

**STATE OF UTAH
DIVISION OF OIL, GAS AND MINING**

APPLICATION FOR PERMIT TO DRILL OR DEEPEN				
1 a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. ML 45805	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> COALBED METHANE <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEES OR TRIBE NAME	
2. NAME OF OPERATOR ANADARKO PETROLEUM CORPORATION			7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. 17001 Northchase Drive, Houston, Texas 77060 281/875-1101			8. FARM OR LEASE NAME WELL NO. Helper State A-11	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1450 FNL & 1206 FWL, NW Section 11, T14S R10E At proposed prod. zone 1450 FNL & 1206 FWL, NW Section 11, T14S R10E			9. API WELL NO.	
CONFIDENTIAL			10. FIELD AND POOL OR WILDCAT Wildcat	
			11. SEC. T,R,M. OR BLK. AND SURVEY OR AREA Section 11, T14S R10E	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE. 2 miles NE of Price, Ut			12. COUNTY Carbon	13. STATE Utah
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 4070	16. NO. OF ACRES IN LEASE 2440	17. NO. OF ACRES ASSIGNED TO THIS WELL. 160		
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE. FT.	19. PROPOSED DEPTH 2200	20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5812' GR			22. APPROX. DATE WORK WILL START.	
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	300'	200 cu. ft.
7 7/8"	5 1/2"	17.5	2200'	300 cu. ft.
		17.0		

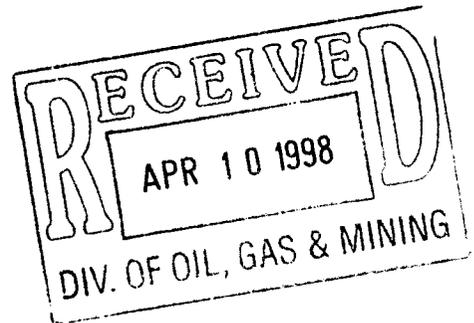
DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

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.

CONFIDENTIAL



24. SIGNED *D.R. Winchester* TITLE D.R. Winchester Sr. Staff Drilling Eng. DATE 3/30/98

(This space State office use.)

API Number

43-007-30434

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

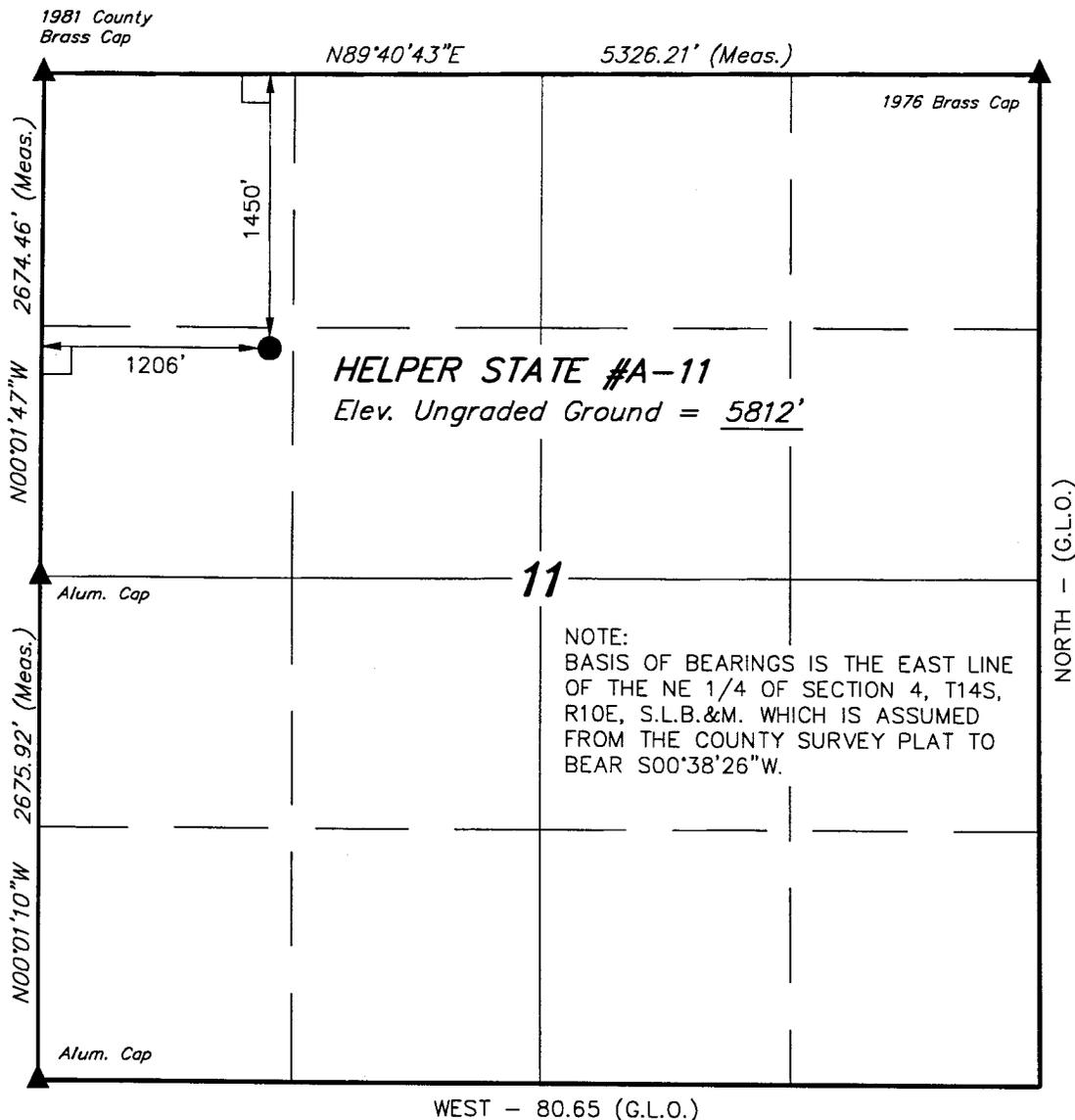
DATE: 5/24/98

BY: *[Signature]*

T14S, R10E, S.L.B.&M.

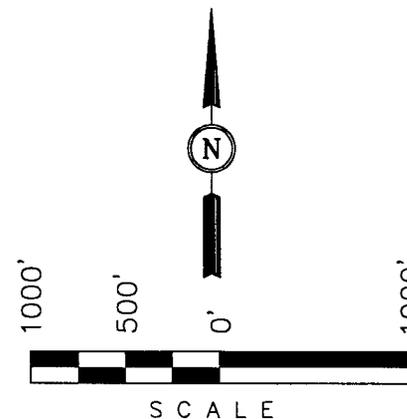
ANADARKO PETROLEUM CORP.

Well location, HELPER STATE #A-11, located as shown in the SW 1/4 NW 1/4 of Section 11, T14S, R10E, S.L.B.&M. Carbon County, Utah



BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 11, T14S, R10E, S.L.B.&M. TAKEN FROM THE PRICE 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 5741 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 L. Kay
REGISTERED LAND SURVEYOR
REGISTRATION NO. 1151319
STATE OF UTAH

LEGEND:

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

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 03-05-98	DATE DRAWN: 03-09-98
PARTY K.K. S.B. D.R.B.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE ANADARKO PETROLEUM CORP.	



Fax Transmittal

May 22, 1998

Senders Fax No.: (281) 874-3264

TO: Lisha Cordova FAX No: (801) 359-3940
FROM: Geraldine Moore PHONE: (281) 874-3360
Risk Administrator
SUBJECT: State of Utah, Bond of Lessee
cc: Steve Ruhl

Number of pages including cover sheet: 4

MESSAGE:

Attached is our Bond No. 203521 and the endorsement increasing the penalty to \$160,000.

Please give me or Mr. Ruhl a call if you need additional information.

With regards,

A handwritten signature in cursive script that reads "Geraldine Moore".

The penal sum of said bond is hereby increased from:
Eighty Thousand and No/100 Dollars (\$80,000.00)
to:
One Hundred Sixty Thousand and No/100 Dollars (\$160,000.00)

This endorsement is effective on the 23rd day of July 1997

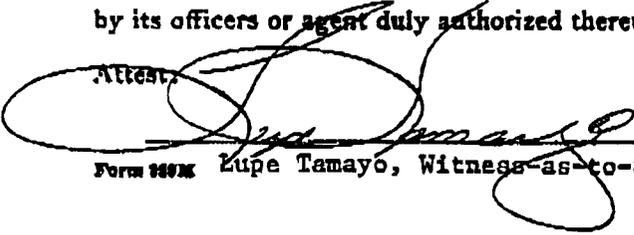
Nothing herein contained shall be held to vary, alter, waive, or extend any of the terms, conditions, agreements, or limitations of the attached bond other than as above stated.

Attached to and forming a part of Bond No. 203521

Issued to Anadarko Petroleum Corporation

In Witness Whereof, SEABOARD SURETY COMPANY has caused this endorsement to be executed

by its officers or agent duly authorized thereunto, this 12th day of August 1997

Attest, 
Lupe Tamayo, Witness-as-to-Surety

SEABOARD SURETY COMPANY
By Wendy W. Stuckey
Wendy W. Stuckey, Attorney-in-Fact

Certified Copy

No. 13340

SEABOARD SURETY COMPANY

ADMINISTRATIVE OFFICES, BEDMINSTER, NEW JERSEY

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That SEABOARD SURETY COMPANY, a corporation of the State of New York, has made, constituted and appointed and by these presents does make, constitute and appoint **William N. Burke or Elsa Alvarez or Mary C. Jones or Dan W. Burton or Wendy W. Stuckey or Sharon J. Sweeney**

of **Houston, Texas** its true and lawful Attorney-in-Fact, to make, execute and deliver on its behalf insurance policies, surety bonds, undertakings and other instruments of similar nature as follows:

Without Limitations

Such insurance policies, surety bonds, undertakings and instruments for said purposes, when duly executed by the aforesaid Attorney-in-Fact, shall be binding upon the said Company as fully and to the same extent as if signed by the duly authorized officers of the Company and sealed with its corporate seal; and all the acts of said Attorney-in-Fact, pursuant to the authority hereby given, are hereby ratified and confirmed.

This appointment is made pursuant to the following By-Laws which were duly adopted by the Board of Directors of the said Company on December 8th, 1927, with Amendments to and including January 15, 1982 and are still in full force and effect.

ARTICLE VII, SECTION 1

Policies, bonds, recognizances, stipulations, contracts of surety, underwriting, undertakings and instruments relating thereto, insurance policies, bonds, recognizances, stipulations, contracts of surety and underwriting, undertakings of the Company and releases, agreements and other writings relating thereto, shall be signed in the name and on behalf of the Company (a) by the Chairman of the Board, the President, a Vice-President or a Resident Vice-President and by the Secretary, an Assistant Secretary, a Resident Secretary or a Resident Assistant Secretary, or (b) by an Attorney-in-Fact for the Company appointed and authorized by the Board, the President or a Vice-President to make such appointment or (c) by such other officers or representatives as the Board may from time to time determine. The seal of the Company shall be affixed thereto by any Secretary, Attorney-in-Fact or representative.

IN WITNESS WHEREOF, SEABOARD SURETY COMPANY has caused these presents to be signed by one of its Vice-Presidents, and its corporate seal to be hereunto affixed and duly attested by one of its Assistant Secretaries, this 5th day of May, 1995.



Attest:

Deborah M. Fuller
Assistant Secretary

SEABOARD SURETY COMPANY

Michael E. Raegan
Vice-President

STATE OF NEW JERSEY
COUNTY OF SOMERSET

On this 5th day of May, 1995, before me personally appeared

Michael E. Raegan, a Vice-President of SEABOARD SURETY COMPANY, with whom I am personally acquainted, who, being by me duly sworn, said that he resides in the State of New Jersey, that he is a Vice-President of SEABOARD SURETY COMPANY, the corporation described in and which executed the foregoing instrument, that he knows the corporate seal of the said Company, that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the Board of Directors of said Company, and that he signed his name thereto as Vice-President of said Company by like authority.

BEEINDA FAYE LEE
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Sep 9, 1998

Beeinda Faye Lee
Notary Public

CERTIFICATE

The undersigned Assistant Secretary of SEABOARD SURETY COMPANY do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is in full force and effect on the date of this Certificate and I do further certify that the Vice-President who executed the said Power of Attorney was one of the Officers authorized by the Board of Directors to appoint an attorney-in-fact as provided in Article VII, Section 1, of the By-Laws of SEABOARD SURETY COMPANY.

This Certificate may be signed and sealed by facsimile under and by authority of the following resolution of the Executive Committee of the Board of Directors of SEABOARD SURETY COMPANY at a meeting duly called and held on the 25th day of March, 1970:

"RESOLVED: (2) That the use of a printed facsimile of the corporate seal of the Company and of the signature of an Assistant Secretary on any certification of the correctness of a copy of an instrument executed by the President or a Vice-President pursuant to Article VII, Section 1, of the By-Laws appointing and authorizing an attorney-in-fact to sign in the name and on behalf of the Company surety bonds, underwriting undertakings or other instruments described in said Article VII, Section 1, with like effect as if such seal and such signature had been manually affixed and made, hereby is authorized and approved.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of the Company to these presents this 12th day of August, 1997.



Sara K. Klever
Assistant Secretary

Form 957 (Rev 7/84)

KNOW ALL MEN BY THESE PRESENTS, that we Anadarko Petroleum Corporation of P. O. Box 4499, Houston, TX 77210-4499 Address

as principal and Seaboard Surety Company, as surety, are held and firmly bound unto the State of Utah in the sum of Eighty thousand Dollars (\$ 80,000) lawful money of the United States to be paid to the Board of State Lands and Forestry, as agent for the State of Utah, for the use and benefit of the State of Utah, and of any patentee or purchaser of any portion of the land covered by the hereinafter described lease heretofore sold or which may hereafter be sold with a reservation to the State of Utah, on the surface or of other mineral deposits of any portion of such lands, for which payment, will and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators, successors, sub-lessees, and assignees, jointly and severally by these presents.

