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Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
OCD - ARTESIA

5. Lease Serial No.	NM3606
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	27125
8. Lease Name and Well No.	Avalon 10 Federal #42
9. API Well No.	30-015-31654
10. Field and Pool, or Exploratory	Avalon Delaware Oil
11. Sec., T., R., M., or Blk. and Survey or Area	Sec 10, T21S, R26E NM PM
12. County or Parish	Eddy County
13. State	NM

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator: Bonneville Fuels Corporation 96178 Carlsbad Draw; Delaware, East

3a. Address: 1700 Broadway, Suite 1150 Denver, CO 80290

3b. Phone No. *(include area code)*: 303 863-1555 ext 204

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: 1980' FNL, 660' FEL

At proposed prod. zone: Same as at surface

14. Distance in miles and direction from nearest town or post office*: Approx. 1 1/3 mi N of City of Carlsbad

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 1440	17. Spacing Unit dedicated to this well 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1655"	19. Proposed Depth 4550'	20. BLM/BIA Bond No. on file Statewide bond 3104 (943C-3 TF);
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3194' GL	22. Approximate date work will start* March 10, 2001	23. Estimated duration 19 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer. See Attached Exhibits A-K

25. Signature R L Millet	Name *(Printed/Typed)* Ronald L. Millet	Date 01/17/2001
Title Drilling Manager		
Approved by *(Signature)* /s/ [illegible]	Name *(Printed/Typed)*	Date MAR 12 2001
Title	Office	

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.

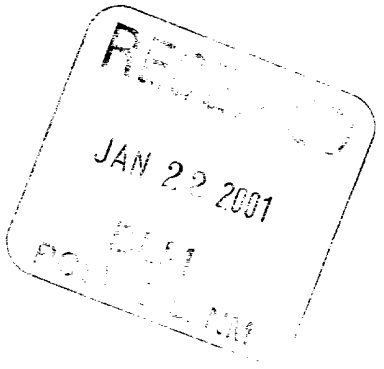
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**(Instructions on reverse)*

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

NOTIFY OCD SPUD & TIME TO WITNESS
CEMENTING OF INTERMDIATE CASING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APD TABLE OF CONTENTS:

EIGHT POINT DRILLING PLAN

Attached to Application For Permit To Drill: Form 3160-3:
Operator: Bonneville Fuels Corporation

Avalon 10 Federal #42
Surface Location: 1980' FNL & 660' FEL, Unit 'H'
Section 10, T21S, R26E. N.M.P.M.
Eddy County, New Mexico

1. **ESTIMATED TOPS: IMPORTANT GEOLOGIC MARKERS**
ALL DEPTHS REF. Est. KB @ 10' above Fin. GL:

Permian:	Depth:
Yates Fm.:	Surface
Capitan Reef Fm.:	490′
Goat Seep Reef Fm.:	2175′
Delaware Fm.:	
Cherry Canyon Mbr.:	2320′
Brushy Canyon Mbr.:	3390′
Bone Springs Fm.:	4350′
T.D. in Bone Springs Fm.:	4550′

2. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

	Formation OR Sand:	Depth:
Fresh Water:	Yates Fm.:	Surf. To 490′
	Capitan Reef:	490′ to 550′

Oil and Gas Targets:

Delaware Fm.:	2320′
Cherry Canyon Mbr.:	3176′
Brushy Canyon Mbr.:	3390′
Bone Springs Fm.:	4350′

Projected Maximum Total Depth @ 4550′ in the Bone Springs Fm.

3. **MINIMUM SPECS FOR PRESSURE CONTROL:**

a. No Surface Blowout Preventer Stack is required to drill the Surface 17-1/2" hole to 600′ or the Intermediate 12-1/4" hole to 1,800′. Both intervals will be drilled with a conductor. The 8-5/8" Intermediate Casing will be set and successfully cemented to surface @ 1800′

3. MINIMUM SPECS FOR PRESSURE CONTROL: Continued:

b. After the 8-5/8" Intermediate Casing has been set and successfully cemented to surface @ 1800' then the Blowout Preventer Stack and Wellhead Equipment presented in Exhibit #1 for the drilling of the 7-7/8" hole from 1800' to TD @ 4550' will be rigged-up. A diagram of the Choke Manifold is presented in Exhibit #2. All BOP and Choke Manifold equipment will be rated to 3000 psi Working Pressure (WP) minimum (min).

i. A 9" slip-on weld-on 3000 psi WP(min) braiden head w/ 2: 2" SE outlets with 2: 2" SE XXHVY Nipples and 2: 2" SE FO 3000 psi WP(min) ball valves. This braden head will be welded onto the 8-5/8" Protective Casing after the 8-5/8" protective casing has been set and successfully cemented to surface.

ii. All wellhead and BOP equipment and the 8-5/8" Protective Casing will be pressure tested to 2500 psi prior to drilling-out the 7-7/8" Production Hole.

c. The BOP Stack Equipment, nippled-up on the 9" 3000 psi starting head for the 7-7/8" production hole will be as follows:

i. A 9" Nom. 3000 psi WP(min) mud cross with a 2" 3000 psi WP(min)FO FE kill-side inlet and a 2" 3000 psi WP(min) FO FE choke-side outlet.

ii. A 9" Nom. 3000 psi WP(min) double gate (or dual equivalent single gate) hydraulic ram-type preventer with Pipe Rams over Blind Rams. Pipe rams are anticipated to be 4-1/2".

iii. An optional 9" Nom. 3000 psi WP(min) hydraulic annular preventer may be rigged-up if deemed prudent by the operator.

iv. An optional 9" Nom. rotating head with fill-up and flow-line connections may be rigged-up if deemed prudent by the operator. The flow-line will tie-in to an optional gas buster if the rotating head is rigged-up.

v. An optional gas buster may be installed, if deemed necessary, in order to de-gas fluid returns during drilling/well control operations and to return de-gassed fluid to the mud pits and to convey gas to a flare pit.

3. MINIMUM SPECS FOR PRESSURE CONTROL: Continued:

d. Choke Manifold Equipment, Safety Valves, and Kill Manifold Equipment:

i. A choke manifold consisting of a 2" 3000 psi WP min. Master Valve at the wellhead run in the CLOSED position with a 2"(min nom) x 3,000 psi WP(min) FE welded choke line between the master valves and the choke manifold - consisting of a 2" x 2" 3000 psi WP[min] FE cross with a 2" 3000 psi WP(min) FO FE gate valve immediately upstream of the manifold and a 2" 3000 psi WP(min) ball/gate valve immediately downstream, of the manifold cross. Between the downstream 2" 3000 psi WP(min) FO FE ball/gate valve and the manifold cross will be a 2" x 2" 3000 psi WP(min)FO FE tee with a 2" 3000 psi WP(min) FO FE ball/gate valve with a 2" 3000 psi WP(min) Gauge Assembly for monitoring pressure at the choke manifold. The choke manifold will have a 2" 3000 psi FO FE ball/gate valves between the manifold cross and a 2" FO FE 3000 psi WP(min) adjustable choke on one wing and a 2" x ¾" FO FE 3000 psi WP(min)adjustable choke on the other wing. Provision will be made to tie-in DST surface lines to the choke manifold thru an optional 2" 3000 psi WP(min) FO FE tee above the 2" 3000 psi WP(min) ball/gate valve down stream of the choke manifold cross. The 2" blooey line downstream of the choke manifold will be staked down and targeted in the flare pit. The 2: 2" lines downstream of the chokes will be appropriately staked down to return mud to the mud tanks, produced fluids to a test tank, and gas to a flare pit.

ii. A 3000 psi WP(min) FO safety valve and a 3000 psi WP(min) dart valve (inside BOP), with drill pipe threads and subs to meet other drill string threads, will be kept on the drill floor after the 13-3/8" surface casing is set. A 3000 psi(min) WP Upper Kelly valve will be kept on the kelly throughout drilling operations. All valves, and the wrenches to operate these valves, will be maintained on the floor in good order throughout drilling operations.

iii. The kill-side manifold will consist of 2" 3000 psi WP(min) FO FE master valves with an outside 2" 3000 psi(min) FO FE check valve. The inside valve will be kept in the closed position. The kill line will be connected to the stand-pipe by a 2" 3000 psi WP(min) welded or co-flexip type kill line. THE KILL LINE WILL IN NO CASE BE USED FOR THE FILL-UP LINE.

3. MINIMUM SPECS FOR PRESSURE CONTROL: Continued:

d. Choke Manifold Equipment, Safety Valves, and Kill Manifold Equipment: Continued:

iv. An accumulator with sufficient capacity to operate the BOPE against a 2000 psi well pressure(min) will be used to operate the BOP system. It shall contain **THE MINIMUM CAPACITY OF WORKING FLUID REQUIRED BY ON-SHORE ORDER NO. 2.** The accumulator working pressure shall be 1,500 psi(minimum) with a pre-charge pressure between 900 - 1,200 psi(minimum). A Nitrogen bottle system shall provide independent (reserve) power to operate the system in the event rig motors must be shut down.

e. BOPE Stack Testing Procedures and Operational Test Frequency:
NOTE: ALL pressure tests and operational/function tests and drills will be recorded/described on the IADC tour sheets.

3rd Party Test:
The 8-5/8" casing, 9" wellhead, Mud Cross, Blind Rams and all choke manifold lines/valves to the chokes/panic line, all kill-side valves and the kill line will be nippled-up on the casing spool and each component will be hydraulically tested for ten(10) minutes(min) to 2,500 psi and five(5) minutes(min) to 300 psi. The Upper Kelly Valve will be hydraulically tested on the kelly for ten(10) minutes(min) to 2,500 psi and for five(5) minutes(min) to 300 psi. All of the drill collars and at least 500' of drill pipe will then be run in the hole. The Pipe Rams and the 8-5/8" casing will then be tested to 2,500 psi for thirty(30) minutes(min). After the float collar is drilled out of the intermediate casing, and prior to drilling out the shoe, the intermediate casing and the optional Annular Preventer (or the Pipe Rams) will again be pressure tested to 1,500 psi for ten(10) minutes(min) prior to drilling out the shoe.

3. MINIMUM SPECS FOR PRESSURE CONTROL: Continued:

f. Tripping procedures for well control:

For the 7-7/8" production hole:
The anticipated maximum bottom-hole formation pressures are 1,550 psig @ 2,605' MD (TOP of UCC Sand #3 in Cherry Canyon Member of Delaware Fm.). The anticipated mud weight in this Production Hole Interval is 8.6 to 10.2 PPG. A mud weight sufficient to provide a 100 psig overbalance against the pay sands in the Delaware Fm. will be maintained in the well. The well will be drilled by a double-derrick rig (62' avg. length per stand). The well will be monitored each 3 stands of drill pipe on trips to insure that the BHA is not swabbing the well in. The well will be filled after each 13 stands of drill pipe and as each stand of drill collars are pulled from the hole. Pits will be monitored in order to insure that the well is taking fluid on the trip. **In the event that the bit is plugged on a trip then the well will be filled after each 3 stands of drill pipe are pulled from the well and as each stand of drill collars are pulled from the well. Swabbing will be checked each stand.**

g. Procedures for running production casing:

Prior to running production casing the hole will be filled. The blind rams will be closed and the well will be monitored for flow while a set 5-1/2" casing rams will be installed in the BOP to replace the pipe rams. Casing will then be run and cemented. The BOPE will remain nippled up UNTIL the well is cemented.

4. CASING AND CEMENTING PROGRAM:

a. The Proposed Casing Program:

i. OPTIONAL Conductor Casing: Pre-Set: Surface to 40':
20" O.D. 94# H-40 PE Casing.

ii. Surface Casing: Surface to 600':
13-3/8" O.D. 54.5#/ft. J-55 8rd. ST&C.

iii. Intermediate Casing: Surface to 1800' MD:
8-5/8" O.D. 24#/ft. J-55 8rd. LT&C: 7.875" Drift.

iv. Production Casing: Surface to TD @ 4,550' MD:
5-1/2" O.D. 17#/ft. J-55 8rd. LT&C: 4.75" Drift.

b. The Proposed Cementing Program:

i. OPTIONAL Conductor Casing: Grouted:
Est. 70 F. @ 8.34 PPG water to 40':
Grout w/ Redi-Mix to Surface: Est. 4 Yds. of Redi-Mix.

ii. Surface Casing: Single Stage:
Est. 75 F. @ 9.5 PPG mud @ 600': Cement to Surface Required:
Top Jobs if needed to bring cement to Surface.

Lead Slurry: Est. Surface to 392'.
100 % excess over calculated open-hole volume + conductor annulus volume:
250 sx. Lite (65% Class 'C' + 35% Pozzalan + 6% Gel) w/ 8% Gypsum + 5 #/sx. NaCl + ¼ #/sx. cell-flakes:
2.17 cu.ft./sx. @ 12.5 PPG.

Tail Slurry: Est. 392' to 617'.
100 % excess over calculated volume + shoe volume:
250 sx. Class 'C' w/ 2% CaCl2 + ¼ #/sx. cell-flakes:
1.33 cu.ft./sx. @ 14.8 PPG.

4. CASING AND CEMENTING PROGRAM: Continued:

iii. Intermediate Casing: Single Stage:
Est. 95 F. @ 8.6 to 10.2 PPG mud @ 1800'.
Plan Circ. Cement to Surface:
Temp. Survey & Top Jobs If Cement Does NOT Circ./If Needed.

Lead Slurry: Est. Surface to 1432'.
100 % excess over calculated open-hole volume + surface casing annulus volume:
350 sx. Pozmix (50% Class 'C' + 50% Pozzalan)
w/ 3% Gypsum + 10% Gel + ¼ #/sx. cell-flakes
+ 10 #/sx. Gilsonite
2.52 cu.ft./sx. @ 11.6 PPG.

Tail Slurry: Est. 1432' to 1800'.
100 % excess over calculated volume: Est. @
250 sx. Class 'C' w/ 2% CaCl2 + ¼ #/sx. cell-flakes.
1.34 cu.ft./sx. @ 14.8 PPG.

iv. 5-1/2" Production Casing: Single Stage:
ALL VOLUMES TO BE BASED ON CALIPER LOG VOLUMES.
Est. 105 F. @ 8.6 to 10.2 PPG mud @ 4,450'.
Est. 4,550' to 1000':

Completion Slurry:
30 % excess over calculated open-hole volume
+ intermediate casing annulus volume + shoe volume:
490 sx. Super 'C' cement consisting of 70% Class 'C'
+ 17% Pozzalan + 13% Fumed Silica
w/ 2#/sx. KCl + Additives.
1.65 cu.ft./sx. @ 13.5 PPG.

5. PROPOSED DRILLING FLUIDS:

The reserve pit will be constructed in two segments & will be fully lined with a minimum 12 mil thickness plastic liner to protect the surface environment and fresh water resources.

a. 26" Conductor Hole: Surface to 40': Auger dry.

b. 17-1/2" Surface Hole: Surface to 600': Fresh Water Spud Mud:
Additives: Gel, Lime & LCM as needed to maintain circulation.
POSSIBLE COMPLETE LOSS OF RETURNS FROM 70' TO TOTAL DEPTH OF SURFACE HOLE WITH DRY DRILLING AND LCM SWEEPS TO KEEP HOLE OPEN. Est. 8.6 to 9.0 PPG @ VIS 40 to 120 sec./qt.

c. 12-1/4" Intermediate Hole: Circulate fresh water in reserve pit.
600' to 1,800': Native Mud: Fresh Water & Native Solids:
Additives: Possible Gel sweeps & LCM as needed to maintain circulation and clean the hole.
POSSIBLE COMPLETE LOSS OF RETURNS FROM 700' TO TOTAL DEPTH OF INTERMEDIATE HOLE WITH DRY DRILLING AND LCM SWEEPS TO KEEP HOLE OPEN. Est. 8.4 to 9.5 PPG @ VIS 27 to 34 sec./qt.

d. 7-7/8" Production Hole: Native Mud: Fresh Water & Native Solids:
1,800' to 2,200': Fresh Water: Circ. Reserve Pit:
Est. 8.3 PPG w/ 27 Vis.
2,200' to T.D.: Barazan D/Pac R/KCl:
Est. 8.6 to 9.5 PPG: VIS 38-55 sec/qt & 8-10 cc Water Loss.
Additives: Fresh Water - Brine, Barazan D, Pac R, KCl, and Barite f/ weight control. LCM as needed to maintain circulation.

