

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS WELL LOG ELECTRIC LOGS FILE **X** WATER SANDS LOCATION INSPECTED SUB REPORT abd

DATE FILED **11-25-87**

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. **SL-071307** INDIAN

DRILLING APPROVED **12-1-87**

SPUDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED:

FIELD: **SAN ARROYO**

UNIT: **SAN ARROYO**

COUNTY: **GRAND**

WELL NO. **SAN ARROYO UNIT #41** API #**43-019-31254**

LOCATION **1118' FSL** FT. FROM (N) (S) LINE. **2429' FWL** FT. FROM (E) (W) LINE **SE SW** 1/4 - 1/4 SEC **23**

TWP	RGE	SEC.	OPERATOR	TWP	RGE	SEC.	OPERATOR
16S	25E	23	BIRCH CORPORATION				

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

(Other instructions on reverse side)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL PLUG BACK

b. Type of Well
Oil Well Gas Well Other Single Zone Multiple Zone

2. Name of Operator
Birch Corporation

3. Address of Operator
3801 East Florida Avenue Suite 900 Denver, CO 80210

4. Location of Well (Report location clearly and in accordance with any State requirements.)*
At surface 1118' FSL, 2429' FWL
At proposed prod. zone

14. Distance in miles and direction from nearest town or post office*
24.1 miles NW of Mack, CO

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

16. No. of acres in lease 640

17. No. of acres assigned to this well 320

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. 5250'

19. Proposed depth 5250'

20. Rotary or cable tools Rotary

21. Elevations (Show whether DF, RT, GR, etc.) 6178' GR

22. Approx. date work will start* December 15, 1987

5. Lease Designation and Serial No.

SL-071307

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

San Arroyo

8. Farm or Lease Name

San Arroyo

9. Well No.

Unit # 41

10. Field and Pool, or Wildcat

San Arroyo

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

Sec 23, T16S, R25E

12. County or Parrish 13. State

Grand Utah

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	9-5/8"	36# K-55	350'	200 sx reg + 2% CaCl ₂
8-3/4" & 7-7/8"	4-1/2"	11.6# K-55	5250'	300 sx 65/35 Pozmix or RFC

We propose to drill a well as described in the attached program.

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

24. Signed: [Signature] Title: Operations Manager Date: 11/23/87

(This space for Federal or State office use)

Permit No. 43-019-31254 Approval Date APPROVED BY THE STATE

Approved by: _____ Title: _____

Conditions of approval, if any:

OF UTAH DIVISION OF OIL, GAS, AND MINING

DATE: 12-1-87

BY: Original Signed by John R. Bass

WELL SPACING: R615-2-3

*See Instructions On Reverse Side

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

(Other instructions on reverse side)

5. Lease Designation and Serial No.

SL-071307

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DEEPEN

PLUG BACK

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✓ San Arroyo

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Sec 23, T16S, R25E

b. Type of Well

Oil Well

Gas Well

Other

Single Zone

Multiple Zone

2. Name of Operator

Birch Corporation

DIVISION OF
OIL, GAS & MINING

3. Address of Operator

3801 East Florida Avenue Suite 900 Denver, CO 80210

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At surface

1118' FSL, 2429' FWL

At proposed prod. zone

SE/SW

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Utah

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640

17. No. of acres assigned to this well

320

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

19. Proposed depth

5250'

20. Rotary or cable tools

Rotary

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

6178' GR

22. Approx. date work will start*

December 15, 1987

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24. Signed: Samy Davis Title: Operations Manager Date: 11/23/87

(This space for Federal or State office use)

Permit No. 43-019-31254

Approval Date

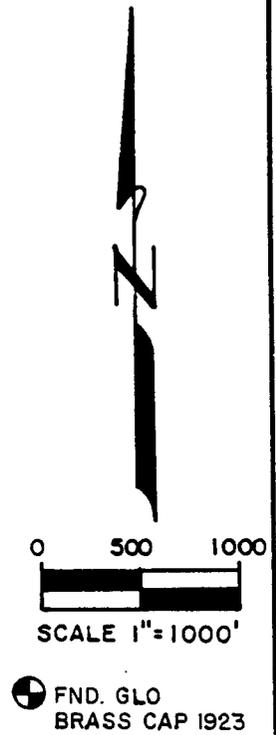
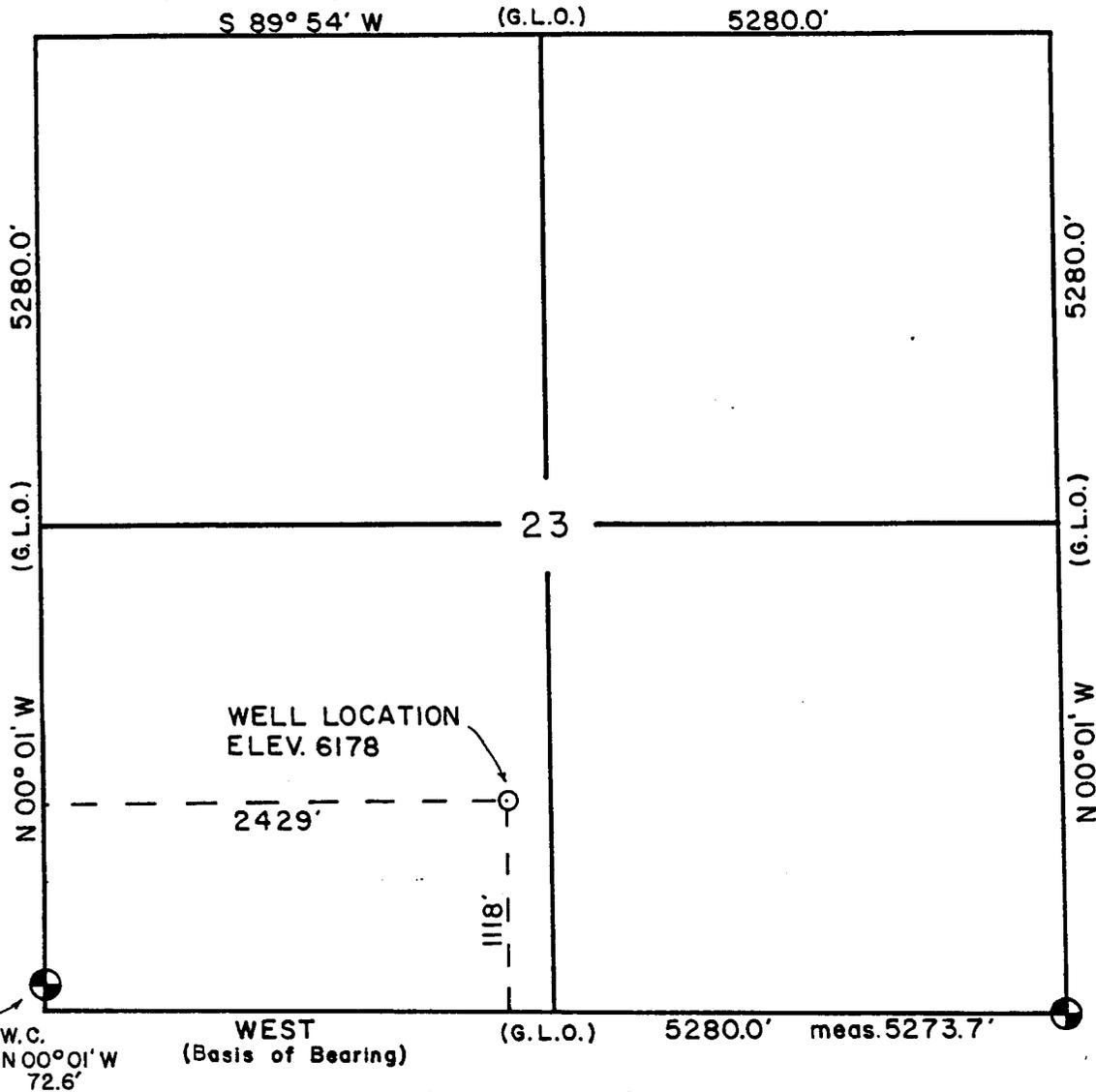
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

Approved by

Title

Conditions of approval, if any:

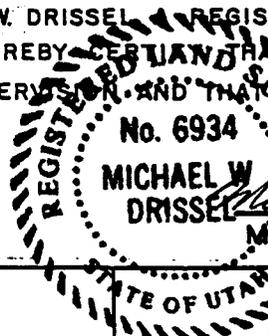
DATE: 12-1-87
BY: John R. Bays
WELL SPACING: RG15-2-3



WELL LOCATION
 1118 FT.N.S.L. - 2429 FT.E.W.L.
 SECTION 23 , T. 16 S., R. 25 E., SLB & M

SURVEYOR'S CERTIFICATE

I, MICHAEL W. DRISSEL, A REGISTERED LAND SURVEYOR IN THE STATE OF UTAH, DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY.