Signed with our hands and seals this 23rd day of July in the year of our Lord, 1991.

The condition of the foregoing obligation is such that,

WHEREAS, The State of Utah, as Lessor, issued a(n) _____ lease, Lease Number _____ and dated _____, to _____ as lessee (and said lease has been duly assigned under date of _____ to _____) to drill for, mine, extract, and remove all of the _____ deposits in and under the following described lands to wit:

NOW, THEREFORE, THE principal shall be obligated to pay all monies, rentals, royalties, cost of reclamation, damages to the surface and improvements thereon and any other costs which arise by operation of the above described lease(s) accruing to the Lessor and shall fully comply with all other terms and conditions of said lease, the rules, regulations, and policies relating thereto of the Board of State Lands and Forestry, Division of State Lands and Forestry, the Board of Oil, Gas and Mining, and the Division of Oil, Gas and Mining as they may now exist or may from time to time be modified or amended. This obligation is in effect even if the principal has conveyed part of the purchase agreement interest to a successor in interest. If the principal fully satisfies the above described obligations, then the surety's obligation to make payment to the State of Utah is void and of no effect, otherwise, it shall remain in full force and effect until released by the Division of State Lands and Forestry.

Signed, sealed and delivered in the presence of

Anadarko Petroleum Corporation (SEAL)
Principal

BONDING COMPANY Seaboard Surety Company

BY Elsa Alvarez
Elsa Alvarez

Attest: Attorney-in-Fact

Resident Agent: Energy Insurance International Inc

Bonding Co. Address: 5750 Pineland Drive, Suite 304
Dallas, Texas 75231-5366

Corporate Seal of Bonding Company Must be Affixed.

Witness
Dana Bellow
Witness
Dana Bellow

APPROVED AS TO FORM:
ATTORNEY GENERAL

David Christensen

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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

	5. Lease Designation and Serial Number: ML 45805
	6. If Indian, Allocated or Tribe Name:
	7. Unit Agreement Name:
1. Type of Well: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER: Coalbed Methane	8. Well Name and Number: Helper State A-11
2. Name of Operator: Anadarko Petroleum Corporation	9. API Well Number:
3. Address and Telephone Number: 17001 Northchase Drive, Houston, Texas 77060 281-875-1101	10. Field and Pool, or Wildcat: Wildcat
4. Location of Well Footage: 1450' FNL & 1206' FWL, NW Sec 11, T14S, R10E CG, Sec., T., R., M.:	County: Carbon Co., Utah State:

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

NOTICE OF INTENT
(Submit in Duplicate)

- | | |
|---|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other <u>Location Exception</u> | |

Approximate date work will start May, 1998

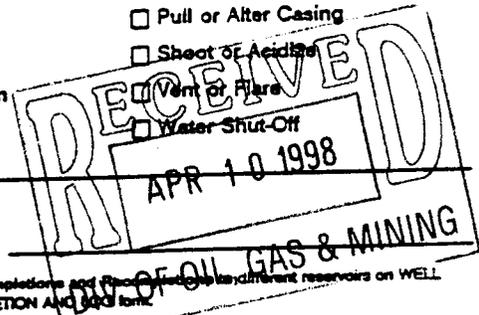
SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment* | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

Date of work completion _____

Report results of Multiple Completions and Fracturing into different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOGS ONLY.

* 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 subject well is proposed as stated above due to more favorable "Topographic & Geologic" considerations as shown by our offset wells. We feel this will increase the chances of drilling and completing a successful well in conjunction of reducing any surface damages.

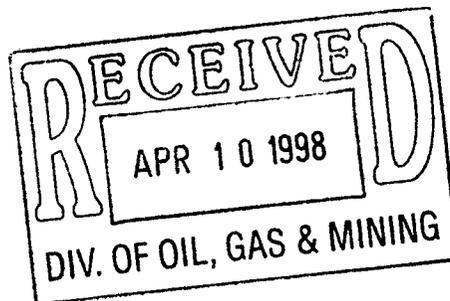
As per Rule No. R649-3-3-1.1 - 1.3, the surrounding acreage is obtained wholly by APC, thus consent from all surrounding owners does not apply to the subject well.

13. Name & Signature: Dave Winchester Title: Div. Drilling Eng. Date: 9.Apr.98

(This space for State use only)



April 9, 1998



Mr. Mike Hebertson
State of Utah
Division of Oil, Gas and Mining
1594 W. North Temple
Suite 1210
Salt Lake City, Utah 84114-5801

Dear Mr. Hebertson:

Enclosed you will find Applications for Permits to Drill on the following wells:

Helper State A-10, Sec 10-T14S-R10E, Carbon Co.
Helper State A-11, Sec 11-T14S-R10E, Carbon Co.
Helper State A-12, Sec 10-T14S-R10E, Carbon Co.
Helper State A-13, Sec 10-T14S-R10E, Carbon Co.
Helper State B-2, Sec 9-T14S-R10E, Carbon Co.

Should you have any questions regarding the attached, you can reach me at 281-873-1361. Thank you for your assistance.

Sincerely,

ANADARKO PETROLEUM CORPORATION

A handwritten signature in cursive script that reads "Dawn D. Gardner".

Dawn D. Gardner
Technical Assistant

/ddg
Encl.

DRILLING PLAN TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL

Company: Anadarko Petroleum Corporation

Well: Helper State A-11

Location: 1450' FNL & 1206' FWL
NW Sec 11-T14S-R10E

Lease: ML 45805

Surface Elevation: 5812' GR

A. Estimated Tops of Important Geologic Markers:

<u>GEOLOGIC MARKER</u>	<u>DEPTH</u>
Mancos / Emery	Surface
Ferron Sandstone	1590'
Ferron Coal Top	1610'
Base of Ferron Coal	1710'
Tununk Shale	1810'

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

Gas-bearing Ferron Coal is expected to be encountered from 1610'-1710'.

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:

A 9" 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 casinghead. 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 2200' 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"	17.5	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 place the top of cement approximately 500' above the Ferron Sand.

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'. An air or air/mist system 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 (1610'-1710') may be performed, depending upon shows and hole conditions.
- b. DST's 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.

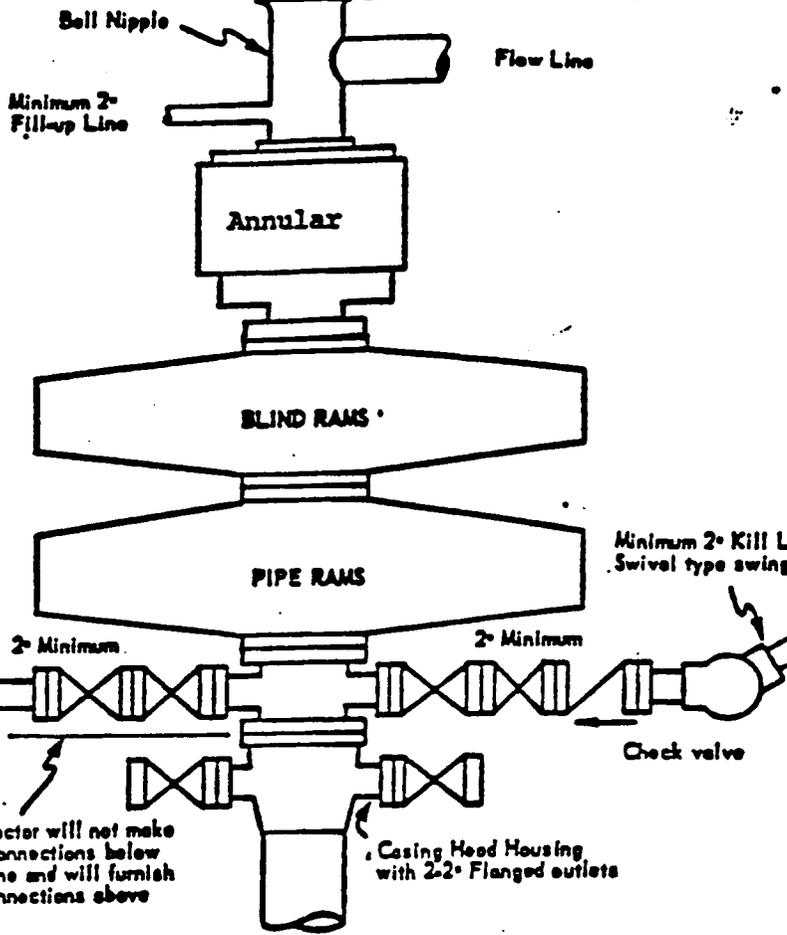
- d. A mud logging unit with chromatograph will be used from approximately 300' to TD.
- e. Productive zones will be swab tested. Water produced during testing will be contained in the temporary reserve pit. All produced oil will be stored and sold. Gas will be flared during testing.

G. Abnormal Conditions and Potential Hazards:

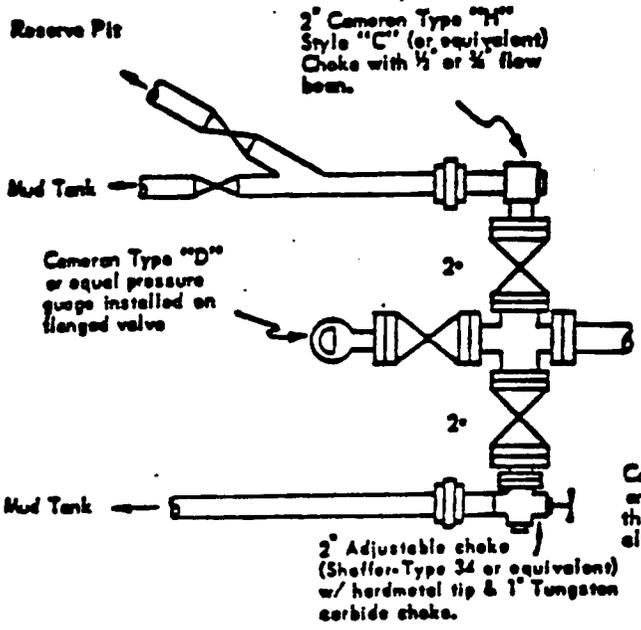
Abnormal conditions such as abnormal temperatures or pressures are not anticipated. Potential hazards such as H₂S are also not anticipated.

Base of rotary table
or floor beams

Minimum, 6 inches



MINIMUM WORKING PRESSURE



MINIMUM BLOWOUT PREVENTER
REQUIREMENTS - NORMAL
PRESSURE SERVICE

SURFACE USE PLAN TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL

Anadarko Petroleum Corporation
Helper State A-11
1450' FNL & 1206' FWL, NW Sec 11-T14S-R10E
Carbon Co., 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 2.0 miles northeast 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. 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 up to the location. 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)

The proposed Helper State A-11 location is approximately 3000' south of the Helper State A-7.

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.

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. Test for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The State of Utah 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 State of Utah. 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 Price River or from Willow Creek.

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.

7. Methods of Handling Waste Disposal

The reserve pit will be lined.

Produced waste water will be confined to a lined 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 State of Utah. 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. 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 to 8 inches and stockpiled by wind-row on the northeast edge of the location. No topsoil stripping will be allowed when soils are moisture saturated to a depth of 3 inches, or frozen below the stripping depth.

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 State of Utah 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/dry hole:

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 according to the above seed mixture. 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. Other Information:

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

"Sundry Notice and Report on Wells" will be filed for approval for all changes of plans and other operations.

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 State of Utah.

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 State of Utah 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 State of Utah. Notice to proceed will be based upon evaluation of the cultural significance of the object. Evaluation will be by a qualified professional. When not practical, the Operator will follow the mitigation requirements set forth by the State of Utah concerning protection, preservation, or disposition of any sites or material discovered. Within five working days the State of Utah 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 State of Utah to complete an expedited review to conform, through the State Historic Preservation Officer, that the findings 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 State of Utah will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, in those situations where the State of Utah determines that mitigation, data recovery and/or salvage excavations are necessary, the Operator will bear the cost. The State of Utah will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the State of Utah that the required mitigation has been completed, the Operator will then be allowed to resume construction.

