

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN

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

2. NAME OF OPERATOR  
 Chandler & Associates, Inc.

3. ADDRESS AND TELEPHONE NO.  
 303-295-0400  
 475 Seventeenth Street, Suite 1000 Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface  
 1830' FNL 1749' FWL (SE NW)  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See Topo Map "A"

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	1749'	16. NO. OF ACRES IN LEASE	2320	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.	3000'	19. PROPOSED DEPTH	6750'	20. ROTARY OR CABLE TOOLS	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 4845' GR

22. APPROX. DATE WORK WILL START\*  
 A.S.A.P.

5. LEASE DESIGNATION AND SERIAL NO.  
 UTU-16551

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

7. UNIT AGREEMENT NAME  
 N/A

8. FARM OR LEASE NAME, WELL NO.  
 Purdy Federal

9. API WELL NO.  
 #6-34-7-21

10. FIELD AND POOL, OR WILDCAT  
 Unnamed

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 34, T7S, R21E, S.L.B.&M.

12. COUNTY OR PARISH  
 Uintah

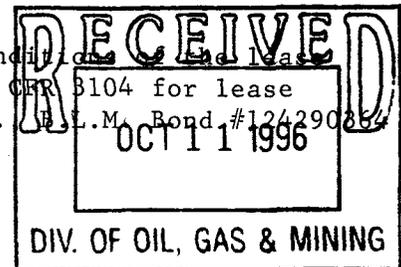
13. STATE  
 Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24# ST&C	300'	(See attached drilling plan)
7 7/8"	5 1/2"	15.5 & 17# LT&C	6750'	(See attached drilling plan)

1. M.I.R.U.
2. Drill to T.D. 6750'
3. Run 5 1/2" casing if commercial production is indicated.
4. If dry hole, well will be plugged and abandoned as instructed by the B.L.M.
5. Well will be drilled with fresh water to 4500', then Chem Gel Mud to T.D. mud will be in place to run 5 1/2" casing.

I hereby certify that I am responsible by the terms and conditions of this permit to conduct lease operations. Bond Coverage pursuant to 43 CFR 3104 for lease activities is being provided by Chandler & Associates, Inc. with CNA.



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

24. SIGNED Robert L. Kay TITLE Agent for Chandler DATE 10-10-96

(This space for Federal or State office use)  
 PERMIT NO. 43-047-32787 APPROVAL DATE \_\_\_\_\_

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

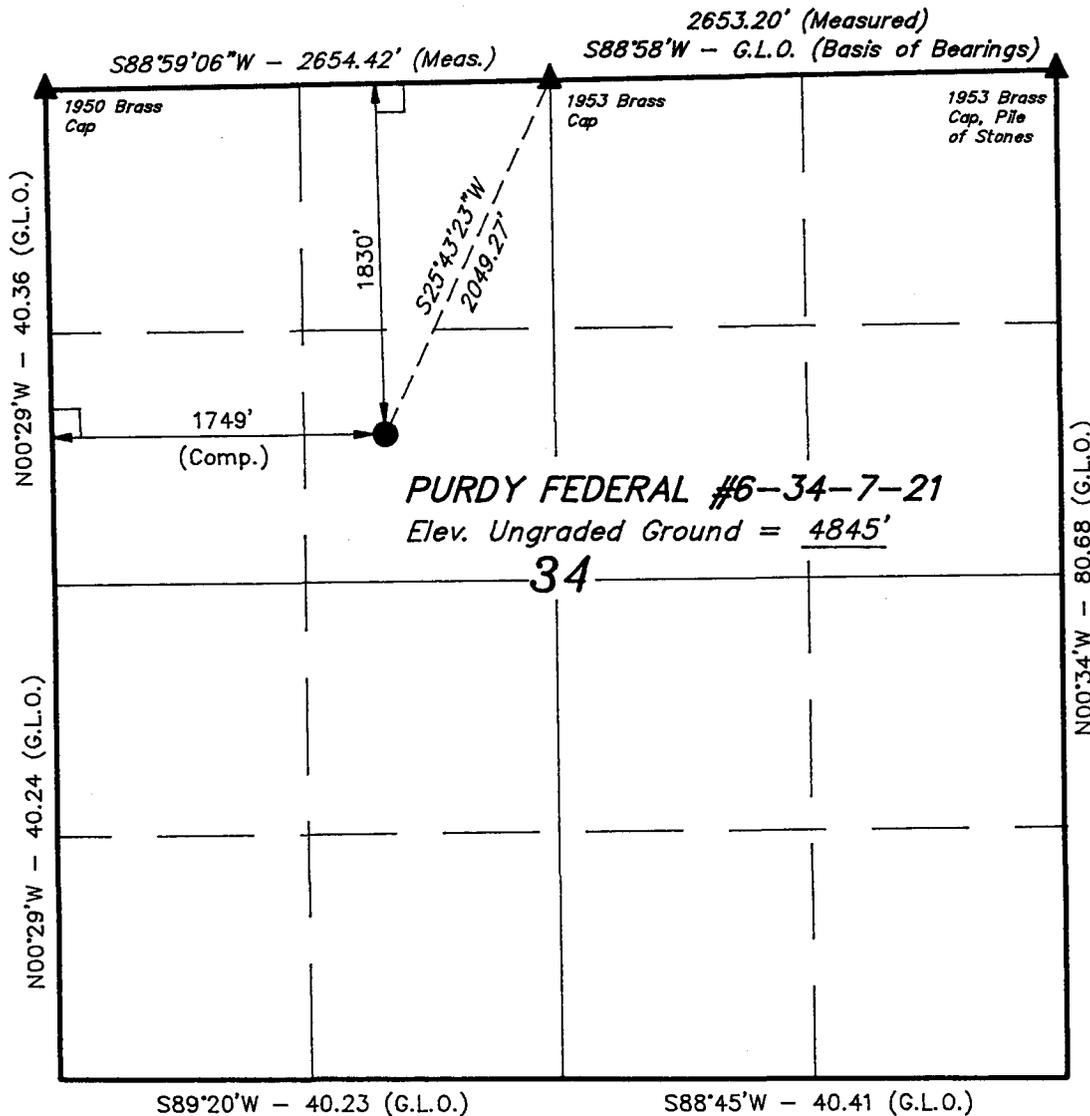
APPROVED BY [Signature] TITLE Petroleum Engineer DATE 12/16/96

\*See Instructions On Reverse Side

# T7S, R21E, S.L.B.&M.

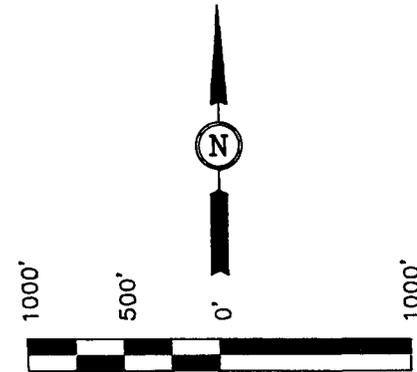
CHANDLER & ASSOCIATES, INC.

Well location, PURDY FEDERAL #6-34-7-21, located as shown in the SE 1/4 NW 1/4 of Section 34, T7S, R21E, S.L.B.&M. Uintah County, Utah.



## BASIS OF ELEVATION

SPOT ELEVATION AT THE NORTHEAST CORNER OF SECTION 34, T7S, R21E, S.L.B.&M. TAKEN FROM THE BRENNAN BASIN QUADRANGLE, UTAH, UINTAH COUNTY 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5069 FEET.



SCALE

## 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. Hay*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 131619  
STATE OF UTAH

Revised: 10-9-96 C.B.T.

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

## LEGEND:

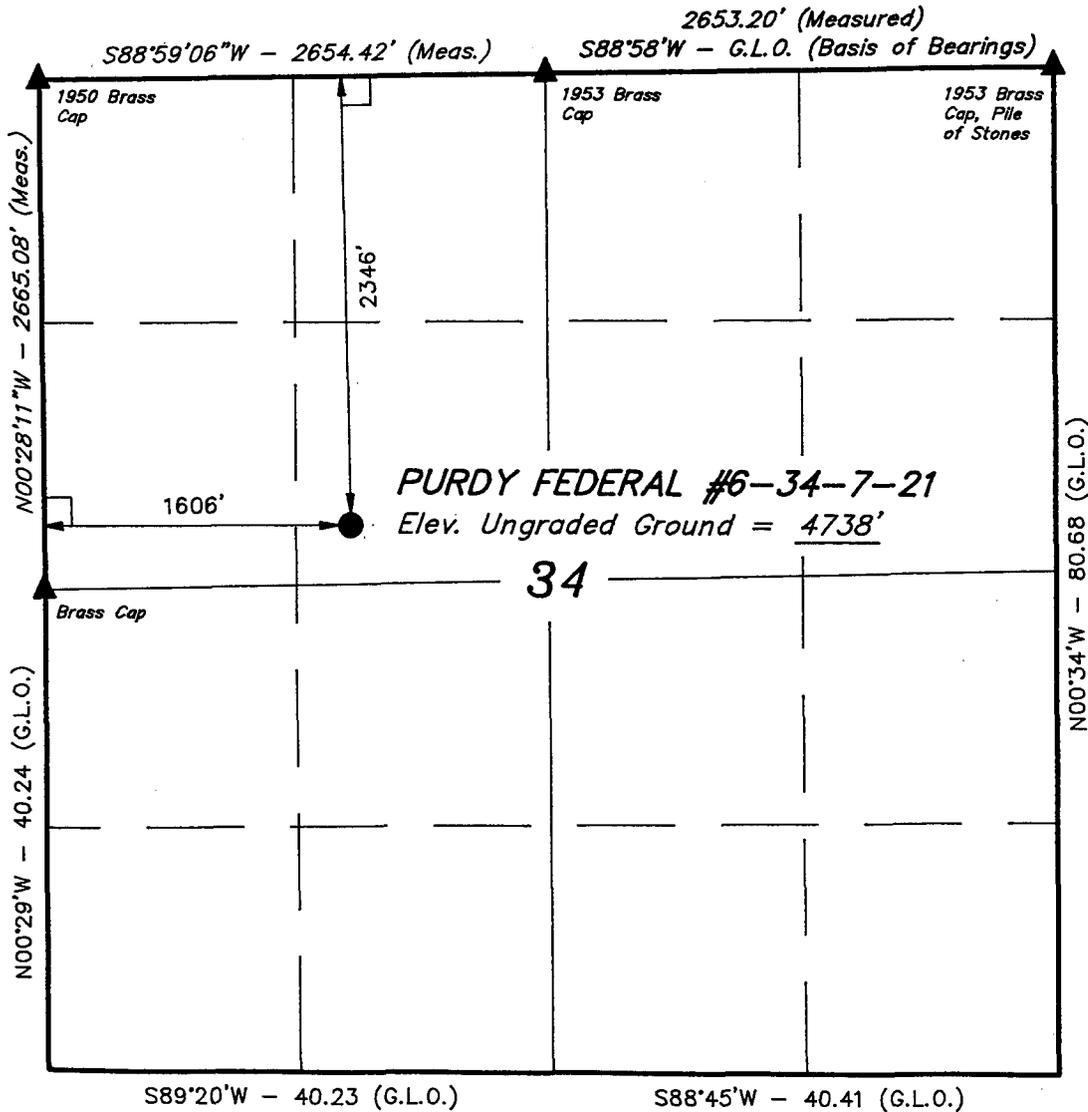
- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

SCALE 1" = 1000'	DATE SURVEYED: 9-27-96	DATE DRAWN: 10-2-96
PARTY L.D.T. M.R. C.B.T.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE CHANDLER & ASSOCIATES, INC.	