Michael W. Drissel 11-3-87
 MICHAEL W. DRISSEL L.S. 6934

	GORDON ENGINEERING, INC. ENGINEERING - SURVEYING	
	Date 11-3-87	SAN ARROYO UNIT 41
	Drawn by SLH	Sheet 1 of 3
	Checked by MWD	Job # 87030
Survey date 10-29-87		

DRILLING PROGRAM
BIRCH CORPORATION

SAN ARROYO UNIT WELL NO. 41
SAN ARROYO FIELD
GRAND COUNTY UTAH

1. SURFACE FORMATION AND ESTIMATED FORMATION TOPS:

Mesaverde	Surface
Castlegate	631'
Mancos "A"	1344'
Emery	1802'
Niobrara	2142'
Ferron	3898'
Dakota Silt	4165'
Dakota	4218'
Cedar Mountain	4340'
Morrison	4471'
Entrada	4847'

2. ESTIMATED DEPTH AT WHICH OIL, GAS, WATER, OR OTHER MINERAL-BEARING ZONES ARE EXPECTED:

Potential Oil Zones:

Niobrara	2142'
Ferron	3898'
Dakota	4218'
Cedar Mountain	4340'
Morrison	4471'
Entrada	4847'

Potential Water Zones:

Dakota Silt	4165'
Dakota	4218'
Cedar Mountain	4340'
Morrison	4471'
Entrada	4847'

Potential Gas Zones:

Castlegate	631'
Mancos "A"	1344'
Emery	1802'
Niobrara	2142'
Ferron	3898'
Dakota Silt	4165'
Dakota	4218'
Cedar Mountain	4340'
Morrison	4471'
Entrada	4847'

Potential Mineral Zones:

Mesaverde (coal)	4165'
Dakota Silt (uranium)	4218'
Dakota (uranium)	4340'
Morrison (uranium)	4471'
Entrada (uranium)	4847'

3. PRESSURE CONTROL EQUIPMENT:

A diagram illustrating the pressure control equipment is attached. BOP equipment will consist of a flanged 10" series 900 hydraulically actuated double gate system complete with blind rams and 3½", 4", or 4½" pipe rams. Remote controls for the system will be operational and hand wheels installed. BOP and the choke manifold will be installed after running and cementing surface casing. This equipment will be used continuously until the well is abandoned or production casing run and cemented for completion. Surface casing, the blind rams, pipe rams and choke manifold will be pressure tested to 1000 psig prior to drilling the plug.

During drilling the operation of this equipment will be inspected daily and the pipe rams checked for operation. The blind rams will be closed every trip when the drill string has been removed. All inspections, operations, and tests of this equipment will be recorded on the daily drilling report.

The Moab BLM office will be notified twenty-four (24) hours in advance of any pressure tests.

Other auxiliary equipment will include a float at the bit, kelly cock and full opening pipe valve on the floor.

4. CASING PROGRAM AND AUXILIARY EQUIPMENT:

Surface casing will be new 9-5/8" OD 36#/ft. K-55 grade set from surface to 350 feet and cemented with 200 sacks of regular cement containing 2% calcium chloride and ½ lb./sk. cellophane. Cement will be circulated to surface.

Production casing will be new 4-½" OD 11.6#/ft. K-55 grade set from surface to 5250 feet and cemented with 300 sacks 65/35 pozmix or RFC cement.

Well head equipment will be a 3000 psig working pressure flanged bradenhead for the 8-5/8" surface casing. A flanged 3000 psig working pressure tubing spool will be used for a tubing head.

NOTE: An 8 3/4" bit will be used to drill the cement shoe of the surface casing and penetrate the Castlegate Formation. As soon as the bit is dull, a 7 7/8" bit will be used from this depth to total depth providing that shallow water production is not encountered. If shallow water is encountered, then consideration may be given to running an intermediate casing string of 7" new 20 #/ft. K-55 casing. This string will be cemented with 100 sacks of regular cement and the hole finished with a 6½" bit.

5. MUD PROGRAM AND CIRCULATING MEDIUM:

Water will be used to drill the 12½" hole to 350 feet where surface casing will be set. Air or air-mist will be used to drill the 8 3/4"-7 7/8" hole until sufficient gas flow or moisture is encountered requiring the use of a chemical gel mud.

6. CORING, TESTING, AND LOGGING PROGRAMS.

No cores or DST's are planned as these are development wells. Proposed logs are:

Dual Induction Log	-	350' - TD
BHC Density-Compensated Neutron	-	Minimum 2000' at various intervals

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURES AND POTENTIAL HAZARDS:

Maximum pressure anticipated is 1500 psig in the Entrada Formation and should not require more than normal mud weight for control. No abnormal temperatures or hydrogen sulphide are anticipated.

8. ANTICIPATED STARTING DATES AND NOTIFICATIONS OF OPERATIONS:

Anticipated starting date is December 15, 1987, and it is expected that the duration of operations will be up to 120 days for drilling and completion.

The Operator will contact the Moab BLM Office at 801-259-6111, forty-eight hours prior to beginning any dirt work on this location.

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

The spud date will be reported orally to the BLM Manager within a minimum of twenty-four (24) hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within twenty-four (24) hours after spudding. If the spudding occurs on a week-end or holiday, the written report will be submitted on the following regular work day.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed directly with the Bureau of Land Management, P. O. Box 970, Moab, Utah 84532.

IMMEDIATE REPORTS: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Moab BLM in accordance with requirements of NTL-3A.

If a replacement rig is contemplated for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed for prior approval of the District Manager, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations, verbal approval to bring on a replacement rig will be approved by the District Petroleum Engineer.

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

A first production conference will be scheduled within fifteen (15) days after receipt of the first production report. The Grand Resource Office will coordinate the field conference.

No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Manager 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 BLM Area Manager or his representative, or the appropriate surface managing agency.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed thirty (30) days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guideline in NTL-4A.