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

REPRESENTATIVE

Name: Dave Winchester
Phone: 281/873-1280
Address: Anadarko Petroleum Corporation
17001 Northchase Drive
Houston, Texas 77060

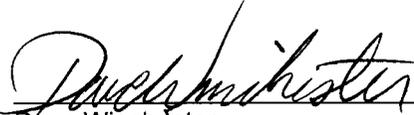
CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by

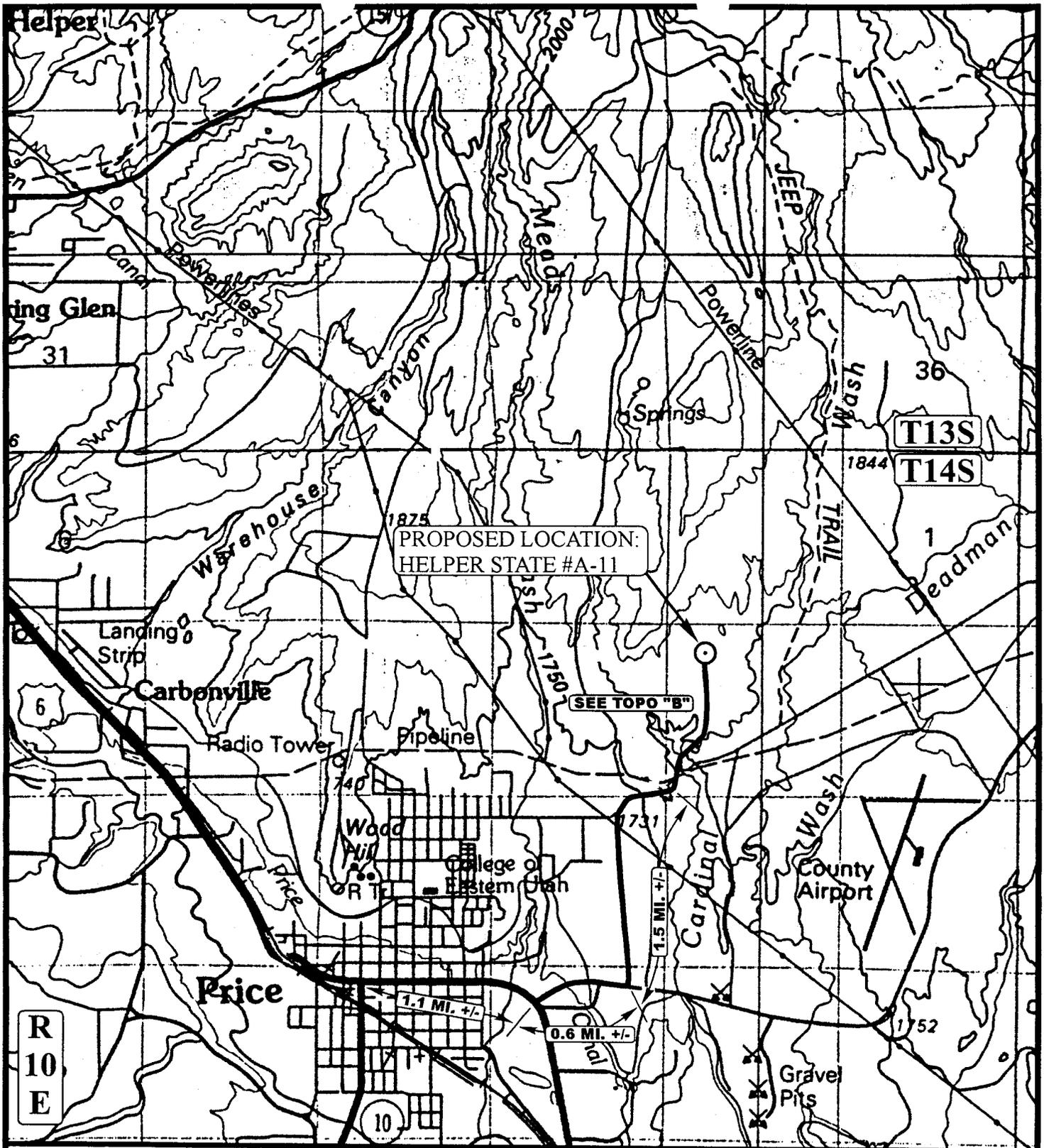
ANADARKO PETROLEUM CORPORATION

and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4-9-98
Date



Dave Winchester
Division Drilling Engineer



PROPOSED LOCATION:
HELPER STATE #A-11

SEE TOPO "B"

LEGEND:

○ PROPOSED LOCATION

ANADARKO PETROLEUM CORP.

HELPER STATE #A-11

SECTION 11, T14S, R10E, S.L.B.&M.

1450' FNL 1206' FWL



Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1018



TOPOGRAPHIC
MAP

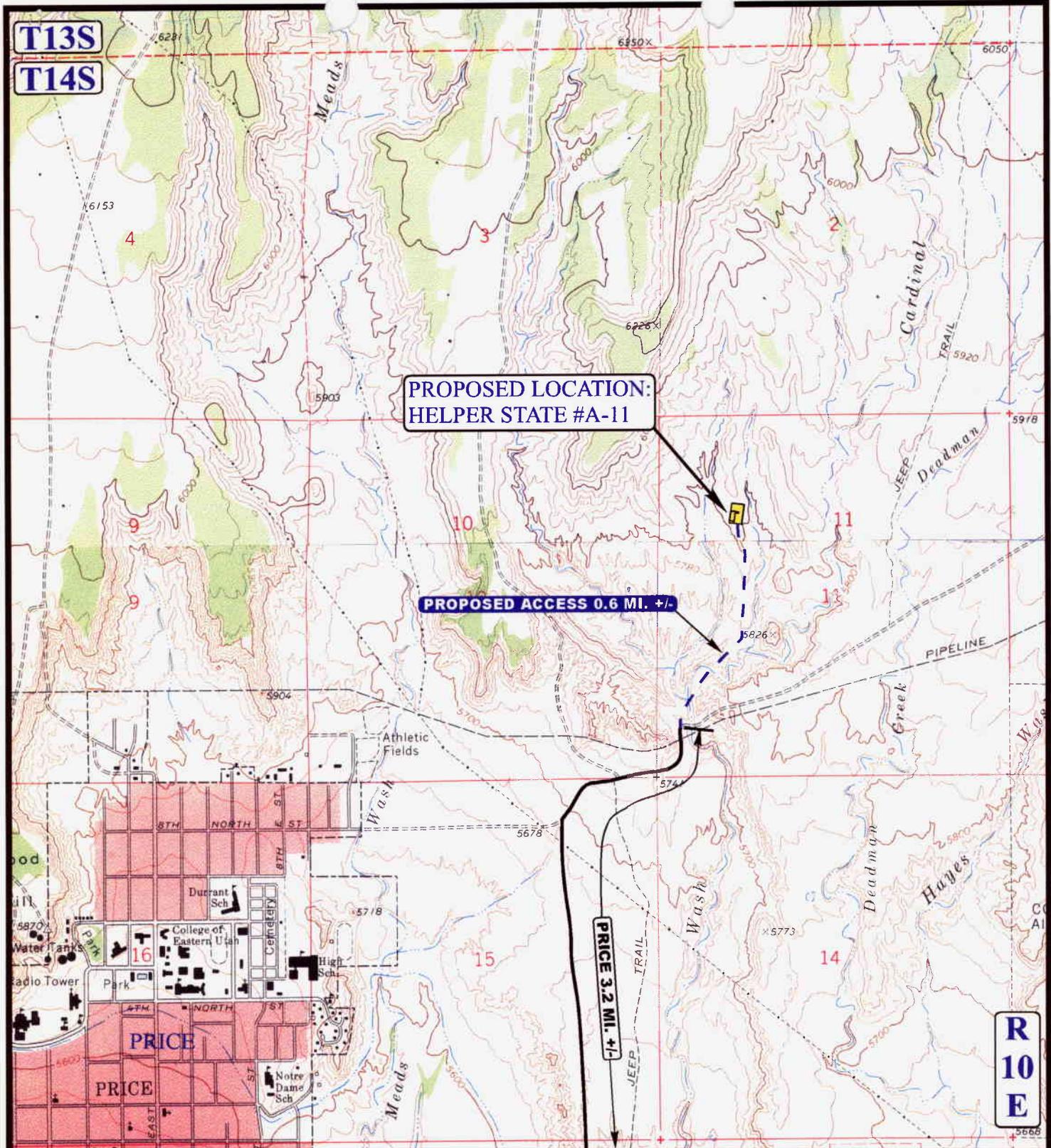
3	9	98
MONTH	DAY	YEAR

SCALE: 1 : 100,000

DRAWN BY: J.L.G.

REVISED: 00-00-00





**PROPOSED LOCATION:
HELPER STATE #A-11**

PROPOSED ACCESS 0.6 MI. +/-

PRICE 3.2 MI. +/-

**R
10
E**

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING ROAD

ANADARKO PETROLEUM CORP.

**HELPER STATE #A-11
SECTION 11, T14S, R10E, S.L.B.&M.
1450' FNL 1206' FWL**



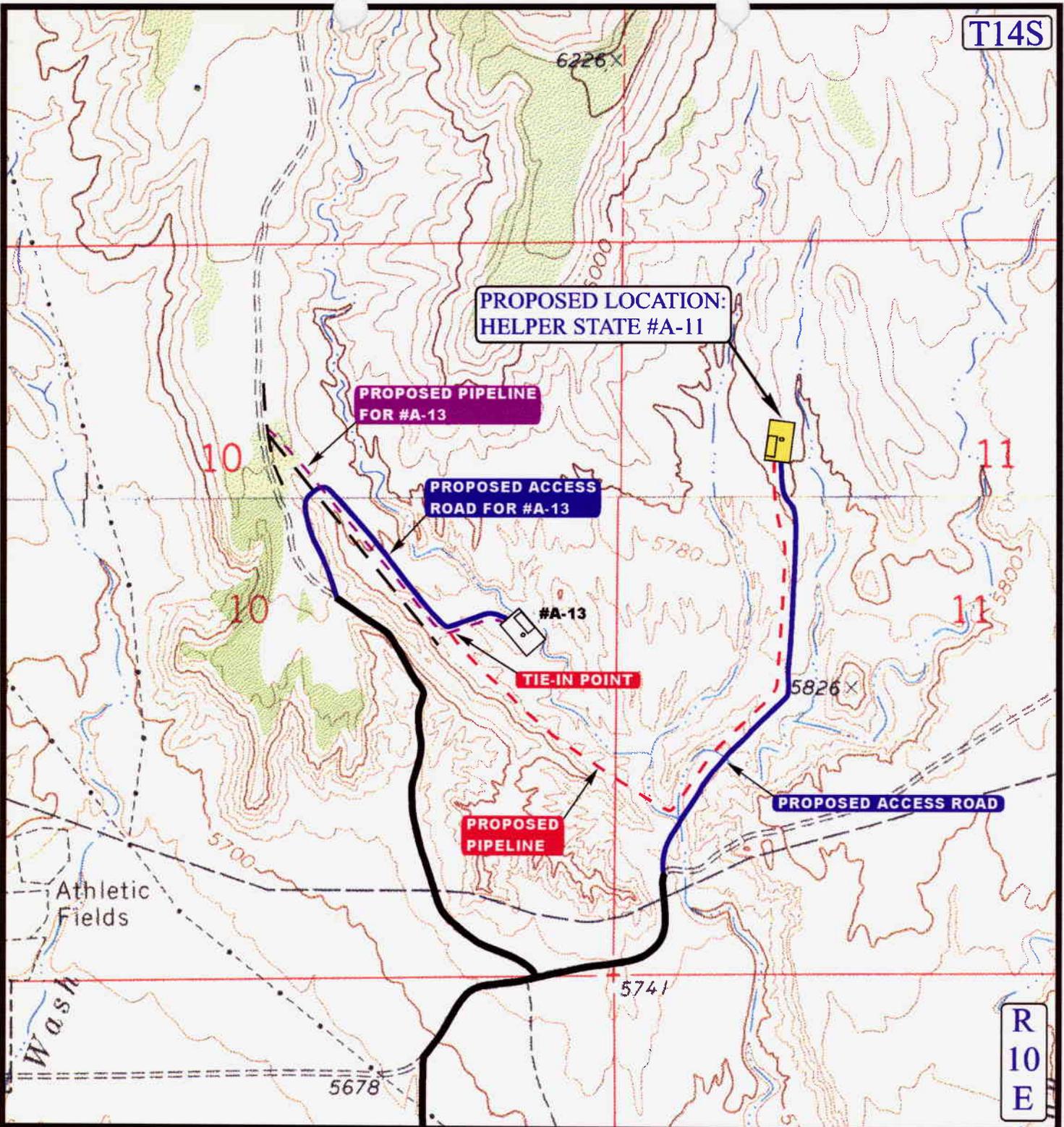
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1018



TOPOGRAPHIC 3 9 98
MAP MONTH DAY YEAR
SCALE: 1" = 2000' DRAWN BY: J.L.G. REVISED: 00-00-00



T14S



R
10
E

APPROXIMATE TOTAL PIPELINE DISTANCE = 5300' +/-

LEGEND:

- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED ACCESS

ANADARKO PETROLEUM CORP.

HELPER STATE #A-11

SECTION 11, T14S, R10E, S.L.B.&M.