6. LOGGING, TESTING, AND CORING PROGRAM:

a. The logging program will consist of:

i. DLL/SFL or DIL- GR/SP: Induction Log Suite Depends on Mud Salinity: Geology Call:
T.D. to Intermediate Casing.
GR to Surface.

ii. LDT/CNL - PE/GR/CAL (Density/Neutron Porosity Logs):
T.D. to Intermediate Casing.

iii. Possible MRIL & Mechanical Rock Properties Logs to assist in frac design.

b. No conventional cores are planned. Rotary side-wall cores may be taken if needed.

c. Drill stem tests are planned for the following formations IF SAMPLE/GAS/OIL shows are sufficient to merit testing:
Cherry Canyon Fm.: 2605′ to 3200′.
Brushy Canyon Fm.: 3390′ to 4275′.

d. 10′ samples (wet) will be analyzed on-site by a geologist from the base of the 8-5/8″ Intermediate Casing @ 1,800′ to est. well T.D. @ 4,450′ MD. The on-site geologist will assess oil and gas shows and recommend DST points and Total Depth of the well on the basis of his sample analysis.

7. ABNORMAL CONDITIONS - PRESSURE - TEMPERATURE - POTENTIAL HAZARDS:

a. 17-1/2" Surface Hole to 600′:
Normal pressures (fresh water gradient or less) and temperatures (70 F. to 75 F.) are anticipated for this hole segment.
A COMPLETE LOSS OF RETURNS IS POSSIBLE FROM 70' TO T.D.

b. 12-1/4" Intermediate Hole from 600′ to 1,800′:
Fresh water gradient (8.34 ppg.: 0.433 psi./ft.) or lower pressures are anticipated.
Normal temperatures (75 F. to 95 F.) are anticipated.
No H2S is anticipated in this hole interval.
A COMPLETE LOSS OF RETURNS IS POSSIBLE FROM 700' TO T.D.

7. ABNORMAL CONDITIONS - PRESSURE - TEMPERATURE - POTENTIAL HAZARDS: Continued:

c. 7-7/8" Production Hole from 1,800' to 4550' TD:

i. Well/Pressure Control Considerations:

FORMATION TARGET:	TVD: Feet:	EST. BHP: PSIG	GRADIENT: PSI/FT	RATING:
Delaware Fm.:				
Cherry Canyon Mbr.:	2605'	1550	0.619	Abnormal
Brushy Canyon Mbr.:	3390'	1550	0.457	Normal
Bone Springs Fm.:	4350'	1750	0.402	Normal

KICKS AND WELL CONTROL HAZARDS ARE COMMON IN THIS AREA: AN ADEQUATE SUPPLY OF BRINE WATER, SALTS & SALT-WATER GEL, AND/OR BARITE WILL BE MAINTAINED ON LOCATION AT ALL TIMES, THROUGHOUT DRILLING OPERATIONS BELOW THE 8-5/8" CASING SHOE @ 1,800', TO RAISE THE MUD WEIGHT OF THE HOLE & STEEL PIT CIRCULATING SYSTEM A MINIMUM OF 2 PPG. An OPTIONAL PVT system with an optional gas buster and optional rotating head may be installed immediately after the 8-5/8" casing is set (prior to drilling out the 8-5/8" casing shoe @ 1,800'). This equipment will permit the safe handling of minor gas volumes at the surface and the monitoring of well flow and trip volumes while the well is being drilled.

ii. Normal temperatures (95 F. to 105 F.) are anticipated.

iii. H2S (Hydrogen Sulfide) Gas Hazards:
Potential H2S is anticipated in the Delaware Fm. from 2,320' to 4550' TD. An H2S Safety Plan is prepared as Exhibit #3 and will be posted at the well-site. An H2S monitoring system will be rigged-up and functional after the 8-5/8" Casing is set at 1,800', and PRIOR TO DRILLING OUT OF THE 8-5/8" CASING SHOE. ALL RIG-SITE AND SUPERVISORY PERSONNEL WILL BE TRAINED/CERTIFIED TO WORK IN AN H2S ENVIRONMENT PRIOR TO ENTRY ONTO THIS JOB SITE.

8. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Location construction may be commenced in Late February after BLM APD and BOR ROW approvals are received. After NMOCD approval, as soon as a rig is available to drill this well economically, this well will be spud and drilled to a projected T.D. @ 4,550'. Anticipated spud date is February 20, 2001. Est. 15 drilling days. Est. 10 completion days and 15 days constructing site facilities. Est. 1st production on or after March 30, 2001.

CERTIFICATION:

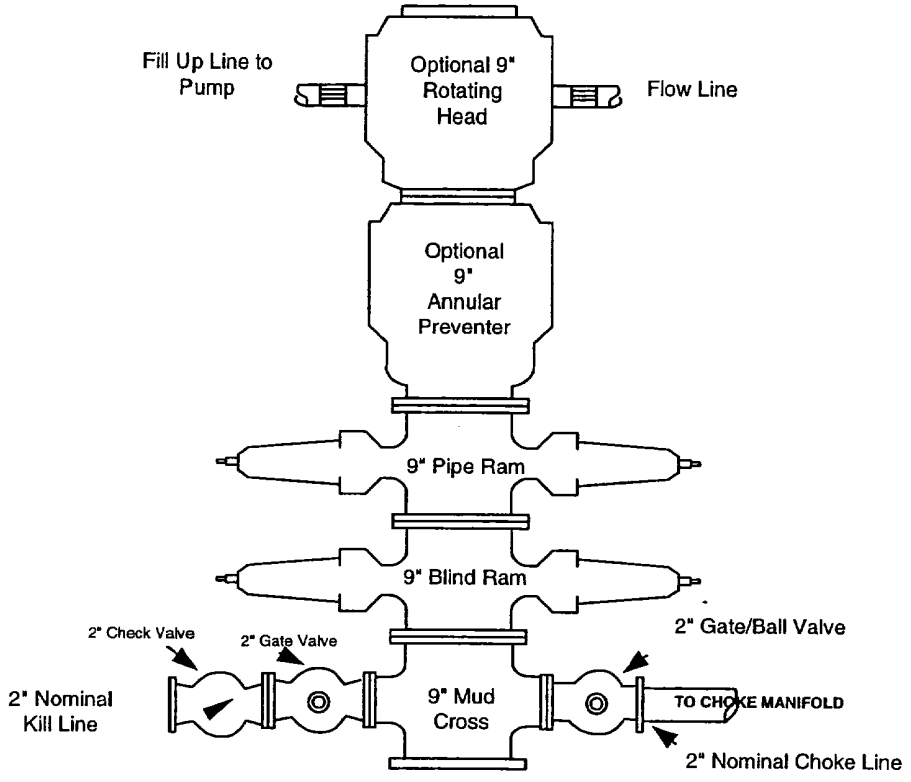
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access routes; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bonneville Fuels Corporation and its contractors and subcontractors in conformity with this plan and the terms & conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 1/17/01 Signature: R. L. Millet

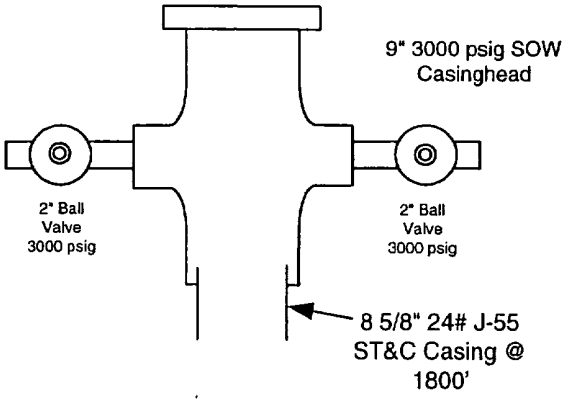
Ronald L. Millet
Drilling Manager
Bonneville Fuels Corporation

Exhibit #1

Avalon 10 Federal #23/22/43
Minimum Blow-Out Preventer Requirements
All 3000 PSI WP Equipment
(Except Casinghead & Spools as Noted Below)

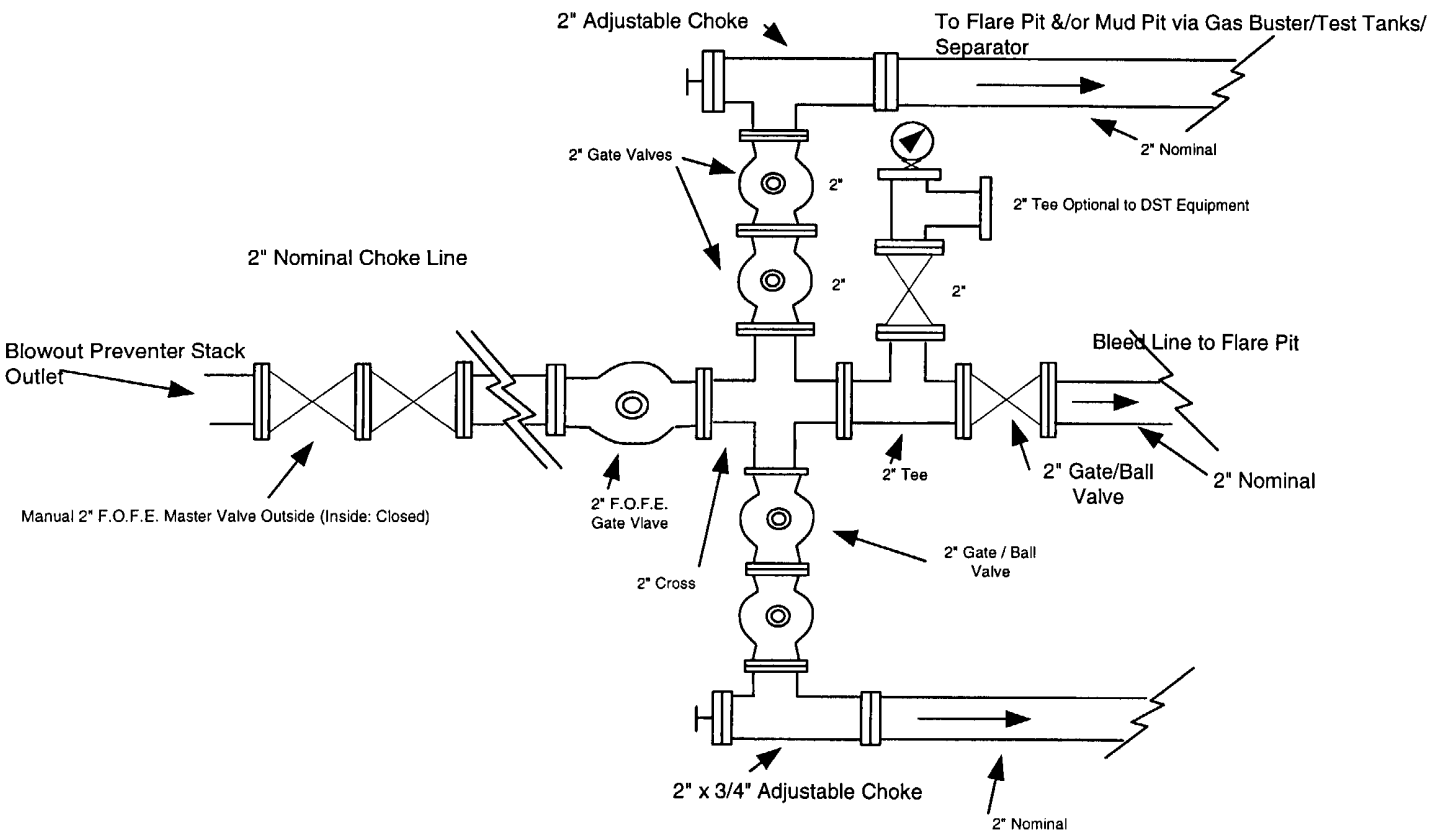


Wellhead Equipment :
1800'-TD



Avalon 10 Federal #/22/42
Choke Manifolds
All 3000 PSI WP Equipment

Exhibit #2



Avalon 10 Federal #/22/42
Choke Manifolds
All 3000 PSI WP Equipment

Exhibit #2

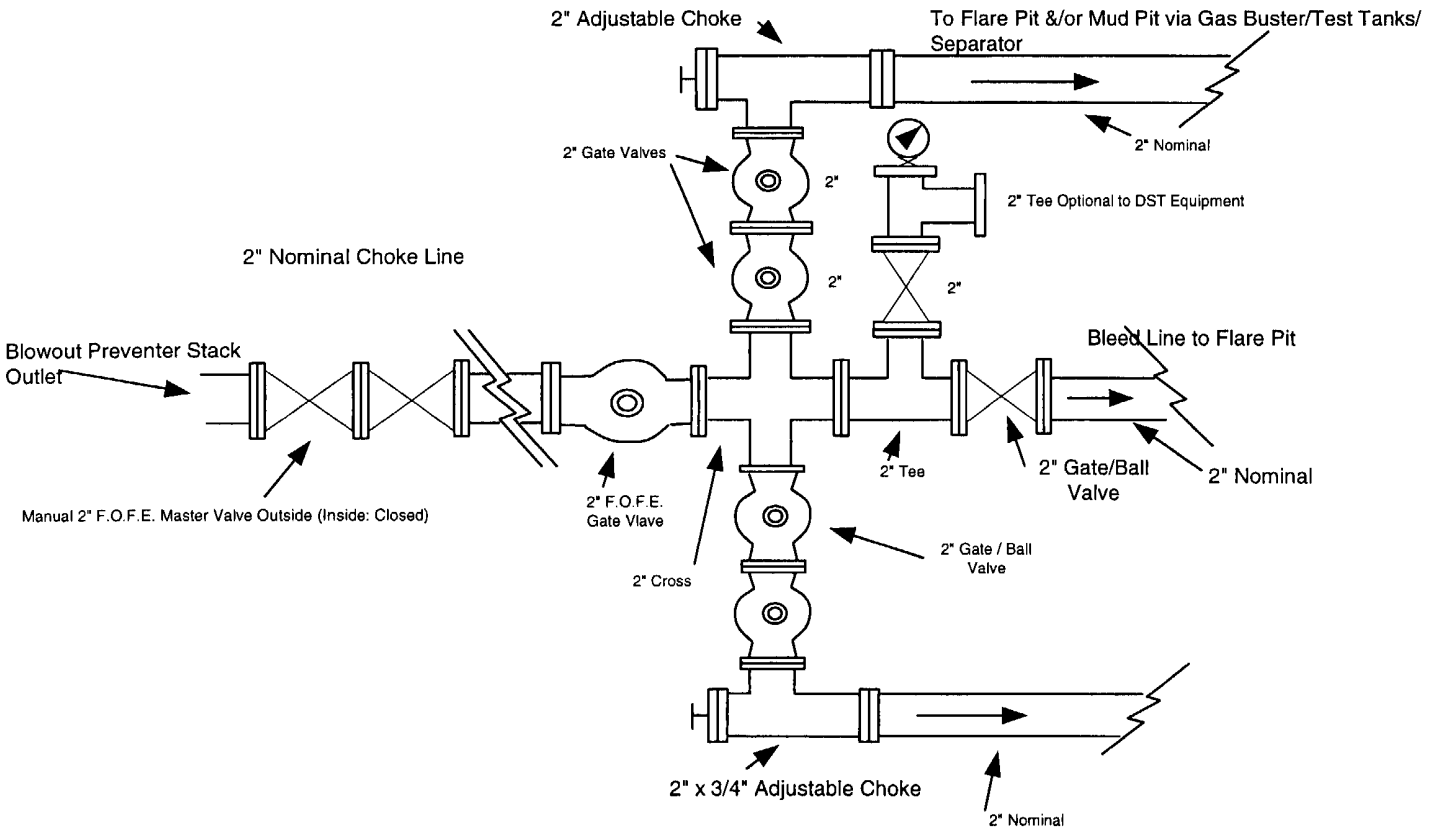


Exhibit #3
H2S SAFETY PLAN
8-Point Drilling Plan

Avalon 10 Federal #42 Well

WELL-SITE SCHEMATIC:
A well-site schematic (Exhibit #3a) is attached. This schematic indicates:

1. The prevailing winds at this site are out of the NW and SW.

2. Briefing Area #1 (the principle briefing area) is located generally upwind & uphill at the western edge of location.

3. Briefing Area #2 (the secondary briefing area) will be located at the SE corner of the location at the location access entrance. There will be a sign at the access entrance to location (**Green- OK:** no H2S; **Yellow-Caution:** H2S encountered previously at levels greater than 10 PPM and/or currently at levels less than 10 PPM; **Red- Hazard:** H2S encountered or present on site at levels greater than 10 PPM - Cascade system required for work).

