives and Certification:

Representative

=====

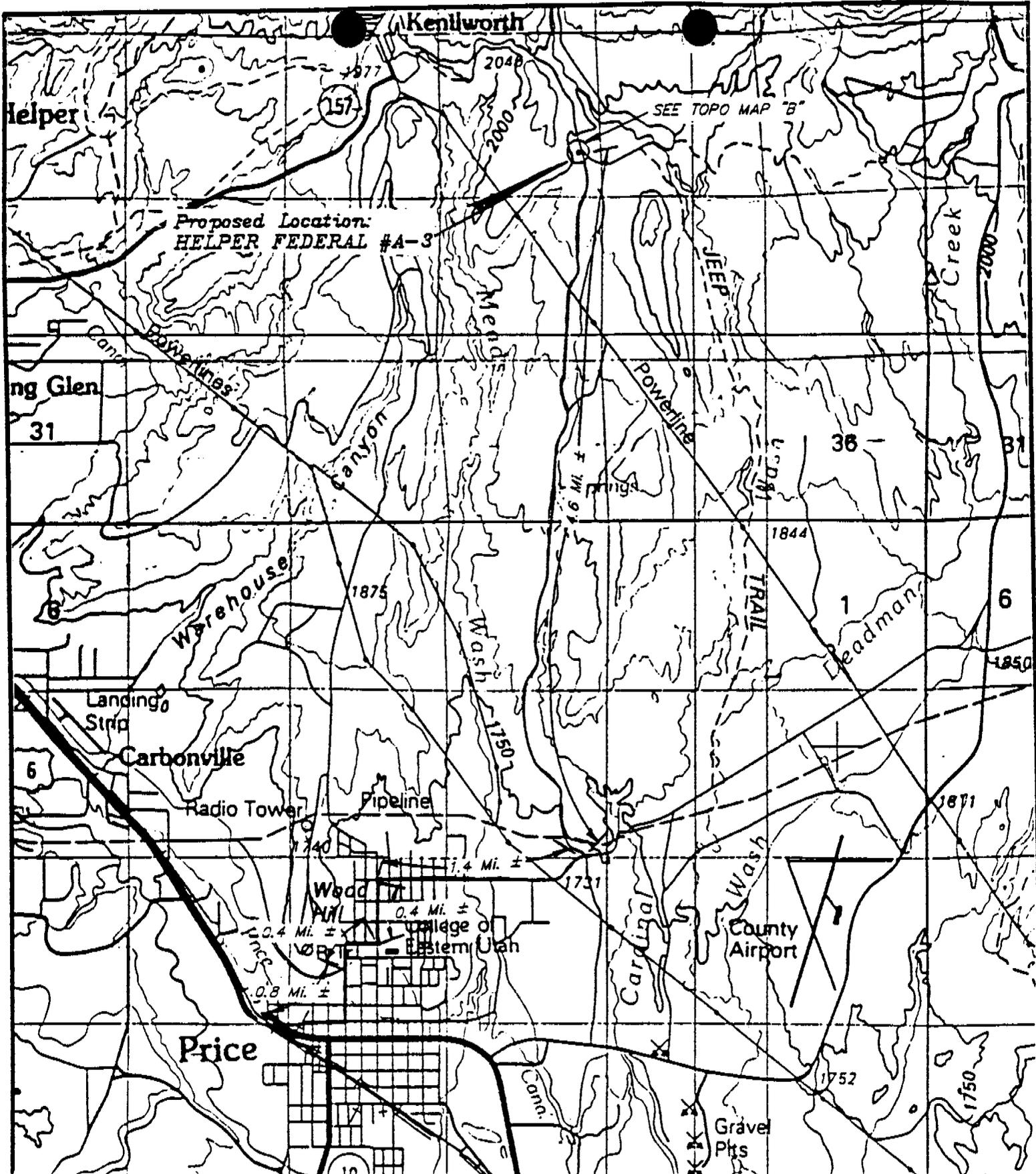
Name: D. W. Ault  
Phone: (405) 236-2821 or (405) 552-6222  
Address: Anadarko Petroleum Corporation  
One Leadership Square, Suite 1400  
211 N. Robinson  
Oklahoma City, Oklahoma 73102-7115

Be advised that Anadarko Petroleum Corporation is considered to be the Operator of the HELPER FEDERAL A-3, (SE/SE) Sec. 22-T13S-R10E, Lease No. U-58434, Carbon County, Utah, and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond Coverage for this well is provided by Bond No. 153571.

(Principal: Anadarko Petroleum Corporation) via surety consent as provided for in 43 CFR 3104.2. (Surety - Seaboard Surety) 43 CFR 3104.2.

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



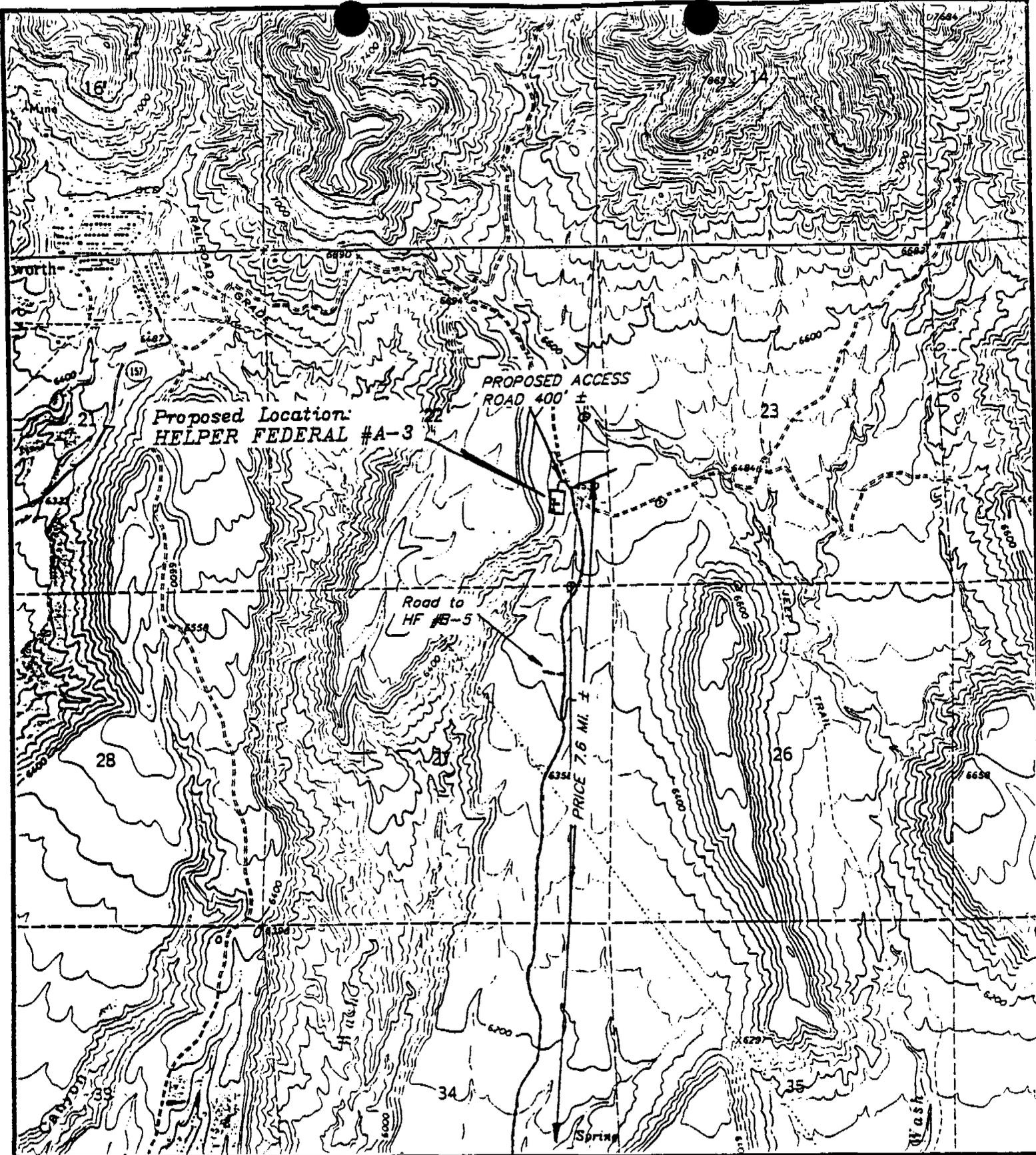
TOPOGRAPHIC  
MAP "A"

DATE: 10-22-93 D.J.S.



ANADARKO PETROLEUM CORP.

HELPER FEDERAL #A-3  
SECTION 22, T13S, R10E, S.L.B.&M.



TOPOGRAPHIC

MAP "B"

SCALE: 1" = 2000'

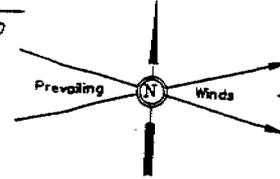
DATE: 10-22-93 D.J.S.



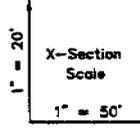
ANADARKO PETROLEUM CORP.

HELPER FEDERAL #A-3  
SECTION 22, T13S, R10E, S.L.B.&M.

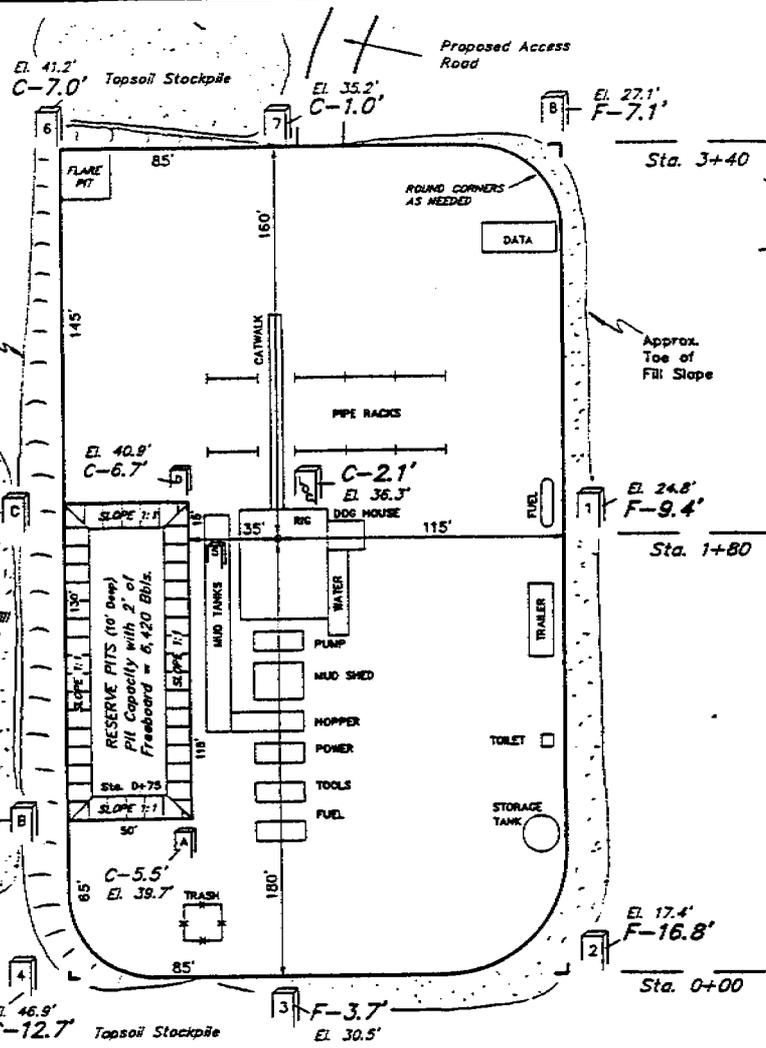
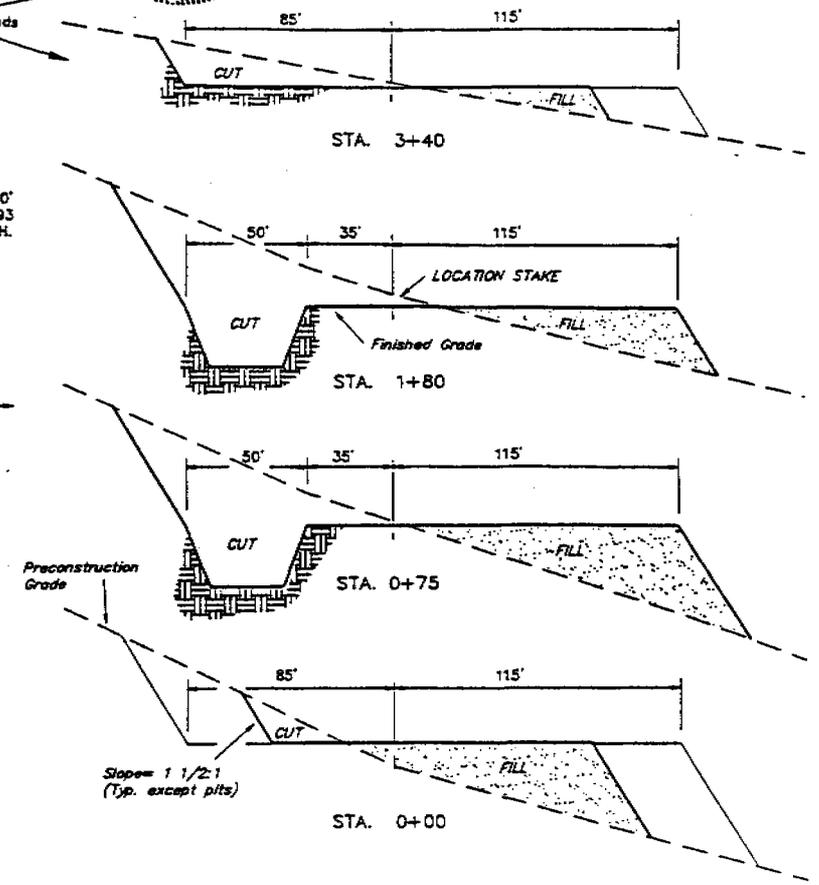
ANADARKO PETROLEUM CORP.  
 LOCATION LAYOUT FOR  
 HELPER FEDERAL #A-3  
 SECTION 22, T13S, R10E, S.L.B.&M.



SCALE: 1" = 50'  
 DATE: 10-22-93  
 Drawn By: T.D.H.



TYP. CROSS SECTIONS  
 TYP. LOCATION LAYOUT



APPROXIMATE YARDAGES		EXCESS MATERIAL AFTER 5% COMPACTION	
CUT (6") Topsoil Stripping	= 1,300 Cu. Yds.	Topsoil & Pit Backfill (1/2 Pit Vol.)	= 2,190 Cu. Yds.
Remaining Location	= 10,980 Cu. Yds.	EXCESS UNBALANCE (After Rehabilitation)	= 0 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 12,280 CU.YDS.</b>		
<b>FILL</b>	<b>= 9,590 CU.YDS.</b>		

ELEV. UNGRADED GROUND AT LOC. STAKE = 6536.3'  
 ELEV. GRADED GROUND AT LOC. STAKE = 6534.2'

UINTAH ENGINEERING & LAND SURVEYING  
 85 So. 200 East, Tropic, Utah



January 28, 1994

State of Utah  
Division of Oil & Gas & Mining  
355 West North Temple  
3 Triad Center, Ste. 350  
Salt Lake City, UT 84180-1203  
Attn: Mike Hebertson

JAN 29 1994  
DIVISION OF  
OIL, GAS & MINING

RE: Helper Federal 22C-1  
Helper Federal B-5  
Helper Federal A-3  
Sec. 22, 27-13S-10E  
Carbon County, UT

Dear Mr. Hebertson:

Per our conversation, attached is the supporting data required to process the Application for Permit to Drill for the referenced wells. I apologize for any inconvenience this may have caused.

If you have any questions or require additional information, please call me at (405) 552-6226.

