

POINT SURFACE USE PLAN

Attached to Form 3160-3
Bonneville Fuels Corporation
Avalon "10" Federal #43
1817' FSL & 837' 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. This location pad overlaps onto the existing pad of the Lake Shore Fed. S.C. 10-#2 well @ 1750' FSL & 660' FEL.**

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 wells (7 existing & 2 additional proposed gas wells, 4 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 #43 oil well. Also indicated on this map is the proximity of the northern limit of incorporation of the City of Carlsbad (approx. 1.095 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. 1.195 miles east 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 first 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. 0.15 miles north. Then proceed SE approx. 250 feet onto proposed location (these are the GREEN roads on Exhibits 'A', 'B' & 'C-#1').

2. PLANNED NEW ACCESS ROAD:

No new access road is needed for the Avalon "10" Federal #43 well-site pad.

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 #43 oil well prepared by John West Engineering.

a. There are seven (7) existing producing gas wells and two (2) additional proposed gas wells within a 1-mile radius of the proposed Avalon "10" Federal #43 well. These wells are colored RED on Exhibit 'A' and are labeled GW and PGW, respectively.

b. There are five (5) proposed oil wells within a 1-mile radius of the proposed Avalon "10" Federal #43 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 #43 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 #43 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 #43 well.

4. PROPOSED PRODUCTION FACILITIES:

Bonneville Fuels Corporation has NO existing production facilities on this well-site at this time. Exhibit 'D' shows the location of a proposed tank battery and production facilities for the proposed Avalon "10" Federal #43 well and the existing/adjacent tank battery and production facilities for the Lake Shore Fed. S.C. 10-#2 gas 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.

REQUEST FOR SPECIAL CONSIDERATION AND EXEMPTION FROM SPECIAL LEASE STIPULATIONS: Field inspection of the drainage scaled in on Exhibit 'A' clearly indicates that **the surface drainage from the Avalon '10' Federal #43 and the adjacent Lake Shore Fed. S.C. 10-#2 well-sites and production facilities is SE into the Pecos River downstream of the Avalon Lake and Avalon Dam.** The proposed storage tanks and production facility will be at a planned finished grade elevation equal to that of the existing Lake Shore Fed. S.C. 10-#2 production facilities at 3180' MSL. **It is physically impossible for effluent from this well to run up-hill into the catchment for the Avalon Reservoir.** The 3194' Storage Facility stipulation for the proposed Avalon '10' Fed. #43 well should be relaxed to allow the battery to be on-site.

a. Should the well prove productive then necessary gas handling facilities (a three phase separator and a meter facility) will be placed on the production pad as shown on Exhibit 'D'. The production pad finished grade will be at 3180' MSL. This production pad is planned to be 20' wide by 40' 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 3180' MSL and will be 40' wide by 60' 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.

4. PROPOSED PRODUCTION FACILITIES: Continued:

c. A low pressure (LP) natural gas pipeline will be constructed from this wellsite running east 2586' to the Avalon "10" Federal #23 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, planned Avalon "10" Federal #43 and the existing Lake Shore Fed. S.C. 10-#2 wells to a common tie-in on the pad of the Avalon "10" Federal #23 well. A central LP Gas compressor pad (meter and compressor) and compressor drip pad may be set on the southeast end of the Avalon "10" Federal #22 in order to compress the LP wellhead gas to HP sales-line pressure. 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 to properly permit and drill a fresh water well to provide water for the drilling of this well on this wellsite (see Exhibit 'A' and Exhibit 'D'). A local water hauling service (purchased from a municipal/agricultural seller) will be used to provide any supplemental water needs. This water well be appropriately permitted with the State of New Mexico, Bureau of Land management and Bureau of Reclamation simultaneously with the filing of this APD.

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 'F'). 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 550'N-S x 550'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.
- 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. Reclamation of this wellsite shall be done in such a way that it does NOT impede production at the adjacent Lake Shore Fed. S.C. 10-#2 well should it still be productive when the Avalon "10" Federal #43 is abandoned.

11. OTHER INFORMATION: ARCHAEOLOGICAL RESOURCES:

a. TOPOGRAPHY: The land surface at this site is a hillside sloping gradually to the south (see Exhibit 'A'). The location is to be built where the hillside broadens 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 site and the proposed pipeline was conducted by Southern New Mexico Archaeological Services, Inc. (Bent, NM) on 10/4/2000 and 10/5/2000. The site report is attached as Exhibit 'J' (Report NM-404). The pipeline report is attached as Exhibit 'K' (Report NM-407). NO ARCHAEOLOGICAL RESOURCES WERE FOUND IN THE SURVEYED WELL-SITE AREA OR 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 NE SE (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:

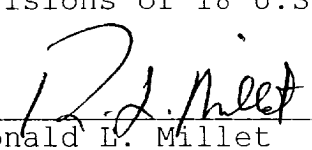
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ON CALL 24 Hours or ON-SITE.

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: 1/15/01

Signature: _____


Ronald L. Millet
Drilling Manager
Bonneville Fuels Corporation