4. Three (3) windsocks will be placed on location with one at Briefing Area #1, one at Briefing Area #2, and one on the NE corner of the location. This should allow anyone at any position on the location to determine wind direction and move upwind and uphill in the event of an H2S release.

5. A 4-channel alarm system will be installed to detect H2S concentrations greater than 10 PPM with individual monitors at the shaker pit, in the substructure of the rig, on the drilling floor and on the mud tanks.

TRAINING AND EQUIPMENT FAMILIARITY REQUIRED:
All of the rig crew, mud loggers, geologists, company supervisors, and the mud engineer and all other regular on-site personnel will be required to undergo H2S training and pass a certification test. All of these personnel will be aware of H2S release procedures and MUST BE familiar and comfortable with donning 5-minute escape masks/packs and donning 30-minute self-contained rescue units.

All personnel MUST understand the fundamentals of rescue in an H2S environment - **you cannot help anyone UNLESS you have a rescue unit ON.**

The importance of visual contact between on-site personnel (the "buddy" system) will be emphasized. **ALL REGULAR ON-SITE PERSONNEL WILL HAVE AT LEAST ONE "BUDDY".**

LOCATION OF RESCUE AND ESCAPE AIR MASKS/UNITS and Other H2S Equipment:

1. Rescue units will be located as follows on the location:
   - 2: 30-minute rescue units will be kept at Briefing Area #1.
   - 1: 30-minute rescue unit will be kept at Briefing Area #2.

2. 5-minute escape units will be kept at the following locations:
   - 5 at the drill floor or in the dog house.
   - 1 in each trailer on location.
   - 2 at the shale pit.
   - 1 at the base of the gas buster.
   - 1 at the choke manifold.
   - 2 at the pill pit.
   - 1 at the pump shed.
   - 1 at the generator house.
   - 1 at the accumulator.

3. A hand-held portable H2S detector kit and a flare gun will be kept at Briefing Area #1 or in the Site Supervisor's Trailer for emergency use.

PERIOD OF OPERATION UNDER H2S PLAN AT THIS WELL SITE:
All of the H2S equipment identified above will be installed and operational, and all of the site personnel H2S Training and Certification will be completed, PRIOR TO the drilling out of the Surface Casing at 600'. All new site personnel, after this time, will be H2S Trained and Certified PRIOR TO entering location. This H2S plan will be adhered to until this well is either successfully drilled to Total Depth, Cased and Cemented or Plugged and Abandoned.

H2S SAFETY DRILLS REQUIRED:
Each crew will be required to conduct an H2S Release safety drill at least once a week. Each of these drills and the time/quality of each drill will be recorded on the appropriate IADC Tour Sheet. Each of these drills will require all location personnel to pick up their nearest upwind 5-minute escape pack and assemble at either Briefing Area #1 or Briefing Area #2, whichever is upwind. Personnel will then be tallied and a rescue party assembled (with 30-minute rescue packs) to recover any "missing" personnel.

H2S RELEASE DURING WELL CONTROL OPERATIONS:
Personnel will be briefed on the complications that can occur as a result of an H2S Release DURING a well control operation. Some H2S and Well Control Drills will be conducted simultaneously in order to emphasize the proper procedure to follow should an H2S Release occur during a Well Control Operation.

Should an H2S Release occur simultaneous with a kick being detected:

1. Immediately don Up-Wind and Dog House 5-minute escape packs. Keep your buddy in sight.

2. Pick-up the kelly to the slip-set position and set the slips and continue to circulate the well with strokes reduced to the preferred kill rate.

3. Open the Hydraulic Master Valve and the Hydraulic Master Choke. Put choke discharge through the gas buster with fluid returns to the mud pits.

4. Close the Annular Preventer.

5. Move Up-Wind ASAP to the Up-Wind Briefing Area.

6. Tally personnel and assemble a rescue party with 30-minute rescue packs to search for any missing personnel.

7. CALL IMMEDIATELY FOR A CASCADE SAFETY SYSTEM TO WORK UNDER.

Should an H2S release occur during a well control operation after the well control operation is underway:

1. Immediately don Up-Wind and Dog House 5-minute escape packs. Keep your buddy in sight.

2. Put choke discharge through the gas buster with fluid returns to the mud pits. DO NOT CHANGE CHOKE SETTINGS OR CIRCULATION RATE.

3. Move Up-Wind ASAP to the Up-Wind Briefing Area.

4. Tally personnel and assemble a rescue party with 30-minute rescue packs to search for any missing personnel.

5. CALL IMMEDIATELY FOR A CASCADE SAFETY SYSTEM TO WORK UNDER.

IGNITION OF THE WELL:
IN THE CASE OF AN UNCONTROLLED RELEASE OF H2S AT THE DRILL-SITE:
A FLARE PISTOL WILL BE MAINTAINED AT BRIEFING AREA #1 AND/OR IN THE BONNEVILLE FUELS CORPORATION SUPERVISORS TRAILER (ON THE DESK) AT ALL TIMES FOR THE IGNITION OF THE WELL IN THE CASE OF AN UNCONTROLLED RELEASE OF H2S AT THE SITE.

CRITICAL PERSONNEL DEFINED - LOCATION ENTRY PROSCRIBED:
Bonneville Fuels Drilling Supervisors and Rig Contractor Supervisors, Rig Crewmen, the Mud Engineer, and Safety Company Personnel are hereby defined as CRITICAL PERSONNEL. NO personnel other than CRITICAL PERSONNEL will be permitted to enter location should a Red Hazard Sign (ambient greater than 10 PPM H2S) concentration be encountered - until such release is controlled and ended, except for critical material delivery personnel as outlined below.

H2S SCAVENGER REQUIRED IN STORAGE:
An H2S scavenger for water based drilling fluids will be kept in storage at the mud vendor warehouse facilities in sufficient quantity to provide a base concentration in the drilling fluid of 1/2 Pound Per Barrel of drilling fluid in the hole & steel tank mud system.

PERSONNEL ADMISSION AND SITE REGISTRATION REQUIREMENTS:

If H2S is encountered at the site and the site is functioning under a Yellow Caution Sign (H2S encountered):

1. SITE VISITATION BY NON-CRITICAL PERSONNEL WILL BE DISCOURAGED.

2. ALL ON-SITE PERSONNEL WILL BE REQUIRED TO SIGN-IN AND SIGN-OUT AT BRIEFING AREA ACCESS CONTROL STATION.

3. During Yellow Caution periods Geological and Service Company personnel will be allowed on location ONLY if properly trained and certified for H2S and ONLY to perform work. All such personnel must sign-in and sign-out as above.

If an H2S release with an ambient concentration greater than 10 PPM then the well-site will be operating under the Red Hazard Sign (H2S present):

1. SITE VISITATION BY NON-CRITICAL PERSONNEL IS PROHIBITED. No Geological or Non-Delivery Service Company Personnel will be allowed on location until a Yellow (Caution) condition has been restored to the location.

2. WORK MAY OCCUR ONLY WHEN A CASCADE AIR SYSTEM IS OPERATIONAL, IN PLACE, and IN USE - Except for necessary well control work IF well control operations are already underway. Work to control the H2S release will continue at the site until a Yellow (Caution) Condition is established/achieved.

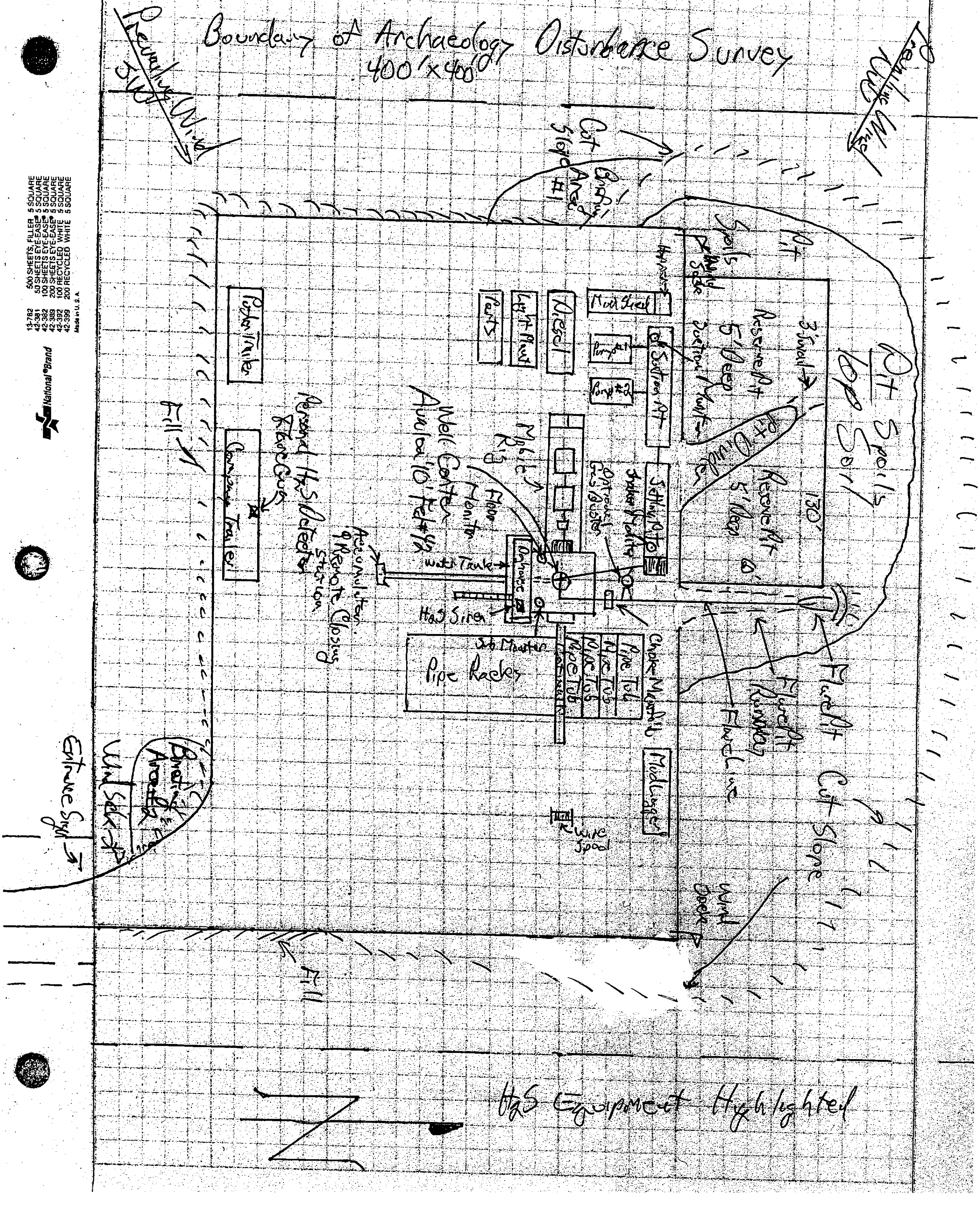
3. ALL ON-SITE PERSONNEL WILL BE REQUIRED TO SIGN-IN AND SIGN-OUT AT BRIEFING AREA ACCESS CONTROL STATION.

4. REQUIRED MATERIAL DELIVERIES MAY ONLY BE MADE BY H2S TRAINED AND CERTIFIED SERVICE COMPANY PERSONNEL WORKING UNDER A CASCADE SYSTEM WITH THE DIRECT SUPERVISION AND ASSISTANCE OF SAFETY COMPANY PERSONNEL.

H2S PLAN MAY NOT BE REDUCED IN SCOPE:
The aforementioned is an H2S plan which takes into consideration MOST but not ALL of the training, equipment and operational planning issues associated with Potential H2S occurrence at this well-site. No well control or H2S plan can be comprehensive enough to address all possible operational outcomes. This plan may be subsequently modified or improved to fit site, wellbore or drilling equipment constraints with MORE stringent, numerous and comprehensive provision of Safety Equipment, Safety Training, and Safety Personnel requirements. This plan may not be weakened or in any way reduced in the provision of Safety Equipment, Safety Training, or Safety Personnel, however. This plan provides for the MINIMUM required provision of Safety Equipment, Safety Training and Safety Personnel for the drilling of the Avalon 10 Federal #42 well.

Ronald L. Millet
Drilling Manager
Bonneville Fuels Corporation

EXHIBIT #3a - H_2S Equipment Avalon 10 Fed. #42



13 POINT SURFACE USE PLAN

Attached to Form 3160-3
Bonneville Fuels Corporation
Avalon "10" Federal #42
1980' FNL & 660' FEL,
Sec 10, T.21S., R.26E. NMPM
Eddy County, New Mexico

The proposed location was surveyed and staked by John West Engineering, and surveyed for archaeological impacts by Southern New Mexico Archaeological Services, Inc. on 10/4-5/2000. An On-Site Surface Inspection was conducted by Mr. Barry Hunt (a Surface Management Specialist with the Carlsbad Area office of the Bureau of Land Management - also representing the Bureau of Reclamation) on 10/4/2000. **No significant topographical, archaeological, faunal or botanical limitations and/or obstacles to the development of this well site were identified or indicated by John West Engineering, Southern New Mexico Archaeological Services, or Mr. Barry Hunt.**

1. EXISTING ROADS:

Exhibit 'A' attached is a Topographic and Vicinity Map created from a splice of two USGS Quadrangle Maps (the Lake MacMillan South Quad and the West Carlsbad Quad). The map indicates the existing/proposed wells (6 existing & 2 additional proposed gas wells, 4 additional proposed oil wells, 1 existing and 1 proposed water wells, and an existing salt water disposal well) and existing/proposed roads within a 1-Mile Radius around the proposed Avalon "10" Federal #42 oil well. Also indicated on this map is the proximity of the northern limit of incorporation of the City of Carlsbad (approx. 1.425 miles south of the proposed drill-site).

Exhibit 'B' attached is a Vicinity Map prepared by John West Engineering showing the location of the well relative to the entire City of Carlsbad. Both of these maps indicate the proximity of Avalon Lake. The Avalon Dam Site is approx. 1.196 miles SSE of the proposed drill site.

DIRECTIONS:

a. From the intersection of US 285 and US 62/180 in the City of Carlsbad (downtown) proceed approx. 6.5 miles NNW on US 285 to mile marker 40 (the BROWN road on Exhibits 'A', 'B' & 'C-#1').

b. Turn north (right) and proceed approx. 0.75 miles north on field road to 1st intersection. Turn east (right) and proceed east approx. 0.33 miles to 2nd fork in road. Turn northeast (left fork) to the Devon Energy Fed. State COM 10-#1 salt water disposal well in NW SW of Section 10. Turn south (right) across location approx. 0.1 miles. Then proceed SE approx. 0.6 miles to intersection of field roads. Then turn north (left) and proceed approx. 0.32 miles north. Then proceed NE approx. 0.16 miles (these are the GREEN roads on Exhibits 'A', 'B' & 'C-#1') to the turn-off (north into) the new location. These are all existing maintained caliche roads.

2. PLANNED NEW ACCESS ROAD:

From the existing road turn north approx. 221' onto the SE corner of the new location. The access road will have a low-water crossing swail compacted on the north side of the existing caliche field road. The new access road will be constructed with crushed caliche compacted from 9" loose to 6" compacted. The road will be 15' wide with a 60' entrance onto the location and a 60' turn off of the existing road.