475-7026

Very truly yours

ANADARKO PETROLEUM CORPORATION

Trish Hambright  
Drilling Technical Assistant

pah

NEW NUMBER  
43-007-30213

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 01/31/94

API NO. ASSIGNED: 43-007-30213

WELL NAME: HELPER FEDERAL A-3  
OPERATOR: ANADARKO PETROLEUM CORP (N0035)

PROPOSED LOCATION:  
SESE 22 - T13S - R10E  
SURFACE: 1271-FSL-0324-FEL  
BOTTOM: 1271-FSL-0324-FEL  
CARBON COUNTY  
WILDCAT FIELD (001)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED  
LEASE NUMBER: U-58434 FRSD

RECEIVED AND/OR REVIEWED:

Plat  
 Bond: Federal  State  Fee   
 (Number 153571)  
 Potash (Y/N)  
 Oil shale (Y/N)  
 Water permit  
 (Number \_\_\_\_\_)  
 RDCC Review (Y/N)  
 (Date: \_\_\_\_\_)

LOCATION AND SITING:

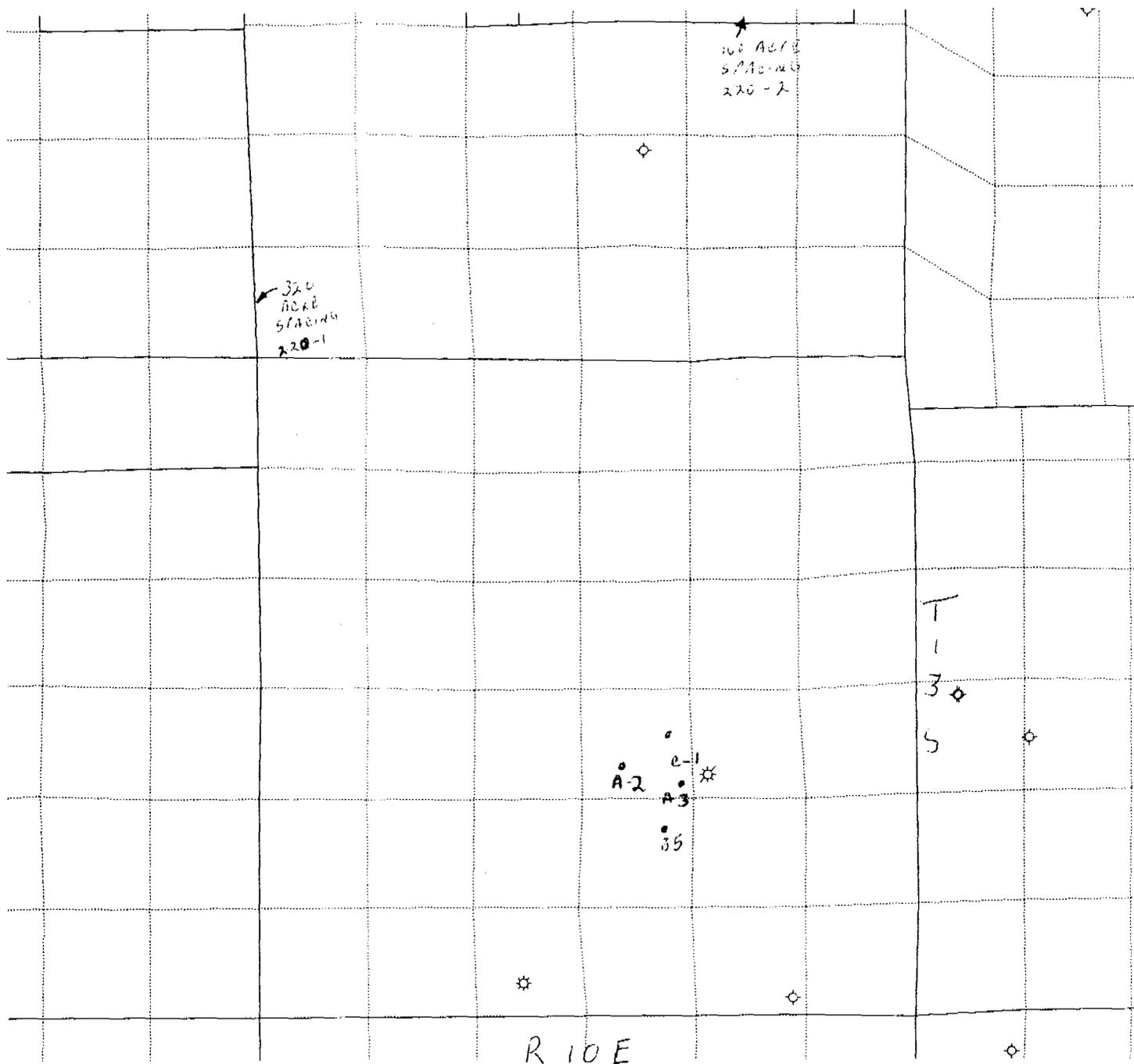
R649-2-3. Unit: \_\_\_\_\_  
 R649-3-2. General.  
 R649-3-3. Exception.  
 Drilling Unit.  
 Board Cause no: \_\_\_\_\_  
 Date: \_\_\_\_\_

COMMENTS: EXCEPTION SPACING NEEDED PRIOR TO APPROVAL

STIPULATIONS: ~~1 WATER SOURCE 1 PERMIT TO BE FILED PRIOR TO~~  
~~SPUD, BY SUMMARY NOTICE.~~

CONFIDENTIAL  
PERIOD  
EXPIRED  
ON 11-23-95

ANADARKO, CARBON COUNTY  
COAL GAS PROJECT  
HELPER FED. B-5, A-3, 22-C1, 22-A2



STATE OF UTAH

Operator: ANADARKO	Well Name: HELPER FED. A-3
Project ID: 43-007-30213	Location: SEC. 22 - T13S - R10E

Design Parameters:

Mud weight ( 9.20 ppg) : 0.478 psi/ft  
 Shut in surface pressure : 1965 psi  
 Internal gradient (burst) : 0.041 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using buoyed weight  
 Service rating is "Sweet"

Design Factors:

Collapse : 1.000  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	4,500	5.500	K-55	ST&C	4,500	4.825			
	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	2150	4040	1.879	2150	4810	2.24	59.94	222	3.70 J

Prepared by : FRM, Salt Lake City, UT  
 Date : 09-16-1994  
 Remarks :

COALBED METHANE WELL

Minimum segment length for the 4,500 foot well is 1,000 feet.  
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 94°F (Surface 74°F , BHT 119°F & temp. gradient 1.000°/100 ft.)  
 The mud gradient and bottom hole pressures (for burst) are 0.478 psi/ft and 2,150 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06)

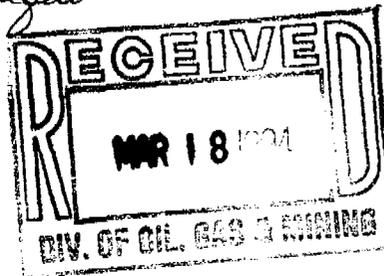
HEITZMAN DRILL-SITE SERVICES

DALE HEITZMAN

ROBERT M. ANDERSON

March 14, 1994

cc: Jwe  
FAB  
orig to: R.J. Forjelli  
R 3-18-94



Ms. Dianne R. Nielsen, Director  
State of Utah  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

RE: Anadarko Petroleum Corporation  
Helper Coalbed Methane Project  
Carbon County, Utah

Dear Ms. Nielsen;

Heitzman Drill-Site Services is currently in the process of preparing an Environmental Assessment of four (4) coalbed methane wells, one (1) water injection well, and approximately four (4) miles of buried natural gas pipeline as proposed by Anadarko Petroleum Corporation in Carbon County, Utah. These five (5) total wells represent a pilot program for coalbed methane in the Price/Helper area and, if successful, could result in full field development of the coalbed methane resource within the leasehold/unit area. Full field development would be analyzed under a separate document to be prepared at a later date and would be contingent upon methane production resulting from this pilot program.

The five (5) well locations to be included in this pilot program would be located as follows:

1. Coalbed Methane Well Location : Helper Federal A-2  
Lot 1, Section 22, T13S, R10E; Carbon County, Utah
2. Coalbed Methane Well Location : Helper Federal A-3  
NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 22, T13S, R10E; Carbon County, Utah
3. Coalbed Methane Well Location : Helper Federal B-5  
SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ , Section 27, T13S, R10E; Carbon County, Utah
4. Coalbed Methane Well location : Helper Federal C-1  
S $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ , Section 22, T13S, R10E; Carbon County, Utah

Ms. Dianne R. Nielsen  
Division of Oil, Gas and Mining  
March 14, 1994  
Page 2

5. Water Disposal Well location : Well NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , Section 32, T11S, R9E; Carbon County, Utah

For your convenience, I have included a map showing the location for each of these proposed well locations, as well as the proposed pipeline route for gas sales from the project area.

As stated above, this environmental assessment will only address the initial exploration phase of the Helper Coalbed Methane Project and will be prepared under guidance provided by the Price River Resource Area Office, Bureau of Land Management.

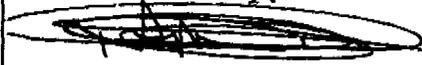
At this time, I would like to ask that your office review this exploration proposal and provide any comments/concerns which you or your staff may have regarding the merits of this project and the potential impacts (both positive and negative) to the State of Utah and/or Carbon County which may result from project approval.

As usual, we are on somewhat of a short time frame; consequently, I would appreciate your expeditious review of and response to this request for an informal consultation.

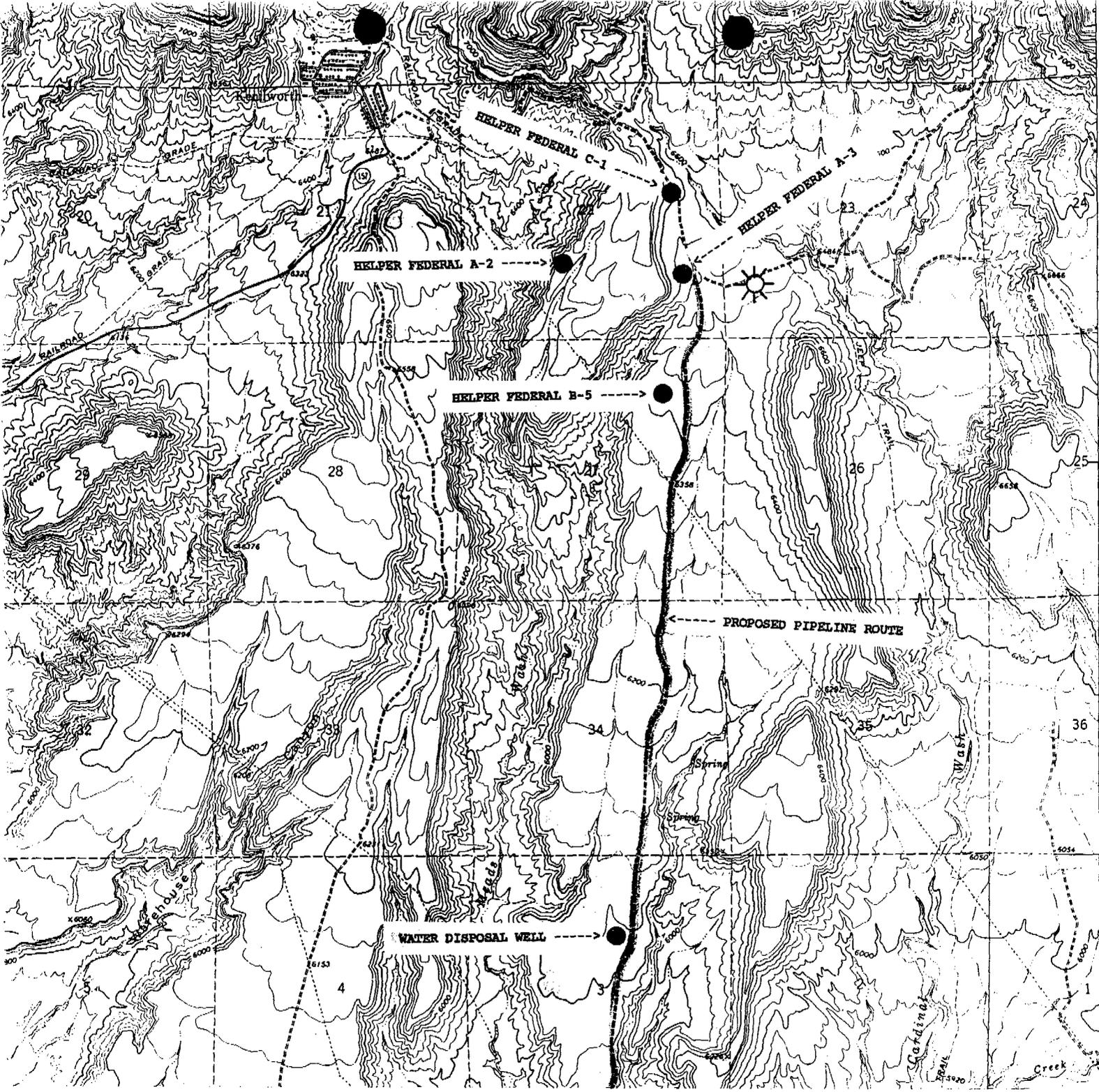
Should you have any questions or require any additional information in this regard, please do not hesitate to give me a call at either 307-266-4840 (office) or 307-473-1268 (home).

Your kind attention to this matter will be most appreciated.

Sincerely,

  
Robert M. Anderson  
Project Manager and ID Team Leader

RMA/ibm  
Enclosure



HELPER FEDERAL C-1

HELPER FEDERAL A-1

HELPER FEDERAL A-2

HELPER FEDERAL B-5

PROPOSED PIPELINE ROUTE

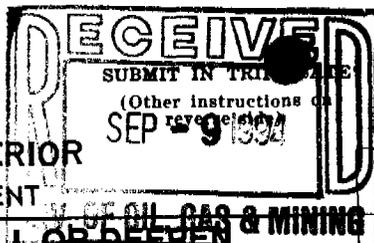
WATER DISPOSAL WELL

DEADMAN CANYON

Cardinal

Creek

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN

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

2. NAME OF OPERATOR  
 Anadarko Petroleum Corporation Phone: (405) 475-7013

3. ADDRESS AND TELEPHONE NO.  
 9400 North Broadway, Suite 700; Oklahoma City, Oklahoma 73114

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface: 1271' FSL, 325' FEL (NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ ) Section 22, T13S, R10E  
 At proposed prod. zone: Same as above.

5. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately five (5) miles north of Price, Utah

6. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 324'

7. UNIT AGREEMENT NAME  
 Not Applicable

8. FARM OR LEASE NAME, WELL NO.  
 Helper Federal A-3

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 22, T13S, R10E

12. COUNTY OR PARISH 13. STATE  
 Carbon Utah

16. NO. OF ACRES IN LEASE 1111.44

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. 2057' ±

19. PROPOSED DEPTH 4500'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6536' GR

22. APPROX. DATE WORK WILL START\* August 12, 1994

PROPOSED CASING AND CEMENTING PROGRAM (All New)

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" K-55	24.0#	0- 300'	230 sx circulated to surface *
7-7/8"	5-1/2" K-55	15.5#	0-4500'	330 sx circulated to surface *

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A

Dated 1/1/80

\* Cement volumes may change due to hole size. Calculate from Caliper Log.

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED.

I hereby certify that Anadarko Petroleum Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the Helper Federal A-3, Federal Lease #UTU-58434. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Anadarko Petroleum Corporation, Nationwide Bond #ES-0128, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.

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

24. SIGNED D.R. Winchester TITLE D.R. Winchester, Senior Staff Drilling Engineer DATE July 27, 1994

(This space for Federal or State office use)

PERMIT NO. 43-007-30213 APPROVAL DATE \_\_\_\_\_

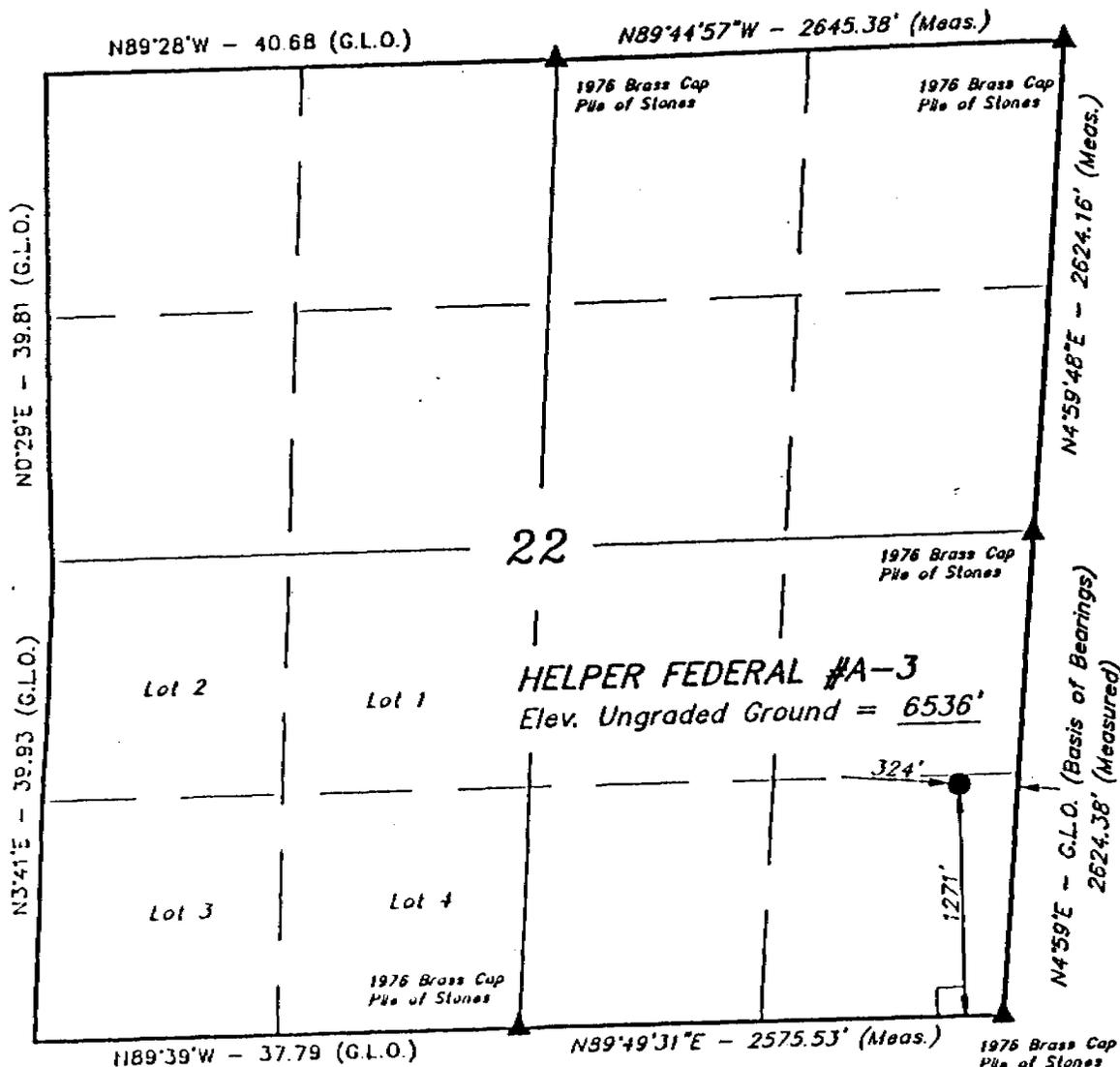
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY L. C. Delano Backus ACTING Associate District Manager DATE SEP - 7 1994

\*See Instructions On Reverse Side

Doc 101

T13S, R10E, S.L.B.&M.