1450' FNL 1206' FWL



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1018



**TOPOGRAPHIC
MAP**

3	9	98
MONTH	DAY	YEAR

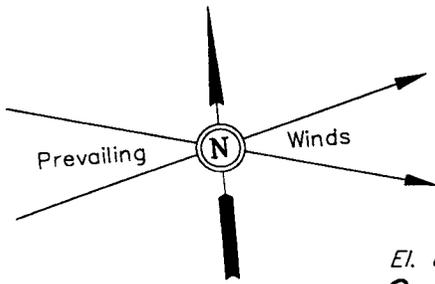
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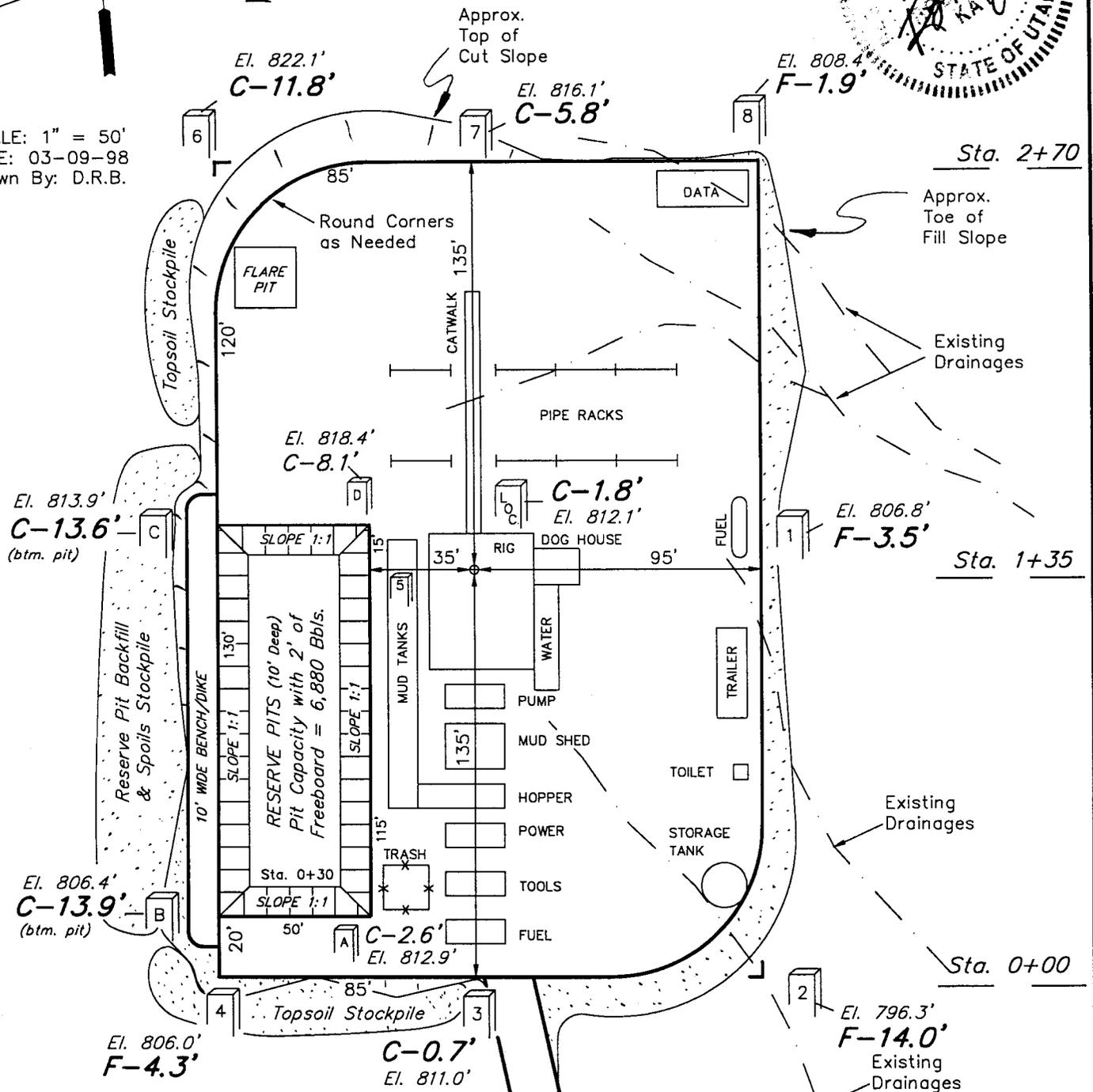
NADARKO PETROLEUM CORP.

LOCATION LAYOUT FOR

HELPER STATE #A-11
SECTION 11, T14S, R10E, S.L.B.&M.
1450' FNL 1206' FWL



SCALE: 1" = 50'
DATE: 03-09-98
Drawn By: D.R.B.



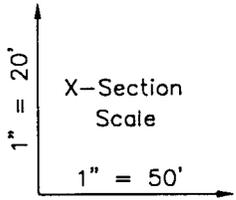
ELEV. UNGRADED GROUND AT LOC. STAKE = **5812.1'**
ELEV. GRADED GROUND AT LOC. STAKE = **5810.3'**

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

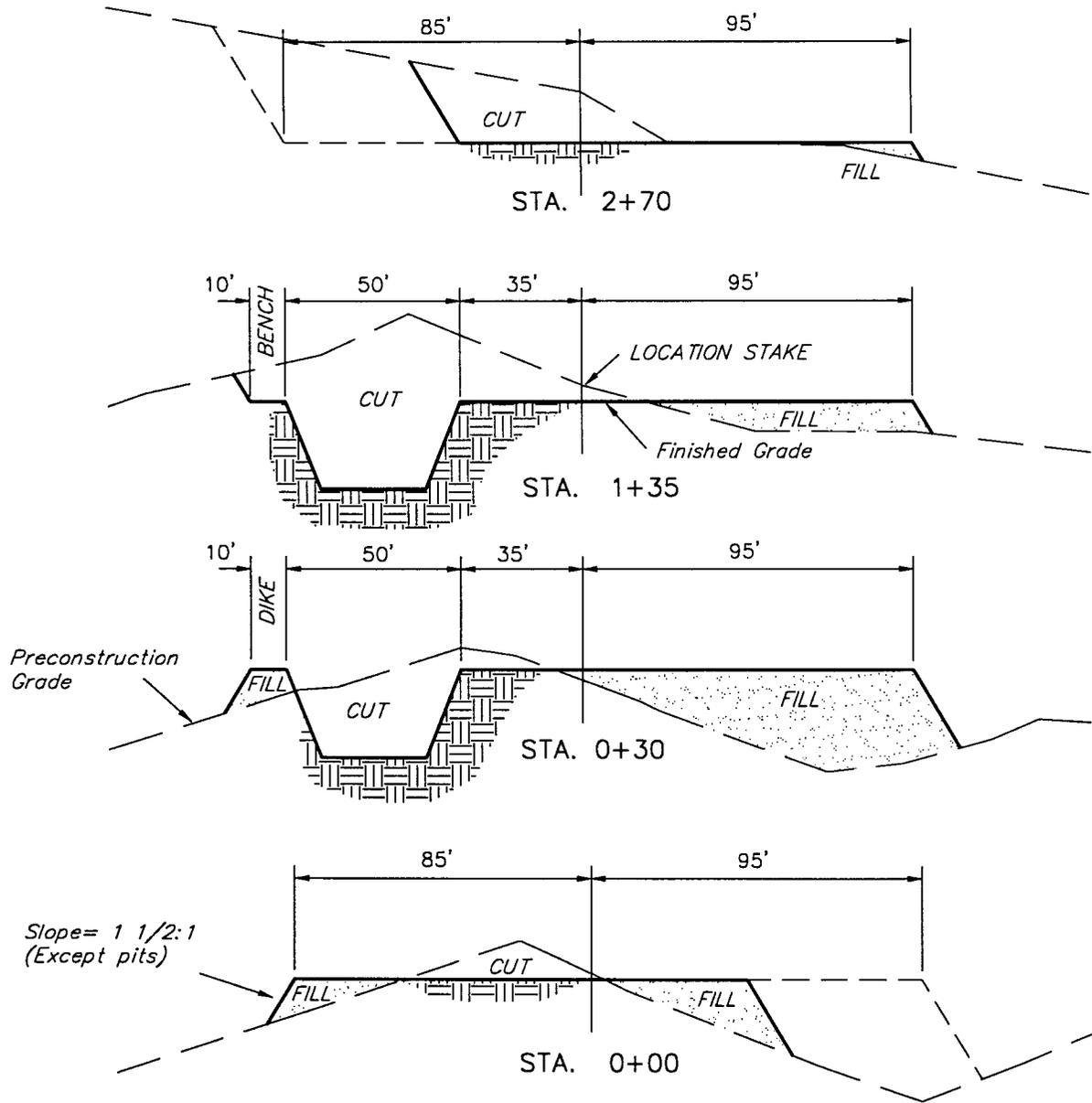
ANADARKO PETROLEUM CORP.

TYPICAL CROSS SECTIONS FOR

HELPER STATE #A-11
SECTION 11, T14S, R10E, S.L.B.&M.
1450' FNL 1206' FWL



DATE: 03-09-98
Drawn By: D.R.B.



APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 900 Cu. Yds.
Remaining Location	= 5,770 Cu. Yds.
TOTAL CUT	= 6,670 CU.YDS.
FILL	= 4,640 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	= 1,790 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 1,790 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 0 Cu. Yds.

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

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 04/10/98

API NO. ASSIGNED: 43-007-30434

WELL NAME: HELPER ST A-11
 OPERATOR: ANADARKO PETROLEUM CORP (N0035)
 CONTACT: _____

PROPOSED LOCATION:
 SWNW 11 - T14S - R10E
 SURFACE: 1450-FNL-1206-FWL
 BOTTOM: 1450-FNL-1206-FWL
 CARBON COUNTY
 HELPER FIELD (018)

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

LEASE TYPE: STA
 LEASE NUMBER: ML-45805
 SURFACE OWNER: State

PROPOSED FORMATION: FRSD

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal State Fee
 (No. 210721)

Potash (Y/N)

Oil Shale (Y/N) *190-5(B)

Water Permit
 (No. _____)

RDCC Review (Y/N)
 (Date: _____)

St/Fee Surf Agreement (Y/N)

LOCATION AND SITING:

R649-2-3. Unit _____

R649-3-2. General

R649-3-3. Exception

Drilling Unit
 Board Cause No: _____
 Date: 1/10/98

COMMENTS: _____

STIPULATIONS: ① STATEMENT OF BASIS

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

Operator Name: Anadarko Petroleum Corp

Name & Number: Helper State A-11

API Number: 43 - 007 - 30434

Location: 1/4,1/4 SWNW Sec. 11 T. 14 S R. 10 E

Geology/Ground Water:

There has been no evidence of water encountered during drilling of any of the wells in the surrounding area. However there are numerous diversions and at least three active springs that have been filed on with Water Rights, within 10,000 feet of this site. The Garley Canyon member of the Mancos shale, which is a known aquifer, pinch out to the north and west of this site. The proposed surface casing program of 300' of 85/8 #24 casing should be sufficient to cover any near surface deposits encountered.

Reviewer: K. Michael Hebertson

Date: 7-May-1998

Surface:

The pad will be built across a drainage that bisects the location. However the spoil from the pit will be used to divert this minor drainage into Trail Wash on the East of the location and a berm at the toe of the fill slope will be used to retain any of the runoff from the location on the south. The road will follow a ridge to the location from the confluence of Deadman Creek and Trail Wash. A great deal of impact could be avoided if the access road could follow the creek bottom for about 100-150 yards before climbing the ridge. Anadarko was asked to contact Mark Page with Water Rights. Proper water statements in the APD were discussed. Wildlife personnel were contacted to attend the presite, as were Carbon County, State Lands and Price City. Dust suppression while air drilling was discussed and Anadarko personnel indicated that they would mainly use an air mist method for drilling, which will suppress the dust. After some discussion it was decided not to line the Blooie pit, however fluid accumulations in this pit will be monitored.

Reviewer: K. Michael Hebertson

Date: 7-May-1998

Engineering:

Mud, Cement, BOP, and Casing programs are adequate.

Reviewer: Robert J. Krueger

Date: 19-May-1998

Conditions of Approval/Application for Permit to Drill:

1. The reserve pit will be lined with a minimum 12 Mil liner.
2. Drainage diversions and berms will be placed around the location such that water does not drain on to or off of the pad.
3. Access road will be ditched and crowned and properly drained.
4. Pit size will be reduced in accordance with discussions held at the time of the Presite
5. Pipeline, shoulders of the road and unused portions of the location will be reclaimed and reseeded as soon after completion as possible.

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: Anadarko
WELL NAME & NUMBER: Helper State A-11
API NUMBER: 43-007-30434
LEASE: State ML - 45805 FIELD/UNIT: Helper Field (018)
LOCATION: 1/4, 1/4 SWNW Sec: 11 TWP: 14 S RNG: 10 E 1450 FSL 1206 FEL
LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4, 1/4 LINE; 920 F ANOTHER WELL.
GPS COORD (UTM): None were obtained at the presite.

SURFACE OWNER: State of Utah School and Institutional Trust Lands

PARTICIPANTS

K. Michael Hebertson (DOG M), Jim Hartley Anadarko, David Kay Uinta Engineering,

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/~4.5 miles south of the 1000-1500' Book Cliffs. Shallow canyons (200-250' deep) incise the pediment forming benches north and east of Price, UT, below the Book Cliffs. Pediment gently slopes south. Location is in the flat 1 mile North of the City of Price Utah and 1.5 miles East of Meads Wash , and 50' West of Trail Wash.

SURFACE USE PLAN

CURRENT SURFACE USE: open for grazing, recreation and wildlife habitat however there is little forage for animals or livestock.

PROPOSED SURFACE DISTURBANCE: 270' X 180' pad with 130' X 50' X 10' pit included as part of the location. ~0.6 mile of new access road needed. Spoils and reserve pit backfill pile (South side) and topsoil stockpiles (West side) will be stored outboard of the pad and will be used to help divert water around the pad. See the plats filed.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 3 proposed wells. 3 producing well, 1 injection well, and 1 plugged well

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Power line and gathering system will follow approach road (buried).

SOURCE OF CONSTRUCTION MATERIAL: Native material will be used to gravel approach road and location. Any additional material will be acquired by the construction company from a commercial source.

ANCILLARY FACILITIES: none

WASTE MANAGEMENT PLAN:

Portable toilets; garbage cans on location will be emptied into centralized dumpsters which will be emptied into an approved landfill. Reserve pit will be dried after use and then buried. Water produced during testing and completion will be stored in a lined temporary reserve pit and disposed of by injection, reverse osmosis or evaporation. No hydrocarbon products produced or introduced to the well site will be allowed to accumulate in the pits.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Price Canal is ~3 mile and Price River is ~3.5 miles southwest. Three springs are within a 10,000 foot radius of this location, Northeast, Southeast, and Southwest. Trail Wash is ~50' West of the location. However it is only active during high runoff times.

FLORA/FAUNA: Sagebrush, cactus, shadscale, grasses var./ birds, coyotes, rodents, elk, deer, reptiles.

SOIL TYPE AND CHARACTERISTICS: Sandy, cobbled, moderately-permeable soil on the Quaternary/Tertiary slope wash which overlies the existing Blue Gate Shale Member of the Cretaceous Mancos Shale.

SURFACE FORMATION & CHARACTERISTICS: Quaternary/Tertiary slope wash on top of Mancos shale. Light brown, brown, gray, or reddish-brown, unconsolidated, massively-bedded sediments consisting of clays, silts, sands, pebbles, and cobbles in a poorly sorted mixture.