3. EXISTING AND PROPOSED WELLS WITHIN A 1-MILE RADIUS:

Exhibit 'A' shows wells BFC has been able to identify in the area covered by this map south and west of the Pecos River and Avalon Lake. The 1-mile radius of required investigation is indicated in ORANGE outline. Known gas wells, oil wells, a salt water disposal well, and various abandoned oil/gas wells are shown inside and outside the 1-mile radius, and are labeled GW,OW, SWD and AW respectively. Proposed gas wells, oil wells, and water wells that BFC is aware of in the 1-mile radius are labeled PGW, POW and PWW respectively.

Exhibit 'C'-#2 is a Well Location and Acreage Dedication Survey Plat (New Mexico Form C-102) for the proposed Avalon "10" Federal #42 oil well prepared by John West Engineering.

a. There are six (6) existing producing gas wells and two (2) additional proposed gas wells within a 1-mile radius of the proposed Avalon "10" Federal #42 well. These wells are colored RED on Exhibit 'A' and are labeled GW and PGW, respectively.

b. There are four (4) proposed oil wells within a 1-mile radius of the proposed Avalon "10" Federal #42 oil well. These wells are colored GREEN on Exhibit 'A' and are labeled OW and POW, respectively.

c. There is one (1) existing and one (1) proposed water wells within a 1-mile radius of the proposed Avalon "10" Federal #42 well. These wells are colored BLUE on Exhibit 'A' and are labeled WW and PWW, respectively.

d. There is one (1) existing salt-water disposal well within a 1 mile radius of the proposed Avalon "10" Federal #42 well. This well is indicated in black with an arrow thru the well symbol and is labeled 'SWD' on Exhibit 'A'.

e. There are NO abandoned wells within a 1-mile radius of the proposed Avalon "10" Federal #42 well.

4. PROPOSED PRODUCTION FACILITIES:

Bonneville Fuels Corporation has NO existing production facilities on this proposed well-site at this time. Exhibit 'D' shows the location of a proposed tank battery, production facilities and Low Pressure(LP) natural gas gathering for the proposed Avalon "10" Federal #42 well.

The Special Lease Stipulations for NM 3606 (4 Pages with appropriate portions highlighted) are attached as Exhibit 'E', pages 1 thru 4. The surface use regulation of the lands on which this proposed wellsite lies has been 'withdrawn' from the BLM to the administration of the Bureau of Reclamation because of the proximity of the Avalon Lake and Dam Sites. There are two basic stipulations in the lease (attached) - that all storage tanks be located at or above an elevation of 3194' MSL and that all drill pads be above 3180' MSL.

The planned finished location grade for the well is 3192'+ MSL. The Tank Battery Pad will be on location and the crest of the retention dikes are planned to be at 3196' MSL.

a. Should the well prove productive then necessary gas handling facilities (a three phase HP separator, a two-phase LP separator and a check meter facility) will be placed on the production pad as shown on Exhibit 'D'. The production pad finished grade will be at 3192' MSL. This production pad is planned to be 30' wide by 50' long and will be underlined with a 30-mil liner and bermed with a 2' tall caliche berm to contain any potential spills and to prevent soil and/or groundwater contamination.

b. Should the well be productive of oil and/or water then the storage facilities will be placed on the tank battery pad as shown on Exhibit 'D'. The tank battery pad finished grade will be at 3192' MSL and will be 30' wide by 80' long with a 30-mil liner and bermed with a 4' tall caliche berm to contain any potential spills and to prevent soil and/or groundwater contamination. Actual well productivity, safety, and environmental considerations will determine the constructed configuration/size of tanks in the proposed tank battery facility. Tank battery fire walls will be a minimum height above the Tank Battery Pad grade in order to contain sufficient volume to provide storage for ALL tank contents with 1' of free board.

c. A low pressure (LP) natural gas pipeline will be constructed from this wellsite running south 1412' to the Lake Shore Fed. S.C. 10-#2 wellsite. The survey plat for this gas pipeline is attached as Exhibit 'F'. This LP gas pipeline will convey gas from the planned Avalon "10" Federal #42 well to the LP gathering system hub at the Lake Shore Fed. S.C. 10-#2 wellsite and then to a common tie-in and central compressor pad on the Avalon "10" Federal #23 wellsite. An ROW for this gas pipeline will be separately requested from the Bureau of Reclamation at the time this APD is filed.

5. LOCATION AND TYPE OF WATER SUPPLY:

a. FRESH WATER: BFC plans use a properly permitted water well at the Avalon '10' Federal #43 to provide fresh water for the drilling of this well. A local water hauling service (water purchased from a municipal/agricultural seller) will be used to provide any supplemental water needs.

b. BRINE WATER: BFC plans to obtain brine water for drilling, if needed, through a local water hauling source by direct purchase.

6. SOURCE OF CONSTRUCTION MATERIALS:

Exhibit 'G' presents the Construction (Cut and Fill) Plan for the site. Required cuts and fills are identified. Top-Soil and Pit Spoils stockpiles from reserve pit construction are also shown.

a. CALICHE ROCK FOR TOPPING: This material will be obtained during cut-and-fill operations at the drill pad and reserve pit excavation. Additional caliche/sand/gravel will be hauled from commercial pits.

b. WATER FOR COMPACTION: Hauled in per 5.a. above.

7. METHODS OF HANDLING WASTE DISPOSAL:

a. The reserve pit will be lined with a 12 mil plastic liner to prevent ground water contamination. Drill cuttings and fluids will be disposed of in the reserve pit. The drilling fluids will dry by evaporation until the resulting fill is dry enough to walk on. The liner above the dry mud level will then be removed to a sanitary land fill. The remaining pit volume will be closed with clean dry fill (Pit Spoils and Top Soil - see Exhibit 'G'). The reserve pit will be fenced thruout operations.

b. Human waste will be stored in septic facilities and pumped and hauled to sewage facilities.

c. Trash will be stored on-site in a container to prevent wind litter. Trash will then be hauled to a sanitary land fill. Containers subject to MSDS restrictions will be cleaned out and returned to vendors. Rig junk (wire rope, etc.) and metal waste will be removed with the drilling rig.

d. Produced water will be collected in pits/test tanks and hauled to a licensed and regulated produced water disposal facility.

e. Produced oil will be stored on site in test tanks until production facilities are installed and it can be legally sold. Waste oil will be collected and hauled to a waste oil recycler.

8. ANCILLARY FACILITIES:

Exhibit 'H' indicates the location of rig equipment during drilling operations. Also shown on Exhibit 'H' are the trailers required to provide 24-hour supervision during the drilling of this well.

a. Exhibit 'H' indicates camp/trailer facilities required on-site to provide 24-hour site supervision. All trailers will have septic tanks.

b. Exhibit 'I' indicates the location of H2S briefing and warning facilities required by the presence of H2S gas in some of the producing strata to be encountered in the drilling of this well. The H2S Safety Plan is presented as Exhibit #3 to the 8-Point Drilling Plan.

9. WELLSITE LAYOUT:

a. Exhibit 'H' presents the proposed layout of drilling equipment at the wellsite. Well control equipment is highlighted on Exhibit 'H'.

b. Exhibit 'I' indicates the location of H2S briefing and warning facilities required by the presence of H2S gas in some of the producing strata to be encountered in the drilling of this well. The H2S Safety Plan is presented as Exhibit #3 to the 8-Point Drilling Plan.

c. Exhibit 'G' indicates the proposed cut-and-fill limits of the planned facility. **A 400'N-S x 400'E-W area was surveyed and cleared (archaeology/flora/fauna) which is larger than anticipated construction disturbance and site safety requirements.** The reserve pit will be lined with a minimum 12-mil plastic liner.

10. PLANS FOR THE RESTORATION OF THE SURFACE:

a. The reserve pit will be fenced with 4 strand barbed wire thruout drilling and completion operations. Fencing will only be removed for reclamation operations. The flare pit will be back-filled as soon as completion and testing operations are ended.

b. The drill site will be kept clean and free of trash/pollution thruout drilling, completion, and production operations thruout the life of the well.

c. When the reserve pit is dry the barbed wire fence and posts will be removed and the liner will be cut above the mud-line and hauled to disposal. The pit spoils will then be used to fill the reserve pit and recontour it as nearly as possible to the original topography. The pit surface will then be harrowed parallel to elevation contour and re-seeded with the specified BLM mix parallel to the land contour.

10. PLANS FOR THE RESTORATION OF THE SURFACE: Continued:

d. When the well has been judged to be non-productive, or no longer productive, but AFTER the reserve pit has dried out and is ready to fill or has already been filled, all surface production, drilling and completion equipment will be removed to a depth sufficient to facilitate effective reclamation. Then the entire site will be recontoured as nearly as possible to the original topography. The entire location surface will then be cross-ripped with the last pass parallel to elevation contour. The new portion of the access road (constructed for this well) will be back-ripped 2 times. Then the access road and the well-site will be re-seeded with the specified BLM mix parallel to the elevation contour of the site.

11. OTHER INFORMATION: ARCHAEOLOGICAL RESOURCES:

a. TOPOGRAPHY: The land surface at this site is a hillside sloping to the south (see Exhibit 'A'). The location is to be built where the hillside begins to broaden to a flood plain.

b. SOILS: Limestone cobbles and gravels (occasional cherts) on an arid thin desert soil underlain by caliche/limestone bedrock. Aridisol and Desert Pavement on Caliche Base w/ occasional loams in deeper fills derived from older alluvium.

c. FLORA AND FAUNA: Creosote and Javelina shrubs, Snakeweed, with variety of Upper Chihuahuan Cacti. Sparse assorted grasses and acacia. Mule and White-Tail Deer, Mountain Lion, Rabbits, Skunks, Voles and Snakes are found in this area. NO ENDANGERED or THREATENED species are present.

d. SITE ARCHAEOLOGY: An archaeological survey of this proposed well-site, proposed access road, and proposed pipeline was conducted by Southern New Mexico Archaeological Services, Inc. (Bent, NM) on 10/4/2000 and 10/5/2000. The well-site and access report is attached as Exhibit 'J' (Report NM-405). The pipeline report is attached as Exhibit 'K' (Report NM-407). NO ARCHAEOLOGICAL RESOURCES WERE FOUND IN THE SURVEYED WELL-SITE AND ACCESS ROAD AREA. NO ARCHAEOLOGICAL RESOURCES WERE FOUND ON THE PROPOSED PIPELINE RIGHT-OF-WAY.

12. SURFACE AND MINERAL OWNERSHIP:

a. All of the surface location of the proposed wellsite for the Avalon "10" Federal #43 wellsite is owned by the Federal Government of the United States of America. All of the proposed pipeline right-of-way is owned by the Federal Government of the United States of America. The Bureau of Reclamation is the surface use administrator.

b. The minerals underlying the SE NE (40 ac.) of Section 10, T.21S., R.26E., NMPM, Eddy County, New Mexico are owned by the Federal Government of the United States of America. The Bureau of Land Management is the minerals administrator.

The planned well pad, reserve pit and natural gas pipeline are the only facilities that require Federal approval.

13. OPERATOR'S REPRESENTATIVE:

The Operator's Representative responsible for the administration, construction, drilling, completion, testing, production and reclamation of this site is:

Mr. Ronald L. Millet
Drilling Manager
BONNEVILLE FUELS CORPORATION
1700 Broadway, Suite 1150
Denver, Colorado 80290
Office: (303) 863-1555 ext. 204; Fax: (303) 863-1558
Cell: (303) 916-4062; Home: (303) 841-7604
ON CALL 24 Hours or ON-SITE.

CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access routes; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bonneville Fuels Corporation and its contractors and subcontractors in conformity with this plan and the terms & conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 1/20/2001

Signature: RL Millet

Ronald L. Millet
Drilling Manager
Bonneville Fuels Corporation

EXHIBIT "H": Topographic & Vicinity Map

Avalon '10' Federal #42

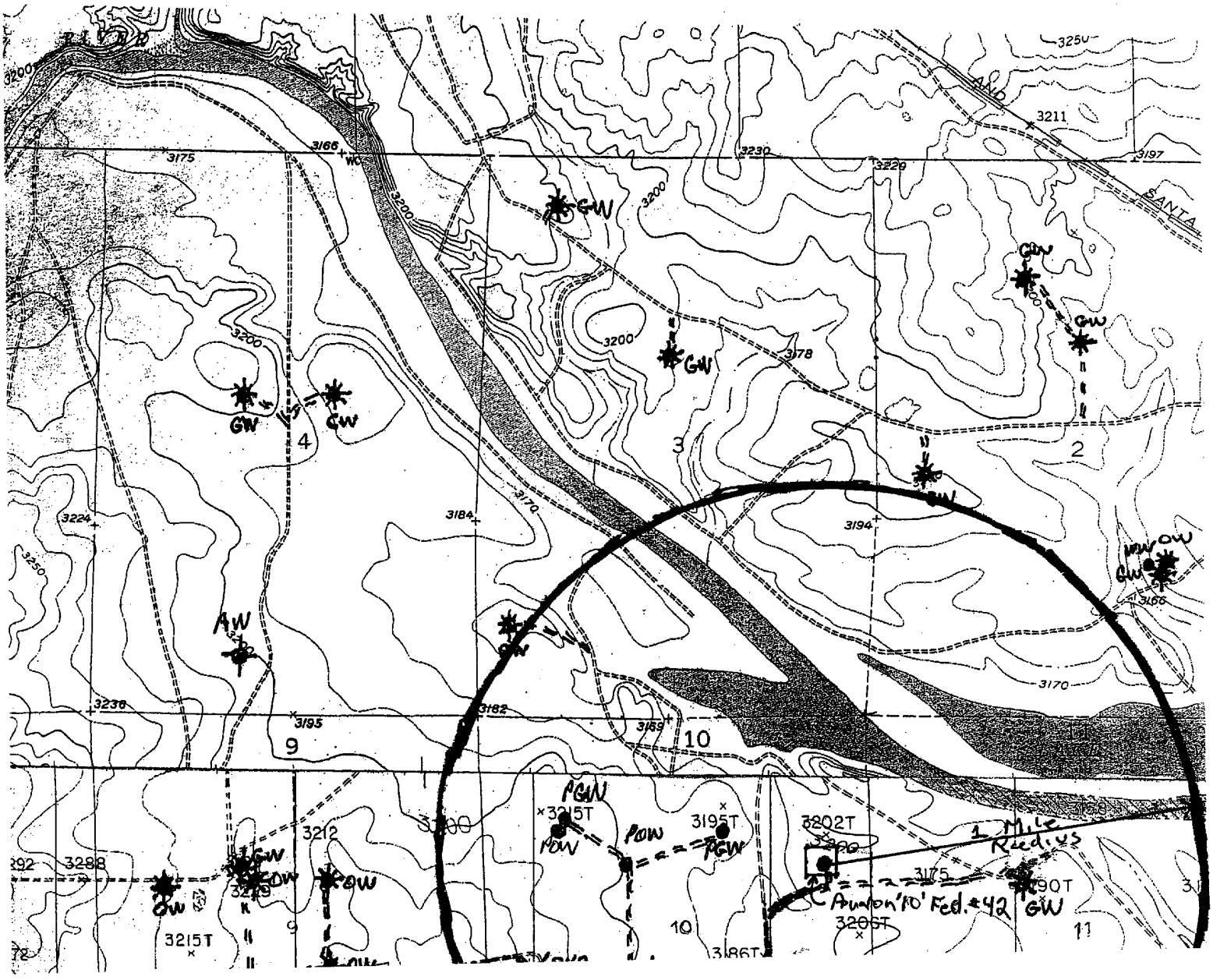
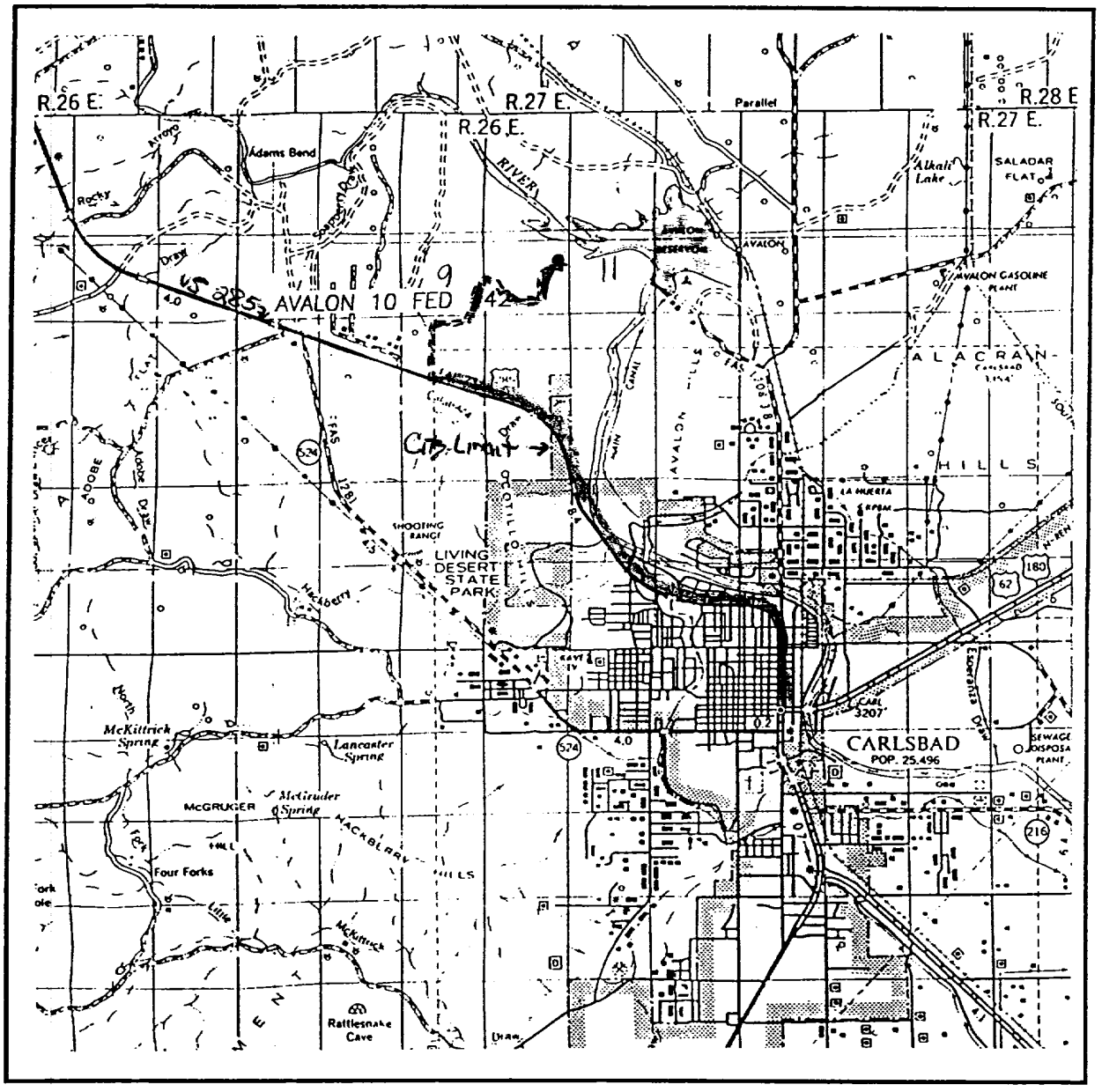