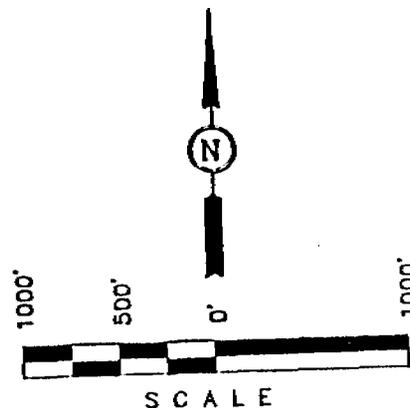


**ANADARKO PETROLEUM CORP.**

Well location, HELPER FEDERAL #A-3, located as shown in the SE 1/4 SE 1/4 of Section 22, T13S, R10E, S.L.B.&M. Carbon County, Utah.

**BASIS OF ELEVATION**

SPOT ELEVATION AT A ROAD INTERSECTION IN THE SE 1/4 OF SECTION 22, T13S, R10E, S.L.B.&M. TAKEN FROM THE HELPER QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6530 FEET.



**CERTIFICATE**

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

*Robert H. Tracy*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 5709  
STATE OF UTAH

**UINTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(801) 789-1017

**LEGEND:**

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

SCALE 1" = 1000'	DATE SURVEYED: 10-13-93	DATE DRAWN: 10-24-93
PARTY D.A. D.G. R.E.H.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE ANADARKO PETROLEUM CORP.	

Anadarko Petroleum Corporation  
Helper Federal A-3  
Lease U-58434  
SE/SE Section 22, T13S, R10E  
Carbon County, Utah

CONDITIONS OF APPROVAL

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

Be advised that Anadarko Petroleum Corporation is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by ES 0128 (Principal - Anadarko Petroleum Corporation) via surety consent as provided for in 43 CFR § 3104.2.

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

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. The surface location of this well does not fall within a spacing "window" as prescribed by the State of Utah, Division of Oil, Gas and Mining (DOGM). This location must have approval from DOGM before dirt work can begin.
2. The surface casing must be set at least 50 feet into the Mancos-Bluegate Shale.
3. The production casing shall be cemented to a minimum of 500 feet above the Ferron Sandstone.
4. The BOP system shall be rated to 3M as proposed. Since a 3M system will exceed what is required for anticipated pressures, testing the system to 2M standards is acceptable.
5. If the surface hole is drilled with air, a mist system will be used to minimize airborne cuttings dust. All other air drilling requirements specified in Onshore Order No. 2 will apply.
6. Centralizers shall be run, at a minimum, on the bottom three joints of each casing string.
7. When running DSTs, the initial opening of the test tool shall occur during daylight hours.
8. If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.

## **B. SURFACE STIPULATIONS**

1. The existing cattleguard in the SW/4SW/4 of section 34, will be replaced with a minimum fourteen (14) foot cattleguard which either meets or exceeds BLM H-20 specifications, with the final design dependent upon the actual load capacity required to handle the trucks and heavy equipment to be associated with the Proposed Action. This cattle guard will be routinely maintained by Anadarko for the duration of the project in order to minimize the potential for any livestock migration to occur.
2. Employees and contract personnel will be informed about the large number of recreational users on and along the primary access route into the project area.
3. Pump jack and compressor engines will be muffled in order to achieve a noise emission of 65 decibels (db) or less at a distance of one hundred (100) feet.
4. The main access route will be watered and compacted to reduce fugitive dust and eliminate the soft powder sections.
5. To maintain the cross-country skiing opportunity within the specific project area, pipeline ROWs will be cleared of rocks larger than ten (10) inches in diameter prior to final reclamation. The disturbed area of the ROW will then be groomed during final reclamation and reseeded with grasses and low growing forbs and shrubs suitable for a cross-country ski trail.
6. Routine maintenance activities associated with evaluation operations will be restricted to those daylight hours from 9:00 A.M. to 4:00 P.M. (except during emergencies) between December 1st and April 15th in order to reduce impacts to big game animals wintering in the project area.
7. The loss of forty-two (42) acres of big game winter range will be mitigated through completion of a project designed to enhance one (1) acre of big game habitat for each acre of surface disturbance associated with the Proposed Action.

The BLM, in consultation with both UDWR and Anadarko, will identify a cost effective proposal designed to mitigate these habitat losses. Upon final acceptance of a mitigation proposal which is mutually acceptable to all parties, both the BLM and Anadarko will execute a Memorandum of Understanding, which will set forth the responsibilities of both parties prior to the commencement of any mitigation project.

8. In order to protect deer winter range, exploration, drilling and other development activity will be allowed only during the period between May 16th and October 31st of any given year. This limitation does not apply to producing wells. An exception to this limitation in any year may be specifically approved in writing by the Authorized Officer, Bureau of Land Management.
9. Anadarko shall mitigate project impacts to big game winter range when total cumulative surface disturbance reaches ten (10) acres or more in size, as determined by the Authorized Officer of the Bureau of Land Management. Cumulative surface disturbance shall take into consideration actual impact from the Proposed Action and any surface disturbance from subsequent development occurring on winter range in this herd unit.

Mitigation shall include one (1) acre of enhanced habitat for every acre of surface-disturbed habitat. Project design for enhancement work will be developed by the Authorized Officer in coordination with the operator.

### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports 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. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the District Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- 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 to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. 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. When requested, samples (cuttings and/or samples) will be submitted to the District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the District Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Office within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. 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 Area Manager or his representative, or the appropriate surface managing agency.

NOTIFICATIONS

Notify Don Stephens or Dean Nyffeler of the Price River Resource Area in Price, Utah, at (801) 637-4584 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

50 feet prior to reaching surface casing depth;

3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, contact the person listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer	Office: (801) 259-6111
	Home: (801) 259-2214

ANADARKO PETROLEUM CORPORATION

9400 NORTH BROADWAY  
SUITE 700  
(405) 475-7000  
FAX (405) 475-6355 OR 6356

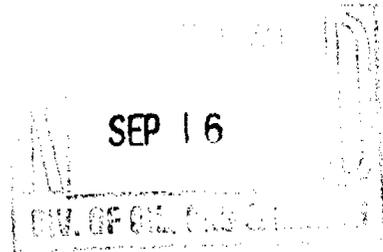
OKLAHOMA CITY, OKLAHOMA 73114



September 12, 1994

State of Utah  
Department of Natural Resources  
Division of Oil Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Attn: Frank Mathews



RE: Helper Federal A-2  
Helper Federal A-3  
Helper Federal B-5  
Helper Federal C-1

Gentlemen:

Attached is revised Form 3160-3 (Application for Permit to Drill)  
for the referenced wells.

If you have any questions, please contact me @ 405/475-7023.

Very truly yours,

ANADARKO PETROLEUM CORPORATION

A handwritten signature in cursive script, reading "D.R. Winchester", is written over the typed name.

D.R. Winchester  
Sr. Staff Drilling Engineer

DRW/PAH:tlc

Attachments

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN   
 b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE   
 2. NAME OF OPERATOR  
 Anadarko Petroleum Corporation Phone: (405) 475-7013

5. LEASE DESIGNATION AND SERIAL NO.  
 UTU-58434  
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Not Applicable  
 7. UNIT AGREEMENT NAME  
 Not Applicable  
 8. FARM OR LEASE NAME WELL NO.  
 Helper Federal A-3  
 9. AC WELL NO.

3. ADDRESS AND TELEPHONE NO.  
 9400 North Broadway, Suite 700; Oklahoma City, Oklahoma 73114  
 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 1271' FSL, 325' FEL (NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ ) Section 22, T13S, R10E  
 At proposed prod. zone  
 Same as Above.

10. FIELD AND POOL, OR WILDCAT  
 Wildcat  
 11. SEC., T., R., N., OR S.E.K. AND SURVEY OR AREA  
 Section 22, T13S, R10E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately five (5) miles north of Price, Utah

12. COUNTY OR PARISH  
 Carbon  
 13. STATE  
 Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 324'  
 16. NO. OF ACRES IN LEASE 1111.44  
 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. 2057'  $\pm$   
 19. PROPOSED DEPTH 4500'  
 20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6536' GR  
 22. APPROX. DATE WORK WILL START\*  
 August 12, 1994

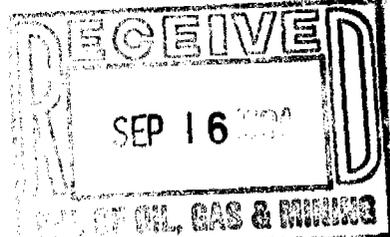
23. PROPOSED CASING AND CEMENTING PROGRAM (All New)

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" K-55	24.0#	0-300'	230 sx circulated to surface *
7-7/8"	5-1/2" K-55	15.5#	0-4500'	330 sx circulated to surface *

\* Cement volumes may change due to hole size. Calculate from Caliper Log.

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED.

I hereby certify that Anadarko Petroleum Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the Helper Federal A-3, Federal Lease #UTU-58434. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Anadarko Petroleum Corporation, Nationwide Bond #ES-0128, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 D.R. Winchester TITLE D.R. Winchester, Senior Staff Drilling Engineer DATE July 27, 1994  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 Application approval 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.  
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

\*See Instructions On Reverse Side



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

September 16, 1994

Anadarko Petroleum Corporation  
211 N. Robinson, One LSS, Suite 1400  
Oklahoma City, OK 73102-7115

Re: Helper Federal A-3 Well, 1271' FSL, 324' FEL, SE SE, Sec. 22, T. 13 S., R. 10 E.,  
Carbon County, Utah

Gentlemen:

Pursuant to Utah Admin. R. 649-3-3, Exception to Location and Siting of Wells and Utah Admin. R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

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

1. Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules.
2. Notification to the Division within 24 hours after drilling operations commence.
3. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.
4. Submittal of the Report of Water Encountered During Drilling, Form 7.
5. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or K. Michael Hebertson, Reclamation Specialist, (Home) (801)269-9212.



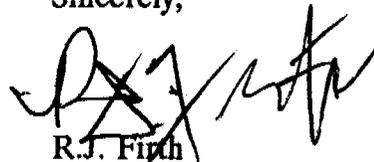
Page 2

Anadarko Petroleum Corporation  
Helper Federal A-3 Well  
September 16, 1994

6. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-007-30213.

Sincerely,

A handwritten signature in black ink, appearing to read 'R.J. Fifth', written over a printed name.

R.J. Fifth  
Associate Director

ldc

Enclosures

cc: Carbon County Assessor

Bureau of Land Management, Moab District Office

WO11

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

**SUBMIT IN TRIPLICATE**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other   (Coalbed Methane)	5. Lease Designation and Serial No. UTU-58434
2. Name of Operator Anadarko Petroleum Corporation   (405) 475-7000	6. If Indian, Allottee or Tribe Name Not Applicable
3. Address and Telephone No. 9400 N. Broadway, Suite 700; Oklahoma City, Oklahoma 73114	7. If Unit or CA, Agreement Designation Not Applicable
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  1271' FSL & 325' FEL (NE/4 SE/4 SE/4) Sec. 22-13S-10E	8. Well Name and No. Helper Federal A-3
	9. API Well No. 43-007-30213
	10. Field and Pool, or Exploratory Area Wildcat
	11. County or Parish, State Carbon Co., Utah

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

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

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well was spud @ 2:00 P.M. on 09/14/94.

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

Signed Shawn Young Title Shawn Young, Drilling Engineer Date 9-15-94

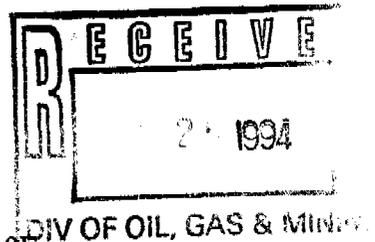
(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any:



November 17, 1994

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



RE" Helper Federal A-3  
Section 22-T13S-R10E  
Carbon County, Utah

Gentlemen:

Please find attached in triplicate the required Well Completion Report (Form 3160-4) for the referenced well. A copy of the Litho Density and Temp Logs are also enclosed.

Please hold all logs confidential for a two year period.

If you have any questions, please contact me at (405) 475-7019.

Very truly yours,  
Anadarko Petroleum Corporation

Trina Talmadge  
Technical Assistant

TET/cdp  
helpera3.blm

attachments

cc: State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Ste. 350  
Salt Lake City, Utah 84180-1203

Bureau of Land Management  
Price River Resources Area  
900 North, 700 East  
Price, Utah 84501

WF

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

SUBMIT IN DUPLICATE

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

NOV 25 1994

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG \***

1. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other COALBED METHANE

2. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. SERV.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
ANADARKO PETROLEUM CORPORATION

3. ADDRESS OF OPERATOR  
9400 N. BROADWAY, STE. 700 OKLAHOMA CITY, OK 73114

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface  
1271' FSL & 324' FEL  
At top prod. interval reported below  
SAME  
At total depth  
SAME

5. LEASE DESIGNATION AND SERIAL NO.  
U-58434

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

7. UNIT AGREEMENT NAME  
HELPER

8. FARM OR LEASE NAME  
HELPER FEDERAL

9. WELL NO.  
A-3

10. FIELD AND POOL, OR WILDCAT  
WILDCAT

11. SEC., T. R., M., OR BLOCK AND SURVEY OR AREA  
SEC. 22-T13S-R10E

12. COUNTY OR PARISH  
CARBON

13. STATE  
UTAH

14. PERMIT NO. 43-007-30213 DATE ISSUED 9-7-94

15. DATE SPUDDED 9-14-94 16. DATE T.D. REACHED 9-27-94 17. DATE COMPL. (Ready to prod.) 10-23-94 18. ELEVATION (OF, RKB, RT, OR, ETC.)\* 6536 GL 19. ELEV. CASINGHEAD 6548 KB

20. TOTAL DEPTH, MD & TVD 4292 21. PLUG, BACK T.D., MD & TVD 4135 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY \_\_\_\_\_ ROTARY TOOLS X CABLE TOOLS \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
FERRON COALS 3665-3950

25. WAS DIRECTIONAL SURVEY MADE  
NO

26. TYPE ELECTRIC AND OTHER LOGS RUN  
LITHO-DEN, CBL GR TEMP 11-25-94

27. WAS WELL CORED  
NO

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8	24	295	12-1/4	220SX PREM PLUS	NONE
5-1/2	17	4290	7-7/8	185SX THIXPTROPIC	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)
N/A				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8	3928	N/A

31. PERFORATION RECORD (Interval, size and number)  
3751-55, 3765-67, 3791-93, 3834, 3840, 3852-55, 3859.5, 3876  
4 SPF, 0.4" EHD, 76 HOLES

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3876-3751	FRAC W/52000 GAL 70% N2 & 24400 # 100 MESH 1-4 PPG & 130100 # 16/30 SD 4-6 PPG

33. PRODUCTION

DATE FIRST PRODUCTION 10-28-94 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) PUMPING WELL STATUS (Producing or shut-in) PRODUCING

DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-7-94	24			0	118	92	-

FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
N/A	60		0	118	92	-

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) VENTED/USED FOR FUEL TEST WITNESSED BY JEFF DUNCAN

35. LIST OF ATTACHMENTS \_\_\_\_\_

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

SIGNED Bill Savage BILL SAVAGE TITLE SENIOR PRODUCTION ENGINEER DATE 11-17-94

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38.

GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH.
BLUEGATE SH	1580	3665				
FERRON SH SD	3665	3950				
MASUK SH	3950					

WELL HISTORY  
ONSHORE U.S.

