

3.1 SKYLINE MINING OPERATION PLAN

This section presents, in detail, the rationale underlying the planned system of mine operation and design; coal seam development; determination of recoverable coal reserves; and mitigation of the effects of adverse geological conditions which could reduce the total amount of maximum economically recoverable coal reserves. There are no special categories or mining areas planned for the Skyline Mines.

The Permittee feels that the mine design and method of coal extraction is the most efficient and productive mine plan consistent with the presently known characteristics of the Skyline area. Productivity and efficiency of mining was evaluated during the previous five year period. Existing mining equipment and methods were upgraded to ensure highest productivity possible. New equipment was installed including a second longwall unit which is state-of-the art for thick seam mining. It is currently mining at heights up to 15 feet which is one of the highest in the nation. During the previous 5 years Skyline has consistently been one of the most productive underground coal mines in the nation.

3.1.1 Projecting Mine Development

The following investigative processes have been incorporated into the mining plan to ensure maximum coal reserve recovery.

- Engineering/geotechnical studies to aid in the evaluation and determination of portal sites, portal site specifications, and method of access to the individual seams.
- Computer-enhanced seismic surveys for fault identification and structural interpretation.
- Geological interpretation of photolinears to identify possible fault zones.

Revised: 09/04/02

3-1
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- Electro-telluric surveys to determine coal seam thickness and depth and aid in prediction of fault displacement.
- Premining analysis of interseam strata to determine site-specific thickness, stratigraphical and chemical characteristics. In establishing the extracting limitation based on coal seam thickness, both conservation of the coal resource and the economy of operation were considered.
- Mining methods involving both longwall and room and pillar extraction have been considered to achieve the maximum safe and economic recovery of the coal resources.

3.1.2 Mine Development Plan

The selected mine portal sites for the Upper O'Connor and Lower O'Connor "A" seams are located at outcrops of coal of mineable thickness.

The outcrops of the Upper O'Connor and Lower O'Connor "A" seams allow access to the two seams through drift entries. This selection of portal location is additionally enhanced by its reasonable proximity to railroad transportation facilities available in Pleasant Valley and the availability of at least some relatively flat acreage adjacent to the outcrop. The Lower O'Connor "B" seam will be reached via underground rock slopes from entries in the Upper O'Connor or Lower O'Connor "A" seams.

Five portals were used at Mine No. 3 drift entry location for the intake of air, the transportation of mining crews and materials, and exhaust air. One additional entry portal in Mine No. 3 is used for the conveyance of coal from the mine. Mine No. 1 has four portals.

The Upper O'Connor seam also utilized a breakout to improve the ventilation. The Breakout was located on a south facing slope in a side canyon of the South Fork of Eccles Creek (see map no. 3.2.11-1). The portal was backfilled and reclaimed in 2003.

Revised: 08-24-05

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The Upper O'Connor seam also utilizes a breakout to improve the ventilation. The Breakout is on a south facing slope in a side canyon of the South Fork of Eccles Creek (see map no. 3.2.11-1). No exhaust fans or permanent activity is planned for this area.

The size of portals vary to conform to the mineable height of the Upper O'Connor seam and the Lower O'Connor "A" seam.

A series of parallel underground openings called entries, separated by blocks of coal providing support, called pillars, are driven from the portal location and are called "main entries", or "mains". These entries are comparable to the main avenues of a city, and allow access for the provision of power, piping, haulage, ventilation, and support services. The design of the mains and the layout of the mines for the Skyline project have been engineered after careful review of the many conditions that can affect the mining operations.

A large number of parallel headings has been determined necessary to maintain air velocities within required acceptable limits (usually less than 800 ft/min. for the 4-6 tons of air required to be circulated through the mine for every ton of coal mined). The final number of developed entries will be based on the requirements of the mine area to be accessed.

Since the Permittee considers five feet to be the minimum seam height which can be economically extracted due to machinery limitation and coal quality, maps show mining areas which are at this time predicted to be greater than five feet in height and have more than 40 feet of interburden to the next mineable seam. The interburden thickness is variable throughout the mine plan area and varies depending upon local overburden. As new drill hole data, seismic studies, actual mining conditions, etc., become available, the geologic structure maps will change to reflect this new information. In addition, the mine projections will be modified to incorporate this new information. Further advances in technology may also cause the mine projections to be modified.

Revised: 09/04/02

3-3

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The irregular areal extent of the coal seams has been considered in mine planning in order to extract coal in blocks which are not overlain by a successively higher coal seam. This procedure has made it possible to accelerate the development process of the

Lower O'Connor "A" seam. Portals were constructed for the Upper O'Connor seam in 1982. Main and submain development mining of this seam began in late 1986. The actual mining of the Lower O'Connor "B" seam will commence about six years after the start of mining in the Upper O'Connor seam.

The sequence of extraction has been planned to allow each panel in a successively lower seam to be extracted at least two years later than the panel above it. This elapsed time should ensure that upper strata have had time to stabilize prior to lower seam mining. This time period may be reduced if actual mining conditions show adequate stabilization occurs sooner. Efforts have also been made to sequence panel extraction so that the natural dip of the seams will facilitate water drainage in a manner which will not adversely affect the mines below or personnel safety.

Development of mine layout relative to sizing and placement of barrier pillars, chain pillars, shafts, mains and submains has been carefully planned so as to minimize the impact of encountered faults and other adverse geological features. The pillars, barriers and panels have been superimposed in the mine design to ensure maximum structural integrity of the overlying seam strata throughout the operating and postmining periods.

Specific efforts have been made to confine identified fault zones to barrier areas and to cross fault zones at as few places as practicable.

In summary, the major factors involved in mine development are:

Revised: 09/04/02

3-4

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1. The number of entries are selected to support the air requirements as determined by the targeted production rates, types of equipment, number of panels being worked at one time and sequence of extraction.
2. The barriers have been located to mitigate potential fault influences and have been provided to protect mains, bleeders, worked out panels and property boundaries as required by law.
3. The layout has been carefully planned and sequenced to achieve effective multiple seam mining.
4. The sequence of extraction has been arranged to best utilize the non-mineable areas in the three seams such that uninterrupted mining can continue in all of the three seams.
5. The extraction sequence of successively lower panels is arranged to enable the rock strata to stabilize and to ensure safety of extraction of panels in sequentially lower coal seams.