# T7S, R21E, S.L.B.&M.

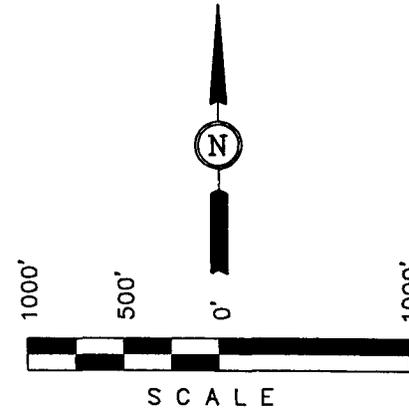
CHANDLER & ASSOCIATES, INC.

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Revised: 11-9-96 C.B.T.

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 85 SOUTH 200 EAST - VERNAL, UTAH 84078  
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### LEGEND:

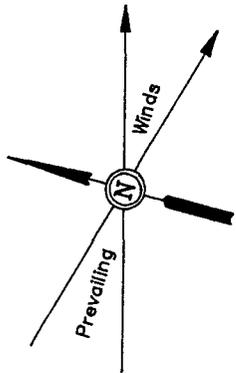
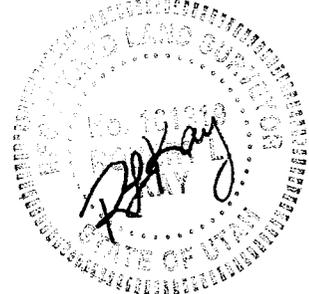
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WEATHER WARM	FILE CHANDLER & ASSOCIATES, INC.	

# CHANDLER & ASSOCIATES, INC.

## LOCATION LAYOUT FOR

PURDY FEDERAL #6-34-7-21  
SECTION 34, T7S, R21E, S.L.B.&M.  
2346' FNL 1606' FWL



SCALE: 1" = 50'  
DATE: 11-9-96  
Drawn By: C.B.T.

Approx.  
Top of  
Cut Slope



**NOTE:**

Flare Pit is to be located a min. of 100' from the Well Head.

El. 45.5'  
**C-15.6'**  
(btm. pit)

Re-route Drainages  
10' WIDE DIKE/BENCH  
Pit Capacity With 2' of Freeboard is ±3,800 Bbls.

El. 34.6'  
**C-4.7'**  
(btm. pit)

**C-0.5'**  
El. 38.4'

El. 35.2'  
**F-2.7'** Reserve Pit Backfill & Spoils Stockpile

**F-2.5'**  
El. 35.4'

**C-3.0'**  
El. 40.9'

**C-0.5'**  
El. 38.4'

**C-7.0'**  
El. 44.9'

**C-7.4'**  
El. 45.3'

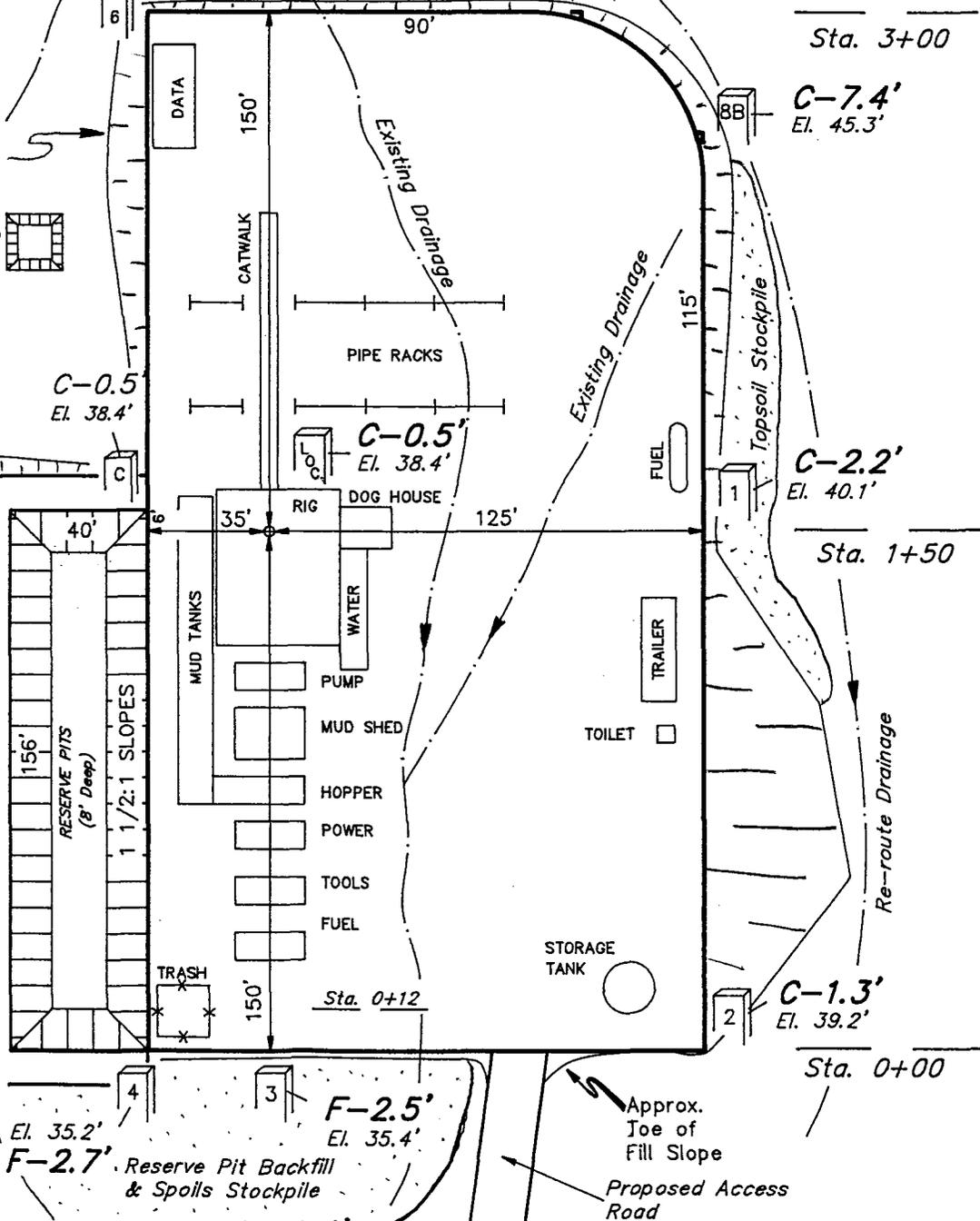
**C-2.2'**  
El. 40.1'

**C-1.3'**  
El. 39.2'

**C-3.2'**  
El. 41.1'

Spoils Stockpile

Topsoil Stockpile



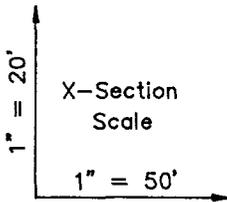
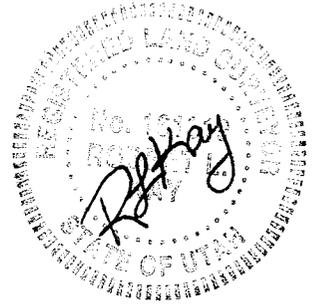
Elev. Ungraded Ground at Location Stake = 4738.4'

Elev. Graded Ground at Location Stake = 4737.9'

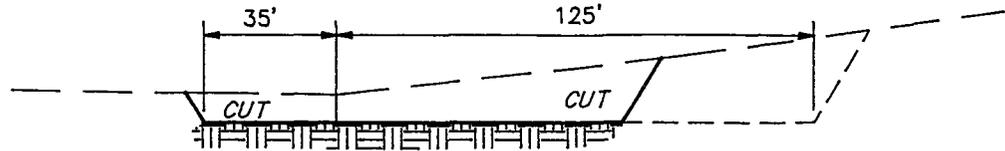
# CHANDLER & ASSOCIATES, INC.

## TYPICAL CROSS SECTIONS FOR

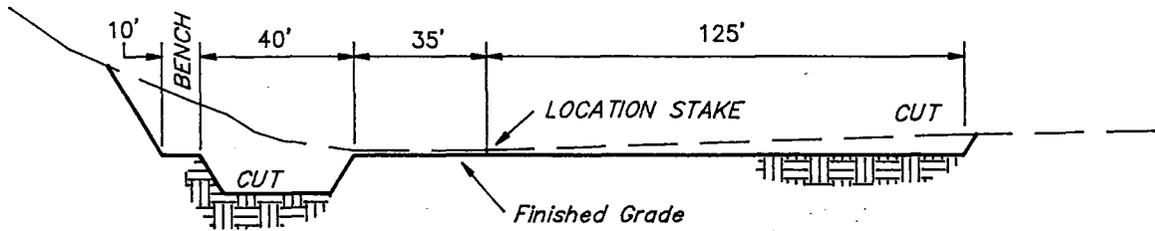
PURDY FEDERAL #6-34-7-21  
SECTION 34, T7S, R21E, S.L.B.&M.  
2346' FNL 1606' FWL



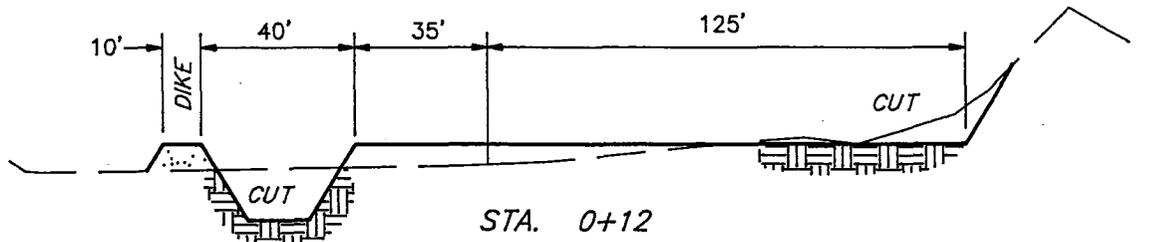
DATE: 11-9-96  
Drawn By: C.B.T.