UNCONVENTIONAL RESERVOIRS - DEVELOPMENT

**FIRST REPORT**

HELPER FEDERAL A-3, HELPER PROSPECT, 1271 FSL & 324 FEL, SEC. 22-13S-10E,  
CARBON CO. UT, AFE 1405, WI 1.000, NRI 0.825, ETD 4600 (FERRON COALS), VECCO  
DRLG RIG #15

09/15/94 120 (120), DRLG, MW AIR, SPUD @ 1400 HRS ON 09/14/94, CC \$5,750.

REP #1

09/16 305 (305), TOH, MW AIR, DRLG, ENCOUNTERED WTR FLW @ 145, CC \$10,500.

REP #2

09/17 305 (0), PREP TO WELD ON HEAD, MW AIR, TOH, RU & RAN 7 JTS 8-5/8" 24#  
K-55, SET @ 295 GL, CMT W/220 SX PREM PLUS, CMT DID NOT CIRC, TIH  
W/1" PIPE TO 120', PMPD 150 SX CMT, NO CIRC, TOH W/1", TIH W/1" TO  
60', PMPD 70 SX CMT, CMT CIRC, CC \$31,600.

REP #3

09/18 305 (0), WORT, MW NR, DUG OUT CELLAR & WELDED ON HEAD, TSTD VOID TO  
900, CC \$32,400.

REP #4

09/19-22 305 (0), WORT, CC \$32,400.

REP #5

09/23 305 (0), TST BOPE, MW NR, MIRU RT, NU BOPE, CC \$45,800.

REP #6

09/24 1046 (741), DRLG, MW AIR, PU & TIH W/BIT & BHA, DRLG CMT & FLOAT  
EQUIP, CC \$60,000.

REP #7

09/25 2985 (1939), DRLG, MW AIR, CC \$68,600.

REP #8

09/26 4292 (1307), TF LOGS, MW AIR, DRLG TO 4292, C & C, CC \$78,600.

REP #9

09/27 4292 (0), RUN 5-1/2" CSG, MW AIR, TOH, RU & RUN OH LOGS, TIH, W & R  
4080 TO 4292, C & C HOLE, TOH & LDDP & DC'S, CC \$134,200.

REP #10

09/28 4292 (0), WOCU, MW AIR, FIN RNG 5-1/2" CSG, SET @ 4290, CIRC, CMT  
W/185 SX THIXOTROPIC CMT, BMPD PG, FLOATS HELD, ND BOPE, SET SLIPS,  
CUT OFF CSG, REL RIG @ 1200 HRS ON 09/27/94, CC \$153,800.

REP #11

--DROP FROM REPORT--

09/30 PBTD 4135 (FERRON COALS), NU BOP, MIRUWL, RIH W/4.624 GR/JB, PBTD @  
4135, RUN CBL/GR 4135-3400, TOC @ 3553, PERF 3876-3751 (76 HOLES),  
RDWL, CC \$165,900.

10/01/94 PBTD 4135 (FERRON COALS), SET 2 400 BBL TANKS, PREP FOR FRAC, CC  
\$169,000.

10/02 PBTD 4135 (FERRON COALS), BREAK DWN W/5000 GAL 70% N2 FOAMED 15% HCL,  
FRAC W/52000 GAL 70% N2 FOAMED CMHEC X LINKED GEL & 24400# 100 MESH  
1-4 PPG & 130100# 16/30 SAND 4-6 PPG, FLUSH W/3612 GAL FOAM, ISIP  
2426 PSI, OPN TO TANK @ .5 BPM FORCED CLOSURE, MR 51 BPM, AR 50 BPM,  
MP 3675 PSI, AP 3100 PSI, TAGGED 16/30 W/IRIDIUM, 511 BLWTR, CC  
\$234,800.

10/03 PBTD 4135 (FERRON COALS), FLWD 113 BLW IN 21 HRS, 960 PSI FCP, 398  
BLWTR, CC \$236,600.

10/04 PBTD 4135 (FERRON COALS), FLWD 85 BLW, FCP 440, 313 BLWTR,  
**CORRECTION:** CC \$265,200.

10/05 PBTD 4135 (FERRON COALS), FLWD 127 BLW, FCP 300 PSI, 186 BLWTR, CC  
\$267,400.

10/06 PBTD 4135 (FERRON COALS), FLWD 62 BLW, FCP 60 PSI, 124 BLWTR, CC  
\$268,000.

10/07 PBTD 4135 (FERRON COALS), LITE BLOW, NO FLUID RECOVERY, RIH W/GAMMA  
RAY FROM TOP OF FILL @ 3844' TO 3650', ALL PERFS TOOK SAND, LEFT WELL  
OPN TO TANK, 124 BLWTR, CC \$269,900.

10/08 PBTD 4135 (FERRON COALS), WELL DEAD, MIRU TIH W/NOTCH COLLAR, SN & 79  
JTS 2-3/8" TBG, 124 BLWTR, CC \$271,500.

10/09 PBTD 4135 (FERRON COALS), 12 HR SICP 200 PSI, TIH W/TBG, TAG SAND @ 3844, CLEAN OUT TO 4180', LOST 300 BBL 2% KCL, SWB 3-1/2 HRS, RECOVERED 52 BLW, FFL 1200', 372 BLWTR, CC \$274,000.

10/10 PBTD 4135 (FERRON COALS), SDFS, 372 BLWTR, CC \$274,000.

10/11 PBTD 4180 (FERRON COALS), SITP 0, IFL 1200, SWBD 5 HRS, REC 85 BLW, NSG, NO SD, TIH TO FILL @ 4169, TOH, TIH W/NOTCHED COLLAR, MA, PS, SN, 6 JTS TBG, TA, 117 JTS 2-3/8 TBG TO 3928, SN @ 3891, 287 BLWTR, CC \$288,500.

10/12 PBTD 4180 (FERRON COALS), SITP 10 PSI, SICP 10 PSI, TIH W/ 2X1-1/2X16 PMP, 6 WT BARS, 3/4" RODS, LOAD HOLE & TST PMP, HELD GOOD, RD, SI WAITING ON PMPG UNIT & FACILITIES, 287 BLWTR, CC \$298,000.  
--DROP FROM REPORT--

FIRST DROPPED 09/28/94, DATA LAST RPT'D 10/12/94 (10/12/94 DR)

10/28 PBTD 4180 (FERRON COALS) SET PU & PROD EQUIP, PUMPING TO TANK, 287 BLWTR, CC \$338,000.

10/29 PBTD 4180 (FERRON COALS), PMPD 81 BLW, 0 MCF, CP 0, FL 1008, 287 BLWTR, CC \$338,000.

10/30-31 NO REPORT

10/31 PBTD 4180 (FERRON COALS), PMPD 74 BW, 20 MCFD, CP 48, FL 1260, 132 BLWTR, CC \$338,000.

11/01/94 PBTD 4180 (FERRON COALS), PMPD 98 BW, 27 MCFD, CP 50, FL 315, 34 BLWTR, CC \$338,000.

11/02 PBTD 4180 (FERRON COALS), PMPD 94 BW, 27 MCF, CP 48, FL 126, 60 BOL, CC \$338,000.

11/03 PBTD 4180 (FERRON COALS), PMPD 71 BW, 32 MCF, CP 42, FL 63, CC \$338,000.

11/04 PBTD 4180 (FERRON COALS), PMPD 57 BWP, 32 MCFD, CP 40, FL 63, CC \$338,000.

11/05 PBTD 4180 (FERRON COALS), PMPD 66 BWP, 32 MCFD, CP 52, FL 157, CC \$338,000.

11/06 PBTD 4180 (FERRON COALS), PMPD 41 BWP, 35 MCF, CP 46, FL 62, CC \$338,000.

11/07 PBTD 4180 (FERRON COALS), PMPD 92 BWP, 118 MCF, CP 60, FL 60, CC \$338,000.

11/08 PBTD 4180 (FERRON COALS), PMPD 19 BWP, 132 MCF, CP 50, FL 160, CC \$338,000.

11/09 PBTD 4180 (FERRON COALS), PMPD 0 BWP, 116 MCF, CP 50, FL 189, CC \$338,000.

11/10 PBTD 4180 (FERRON COALS), PMPD 0 BWP, 95 MCF, CP 50, FL 157, CC \$338,000.

11/11 PBTD 4180 (FERRON COALS), PMPD 57 BWP, 96 MCF, CP 50, FL 693, CC \$338,000.

11/12 PBTD 4180 (FERRON COALS), PMPD 106 BWP, 96 MCF, CP 50, FL 799, CC \$338,000.

11/13 PBTD 4180 (FERRON COALS), PMPD 112 BWP, 103 MCF, CP 54, FL 911, CC \$338,000.

11/14 PBTD 4180 (FERRON COALS), PMPD 106 BWP, 103 MCF, CP 55, FL 126, CC \$338,000.

11/15 PBTD 4180 (FERRON COALS), PMPD 111 BWP, 106 MCF, CP 60, FL 190, CC \$338,000.

11/16 PBTD 4180 (FERRON COALS), PMPD 109 BWP, 106 MCF, CP 50, FL 940, CC \$338,000.

- 11/17 PBTD 4180 (FERRON COALS), HOOKUP GAS GATHERING SYSTEM, PURGE & PACK LINE, PMPD 172 BWPD, 103 MCF, CP 50, FL 910, CC \$338,000.
- 11/18 PBTD 4180 (FERRON COALS), HOOKUP GAS GATHERING SYSTEM, PURGE & PACK LINE, PMPD 137 BWPD, 101 MCF, CP 58, FL 190, CC \$338,000.
- 11/19 PBTD 4180 (FERRON COALS), **FIRST GAS SALES 1730 HRS, 11/17/94**, PMPD 130 BWPD, 101 MCF, CP 75, FL 1669, CC \$338,000.
- 11/20 PBTD 4180 (FERRON COALS), PMPD 109 BWPD, 127 MCF, CP 25, FL 1827, CC \$338,000.
- 11/21 PBTD 4180 (FERRON COALS), PMPD 118 BWPD, 130 MCF, CP 25, FL 2016, CC \$338,000.
- 11/22 PBTD 4180 (FERRON COALS), PMPD 41 BWPD, 143 MCF, CP 30, FL 1165, CC \$338,000.
- 11/23 PBTD 4180 (FERRON COALS), PMPD 121 BWPD, 150 MCF, CP 60, FL 94, CC \$338,000.

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

OCT 17

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

**CONFIDENTIAL**

1. Type of Well: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER: Coalbed		5. Lease Designation and Serial Number: U-58434
2. Name of Operator: Anadarko Petroleum Corporation		6. If Indian, Allottee or Tribe Name:
3. Address and Telephone Number: 9400 N. Broadway, Ste. 700/ Oklahoma City, OK 73114-7403 (405) 475-7000		7. Unit Agreement Name: Helper
4. Location of Well Footages: 1271' FSL & 324' FEL Sec 22-13S-10E QQ, Sec., T., R., M.: SE SE		8. Well Name and Number: Helper Federal A-3
		9. API Well Number: 47-007-30213
		10. Field and Pool, or Wildcat: Wildcat
		County: Carbon
		State: Utah

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

NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other _____	<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Other _____
<input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recompletion <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off
Approximate date work will start <u>N/A</u>	Date of work completion _____ Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.

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

The proposed location layout for the subject well is attached. Distances and scales are approximate. The reclaimed area boundary is a conservative estimate. The actual reclaimed area will be as large as possible and most likely cover more than the area indicated on the diagram.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**

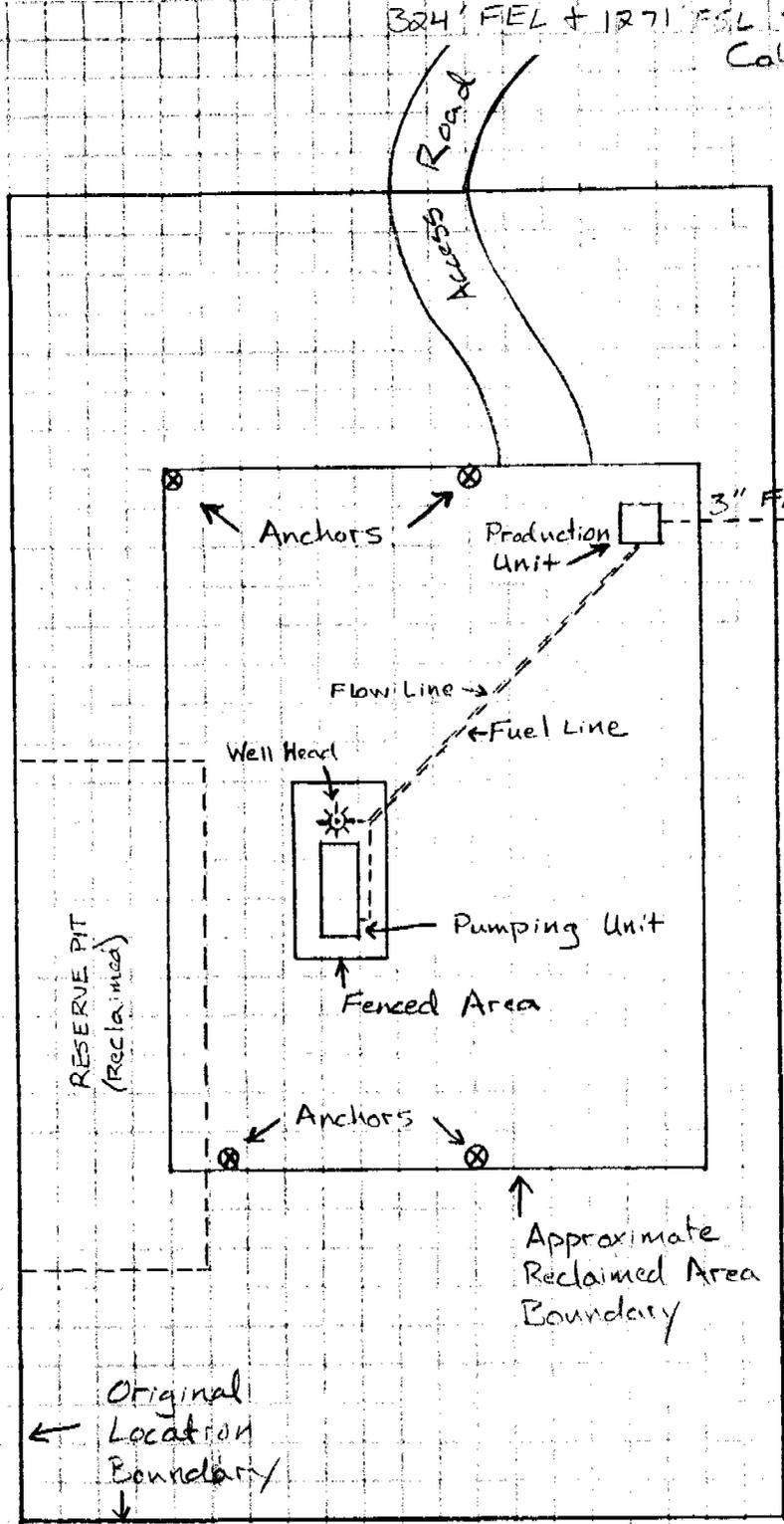
13. Name & Signature: Bill Savage Title: Senior Prod. Engr. Date: 10-12-94

(This space for State use only)

DATE 10/10/94 PROJECT Helper Pilot JOB NO. \_\_\_\_\_

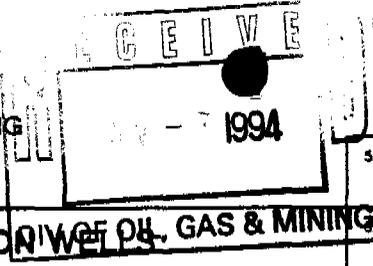
BY \_\_\_\_\_ CHK.: \_\_\_\_\_ SUBJECT Helper Federal A-3

324' FEL + 1271' FSL Sec 22 T135-R10E  
Caban County, Utah



Scale 1" = 50'

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING



SUNDRY NOTICES AND REPORTS ON WELLS

5. Lease Designation and Serial Number:  
T-58434  
Indian, Allottee or Tribe Name:

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

7. Unit Agreement Name:  
HELPER

1. Type of Well: OIL  GAS  OTHER: COALBED METHANE

8. Well Name and Number:  
HELPER FEDERAL A-3

2. Name of Operator:  
ANADARKO PETROLEUM CORPORATION

9. API Well Number:  
43-007-30213

3. Address and Telephone Number:  
9400 N. BROADWAY, STE. 700 OKLAHOMA CITY, OK 73114 (405) 475-7000

10. Field and Pool, or Wildcat:  
WILDCAT

4. Location of Well  
Footages: 1271' FSL & 324' FEL SEC 22-13S-10E  
OO, Sec., T., R., M.: SE SE

County: CARBON  
State: UTAH

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

NOTICE OF INTENT  
(Submit in Duplicate)

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

Approximate date work will start \_\_\_\_\_

SUBSEQUENT REPORT  
(Submit Original Form Only)

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

Date of work completion \_\_\_\_\_

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

\* Must be accompanied by a cement verification report.