Entry Development and Specifications

The main entries, driven from the coal outcrops in Eccles Canyon, comprise the principal coal haulage, personnel access, material routes and ventilation courses for the mining operations. The use of a single blowing or exhaust fan achieves proper ventilation for the entire life of each mine. Coal barrier pillars of sufficient width will be left on both sides of all main and submain entries to protect them throughout the advancing life of the mine. Barrier pillars, 200 to 300 feet in width are being maintained on each side of the mains.

Access and ventilation for the Lower O'Connor "B" seam will be accomplished by driving rock entries or shafts from the other two seams.

Revised: 09/04/02

3-5

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Main entries in the mines are advanced so that mining panels may be developed on one or both sides. These panels are usually 2,500 to 7,000 feet long and 400 to 800 feet wide. The panels will be mined by driving rooms or by retreat-type operations where coal is mined as Room and Pillar Mining. Where feasible, the coal will be removed by a longwall operation. The panels will then be "pulled" consecutively to the barrier, leaving the main entries intact.

The mains developed to access the North Lease area will be driven through the SW1/4 SW 1/4 of Section 12, Township 13 South, Range 6 East. Multiple entries will be driven north from existing workings within the unsealed southeastern portion of Mine 3 workings (Drawing 3.1.8-2). As the mains approach the northeast portion of the abandoned Mine 3 workings, they will be angled downward to go under the abandoned workings instead of through. This portion of Mine 3 was flooded by pumping water from Mine 2 into Mine 3 beginning in March 1999. This pumping continued until August 2002. At that time, the water level in the abandoned Mine 3 was reduced in the abandoned portion of Mine 3 to an elevation below the northeast corner of Mine 3 and at or below the level of the new entries. Draining of Mine 3 continues as mining advances north, west and down dip of the Mine 3 workings. Removing the water from the abandoned portion of Mine 3 removes the risk of flooding the new entries from water in Mine 3.

The abandoned Winter Quarters Mine workings are illustrated on Drawing 3.1.8-2. The new entries to the North Lease area are driven at least 300 feet horizontally from the closest point in the abandoned Winter Quarters Mine. As required by MSHA, exploratory drilling was conducted at required intervals to ensure Skyline Mine does not intercept the abandoned Winter Quarters Mine.

In the North Lease, longwall mining is scheduled to commence in early 2006. Undermining of portions of Winter Quarters Creek and Woods Canyon creek are planned, but only minor surface subsidence is anticipated. A portion of land, approximately 397-acres, located on the north side of Winter Quarters Creek is identified as a potential first-mining area. Based on BLM recommendations for Maximum Economic Recovery (MER), the area will be mined by conventional methods should suitable conditions exist. No subsidence is anticipated in this area, should this area be determined to be mineable.

In 2007, due to a change in the longwall panel configuration in the North Lease located north of Winter Quarters Canyon an Incidental Boundary Change (IBC) modification was added to the permit.

Development / conventional mining in portions of the S1/2S1/2 of Section 36, Township 12 South, Range 6 East, the W1/2 of Section 1, the W1/2SE1/4 Section 1, the N1/2 NW1/4 of Section 12, and the SW1/4NW1/4 of Section 12, Township 13 South, Range 6 East was added. The lease was modified again in 2013-2014 to include additional reserves in Sections 25, 26, and 34, Township 12 South, Range 6 East. No subsidence or surface disturbance is anticipated in this area based on the proposed activity.

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In 2014 rehabilitation of the West Mains location in Section 23, T13S, R6E began in preparation of longwall mining in the Flat Canyon lease, which includes mining of existing lease U-0147570 and Flat Canyon lease UTU-77114. This area of new development, leases U-0147570, UTU-77114, and other leases located west of Electric Lake is collectively named Mine No. 4. A portion of two-seam conventional mining was implemented in lease U-0147570 to drive a slope down to the Lower O'Connor A seam. The MSHA-approved slope interburden between seams was greater than 40-feet. Conventional mining will be used for development of longwall panels on the existing lease and for accessing lease UTU-77114 west of Huntington Creek. Longwall mining is scheduled to begin in approximately 2019 (See Plate 3.1.8-3 for timing). As outlined in Special Stipulation #10 for Coal Lease UTU-77114, "limited subsidence zones consisting of perennial streams in the lease, Boulger Reservoir/Dam, SR-264, and Flat Canyon Campground are specifically approved for subsidence resulting from a single-seam of full-extraction mining." Any future second-seam of full-extraction mining of Boulger Reservoir and Flat Canyon Campground will require approval of a specific plan including mining methods, monitoring of the various structures, and a detailed mitigation plan for both facilities as outlined in Special Stipulations for Coal Lease UTU-77114. The plan will be approved by the Authorized Officer (AO) of the BLM, with consent of the USFS, and any requirements by DOGM. In the initial permitting of the Flat Canyon lease submitted in 2016, no undermining of Boulger Reservoir or Flat Canyon campground is proposed. Any future undermining of the two facilities will require approval of a specific plan including mining methods, monitoring of various structures, and a detailed mitigation plan as outlined in the Special Stipulations.

Undermining of SR-264 will also planned for an approximately 4,500-foot section beginning approximately 1,500 feet east of the Electric Lake access and heading west. Overburden ranges from approximately 700-1300 feet. Using subsidence factors listed in Section 4.17 of the M&RP, the anticipated maximum subsidence will range from 0.3-0.5 feet. With the gradual effects spread over 1,300 feet, little impact is anticipated. Agreements with UDOT and how impacts will be mitigated are in Section 4.17. No longwall mining or subsidence is planned for Huntington Creek. The Flat Canyon lease, which includes mining of the two leases includes mining in Sections 21, 22, 27, 28, 29, 32, 33, and 34, T13S, R6E; and Sections 3, 4, and 5, T14S, R6E.