EROSION/SEDIMENTATION/STABILITY: Stable ground. Undercutting by water erosion is limited to the minor dry washes during cloudbursts and periods of rapid snowmelt. Sedimentation would occur during the wane of these episodes. The location will actually improve the overall stability of the site by eliminating some erosional areas and combining others thus lessening impact from erosion.

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: 130' X 50' X 10' excavated pit, bermed to deflect runoff. According to field survey the pit will be smaller than this.

LINER REQUIREMENTS (Site Ranking Form attached): Minimum 12 mil synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

Site will be restored to SITLA standards upon abandonment.

SURFACE AGREEMENT: As per state mineral lease

CULTURAL RESOURCES/ARCHAEOLOGY: Cleared and on-file.

OTHER OBSERVATIONS/COMMENTS

Prior to the presite review, several items were reviewed. 1) Water use permit No. from part 5 of the surface use plan. 2) Road ditching and crowning, and placement of pipelines. 3) Size of pits and locations being reduced in size. 4) Current field conditions and items that need to be brought into compliance. 5) Ditching and Crowning of the Access Roads. 6) Use of the Blooie or Flare Pit 7) Pit liners. 8) Methods of Dust suppression while air drilling. 9) Proper use of the Blooie Pit and or Flare pit and whether or not it should be lined were discussed

ATTACHMENTS:

4 photos were taken of this site.

K. Michael Hebertson
DOGM REPRESENTATIVE

6-May-1998 12:00 PM
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	_____
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	_____ 20
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	15	_____
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	_____
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	_____ 10
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	15	
TDS >10000 or Oil Base	20	
Mud Fluid containing high levels of hazardous constituents		_____
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	_____
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	_____ 3
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	_____ 8
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	_____ 15
Final Score		_____ 56





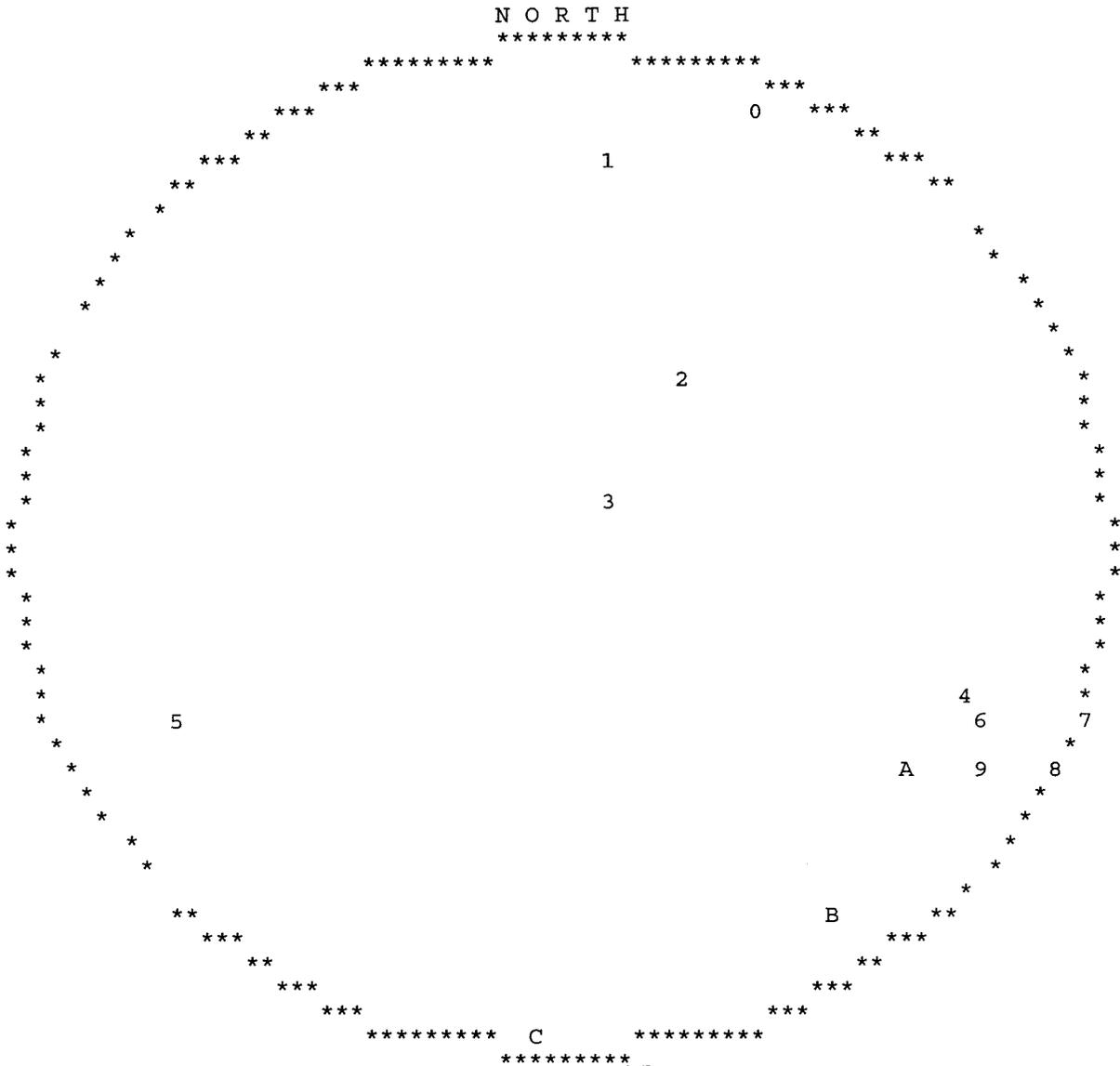




UTAH DIVISION OF WATER RIGHTS
WATER RIGHT POINT OF DIVERSION PLOT CREATED MON, MAY
PLOT SHOWS LOCATION OF 18 POINTS OF DIV

PLOT OF AN AREA WITH A RADIUS OF 10000 FEET
N 2438 FEET, S 1090 FEET OF THE SE CORNER,
SECTION 9 TOWNSHIP 14S RANGE 10E SL BASE

PLOT SCALE IS APPROXIMATELY 1 INCH = 4000 FE



UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PRO

```

-----
MAP   WATER   QUANTITY   SOURCE DESCRIPTION or WELL INFO   POIN
CHAR  RIGHT   CFS        AND/OR    AC-FT   DIAMETER  DEPTH   YEAR LOG  NORTH
-----
0  91 4397   .0150      .00 Sage Spring
    WATER USE(S): STOCKWATERING OTHER
    USA Bureau of Land Management (Moab Dist P.O. Box 970

1  91 2657   .0000      .00 Stream
    WATER USE(S): STOCKWATERING
    State of Utah School & Institutional Tru 675 East 500 South, 5th Floor

2  91 4463   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
    State of Utah School & Institutional Tru 675 East 500 South, 5th Floor

2  91 4463   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
    State of Utah School & Institutional Tru 675 East 500 South, 5th Floor

3  91 2659   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
    State of Utah School & Institutional Tru 675 East 500 South, 5th Floor

4  91 4313   .0150      .00 Deadman Spring
    WATER USE(S): STOCKWATERING
    Leautaud, Albert
                                     S   630

5  91 2281   .0000      .00 Price River
    WATER USE(S): STOCKWATERING
    Pilling, Clarence Peter
                                     Route #1

5  91 2281   .0000      .00 Price River
    WATER USE(S): STOCKWATERING
    Pilling, Clarence Peter
                                     Route #1

6  91 4314   .0000      .00 Deadman Wash
    WATER USE(S): STOCKWATERING
    Leautaud, Albert

6  91 4149   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
    Leautaud, Albert
                                     Box 321G Rt. #1

7  91 4312   .0150      .00 Unnamed Spring
    WATER USE(S): STOCKWATERING
    Leautaud, Albert
                                     S   785

8  91 2045   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
    Leautaud, Albert & Leona F.
                                     East of City

8  91 4149   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
    Leautaud, Albert
                                     Box 321G Rt. #1

9  91 2046   .0000      .00 Unnamed Stream
    WATER USE(S):
    Leautaud, Albert & Leona F.
                                     East of City

A  91 4150   .0000      .00 Unnamed Stream
    WATER USE(S): STOCKWATERING
  
```

	Leautaud, Albert		Box 321G Rt. #1
A	<u>91 4150</u>	.0000	.00 Unnamed Stream
	WATER USE(S): STOCKWATERING		
	Leautaud, Albert		Box 321G Rt. #1
B	<u>91 2100</u>	.0000	.00 Cardinal Wash
	WATER USE(S):		
	Leautaud, Albert & Leona F.		East of City
C	<u>91 1160</u>	.0000	.00 Meads Wash
	WATER USE(S): STOCKWATERING		
	Waterman, Cecil & Blanche		73 North 3rd East

CULTURAL RESOURCE INVENTORY OF
FIVE WELL LOCATIONS
AND WASTE DISPOSAL PIT EXTENSION
IN CARDINAL WASH AND MEADS WASH,
CARBON COUNTY, UTAH

by

Jacki A. Montgomery
and
Keith R. Montgomery

CULTURAL RESOURCE INVENTORY OF FIVE WELL LOCATIONS
AND WASTE DISPOSAL PIT EXTENSION
IN CARDINAL WASH AND MEADS WASH, CARBON COUNTY, UTAH

by

Jacki A. Montgomery
and
Keith R. Montgomery

Prepared For:

State of Utah

Prepared Under Contract With:

Anadarko Petroleum Corporation
P.O. Box 1330
Houston, Texas 77251

Prepared By:

Montgomery Archaeological Consultants
P.O. Box 147
Moab, Utah 84532

April 17, 1998

United States Department of Interior (FLPMA)
Permit No. 97-UT-60122

State of Utah Antiquities Project (Survey)
Permit No. U-98-MQ-0168s

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INTRODUCTION

Cultural resource inventories were conducted by Montgomery Archaeological Consultants in April 1998, for Anadarko Petroleum Corporation's proposed well locations, waste disposal pit extension, access roads and pipelines. The project area is situated north of the town of Price along Cardinal and Meads Washes, Carbon County, Utah. The archaeological survey was implemented at the request of Mr. Jim Hartley, Anadarko Petroleum, Price, Utah. This project is located on property under the jurisdiction of the State of Utah.

The objective of the inventories was to locate, document, and evaluate any cultural resources and paleontological localities within the project area. Federal legislation directed to the preservation of cultural resources include the Antiquities Act of 1906, National Historic Preservation Act of 1966 (as amended), the Archaeological Resource Preservation Act of 1974, the Archaeological Resources Protection Act of 1979 (as amended), American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

The fieldwork was performed by Keith R. Montgomery and Jacki A. Montgomery under the auspices of U.S.D.I. (FLPMA) Permit No. 97-UT-60122 and State of Utah Antiquities Project (Survey) No. U-98-MQ-0168s issued to Montgomery Archaeological Consultants, Moab, Utah.

A file search for previous projects and documented cultural resources were performed by Evie Seelinger, Archaeological Assistant, at the State Historical Preservation Office, Salt Lake City (April 2, 1998). Also the authors conducted a records search at the BLM Price River Resource Area Office on April 7, 1998. The result of the archaeological file searches indicated that several surveys related to energy exploration (Horn 1994; Montgomery and Montgomery 1996; Pope 1993) have been completed in the project area. Previously recorded cultural resources in the area included a few small ranches (Montgomery and Montgomery 1996), several trash disposal sites (Horn 1994; Montgomery and Montgomery 1996), and prehistoric limited activity sites (Hauck 1979). In addition, a file search was performed by Martha Hayden, Utah Geological Survey, which indicated no documented paleontological sites in the project area, although a high density of invertebrates are known from the Mancos formation in the region.

DESCRIPTION OF PROJECT AREA

Environment

The project area is located north of the town of Price, Carbon County, Utah. The inventory area consists of five proposed well locations, a waste disposal pit extension, and associated access/pipelines corridors. The legal description for the project area is T 14S, R 10E, Secs. 3, 9, 10, 11 (Figure 1). The well locations and associated pipelines/access routes according to land status and legal descriptions are presented in Table 1. In addition, a proposed pipeline (1400 feet long) between the access road/pipeline of Helper States A-11 and well locations Helper State A-13 was surveyed. As well, a waste disposal pit extension was inventoried in the central portion of T 14S, R 10E, S. 3 (Figure 1).