EXHIBIT "B"

VICINITY MAP

Avalon "10" Fed #42



SCALE: 1" = 2 MILES

SEC. 10 TWP. 21-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 660' FEL

ELEVATION 3194

OPERATOR BONNEVILLE FUELS

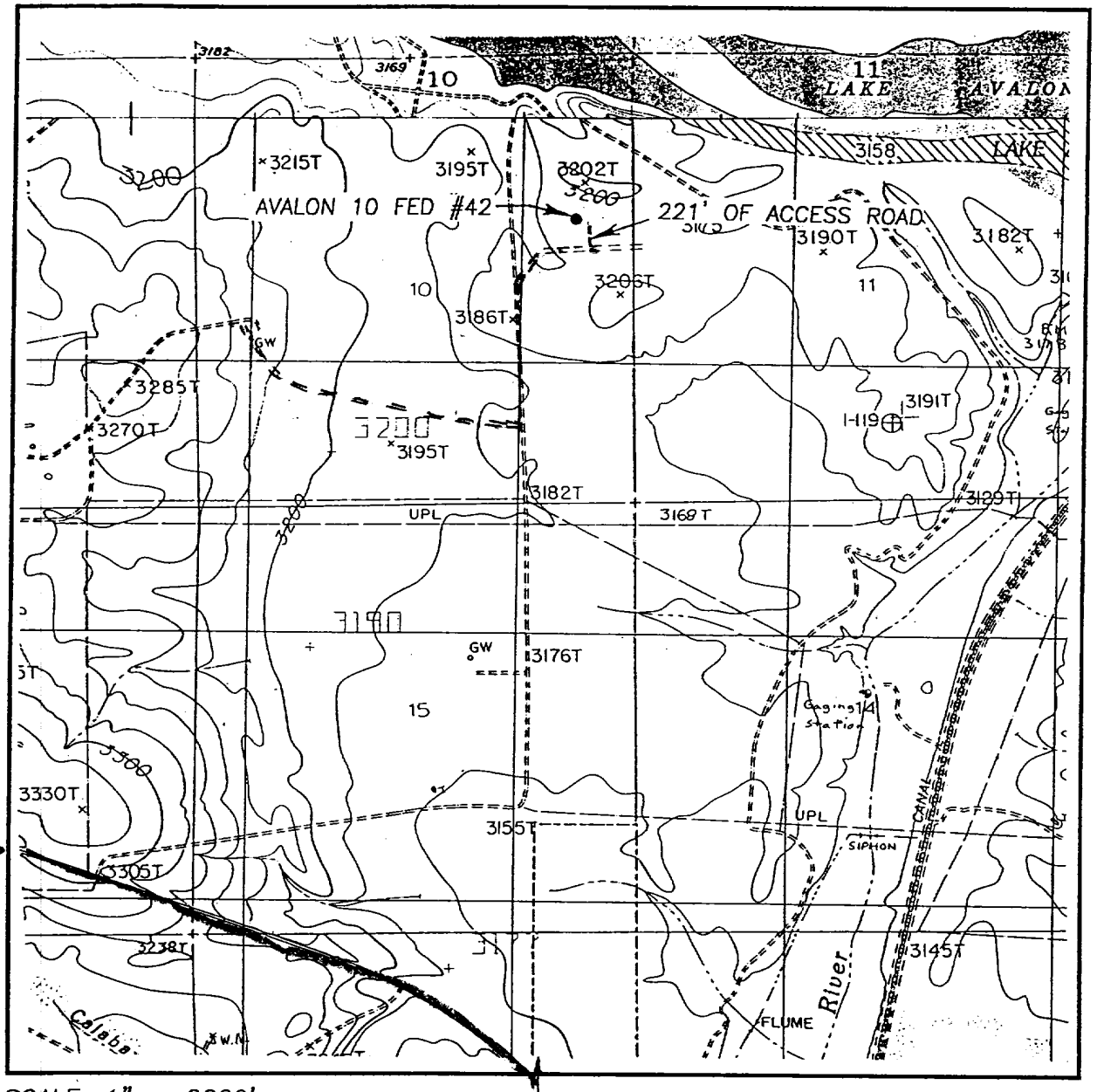
LEASE AVALON 10 FED #42

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

EXHIBIT 'C-#1'

LOCATION VERFICATION MAP

Avalon '10' Federal #42



SCALE: 1" = 2000'

CONTOUR INTERVAL:
CARLSBAD WEST, N.M. – 10'

SEC. 10 TWP. 21-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 660' FEL

ELEVATION 3194

OPERATOR BONNEVILLE FUELS

LEASE AVALON 10 FED #42

U.S.G.S. TOPOGRAPHIC MAP
CARLSBAD WEST, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

EXHIBIT "C"-#2

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	03715	Avalon; Delaware O.I

Property Code	Property Name	Well Number
	AVALON 10 FED	42

OGRID No.	Operator Name	Elevation
002678	BONNEVILLE FUELS	3194

Surface Location

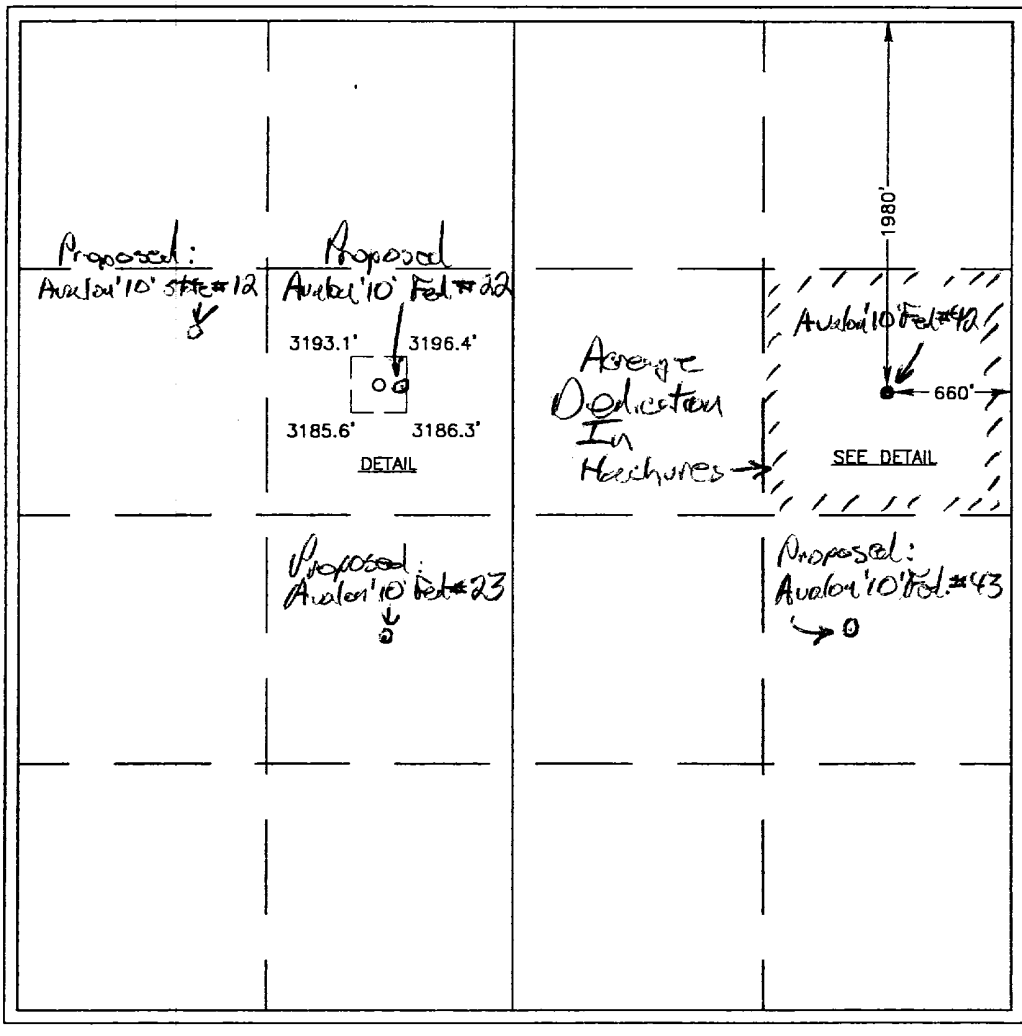
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	10	21 S	26E		1980	NORTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40.84 ac.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

R.A. Schwering
Printed Name

Production Manager
Title

1/15/2001
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

OCTOBER 4, 2000
Date Surveyed LMP

Signature & Seal of Professional Surveyor

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

10/26/00

00-11-1234

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

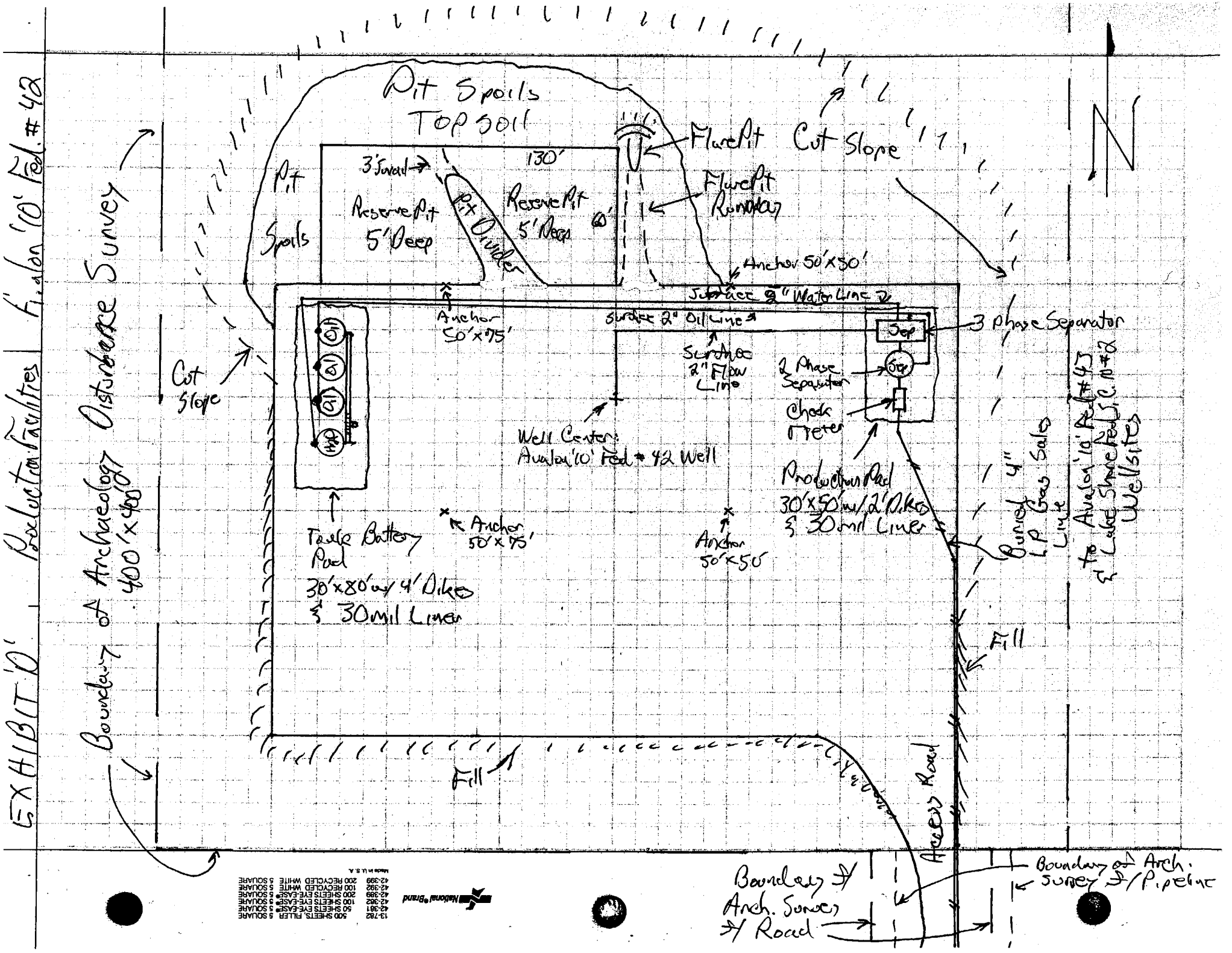


EXHIBIT 'D' Production Facilities | Avalon '10' Fed. # 42
Boundary of Archaeology 400'x400' Disturbance Survey
Pit Spoils Top Soil
Flare Pit
Cut Slope
3' Swell
130'
Pit Spoils
Reserve Pit 5' Deep
Pit Divider
Reserve Pit 5' Deep
60'
Flare Pit Rundown
Anchor 50'x50'
Surface 8" Water Line
Anchor 50'x75'
Surface 2" Oil Line
3 phase Separator
Sep
2 Phase Separator
Surface 2" Flow Line
Cut Slope
Well Center: Avalon '10' Fed #42 Well
Check Meter
Production Pad 30'x50' w/2' Dike & 30mil Liner
Buried 4" LP Gas Sales Line
To Avalon '10' Fed #43 & Lake Shore Fed. C. 10 #2 Wellsites
Tank Battery Pad 30'x80' w/4' Dike & 30mil Liner
Anchor 50'x75'
Anchor 50'x50'
Fill
Fill
Access Road
Boundary of Arch. Survey & Road
Boundary of Arch. Survey & Pipeline

EXHIBIT 'E' Pg 1/4
Special Lease Stipulations
NM 3606

United States Department of the Interior
BUREAU OF RECLAMATION

SOUTHWEST REGION
HERRING PLAZA BOX H-4377
AMARILLO, TEXAS 79101

IN REPLY REFER TO: 420
773

FEB 12 1975

Memorandum

To: Chief, Branch of Oil and Gas, Bureau of Land Management, Santa Fe, New Mexico

From: Regional Director

Subject: Oil and Gas Lease NM 3606--Carlsbad Project, New Mexico

When subject oil and gas lease was issued December 1, 1967, we inadvertently inserted an old special stipulation which reads:

> "Drilling to be prohibited within one half mile of any dam, dike or other major structure, and within 150 ft. of the center line of any canal, lateral or drain connected with the project. Drilling to be prohibited within an area established by a line 300 ft. beyond the high water line of Avalon Reservoir, said high water line being defined as Contour 3180, which Contour is 2.0 ft. above the crest of Spillway No. 1 (See page 322 USGS Water Supply Paper 898)."