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3.1.3 Method of Mining

In order to achieve maximum coal reserve recovery and enhance overall production rates, the mining plan, as developed to date and herein proposed, involves two mining methodologies most appropriate for Skyline's coal reserves. The mines are developed using continuous miners to drive entries which are connected with cross cuts. Continuous miners are also used for retreat room and pillar mining. The room and pillar method of mining is being implemented in particular situations for which longwall mining is inappropriate. The longwall mining system will be used to extract the majority of the Skyline coal.

Longwall Mining

Longwall mining is proposed for the extraction of large uniform blocks of mineable coal, resulting in increased production rates and overall recovery. Mine layouts are based on longwall mining in areas where the panels generally are more than 2,500 feet in length and where a suitable longwall panel can be constituted. The 2,500 foot length is used however only as a guideline, and may vary significantly depending upon physical as well as economic factors. Recoverable coal reserves in longwall mining areas are based on mining a maximum thickness of fifteen feet.

The longwall mining operation utilizes at least two sizes of equipment in order to mine the variations in seam thickness locally encountered. Lower equipment will be used for mining down to 5 feet of coal thickness, and larger equipment will be used to mine thicknesses of at least 15 feet.

In areas where coal is thicker than the height capacity of the mining equipment, the unmined coal will be left in the bottom of the bed, unless economic or safety conditions or operation constraints warrant otherwise.

A high overall recovery of reserves can be expected as the longwall unit retreats through a panel. Pillars in developed entries will be left to protect adjacent panels. Longwall mining results in controlled surface subsidence in that small coal pillars and stumps are not left behind resulting in unpredictable surface behavior. A predictable uniform lowering of the surface will occur.

Revised: 11/20/07

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Room and Pillar Method

In order to ensure the maximum recovery of reserves safely and economically, it is desired that the room and pillar method of mining be used as follows:

1. To develop the mains, submains and panel entries.
2. To extract panels of shorter lengths, generally limited to 2,500 feet or less. This may be desirable, as longwall mining of small panels becomes economically less feasible because the installation and removal of longwall equipment would be required for a relatively small coal tonnage.
3. To protect the surface features.
4. To extract areas that are not suited for longwall mining because of geological conditions such as extensive faults with significant displacements.

These factors, which affect the proposed mine plan, can be accommodated by the use of room and pillar mining and could not be attained by the longwall mining method. Room and pillar mining will be implemented for the above four mine conditions.

Recovery of reserves will be maximized by longwall mining methodology for other mining areas.

All entry and panel development will be accomplished by continuous miners using the room and pillar method of mining. Panel development will normally be achieved by driving two to three panel entries from the main entries to the designated panel limits. Each mining panel will then be developed from these entries on the retreat.

Diesel-powered, rubber-tired tractors and service vehicles will be used to transport personnel and materials from the portals to the working faces.

Revised: 09/04/02

3-8

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The design of roof support will be done to provide stability of roof, floor and rib surfaces.

3.1.4 Proposed Production Rate

The production rate of the room and pillar method using continuous mining units is principally dependent on the height of the coal seam being mined and local mining conditions.

The production rate of the longwall system is also dependent on seam height and local mining conditions.

Total Production Rate

The production rates presented are the values the Permittee expects to reasonably achieve if the mining is done as planned.

Yearly production is projected to average 5.5 to 6.5 million tons per year with a peak of nearly 7.5 million tons per year. Production is estimated to be about 5.5 million tons in calendar year 1992. It is estimated that it will take nearly 3 to 5 years beyond 1992 to reach peak production rates.

3.1.5 Maximum Economic Recovery and Rate Data

The underground mining operations have been planned to yield the maximum economic recovery of the coal reserves consistent with the practice of protection and use of other natural resources, sound economic and mining philosophies and the protection of the environment. In brief, the Permittee emphasizes that all reserves will be recovered that can be with safe, economic and acceptable practices and technology.

Revised: 09/04/02

3-9

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At times it may be necessary to store noncombustible underground wastes, excess surface spoil in underground workings. Wastes will only be permanently stored in areas where the maximum amount of coal has been recovered within safe limits or where the waste can be stored so as not to interfere with future pillar recovery.

As previously discussed, there are three mineable seams occurring within the Skyline permit area. A seam has been considered non-mineable where the thickness of the coal is less than five feet. Only one seam is considered to be mineable where the interburden between two seams becomes less than 40 feet.

These limitations are consistent with present day economics and with safe and logical mining practice. However, as the technological and economic conditions change at Skyline, allowing the mining of less than five feet or more than fifteen feet of thickness, the Permittee expects the extraction rate will improve correspondingly.

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Revised: 09/04/02

3-10

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3.1.6 Multiple Seam Mining - Rationale and Specifications

Rationale

Presently there are a few case examples in the United States where two or more seams of coal are simultaneously mined. The Skyline Mines would be one of the few mines in the western U. S. to involve concurrent mining of multiple seams. It is evident that if the concurrent mining of multiple coal seams is to be practiced successfully, it is extremely important that the extraction of all seams be conducted in a thoroughly planned manner.

Detailed drilling and seismic information indicate the presence of three mineable seams:

Upper O'Connor seam (Skyline Mine No. 1);

Lower O'Connor "B" seam (Skyline Mine No.3 Level 2); and

Lower O'Connor "A" seam (Skyline Mine No. 3)

None of these seams occur uniformly or continuously mineable throughout the entire permit area. In planning the proposed mining operation, this fact was utilized advantageously in determining the sequence of coal extraction from seam blocks for which an absence of an overlying upper mineable seam had been determined. This sequencing of concurrent coal seam extraction, in combination with standard descending seam order extraction procedures, will allow significantly increased rates of production and resource recovery. Properly planned and conducted, the multiple seam mining operation will not jeopardize personnel safety or environmental values.

Specifications

The extraction of coal from the Lower O'Connor "A" seam has been scheduled to begin first. Since the Lower O'Connor "A" seam is the lowest of the three mineable seams, care has been exercised to ensure that subsidence mining of coal in this seam occurs only

Revised: 09/04/02

3-11
DEC 6 2002
DIV OF OIL GAS & MINING

The accepted procedure of superimposing certain structural features developed during the mining operations will be followed. The mains, submains and barriers will be columnized, as precisely as practical, so that the compressional forces will be transmitted from like bearing to like bearing areas in underlying seams.