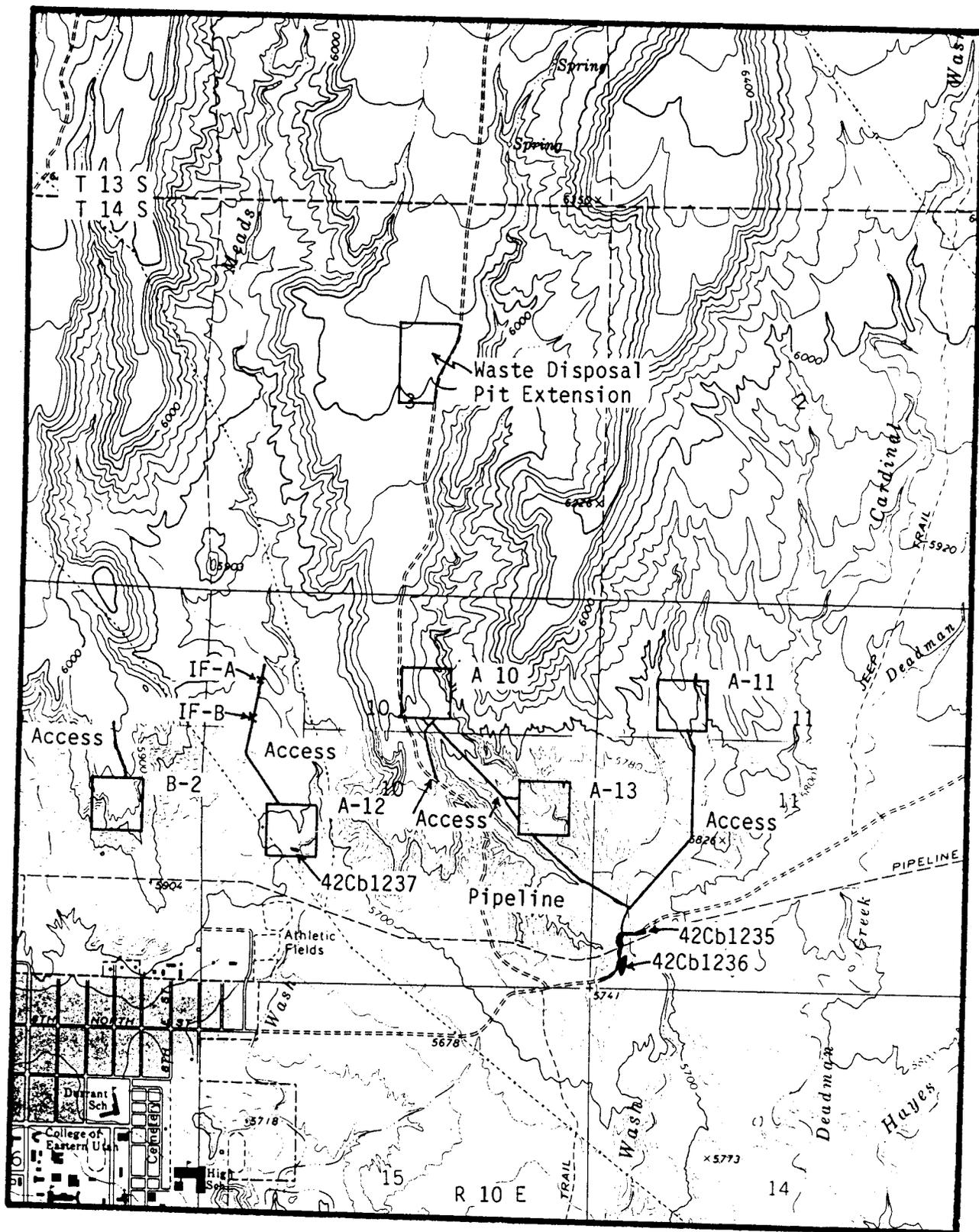


Figure 1. Anadarko Petroleum Well Locations: Helper State A-10, A-11, A-12, A-13, B-2 with Access Corridors, Waste Disposal Pit Extension, and Cultural Resources. USGS Helper, UT 7.5' 1972 and Price, UT 7.5' 1972. Scale 1:24000.

Table 1. Legal and Land Status Descriptions of Well Locations

Well Number	Legal Location	Location at Surface	Well Land Status	Access Corridor
Helper State #A-10(Alt-1)	T14S,R10E,S.10	1275' FNL 2306' FEL	State	1200'
Helper State #A-11	T14S,R10E,S.11	1450' FNL 1206' FWL	State	3700'
Helper State #A-12	T14S,R10E,S.10	2130' FSL 1180' FWL	State	1900'
Helper State #A-13	T14S,R10E,S.10	2431' FSL 736' FEL	State	1800'
Helper State #B-2	T14S,R10E,S.9	2438' FSL 1090' FEL	State	800'

In general, the project area lies in the uplands and margins of the Price River Valley. Named topographic features in the area include Meads Wash and Cardinal Wash. The physiographic subdivision are the Mancos Shale Lowlands and Bookcliffs-Roan Plateau physiographic subdivisions of the northern Colorado Plateau (Stokes 1986). Geologically, the study area occurs entirely in the Cretaceous Mancos Shale formation. From oldest to youngest, the named units of the Mancos Shale are Tununk shale, Ferron sandstone, Blue Gate shale, Emery sandstone and Musuk shale. Quaternary gravels cover the lower portion of the project area. The project area lies within the Upper Sonoran vegetation zone. The upper elevation is dominated by a Pinyon-Juniper community and the lower elevation consists of a Desert Shrub association. Elevations range from 5740 to 6040 feet. The nearest permanent water source is Price River, situated two miles from the western project boundary, and several springs occur in the eastern area between Meads Wash and Cardinal Wash. Modern impacts to the study area include numerous roads, overhead power lines, underground gas lines, mineral exploration, and grazing.

Cultural History

Prehistoric occupation of the study area spans the last 10,000-12,000 years. Cultural remains representing the Paleoindian, Archaic, Formative, Late Prehistoric and Historic periods have been identified in the study area.

The earliest known archaeological remains in central Utah are attributable to the Paleoindian period, which have been divided into three complexes: the Llano (ca. 11,500-11,000 B.P.), the Folsom (ca. 11,000-10,000 B.P.) and the Plano (ca. 10,500-7500 B.P.). To date, in Carbon and Emery Counties, Paleoindian artifacts have been found as surface isolated finds or lithic scatters (Copeland and Fike 1988). Finds of extinct fauna are also reported from the region, including a variety of animals from the Silver Creek locality (Madsen et al. 1976), and a mammoth from Huntington Canyon (Gillette 1989).

Archaic sites on the northern Colorado Plateau have been found to cluster in areas which offer overview qualities, proximity to outcrops of tool quality stone, as well as nearness to major topographic features (Black and Metcalf 1986; Howell 1992). A number of important Archaic sites have been excavated in central Utah including Joe's Valley Alcove, Clyde's Cavern, Pint-Size Shelter and Aspen Shelter (Howell 1992:20).

The Formative period is marked by reliance on domesticated plants, most notably corn, settlement in sedentary or semi-sedentary hamlets near areas optimum for horticulture, and the introduction of pottery, the earliest type in the project area being Emery Gray. The study area is within the occupation zone

of the San Rafael Fremont, as defined by Marwitt (1970). This variant is characterized by circular, stone-lined or earthen pit dwelling, and the clay-rimmed, flagstone paved firepit. One of the highest San Rafael Fremont site densities is in the Castle Valley, especially along Ferron Creek and Muddy Creek tributaries (Black and Metcalf 1986). Following the Fremont abandonment of the area, a largely nomadic hunting and gathering lifeway resumed. This occupation is attributed to the Numic-speaking peoples, a diverse group that was present throughout much of Utah upon the arrival of Europeans in the 18th century.

Throughout the first half of the nineteenth century, explorers, surveyors and trappers moved in small parties through the region, up and down the Old Spanish Trail. The first permanent settlers in the area were Mormons followed by immigrants and coal miners. Beginning in 1878, Mormon settlers spread out thinly along the Price River to take advantage of the available water. Most of the first settlers on the Price River, the Rhoades, Grameses, Powells, and others, came from Utah Valley by way of Soldier Summit (Geary 1981:131). In most of Carbon County, cattle ranching was the dominant mode of life in the 1870s and 1880s. The Whitmore ranch lay at the mouth of Whitmore Canyon, while the Miller brothers had their headquarters just below Hiawatha, with both outfits ranging widely throughout the area. Another large cattle outfit was at Spring Glen operated by John and Nels Jensen. Up until 1908, practically all of the ranges in the area were public domain or open range. About 1910, a state law was passed allowing the sale of state owned land at \$1.50 per acre, called "State Selections" (Liddell 1948:56). Many persons took advantage of these low land prices and purchased acreage surrounding water, thus trying to control the ranges. Finally the stock raising homestead rights were passed, allowing 640 acres to all who could qualify (Ibid:56). The sheep industry thrived in Carbon County from 1909 to 1914. Sheep outfits established in Carbon County from 1901 to 1905 included J.H.L. Leautaud, Charles Larsen, Wallace Lowery and Pete Jeanselme (Moynier 1948:58). In the 1920s, goats started to crowd the sheep off the range. In 1925-26, there were over 20,000 goats in Carbon County (Liddell 1948:55). When the Taylor Grazing Act became effective, goats were practically eliminated from public range.

During the early 1880s, the Denver and Rio Grande Railroad extended its lines throughout Utah, going through Price and Spanish Fork Canyon. Because of the railroad, Price became the market for the hay and grain from Emery County farms and the shipping point for livestock, and later the main retail center. The townsite of Price was surveyed in 1883, and a long meeting house was built. In 1884 the Price Water company organized and began the construction of a canal to bring water to the town. In 1892, a petition signed by 380 persons was presented to the county court, and the town of Price was organized, later to be incorporated in 1911 (Horsley 1984:6-7). At the turn-of-the-century Price emerged as an active business community with the establishment of the Emery County Mercantile Company, the Gilson Asphaltum Company, and the Price Trading Company. These three stores dominated the freight contacts by the heavy demand for supplies by Fort Duchesne. In 1886 a freight wagon road was established between Price and Myton, constructed by soldiers through Nine Mile and Gate Canyon (Geary 1981:138). Supplies for Fort Duchesne were housed in a Price warehouse under control of an army quartermaster and shipped for the next 20 years to the Basin. U.S. Army quartermaster records indicate that one contract in 1887 called for the hauling of two million pounds of supplies shipped from Price to Fort Duchesne (Ibid:141). Traffic increased on the route with the development of the gilsonite mines around 1889. The Carbon County to Uintah Basin road began at the railroad tracks and proceeded up 300 East Street in Price to the canal (Ibid:138). Then it angled northeast, passing just north of the cemetery and across the foothills to the Edwards ranch at the mouth of Soldier Creek Canyon. From that point it followed the general route of the present road, up through Whitmore Park, down Nine Mile to Gate Canyon, and across the southern part of the Uinta Basin to Myton, a distance of more than a hundred miles. Most of the commercial traffic along the freight route ended in 1905 when a railroad spur was built from Mack, Colorado, to Dragon, Utah, to haul the gilsonite from the Uinta Basin.

SURVEY METHODOLOGY

An intensive pedestrian survey was performed for this project which is considered 100% coverage. At each of the five well locations, a 10-acre square parcel was defined, laid out on the cardinal directions and centered on the well pads center stake. The interiors of the parcels were examined for cultural and paleontological resources with a series of parallel sweeps, spaced at 10 m (30 feet) intervals. The access roads and pipeline corridors were surveyed to a 150 feet (45 m) width by walking parallel transects along the staked centerline, spaced no more than 10 m (30 feet) apart. Inventoried acreage for this project consisted of 50 acres (well locations), 15 acres (waste disposal pit), and 37.2 acres (roads/pipelines). The entire project area was 102.2 acres located on property under the jurisdiction of the State of Utah.

Cultural resources were recorded as either an archaeological site or isolated find of artifact. Archaeological sites were defined as spatially definable areas with features and/or ten or more artifacts. Sites were documented by the archaeologists walking transects across the site, spaced no more than 3 m apart, and marking the locations of cultural materials with pinflags. This procedure allowed clear definition of site boundaries and artifact concentrations. At the completion of the surface inspection, a transit was employed to point-provenience diagnostic artifacts and other relevant features in reference to the site datum. Archaeological sites were plotted on a 7.5' USGS quadrangle, photographed, with site data entered on an Intermountain Antiquities Computer System (IMACS, 1990 version) inventory form (Appendix A). Isolated finds are defined as individual artifacts or light scatter of items, which lack sufficient material culture to warrant IMACS forms, or to derive interpretation of human behavior in a cultural and temporal context. All isolated artifacts were plotted on a 7.5' USGS map and described in this report.

INVENTORY RESULTS

The inventory of Anadarko Petroleum's five well locations, waste disposal pit extension, and associated access roads/pipelines resulted in the documentation of three newly-found archaeological sites, and two isolated finds of artifacts.

Smithsonian Site No.: 42Cb1235
Temporary Site No.: MQ-168 K/1
Legal Description: T. 14S, R. 10E, Sec. 11, SW1/4, SE1/4
Well Location: Helper State A-11
Jurisdiction: State of Utah

Description: This is a segment (Segment 42Cb1235.1) of the historic road from Price, Carbon County to the town of Myton, Duchesne County, Utah. The route was established around 1886 by soldiers from Fort Duchesne whom constructed a wagon road and telegraph line through Nine Mile and Gate Canyon (Geary 1981:137). Initially the road was used as a freight route for transporting goods from the army warehouse in Price to Fort Duchesne, a distance of more than 100 miles. In 1889, the road was used extensively for freighting gilsonite from the mines in the Uintah Basin to the Denver & Rio Grande Railway in Carbon County. The road began at the railroad tracks and proceeded up 300 East in Price to the canal. Then it angled northeast, passing just south of the cemetery and across the foothills to the Edwards ranch at the mouth of Soldier Creek Canyon. From that point it followed the general route of the present road, up through Whitmore Park, up Nine Mile to Gate Canyon, and across the southern part of the Uinta Basin to Myton. This route was used extensively for commercial trade until around 1905 when a railroad spur was built from Mack, Colorado, to Dragon, Utah, to haul the gilsonite from the Uinta Basin. By 1930s, this segment of the route was abandoned when a new road (US 50) was constructed to Myton byway of Wellington, UT (Rand McNally & Company 1937).