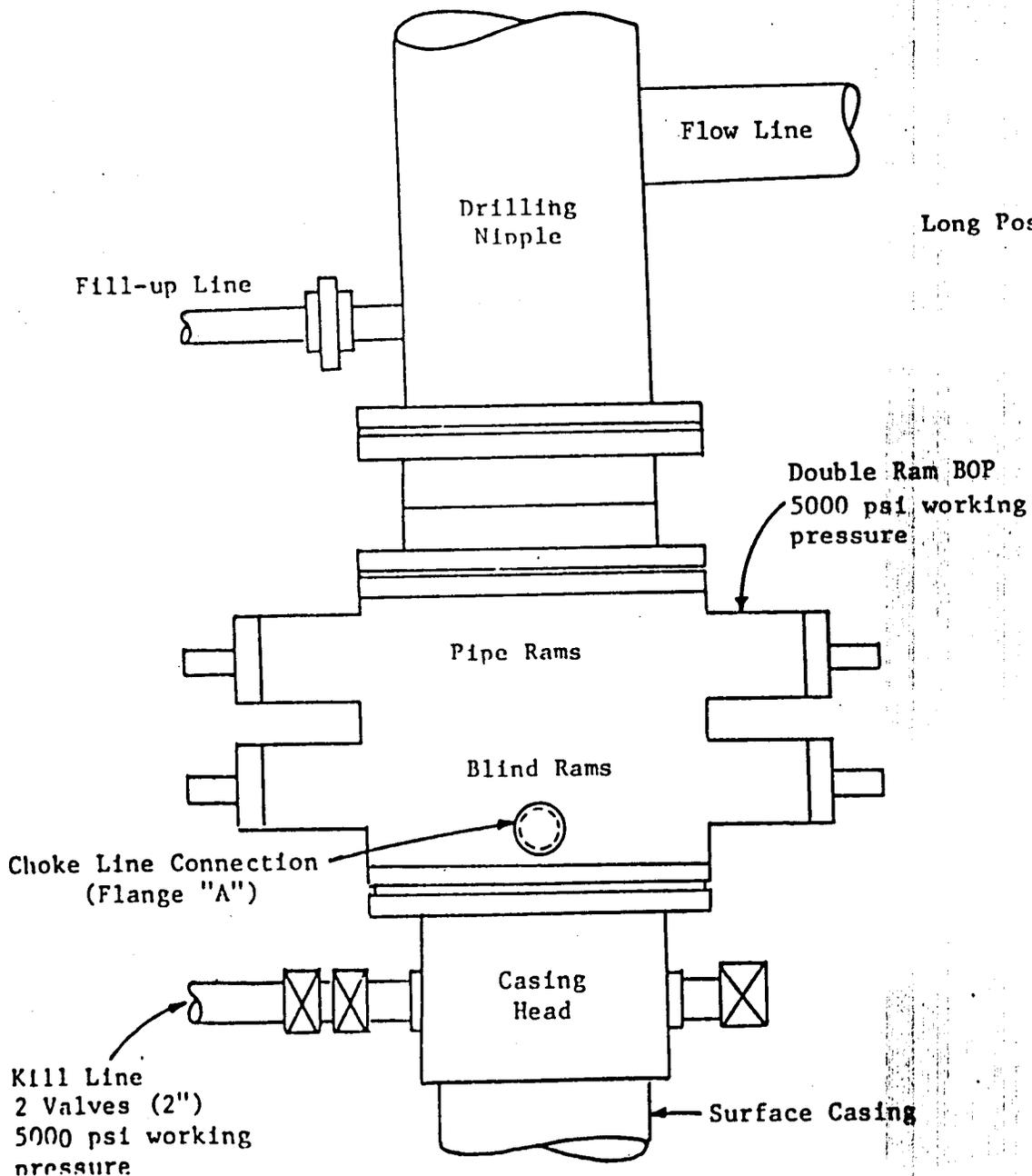
Upon completion of approved plugging, a marker 4" x 4' long will be erected in accordance with 43 CFR 3162.6. The marker will be constructed after contouring. The top of the marker will be closed or capped and the following minimum information will be permanently placed on the marker with a plate, cap, or beaded-on with a welding torch:

"Fed" or "Ind" as applicable.

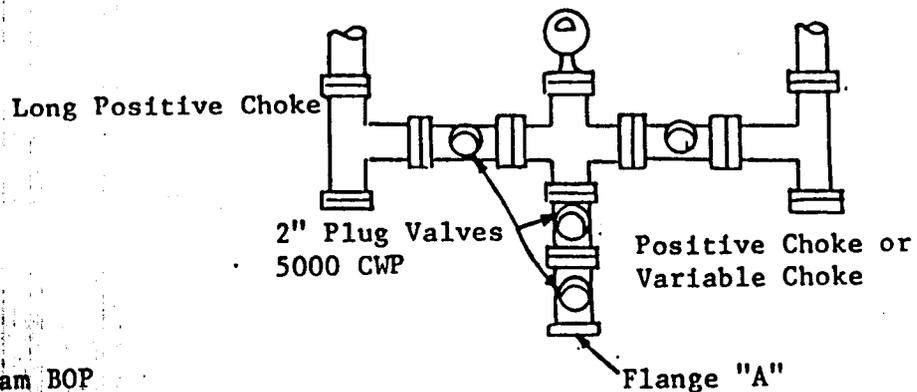
"Well number, location by $\frac{1}{4}$ section, township, and range."

"Lease Number, county, and state."

Blow Out Preventor



Flanged Cross with Pressure Gauge in Outside Opening



Plan View-Choke Manifold

Testing Requirements

- Pipe rams: Operated daily.
- Blind rams: Operated and closed every opportunity.
- Accumulation: Checked daily.

Figure III

BLOW OUT PREVENTOR

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

BIRCH CORPORATION
SAN ARROYO UNIT WELL NO. 41
GRAND COUNTY, UTAH

1. EXISTING ROADS:

- A. The location is approximately 24.1 miles northwest of Mack, Colorado.
- B. The proposed route to the location is by traveling west on Highway 6 and 50 approximately 8-1/2 miles to the intersection of Highway 6 & 50 and Mesa County Road No. 2. Turn north off Highway 6 & 50 on Two Road and proceed northwest up Bitter Creek approximately 15.5 miles. Turn left off the main road and proceed up the hill approximately 1/4 mile. Turn right onto the proposed access road. See Plat No. 1 and Plat No. 2.
- C. Plans for improvement and maintenance of existing roads: Highway 6 and 50 west of Mack, Colorado, is a two lane paved road while Mesa County Road No. 2 is an upgraded graveled road. The road up Bitter Creek to the access to the location is in good shape and will require no improvement. Should maintenance be required, the road will be flat graded. The road is currently being used as access to numerous gas wells in the area.

2. PLANNED ACCESS ROADS:

- A. The planned access road is approximately 400 feet long as shown on Plat No. 2. The exact centerline will be flagged after the location is constructed.
- B. The initial portion of the access will have a grade of approximately 12 percent. No other grades over 8% will be required.
- C. A Large switchback approximately 1/4 mile beyond the access road will be used as a turnaround.
- D. The rim above the existing road where the access road begins will need to be removed by blasing. This will be accomplished so that the blasted rock will be used for road fill. Several large boulders will be removed and utilized for roadfill. Care will be taken to protect a surface gas line below the existing road and to prevent material from entering Bitter Creek wash.

2. PLANNED ACCESS ROADS Continued:

- E. Drainage: Plat No. 2 illustrates the location of one 24" culvert that will be installed. The road is to be ditched and crowned and water bars will be used to control drainage after completion of the well as a producer.
- F. Surface Materials: No surface materials will be required and any materials required for installation of the culvert will be "borrowed" from the road way close to the culverts.
- G. Other: No right of way is required since this well is inside the San Arroyo Unit boundary.

Surface disturbance and vehicular travel will be limited to the approved location and access road. Any additional areas needed will be approved by the appropriate BLM Manager in advance.

The access road will be rehabilitated or brought to Resource Class III Road standards within sixty (60) days of dismantling of the drilling rig. If this time frame cannot be met, the BLM Manager will be notified so that temporary drainage control can be installed along the access road.

3. LOCATION OF EXISTING WELLS:

Plat No. 3 illustrates the location of all existing wells in a two mile radius: there are thirty(30) producing gas wells and six (6) dry holes.

4. LOCATION OF TANK BATTERIES AND PRODUCTION FACILITIES:

All permanent (onsite for six (6) months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective, earth-tone color to match the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six (6) months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded. Colors will be Juniper Green.

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

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager. Gas meter runs for each well will be located within five hundred (500) feet of the well-head. The gas flowline will be buried from the wellhead to the meter along with any other sections occurring on the pad. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three (3) months on new meter installations and at least quarterly thereafter. The Area Manager will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration reports will be submitted to the Resource Area Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. LOCATION AND TYPE OF WATER SUPPLY:

All water needed for drilling and completion purposes will be obtained from West Salt Creek as shown by Plat No. 1. The point of divergence is located in Mesa County, Colorado. Water will be hauled to location by truck. A Utah water permit will not be necessary as water is being obtained from Colorado.

6. SOURCE OF CONSTRUCTION MATERIALS:

None.

7. METHOD OF HANDLING WASTE DISPOSAL:

The reserve pit will not be lined. Three sides of the reserve pit will be fenced before drilling starts and the fourth side will be fenced as soon as drilling is completed. The fence will consist of three strands of barbed wire and will be kept in good repair while the pit is drying.

Produced waste water will be confined to the pit for a period not to exceed 90 days after initial production. During the 90 day period an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the BLM Manager's approval pursuant to Onshore Oil and Gas Order #3 (NTL-2B).

Plat #4 illustrates the rig layout and the position of the trash cage and reserve pit.