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

Tests of produced water from the Helper Federal Field (Ferron Coal) and the Castlegate Field (Blackhawk Coal) and the Shimmin 10-11 disposal well (Price River Formation) indicate that the waters are compatible. As a result, permission to commingle produced water from the Helper Federal Field with the Castlegate Field is requested in order to allow for the disposal of water from both fields into the Shimmin Trust 10-11 in Section 11-T12S-R10E, Carbon County, Utah (UIC No. 146). Compatibility test results and recommendations from the Exxon Chemical Company's representative, Creg Wilkins, are attached.

Compatibility will be confirmed for each well individually before the water is commingled for disposal. The Shimmin Trust 10-11 is currently disposing 6500 BWPD at 1100 psi.

13. Name & Signature: BILL SAVAGE BILL SAVAGE Title: SENIOR PROD. ENGR. Date: 11-4-94

(This space for State use only)

Federal Approval of this Action is Necessary

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING  
DATE: 11-8-94  
BY: [Signature]

FROM NALCO-EXXON (RS)

**EXXON CHEMICAL COMPANY**  
 P.O. Box 4321, Houston, Texas 77210-4321  
 Tel. (713) 460-6800 Telex: 4942275 ENCEHOJ



**TEST REPORT**

		SHEET NUMBER	
COMPANY Anadarko Petroleum		DATE 10/20/94	
FIELD OR PLANT Helper/Castlegate	COUNTY OR PARISH Carbon	STATE Utah	
LEASE OR UNIT	WELL(S) NAME & NO.	SAMPLE SOURCE Well	
TYPE SAMPLE		TYPE TEST	
REASON FOR TEST Water Compatibility			

**RESULTS:**

Gentlemen:

I have analyzed the produced water at the Helper B1, Helper A1 and the water from the Price River formation in the Castlegate field. It is my recommendation that the water from either of the Helper wells could be commingled with the water of the Price River formation and no problems should occur. As the attached 01/16/94, 03/01/94 (Price River formation), 09/09/93 (Helper A1), and 06/20/94 (Helper B1) water analysis, the make up of the Helper B1 and Helper A1 water is such that no foreign or contaminating properties are present in regard to compatibility with the Castlegate field.

**REMARKS & RECOMMENDATIONS:**

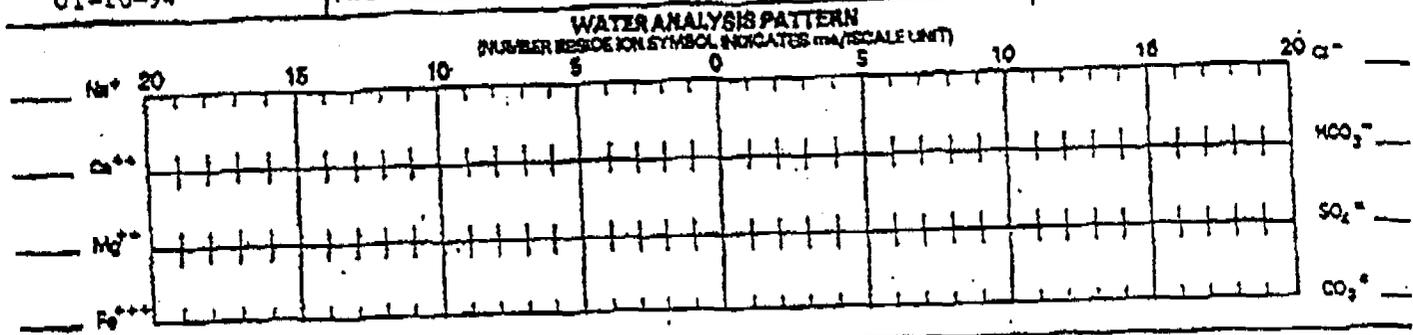
EC ENGINEER Creg Wilkins	DIST. NO 20	ADDRESS Vernal, UT	OFFICE PHONE 789-2069	HOME PHONE 828-7331
ANALYZED BY	DATE 10/20/94	DISTRIBUTION	<input type="checkbox"/> CUSTOMER <input type="checkbox"/> EC ENGINEER	<input type="checkbox"/> REGION <input type="checkbox"/> DISTRICT



EXXON CHEMICAL COMPANY  
 P.O. Box 4321 Houston, Texas 77210-4321  
 Tel. (713) 480-8900 Telex 4942225 ENCEHO

01-0122  
**WATER ANALYSIS REPORT**

COMPANY PG&E		COUNTY OR PARISH CARBON		SHEET NUMBER
FIELD CASTLEGATE		STATE UTAH		DATE 01-16-94
LEASE OR WELL 10-11 SHIMMIN	SAMPLE SOURCE	WATER SOURCE / FORMATION Price River Formation		
DEPTH	SAMPLE SOURCE	TEMP. °F	WATER GAL/DAY	OIL GAL/DAY
DATE SAMPLED 01-16-94	TYPE OF WATER: <input checked="" type="checkbox"/> PRODUCED <input type="checkbox"/> SUPPLY <input type="checkbox"/> WATERFLOOD <input type="checkbox"/> SALTWATER DISPOSAL			
TYPE OF PRODUCTION: <input type="checkbox"/> PRIMARY <input type="checkbox"/> WATERFLOOD <input type="checkbox"/> CO <sub>2</sub> FLOOD <input type="checkbox"/> POLYMER FLOOD <input type="checkbox"/> STEAM FLOOD				



DISSOLVED SOLIDS			DISSOLVED GASES	
CATIONS	mg/l	mg/l		mg/l
TOTAL HARDNESS	2.6		HYDROGEN SULFIDE, H <sub>2</sub> S	
CALCIUM, Ca <sup>++</sup>	1.4	28	CARBON DIOXIDE, CO <sub>2</sub>	
MAGNESIUM, Mg <sup>++</sup>	1.2	14.64	OXYGEN, O <sub>2</sub>	
IRON (TOTAL), Fe <sup>+++</sup>	.035	.65	PHYSICAL PROPERTIES	
BARIUM, Ba <sup>++</sup>	.23	16	pH	10.5
SODIUM, Na <sup>+</sup> (CALC)	502	11,555	EN (REDOX POTENTIAL)	
			SPECIFIC GRAVITY	
			TURBIDITY, FTU UNITS	
ANIONS	mg/l	mg/l	TOTAL DISSOLVED SOLIDS (CALC)	29,484
CHLORIDE, Cl <sup>-</sup>	479	17,000	STABILITY INDEX	
SULFATE, SO <sub>4</sub> <sup>==</sup>	6.25	300		
CARBONATE, CO <sub>3</sub> <sup>==</sup>	16	480		
BICARBONATE, HCO <sub>3</sub> <sup>-</sup>	0	0		
HYDROXYL, OH <sup>-</sup>	4	68	CaSO <sub>4</sub> SOLUBILITY	
SULFIDE, S <sup>==</sup>	1.4	22		
PP/PP	.6/1.0		MAX. CaSO <sub>4</sub> POSSIBLE (CALC)	
			MAX. BaSO <sub>4</sub> POSSIBLE (CALC)	
			RESIDUAL HYDROCARBONS	ppm (Vol)

SUSPENDED SOLIDS (QUALITATIVE)  IRON SULFIDE  IRON OXIDE  CALCIUM CARBONATE  CALCIUM SULFATE  ACID INSOLUBLE

REMARKS AND RECOMMENDATIONS

ANALYZED BY Greg Wiklins	DATE 01-16-94	OFFICE NO. 832	ADDRESS 1299 E. 1500 S.	OFFICE PHONE 789-2069	HOME PHONE
DISTRIBUTION		<input type="checkbox"/> CUSTOMER	<input type="checkbox"/> REGION	<input type="checkbox"/> DISTRICT	

# FORD ANALYTICAL LABORATORIES

CHEMICAL AND BACTERIOLOGICAL ANALYSIS

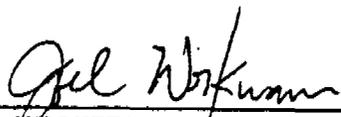
DATE: 03/01/94 CERTIFICATE OF ANALYSIS

PG & E RESOURCES  
% JEFF DUNCAN  
P.O. BOX 300  
HELPER, UT 84526

94-006090

SAMPLE: WATER SAMPLE FROM CASTLEGATE INJECTION 10-11 (SHIMMIN 10-11)  
COLLECTED 1-16-94, 5:00 P.M. RECEIVED 1-17-94 FOR ANALYSIS.

	Results	Method Detection Limit
Barium Ba mg/l EPA 200.7	.965	.010
Bicarb. HCO3 mg/l SM4500-C02D	971	.1
Calcium Ca mg/l EPA 200.7	40.3	.100
Carbonate CO3 mg/l SM4500-C02D	152	.10
Chloride Cl mg/l EPA 300	16300	250
Hydrox. as OH mg/l SM4500-C02D	.6	.10
Iron Fe mg/l EPA 200.7	26.6	.003
Magnesium Mg mg/l EPA 200.7	8.1	.100
Sodium Na mg/l EPA 200.7	10900	.500
Specific Gravity ASTM D-891	1.01	
Sulfate SO4 mg/l EPA 300	302	5
Sulfur as S mg/l EPA 6010	129	.01
Tot.Dis.Solids mg/l EPA 160.1	26600	10.0
pH Units EPA 150.1	9.42	
Temp. deg C at Receipt	25	
pH at Receipt	7	

  
FORD ANALYTICAL LABORATORIES

Sulfur and metal Analysis performed by Chemtech.  
Sample preserved upon arrival for metals with HNO3.

\* ND - INDICATES NONE DETECTED \*

\*\* < - INDICATES THE SMALLEST QUANTITY DETECTABLE DUE TO REQUIRED DILUTION \*\*

All reports are submitted as the confidential property of clients. Authorization for publication of our reports, conclusions, or extracts from or regarding them, is reserved pending our written approval as a mutual protection to clients, the public and ourselves.



EXXON CHEMICAL COMPANY  
 P.O. Box 4321, Houston, Texas 77210-4321  
 Tel. (713) 460-6800 Telex: 4942225 ENCEHCU

**TEST REPORT**

			SHEET NUMBER
COMPANY Anadarko Petroleum		DATE 8/19/94	
FIELD OR PLANT Helper/Castlegate	COUNTY OR PARISH Carbon	STATE Utah	
LEASE OR UNIT	WELL(S) NAME & NO.	SAMPLE SOURCE Well	
TYPE SAMPLE		TYPE TEST	
REASON FOR TEST Water Compatibility			

**RESULTS:**

Gentlemen:

I have analyzed produced water at the Helper B1, Helper A1 and Castlegate field. It would be my recommendation that the water from Helper B1 and Helper A1 could be comingled with the water at the Castlegate field, and no problems should occur. As of the attached 9/93, 3/94, and 6/94 analysis', the makeup of the Helper B1 and Helper A1 water is such that no foreign or contaminating properties are present in regards to compatibility with the Castlegate field.

**REMARKS & RECOMMENDATIONS:**

EC ENGINEER Greg Wilkins	DIST. NO. 403	ADDRESS Vernal, UT	OFFICE PHONE 789-2069	HOME PHONE 828-7331
ANALYZED BY Greg Wilkins	DATE 8/19	DISTRIBUTION	<input checked="" type="checkbox"/> CUSTOMER <input type="checkbox"/> EC ENGINEER	<input type="checkbox"/> REGION <input checked="" type="checkbox"/> DISTRICT

THE WESTERN COMPANY OF NORTH AMERICA  
WATER ANALYSIS

DISTRICT LAB

ANALYSIS #:

GENERAL INFORMATION

OPERATOR: ANADARKO.  
WELL: HELPER A-1  
FIELD:  
FORMATION: FERREN COAL  
COUNTY: RIO BLANCO  
STATE: CO

DEPTH: 3800  
DATE SAMPLED: 9-9-93  
DATE RECEIVED: 9-13-93  
SUBMITTED BY:  
WORKED BY: CARLOS GRAHAM  
PHONE #:

SAMPLE DESCRIPTION: PEACHY COLOR

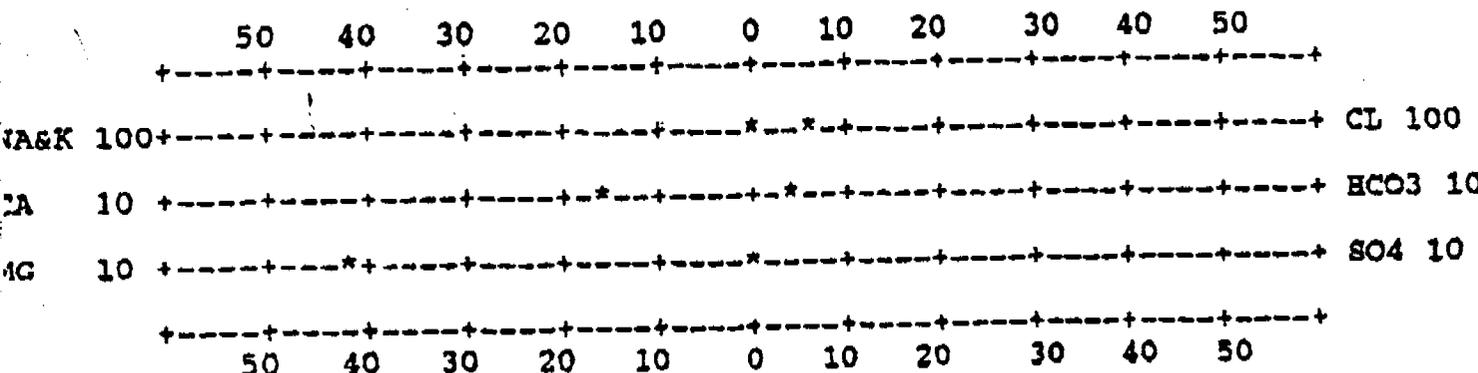
PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY:	1.025 @ 66 °F	PH:	7
RESISTIVITY (MEASURED):	OHM/METER @ °F		
IRON (FE <sup>++</sup> ):	0 PPM	SULFATE:	0 PPM
CALCIUM:	3122 PPM	TOT. HARDNESS (HCO):	29268 PPM
MAGNESIUM:	5216 PPM	BICARBONATE:	2142 PPM
CHLORIDE:	21459 PPM	SODIUM CHLORIDE (CALC):	35377 PPM
SODIUM+POTASS:	1729 PPM	TOT. DISSOLVED SOLIDS:	54598 PPM
IODINE:		POTASSIUM CHLORIDE:	

REMARKS: 11:00AM SAMPLE

FX 806-878-3628

STIFF TYPE PLOT (IN MEQ/L)



ANALYST

CARLOS GRAHAM



EXXON CHEMICAL COMPANY  
 P.O. Box 4321 Houston, Texas 77210-4321  
 Tel. (713) 460-8800 Telex: 4942225 ENCEHOU

834-0122  
**WATER ANALYSIS REPORT**

SHEET NUMBER

COMPANY: Anadarko Petroleum  
 DATE: 6/20/94  
 FIELD: Helper  
 COUNTY OR PARISH: Carbon  
 STATE: Utah  
 LEASE OR UNIT: B 1  
 SAMPLE SOURCE: Well Head  
 WATER SOURCE (FORMATION):  
 DEPTH, FT.:  
 BHT, °F: 95°F  
 SAMPLE SOURCE:  
 TEMP., °F:  
 WATER, GBL/DAY:  
 OIL, 3BL/DAY:  
 GAS, MMCF/DAY:  
 DATE SAMPLED: 6/16/94  
 TYPE OF WATER:  PRODUCED  SUPPLY  WATERFLOOD  SALTWATER DISPOSAL  
 TYPE OF PRODUCTION:  PRIMARY  WATERFLOOD  CO<sub>2</sub> FLOOD  POLYMER FLOOD  STEAMFLOOD

**WATER ANALYSIS PATTERN**  
 (NUMBER BESIDE ION SYMBOL INDICATES mg/SCALE UNIT)

Na <sup>+</sup>	20	15	10	5	0	5	10	15	20	Cl <sup>-</sup>
Ca <sup>++</sup>										HCO <sub>3</sub> <sup>-</sup>
Mg <sup>++</sup>										SO <sub>4</sub> <sup>=</sup>
Fe <sup>+++</sup>										CO <sub>3</sub> <sup>=</sup>

DISSOLVED SOLIDS			DISSOLVED GASES	
CATIONS	mg/l	mg/l	HYDROGEN SULFIDE, H <sub>2</sub> S	Ø mg/l
TOTAL HARDNESS	52	—	CARBON DIOXIDE, CO <sub>2</sub>	mg/l
CALCIUM, Ca <sup>++</sup>	34	680	OXYGEN, O <sub>2</sub>	mg/l
MAGNESIUM, Mg <sup>++</sup>	18	220	PHYSICAL PROPERTIES	
IRON (TOTAL) Fe <sup>+++</sup>	1.6	31	pH	7.1
BARIUM, Ba <sup>++</sup>	Ø	Ø	Eh (REDOX POTENTIAL)	MV
SODIUM, Na <sup>+</sup> (CALC.)	605	13,924	SPECIFIC GRAVITY	
ANIONS	mg/l	mg/l	TURBIDITY, FTU UNITS	
CHLORIDE, Cl <sup>-</sup>	617	21,900	TOTAL DISSOLVED SOLIDS (CALC.)	39,321 mg/l
SULFATE, SO <sub>4</sub> <sup>=</sup>	.08	4	STABILITY INDEX	G F
CARBONATE, CO <sub>3</sub> <sup>=</sup>	Ø	Ø		G F
BICARBONATE, HCO <sub>3</sub> <sup>-</sup>	42	2,562		G F
HYDROXYL, OH <sup>-</sup>	Ø	Ø	CaSO <sub>4</sub> SOLUBILITY	G F mg/
SULFIDE, S <sup>=</sup>	Ø	Ø		G F mg/
pF/mF	Ø/2.1		MAX. CaSO <sub>4</sub> POSSIBLE (CALC.)	mg/
			MAX. BaSO <sub>4</sub> POSSIBLE (CALC.)	mg/
			RESIDUAL HYDROCARBONS	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)  IRON SULFIDE  IRON OXIDE  CALCIUM CARBONATE  CALCIUM SULFATE  ACID INSOLUBLE

REMARKS AND RECOMMENDATIONS.