The considerable experience of Europeans in multiple seam mining operations and that of U. S. operators in two seam mines has revealed that serious problems involving strata control could result if an attempt is made to extract seams separated by interburden of less than 30 feet. The Permittee will plan therefore to extract only one of the two seams in instances where interburden thickness is less than 40 feet.

Development for Mine No. 4 required multiple seam mining under the West Mains, which required BLM and MSHA approval.

Mining Guidelines for Multiple Seam Mining

Generally accepted practices and design criteria and prior industry experience have been incorporated into the operational plan for ground control in the three seams in the Skyline permit area. The following practices will be used as guidelines:

1. When separated by less than 40 feet of interburden, only one coal seam will be mined.
2. Mining in a specific area of the upper seam will be completed two years before mining in the underlying area of the successively lower seam is initiated, or when subsidence is shown to have adequately stabilized.
3. Plans for three mines are laid out in a manner where protective barrier pillars for main entries, main haulways, fire barriers, primary air courses, bleeder entries and manways in each mine shall generally be superimposed regardless of vertical separation and quality of rock competency.
4. Verification will be made that major amounts of water will not be released from a mined-out area above before caving is commenced in a lower seam.

3.1.7 Plan for Protecting Oil and Gas Wells

Revised: 12-30-16

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3.1.7 Plans for Protecting Oil and Gas Wells

There is no evidence of the presence of any active oil or gas wells except for two abandoned test wells as noted in Section 2.2.8. A detailed investigation has found no record indicating the presence of any gas or oil well which will be affected by the mining operations on the Skyline property at either the Utah State Division of Oil, Gas, and Mining or the American Stratigraphic Company at Denver, Colorado.

The Permittee has protected the abandoned test hole present at the surface facilities site and no mining activity will be undertaken in that area. The Permittee has installed an appropriate marker at the site indicating the presence of the test hole.

Portions of the Skyline permit area, however, are overlain by a natural gas pipeline belonging to Mountain Fuel Supply Company. The gas pipeline will be protected from surface subsidence by reducing reserve extraction such that no subsidence of the pipeline will occur. Because design parameters such as number and width of entries and projected lateral stresses cannot be adequately projected for a given area beneath the pipeline until mining is conducted within a reasonable proximity to that area (within approximately 1500 feet) exact pillar size cannot be projected at this time. In addition, due to the geologic complexity of the leasehold, detailed mining plans for all points beneath the pipeline are not presently feasible. Where the gas pipeline is located within a stream buffer zone the regulation and permit requirements for that zone will take precedent.

To ensure that subsidence will not occur along the pipeline, a safety factor of at least 1.5 will be utilized for pillar design when standard room and pillar design is utilized. If a yield pillar/barrier type design is used, it will be designed such that critical area has no influence on the surface

In the event of encountering unknown bore holes during mining operations which may have the potential of liberating gas or oil, all measures determined necessary by the BLM Mining Supervisor, in consultation with the appropriate BLM Oil and Gas Supervisor, will be implemented.

Records research using the interactive maps on the Utah Department of Natural Resources website and ground reconnaissance indicates no gas lines or oil wells or gas wells exist in the Flat Canyon Lease area that require protection.

Revised: 12-30-16

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Div. of Oil, Gas & Mining
3-13

3.1.8 Mine Maps

Mine maps as required in R614-301-521.140 are provided and will be updated and submitted annually. Maps 3.1.8-1 and 3.1.8-2 include mining details for mines 3 level 1 and mine 3 levels 2 and 3, respectively. Map 3.3-4 illustrates mine plan for Mines 4, 5, and 6. See Section 3.3 - Timing of Operation for details of the respective mines.

Revised: 6-10-21

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3.2 COMPONENTS OF OPERATION

3.2.1 Ponds, Impoundments, and Dams

Four (4) sedimentation ponds are included in the design of the Skyline Mine plan (Map 3.2.1-2b, 3.2.1-4, and 4.16.1-1B), and 3.2.4-3D. Each retention pond was originally designed to provide adequate volume for sediment containment and also adequate volume for a theoretical 24-hour detention of run-off resultant of a 24-hour, 10-year rainstorm. The minesite sedimentation pond also contains additional volume to adequately treat mine water discharge. An engineer's certification to meet requirements of R645-301-743-110 and R645-301-514 is located on all necessary designs and calculations for the ponds in the appropriate appendices and inspection reports. A copy of this certification will be retained at the minesite. Quarterly inspections are also retained at the minesite. All inspections will meet the requirements of R645-515-200. The location and design characteristics for each of these three ponds are described in the following:

The sediment level will be determined by cross sectioning the sediment level through B-B' on Map 3.2.1-2B and through A-A on Map 3.2.1-4 at no greater than 3 year intervals. During sediment clean out the pond may be drained of all water that will meet permit requirements. Water not meeting discharge requirements will be hauled to the other sediment pond. Mine water discharge during clean out of the mine site sediment pond shall by-pass the pond but shall still meet UPDES Discharge Permit requirements. Sediments will be disposed of as outlined in Section 4.16.

Mine Site Sediment Pond

A detention pond is located at the mine site adjacent to the crushing and truck loading station. It will detain surface run-off from the 33.79 acres disturbed mine site area plus 2.69 acres of undisturbed area, all of which reports to the sedimentation pond shown on Map 3.2.1-1. Precipitation from a 10-year, 24-hour rainstorm is expected to be 2.43 inches. After

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3-15
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infiltration, surface run-off from a storm of this intensity should be 1.32 inches, based on the assumption that the land surface will be similar to gravel and dirt roads with SCS run-off curve numbers of about 88 (Section 7, Volume 5).