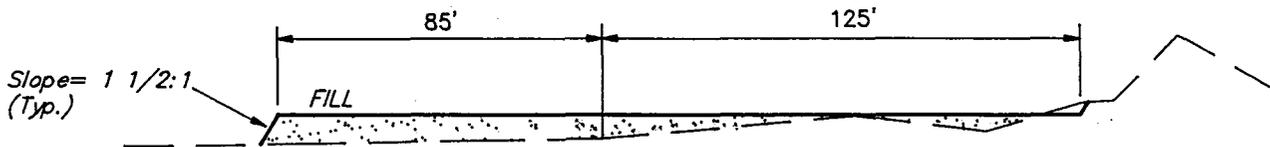
STA. 3+00



STA. 1+50



STA. 0+12



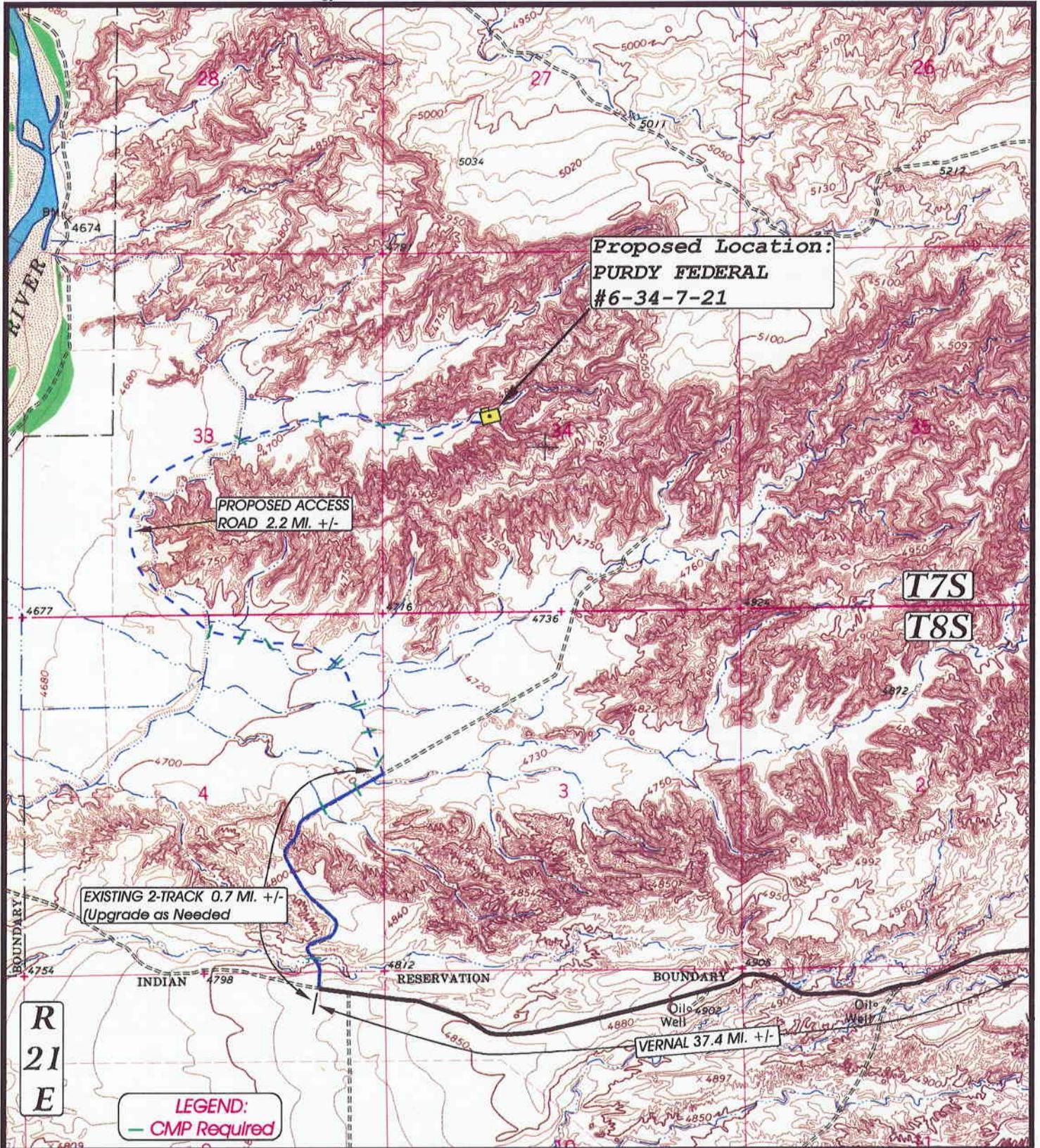
STA. 0+00

### APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	1,000	Cu. Yds.
Remaining Location	=	8,290	Cu. Yds.
<b>TOTAL CUT</b>	<b>=</b>	<b>9,290</b>	<b>CU.YDS.</b>
<b>FILL</b>	<b>=</b>	<b>680</b>	<b>CU.YDS.</b>

EXCESS MATERIAL AFTER 5% COMPACTION	=	8,570	Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	1,610	Cu. Yds.
<b>EXCESS UNBALANCE (After Rehabilitation)</b>	<b>=</b>	<b>6,960</b>	<b>Cu. Yds.</b>





**Proposed Location:**  
**PURDY FEDERAL**  
**#6-34-7-21**

**PROPOSED ACCESS**  
**ROAD 2.2 MI. +/-**

**EXISTING 2-TRACK 0.7 MI. +/-**  
**(Upgrade as Needed)**

**T7S**

**T8S**

**R**  
**21**  
**E**

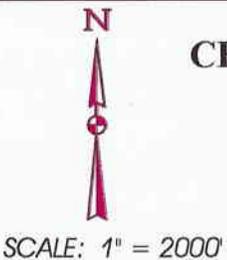
**LEGEND:**  
 — **CMP Required**

**TOPOGRAPHIC**  
**MAP "B"**

**CHANDLER & ASSOCIATES, INC.**

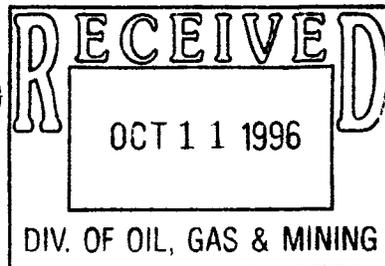
PURDY FEDERAL #6-34-7-21  
 SECTION 34, T7S, R21E, S.L.B.&M.  
 2346' FNL 1606' FWL

UINTAH ENGINEERING & LAND SURVEYING  
 85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017



October 10, 1996

STATE OF UTAH  
DIVISION OF OIL GAS & MINING



ATTN: MIKE HEBERTSON

RE: (1) Exception Location

Dear Mike;

Chandler & Associates, Inc. Respectfully submits the following information for an exception location on the below mentioned well pad.

The Purdy Federal #6-34-7-21, located 1830' fnl & 1749' fwl of Section 34, T7S, R21E, S.L.B.&M. was moved from the center of the standard 40 acres due to the topographical relief in the area which is shown on the attached Topo Map "B" in the last portion of the enclosed A.P.D.. We have kept the move of this location to a minimum and it is at the first available area which would be suitable to construct a location and access road. If you have any questions concerning this matter please feel free to call me at (801) 789-1017.

Thank you for your attention to this matter,

  
Robert L. Kay

U.E.L.S./Agent for Chandler & Assoc. Inc.

enclosures:

cc: Don Johnson

**CHANDLER & ASSOCIATES, INC.**  
**DRILLING PLAN FOR THE**  
**PURDY FEDERAL #6-34-7-21**

I. DRILLING PLAN:

1. Geological Surface Formation: Uintah

2. Estimated Tops:

<u>Name</u>	<u>Top</u>	<u>Prod. Phase Anticipated</u>
Green River	2760'	
"X" Marker	5020'	
"Leota" Pay	6130'	Oil
Secondary Obj.	6460'	

3. CASING PROGRAM:

	<u>Depth</u>	<u>Hole Size</u>	<u>Csg. Size</u>	<u>Type</u>	<u>Weight</u>
Surface	300'	12-1/4"	8-5/8"	K-55 ST&C	24#/ft (new)
Prod.	6750'	7-7/8"	5-1/2"	K-55 LT & C	15.5#& 17#/ft (new)

4. Operator's Specification for Pressure Control Equipment:

- A. 2,000 psi W.P. Double Gate BOP or Single Gate BOP (Schematic attached).
- B. Functional test daily.
- C. All casing strings shall be pressure-tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- D. All ram-type preventers and related control equipment shall be tested at the rated working pressure of the stack assembly or at 70 percent of the minimum internal yield pressure of the casing, whichever is less. Tests shall be done at the time of installation, prior to drilling out, and weekly. All tests shall be for a period of 15 minutes.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

5. Auxiliary Equipment:

- A. Kelly Cock - yes.
- B. Float at the bit - no.
- C. Monitoring equipment on the mud system - Manned gas detection unit  
Surface Casing - TD..
- D. Full opening safety valve on rig floor - yes.
- E. Rotating head - no.
- F. The blooie line shall be a least 6" in diameter and extend at least 100' from the wellbore into the reserve/blooie pit.
- G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').
- H. Compressor shall be tied directly to the blooie line through a manifold.
- I. A mistor with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

6. Proposed Circulating Medium:

<u>Depth</u>	<u>Mud Type</u>	<u>Density (lb./gal)</u>	<u>Viscosity</u>	<u>Water Loss</u>
0'-4500'	Fresh Water	8.4	30	No Control
4500'-TD	Chem Gel	8.8-9.0	30-35	9-10 cc or less

7. Testing, Logging, and Coring Program:

- A. Cores - None anticipated.
- B. DST - none anticipated.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- C. Logging - Dual Induction w/ Gamma Ray & Caliper (linear scale on 1"=100') to base of surface casing. Compensated Neutron-Lithodensity w/ PE Curve to 4000'.
- D. Formation and Completion Interval: Green River interval, final determination of completion will be made by analysis of logs.  
Stimulation - Stimulation will be designed for the particular area of interest as encountered.
- E. Frac gradient - approximately .80 psi/ft.

8. Cementing Program:

<u>Casing</u>	<u>Volume</u>	<u>Type &amp; Additives</u>
Surface	250 sx	Class "G" w/3% CaCl (based on 100% access)
Production	600 sx*	300 sx 50/50 poz. followed by 300 sx Lite Cement to Surface.

Cement Characteristics:

Class "G" - yeild = 1.18 cu.ft. per. sack  
weight = 15.8 lb./gal  
strength = 3200 psi in 72 hrs @ 135 degrees

Super "G" - yeild = 2.76 cu.ft. Per. Sack  
weight = 11.08 lb./gal.  
Strength = 630 psi in 72 hrs @135 degrees

\* Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

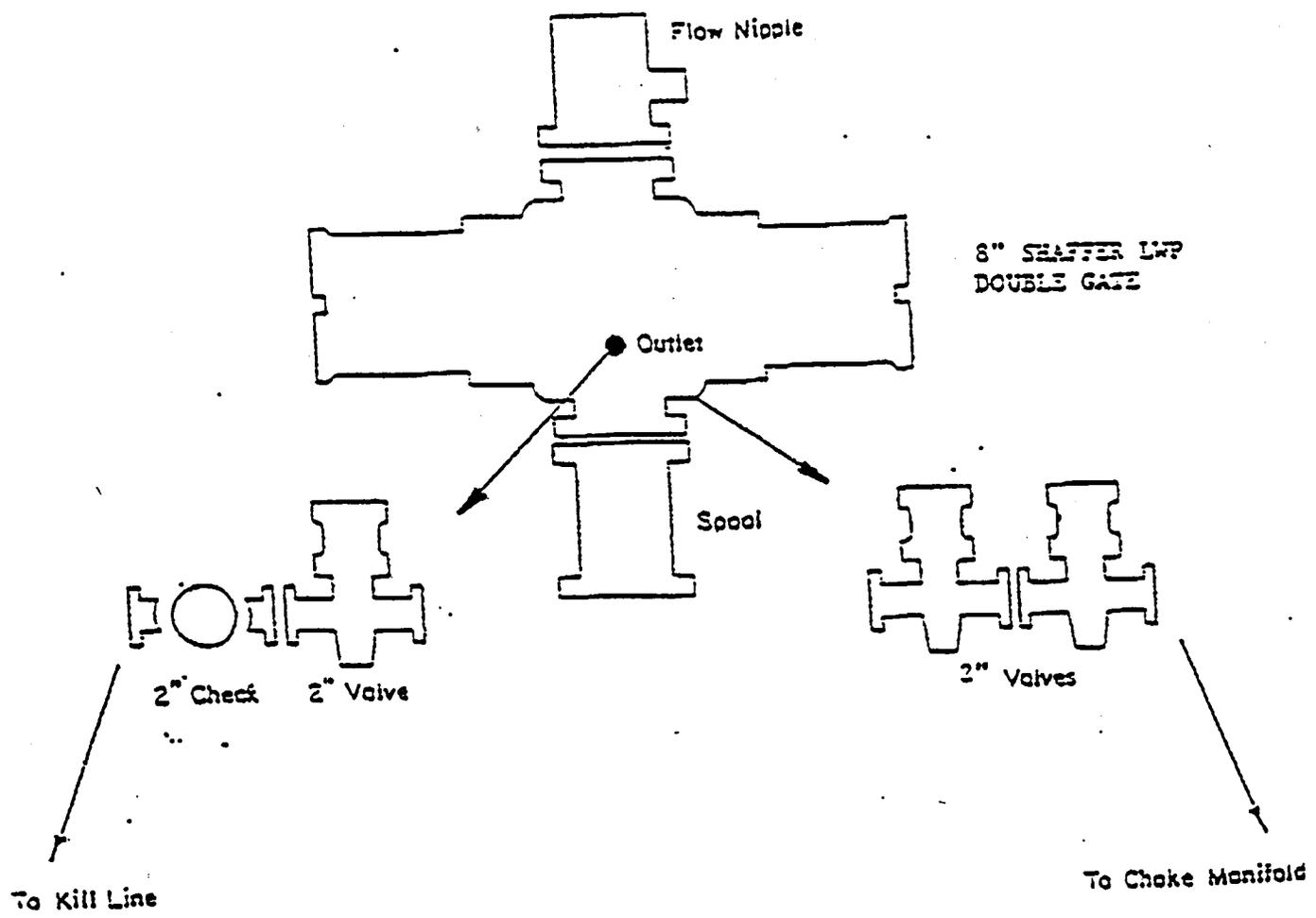
Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

9. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards:

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 1,600 psi (calculated at 0.247 psi/ft) and maximum anticipated surface pressure equals approximately 180 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

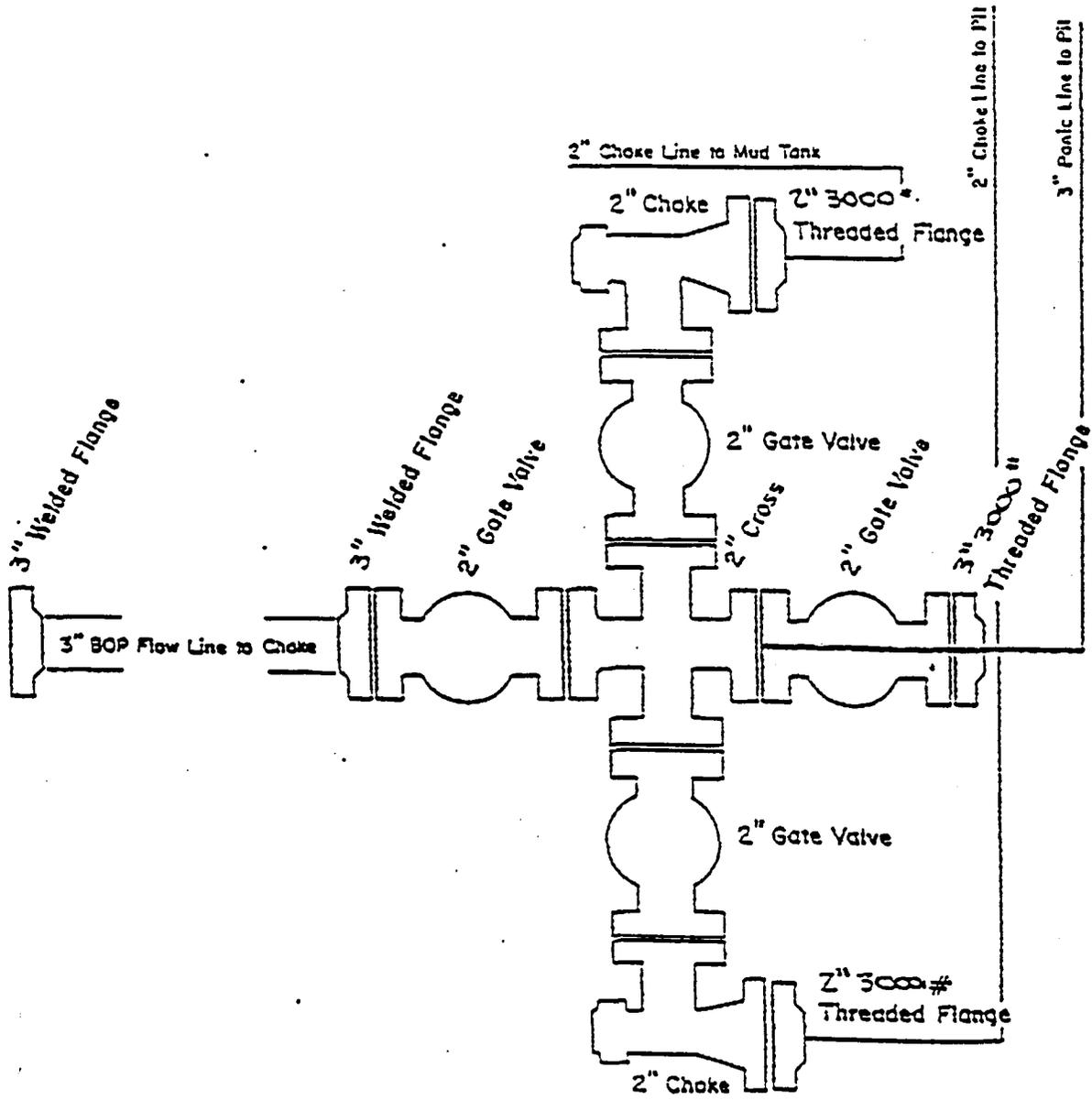
CHANDLER DRILLING

RIG NO.7



CHANDLER DRILLING

RIG NO.7



**II. SURFACE USE PLAN**  
**CHANDLER & ASSOCIATES, INC.**  
**PURDY FEDERAL #6-34-7-21**

1. Existing Road:

- A. Topo Map "A" is the vicinity map, showing the access routes from Vernal, Utah.
- B. Topo Map "B" shows the proposed access road to each individual well. It also shows existing roads in the immediate area.
- C. The existing and proposed access road, unless otherwise stated, shall be crowned, ditched, and dipped from the nearest improved road.
- D. Occasional maintenance blading and storm repairs will keep roads in good condition.
- E. There shall be no mud blading on the access road. Vehicles may be towed through the mud provided they stay on the roadway.

2. Planned Access Roads:

The proposed access road, will be crowned, ditched, and dipped.

- A. We hereby request right-of-way for that portion of access road which is located off lease.
- B. Maximum grade will be 12% in very short sections but will maintain 8% or less in general.
- C. No turnouts will be required.
- D. Low water crossings to be placed in Proposed Access road during drilling process and culverts may be installed at a later date.
- E. Road surface material will be that native to the area.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- F. No cattleguard will be required.
- G. The proposed access road was flagged at the time the location was staked.
- H. The area authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.
- I. The backslopes of the proposed access roads will be no steeper than vertical or 1/4:1 in rock; and 2:1, elsewhere.

The operator or his contractor will notify the B.L.M. office at least 48 hours prior to commencement of any work on these locations, roadways, or pipelines.

3. Location of Existing Wells: Section 34, T7S, R21E, S.L.B.&M.

- |    |                         |                     |                |
|----|-------------------------|---------------------|----------------|
| 1. | Chevron - Leota Fed. #1 | 793' FNL 675' FEL   | Prod. Oil Well |
| 2. | Pan Amer. - PLU #3      | 1884' FSL 1047' FEL | Plugged        |

4. Location of Existing and/or Proposed Facilities:

- A. All Petroleum Production Facilities are to be contained within the proposed location sites.
- B. In the event that production of these wells is established, the following will be shown:
  - 1. Proposed location and attendant lines, by flagging, if off well pad.
  - 2. Dimensions of facilities.
  - 3. Construction methods and materials.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- C. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, then other arrangements will be made to acquire them from private sources. These facilities will be constructed using bulldozers, graders, and workman crews to construct and place the proposed facilities.
- D. All permanent facilities placed on the locations shall be painted a non-reflective color which will blend with the natural environment.
- E. A dike shall be constructed around the tank battery, of sufficient capacity to adequately contain at least 110 percent of the storage capacity of the largest tank within the dike.
- F. All buried pipelines shall be covered to a depth of 3 feet except at road crossings where they shall be covered to a depth of 4 feet.
- G. Construction width of the right-of way/pipeline route shall be restricted to 30 feet of disturbance.
- H. Pipeline location warning signs shall be installed within 90 days upon completion of construction.

5. Location and Type of Water Supply:

Water will be supplied by Nebeker Trucking  
Water Right #49-1596  
Source: Green River POD: SW 1/4 Section 13, T7S, R21E, S.L.B.&M.

No water wells are to be drilled.

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Purdy Federal #6-34-7-21

6. Source of Construction Materials:

- A. No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from a local gravel pit over existing access roads from the area. No special access other than for drilling operations and pipeline construction is needed.
- B. All access roads crossing B.L.M. Land are described under item #2 and shown on Map #B.

All Construction material for these location sites and access roads shall be borrow material accumulated during the construction of the location sites and access roads. No additional construction material from other sources is anticipated at this time, but if it is required, the appropriate actions will be taken to acquire it from private sources.

- C. All well pad surface disturbance area is on B.L.M. lands

7. Methods for Handling Waste Disposal:

- A. Drill cuttings will be buried in the reserve pit when covered.
- B. Drilling fluids will be contained in the reserve pit.
- C. Any hydrocarbon liquids produced while production testing will be contained in a test tank. Any unavoidable spills of oil or other adverse substances or materials will be removed immediately during drilling progress or during completion operations.
- D. Portable chemical toilets will be provided and serviced by a local commercial sanitary service.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- E. Garbage and trash will be collected in a trash cage and its contents hauled to a sanitary landfill.

All wastes caused by the construction activities shall be promptly removed and disposed of in a sanitary landfill or as directed by the authorized officer.

- F. Prior to commencement of drilling, the reserve pit will lined with a min. 10 mil liner over an adequate amount of straw bedding. It will also be fenced on three sides using 39-inch net wire with at least one (1) strand of barbed wire. All wire is to be stretched before attaching to corner posts. When drilling activities are completed it will be fenced on the fourth side and allowed to dry (if liquids are present). After drying, the fences will be removed and the pit shall be buried. Reclamation will be undertaken no later than the fall of the year after all drilling activity has ceased.

8. Ancillary Facilities:

No air strips, camps, or other living facilities will be built off the location. Housing and office trailers will be on the location as seen on the location layout.

9. Well Site Layout:

- A. See attached cutsheet.
- B. The areas authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.
- C. The authorized officer will determine after the location is constructed whether the pit is to be lined, and if so, the type of material to be used.
- D. Topsoil shall be stripped to a depth of 4 to 6 inches and stockpiled as shown on the location layout plat.
- E. The backslopes of the locations will be no steeper than vertical or 1/4:1 in rock, and 2:1 elsewhere.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- F. The upper edges of all cut banks on the access roads and well pads will be rounded.
- G. Catchment ponds to be placed as required to intercept drainage re-routes.