This segment of the historic Carbon County freight road to the Uinta Basin crossed Cardinal Wash approximately one mile northeast of the present town of Price (Figure 1). The inspected segment is approximately 1300 feet long and 18 feet wide. The south end of the segment is utilized as a jeep trail and the north end is abandoned. Associated features include a dismantled bridge across Cardinal Wash and a series of trash dumps dating from the early 1900s to mid-1940s (42Cb1236). The surface of the road retains poor integrity, lacking a gravel or bitumous surface. The only structure associated with this segment are three concrete bridge abutments which spanned Cardinal Wash. The original span of this bridge is estimated as 96 feet. The decking is estimated to have been 21 feet above the drainage bottom. The east side poured-in-place concrete abutment occurs about 15 feet below the original dismantled bridge decking. It measures 6 feet high, 18 feet, long and 18 inches thick with 8 foot wingwalls attached to the ends. Extending from the top of the abutment are four 1-inch bolts which were attached to the bridge superstructure. The west side abutment occurs about 28 feet across from the east abutment, having the same dimensions, although only its upper portion is exposed. Located 18 feet upslope is a third concrete bridge support which measures 20 feet long, 18 inches thick, with 9 inches exposed above the ground. All the superstructure bridge components have been dismantled and removed from the area.

Smithsonian Site No.: 42Cb1236
Temporary Site No.: MQ-168 K/2
Legal Description: T. 14S, R. 10E, Sec. 11, SW1/4, SW1/4, SW1/4
Well Location: Helper State A-11
Jurisdiction: State of Utah

Description: The site consists of numerous small trash dumps located along the southwest side of the historic Carbon County freight road to the Uinta Basin (42Cb1235). The trash dumps consist mainly of household items which have been burned in barrels and discarded in the area (Figure 2). The historic artifacts range temporally from the early 1900s to the mid-1940s, and include glass containers, sanitary tin cans and ceramic items. The majority of the glass containers are fully-automatic alcohol bottles, with canning jars, milk bottles, and medicine containers also represented. Glass trademarks include Owens-Illinois Pacific Coast Co. (1932-1943), Hazel-Atlas Glass Company (1920-1964), KERR MFC CO. SAND SPRINGS OKLA PAT AUG 31 1915, Illinois Glass Co., Alton, Ill. (1916-1929), and Owens-Illinois Company (1929-1954). The majority of the sanitary tin cans (N=40) are smashed with cut-around openings. Diagnostic tin can items included lard, oil, coffee, fruit and evaporated milk containers. Several tin canning lids for external thread jars were found embossed with "Kerr" and "Crown Mason". Ceramic artifacts consisted mainly of plain white ironstone or semi-porcelain wares, although several flow-blue porcelain (ca. 1870) and more recent painted, transfer, and molded decorated sherds were documented. Only one ceramic sherd was found with a hallmark: "ARGOSY W.S. George (Company) IVORY (ca. 1930). Other domestic items found in the trash dumps included zinc and glass canning lids, numerous crown tops, leather soles, vehicle window glass, and an automobile seat spring. Coal and ash was found in most of the barrel dumps, residue from stoves and trash burning episodes.

Smithsonian Site No.: 42Cb1237
Temporary Site No.: MQ-168 K/3
Legal Description: T. 14S, R. 10E, Sec. 10, SE1/4, NW1/4, SE1/4
Well Location: Helper State A-12
Jurisdiction: State of Utah (College of Eastern Utah)

Description: The site consists of three water/erosion control features situated along a side drainage of Meads Wash (Figure 3). The features appear to have been related to the early ranching/farming period of the area. This area is highly dissected by numerous drainages and the check dams would have hampered grazing or farming erodibility. Check Dam 1 is still functional, extending across the intermittent drainage in the northwest portion of the site. It is a dry-laid sandstone block wall measuring 16 feet long, 38 inches high, and 26 inches wide. The material consists of selected untrimmed local sandstone blocks. The check dam is in fair condition with the upstream side silted-in. Check Dams

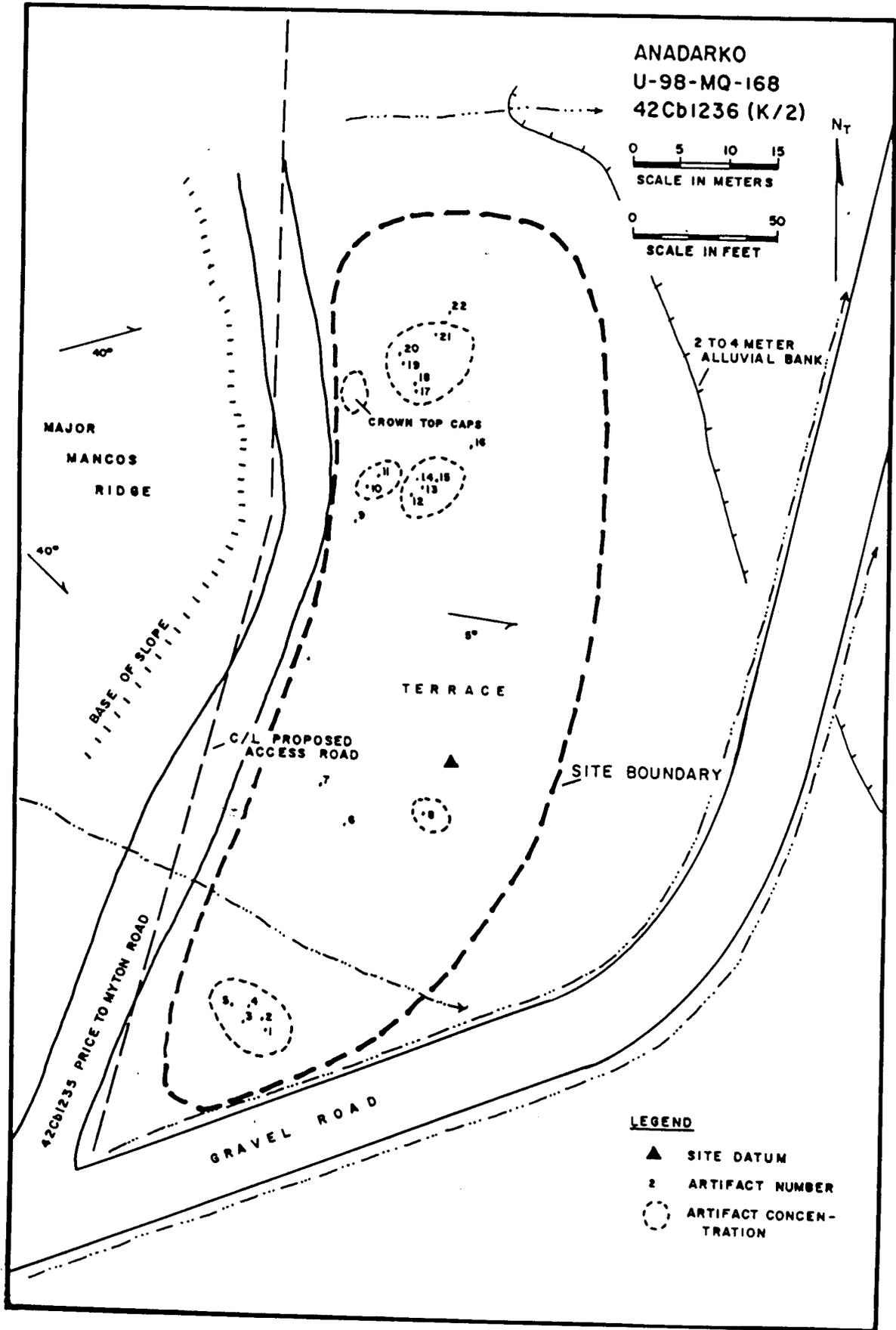


Figure 2. 42Cb1236 Site Map.

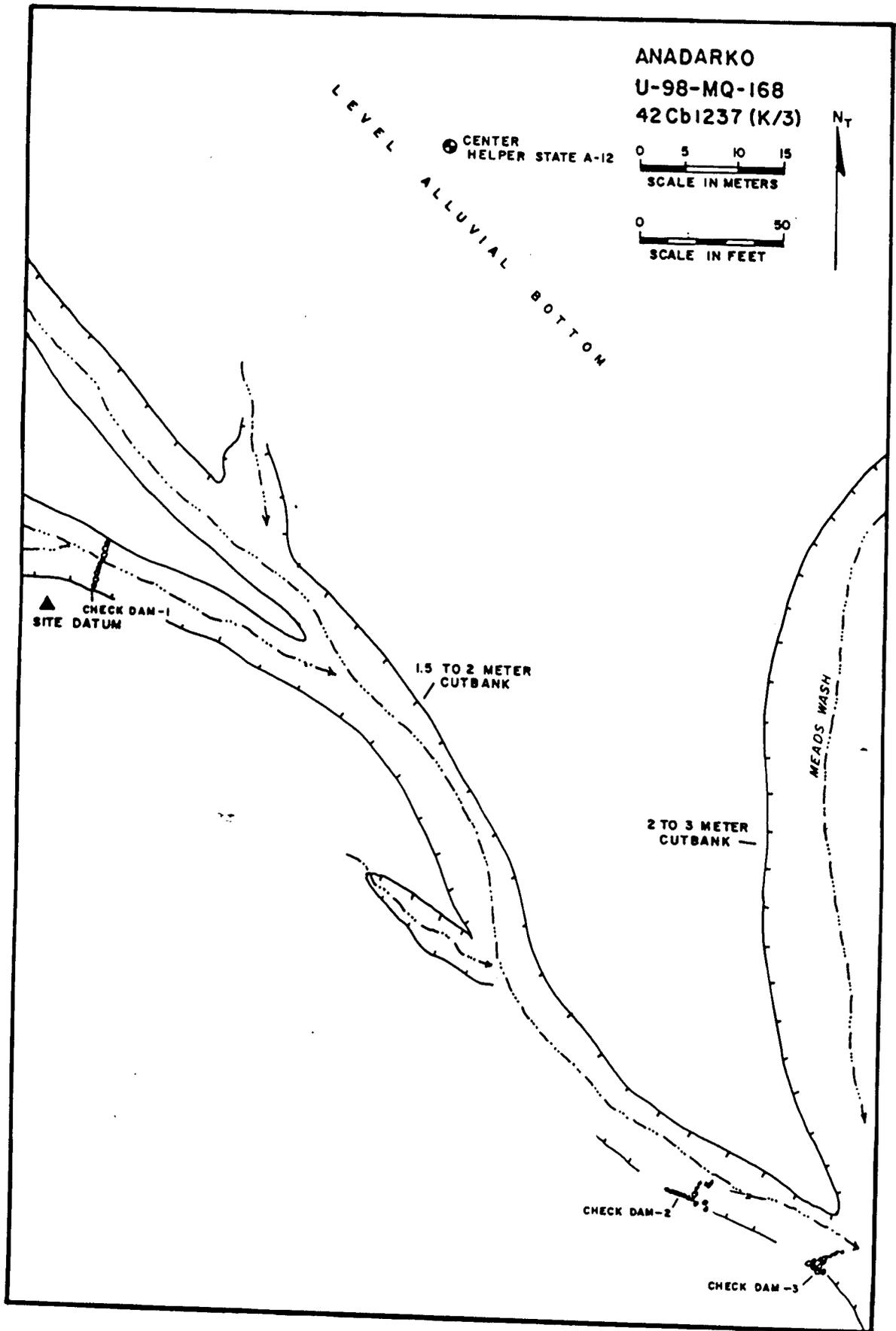


Figure 3. 42Cb1237 Site Map.

2 and 3 occur downstream from Check Dam 1 and retain poor physical integrity. Check Dam 2 consists of two 10 feet long and 20 inch high dry-laid sandstone alignments placed parallel to the drainage. These walls are constructed from untrimmed local sandstone blocks and rocks. Hogwire fencing (4 inch) extends from the center of the masonry walls into the drainage bottom, supported by sawed-off juniper posts. Check Dam 3 is a low collapsed dry-laid sandstone cobble alignment. Attached to the alignment is hogwire fencing supported by juniper posts. Both of the water/erosion control features are no longer functional. The site lacked associated cultural materials or other features.

Isolated Finds of Artifacts

Isolated Find A (IF-A) is located in the SW/NW/NW of S. 10, T 14S, R 10E (UTM 517680E-4386140N), Figure 1. It consists of a light green opalescent square base bottle embossed with "MAYFAIR LTD BRAND", manufactured by Pierce Glass Company (1905-1917).

Isolated Find B (IF-B) is located in the NW/SW/NW of S. 10, T 14S, R 10E (UTM 517660E-4386000N), Figure 1. It consists of a purple body container fragment.

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

The National Register Criteria for Evaluation of Significance and procedures for nominating cultural resources to the National Register of Historic Places (NRHP) are outlined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that they:

- a)...are associated with events that have made a significant contribution to the broad patterns of our history; or
- b)...are associated with the lives of persons significant to our past; or
- c)...embody the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d)...have yielded or may be likely to yield information important in prehistory or history.

The cultural resource inventory of Anadarko Petroleum's well locations, waste disposal pit extension and access routes resulted in the documentation of three historic sites (42Cb1235, 42Cb1236 and 42Cb1237), and two isolated finds of artifacts. The historic road (42Cb1235) from Price to Myton freight route is evaluated as eligible to the NRHP under Criteria A based on its overall association with events that have made a significant contribution to the broad patterns of our history. However, Segment 42Cb1235.1 documented during this inventory is considered non-contributory to the eligibility of this historic property, since the earthen road bed and bridge remnants along Cardinal Wash fails to retain physical/structural integrity.

Both 42Cb1236 and 42Cb1237 are considered not eligible for NRHP inclusion. Site 42Cb1236 is a surficial trash dump lacking depth potential and associated cultural features. Site 42Cb1237 consists of water/erosional control feature which are not unique to the area and fail to embody the distinctive

characteristics of a type, period and method of construction. Additional research at these sites would not contribute significant information to the history of the area. The two isolated finds of artifacts are not eligible for the NRHP, due to their lack of research potential.

MANAGEMENT RECOMMENDATION

The inventory of Anadarko Petroleum's well locations resulted in the recordation of three historic sites and two isolated finds of artifacts. Only Site 42Cb1235 (historic road) is evaluated as eligible for nomination to the NRHP under Criteria a. The portion of the road documented during this project (42Cb1235.1) is considered as non-contributory to the significance of the historic property. Furthermore, Anadarko Petroleum's proposed project impacts will not effect the only structural features along this segment, the concrete bridge abutments.