The required volume for providing a theoretical detention of the run-off from a 10-year, 24-hour storm is estimated as: 1.32 inches per acre x 34.02 acres = 163,010 cubic feet. The required volume for sediment storage is estimated as .57 acre-feet annually or (0.10 acre-feet) x (33.79) acres) = 24,830 cubic feet using the universal soil loss equation. The combined volumes for 24-hour retention and sediment storage equal 187,090 cubic feet. The pond contains a volume of approximately 391,169 cubic feet from the spillway elevation of 8,579.6 to a depth of 19.6 feet (Map No. 3.2.1-2b and Section 7, Volume 5, page 2). The difference between the total pond volume of 407,000 cubic feet and that required for surface run-off retention of 163,010 cubic feet plus sediment storage for three years 1.70 acre feet or 74,050 cubic feet is 170,690 cubic feet and is for retention and treatment of mine water discharge (See Map 3.2.1-2). The pond volume dedicated to mine water discharge will contain the average inflow from the mine based on a 30-day averaging period. This 30-day period is consistent with reporting conditions of the UPDES Discharge Permit. The pond will be decanted only after retaining the runoff event for the required 24-hour period or in accordance with the UPDES discharge permit conditions.

A minimum of one foot has been added to the pond embankments for freeboard. Slopes are 3h:1v for backwater impoundments (pressure slope) except on the southeast side where solid rock is located. In the area of solid rock, slopes are near vertical.

The principal spillway pipe utilizes an oil skimmer collar. This pipe will safely pass the run-off from a 24-hour, 100-year storm plus mine water discharge (Section 7, Volume 5). The pipe is sized to pass a one and one half foot head of pressure which will allow a flow of 74.12 cfs (Section 7, Volume 5).

Revised: 09/04/02

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The maximum run-off inflow rate expected from the 34.02 acre portal site during a 24-hour, 100-year storm is 65.32 cfs (Section 7, Volume 5, page 4). The emergency spillway is a 12" pipe (see Map 3.2.1-2B).

The plan view with contours of the pond is shown on Map 3.2.1-2B. The detailed design of the mine site sedimentation pond and the pond cross-section with detailed construction notes are shown in Map 3.2.1-2. A walkway providing access to the sediment pond dewatering device control valve is shown on Map 3.2.1-1. Detailed design of the spillway pipe and dewatering structure is shown on Map 3.2.1-2A.

Coal Loadout Sediment Pond

A detention pond is located adjacent to the storage silos at the coal loadout site (Map No. 3.2.1-4). It detains surface run-off and associated sediment from the disturbed site. Precipitation from a 24-hour, 10-year rainstorm has been calculated to be 2.43 inches (Section 2, Volume 5,). After infiltration, the surface runoff is estimated at 1.00 inches (Section 13, Volume 5).

The required volume for providing a theoretical 24-hour detention of the calculated runoff has been estimated as: .08 feet per acre x 12.60 acres (9.31 acres that are disturbed plus 3.29 acres that are undisturbed) = 45,738 cubic feet. The required volume for sediment storage has been estimated by using the universal soil loss equation as 9,278 cubic feet. The combined volumes equal 55,016 cubic feet (Section 13, Volume 5).

The coal load-out sediment pond contains a volume of 58,831 cubic feet (Section 13, Volume 5). Two feet have been added for freeboard. Berm width at the top of the embankments (7,922-foot level) will be eight feet. Embankment slopes were constructed at 2h:1v.

Revised: 09/04/02

3-17

A single pipe, installed with two anti-seep collars, is used for the principal spillway with its inlet at the 7,919.71 foot level, as shown on 3.2.1-4A. This pipe will safely pass the peak runoff from a 24 hour, 100 year storm. The pipe is sized to pass 17.54 second-feet of water with a two-foot head of pressure (Section 13, Volume 5). The sediment pond will contain the six hour 100 year storm (Stage-Volume Curve Section 13, Volume 5) and is designed to meet the requirements of Section R645-301-742.224 and R645-301-742.225 (2). The sediment pond will be decanted through the 8" and 6" decant pipes (Drawing 3.2.1-4A) as required to ensure the pond will control the six hour, 100 year storm. The following procedures will be followed:

- The last storm will be held in the pond for at least 24 hours to ensure adequate settling time before being decanted.
- The effluent discharge from the pond will be tested in accordance with UPDES permit.
- The pond will be decanted over a two-day time frame (Section 13, Volume 5, Decant Time).

Functioning as principal spillway, the pipe will release runoff at a rate that will allow a 24-hour detention of the runoff resultant of a 24-hour, 10-year rainstorm if the pond is empty at the time of the event (Section 13, Volume 5). Due to the high velocity of the discharge, a riprap section is needed at the outfall (Section 13, Volume 5).

Revised: 09/04/02

3-18

The plan view of the load-out sediment pond and the pond cross section with detailed construction notes are shown in Map 3.2.1-4. Engineering calculations justifying the 4:1 total slope design are included in Volume 5. The stage volume curve is located in Section 13, Volume 5.

Decant structure and outlet pipe have been modified. The modification is shown on Map 3.2.1-4A.

Rock Disposal Sediment Pond

A sediment pond is located at the west end of the disposal site that treats run-off from a water shed containing approximately 18.7 acres. Prior to an expansion in 2007, approximately 5.81 acres of disturbed area reported to the sedimentation pond shown on Map 3.2.8-2. Although the disturbed area was expanded in 2007, the effective disturbed area (areas absent of contemporaneous reclamation) is consistently less than approximately three (3) acres. Precipitation from a 10 year, 24 hour rainstorm is expected to be 1.99 inches (NOAA data in Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, Volume 5, Section 15). with a total volume of 35,036 ft³ (See Table 1 of Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, Section 15a, Volume 5).

The combination primary and emergency spillway was designed using a 10 year, 24 hour rainstorm event (NOAA data in Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, Volume 5, Section 15a). Two rainstorm events were modeled to determine which would have the largest peak runoff. They were the 25 year, 6 hour event with 1.58 inches NOAA data in Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, Volume 5, Section 15a) and the 10 year, 24 hour event with 1.99 inches. The peak runoff for the 10 year, 24 hour and the 25 year, 6 hour rainstorm event were 11.72 cfs and 9.22 cfs, respectively.

The hydraulic capacity of the pond (calculated in Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, Volume 5, Section 15a of M&RP) indicates the pond has the design capacity to contain the runoff from a 10-year, 24-hour precipitation event in addition to approximately two (2) years of sediment yield. Furthermore, the combined primary and secondary spillways have been designed to convey the peak flow from the 25-year, 6-hour precipitation

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Director of Oil, Gas & Mining

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SKYLINE MINE SEDIMENT PONDS

I certify that the sediment ponds at the Skyline mining project were constructed under the supervision of a registered, professional engineer. They were constructed in a prudent manner and field-fitted to meet design specifications.