10. Plans for Restoration:

- A. Immediately upon completion, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.
- B. Before any dirt work to restore the location takes place, the reserve pit must be completely dry. The reserve pit will be reclaimed within 90 days from the date of well completion.
- C. The area officer shall be notified at least 48 hours prior to commencing reclamation work.
- D. All disturbed areas will be seeded with the a mixture which is found suitable by the B.L.M.
- E. The seed bed will be prepared by disking, following the natural contour. Drill seed on contour at a depth no greater than 1/2 inch. In areas that cannot be drilled, the seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed is recommended.
- F. Fall seeding will be completed after September, and prior to prolonged ground frost.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- G. If the well is a producer, access roads will be upgraded and maintained as necessary to prevent soil erosion, and accommodate year round traffic. Areas unnecessary to operations will be reshaped, topsoil distributed, and seed distributed according to the above mixtures. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- H. If the well is abandoned or is a dry hole, the access road and location will be restored to approximate the original contours. During reclamation of the site the fill material will be pushed into cuts and up over the backslope. No depressions will be left that would trap water or form ponds. Topsoil will be distributed evenly over the location and seeded according to the above mixture. The access road and the location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- I. Annual or noxious weeds shall be controlled on all disturbed areas. Method of control shall be by an approved mechanical method or an Environmental Protection Agency (EPA) registered herbicide. All herbicide application proposals must be approved. Application of herbicides must be under direct field supervision of an EPA certified pesticide applicator.

11. Other Information:

- A. The area is used by man for the primary purpose of grazing domestic livestock.

All activity shall cease when soils or road surfaces become saturated to a depth of three inches, unless otherwise approved by the Authorized Officer.

If any fossils are discovered during construction, the operator shall cease construction immediately and notify the Authorized Officer so as to determine the significance of the discovery.

- B. A Class III cultural resource inventory has been completed prior to disturbance by a qualified professional Archaeologist.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

- C. The B.L.M. considers the development of groundwater resources to be necessary and frequently indispensable to effective land management. Therefore, any groundwater intercepted by the party conducting mineral exploration shall be reported to the authorized officer immediately including approximate quantities and a sample in a sealed quart container. The B.L.M. shall have the first opportunity to file State water rights for the intercepted groundwater. The undersigned may file for water rights only with a written waiver from the State.
- D. 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. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials and contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, an operator will then be allowed to resume construction.

- E. Less than 10,000 pounds of any chemical(s) from EPA's Consolidated list of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, and less than threshold planning quantity (TPQ) of any extremely hazardous substances(s), as defined in 40 CFR, would be used, produced, transported, stored, disposed, or associated with the proposed action.

12. Lessee's or Operator's Representative:

Mr. Don Johnson  
Manager Operations/Production  
Chandler & Associates, Inc.  
475 Seventeenth Street  
Suite 1000  
Denver, Colorado 80202  
Telephone #(303)295-0400

Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21

13. Certification:

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

This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

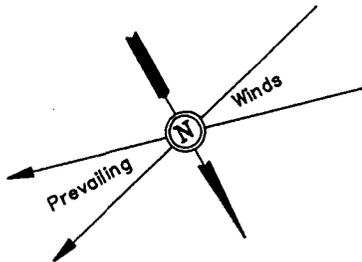
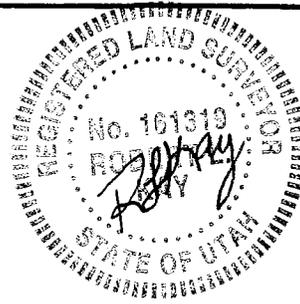
10-10-96  
Date

Robert L. Kay  
Robert L. Kay  
Agent

# CHANDLER & ASSOCIATES, INC.

## LOCATION LAYOUT FOR

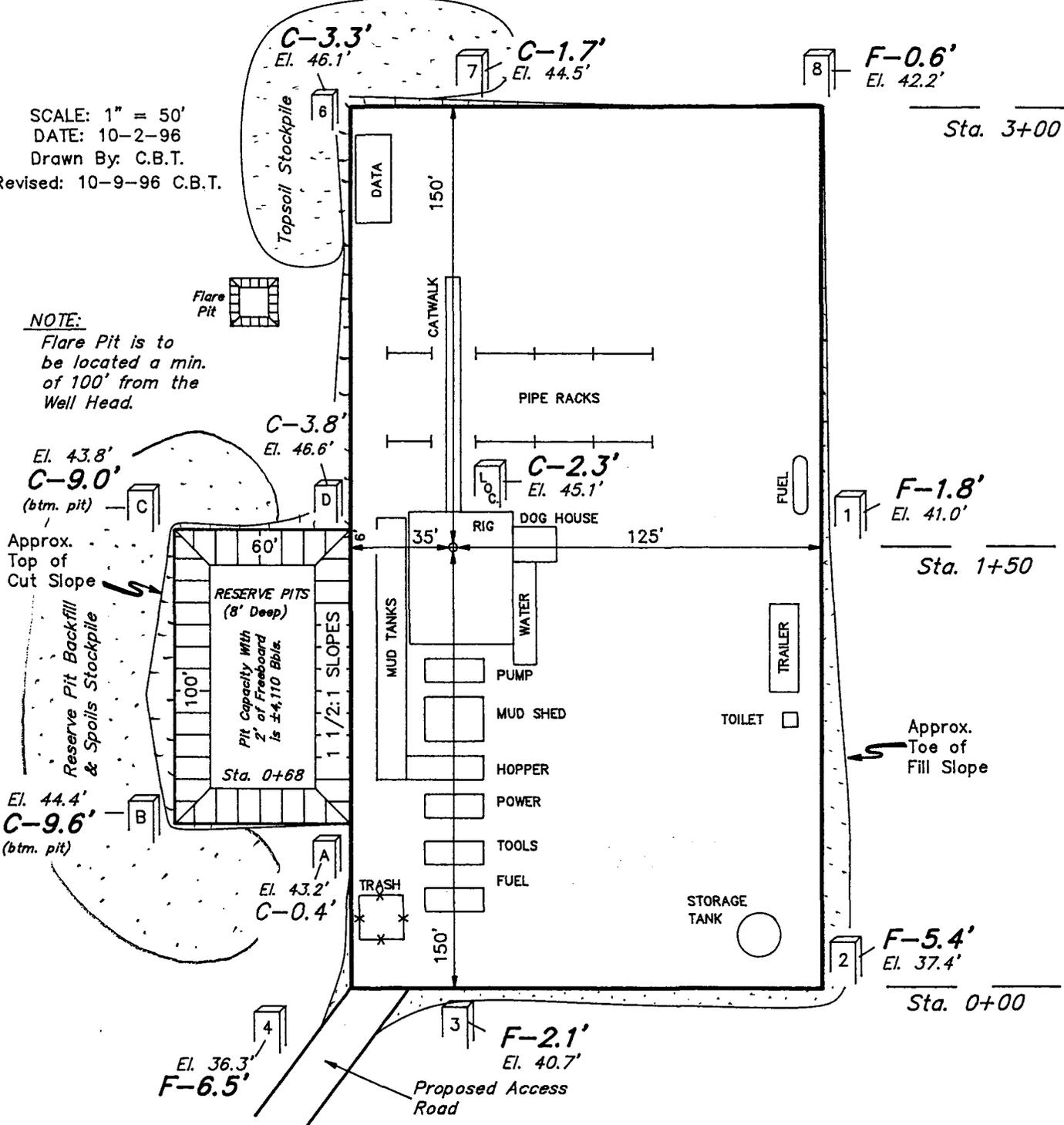
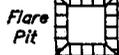
PURDY FEDERAL #6-34-7-21  
SECTION 34, T7S, R21E, S.L.B.&M.  
1830' FNL 1749' FWL



SCALE: 1" = 50'  
DATE: 10-2-96  
Drawn By: C.B.T.  
Revised: 10-9-96 C.B.T.

**NOTE:**

Flare Pit is to be located a min. of 100' from the Well Head.



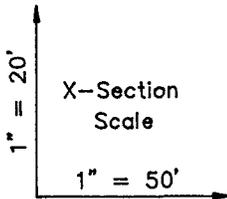
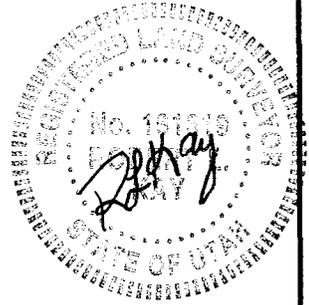
Elev. Ungraded Ground at Location Stake = **4845.1'**

Elev. Graded Ground at Location Stake = **4842.8'**

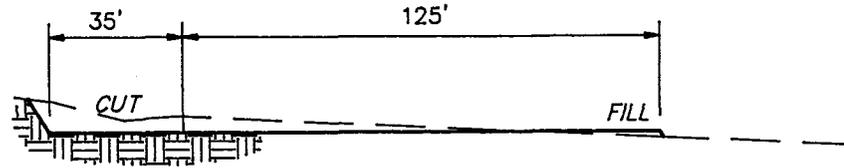
CHANDLER & ASSOCIATES, INC.

TYPICAL CROSS SECTIONS FOR

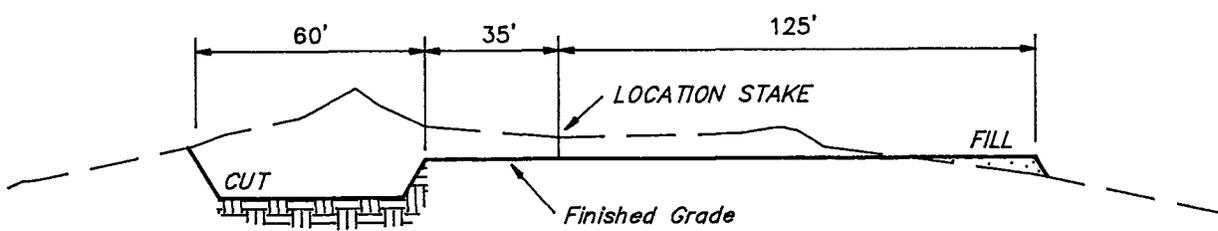
PURDY FEDERAL #6-34-7-21  
SECTION 34, T7S, R21E, S.L.B.&M.  
1830' FNL 1749' FWL



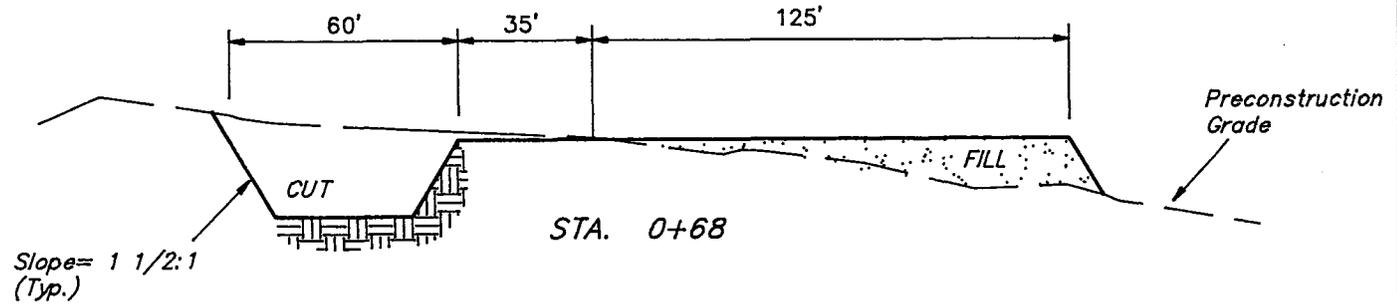
DATE: 10-2-96  
Drawn By: C.B.T.  
Revised: 10-9-96 C.B.T.