- A. Cuttings: These will be contained on location in the reserve pit.
- B. Drilling fluids, chemicals and salts: These will be contained in the reserve pit.
- C. Sewage: Chemical toilets will be used.
- D. Garbage and other waste materials: A portable trash cage will be kept on location to contain these. Periodically the location will be cleaned and all trash placed in the container. No trash will be thrown in the reserve pit. The trash cage will be hauled to a sanitary landfill and emptied when it fills up. Barrels, cable, wood pallets, and all other trash will be hauled to a local sanitary landfill to be disposed of. Open burning of trash or refuse is illegal under Section 2.4 of the Utah Air Conservation Regulations. The Operator will be responsible for all trash and roadside litter generated by their operations along their access route from the County Road to the location.
- E. If burning is required, a permit will be obtained from the State Fire Warden in Moab, Utah.

8. ANCILLARY FACILITIES:

None.

9. WELLSITE LAYOUT:

Plat #4 shows the rig layout. Plat #5 shows the pad layout. Plat #6 illustrates the cuts and fills.

The reserve pit will be located on the west side of the location and a burn pit will be constructed. Both pits will be connected by a small trench so that any accumulation of liquids in the burn pit will drain into the reserve pit. To contain any flare of natural gas, the back side of burn pit will be banked and this should help keep any material contained. The blowie line will be directed into the burn pit and water will be injected into the blowie line for fugitive dust control.

The access road will enter on the southwest side of location and the trash cage will be situated to the southwest of the location, as shown by Plat No. 4.

10. PLANS FOR RESTORATION OF SURFACE:

The Operator or his Contractor will contact the Grand Resource BLM Office in Moab, Utah, telephone (801)-259-8193, forty-eight (48) hours prior to starting rehabilitation work that involves earth moving equipment, and upon completion of restoration measures.

Before any earthwork to restore the location takes place, the reserve pit will be dry and all trash (barrels, metal, etc.) it contains must be removed and disposed of in a sanitary landfill. And immediately upon completion of drilling, the location and surrounding areas will be cleared of all remaining debris, materials, trash and junk not required for production.

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

Seed will be broadcast or drilled at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage.

The disturbed areas will be reseeded using a seed mixture as stipulated by the Grand Resource BLM Office in Moab, Utah. Seeding will be accomplished by using a range drill or by doubling the prescribed mixture and broadcasting.

11. PRODUCTION, SURFACE AND MINERAL OWNERSHIP:

If well goes to production, the holder shall submit a proposed operation and maintenance plan for the permanent road after consultation with the BLM authorized officer for applicable road standards.

The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the methods described in the Restoration of Surface section.

All above ground production facilities will be painted with a flat non-contrasting color harmonious with the adjacent landscape, subject to the approval of the authorized officer.

Plat #7 shows the layout of the typical production facilities and sales line. The sales line will follow the alignment of the road and will be a surface line. The diameter of the sales line will be 2 3/8" tubing with screwed construction. The connections will be coated with an adequate joint compound such as "Baker-Lok" to prevent any leakage. The line will be placed either above the cuts on the high side of the road or it will be staked above the road along the cut slopes.

The surface and minerals are owned by the United States Government and lease number U-0369 is described as follows:

Township 16 S, Range 25 E, Grand County, Utah

Section 23: S-1/2

Section 26: N-1/2

Containing 640 ± Acres.

12. OTHER INFORMATION:

There will be no deviation from the proposed drilling and/or workover program without prior approval from the BLM in Moab. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

A cultural resource clearance has been prepared. If cultural material is exposed during construction, work in that spot will stop immediately and the BLM Moab Office will be contacted. All employees working in that area will be informed by the Operator that they will be subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.

The dirt contractor will be furnished with an approved copy of the surface use plan and any additional BLM stipulations prior to any work.

This permit will be valid for a period of one (1) year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION:

Representative: Gordon Engineering, Inc.
P.O. Box 3525
Grand Junction, CO 81502
(303)-245-1958

Operator: Birch Corporation
Mr. Tony Hines
3801 E. Florida, Suite 900
Denver, CO 80212
(303)-759-4400

Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in the 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 Birch Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Date

11/23/87



Tony Hines
Operations Manager

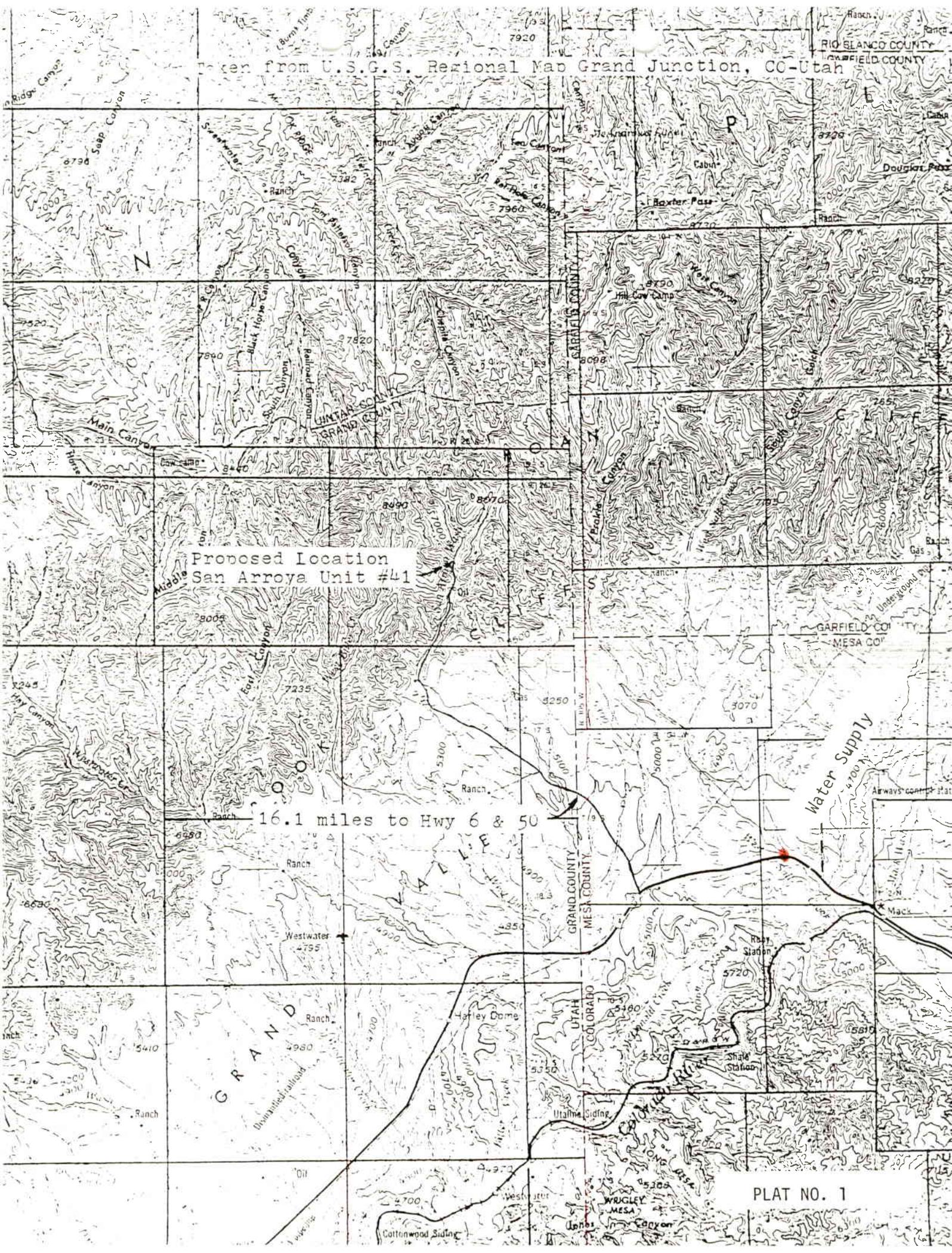
Taken from U.S.G.S. Regional Map Grand Junction, CO-Utah