The final construction of the minesite sediment pond actually exceeded design requirements for holding capacity.



Roland Heath

Roland Heath
Professional Engineer

Aug. 1, 1982

Skyline Mine
Winter Quarters Ventilation Pad
Sediment Pond

I certify that the sediment pond at the Skyline Mine – Winter Quarters Ventilation Pad was constructed under the supervision of a registered, professional engineer. It was constructed in a prudent manner and field-fit to meet design specifications

The final construction of the sediment pond adequately accommodates the designed storm and sediment capacity.

Carl W. Winters 12/22/11
Carl W. Winters Date



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event that immediately follows the 10-year, 24-hour event. In this scenario, the discharge from the spillway was calculated to be 6.60 cfs at a velocity of 1.3 fps. The pond will also contain runoff from a 100-year, 6-hour precipitation event. This discharge is considered non-erosive, requiring no erosion protection to the embankment.

State Regulation R645-301-746.340 indicates a sediment pond at a refuse site needs to be designed and operated so that at least 90 percent of the water stored during the designed precipitation event will be removed within a 10-day period following the event. In the event that a 10-year, 24-hour precipitation event (1.99 inches) occurs and the level of the water is above the decant pipe after 10 days, the pond will be drained to the level of the decant pipe.

Volume 5, Section 14 provides calculations and designs for drainage control ditches for the Waste Rock site. Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, (Volume 5, Section 15a of MRP) provides a demonstration that the disturbed area ditches are adequately sized to accommodate the pile expansion.

The required volume for annual sediment storage has been estimated at 10,330 cubic feet (See Analysis of Sedimentation Pond Capacity Following Waste Rock Expansion - April 2007, Section 15, Volume 5a and Map 3.2.8-4). The 100 percent sediment 'clean-out' marker is the 8-inch decant pipe located in the pond. The landowner representative has requested a pond be left as a stock watering pond at reclamation (see Section 4.12).

Winter Quarters Ventilation Facility Pond

A sediment pond will be located at the east end of the Winter Quarters Ventilation Facility site. The pond is designed to treat the approximately 3.69 acres; 1.06 acres of disturbed area from the facility and 2.5 acres of undisturbed area above the site, respectively. Precipitation from a 10-year, 24-hour storm event has been calculated at 2.08 inches. The required volume to provide the retention of the runoff from the designed 10-year, 24-hour storm is calculated at 4,182 cubic feet. (See Plate 3.2.4-3D for pond designs and Winter Quarters Ventilation Shaft Pad Runoff and Sediment Control Design Report - Volume 5, Section 24 for calculations).

The primary and emergency spillways were designed using a 10-year, 24-hour and 25-year, 6-hour rainstorm events. Peak Stage during the 10-year, 24-hour event was determined to fill the pond to the elevation of the primary spillway (8075.05 feet). A 25-year, 6-hour event immediately following the 10-year, 24-hour event would discharge at a rate of 1.09 cfs with a velocity of 3.29 fps.

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Div. of Oil, Gas & Mining

The emergency spillway will not normally discharge during the design runoff events. However, assuming the primary spillway was not functioning and the pond was assumed full to the emergency spillway crest (8075.55 ft) prior to the occurrence of a 25-year, 6-hour storm event, the emergency spillway is calculated to discharge 2.06 cfs with a velocity of 4.69 fps at the crest. This velocity is considered non-erosive.

The required volume for annual sediment storage has been estimated at 1,108 cubic feet. The 60 percent sediment volume is at an elevation of 8071.7 feet. The 100 percent sediment 'clean-out' marker is at an elevation of 8072.1 feet which corresponds to the elevation of the 6-inch diameter decant pipe.

The sediment pond is also permitted as a Utah Pollution Discharge Elimination System (UPDES) Outfall location (UPDES-004). The UPDES outfall is permitted for both stormwater and mine-water discharge. The outfall had not discharged since being installed until 2020 when mine-water needed to be discharged from the location. The designed storm event for the Sediment Pond is calculated to discharge water at a rate of 1.09 cubic-feet/second (cfs), the riprap apron for the outfall needed to be upgraded to accommodate the mine-water discharge. A dedicated HDPE discharge pipe was extended from the Winter Quarters pad to the decant pipe of the Sedimentation Pond. The Primary Outlet Culvert (POC) has a discharge capability of 8.43 cu-ft/sec., while the designed storm event requires only 1.09 cu-ft/sec. for stormwater discharge. This provides approximately 7.34 cu-ft.sec (3,294 gallons) of mine-water discharge capacity. The riprap apron has been upgraded to adequately accommodate approximately 8.9 cubic-feet/second (4,000 gpm) of total discharge while remaining below the non-erosive threshold velocity of 5 feet/second. Calculations for both the POC and the apron design are located in Appendix A-5, Section 25, (Winter Quarters Ventilation Shaft Pad Runoff and Sediment Control Design Report, June 2010; and Winter Quarters Canyon Discharge Energy Dissipator Design, April 2020, respectively). The April 2020 report outlines two dissipator designs. The design without the cement box was the design installed. Updates are illustrated on Plates 3.2.4-3A and 3.2.4-3E, respectively. Topsoil generated from the riprap apron, approximately 6 cu-yds, will be added to the topsoil pile and reseeded (Section 4.7, Table 4.7-9A). Any necessary reseeding of the riparian area will be reseeded as outlined in Section 4.7, Table 4.7-9B. Skyline will not discharge in excess of 1,200 gpm. Additional permitting and consultation will be conducted prior to exceeding 1,200 gpm.

Swens Canyon Ventilation Facility Cuttings Pond

The cuttings pond was not built as a Raised-bore drilling technique was used for drilling the shaft which did not require a cuttings pond.

3.2.2 Overburden and Topsoil Handling

A comprehensive discussion pertaining to this operational component of the mine plan is presented in Section 4.6 - TOPSOIL AND SUBSOIL HANDLING PLAN.