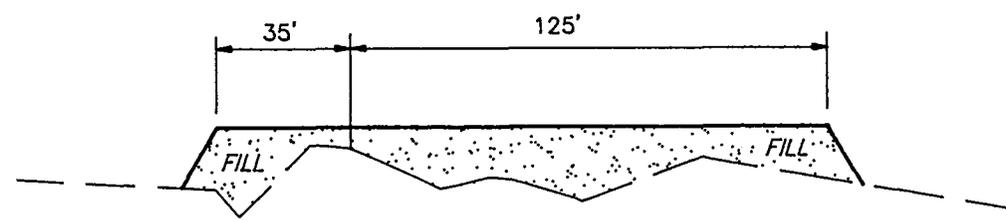
STA. 3+00



STA. 1+50



STA. 0+68

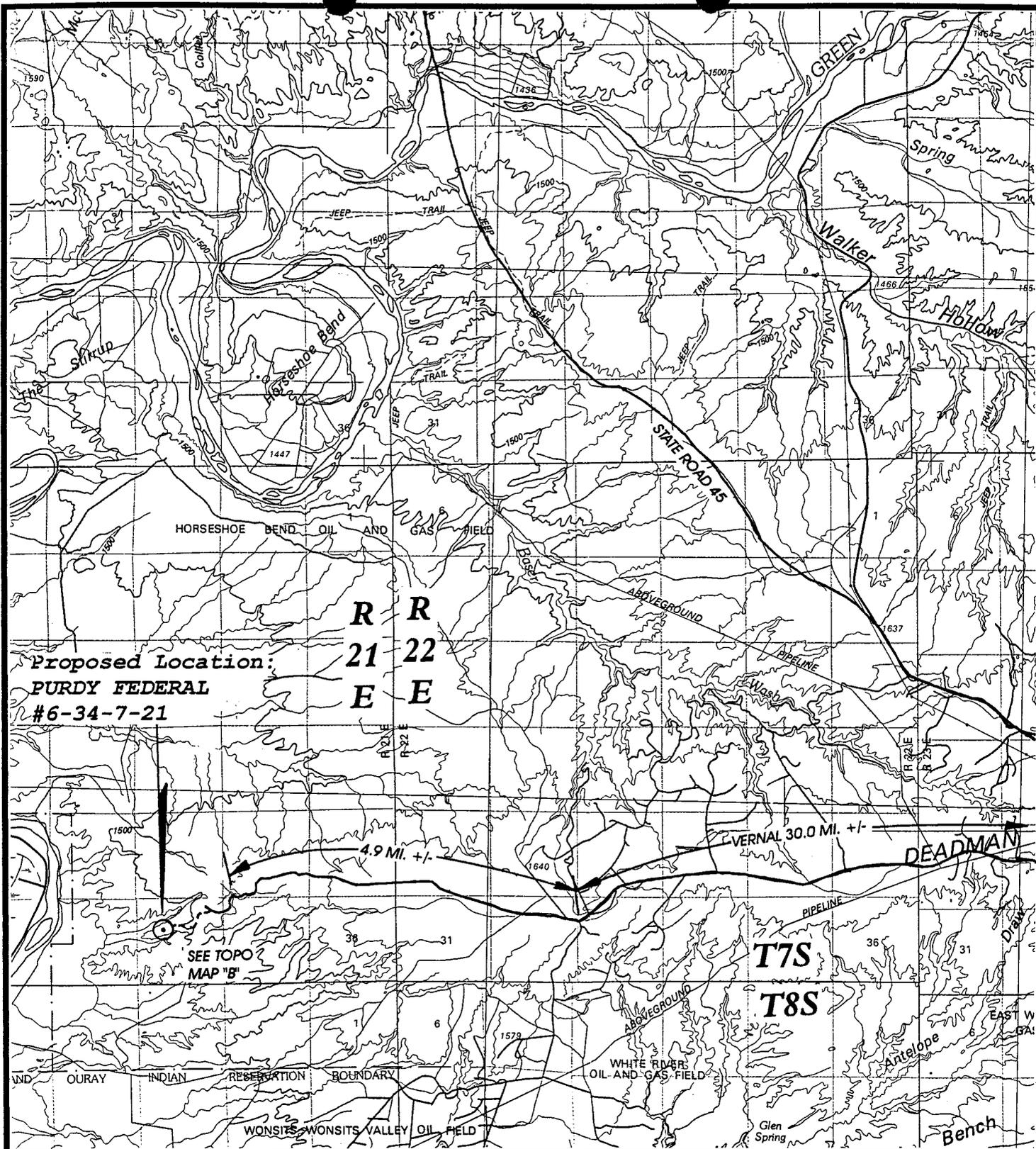


STA. 0+00

APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	1,000 Cu. Yds.
Remaining Location	=	3,400 Cu. Yds.
<b>TOTAL CUT</b>	<b>=</b>	<b>4,400 CU.YDS.</b>
<b>FILL</b>	<b>=</b>	<b>2,620 CU.YDS.</b>

EXCESS MATERIAL AFTER 5% COMPACTION	=	1,640 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	1,630 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	10 Cu. Yds.



Proposed Location:  
**PURDY FEDERAL**  
**#6-34-7-21**

**R R**  
**21 22**  
**E E**

SEE TOPO  
MAP "B"

**T7S**  
**T8S**

**UELS**

**TOPOGRAPHIC**  
**MAP "A"**

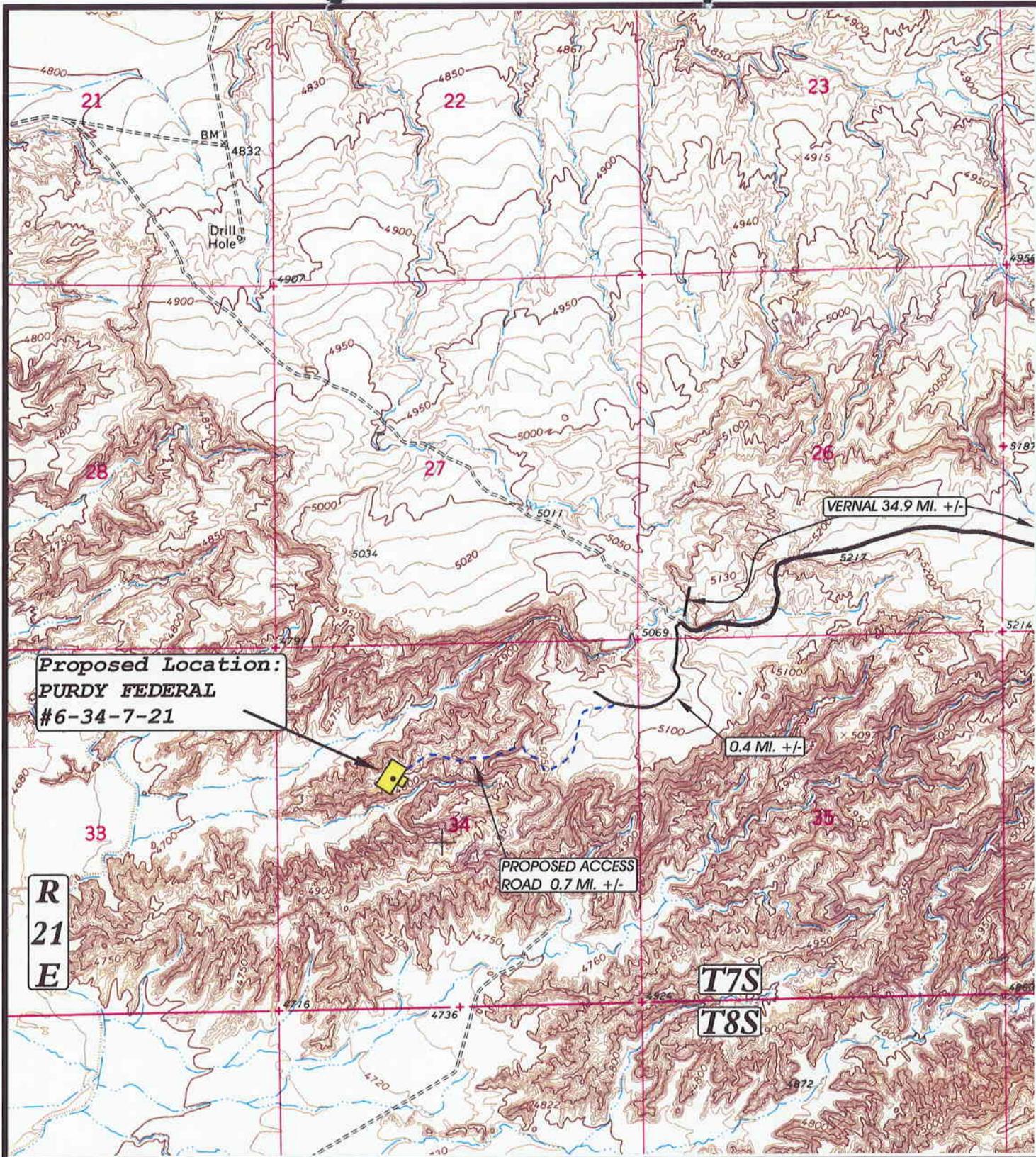
Revised: 10-9-96 C.B.T.  
DATE: 10-3-96  
Drawn by: C.B.T.



**CHANDLER & ASSOCIATES, INC.**

**PURDY FEDERAL #6-34-7-21**  
**SECTION 34, T7S, R21E, S.L.B.&M.**  
**1830' FNL 1749' FWL**

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017



**Proposed Location:  
PURDY FEDERAL  
#6-34-7-21**

**PROPOSED ACCESS  
ROAD 0.7 MI. +/-**

**VERNAL 34.9 MI. +/-**

**0.4 MI. +/-**

**R  
21  
E**

**T7S  
T8S**

**UEIS**

**TOPOGRAPHIC  
MAP "B"**  
DATE: 10-3-96  
Drawn by: C.B.T.  
Revised: 10-9-96 C.B.T.



**CHANDLER & ASSOCIATES, INC.**

PURDY FEDERAL #6-34-7-21  
SECTION 34, T7S, R21E, S.L.B.&M.  
1830' FNL 1749' FWL

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

SCALE: 1" = 2000'

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/11/96

API NO. ASSIGNED: 43-047-32787

WELL NAME: PURDY FEDERAL 6-34-7-21  
 OPERATOR: CHANDLER & ASSOCIATES (N3320)

PROPOSED LOCATION:  
 SENW 34 - T07S - R21E  
 SURFACE: 1830-FNL-1749-FWL  
 BOTTOM: 1830-FNL-1749-FWL  
 UINTAH COUNTY  
 UNDESIGNATED FIELD (002)

LEASE TYPE: FED  
 LEASE NUMBER: UTU - 16551

PROPOSED PRODUCING FORMATION: WSTC

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

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Federal  State  Fee   
 (Number 124290384)
- Potash (Y/N)
- Oil shale (Y/N)
- Water permit  
 (Number 49-1596)
- RDCC Review (Y/N)  
 (Date: \_\_\_\_\_)