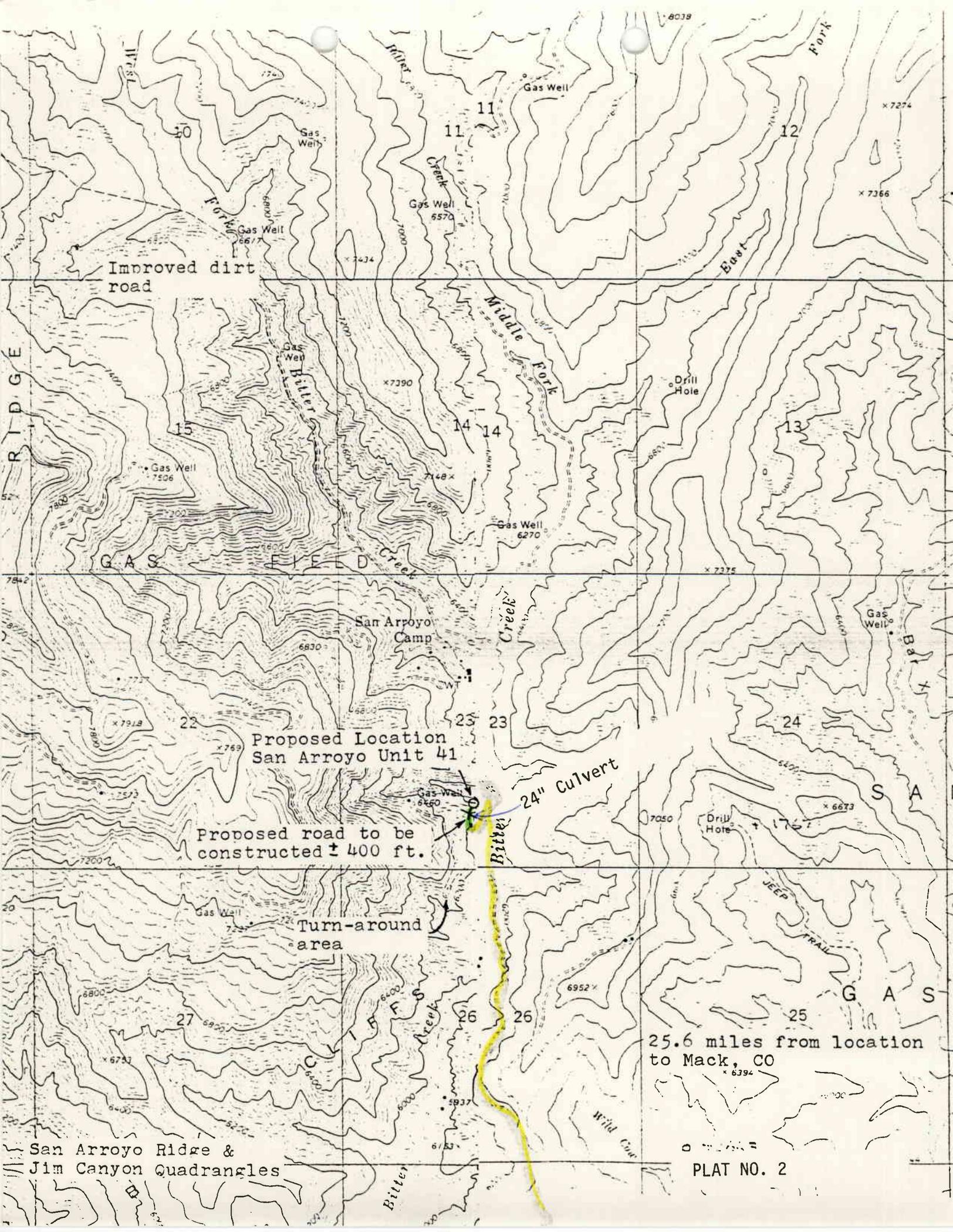
Proposed Location
San Arroya Unit #41

16.1 miles to Hwy 6 & 50

Water Supply

PLAT NO. 1





Improved dirt road

Proposed Location San Arroyo Unit 41

Proposed road to be constructed ± 400 ft.

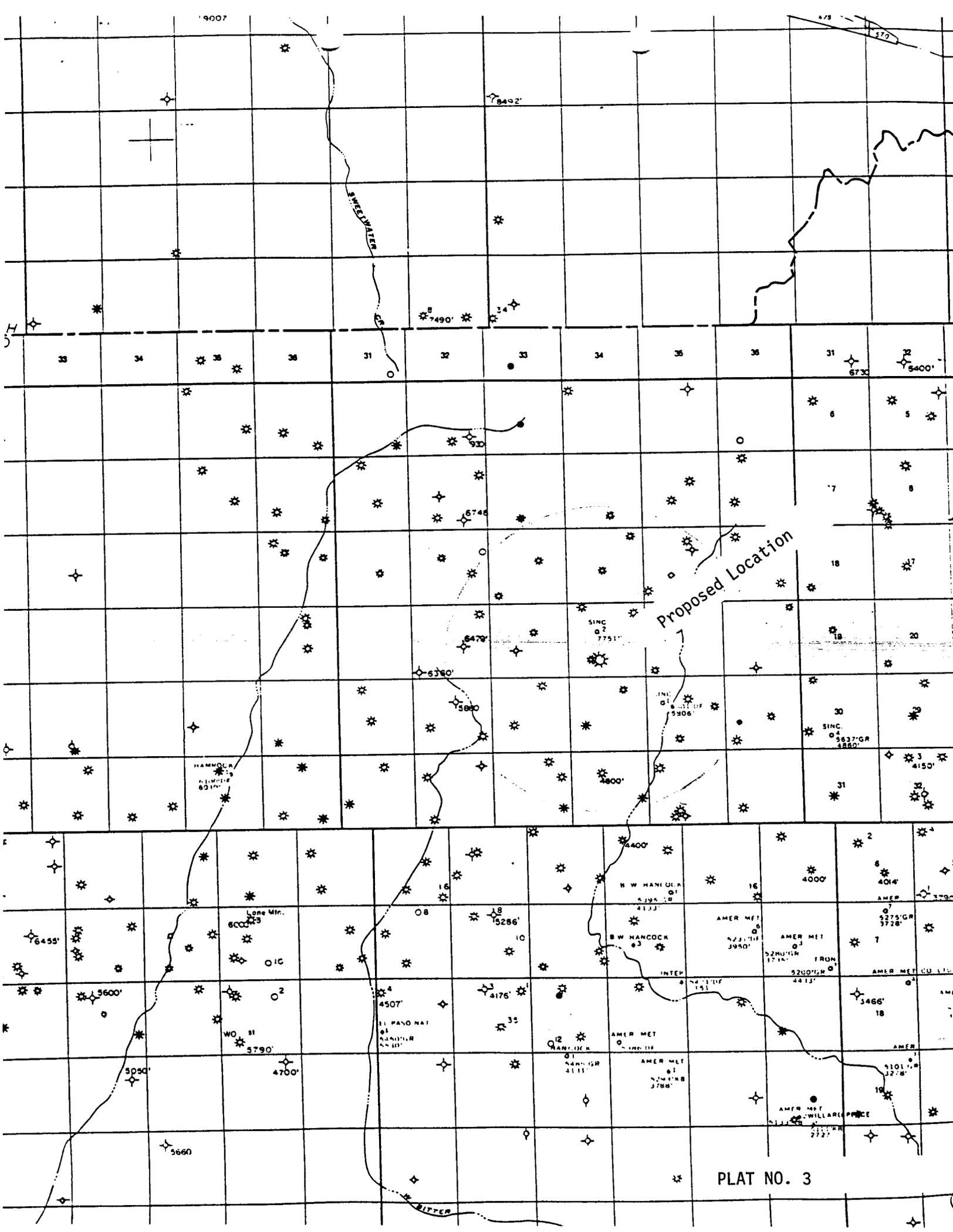
Turn-around area

24" Culvert

25.6 miles from location to Mack, CO
x 6394

San Arroyo Ridge & Jim Canyon Quadrangles

PLAT NO. 2



Proposed Location

PLAT NO. 3

HAMMOCK
S.W. 1/4
6317'

Lone Mtn.
6000'

N.W. HANCOCK
4194'

S.W. HANCOCK
4133'

AMER MET
4231'