3.2.3 Coal Processing

Maps 3.2.3-1 and 3.2.3-1A are flow diagrams of the entire coal handling system. Designated capacities represent maximum design capabilities necessary to handle surges in the system. The average throughput, a substantially lower figure, is reflected in the annual production schedule.

Run of Mine (R.O.M.) coal is brought out of the mines by conveyor belts and it is temporarily stored in an 8,000 ton capacity concrete silo or the open coal storage area. As the coal is needed, it is transported by conveyor belts to a crushing system and then to the overland conveyor that transports it to the railroad loadout facility. Coal transported to the railroad loadout facility may go directly into the storage silos or may be placed in the RLO open coal storage area. Some coal is still shipped by truck direct from the truck loadout area. In the event of an emergency situation coal can be transported from the truck loadout area to the railroad loadout facility.

Stoker Coal

A stoker coal circuit is located on the coal storage silos at the train loadout area. A stoker loadout storage tank is located on

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3-23(a)

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Div. of Oil, Gas & Mining

the south side of these silos. Additional stoker storage is also provided on the northeast side of the main coal storage silos. Trucks hauling stoker coal can be loaded and weighed at this facility. A conveyor has also been constructed (BC-17A) which transfers coal from the stoker storage to conveyor BC-13 which allows for stoker coal to also be loaded onto railroad cars.

Overland Conveyor

The pipe belt system was selected for the overland conveyor to transport the majority of the coal from the mine site to the railroad loadout area. This system is unique in that after the coal is loaded onto the belt the conveyor belting is rolled into an 18 inch tube totally enclosing the coal (see map no. 3.2.3-2). A typical conveyor truss section is shown on map 3.2.3-2a. The tube travels at 820 ft/minute and has a carrying capacity of approximately 1400 tons/hour. At the railroad loadout area the tube is unfolded and the coal is unloaded onto BC-12. After the coal is unloaded the tube is reformed for the trip back to the mine site. This system is a single flight and therefore has no transfer points from the loading to the unloading area. The loading and unloading facilities are enclosed and are served with dust collectors. Where the pipe belt system crosses over Highway 264, Eccles Creek, and associated buffer zones, it is totally enclosed in a gallery for safety purposes (see map no. 3.2.3-2b and 3.2.3-2d)).

After the coal is dumped onto BC-12, it goes either directly to the storage silos or to the open coal storage area. A small emergency storage area is located at the unloading area which will hold the contents of the pipe belt system.

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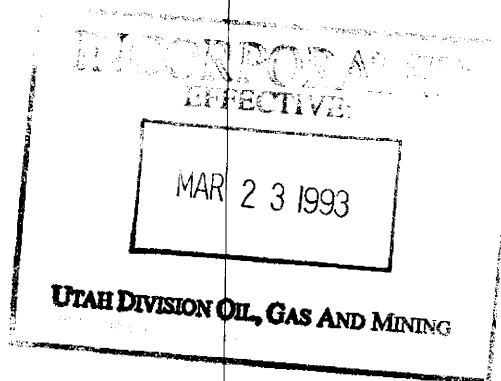
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The entire length of the conveyor is located on bent towers sufficiently high to allow movement of deer under it. At areas preselected in coordination with the UDWR the conveyor is elevated to allow movement of elk underneath it. The conveyor system design allows for an exceptionally quiet operation which allows for a minimum of noise disturbance to wildlife.

Rip protection devices have been installed into the belt feed equipment at the crusher building. In addition, all chute liners between the crusher and the belt feed equipment have been limited to a maximum dimension of 12" so that they will go through the pipe belt rather than rip it, if a liner plate should come loose.

If, despite these messages, a belt rip occurs, the rip will occur at the crusher, and the rip detection equipment will immediately shut the belt down, and confine the coal spill to a very limited area. It is anticipated that a coal spill should not exceed 19 tons.

In the event of a spill a surface crew would be dispatched to determine damage to the belt, and the extent of the coal spill.



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To protect the environment, the interest of the private land owner, and the public, the following coal spill mitigation plan has been developed to clean up any coal spills, and any accumulations greater than two inches of coal fines on the overland conveyor permitted area. Although the best available technology has been used in the design, and in component selection, there still exists the possibility of a coal spill along the conveyor route. To help prevent equipment failure, the entire overland conveyor will initially be inspected at least once every day, from the maintenance cart. Additional visual inspections will be made from the adjacent highway, as surface personnel travel between the minesite and the RRLO. The inspections will be adjusted as experience is gained.

The first step to clean up the spill would be hand shoveling coal of sufficient depth, any remaining coal would be sucked up using the portable "Guzzler" vacuum, owned by the mine.

First efforts will be concentrated in drainage ways. These critical areas should be cleaned up within two to four hours of a spill, with the entire spill cleaned up within 24 hours.

In winter, initial clean up can be done immediately, however, final clean up may have to be postponed until the snow leaves the area. To help ensure that coal fines do not leave the permit area during snow melt, the snow will be removed down to the frozen ground on the downhill side of the coal spill and strawbales will then be placed on the frozen ground. In the spring, any remaining coal and the strawbales will be cleaned up.

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!	Section 3.2	Page 3-24	!	Section 3.2	Page 3-24(b)	Date 09/25/92!

INCORPORATED
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UTAH DIVISION OIL, GAS AND MINING

3-24(b)

The Eccles Canyon conveyor alignment permit boundary is shown on Maps 3.2.3-3 through 3.2.3-3f. There are 14.19 total acres permitted of which 8.97 acres are disturbed.

Crushed Coal Truck and Train Loading

Two forms of vehicle coal loading are provided: truck loading at the mine site and truck and train loading at the mouth of Eccles Canyon. The truck loading system implemented at the mine site consists of a 200-ton-capacity bin fed by conveyor (BC-7). In 2014, to minimize trackout, the road from the Truck scales to the SR-264 road apron has been covered with asphalt (see page 3-25 (a)1 for road design).

The train loading system is designed to load coal into rail cars at a nominal rate of 5,000 ton/hr while the cars are moving at approximately 0.66 mph. The system consists of a 300-ton capacity bin fitted with a hydraulic-operated control gate and a telescopic chute that can be retracted and traversed to one side to permit the locomotives to pass. An automatic sampling system is incorporated at the train loading station to provide an aggregate sample of the loaded coal.