This stipulation is more stringent than the standard stipulation form which has been used since 1963. Accordingly, we suggest you issue an amendment to subject lease and insert the enclosed form R5-43 in lieu of the above-quoted special stipulation.

Enclosure

cc: Mr. James A. Knauf
District Engineer
U.S. Geological Survey
Post Office Drawer U
Artesia, New Mexico 88210
(w/c enclosure)

EXHIBIT 'E' Pag- 2/4
Special Lease Stipulations
NM 3606

R5-43
(2-11-64)

Special Stipulations

1. All rights under this lease are subordinate to the right of the United States to flood and submerge the lands, permanently or intermittently, in connection with the operation and maintenance of the Carlsbad (Avalon Reservoir) dam and reservoir project.

2. All surface work performed by the lessee on the lands shall be under the general supervision of the Regional Director, Bureau of Reclamation, in direct charge of the project, and subject to such conditions and regulations as he may prescribe. The plans and location for all structures, appurtenances thereto, and surface work on the leased lands shall be submitted to the said Regional Director for approval in advance of commencement of any surface work on the said leased lands. All oil or gas drilling and producing operations shall be under the supervision of the Regional Oil and Gas Supervisor, U. S. Geological Survey, in accordance with 30 CFR, Part 221. The authorized representatives of the Bureau of Reclamation and of the Geological Survey shall have the right to enter on the leased premises at any time to inspect both the installation and operational activities of the lessee.

3. No wells shall be drilled for oil or gas below the conservation pool elevation of 3177.4 * feet, except upon written permission of the Regional Director, provided, however, that there will be no objection to such drilling by directional methods from adjacent areas above the 3177.4 * foot elevation; on the condition that such drilling operations are subject to appropriate restrictions to prevent pollution of the reservoir, with operation and maintenance of the reservoir and to prevent interference.

4. All storage tanks shall be constructed above elevation 3194.0 ** feet, mean sea level, and shall be protected by firewalls or dikes of sufficient capacity to protect the reservoir from pollution.

5. Drilling a well for oil or gas is prohibited within 2,640 feet of any dam, dike, or other major structure, unless otherwise approved by the Regional Director.

6. All drilling operations shall be conducted in accordance with the applicable State laws relative to municipal water supplies.

* Conservation pool elevation for the appropriate reservoir
** Maximum water surface of the appropriate reservoir

Address: Regional Director
Bureau of Reclamation
P. O. Box 1609
Amarillo, Texas

Address: Regional Oil and Gas Supervisor
Geological Survey

12

EXHIBIT 'E' Page 3/4

Special Lease Stipulations

NM 3606

BUREAU OF LAND MANAGEMENT

LEASE FOR OIL AND GAS

(Sec. 17 Noncompetitive Public Domain Lease)

Act of February 25, 1920 (41 Stat. 437), as amended (30 U.S.C. Secs. 181 et seq.)

RECEIVED
BUREAU OF LAND MANAGEMENT
LAND OFFICE SANTA FE, N. M.
NOV 13 1967
HOUR: 10:00 A.M.

Name: Gilbert E. Dehlen
Street: 136 No. Parkway
City: Columbus
State: Nebraska
ZIP Code: 68601

NM 3606

This oil and gas lease is issued for a period of ten (10) years to the above-named lessee pursuant and subject to the provisions of the Mineral Leasing Act and subject to all rules and regulations of the Secretary of the Interior now or hereafter in force, when not inconsistent with any express and specific provisions herein, which are made a part hereof.

Lands included in the lease:

T. 21 S., R. 26 E., NMPM, New Mexico

Sec. 2: Lot 12
3: NW¼SW¼, S½SW¼
4: Lots 15, 16, SE¼
9: NE¼NE¼
10: SE¼NE¼, NE¼SE¼, W½E½, E½W½, NW¼NW¼
11: S½N½, N½SE¼, SW¼SE¼
12: E½SW¼, W½SE¼, SE¼SE¼
15: SE¼NW¼, NE¼SW¼

s subject to the determination by the Survey as to whether the lands herein were on a known geologic structure of a oil or gas field as of the date of sign- by the authorized officer. Lands not within a known Geologic Structure on date of lease issuance.

For the Director
U. S. Geological Survey

Containing a total of 1440 acres

Annual Rental . . . . . $ 720.00

This lease is issued to the successful drawee pursuant to his "Simultaneous Oil and Gas Entry Card" application filed under 43 CFR 3123.9, and is subject to the provisions of that application and those specified on the reverse side hereof.

Effective date of lease: December 1, 1967

THE UNITED STATES OF AMERICA

By Fred E. Padilla
(Signature of Issuing Officer)
Fred E. Padilla, Chief
Branch of Oil and Gas

NOV 1 1967
(Date)

(Title)

11/14/67 BY
10/17/67 GWR

NOTED
Acreage Control
Date 10/23/67
By

EXHIBIT 'E' 1 - 4/4
Special Lease Stipulations
NM 3606

Form 3103-1
(June 1964)
(formerly 4-467)

RECEIVED
BUREAU OF LAND MANAGEMENT
UNITED STATES LAND OFFICE-SANTA FE, N. M.
DEPARTMENT OF THE INTERIOR 1967
BUREAU OF LAND MANAGEMENT

NM 3606
Oil and Gas
4:10h

LEASE STIPULATIONS FOUR 10:00 A.M.
BUREAU OF RECLAMATION

The lessee agrees to maintain, if required by the lessor during the period of this lease, including any extension thereof, an additional bond with qualified sureties in such sum as the lessor, if it considers that the bond required under Section 2(a) is insufficient, may at any time require:

(a) to pay for damages sustained by any reclamation homestead entryman to his crops or improvements caused by drilling or other operations of the lessee, such damages to include the reimbursement of the entryman by the lessee, when he uses or occupies the land of any homestead entryman, for all construction and operation and maintenance charges becoming due during such use or occupation upon any portion of the land so used and occupied;

(b) to pay any damage caused to any reclamation project or water supply thereof by the lessee's failure to comply fully with the requirements of this lease; and

(c) to recompense any nonmineral applicant, entryman, purchaser under the Act of May 16, 1930 (46 Stat. 367), or patentee for all damages to crops or to tangible improvements caused by drilling or other prospecting operations, where any of the lands covered by this lease are embraced in any nonmineral application, entry, or patent under rights initiated prior to the date of this lease, with a reservation of the oil deposits, to the United States pursuant to the Act of July 17, 1914 (38 Stat. 509).

As to any lands covered by this lease within the area of any Government reclamation project, or in proximity thereto, the lessee shall take such precautions as required by the Secretary to prevent any injury to the lands susceptible to irrigation under such project or to the water supply thereof; *provided* that drilling is prohibited on any constructed works or right-of-way of the Bureau of Reclamation, and *provided, further*, that there is reserved to the lessor, its successors and assigns, the superior and prior right at all times to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, and reclamation works, in which construction, operation, and maintenance, the lessor, its successors and assigns, shall have the right to use any or all of the lands herein described without making compensation therefor, and shall not be responsible for any damage from the presence of water thereon or on account of ordinary, extraordinary, unexpected, or unprecedented floods. That nothing shall be done under this lease to increase the cost of, or interfere in any manner with, the construction, operation, and maintenance of such works. It is agreed by the lessee that, if the construction of any or all of said dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone or telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures or reclamation works across, over, or upon said lands should be made more expensive by reason of the existence of the improvements and workings of the lessee thereon, said additional expense is to be estimated by the Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sums, the lessee will make payment thereof to the United States, or its successors, constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, or reclamation works, across, over, or upon said lands: *provided, however*, that subject to advance written approval by the United States, the location and course of any improvements or works and appurtenances may be changed by the lessee: *provided, further*, that the reservations, agreements, and conditions contained in the within lease shall be and remain applicable notwithstanding any change in the location or course of said improvements or works of lessee. The lessee further agrees that the United States, its officers, agents, and employees, and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works hereinabove enumerated. Nothing in this paragraph shall be construed as in any manner limiting other reservations in favor of the United States contained in this lease.

THE LESSEE FURTHER AGREES That there is reserved to the lessor, its successors and assigns, the prior right to use any of the lands herein leased, to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures, and also the right to remove construction materials therefrom, without any payment made by the lessor or its successors for such right, with the agreement on the part of the lessee that if the construction of any or all of such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or the removal of construction materials therefrom, should be made expensive by reason of the existence of improvements or workings of the lessee thereon, such additional expense is to be estimated by the Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sums, the lessee will make payment thereof to the United States or its successors constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or removing construction materials therefrom. The lessee further agrees that the lessor, its officers, agents, and employees and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works herein above enumerated. Nothing contained in this paragraph shall be construed as in any manner limiting other reservations in favor of the lessor contained in this lease.

Drilling to be prohibited within one half mile of any dam, dike or other major structure, and within 150 ft. of the center line of any canal, lateral or drain connected with the project. Drilling to be prohibited within an area established by a line 300 ft. beyond the high water line of Avalon Reservoir, said high water line being defined as Contour 3180, which Contour is 2.0 ft. above the crest of Spillway No. 1 (See page 322 USGS Water Supply Paper 898).

(Signature of Lessee)

(over)

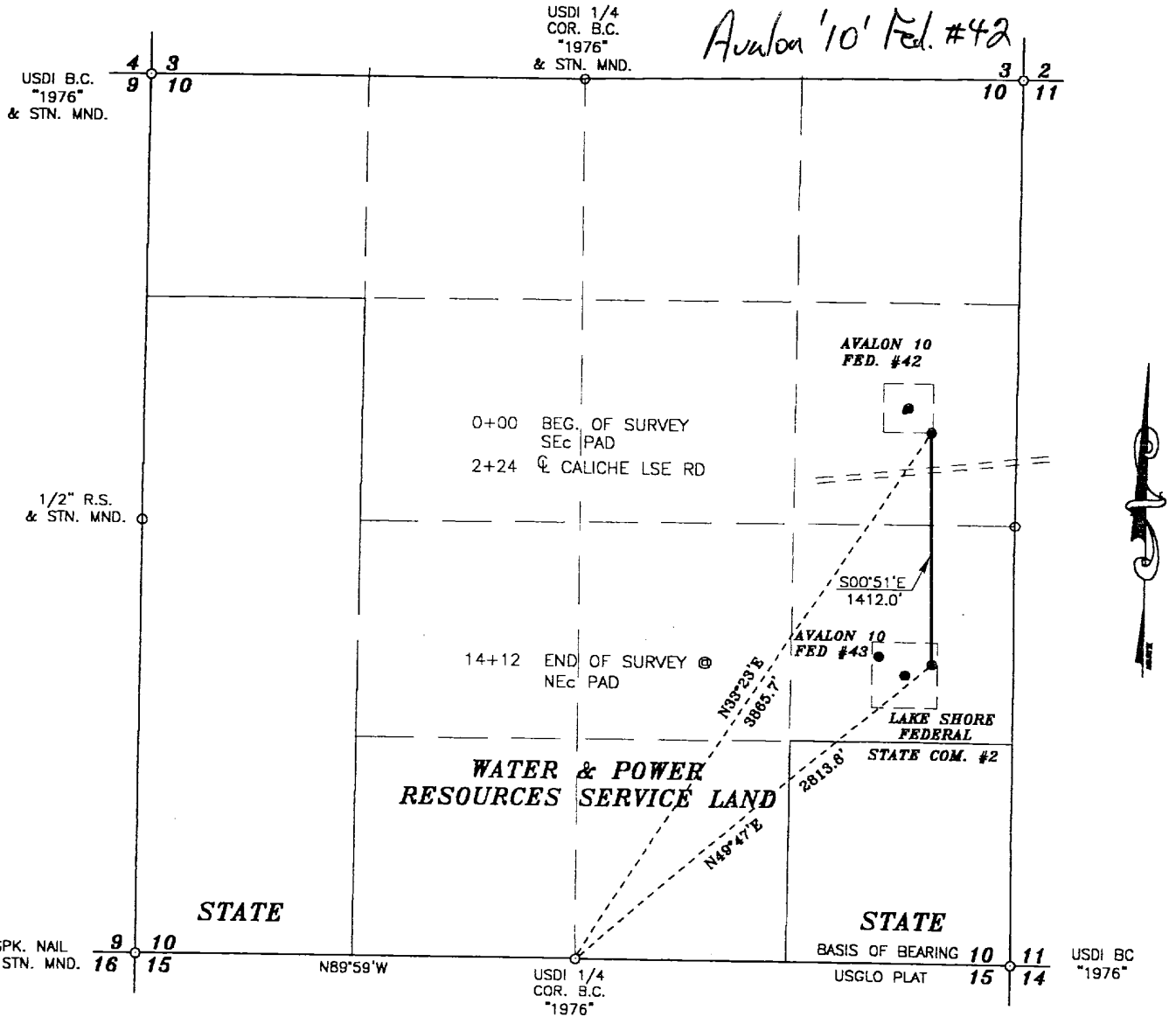
(See Amended Stips) 3

SECTION 10, TOWNSHIP 21 SOUTH, RANGE 26 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.

EXHIBIT 'F'

Avalon '10' Fed. #42



Proposed Pipeline ROW DESCRIPTION

A STRIP OF LAND BEING 50 FEET WIDE AND 1412.0 FEET OR 0.267 MILES IN LENGTH AND BEING 25.0 FEET LEFT OF AND 25.0 FEET RIGHT OF THE ABOVE CENTERLINE SURVEY.