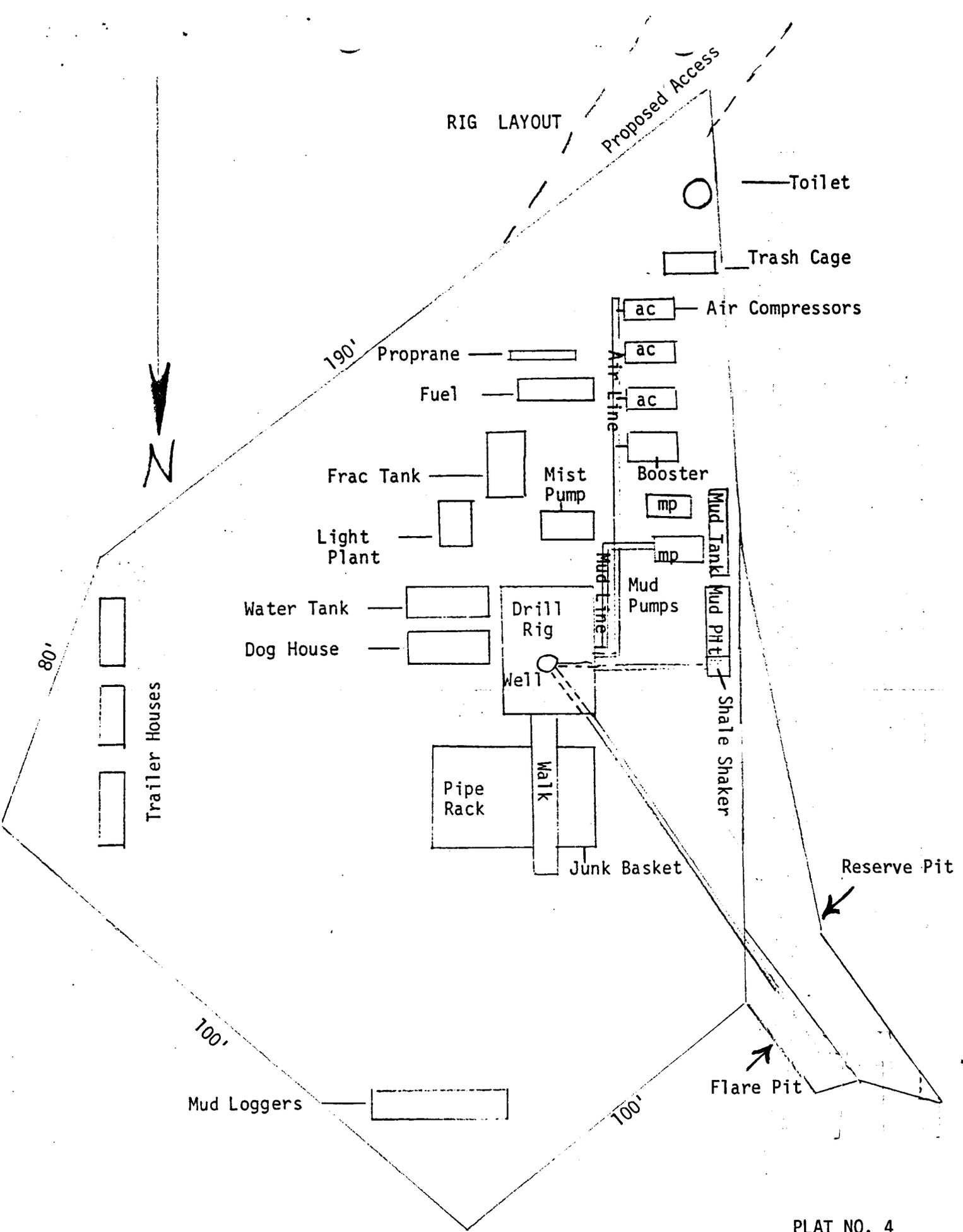
AMER MET
5275'

EL PASO NAT
4507'

AMER MET
4111'

AMER MET
3788'

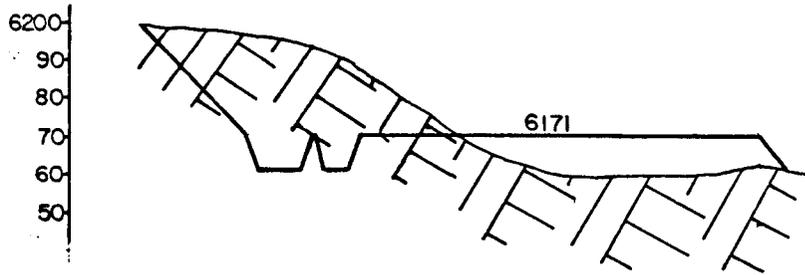
AMER MET
WILLIAMS
2722'



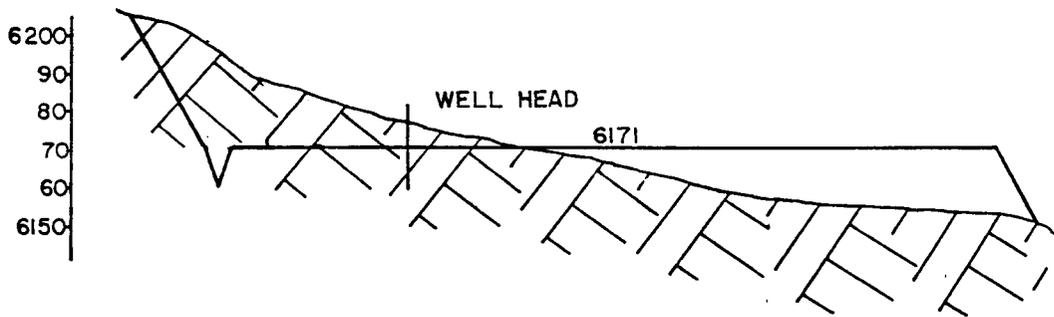
CROSS SECTIONS

SAN ARROYO UNIT 4I

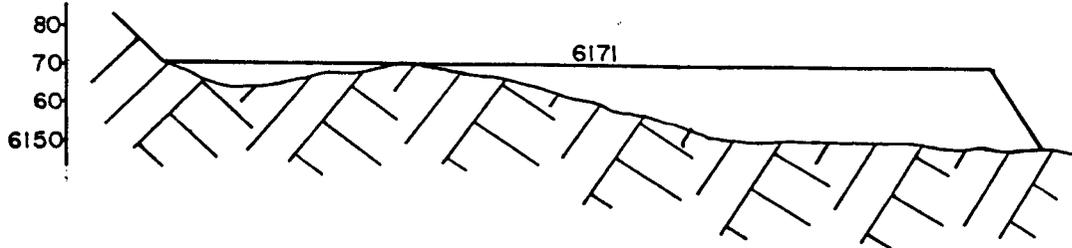
SECTION A - A'



SECTION B - B'