EC ENGINEER: Creg Wilkins  
 DIST. NO.: 832  
 ADDRESS: Vernal, UT  
 OFFICE PHONE: (801) 789-2069  
 HOME PHONE: 828-7331  
 ANALYZED BY: Creg Wilkins  
 DATE: 6/20/94  
 DISTRIBUTION:  CUSTOMER  REGION  DISTRICT  
 EC ENGINEER

## Water Analysis

Sample Description: Water Analysis

Company: P.G. &amp; E.

Field: Fed 4-13

Date: 3/18/1994

Name	mg/l	meq/l
Sodium	4036.0	175.55
Calcium	72.0	3.59
Magnesium	126.9	10.44
Chloride	3700.0	104.36
Bicarbonate	5020.3	82.27
Carbonate	54.0	1.80
Sulfate	25.0	0.52
Barium	25.0	0.36
Sulfide	16.0	1.00
Iron	0.1	0.00
Total Dissolved Solids	13075.2	

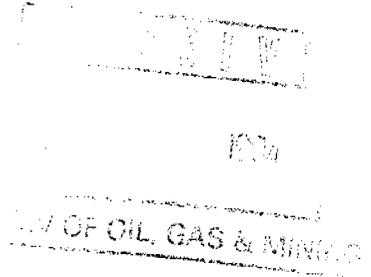
Density: 1.0095 g/cc  
Ionic Strength: 0.1988 moles/l  
pH: 7.4



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)



November 30, 1994

Mr. Bill Savage  
Anadarko Petroleum Corporation  
9400 North Broadway Suite 700  
Oklahoma City, Oklahoma 73114

Re: Helper Federal A-3, API No. 43-007-30213  
Submittal of Electric and Radioactivity Logs

Dear Mr. Savage:

135 10E 22

We have received the Cement Bond Log with Gamma Ray CCL and Litho-Density logs for the referenced well. The Well Completion Report indicates that a **Temperature** log was run. Please submit a copy of that log to this office as soon as possible.

Your help in this matter will be greatly appreciated. If you have questions regarding this request, please contact me at (801)538-5340.

Sincerely,

Vicky Carney  
Production Group Supervisor

cc: R. J. Firth  
D. T. Staley  
L. D. Clement  
Log File

There was no Temp log run on this well. The 3160-4 was a mistake, please correct your originals please.

Trina Talmadge  
Anadarko Petroleum  
405 (475-7019)



UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

Form approved.  
 Budget Bureau No. 1604-0137  
 Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.  
 U-58434

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT OF OIL, GAS & MINING

1a. TYPE OF WELL:  OIL WELL  GAS WELL  DRY  Other COALBED METHANE

b. TYPE OF COMPLETION:  
 NEW WELL  WORK OVER  REPAIR  PLUG BACK  DIFF. REMOVAL  Other

2. NAME OF OPERATOR  
ANADARKO PETROLEUM CORPORATION

3. ADDRESS OF OPERATOR  
9400 N. BROADWAY, STE. 700 OKLAHOMA CITY, OK 73114

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
 At surface  
1271' FSL & 324' FEL  
 At top prod. interval reported below  
SAME  
 At total depth  
SAME

14. PERMIT NO. 43-007-30213 DATE ISSUED 9-7-94

7. UNIT AGREEMENT NAME

HELPER  
 8. FARM OR LEASE NAME

HELPER FEDERAL  
 9. WELL NO.

A-3

10. FIELD AND POOL, OR WILDCAT  
WILDCAT

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
SEC. 22-T13S-R10E

12. COUNTY OR PARISH CARBON 13. STATE UTAH

15. DATE SPUNDED 9-14-94 16. DATE T.D. REACHED 9-27-94 17. DATE COMPL. (Ready to prod.) 10-23-94 18. ELEVATIONS (DF, RKB, RT, OB, ETC.)\* 6536 GL 19. ELEV. CASINGHEAD 6548 KB

20. TOTAL DEPTH, MD & TVD 4292 21. PLUG, SACK T.D., MD & TVD 4135 22. IF MULTIPLE COMPL., HOW MANY\*            23. INTERVALS DRILLED BY            ROTARY TOOLS X CABLE TOOLS           

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
FERRON COALS 3665-3950 25. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS RUN  
LITHO-DEN, CBL GR 27. WAS WELL CORED NO

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8	24	295	12-1/4	220SX PREM PLUS	NONE
5-1/2	17	4290	7-7/8	185SX THIXTROPIC	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
N/A				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8	3928	N/A

31. PERFORATION RECORD (Interval, size and number)  
3751-55, 3765-67, 3791-93, 3834, 3840, 3852-55, 3859.5, 3876  
4 SPF, 0.4" EHD, 76 HOLES

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3876-3751	FRAC W/52000 GAL 70% N2 & 24400 # 100 MESH 1-4 PPG & 130100 # 16/30 SD 4-6 PPG

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
10-28-94	PUMPING	PRODUCING

DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-7-94	24			0	118	92	-

FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
N/A	60		0	118	92	-

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
VENTED/USED FOR FUEL TEST WITNESSED BY JEFF DUNCAN

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
 SIGNED B. K. Savage BILL SAVAGE TITLE SENIOR PRODUCTION ENGINEER DATE 11-17-94

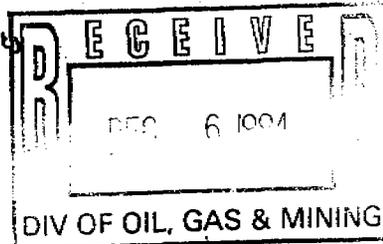
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	11699		43-007-30216	Helper Federal A-2	NE SW	22	13S	10E	Carbon	9/20/94	9/20/94
WELL 1 COMMENTS: <i>Entity previously added 12-2-94. JWC</i>											
A	11700		43-007-30213	Helper Federal A-3	SE SE	22	13S	10E	Carbon	9/14/94	9/14/94
WELL 2 COMMENTS: <i>Entity previously added 12-2-94.</i>											
A	11701		43-007-30215	Helper Federal B-5	NE NE	27	13S	10E	Carbon	9/15/94	9/15/94
WELL 3 COMMENTS: <i>Entity previously added 12-2-94.</i>											
A	11702		43-007-30214	Helper Federal C-1	SE NE	22	13S	10E	Carbon	9/24/94	9/24/94
WELL 4 COMMENTS: <i>Entity previously added 12-2-94.</i>											
WELL 5 COMMENTS:											

**ACTION CODES (See Instructions on back of form)**

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)



*D. Winchester*  
 Signature D.R. Winchester

Sr. Staff Drlg. Eng. 12/01/94  
 Title Date

Phone No. (405) 475-7023

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	APE NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	11699	43-007-30216	Helper Federal A-2	NE SW	22	13S	10E	Carbon	9/20/94	9/20/94
WELL 1 COMMENTS: <i>Entities added 12-2-94. J sec</i>											
A	99999	11700	43-007-30213	Helper Federal A-3	SE SE	22	13S	10E	Carbon	9/14/94	9/14/94
WELL 2 COMMENTS:											
A	99999	11701	43-007-30215	Helper Federal B-5	NE NE	27	13S	10E	Carbon	9/15/94	9/15/94
WELL 3 COMMENTS:											
A	99999	11702	43-007-30214	Helper Federal C-1	SE NE	22	13S	10E	Carbon	9/24/94	9/24/94
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

**ACTION CODES (See instructions on back of form)**

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

*D. R. Winchester*  
 Signature D.R. Winchester

Sr. Staff Drlg. Eng. 12/01/94  
 Title Date

Phone No. (405) 475-7023

FROM: ANADARKO PETROLEUM CORP. TO: 801 359 3940 DEC 2, 1994 12:26PM P.02

CONFIDENTIAL

Form 3160-5  
(June 1990)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
JAN 5 1995  
DIV OF OIL, GAS & MINING

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

U-58434  
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation

1. Type of Well

Oil Well  Gas Well  Other

COALBED METHANE

HELPER

2. Name of Operator

ANADARKO PETROLEUM CORPORATION

8. Well Name and No.

HELPER FEDERAL A-3

3. Address and Telephone No.

9400 N. BROADWAY, STE. 700 OKLAHOMA CITY, OK 73114

9. API Well No.  
43-007-30213

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

1271' FSL & 324' FEL  
SEC 22-T13S-R10E

10. Field and Pool, or Exploratory Area

HELPER

11. County or Parish, State

CARBON, UTAH

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

TYPE OF SUBMISSION

TYPE OF ACTION

Notice of Intent  
 Subsequent Report  
 Final Abandonment Notice

Abandonment  
 Recompletion  
 Plugging Back  
 Casing Repair  
 Altering Casing  
 Other FIRST SALES

Change of Plans  
 New Construction  
 Non-Routine Fracturing  
 Water Shut-Off  
 Conversion to Injection  
 Dispose Water

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

FIRST SALES 1730 HRS 11-17-94 TO QUESTAR.

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

Signed BILL SAVAGE

Title SENIOR PRODUCTION ENGINEER

Date 01-18-95

(This space for Federal or State office use)

Approved by \_\_\_\_\_  
Conditions of approval, if any:

Title \_\_\_\_\_ Date \_\_\_\_\_

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

\*See instruction on Reverse Side

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET (for state use only)**

**ROUTING**  
 CDW

**X - Change of Operator (Well Sold)**

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

4/1/2013

<b>FROM:</b> (Old Operator): N0035-Anadarko Petroleum Corporation PO Box 173779 Denver, CO, 80214  Phone: 1 (720) 929-6000	<b>TO:</b> ( New Operator): N3940- Anadarko E&P Onshore LLC PO Box 173779 Denver, CO 802014  Phone: 1 (720) 929-6000
---	---

CA No.			Unit:				WELL NAME	SEC	TWN	RNG	API NO	ENTITY	LEASE TYPE	WELL TYPE	WELL STATUS
See Attached List															

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/9/2013
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/9/2013
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 4/10/2013
- a. Is the new operator registered in the State of Utah: Business Number: 593715-0161
- a. (R649-9-2)Waste Management Plan has been received on: Yes
- b. Inspections of LA PA state/fee well sites complete on: 4/10/2013
- c. Reports current for Production/Disposition & Sundries on: 4/10/2013
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 4/2/2013 BIA N/A
- Federal and Indian Units:**  
 The BLM or BIA has approved the successor of unit operator for wells listed on: N/A
- Federal and Indian Communization Agreements ("CA"):**  
 The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 4/10/2013

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 4/11/2013
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 4/11/2013
- Bond information entered in RBDMS on: 4/10/2013
- Fee/State wells attached to bond in RBDMS on: 4/11/2013
- Injection Projects to new operator in RBDMS on: 4/11/2013
- Receipt of Acceptance of Drilling Procedures for APD/New on: N/A

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: WYB000291
- Indian well(s) covered by Bond Number: N/A
- a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 22013542
- b. The **FORMER** operator has requested a release of liability from their bond on: N/A

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 4/11/2013

**COMMENTS:**

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

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>CBM Wells</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>See Wells</b>
2. NAME OF OPERATOR: <b>Anadarko Petroleum Corporation</b>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 CITY <u>Denver</u> STATE <u>CO</u> ZIP <u>80217</u>		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: <u>(720) 929-6000</u>		8. WELL NAME and NUMBER:
4. LOCATION OF WELL FOOTAGES AT SURFACE:		9. API NUMBER: <b>See Wells</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT:
		COUNTY: <u>    </u>
		STATE: <b>UTAH</b>

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>4/8/2013</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator is requesting authorization to transfer the wells from Anadarko Petroleum Corporation and Anadarko Production Company to Anadarko E&P Onshore, LLC. Please see the attached list of 181 wells that are currently filed under Anadarko Petroleum Corporation and Anadarko Production Company. The state/fee wells will be under bond number 22013542, and the federal wells will be under bond number WYB000291.

**Effective 4/1/13**

Please contact the undersigned if there are any questions.

RECEIVED  
**APR 09 2013**

*Jaime Scharnowske*  
Jaime Scharnowske  
Regulatory Analyst

Anadarko Petroleum Corporation **N0035**  
P.O. Box 173779  
Denver, CO 80214  
(720) 929-6000

DIV OF OIL GAS & MINING  
*Jaime Scharnowske*  
Jaime Scharnowske  
Regulatory Analyst

Anadarko E&P Onshore, LLC **N3940**  
P.O. Box 173779  
Denver, CO 80214  
(720) 929-6000

NAME (PLEASE PRINT) <u>Jaime Scharnowske</u>	TITLE <u>Regulatory Analyst</u>
SIGNATURE <i>Jaime Scharnowske</i>	DATE <u>4/8/2013</u>

(This space for State use only)  
**APPROVED**  
**APR 11 2013**  
DIV. OIL GAS & MINING  
*Rachel Medina*

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)  
 Effective 1<sup>st</sup> April-2013