1000 0 1000 2000

SCALE: 1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Ronald J. Eidson 10/12/00

RONALD J. EIDSON, N.M. P.S. No. 3239

GARY G. EIDSON N.M. P.S. No. 12641

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO – HOBBS, NEW MEXICO – 505-393-3117

BONNEVILLE FUELS CORPORATION

SURVEY OF A PIPELINE CROSSING U.S.A.
WATER & POWER RESOURCES SERVICE LAND
SECTION 10, TOWNSHIP 21 SOUTH, RANGE 26 EAST,
EDDY COUNTY, NEW MEXICO

Survey Date: 10/5/00		Sheet 1 of 1 Sheets	
W.O. Number: 00-11-1233		Drawn By: LMP	
Date:05/10/00	DISK: CD#3	BONN1213	Scale:1"=1000'

EXHIBIT 'G' | Cut & Fill Diagram | Avalon '10' Fed. #42

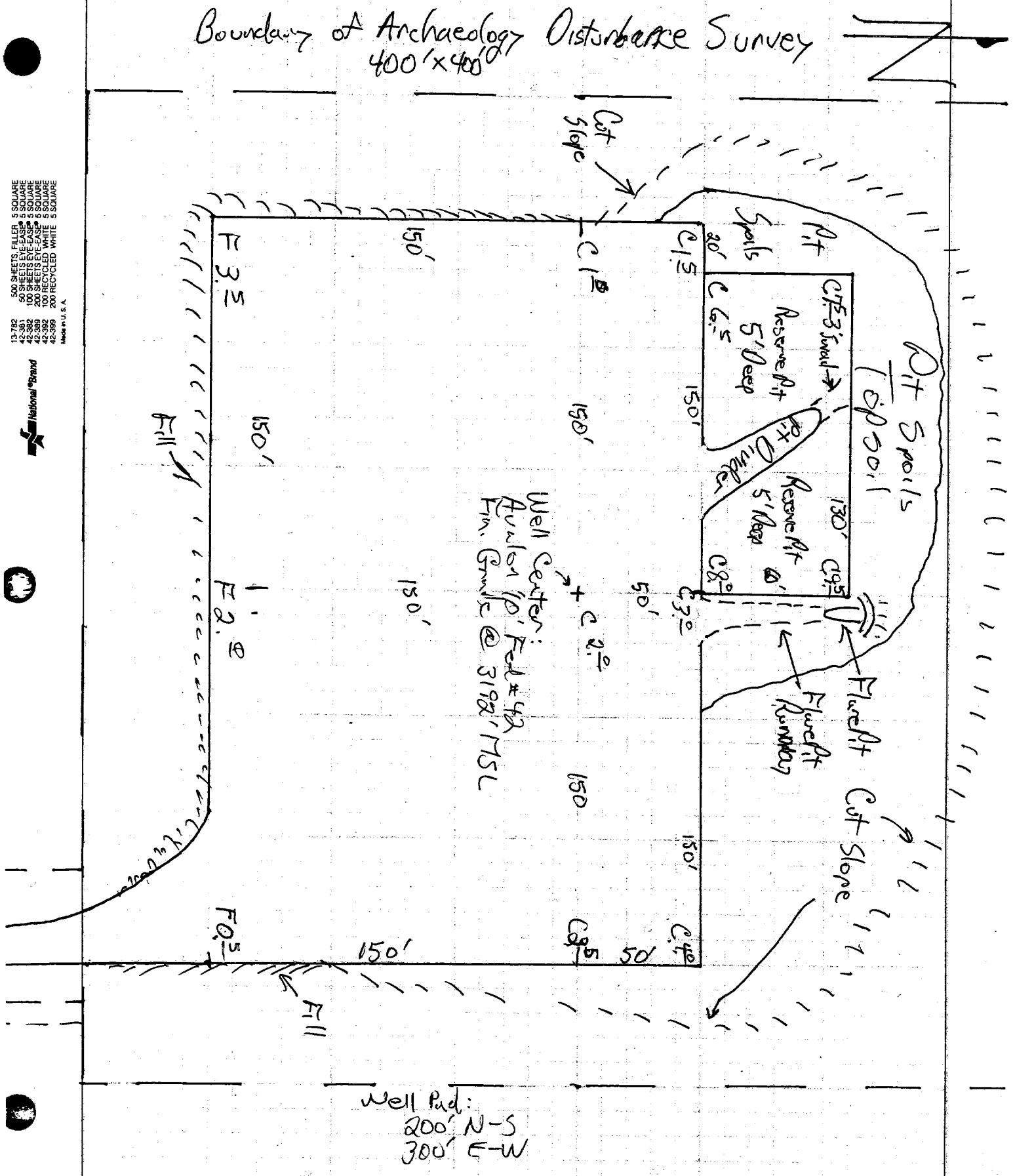
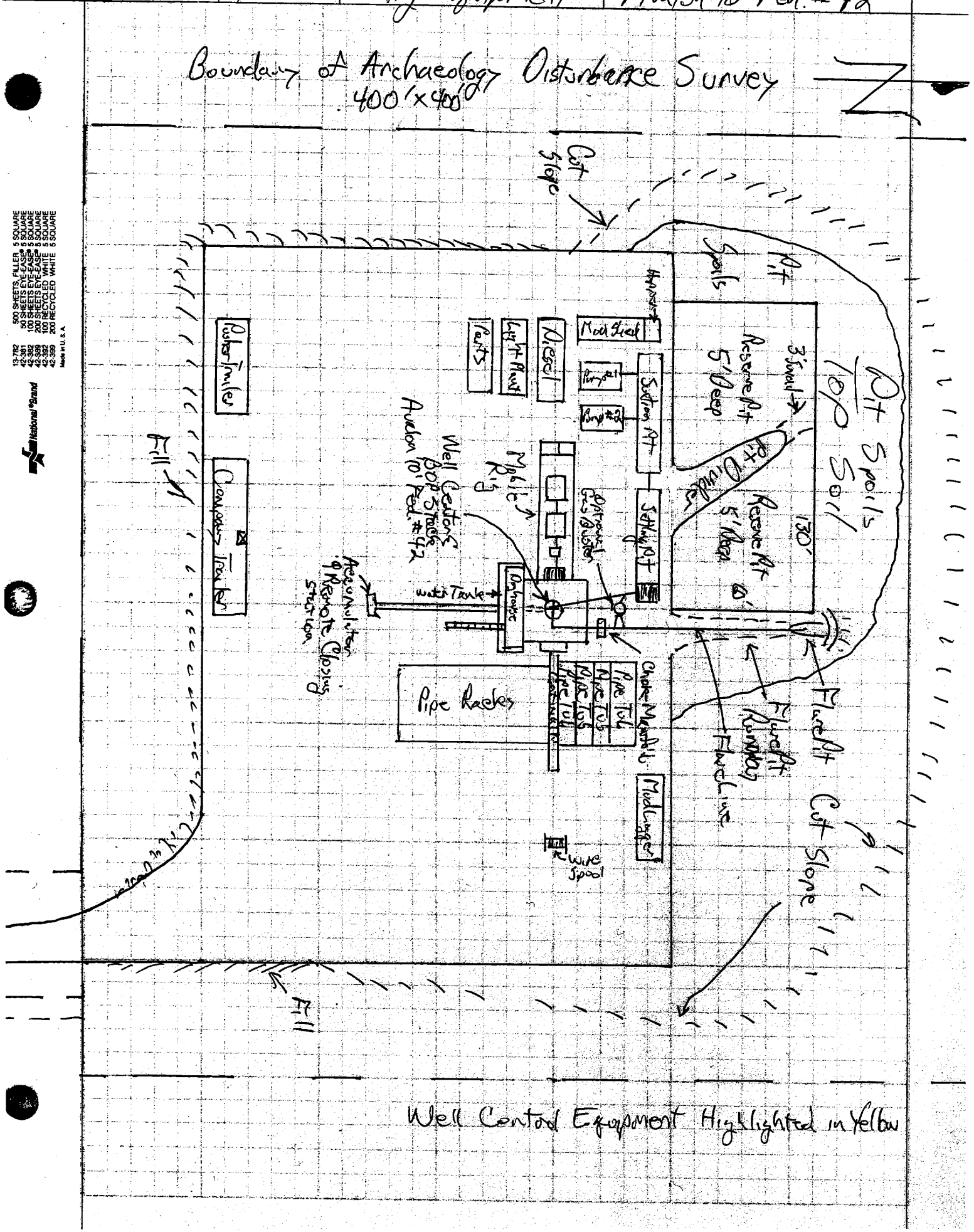
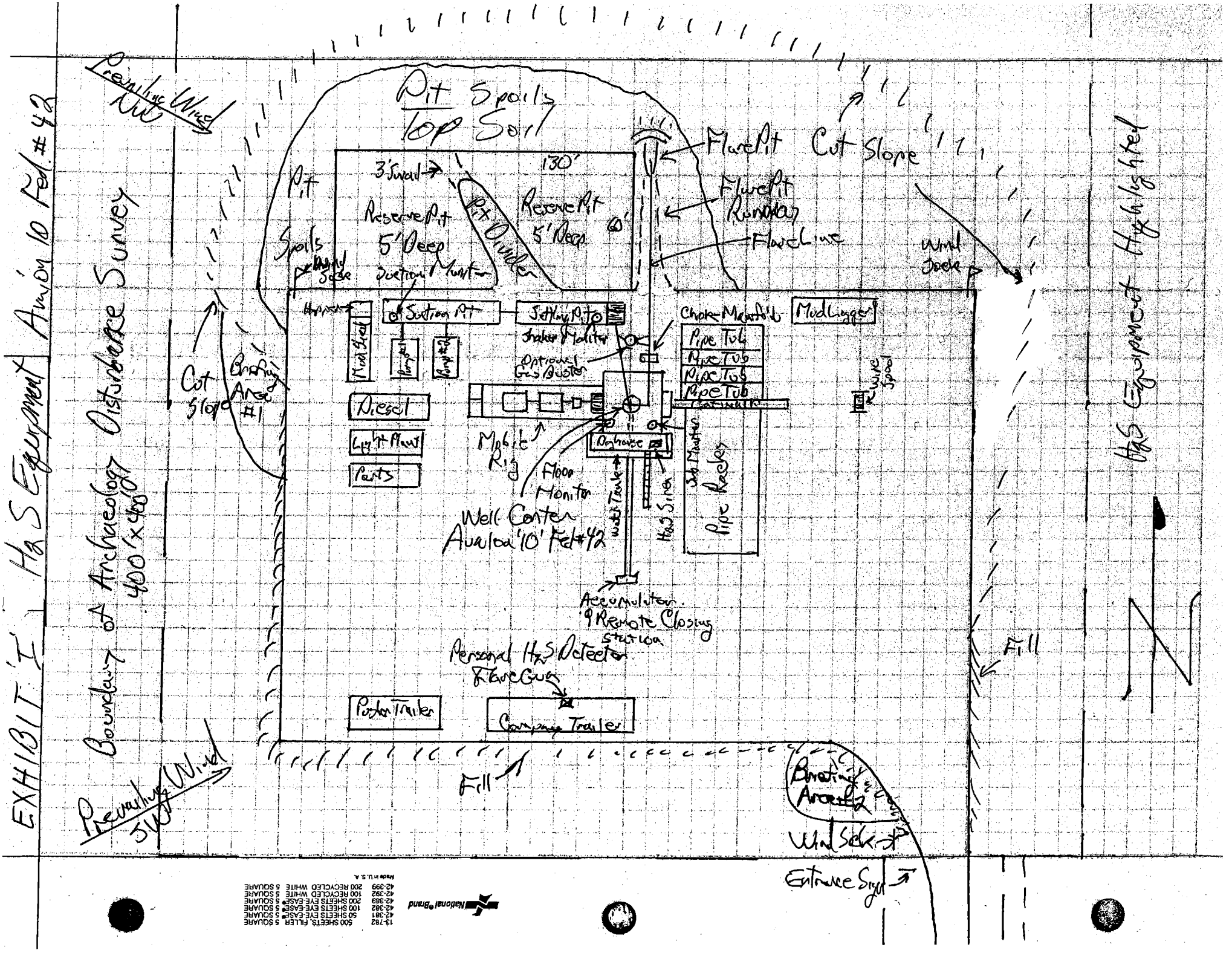


EXHIBIT 'H' | Rig Equipment | Avalon 10 Fed. #42





4/5

CULTURAL RESOURCE

EXHIBIT 'F'

MANAGEMENT REPORT

Bonneville Fuels Corporation
The Proposed Avalon "10" Federal Number 42
Well Location and Access Road
Section 10, T.21S., R.26E
Eddy County, New Mexico

Written By:

Doralene Sanders
and
Joe Ben Sanders
Project Archaeologist
Principal Investigator

Prepared For:
Bonneville Fuels Corporation
1700 Broadway, Suite 1150
Denver, CO 80290

Prepared By:

SOUTHERN NEW MEXICO
ARCHAEOLOGICAL SERVICES, Inc.
Post Office Box 1
Bent, New Mexico 88314-0001

Date:
October 17, 2000

Project # SNMAS-00NM-405
NMCRIS # 72119

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 72119

4. Title of Report (Project Title):
A Cultural Resource Inventory
The Avalon "10" Federal Number 42
Proposed Well Location and Access Road
Section 10, T.21S., R. 26E
Eddy County, New Mexico

5. Project Date(s)
October 4, 2000

6. Report Date
October 17, 2000

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders
Field Personnel Names: Ray Medlock
Phone No. (505) 671-4797

8. Permit No.
145-2920-00-G

Consultant Report #
SNMAS-00NM-405

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Robert Schwering

Name: Bonneville Fuels Corporation
Address: 1700 Broadway, Suite 1150
Denver, CO 80290
Phone No.(303) 863-1555 Ext. 213

(Bureau of Reclamation)

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 4.21
Per Surface Ownership:
Federal 4.21
State
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico **b**. County: Eddy **c.** BLM District: Roswell, Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 21S R 26E Sec 10 Well Pad Footage's **1980' FNL and 660' FEL**
¼'s: **Pad:** NE1/4SE1/4NE1/4,
¼'s: **Road:** SE1/4SE1/4NE1/4
f. 7.5' Map Name(s) and Code Number(s): USGS Carlsbad West (1985) 32104-D3

g. Area: Block:
Impact: 200' X 200'
Surveyed: 400' X 400'
Linear: 60' X 221'
Surveyed: 120' X 221'

---

14. a. **Records Search**:

Location:	ARMS HPD.	Date: October 3, 2000
	BLM Carlsbad	Date: October 3, 2000

List by LA # All sites within .25 miles of the project:
None

b. **Description of Undertaking:**
The proposed Avalon "10" Federal Number 42 well location is staked 1980 ft FNL and 660 ft FEL in Section 10, T.21S., R.26E. The impact area for the proposed well location is an area 200 ft by 200 ft. The proposed access road is 221 ft long with an impact area of 60 ft by 221 ft. The proposed access road begins on the southeast corner of the well location and trends 221 ft south to a previously inventoried right of way (SNMAS-00-NM-407).

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project area is located on the westside of Pecos River with gently rolling low hills in shallow soils over limestone bedrock. Vegetation in the area consists of acacia, grass, javelina bush, prickly pear, snakeweed and creosote. Elevation is 3192 ft.

d. Field Methods: **Transect Intervals**: 8 zig zag transects across well pad, 50-ft zig zag intervals across the staked corridor.
Crew Size: 1
Time in Field: 1 hour
Collections: NONE

15. Cultural Resource Findings:
a. Identification and description: (Location shown on project map)

During the current survey, no cultural resources were encountered.