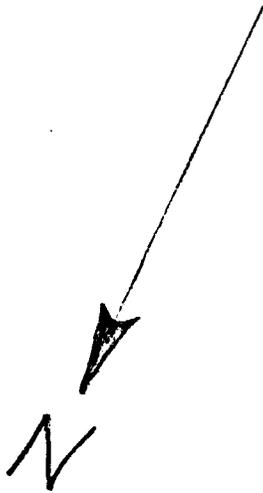
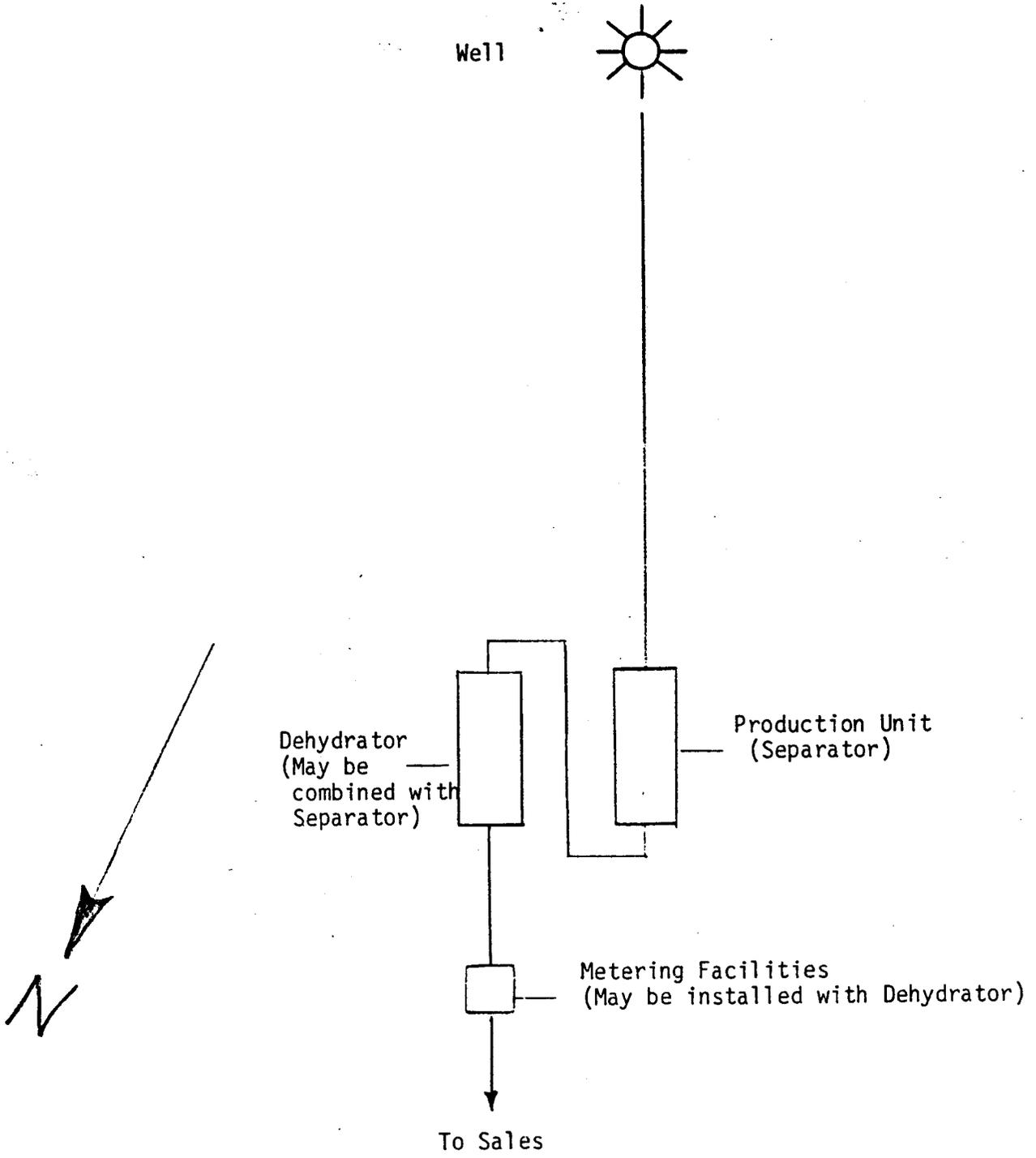
SECTION C - C'



SCALE 1" = 50' HORIZ. & VERT.

PLAT NO. 6

PRODUCTION FACILITIES



121007

OPERATOR Burk Corp DATE 11-30-87

WELL NAME San Arroyo Unit #40

SEC SE/SW 23 T 16S R 25E COUNTY Grand

43-019-31254
API NUMBER

Fee
TYPE OF LEASE

CHECK OFF:

PLAT

BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

Unit Well - & on P.O.D.
Water - Colorado

APPROVAL LETTER:

SPACING:

R615-2-3

San Arroyo
UNIT

R615-3-2

CAUSE NO. & DATE

R615-3-3

STIPULATIONS:



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 1, 1987

Birch Corporation
3801 E. Florida Avenue, Suite 900
Denver, Colorado 80210

Gentlemen:

Re: San Arroyo Unit #41 - SE SW Sec. 23, T. 16S, R. 25E
1118' FSL, 2429' FWL - Grand County, Utah

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

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

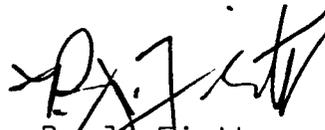
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form to the Division within five working days of the time that the well is spudded or a change in operations or interests necessitates a change in entity status.
3. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
4. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
5. Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Page 2
Birch Corporation
San Arroyo Unit #41
December 1, 1987

6. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-019-31254.

Sincerely,



R. D. Firth
Associate Director, Oil & Gas

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

14

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
 Birch Corporation

3. ADDRESS OF OPERATOR
 3801 East Florida Avenue Suite 900 Denver, CO 80210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface
 1118' FSL, 2429' FWL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 24.1 miles NW of Mack, Colorado

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 640'

16. NO. OF ACRES IN LEASE
 640'

17. NO. OF ACRES ASSIGNED TO THIS WELL
 320'

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 5250'

19. PROPOSED DEPTH
 5250'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6178' GR

22. APPROX. DATE WORK WILL START*
 December 15 1987

5. LEASE DESIGNATION AND SERIAL NO.
 SL-071307 *Orl.*

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 121800

7. UNIT AGREEMENT NAME
 San Arroyo

8. FARM OR LEASE NAME
 San Arroyo

9. WELL NO.
 Unit #41

10. FIELD AND POOL, OR WILDCAT
 San Arroyo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 23, T16S, R25E

12. COUNTY OR PARISH
 Grand

13. STATE
 Utah

DEC 14 1987

43-019-31254

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# K-55	350'	200 sx reg + 2% CaCl ₂
8-3/4" & 7-7/8"	4-1/2"	11.6# K-55	5250'	300 sx 65/35 Pozmix or REC

We propose to drill a well as described in the attached program.

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

24. SIGNED *Sam Arroyo* TITLE Operations Manager DATE 11/23/87

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY /s/ Kenneth V. Rhea TITLE Acting District Manager DATE DEC 11 1987

CONDITIONS OF APPROVAL, IF ANY:

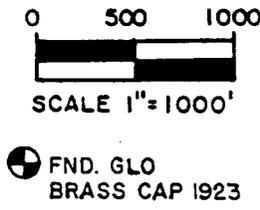
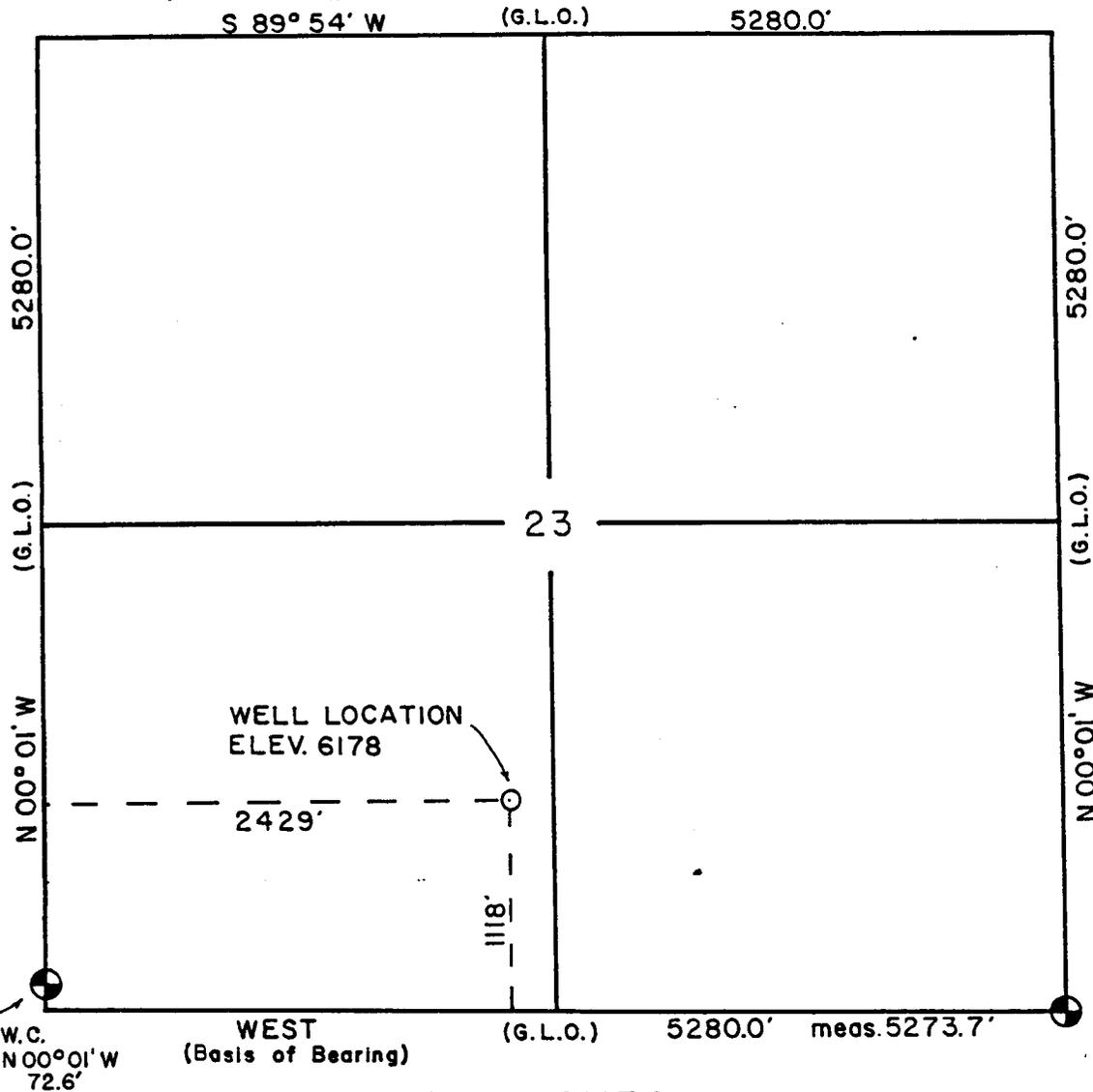
CONDITIONS OF APPROVAL ATTACHED

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

*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.