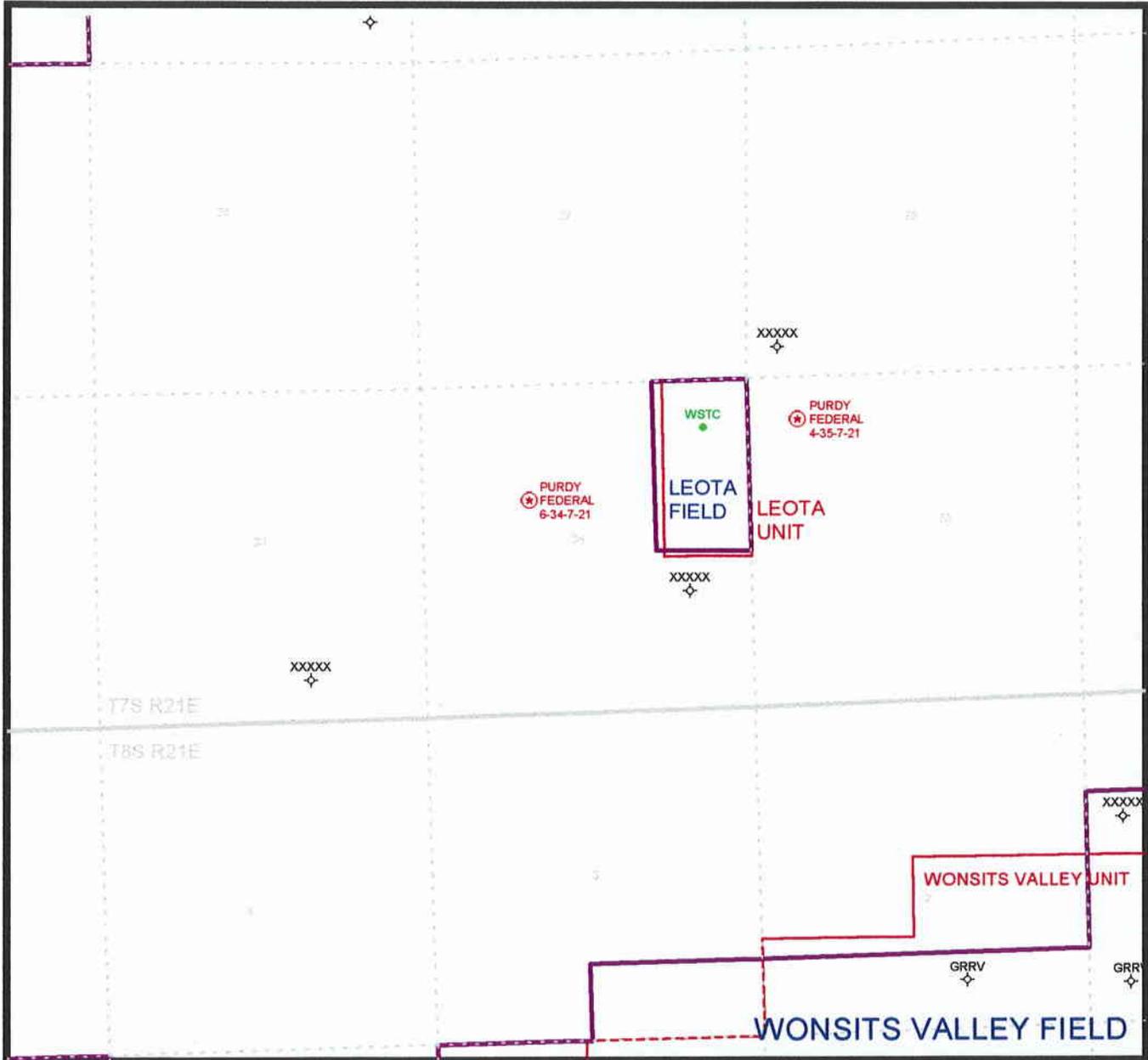
LOCATION AND SITING:

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

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

OPERATOR: CHANDLER & ASSOC.  
FIELD: UNNAMED (002)  
SEC, TWP, RNG: 34 & 35, T7S, R21E  
COUNTY: UINTAH  
UAC: R649-3-2 & R649-3-3



PREPARED:  
DATE: -OCT-96

STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: CHANDLER & ASSOCIATES	Well Name: PURDY FED 6-34-7-21
Project ID: 43-047-32787	Location: SEC. 34 - T7S - R21E

Design Parameters:

Mud weight ( 9.00 ppg) : 0.468 psi/ft  
 Shut in surface pressure : 2688 psi  
 Internal gradient (burst) : 0.069 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using air weight  
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	5,500	5.500	K-55	LT&C	5,500	4.825	
2	1,250	5.500	K-55	LT&C	6,750	4.767	

	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	2571	3936	1.531	3069	4810	1.57	106.50	239	2.24 J
2	3156	4910	1.556	3156	5320	1.69	21.25	272	12.80 J

Prepared by : MATTHEWS, Salt Lake City, Utah  
 Date : 12-13-1996  
 Remarks :

GREEN RIVER

Minimum segment length for the 6,750 foot well is 1,500 feet.

SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 121°F (Surface 74°F , BHT 168°F & temp. gradient 1.400°/100 ft.)

String type: Production

The mud gradient and bottom hole pressures (for burst) are 0.468 psi/ft and 3,156 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.  
 Costs for this design are based on a 1987 pricing model. (Version 1.07)



Chandler & Associates, Inc.  
Purdy Federal #6-34-7-21  
Section 34, T7S, R21E, S.L.B.&M.

SUNDRY NOTICE ATTACHMENT

1. **INTENT:**

This letter and the following plats are being filed with the attached Sundry Notice to inform the B.L.M. that the footages on the above mentioned location have been changed from the original location which was filed in an A.P.D. form on 10-10-96.

The original footages were 1830' FNL 1749' FWL located in Section 34, T7S, R21E, S.L.B.&M. The new footages are 2346' FNL 1606' FWL.

2. **ACCESS ROAD CHANGE:**

The access road has been changed from the original route and is represented on the attached topo maps. The access road will cross B.L.M., FEE & TRIBAL lands and R-O-W easements are being processed on FEE & TRIBAL lands. The access road will be flat bladed for the initial drilling of the well. If commercial production is achieved then the access road will be upgraded to the standards as stated in the A.P.D. Culverts will be placed as shown on the attached topo map.

3. **DRILLING PLAN CHANGE:**

The well will be drilled to T.D. with an AIR/MIST. Hole will be filled with KCL water before logging starts.



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

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

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

December 16, 1996

Chandler & Associates, Inc.  
475 Seventeenth Street, Suite 1000  
Denver, Colorado 80202

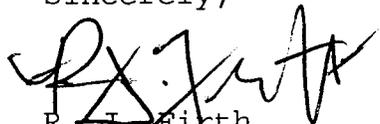
Re: Purdy Federal 6-34-7-21 Well, 1830' FNL, 1749' FWL, SE NW,  
Sec. 34, T. 7 S., R. 21 E., Uintah County, Utah

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 43-047-32787.

Sincerely,

  
R. J. Firth  
Associate Director

lwp

Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal District Office



Operator: Chandler & Associates, Inc.  
Well Name & Number: Purdy Federal 6-34-7-21  
API Number: 43-047-32787  
Lease: UTU-16551  
Location: SE NW Sec. 34 T. 7 S. R. 21 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 following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews at (801)538-5334 or Mike Hebertson at (801)538-5333.

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.

DOGMA

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN

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

2. NAME OF OPERATOR  
 Chandler & Associates, Inc. DIV OF OIL, GAS & MINING

3. ADDRESS AND TELEPHONE NO.  
 475 Seventeenth Street, Suite 1000 Denver, CO 80202  
 303-295-0400

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface 2346 1830' FNL 1606 1749' FWL  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See Topo Map "A"

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1749'

16. NO. OF ACRES IN LEASE 2320

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. 3000'

19. PROPOSED DEPTH 6750'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4845' GR

22. APPROX. DATE WORK WILL START\* A.S.A.P.

5. LEASE DESIGNATION AND SERIAL NO.  
 UTU-16551

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

7. UNIT AGREEMENT NAME  
 N/A

8. FARM OR LEASE NAME WELL NO.  
 Purdy Federal

9. AN WELL NO.  
 #6-34-7-21

10. FIELD AND POOL, OR WILDCAT  
 Unnamed

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 34, T7S, R21E, S.L.B.&M.

12. COUNTY OR PARISH  
 Uintah

13. STATE  
 Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24# ST&C	300'	(See attached drilling plan)
7 7/8"	5 1/2"	15.5 & 17# LT&C	6750'	(See attached drilling plan)

- M.I.R.U.
- Drill to T.D. 6750'
- Run 5 1/2" casing if commercial production is indicated.
- If dry hole, well will be plugged and abandoned as instructed by the B.L.M.
- Well will be drilled with fresh water to 4500', then Chem Gel Mud to T.D. mud will be in place to run 5 1/2" casing.

I hereby certify that I am responsible by the terms and conditions of the lease to conduct lease operations. Bond Coverage pursuant to 43 CFR 3104 for lease activities is being provided by Chandler & Associates, Inc., B.L.M. Bond #124290364 with CNA.

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

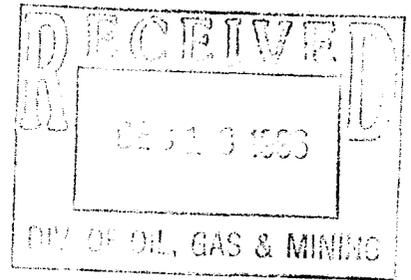
24. SIGNED Robert L. Kay TITLE Agent for Chandler DATE 10-10-96

(This space for Federal or State office use) **CONDITIONS OF APPROVAL ATTACHED**

PERMIT NO. NOTICE OF APPROVAL APPROVAL DATE \_\_\_\_\_  
 Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

APPROVED BY [Signature] TITLE Assistant Field Manager DATE DEC 13 1996  
Mineral Resources

44080-7M-012 \*See Instructions On Reverse Side  
 Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



**CONDITIONS OF APPROVAL**  
**APPLICATION FOR PERMIT TO DRILL**

Company/Operator: Chandler & Associates Inc.

Well Name & Number: Purdy Fed. 6-34-7-21

API Number: 43-047-32787

Lease Number: U-16551

Location: SENW Sec. 34 T. 7S R. 21E

**NOTIFICATION REQUIREMENTS**

- Location Construction - at least forty-eight (48) hours prior to construction of location and access roads.
- Location Completion - prior to moving on the drilling rig.
- Spud Notice - at least twenty-four (24) hours prior to spudding the well.
- Casing String and Cementing - at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and Related Equipment Tests - at least twenty-four (24) hours prior to initiating pressure tests.
- First Production Notice - within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

## CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

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

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative by the operator to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

### A. DRILLING PROGRAM

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

Report **ALL** water shows and water-bearing sands to Tim Ingwell of this office **prior to setting the next casing string or requesting plugging orders**. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

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

#### 2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a **2M** system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

If conductor pipe is set it will be cemented to surface. If drive pipe is used it will be pulled prior to cementing surface casing.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the base of the Usable Water Zone, identified at  $\pm$  3760 ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

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

5. Coring, Logging and Testing Program

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

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to  $\pm$  3560 ft. and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours prior to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

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

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

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

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

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

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

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

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

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

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

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

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

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

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

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

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert           (801) 789-4170  
Petroleum Engineer

Ed Forsman             (801) 789-7077  
Petroleum Engineer

Jerry Kenczka          (801) 789-1190  
Petroleum Engineer

BLM FAX Machine      (801) 781-4410

### EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

SURFACE USE PLAN  
Conditions of Approval (COA's)

A plastic nylon reinforced liner will be used for the reserve pit, it will be a minimum of 12 mil thickness with sufficient bedding material(either straw or dirt) to cover any rocks. The liner will overlap the pit walls and be constructed to hold excess drilling fluids without breaking or seepage. As stated in the APD the flare pit is not required to be lined.

After first production, produced water will be confined to the pit or to a storage tank for a period not to exceed 90 days. During that period, in accordance Onshore Order #7, an application for approval of a permanent disposal method and location, along with required water analysis, shall be submitted for the Authorized Officer's approval.

Chandler is required to use a multi-cylinder engine with a good muffler as part of their production facilities for the pumping unit on the well.