Well Name	Sec	Twncshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER ST SWD 1	03	140S	100E	4300730361	12258	State	WD	A
FED F-2 SWD	08	140S	100E	4300730555	12557	Federal	WD	A
CLAWSON SPRING ST SWD 4	13	160S	080E	4301530477	12979	State	WD	A
CLAWSON SPRING ST SWD 1	36	150S	080E	4300730721	12832	State	WD	I
HELPER FED B-1	33	130S	100E	4300730189	11537	Federal	GW	P
HELPER FED A-1	23	130S	100E	4300730190	11517	Federal	GW	P
HELPER FED A-3	22	130S	100E	4300730213	11700	Federal	GW	P
HELPER FED C-1	22	130S	100E	4300730214	11702	Federal	GW	P
HELPER FED B-5	27	130S	100E	4300730215	11701	Federal	GW	P
HELPER FED A-2	22	130S	100E	4300730216	11699	Federal	GW	P
HELPER FED D-1	26	130S	100E	4300730286	12061	Federal	GW	P
BIRCH A-1	05	140S	100E	4300730348	12120	Fee	GW	P
HELPER ST A-1	03	140S	100E	4300730349	12122	State	GW	P
HELPER ST D-7	04	140S	100E	4300730350	12121	State	GW	P
CHUBBUCK A-1	31	130S	100E	4300730352	12397	Fee	GW	P
VEA A-1	32	130S	100E	4300730353	12381	Fee	GW	P
VEA A-2	32	130S	100E	4300730354	12483	Fee	GW	P
VEA A-3	32	130S	100E	4300730355	12398	Fee	GW	P
VEA A-4	32	130S	100E	4300730356	12482	Fee	GW	P
HELPER ST A-8	02	140S	100E	4300730357	12257	State	GW	P
HELPER ST A-3	02	140S	100E	4300730358	12254	State	GW	P
HELPER ST A-4	02	140S	100E	4300730359	12255	State	GW	P
HELPER ST A-7	02	140S	100E	4300730360	12256	State	GW	P
HELPER ST A-2	03	140S	100E	4300730362	12232	State	GW	P
HELPER ST A-5	03	140S	100E	4300730363	12231	State	GW	P
HELPER ST A-6	03	140S	100E	4300730364	12233	State	GW	P
HELPER ST D-4	04	140S	100E	4300730365	12228	State	GW	P
HELPER ST D-3	05	140S	100E	4300730366	12184	State	GW	P
HELPER ST D-5	04	140S	100E	4300730367	12226	State	GW	P
HELPER ST D-8	04	140S	100E	4300730368	12229	State	GW	P
HELPER ST D-2	05	140S	100E	4300730369	12481	State	GW	P
HELPER ST D-6	05	140S	100E	4300730370	12234	State	GW	P
HELPER ST D-1	06	140S	100E	4300730371	12399	State	GW	P
BIRCH A-2	08	140S	100E	4300730372	12189	Fee	GW	P
HELPER ST A-9	10	140S	100E	4300730373	12230	State	GW	P
HELPER ST B-1	09	140S	100E	4300730376	12227	State	GW	P
HELPER FED F-3	08	140S	100E	4300730378	12252	Federal	GW	P
HELPER FED F-4	09	140S	100E	4300730379	12253	Federal	GW	P
HELPER ST A-10	10	140S	100E	4300730433	12488	State	GW	P
HELPER ST A-11	11	140S	100E	4300730434	12487	State	GW	P
HELPER ST A-12	10	140S	100E	4300730435	12486	State	GW	P
HELPER ST A-13	10	140S	100E	4300730436	12485	State	GW	P
HELPER ST B-2	09	140S	100E	4300730437	12484	State	GW	P
HELPER FED E-7	19	130S	100E	4300730508	13623	Federal	GW	P
HELPER FED B-2	33	130S	100E	4300730530	12619	Federal	GW	P
HELPER FED B-3	33	130S	100E	4300730531	12622	Federal	GW	P
HELPER FED B-4	33	130S	100E	4300730532	12623	Federal	GW	P
HELPER FED B-6	27	130S	100E	4300730533	12644	Federal	GW	P
HELPER FED B-7	27	130S	100E	4300730534	12645	Federal	GW	P
HELPER FED B-8	27	130S	100E	4300730535	12631	Federal	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)  
Effective 1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER FED B-9	34	130S	100E	4300730536	12646	Federal	GW	P
HELPER FED B-10	34	130S	100E	4300730537	12626	Federal	GW	P
HELPER FED B-11	34	130S	100E	4300730538	12628	Federal	GW	P
HELPER FED B-12	34	130S	100E	4300730539	12627	Federal	GW	P
HELPER FED B-13	28	130S	100E	4300730540	12621	Federal	GW	P
HELPER FED B-14	28	130S	100E	4300730541	12620	Federal	GW	P
HELPER FED D-2	26	130S	100E	4300730542	12650	Federal	GW	P
HELPER FED D-3	26	130S	100E	4300730543	12634	Federal	GW	P
HELPER FED D-4	35	130S	100E	4300730544	12625	Federal	GW	P
HELPER FED D-5	35	130S	100E	4300730545	12637	Federal	GW	P
HELPER FED D-6	35	130S	100E	4300730546	12635	Federal	GW	P
HELPER FED E-1	29	130S	100E	4300730547	13246	Federal	GW	P
HELPER FED E-2	29	130S	100E	4300730548	12636	Federal	GW	P
HELPER FED H-1	01	140S	100E	4300730549	12653	Federal	GW	P
HELPER FED H-2	01	140S	100E	4300730550	12647	Federal	GW	P
OLIVETO FED A-2	08	140S	100E	4300730556	12630	Federal	GW	P
HELPER FED F-1	08	140S	100E	4300730557	12629	Federal	GW	P
SMITH FED A-1	09	140S	100E	4300730558	13004	Federal	GW	P
SE INVESTMENTS A-1	06	140S	100E	4300730570	12624	Fee	GW	P
HELPER ST A-14	11	140S	100E	4300730571	12612	State	GW	P
HELPER ST A-15	11	140S	100E	4300730572	12613	State	GW	P
HELPER ST E-1	36	130S	100E	4300730573	12615	State	GW	P
HELPER ST E-2	36	130S	100E	4300730574	12614	State	GW	P
HARMOND A-1	07	140S	100E	4300730586	12616	Fee	GW	P
HELPER ST E-3	36	130S	100E	4300730592	12868	State	GW	P
HELPER FED A-6	23	130S	100E	4300730593	12649	Federal	GW	P
HELPER FED D-7	26	130S	100E	4300730594	12651	Federal	GW	P
HELPER FED D-8	35	130S	100E	4300730595	12652	Federal	GW	P
CLAWSON SPRING ST A-1	36	150S	080E	4300730597	12618	State	GW	P
HELPER ST E-4	36	130S	100E	4300730598	12825	State	GW	P
HELPER ST A-16	11	140S	100E	4300730603	12638	State	GW	P
CHUBBUCK A-2	06	140S	100E	4300730604	12648	Fee	GW	P
CLAWSON SPRING ST A-2	36	150S	080E	4300730635	12856	State	GW	P
CLAWSON SPRING ST A-3	36	150S	080E	4300730636	13001	State	GW	P
CLAWSON SPRING ST A-4	36	150S	080E	4300730637	12844	State	GW	P
CLAWSON SPRING ST D-5	31	150S	090E	4300730642	12852	State	GW	P
CLAWSON SPRING ST D-6	31	150S	090E	4300730643	12847	State	GW	P
CLAWSON SPRING ST D-7	31	150S	090E	4300730644	12849	State	GW	P
HELPER FED A-5	23	130S	100E	4300730677	13010	Federal	GW	P
HELPER FED A-7	22	130S	100E	4300730678	13346	Federal	GW	P
HELPER FED B-15	28	130S	100E	4300730679	13015	Federal	GW	P
HELPER FED B-16	28	130S	100E	4300730680	13203	Federal	GW	P
HELPER FED C-2	24	130S	100E	4300730681	13016	Federal	GW	P
HELPER FED C-4	24	130S	100E	4300730682	13012	Federal	GW	P
HELPER FED C-7	21	130S	100E	4300730684	13204	Federal	GW	P
HELPER FED D-9	25	130S	100E	4300730685	13245	Federal	GW	P
HELPER FED D-10	25	130S	100E	4300730686	12993	Federal	GW	P
HELPER FED D-11	25	130S	100E	4300730687	12992	Federal	GW	P
HELPER FED D-12	25	130S	100E	4300730688	13005	Federal	GW	P
HELPER FED E-4	29	130S	100E	4300730689	13229	Federal	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)  
 Effective 1-April-2013

Well Name	Sec	Twtnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER FED A-4	23	130S	100E	4300730692	13009	Federal	GW	P
HELPER FED C-5	24	130S	100E	4300730693	13013	Federal	GW	P
HELPER FED G-1	30	130S	110E	4300730694	13006	Federal	GW	P
HELPER FED G-2	30	130S	110E	4300730695	13007	Federal	GW	P
HELPER FED G-3	31	130S	110E	4300730696	13002	Federal	GW	P
HELPER FED G-4	31	130S	110E	4300730697	13003	Federal	GW	P
HELPER FED H-3	01	140S	100E	4300730698	12831	Federal	GW	P
HELPER FED H-4	01	140S	100E	4300730699	12833	Federal	GW	P
CLAWSON SPRING ST D-8	31	150S	090E	4300730701	12851	State	GW	P
HELPER FED C-3	24	130S	100E	4300730702	13011	Federal	GW	P
CLAWSON SPRING ST J-1	35	150S	080E	4300730726	13299	Fee	GW	P
PIERUCCI 1	35	150S	080E	4300730727	13325	Fee	GW	P
POTTER ETAL 1	35	150S	080E	4300730728	12958	Fee	GW	P
POTTER ETAL 2	35	150S	080E	4300730737	12959	Fee	GW	P
HELPER FED G-5	30	130S	110E	4300730770	13655	Federal	GW	P
HELPER FED G-6	30	130S	110E	4300730771	13656	Federal	GW	P
HELPER FED G-7	31	130S	110E	4300730772	13657	Federal	GW	P
HELPER FED G-8	31	130S	110E	4300730773	13658	Federal	GW	P
GOODALL A-1	06	140S	110E	4300730774	13348	Fee	GW	P
HELPER FED E-8	19	130S	100E	4300730776	13624	Federal	GW	P
HAUSKNECHT A-1	21	130S	100E	4300730781	13347	Fee	GW	P
HELPER FED E-9	19	130S	100E	4300730868	13628	Federal	GW	P
HELPER FED E-5	20	130S	100E	4300730869	13625	Federal	GW	P
HELPER FED E-6	20	130S	100E	4300730870	13631	Federal	GW	P
HELPER FED E-10	30	130S	100E	4300730871	13629	Federal	GW	P
SACCOMANNO A-1	30	130S	100E	4300730872	13622	Fee	GW	P
HELPER FED E-11	30	130S	100E	4300730873	13630	Federal	GW	P
BLACKHAWK A-2	29	130S	100E	4300730886	13783	Fee	GW	P
BLACKHAWK A-3	20	130S	100E	4300730914	13794	Fee	GW	P
BLACKHAWK A-4	21	130S	100E	4300730915	13795	Fee	GW	P
BLACKHAWK A-1X	20	130S	100E	4300730923	13798	Fee	GW	P
HELPER STATE 12-3	03	140S	100E	4300750070	17824	State	GW	P
HELPER STATE 32-3	03	140S	100E	4300750071	17827	State	GW	P
HELPER STATE 32-36	36	130S	100E	4300750072	17825	State	GW	P
VEA 32-32	32	130S	100E	4300750075	17826	Fee	GW	P
CLAWSON SPRING ST E-7	07	160S	090E	4301530392	12960	State	GW	P
CLAWSON SPRING ST E-8	07	160S	090E	4301530394	12964	State	GW	P
CLAWSON SPRING ST E-3	06	160S	090E	4301530403	12965	State	GW	P
CLAWSON SPRING ST E-1	06	160S	090E	4301530404	12966	State	GW	P
CLAWSON SPRING ST E-2	06	160S	090E	4301530405	12961	State	GW	P
CLAWSON SPRING ST E-4	06	160S	090E	4301530406	12962	State	GW	P
CLAWSON SPRING ST C-1	12	160S	080E	4301530410	12617	State	GW	P
CLAWSON SPRING ST B-1	01	160S	080E	4301530427	12845	State	GW	P
CLAWSON SPRING ST B-2	01	160S	080E	4301530428	12846	State	GW	P
CLAWSON SPRING ST B-3	01	160S	080E	4301530429	12848	State	GW	P
CLAWSON SPRING ST B-4	01	160S	080E	4301530430	12854	State	GW	P
CLAWSON SPRING ST B-5	12	160S	080E	4301530431	12963	State	GW	P
CLAWSON SPRING ST B-8	11	160S	080E	4301530432	12863	State	GW	P
CLAWSON SPRING ST B-9	11	160S	080E	4301530433	12864	State	GW	P
CLAWSON SPRING ST C-2	12	160S	080E	4301530434	12850	State	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)  
 Effective 1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
CLAWSON SPRING ST C-4	14	160S	080E	4301530435	13199	State	GW	P
CLAWSON SPRING ST B-7	11	160S	080E	4301530460	12967	State	GW	P
CLAWSON SPRING ST C-6	14	160S	080E	4301530461	13355	State	GW	P
CLAWSON SPRING ST C-3	12	160S	080E	4301530463	12968	State	GW	P
CLAWSON SPRING ST B-6	11	160S	080E	4301530465	12969	State	GW	P
CLAWSON SPRING ST H-1	13	160S	080E	4301530466	13323	State	GW	P
CLAWSON SPRING ST H-2	13	160S	080E	4301530467	12955	State	GW	P
CLAWSON SPRING ST IPA-1	10	160S	080E	4301530468	12956	Fee	GW	P
CLAWSON SPRING ST IPA-2	15	160S	080E	4301530469	13200	Fee	GW	P
CLAWSON SPRING ST E-5	07	160S	090E	4301530470	12971	State	GW	P
CLAWSON SPRING ST G-1	02	160S	080E	4301530471	13014	State	GW	P
CLAWSON SPRING ST F-2	03	160S	080E	4301530472	13282	State	GW	P
CLAWSON SPRING ST F-1	03	160S	080E	4301530473	13278	State	GW	P
CLAWSON SPRING ST E-6	07	160S	090E	4301530474	13052	State	GW	P
CLAWSON SPRING ST G-2	02	160S	080E	4301530475	12957	State	GW	P
CLAWSON SPRING ST M-1	02	160S	080E	4301530488	13201	State	GW	P
CLAWSON SPRING ST K-1	02	160S	080E	4301530489	13202	State	GW	P
SHIMMIN TRUST 3	14	120S	100E	4300730119	11096	Fee	GW	PA
SHIMMIN TRUST 1	11	120S	100E	4300730120	11096	Fee	GW	PA
SHIMMIN TRUST 2	14	120S	100E	4300730121	11096	Fee	GW	PA
SHIMMIN TRUST 4	11	120S	100E	4300730123	11096	Fee	GW	PA
ST 9-16	16	120S	100E	4300730132	11402	State	GW	PA
ST 2-16	16	120S	100E	4300730133	11399	State	GW	PA
MATTS SUMMIT ST A-1	14	120S	090E	4300730141	11273	State	GW	PA
SLEMAKER A-1	05	120S	120E	4300730158	11441	Fee	GW	PA
JENSEN 16-10	10	120S	100E	4300730161	11403	Fee	GW	PA
JENSEN 7-15	15	120S	100E	4300730165	11407	Fee	GW	PA
SHIMMIN TRUST 12-12	12	120S	100E	4300730168	11420	Fee	GW	PA
JENSEN 11-15	15	120S	100E	4300730175	11425	Fee	GW	PA
BRYNER A-1	11	120S	120E	4300730188	11503	Fee	GW	PA
BRYNER A-1X (RIG SKID)	11	120S	120E	4300730209	11503	Fee	GW	PA
BLACKHAWK A-1	20	130S	100E	4300730885	13798	Fee	D	PA
BLACKHAWK A-5H	20	130S	100E	4300731402	17029	Fee	D	PA
CLAWSON SPRING ST SWD 3	06	160S	090E	4301530476	12978	State	D	PA
HELPER FED C-6	21	130S	100E	4300730683	13008	Federal	GW	S
UTAH 10-415	10	160S	080E	4301530391	12632	State	GW	TA

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
1	4300730189	HELPER FED B-1	NESW	33	13S	10E	Federal	USA UTU 71392	Producing
2	4300730190	HELPER FED A-1	C-SW	23	13S	10E	Federal	USA UTU 58434	Producing
3	4300730213	HELPER FED A-3	SESE	22	13S	10E	Federal	USA UTU 58434	Producing
4	4300730214	HELPER FED C-1	SENE	22	13S	10E	Federal	USA UTU 71391	Producing
5	4300730215	HELPER FED B-5	NENE	27	13S	10E	Federal	USA UTU 71392	Producing
6	4300730216	HELPER FED A-2	NESW	22	13S	10E	Federal	USA UTU 58434	Producing
7	4300730286	HELPER FED D-1	SWNE	26	13S	10E	Federal	USA UTU 68315	Producing
8	4300730378	HELPER FED F-3	NENE	8	14S	10E	Federal	USA UTU 65762	Producing
9	4300730379	HELPER FED F-4	NWNW	9	14S	10E	Federal	USA UTU 65762	Producing
10	4300730508	HELPER FED E-7	SESE	19	13S	10E	Federal	USA UTU 77980	Producing
11	4300730530	HELPER FED B-2	SENE	33	13S	10E	Federal	USA UTU 71392	Producing
12	4300730531	HELPER FED B-3	NESE	33	13S	10E	Federal	USA UTU 71392	Producing
13	4300730532	HELPER FED B-4	NENE	33	13S	10E	Federal	USA UTU 71392	Producing
14	4300730533	HELPER FED B-6	NENW	27	13S	10E	Federal	USA UTU 71392	Producing
15	4300730534	HELPER FED B-7	NESW	27	13S	10E	Federal	USA UTU 71392	Producing
16	4300730535	HELPER FED B-8	SESE	27	13S	10E	Federal	USA UTU 71392	Producing
17	4300730536	HELPER FED B-9	SENE	34	13S	10E	Federal	USA UTU 71392	Producing
18	4300730537	HELPER FED B-10	NWNE	34	13S	10E	Federal	USA UTU 71392	Producing
19	4300730538	HELPER FED B-11	SESW	34	13S	10E	Federal	USA UTU 71392	Producing
20	4300730539	HELPER FED B-12	NESE	34	13S	10E	Federal	USA UTU 71392	Producing
21	4300730540	HELPER FED B-13	SWSE	28	13S	10E	Federal	USA UTU 71392	Producing
22	4300730541	HELPER FED B-14	SWSW	28	13S	10E	Federal	USA UTU 71392	Producing
23	4300730542	HELPER FED D-2	SWNW	26	13S	10E	Federal	USA UTU 68315	Producing
24	4300730543	HELPER FED D-3	SESW	26	13S	10E	Federal	USA UTU 68315	Producing
25	4300730544	HELPER FED D-4	NWNW	35	13S	10E	Federal	USA UTU 68315	Producing
26	4300730545	HELPER FED D-5	SESW	35	13S	10E	Federal	USA UTU 68315	Producing
27	4300730546	HELPER FED D-6	NWSE	35	13S	10E	Federal	USA UTU 68315	Producing
28	4300730547	HELPER FED E-1	NESE	29	13S	10E	Federal	USA UTU 71675	Producing
29	4300730548	HELPER FED E-2	SESW	29	13S	10E	Federal	USA UTU 71675	Producing
30	4300730549	HELPER FED H-1	NENW	1	14S	10E	Federal	USA UTU 72352	Producing
31	4300730550	HELPER FED H-2	SESW	1	14S	10E	Federal	USA UTU 72352	Producing
32	4300730556	OLIVETO FED A-2	NESW	8	14S	10E	Federal	USA UTU 65762	Producing
33	4300730557	HELPER FED F-1	SESE	8	14S	10E	Federal	USA UTU 65762	Producing
34	4300730558	SMITH FED A-1	NWSW	9	14S	10E	Federal	USA UTU 65762	Producing
35	4300730593	HELPER FED A-6	SESE	23	13S	10E	Federal	USA UTU 58434	Producing
36	4300730594	HELPER FED D-7	C-SE	26	13S	10E	Federal	USA UTU 68315	Producing
37	4300730595	HELPER FED D-8	NENE	35	13S	10E	Federal	USA UTU 68315	Producing
38	4300730677	HELPER FED A-5	NENE	23	13S	10E	Federal	USA UTU 58434	Producing
39	4300730678	HELPER FED A-7	SENE	22	13S	10E	Federal	USA UTU 58434	Producing
40	4300730679	HELPER FED B-15	SENE	28	13S	10E	Federal	USA UTU 71392	Producing
41	4300730680	HELPER FED B-16	SWNW	28	13S	10E	Federal	USA UTU 71392	Producing
42	4300730681	HELPER FED C-2	NENW	24	13S	10E	Federal	USA UTU 71391	Producing