16. Management Summary (Recommendations):

During the survey, no cultural resources were encountered. **Therefore, archaeological clearance is recommended for the Bonneville Fuels Corporation proposed Avalon "10" Federal Number 42 well location and access road, with no stipulations.**

I certify the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature Joe Ben Sanders

Joe Ben Sanders Date: October17, 2000
Principal Investigator

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report

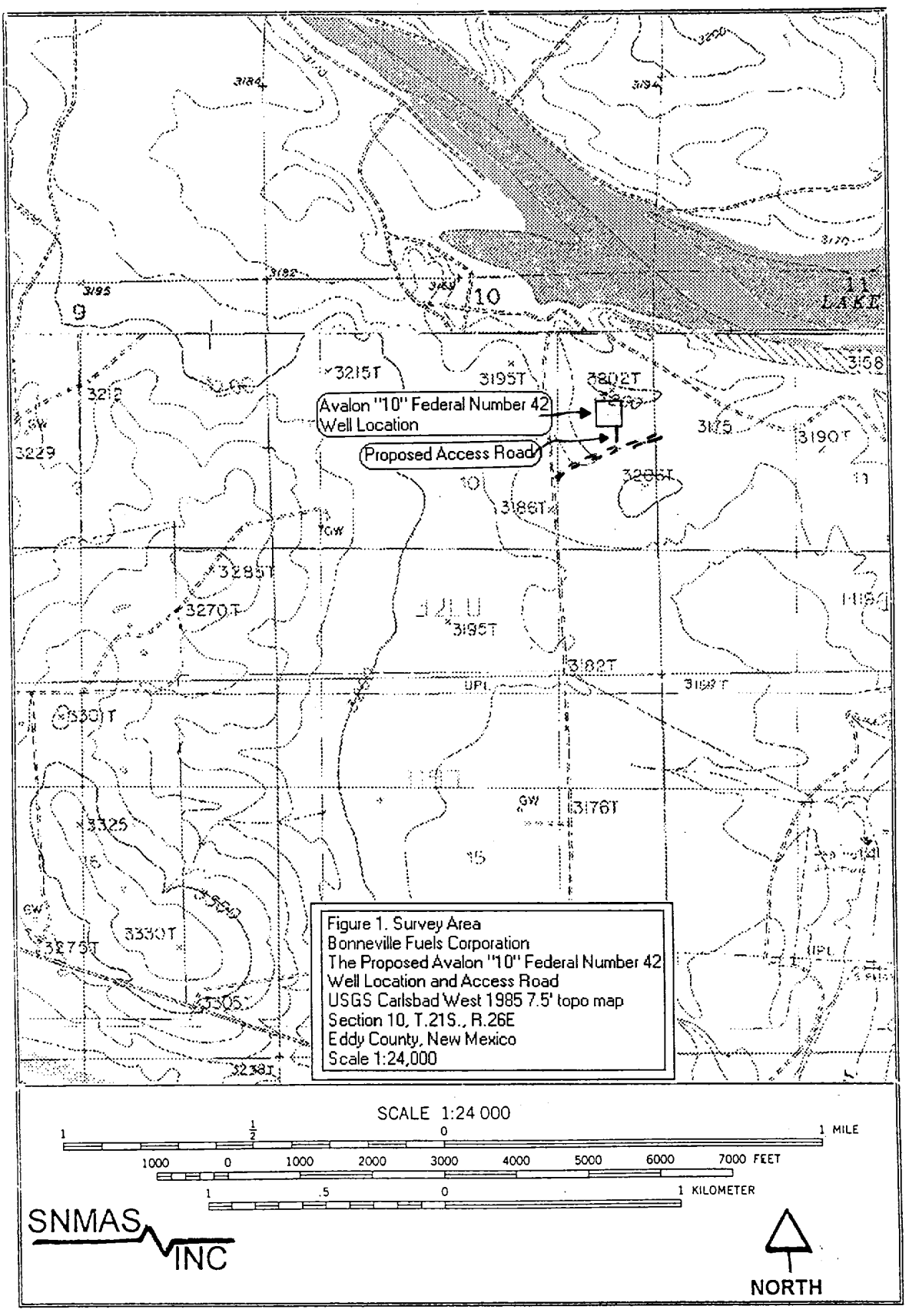


Figure 1. Survey Area
Bonneville Fuels Corporation
The Proposed Avalon "10" Federal Number 42
Well Location and Access Road
USGS Carlsbad West 1985 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000

1/6

CULTURAL RESOURCE

EXHIBIT 'K'

MANAGEMENT REPORT

Avalon '10' Federal #4S

Bonneville Fuels Corporation
The Avalon and Lakeshore Pipeline
A Pipeline servicing the Bonneville Fuels Corporation's
Avalon and Lakeshore Well Locations
Section 10, T.21S., R.26E
Eddy County, New Mexico

Written By:

Doralene Sanders
and
Joe Ben Sanders
Project Archaeologist
Principal Investigator

Prepared For:
Bonneville Fuels Corporation
1700 Broadway, Suite 1150
Denver, CO 80290

Prepared By:

SOUTHERN NEW MEXICO ARCHAEOLOGICAL SERVICES, Inc.

Post Office Box 1
Bent, New Mexico 88314-0001

Date:
October 20, 2000

Project # SNMAS-00NM-407
NMCRIS # 72121

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TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95 Page 1

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 72121

4. Title of Report (Project Title):

A Cultural Resource Inventory
The Avalon and Lakeshore Pipeline
A Pipeline servicing the Avalon and Lakeshore
Bonneville Fuels Corporation Well Locations
Section 10, T.21S., R. 26E
Eddy County, New Mexico

5. Project Date(s)
October 4, 5, 2000

6. Report Date
October 20, 2000

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders
Field Personnel Names: Joe Ben Sanders and Ray Medlock
Phone No. (505) 671-4797

8. Permit No.
145-2920-00-G

Consultant Report #
SNMAS-00NM-407

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Robert Schwering

Name: Bonneville Fuels Corporation
Address: 1700 Broadway, Suite 1150
Denver, CO 80290
Phone No. (303) 863-1555 Ext 213

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 17.22
Per Surface Ownership:
(Bureau of Reclamation) Federal 17.19
State .03
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico **b.** County: Eddy **c.** BLM District: Roswell, Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 21S R 26E Sec 10 Well Pad Footage's **1980' FNL and 1980' FWL**

¼'s: **Pipeline:** SE1/4N1/2SE1/4; NE1/4NE1/4SW1/4NW1/4; NW1/4SW1/4NE1/4; W1/2SE1/4NW1/4; W1/2NE1/4NE1/4SW1/4; SW1/4NE1/4SW1/4; SE1/4NE1/4SW1/4; S1/2NW1/4SE1/4; SW1/4NE1/4SE1/4;NW1/4SE1/4NE1/4SE1/4;NE1/4NE1/4SE1/4SE1/4; SE1/4NE1/4

f. 7.5' Map Name(s) and Code Number(s): USGS Carlsbad West (1985) 32104-D3

g. Area: Block:

Impact: 000' X 000'
Surveyed: 000' X 000'
Linear: 60' X 7500'
Surveyed: 120' X 7500'

---

14. a. **Records Search**:

Location: ARMS HPD. Date: October 3, 2000
BLM Carlsbad Date: October 3, 2000

List by LA # All sites within .25 miles of the project:
LA 131362

b. **Description of Undertaking:**

The proposed pipeline begins on the southeast corner of the Lakeshore Federal State COM 10 Number 4, (previously inventoried SNMAS-401) well location and trends 900 ft southeast to the Avalon 10 Federal Number 22, (previously inventoried SNMAS-403), on the northeast, then trends 700 ft northeast, 400 ft southeast to the Lakeshore Federal State COM 10, (previously inventoried SNMAS 402). The pipeline then trends off of the Avalon 10 Federal Number 22 from the northeast corner 1200 ft south along side of previously inventoried access roads (SNMAS-403 and 404) to the Avalon 10 Federal Number 23 well location (previously inventoried SNMAS 404). The pipeline then trends from the southwest corner of the Avalon 10 Federal Number 23 southeast 2800 feet to the southwest corner of Avalon 10 Federal Number 43, (previously inventoried SNMAS-406) and the northwest corner of the existing Lakeshore Federal State COM Number 2 well location. The pipeline then trends from the northeast corner of the existing Lakeshore Federal State COM Number 2 well location due north 1200 ft, then 300 ft north to a previously inventoried (SNMAS-405) access road located on the southeast corner of the Avalon 10 Federal Number 42.

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project area is located on the westside of Pecos River with gently rolling low hills in shallow soils over limestone bedrock. Vegetation in the area consists of acacia, grass, javelina bush, prickly pear, snakeweed and creosote. Elevation is 3197 ft.

d. Field Methods: **Transect Intervals**: 50-ft zig zag intervals across the staked corridor.
Crew Size: 2
Time in Field: 6 hours
Collections: NONE

15. Cultural Resource Findings:
a. Identification and description: (Location shown on project map)

During the current surveys, no cultural resources were encountered.

---

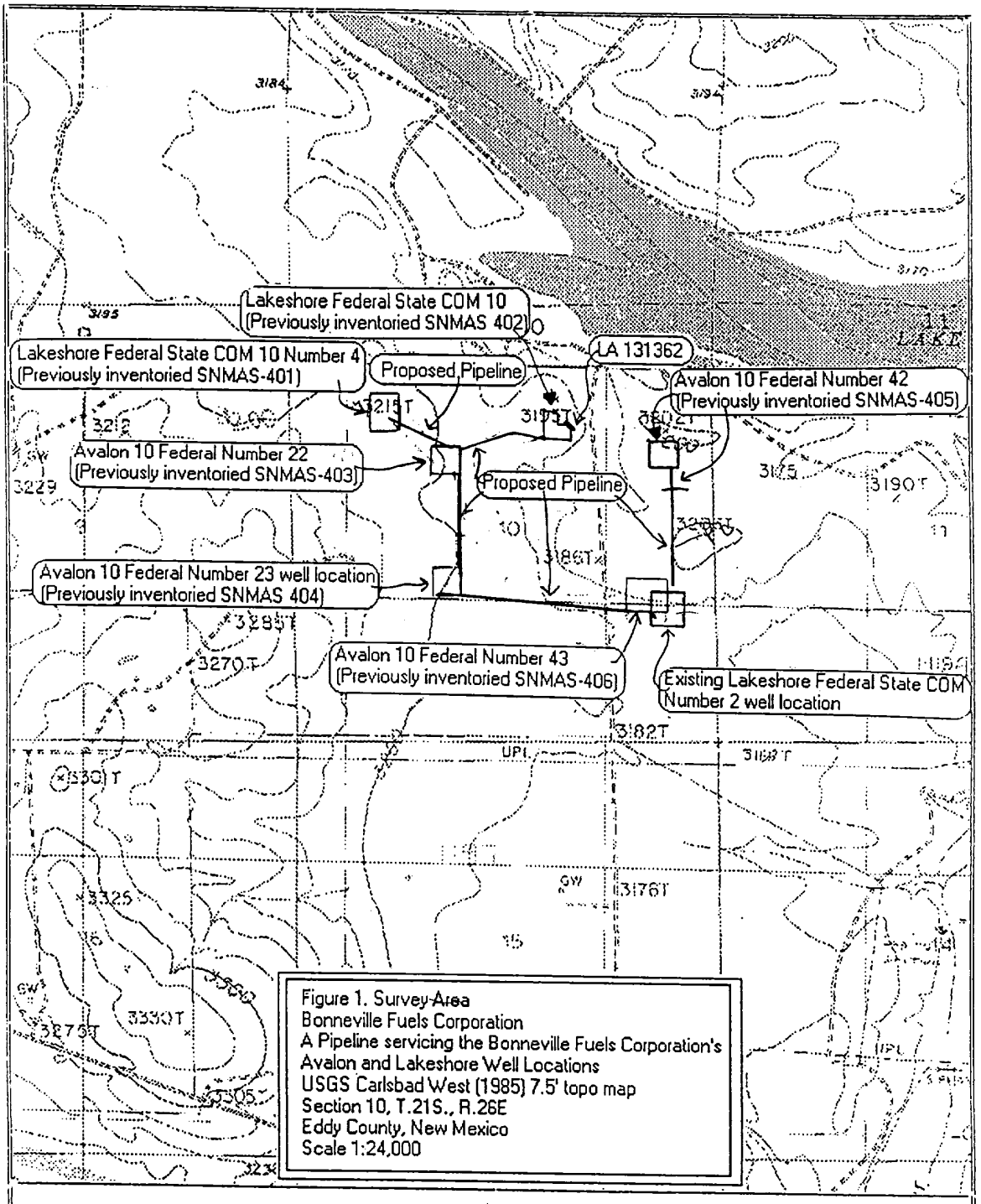
16. Management Summary (Recommendations):

During the survey, no cultural resources were encountered. **Therefore, archaeological clearance is recommended for the Bonneville Fuels Corporation proposed pipeline servicing the Avalon and Lakeshore Bonneville Fuels Corporation well locations, with no stipulations.**

I certify the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature Joe Ben Sanders M.A.
Joe Ben Sanders Date: October 20, 2000
Principal Investigator

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report


Lakeshore Federal State COM 10
(Previously inventoried SNMAS 402)
Lakeshore Federal State COM 10 Number 4
(Previously inventoried SNMAS-401)
Proposed Pipeline
LA 131362
Avalon 10 Federal Number 42
(Previously inventoried SNMAS-405)
Avalon 10 Federal Number 22
(Previously inventoried SNMAS-403)
Proposed Pipeline
Avalon 10 Federal Number 23 well location
(Previously inventoried SNMAS 404)
Avalon 10 Federal Number 43
(Previously inventoried SNMAS-406)
Existing Lakeshore Federal State COM
Number 2 well location
Figure 1. Survey Area
Bonneville Fuels Corporation
A Pipeline servicing the Bonneville Fuels Corporation's
Avalon and Lakeshore Well Locations
USGS Carlsbad West (1985) 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000
SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER
SNMAS INC
NORTH

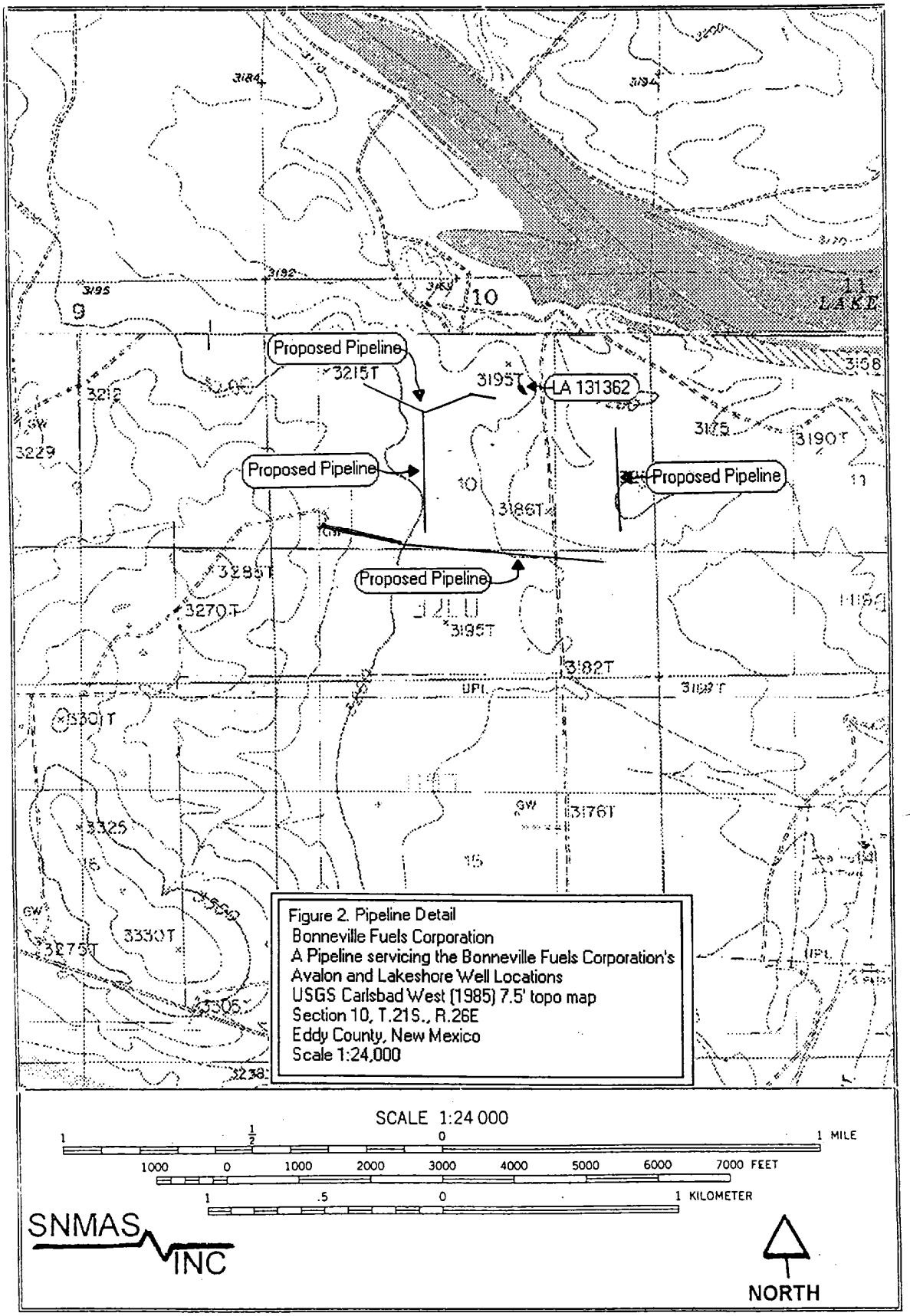


Figure 2. Pipeline Detail
Bonneville Fuels Corporation
A Pipeline servicing the Bonneville Fuels Corporation's
Avalon and Lakeshore Well Locations
USGS Carlsbad West (1985) 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000