Based on these findings, a determination of "no effect" to Section 106, CFR is recommended for this project.

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APPENDIX A

SITES 42Cb1235, 42Cb1236 and 42Cb1237
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM (IMACS) SITE FORM

On File At:

Utah Division of State History
Salt Lake City, Utah



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

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

May 26, 1998

Anadarko Petroleum Corporation
17001 Northchase Drive
Houston, Texas 77060

Re: Helper State A-11 Well, 1450' FNL, 1206' FWL, SW NW,
Sec. 11, T. 14 S., R. 10 E., Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30434.

Sincerely,

A handwritten signature in cursive script that reads "John R. Baza".

John R. Baza
Associate Director

lwp

Enclosures

cc: Carbon County Assessor

Bureau of Land Management, Moab District Office

Operator: Anadarko Petroleum Corporation
Well Name & Number: Helper State A-11
API Number: 43-007-30434
Lease: ML-45805
Location: SW NW Sec. 11 T. 14 S. R. 10 E.

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours prior to spudding the well or commencing drilling operations. Contact Jim Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Dan Jarvis at (801) 538-5338 or Robert Krueger at (801) 538-5274.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

Robert L. Morgan
State Engineer

1594 West North Temple, Suite 220
Box 146300
Salt Lake City, Utah 84114-6300
801-538-7240
801-538-7467 (Fax)

June 11, 1998

Jim Hartley
Anadarko Petroleum Corporation
P.O. Box 894
Price, UT 84501

RE: Stream Channel Alteration Permit Number 98-91-07SA for low water crossings on Cardinal Wash, near Wellington, in Carbon County.
EXPIRATION DATE: June 11, 1999

Pursuant to Section 73-3-29 of Utah Code Annotated, 1953, the State Engineer's office has reviewed your Stream Channel Alteration Application No. 98-91-07SA and has approved your permit with the following conditions:

1. The expiration date of this approved application is June 11, 1999. The expiration date may be extended, at the State Engineer's discretion, by submitting a written request outlining the need for the extension and the reasons for the delay in completing the proposed stream alteration.
2. A copy of this approved permit must be kept on-site at any time the work under this approved permit is in progress.
3. Impacts to the stream channel and surrounding environment must be minimized. Vegetation should not be destroyed, but if some disturbance is necessary, then revegetating with native species will be required, especially of woody shrubs. The channel contours and configuration must not be changed.
4. Riprap must consist of only clean, properly sized, angular rock. Riprap must be keyed deeply into the stream bed to prevent undercutting. A filter shall be placed behind riprap if necessary (i.e., if soils are fine grained, non-cohesive, and/or erodible). Demolition debris or refuse will not be allowed, nor material such as bricks, concrete, asphaltic material [either natural (tar sand, oil shale, etc.) or man made].
5. Wet cement is toxic to aquatic organisms, and its introduction into waters of the United States would constitute a violation of the Clean Water Act. Wet cement or concrete may not be allowed to enter stream flows. Water must be excluded from areas where concrete or cement is used until it has set. Contaminated water pumped from the construction area may not be discharged in a manner that will allow it to enter flows. Equipment used during this type of work must be washed well away from the channel.

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: ANADARKO PETROLEUM

Well Name: HELPER STATE A-11

Api No. 43-007-30434

Section 11 Township 14S Range 10E County CARBON

Drilling Contractor _____

Rig # _____

SPUDDED:

Date 6/22/98

Time _____

How DRY HOLE

Drilling will commence _____

Reported by JIM HARTLEY

Telephone # _____

Date: 6/22/98 Signed: JLT

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NO.

ML-45805

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

HELPER STATE

9. WELL NO.

A-11

10. FIELD AND POOL, OR WILDCAT

HELPER CBM

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

SEC. 11, T14S, R10E

12. COUNTY

CARBON

13. STATE

UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

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

2. NAME OF OPERATOR

Anadarko Petroleum Corporation

3. ADDRESS OF OPERATOR

17001 Northchase Dr., Houston, Texas 77060

4. LOCATION OF WELL (Report location clearly and in accordance with well log recording regulations)

At surface
1450' FNL & 1206' FWL, SW NW

At top prod. interval reported below
SAME

At total depth
SAME

14. API NO.

43-007-30434

DATE ISSUED

5/26/98

15. DATE SPUDDED

7/11/98

16. DATE T.D. REACHED

7/12/98

17. DATE COMPL. (Ready to prod. or Plug & Abd.)

8/14/98

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)

5812' GL & 5824' KB

19. ELEV. CASINGHEAD

5812' GL

20. TOTAL DEPTH, MD & TVD

2093' TD

21. PLUG, BACK T.D., MD & TVD

2033' PBDT

22. IF MULTIPLE COMPL., HOW MANY

N/A

23. INTERVALS DRILLED BY

→

ROTARY TOOLS

X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)

FERRON COAL - 1578' - 1676' OA

25. WAS DIRECTIONAL SURVEY MADE

NO

26. TYPE ELECTRIC AND OTHER LOGS RUN

CBL/GR/CALP/PEF/DRHO/DP/SMP

27. Was Well Cored YES NO (Submit analysis)
Drill System Test YES NO (See reverse side)

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24	295'	12-1/4"	150 SX	
5-1/2"	17	2093'	7-7/8"	175 SX	

29. LINER RECORD

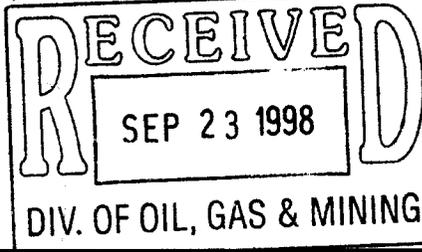
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8"	1564'	

31. PERFORATION RECORD (Interval, size and number)

1578' - 1580' (12)
1606' - 1608' (12)
1672' - 1676' (24)



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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
1578' - 1676'	FRAC W/60800# 20/40 SD & 81500# 12/20 - FLUSH W/1475 GAL WATER

33. PRODUCTION

DATE FIRST PRODUCTION 8/14/98		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) PUMPING - ROD PUMP 2"x1-1/2"x16'				WELL STATUS (Producing or shut-in) PRODUCING	
DATE OF TEST 8/14/98	HOURS TESTED 24	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL - BBL. 0	GAS - MCF. 11	WATER - BBL. 23	GAS - OIL RATIO N/A
FLOW. TUBING PRESS. N/A	CASING PRESSURE 60	CALCULATED 24-HOUR RATE →	OIL - BBL. 0	GAS - MCF. 11	WATER - BBL. 23	OIL GRAVITY - API (CORR.) N/A	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

SOLD - QUESTAR

TEST WITNESSED BY

JIM HARTLEY, ANADARKO

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

Shad M. Frazier

TITLE

SHAD M. FRAZIER
ENGINEER

DATE

9/22/98

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on any attachment.

ITEMS 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

ITEM 29: "Sacks Cement": Attached supplemental records for this well should show the details for any multiple-stage cementing and the location of the cementing tool.

ITEM 33: Submit a separate completion report on this form for each interval to be separately produced (see instruction for items 22 and 24 above).

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).

Formation	Top	Bottom	Description, contents, etc.	Name	Top	
					Meas. Depth	True Vert. Depth
FERRON COAL	1572'	1690'		EMERY/MANCOS		SURFACE
				BLUEGATE SHALE		520'
				TOP FERRON		1562'
				TUNUNK SHALE		1780'

38. GEOLOGIC MARKERS

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial Number:

ML 45805

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

Helper State A-11

9. API Well Number:

43-007-30434

10. Field and Pool, or Wildcat

Wildcat

1. Type of Well: OIL GAS OTHER: Coalbed Methane

CONFIDENTIAL

2. Name of Operator:
Anadarko Petroleum Corporation

3. Address and Telephone Number:
17001 Northchase Drive, Houston, TX 77060 281-875-1101

4. Location of Well
Footagec: 1450 FNL & 1206 FWL
OO, Sec., T., R., M.: NW/4 Sec 11-T14S-R10E

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 _____
- New Construction
- Pull or Alter Casing
- Recompletion
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start Spud Notification @ 2030
Hrs on 07/11/98

SUBSEQUENT REPORT
(Submit Original Form Only)

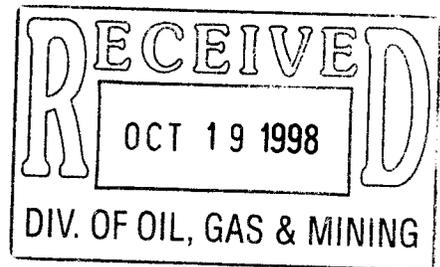
- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other _____
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

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.)



13.

Dave Hudspeth

Name & Signature: _____

Title: Staff Drilling Engineer Date: 7/14/98

**ANADARKO PETROLEUM CORPORATION
WELL HISTORY**

HELPER STATE "A" 11, HELPER-PRICE, 1450 FNL & 1206 FWL, SEC 11-T14S-R10E, CARBON COUNTY, UT., APC WI 1.0000, NRI 0.8750, AFE 17272 (LOC #116918), ETD 2200', GLE - 5812' (FERRON COAL), MOLEN RIG #1, API #43-007-30434.

- 07/11/98 **SPUD WELL @ 2030 HRS 11 JULY 98**, DRLG F/ 295' - 450', LAST SURVEY @ 295' - 0.25°, MW - AIR, CC 40,000. RPT #1
- 07/12/98 DRLG F/ 450' - 2093', CIRC FOR LOGS, POOH LOG WELL, R/D LOGS, LAST SURVEY @ 1711' - 2.0°, MW - AIR, CC 70,000. RPT #2
- 07/13/98 POOH W/ LOGS, RIH W/ BIT, CIRC HOLE CLEAN, POOH-LDDP/DC, RIH W/ 51 JTS N80 17# 5 ½" CSG TO 2093', CMT SAME W/ HOWCO (175 SX-EST TOC @ 1050'), N/D BOPE, SET SLIPS-CUT CSG, INSTALL TBG HEAD, R/D, **RELEASE RIG @ 2400 HRS 13 JULY 98, END OF PROJECT FOR YEAR**, LAST SURVEY @ 1711' - 2.0°, MW - AIR, CC 126,486. RPT #3 **-TEMP DROP FROM REPORT-**
- 08/03/98 POOH W/ LOGS, RIH W/ BIT, CIRC HOLE CLEAN, POOH-LDDP/DC, RIH W/ 51 JTS N80 17# 5 ½" CSG TO 2093', CMT SAME W/ HOWCO (175 SX-EST TOC @ 1050'), N/D BOPE, SET SLIPS-CUT CSG, INSTALL TBG HEAD, R/D, **RELEASE RIG @ 2400 HRS 13 JULY 98, END OF PROJECT FOR YEAR**, LAST SURVEY @ 1711' - 2.0°, MW - AIR, CC 126,486. RPT #3 **-TEMP DROP FROM REPORT-**
- 08/04/98 PBTD 2033 (FERRON COAL), MIRUWL, RAN GR/JB, RAN GR/CCL/CBL FROM PBTD TO 490, TOC 690, PRESS TEST TO 5500# - OK, **PERF FERRON COAL AS FOLLOWS: 1672-76, 1606-08, 1578-80 W/ 6 SPF**, RDMOWL, CC 132,500.
- 08/05/98 PBTD 2033 (FERRON COAL), MIRU HES, FRAC FERRON COAL W/ 60800# 20/40 (1/2 - 4 PPG) + 81500# 12/20 (1 - 6 PPG), FLUSH W/ 1475 GAL, ISIP 1520-1240-1200-1120, AIR 42, MIR 44.5, ATP 2600, MTP 3700, RDMO HES, OPEN TO FRAC TANK, 1887 BLWTR, CC 200,200.
- 08/06/98 PBTD 2033 (FERRON COAL), WAITING ON PU, CC 200,200. - **TEMP DROP FROM REPORT—**
- 08/11/98 PBTD 2033 (FERRON COAL), MIRUPU, TIH W/TBG, TAG FILL @ 1874, CO TO PBTD, SET EOT @ 1564, CC 202,900.
- 08/12/98 PBTD 2033 (FERRON COAL), MIRUPU, IFL SURF, SWAB 99 BLW, FFL 200, WELL FLWD 1.5 HOURS, TIH W/ TBG, TAG PBTD @ 2033, POOH, LAY DWN 10 JTS, TIH W/ RODS & PUMP, TEST PUMP-OK, RDMOPU, CC 214,800.
- 08/13/98 WAITING ON PRODUCTION. - **TEMP DROP FROM REPORT-** CC 214,800.
- FINAL REPORT CODE 40101**
- 09/09/98 PBTD 2033 (FERRON COAL), PMPD 23 BWPD, 11 MCFD, FL 1575, CP 60 , SGL PMPG COAL BED GAS WELL, **PERFS 1578-1676, FIRST GAS SALES 8/14/98** CC 214,800.

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

FROM: (Old Operator): N0035-Anadarko Petroleum Corporation PO Box 173779 Denver, CO, 80214 Phone: 1 (720) 929-6000	TO: (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											NO				

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: See Wells
2. NAME OF OPERATOR: Anadarko Petroleum Corporation		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:
4. LOCATION OF WELL FOOTAGES AT SURFACE: _____ QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____		8. WELL NAME and NUMBER:
		9. API NUMBER: See Wells
		10. FIELD AND POOL, OR WILDCAT:
		COUNTY: _____ STATE: UTAH

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"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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

Jaime Scharnowske
Jaime Scharnowske
Regulatory Analyst

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

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

Rachel Medina

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
 Effective 1st 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	Twنشp	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