If the well is placed into production the operator will upgrade the access road per the recommendations of the Landowner and the BLM.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved unit plan of operations, and any applicable Notices to Lessees. A complete copy of the approved APD with any applicable ROW grants and Conditions of Approval included in the approval for the APD shall be on location during the construction of the location and drilling activities.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: CHANDLER & ASSOCIATES

Well Name: PURDY FEDERAL 6-34-7-21

Api No. 43-047-32787

Section 34 Township 7S Range 21E County UINTAH

Drilling Contractor \_\_\_\_\_

Rig # \_\_\_\_\_

SPUDDED:

Date 1/10/97

Time \_\_\_\_\_

How DRY HOLE

Drilling will commence \_\_\_\_\_

Reported by D. HACKFORD

Telephone # \_\_\_\_\_

Date: 1/10/97 Signed: JLT



**CHANDLER & ASSOCIATES, INC.**

475 17TH ST. • SUITE 1000 • DENVER, COLORADO 80202 • 303 295-0400  
OIL & GAS EXPLORATION AND PRODUCTION FAX 303 295-0222

**CONFIDENTIAL**

February 11, 1997

STATE OF UTAH  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801



**RE: Well Information Confidentiality**

Chandler & Associates, Inc., as operator of the well listed below, respectively requests that all information regarding this well be held confidential.

Purdy Federal #6-34-7-21  
SE NW Section 34, T7S R21E  
Uintah County, Utah  
API #43 047 32787

Should you have any questions or need any additional information, please feel free to contact me at (303) 295-0400.

Sincerely,

Thomas D. Taylor  
Production Geologist

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

1. Well name and number: Purdy Federal 6-34-7-21

API number: 43-047-32787

2. Well Location: QQ SENW Section 34 Township 7S Range 21E County Uintah

3. Well operator: Chandler & Associates, Inc.

Address: 475 17th Street, Suite 1000

Denver, CO 80202

Phone: (303) 295-0400

4. Drilling contractor: Chandler Drilling Corporation

Address: 475 17th Street Suite 1000

Denver, CO 80202

Phone: (303) 295-0400

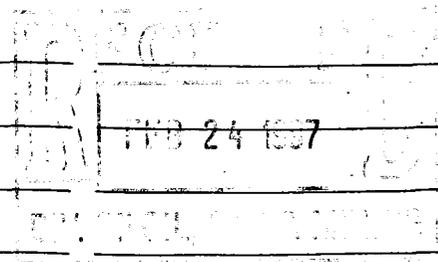
5. Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
N.A.	N.A.	N.A.	N.A.

6. Formation tops: Green River 2835'

"X" Marker 4967'

Wasatch 6708'



If an analysis has been made of the water encountered, please attach a copy of the report to this form.

I hereby certify that this report is true and complete to the best of my knowledge. Date: 02-21-97

Name & Signature: *D. A. Johnson* Title: Vice President of Operations  
D.A. (Don) Johnson

OPERATOR Chandler & Associates, Inc.

OPERATOR ACCT. NO. M 3320

ADDRESS 475 17th Street Suite 1000

Denver, CO 80202

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	12079	43-047-32787	Purdy Federal 6-34-7-21	SENW	34	7S	21E	Uintah	01-18-97	01-18-97
WELL 1 COMMENTS: <i>Entity added 2-25-97. Lec</i>											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)

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

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

(3/89)

RECEIVED  
FEB 24 1997  
D.M. OIL CO.

*[Signature]*  
Signature  
V.P. Operations      02-21-97  
Title      Date  
Phone No. (303) 295-0400

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

5. LEASE DESIGNATION AND NUMBER  
**UTU-16551**

6. IF INDIAN, ALLOTTEE OR TRUST NAME  
**N/A**

7. UNIT AGREEMENT NAME  
**N/A**

8. FARM OR LEASE NAME, WELL NO.  
**Purdy Fed. 6-34-7-21**

9. API WELL NO.  
**43-047-32787**

10. FIELD AND POOL OR WELL NAME  
**Unnamed**

11. SEC., T., R., M., OR BUREAU LAND OFFICE OR AREA  
**Sec. 34, T7S, R21E, SLB&M**

12. COUNTY OR PARISH  
**Uintah Utah**

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

13. TYPE OF WORK  
OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

14. TYPE OF WELL  
NEW WORK WELL  DEEP-EN  PLUG BACK  DIFF. RESVR  Other \_\_\_\_\_

1. NAME OF OPERATOR  
**Chandler & Associates, Inc.**

3. ADDRESS AND TELEPHONE NO.  
**475 17th Street, Suite 1000, Denver, CO 80202 970-675-8451**

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements. \*)  
At Surface **2346' FNL, 1606' FWL, (SENW)**  
At top prod. Interval reported below **Same**  
At total depth **Same**

**CONFIDENTIAL**

14. PERMIT NO. **43-047-32787** DATE ISSUED **12-13-96**

15. DATE SPUNDED **1/9/97** 16. DATE T.D. REACHED **02/08/97** 17. DATE COMPL. (Ready to prod.) **5-23-97 P&A** 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* **4738' GL, 4748' KB**

20. TOTAL DEPTH, MD & TVD **6809' MD 6809' TVD** 21. PLUG, BACK T.D., MD & TVD **2807' TD 2807' MD 2807' TVD** 22. IF MULTIPLE COMPL., HOW MANY\* **N/A** 23. INTERVALS DRILLED BY ROTARY TOOLS **0'-TD**

19. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)\*  
**N/A**

**CONFIDENTIAL**

26. TYPE ELECTRIC AND OTHER LOGS RUN  
**DE-FL/GR CNL-CDL/GR CBL 2-24-97**

23. CASING RECORD (Report all strings set in well)					
CASING SIZE/GRADE	WEIGHT, LB/FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	366'	12-1/4"	250 sks Class "G"	N/A
5-1/2"	15.5#	2851'	7-7/8"	TAM model packer @ 2799'	N/A
---	---	---	7-7/8"	TAM model packer @ 2749'	N/A
Port Collar	---	2448'	7-7/8"	380 sks Class "A"	N/A

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER (MD)

31. PERFORATION RECORD (Interval, size and number)		
INTERVAL	SIZE	NUMBER
2761' - 2773'	.88"	48
CIBP W 2690' w/10 sks cement on top		
2086' - 2109'	.50"	46

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
2730' (2 shots)	Squeeze w/25 sks Thixotropic
1915' - 2141'	25 sks Type V cement
470' - surface	135 sks Type V cement
Dry hole marker	10 sks sackcrete

33.* PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)			PERIOD EXPIRED		WELL STATUS (Flowing, Shut-in, P&A)
						ON 6-23-98	P&A
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL--BBL.	GAS--MCF	WATER--BBL.	GAS--MCF
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE		OIL--BBL.	GAS--MCF	WATER--BBL.	OIL GRAVITY-API (CORR.)

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

35. LIST OF ATTACHMENTS  
**Wellbore Diagram**

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.  
SIGNED **James A. Smith** TITLE **Operations/Production Supervisor** DIVISION **OIL, GAS & MINING** 06/06/97

**RECEIVED**  
**JUN 16 1997**

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

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

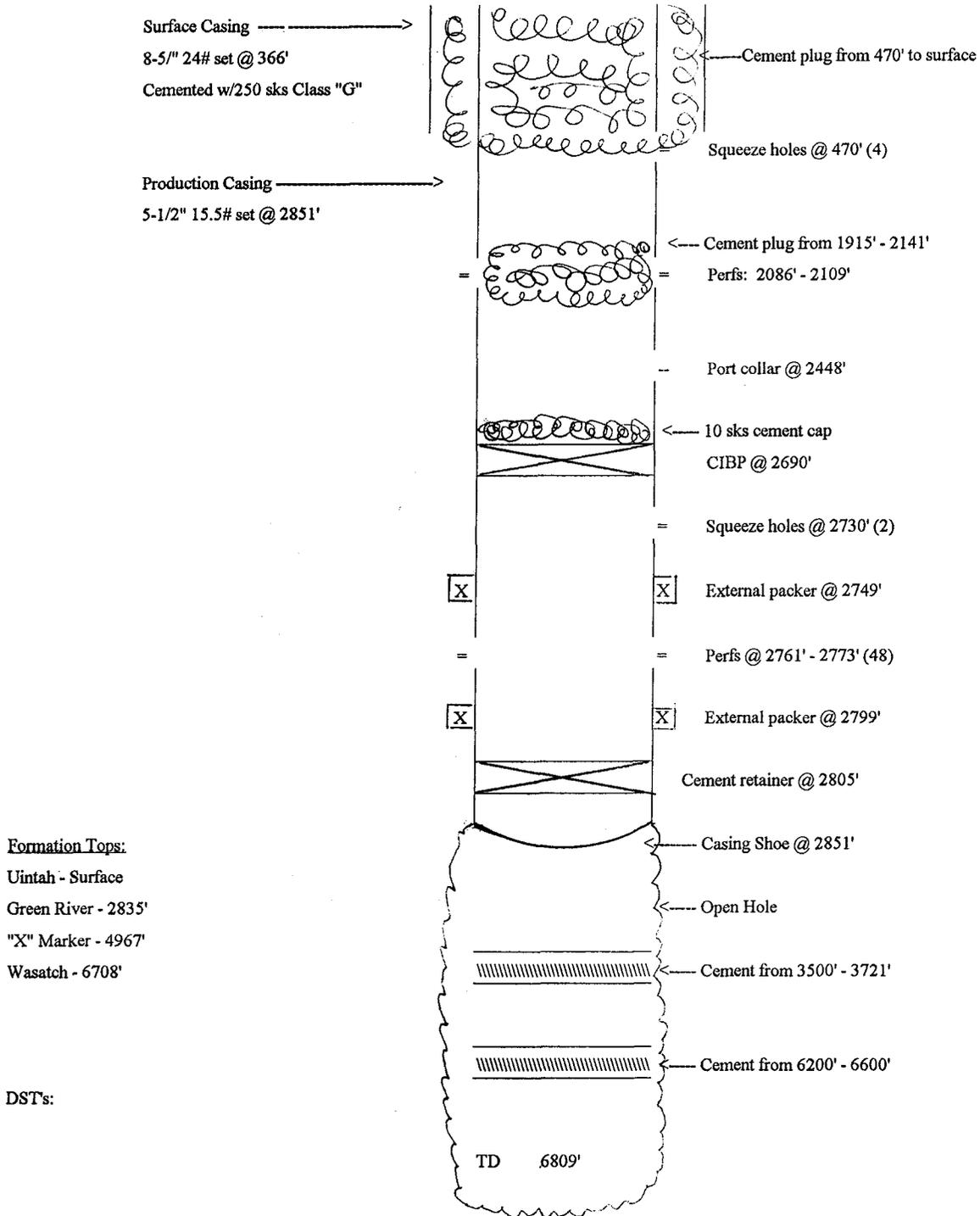
38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Uintah	Surface	2835'	Sandstone, siltstone & shale; scattered oil & gas shows below 2000' Grey-green-black oil shale sandstone, lacustrine shale and carbonates; scattered oil & gas shows throughout. Red/brown shale, siltstone and sandstone	Uintah	Surface	0'
Green River	2835'	6708'		Green River	2835'	2835'
Wasatch	6708'	TD		"X" Marker Wasatch	4967' 6708'	4967' 6708'

# Final Plug & Abandonment

Well Name: **Purdy Federal 6-34-7-21**  
 Location: **SENW Sec. 34, T7S, R21E**  
 Field: **Unnamed**  
 Spud Date: **1-10-97**  
 Completed: **5-23-97**

Date: **6-4-97**  
 County: **Uintah**  
 State: **Utah**  
 KB: **4750'**  
 GL: **4738'**



**Formation Tops:**  
 Uintah - Surface  
 Green River - 2835'  
 "X" Marker - 4967'  
 Wasatch - 6708'

DST's:

TD 6809'

JMS