API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status	
43	4300730682	HELPER FED C-4	NWSW	24	13S	10E	Federal	USA UTU 71391	Producing
44	4300730683	HELPER FED C-6	SWSE	21	13S	10E	Federal	USA UTU 71391	Shut-In
45	4300730684	HELPER FED C-7	SESW	21	13S	10E	Federal	USA UTU 71391	Producing
46	4300730685	HELPER FED D-9	NWNW	25	13S	10E	Federal	USA UTU 68315	Producing
47	4300730686	HELPER FED D-10	SENE	25	13S	10E	Federal	USA UTU 68315	Producing
48	4300730687	HELPER FED D-11	SESW	25	13S	10E	Federal	USA UTU 68315	Producing
49	4300730688	HELPER FED D-12	SESE	25	13S	10E	Federal	USA UTU 68315	Producing
50	4300730689	HELPER FED E-4	NWNE	29	13S	10E	Federal	USA UTU 71675	Producing
51	4300730692	HELPER FED A-4	SWNW	23	13S	10E	Federal	USA UTU 58434	Producing
52	4300730693	HELPER FED C-5	SWNE	24	13S	10E	Federal	USA UTU 71391	Producing
53	4300730694	HELPER FED G-1	C-NW	30	13S	11E	Federal	USA UTU 71677	Producing
54	4300730695	HELPER FED G-2	SWSW	30	13S	11E	Federal	USA UTU 71677	Producing
55	4300730696	HELPER FED G-3	SENW	31	13S	11E	Federal	USA UTU 71677	Producing
56	4300730697	HELPER FED G-4	SESW	31	13S	11E	Federal	USA UTU 71677	Producing
57	4300730698	HELPER FED H-3	SWNE	1	14S	10E	Federal	USA UTU 72352	Producing
58	4300730699	HELPER FED H-4	NESE	1	14S	10E	Federal	USA UTU 72352	Producing
59	4300730702	HELPER FED C-3	SESW	24	13S	10E	Federal	USA UTU 71391	Producing
60	4300730770	HELPER FED G-5	SWNE	30	13S	11E	Federal	USA UTU 71677	Producing
61	4300730771	HELPER FED G-6	SWSE	30	13S	11E	Federal	USA UTU 71677	Producing
62	4300730772	HELPER FED G-7	NWNE	31	13S	11E	Federal	USA UTU 71677	Producing
63	4300730773	HELPER FED G-8	NESE	31	13S	11E	Federal	USA UTU 71677	Producing
64	4300730776	HELPER FED E-8	SENE	19	13S	10E	Federal	USA UTU 77980	Producing
65	4300730868	HELPER FED E-9	SESW	19	13S	10E	Federal	USA UTU 77980	Producing
66	4300730869	HELPER FED E-5	SWSW	20	13S	10E	Federal	USA UTU 71675	Producing
67	4300730870	HELPER FED E-6	SWNW	20	13S	10E	Federal	USA UTU 71675	Producing
68	4300730871	HELPER FED E-10	NENW	30	13S	10E	Federal	USA UTU 71675	Producing
69	4300730873	HELPER FED E-11	NWNE	30	13S	10E	Federal	USA UTU 71675	Producing
70	4300730119	SHIMMIN TRUST 3	SENW	14	12S	10E	Fee (Private)		Plugged and Abandoned
71	4300730120	SHIMMIN TRUST 1	SESE	11	12S	10E	Fee (Private)		Plugged and Abandoned
72	4300730121	SHIMMIN TRUST 2	SENE	14	12S	10E	Fee (Private)		Plugged and Abandoned
73	4300730123	SHIMMIN TRUST 4	SESW	11	12S	10E	Fee (Private)		Plugged and Abandoned
74	4300730158	SLEMAKER A-1	SWNE	5	12S	12E	Fee (Private)		Plugged and Abandoned
75	4300730161	JENSEN 16-10	SESE	10	12S	10E	Fee (Private)		Plugged and Abandoned
76	4300730165	JENSEN 7-15	SWNE	15	12S	10E	Fee (Private)		Plugged and Abandoned
77	4300730168	SHIMMIN TRUST 12-12	NWSW	12	12S	10E	Fee (Private)		Plugged and Abandoned
78	4300730175	JENSEN 11-15	NESW	15	12S	10E	Fee (Private)		Plugged and Abandoned
79	4300730188	BRYNER A-1	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
80	4300730209	BRYNER A-1X (RIG SKID)	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
81	4300730348	BIRCH A-1	NWSW	5	14S	10E	Fee (Private)		Producing
82	4300730352	CHUBBUCK A-1	NESE	31	13S	10E	Fee (Private)		Producing
83	4300730353	VEA A-1	SWNW	32	13S	10E	Fee (Private)		Producing
84	4300730354	VEA A-2	NENE	32	13S	10E	Fee (Private)		Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
85	4300730355	VEA A-3	SESW	32	13S	10E	Fee (Private)		Producing
86	4300730356	VEA A-4	NWSE	32	13S	10E	Fee (Private)		Producing
87	4300730372	BIRCH A-2	NWNW	8	14S	10E	Fee (Private)		Producing
88	4300730570	SE INVESTMENTS A-1	NESE	6	14S	10E	Fee (Private)		Producing
89	4300730586	HARMOND A-1	SENE	7	14S	10E	Fee (Private)		Producing
90	4300730604	CHUBBUCK A-2	SESW	6	14S	10E	Fee (Private)		Producing
91	4300730726	CLAWSON SPRING ST J-1	SESW	35	15S	8E	Fee (Private)		Producing
92	4300730727	PIERUCCI 1	SESW	35	15S	8E	Fee (Private)		Producing
93	4300730728	POTTER ETAL 1	SWNE	35	15S	8E	Fee (Private)		Producing
94	4300730737	POTTER ETAL 2	NESE	35	15S	8E	Fee (Private)		Producing
95	4300730774	GOODALL A-1	NWSW	6	14S	11E	Fee (Private)		Producing
96	4300730781	HAUSKNECHT A-1	SWNW	21	13S	10E	Fee (Private)		Producing
97	4300730872	SACCOMANNO A-1	NESE	30	13S	10E	Fee (Private)		Producing
98	4300730885	BLACKHAWK A-1	SESE	20	13S	10E	Fee (Private)		Plugged and Abandoned
99	4300730886	BLACKHAWK A-2	NWNW	29	13S	10E	Fee (Private)		Producing
100	4300730914	BLACKHAWK A-3	SENE	20	13S	10E	Fee (Private)		Producing
101	4300730915	BLACKHAWK A-4	NENE	21	13S	10E	Fee (Private)		Producing
102	4300730923	BLACKHAWK A-1X	SESE	20	13S	10E	Fee (Private)		Producing
103	4300731402	BLACKHAWK A-5H	NENE	20	13S	10E	Fee (Private)		Plugged and Abandoned
104	4300750075	VEA 32-32	SWNE	32	13S	10E	Fee (Private)		Producing
105	4301530468	CLAWSON SPRING ST IPA-1	SESE	10	16S	8E	Fee (Private)		Producing
106	4301530469	CLAWSON SPRING ST IPA-2	NENE	15	16S	8E	Fee (Private)		Producing
107	4300730132	ST 9-16	NESE	16	12S	10E	State	ML-44443	Plugged and Abandoned
108	4300730133	ST 2-16	NWNE	16	12S	10E	State	ML-44443	Plugged and Abandoned
109	4300730141	MATTS SUMMIT ST A-1	NWNW	14	12S	9E	State	ML-44496	Plugged and Abandoned
110	4300730349	HELPER ST A-1	SESW	3	14S	10E	State	ST UT ML 45805	Producing
111	4300730350	HELPER ST D-7	NWSW	4	14S	10E	State	ST UT ML 45804	Producing
112	4300730357	HELPER ST A-8	NWSE	2	14S	10E	State	ST UT ML 45805	Producing
113	4300730358	HELPER ST A-3	NWNW	2	14S	10E	State	ST UT ML 45805	Producing
114	4300730359	HELPER ST A-4	NWNE	2	14S	10E	State	ST UT ML 45805	Producing
115	4300730360	HELPER ST A-7	NESW	2	14S	10E	State	ST UT ML 45805	Producing
116	4300730362	HELPER ST A-2	NENE	3	14S	10E	State	ST UT ML 45805	Producing
117	4300730363	HELPER ST A-5	NESW	3	14S	10E	State	ST UT ML 45805	Producing
118	4300730364	HELPER ST A-6	NESE	3	14S	10E	State	ST UT ML 45805	Producing
119	4300730365	HELPER ST D-4	SWNW	4	14S	10E	State	ST UT ML 45804	Producing
120	4300730366	HELPER ST D-3	NENE	5	14S	10E	State	ST UT ML 45804	Producing
121	4300730367	HELPER ST D-5	NWNE	4	14S	10E	State	ST UT ML 45804	Producing
122	4300730368	HELPER ST D-8	SESE	4	14S	10E	State	ST UT ML 45804	Producing
123	4300730369	HELPER ST D-2	NENW	5	14S	10E	State	ST UT ML 45804	Producing
124	4300730370	HELPER ST D-6	SESE	5	14S	10E	State	ST UT ML 45804	Producing
125	4300730371	HELPER ST D-1	NENE	6	14S	10E	State	ST UT ML 45804	Producing
126	4300730373	HELPER ST A-9	SESW	10	14S	10E	State	ST UT ML 45805	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
127	4300730376	HELPER ST B-1	SWNE	9	14S	10E	State	ST UT ML 47556	Producing
128	4300730433	HELPER ST A-10	NWNE	10	14S	10E	State	ST UT ML 45805	Producing
129	4300730434	HELPER ST A-11	SWNW	11	14S	10E	State	ST UT ML 45805	Producing
130	4300730435	HELPER ST A-12	NWSW	10	14S	10E	State	ST UT ML 45805	Producing
131	4300730436	HELPER ST A-13	NESE	10	14S	10E	State	ST UT ML 45805	Producing
132	4300730437	HELPER ST B-2	NESE	9	14S	10E	State	ST UT ML 47556	Producing
133	4300730571	HELPER ST A-14	SESW	11	14S	10E	State	ST UT ML 45805	Producing
134	4300730572	HELPER ST A-15	SENE	11	14S	10E	State	ST UT ML 45805	Producing
135	4300730573	HELPER ST E-1	SESW	36	13S	10E	State	ST UT ML 45802	Producing
136	4300730574	HELPER ST E-2	SWNW	36	13S	10E	State	ST UT ML 45802	Producing
137	4300730592	HELPER ST E-3	NENE	36	13S	10E	State	ST UT ML 45802	Producing
138	4300730597	CLAWSON SPRING ST A-1	SWSE	36	15S	8E	State	ST UT ML 46106	Producing
139	4300730598	HELPER ST E-4	SWSE	36	13S	10E	State	ST UT ML 45802	Producing
140	4300730603	HELPER ST A-16	SWSE	11	14S	10E	State	ST UT ML 45805	Producing
141	4300730635	CLAWSON SPRING ST A-2	NWNW	36	15S	8E	State	ST UT ML 46106	Producing
142	4300730636	CLAWSON SPRING ST A-3	NESW	36	15S	8E	State	ST UT ML 46106	Producing
143	4300730637	CLAWSON SPRING ST A-4	NWNE	36	15S	8E	State	ST UT ML 46106	Producing
144	4300730642	CLAWSON SPRING ST D-5	NENW	31	15S	9E	State	ML-48226	Producing
145	4300730643	CLAWSON SPRING ST D-6	SWSW	31	15S	9E	State	ML-48226	Producing
146	4300730644	CLAWSON SPRING ST D-7	NWNE	31	15S	9E	State	ML-48226	Producing
147	4300730701	CLAWSON SPRING ST D-8	NWSE	31	15S	9E	State	ML-48226	Producing
148	4300750070	HELPER STATE 12-3	SWNW	3	14S	10E	State	ST UT ML 45805	Producing
149	4300750071	HELPER STATE 32-3	SWNE	3	14S	10E	State	ST UT ML 45805	Producing
150	4300750072	HELPER STATE 32-36	SWNE	36	13S	10E	State	ST UT ML 45802	Producing
151	4301530391	UTAH 10-415	NENE	10	16S	8E	State	ST UT ML 48189	Temporarily-Abandoned
152	4301530392	CLAWSON SPRING ST E-7	SENE	7	16S	9E	State	ST UT ML 48220-A	Producing
153	4301530394	CLAWSON SPRING ST E-8	SWSE	7	16S	9E	State	ST UT ML 48220-A	Producing
154	4301530403	CLAWSON SPRING ST E-3	SENE	6	16S	9E	State	ST UT ML 48220-A	Producing
155	4301530404	CLAWSON SPRING ST E-1	SENE	6	16S	9E	State	ST UT ML 48220-A	Producing
156	4301530405	CLAWSON SPRING ST E-2	NESW	6	16S	9E	State	ST UT ML 48220-A	Producing
157	4301530406	CLAWSON SPRING ST E-4	NWSE	6	16S	9E	State	ST UT ML 48220-A	Producing
158	4301530410	CLAWSON SPRING ST C-1	SWNW	12	16S	8E	State	ST UT UO 48209	Producing
159	4301530427	CLAWSON SPRING ST B-1	NENW	1	16S	8E	State	ST UT ML 48216	Producing
160	4301530428	CLAWSON SPRING ST B-2	NWSW	1	16S	8E	State	ST UT ML 48216	Producing
161	4301530429	CLAWSON SPRING ST B-3	NWNE	1	16S	8E	State	ST UT ML 48216	Producing
162	4301530430	CLAWSON SPRING ST B-4	SESE	1	16S	8E	State	ST UT ML 48216	Producing
163	4301530431	CLAWSON SPRING ST B-5	SWSW	12	16S	8E	State	ST UT ML 48216	Producing
164	4301530432	CLAWSON SPRING ST B-8	SENE	11	16S	8E	State	ST UT ML 48216	Producing
165	4301530433	CLAWSON SPRING ST B-9	NWSE	11	16S	8E	State	ST UT ML 48216	Producing
166	4301530434	CLAWSON SPRING ST C-2	SENE	12	16S	8E	State	ST UT UO 48209	Producing
167	4301530435	CLAWSON SPRING ST C-4	SWNW	14	16S	8E	State	ST UT UO 48209	Producing
168	4301530460	CLAWSON SPRING ST B-7	NWSW	11	16S	8E	State	ST UT ML 48216	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
169	4301530461	CLAWSON SPRING ST C-6	SENE	14	16S	8E	State	ST UT UO 48209	Producing
170	4301530463	CLAWSON SPRING ST C-3	C-SE	12	16S	8E	State	ST UT UO 48209	Producing
171	4301530465	CLAWSON SPRING ST B-6	NENW	11	16S	8E	State	ST UT ML 48216	Producing
172	4301530466	CLAWSON SPRING ST H-1	NENW	13	16S	8E	State	ST UT ML 48217-A	Producing
173	4301530467	CLAWSON SPRING ST H-2	NENE	13	16S	8E	State	ST UT ML 48217-A	Producing
174	4301530470	CLAWSON SPRING ST E-5	NENW	7	16S	9E	State	ST UT ML 48220-A	Producing
175	4301530471	CLAWSON SPRING ST G-1	NWNW	2	16S	8E	State	ST UT ML 46314	Producing
176	4301530472	CLAWSON SPRING ST F-2	NESE	3	16S	8E	State	ST UT ML 48515	Producing
177	4301530473	CLAWSON SPRING ST F-1	SENE	3	16S	8E	State	ST UT ML 48514	Producing
178	4301530474	CLAWSON SPRING ST E-6	SESW	7	16S	9E	State	ST UT ML 48220-A	Producing
179	4301530475	CLAWSON SPRING ST G-2	NESW	2	16S	8E	State	ST UT ML 46314	Producing
180	4301530488	CLAWSON SPRING ST M-1	NWNE	2	16S	8E	State	ST UT ML 47561	Producing
181	4301530489	CLAWSON SPRING ST K-1	SESE	2	16S	8E	State	ST UT ML 46043	Producing