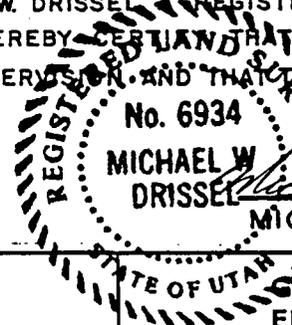
Dobm



WELL LOCATION
 1118 FT.N.S.L. - 2429 FT.E.W.L.
 SECTION 23, T. 16 S., R. 25 E., SLB & M

SURVEYOR'S CERTIFICATE

I, MICHAEL W. DRISSEL, A REGISTERED LAND SURVEYOR IN THE STATE OF UTAH, DO HEREBY CERTIFY AND THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY.



MICHAEL W. DRISSEL *Michael W. Drissel* 11-3-87
 L.S. 6934

	GORDON ENGINEERING, INC. ENGINEERING - SURVEYING	
	Date 11-3-87	SAN ARROYO UNIT 41
	Drawn by SLH	Sheet 1 of 3
	Checked by MWD	10-29-87 87030

Birch Corporation
Well No. San Arroyo Unit 41
Sec. 23, T. 16 S., R. 25 E.
Grand County, Utah
Lease SL-071307

CONDITIONS OF APPROVAL

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

Birch Corporation is the bonded entity on this application. Liability will remain with the bonded party named above until we are formally notified by letter of the new bonded entity in reference to this Application to Permit to Drill.

B. SURFACE USE PROGRAM

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

If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to the appropriate rental, or other financial obligation determined by the authorized officer.

Gas meter runs for each well will be located within five hundred (500) feet of the wellhead. The gas flowline will be buried from the wellhead to the meter along with any other sections occurring on the pad. Meter runs will be housed and/or fenced.

Because of difficult terrains special recontouring techniques may have to be designed in order to facilitate revegetation and/or visual impacts.

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

The following seed mixture will be used:

<u>Species</u>	<u>lbs/acre</u>
<u>Grasses</u>	
Western wheatgrass	2
Streambank wheatgrass	2
Smooth broome	2
<u>Shrubs</u>	
Fourwing saltbush	2
Shadscale	2
<u>Semi-shrub</u>	
Prostrate Kochia (summer cypress)	2
lbs/acre	<u>12</u>

Broadcast seed will be applied at double the above rate.

Final location release will be issued when the seeding is shown to be successful (when perennial vegetation is established).

NOTIFICATIONS

Notify the Grand Resource Area, at (801) 259-8193 for the following:

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

1 day prior to spudding;

1 day prior to pressure testing of BOPE and/or surface casing.

Your contact with the Grand Resource Area Office is:

Jeff Robbins

Office Phone (801) 259-8193

Home Phone (801) 259-7964

Grand Resource Area office address:

Grand Resource Area
Sand Flats Road, P.O. Box M
Moab, Utah 84532

Notify the Moab District Office, Branch of Fluid Minerals, at (801) 259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individuals, in the order listed.

Dale Manchester, Petroleum Engineer Office Phone: (801) 259-6111
Home Phone: (801) 259-6038

Lynn Jackson, Chief, Branch of Fluid Minerals
Office Phone (801) 259-6111
Home Phone (801) 259-7990

Paul Brown, I&E Coordinator Office Phone (801) 259-6111
Home Phone (801) 259-7018

24 hours advance notice is required for all abandonments.

STATE OF UTAH
 DIVISION OF OIL, GAS AND MINING
 OIL AND GAS INSPECTION RECORD

D-1. 03

OPERATOR Buch Corp LEASE _____
 WELL NO. San Arroyo Unit 41 API 43-019-31254
 SEC. 23 T. 16S R. 2E CONTRACTOR _____
 COUNTY Grand FIELD _____

DRILLING/COMPLETION/WORKOVER:

APD WELL SIGN HOUSEKEEPING SAFE
 SAFETY POLL. CONTROL SURFACE USE PITS
 OPERATIONS OTHER _____

SHUT-IN / TA _____ :

WELL SIGN HOUSEKEEPING EQUIPMENT* SAFETY
 OTHER _____

ABANDONED:

MARKER HOUSEKEEPING REHAB. OTHER

PRODUCTION:

WELL SIGN HOUSEKEEPING EQUIPMENT* FACILITIES*
 METERING* POLL. CONTROL PITS DISPOSAL
 SECURITY SAFETY OTHER _____

GAS DISPOSITION:

VENTED/FLARED SOLD LEASE USE

LEGEND: Y - YES OR SATISFACTORY
 N - NO OR UNSATISFACTORY
 NA - NOT APPLICABLE

*FACILITIES INSPECTED:

noc struck well never dilled
no location work done

REMARKS:

ACTION:

NFI

INSPECTOR:

JM

DATE 10-12-88

3162 (U-065)
(SL-071307)

Moab District
P. O. Box 970
Moab, Utah 84532

RECEIVED
DEC 19 1988
DIVISION OF
OIL, GAS & MINING

Birch Corporation
P. O. Box 5427 T. A.
Denver, CO 80217

Re: Rescinding Application for
Permit to Drill
Well No. San Arroyo Unit 41
Sec. 23, T. 16 S., R. 25 E.
Grand County, Utah
Lease SL-071307

43-019-31254

Gentlemen:

The Application for Permit to Drill the above well was approved December 11, 1987. Since that date, no known activity has transpired at the approved location.

This permit was valid for a period of one year from the date of approval. In view of the foregoing, we are rescinding your Application for Permit to Drill. After permit termination, a new application will be filed for approval of any further operations at this location.

If you have any questions, please contact the Branch of Fluid Minerals (801) 259-6111.

Sincerely yours,

JOYCE MORGAN
District Manager

cc: Grand Resource Area

State of Utah, Division of Oil, Gas and Mining ✓
Salt Lake City, Utah 84180-1203

bcc: USO, U-942

CFreudiger/cf 12/15/88

OIL AND GAS	
DRN	RJF
JRB	GLH
DTS	SLS
1-TAS	
2-	MICROFILM ✓
3-	FILE



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangertter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

December 27, 1988

Birch Corporation
P. O. Box 5427 T. A.
Denver, CO 80217

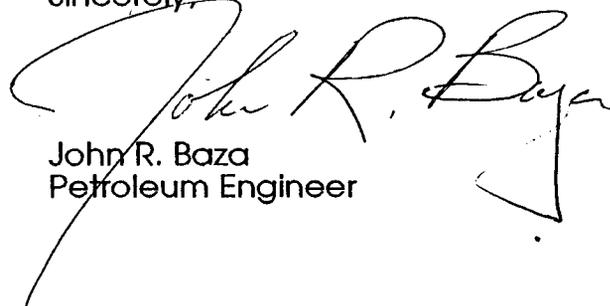
Gentlemen:

Re: San Arroyo Unit 41, Sec. 23, T. 16S, R. 25E, Grand County, Utah
API NO. 43-019-31254

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

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

Sincerely,



John R. Baza
Petroleum Engineer

TAS/tc

cc: D. R. Nielson
R. J. Firth
BLM-Moab
Well file

WE16/91