Crushed Coal Storage

The permanent coal storage facility consists of two 15,000 ton capacity concrete silos. Construction of two additional 15,000 ton capacity silos at a later date may be done as additional

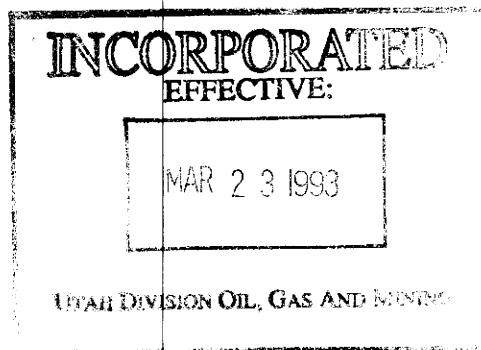
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storage capacity is needed. The bottom of each silo is furnished with four vibrating feeders at a variable controlled rate of 100 to 1,800 tons/hour. These feeders will deliver loads to an 84 inch wide conveyor transporting coal to the train loading system.

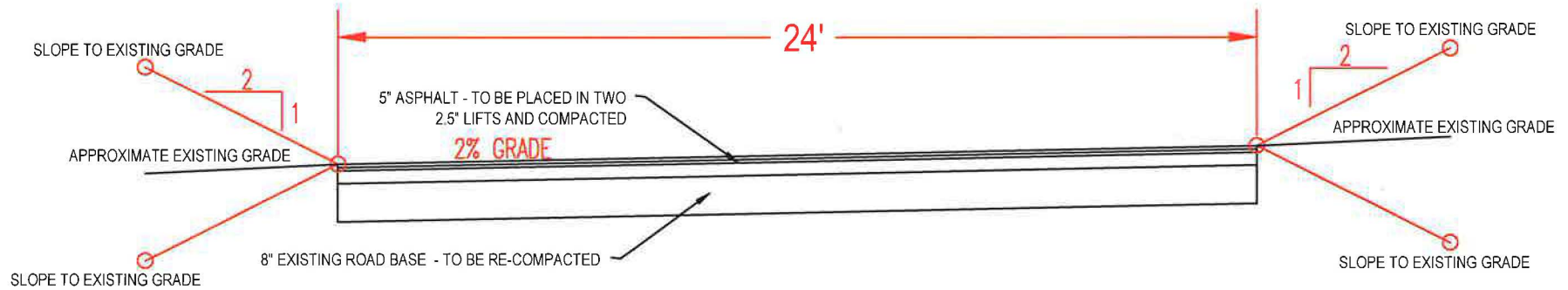
Two operational ground storage areas and an emergency only coal pile area have been established. The North storage area and the South emergency area are located at the minesite and the RLO Open Coal storage is located at the Railroad Loadout area. (Location shown on Maps 3.2.3-4 & 3.2.1-3).



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Section 3.2 Page 3-25	Section 3.2 P.3-25(a) Date 01/20/93



INCORPORATED
 OCT 20 2014
 Div. of Oil, Gas & Mining



NOTES:

1. ROAD SLOPES AT 2% TO NORTH SIDE
2. WATER DRAINS DIRECTLY TO SEDIMENT POND
3. ASPHALT DESIGN BASED ON INDUSTRY STANDARD AND RECOMMENDATIONS FROM BOTH BIG RED PAVING AND NIELSEN CONSTRUCTION.

TRUCK LOAD OUT
 BC-7 ENTRY WAY
 TYPICAL ROAD DETAIL

 Canyon Fuel Company, LLC
 Skyline Mines

<small> MCR 35 BOX380, HELPER, UT, 84528 435-448-2632 </small>	<small> DATE: 10/9/2014 </small>	<small> CK.BY: CBROWN </small>	<small> REVISION: 00 </small>
<small> CAD FILE: LOWER YARD ENTRY WAY DESIGN </small>	<small> SCALE: 1" = 4' </small>	<small> DR.BY: CBROWN </small>	
<small> DWG. NO.: Page 3-25(a)1 </small>			<small> 10/9/2014 </small>

The North storage area is located in the Middle Fork of Eccles Creek behind the office/maintenance complex. Coal is transported to this area via conveyor belt BC-20 coming from the BC-4 transfer building to the top of a 116' high concrete stacking tube (see Drawing 3.2.1-1 for general arrangement). The stack tube is equipped with hinged doors attached in the perimeter of the flow-through windows to reduce potential fugitive emissions (a few of the bottom windows may not have the doors installed). Two sets of reclaim feeders are located under the stockpile area. One additional feeder is located underneath the stack tube. The reclaim feeders feed the reclaimed coal back onto BC-21 conveyor belt, which will carry the coal back to the BC-4 transfer building, where the coal again enters the already existing coal handling system. Dust collection is implemented at critical points in the reclaim tunnel. There is approximately 80-100,000 tons of live storage in the stockpile. To help achieve full storage potential of the area, a caterpillar type tractor is used to push coal away from the stack tube and back to the reclaim feed points on an as-needed basis. This system of stacking has replaced the truck haulage and front end loader system previously used. The configuration of the North storage area is such that coal is piled against both the North and South cut slopes in the Middle Fork drainage. A minimum physical barrier of 18" of coal will be left on the slopes. Devices have been installed on the slopes so that this physical barrier of coal can be visually checked. This barrier of coal is to stabilize the slopes and to prevent rocks and soil from contaminating the coal. Only selected trained operators will operate machinery on the coal pile.

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The RLO open coal storage area is located at the railroad loadout area and has a capacity of approximately 150,000 tons. The purpose of this open coal storage area is to insure continued shipment of coal to customers during inclement weather when trucks cannot haul coal from the minesite and/or in case of breakdown conditions with the pipe belt system. This coal

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!	Section 3.2	Page 3-26	!! Section 3.2.1 Page 3-26(a) Date 9/4/92	!

3-26(a)

storage area is all tributary to the RLO sedimentation pond and is all within the existing disturbed and permitted boundaries. The majority of the coal for this storage area comes from the pipe belt system via conveyor 12A; however, in an emergency trucks can haul coal to this area from the minesite. A front end loader and/or a caterpillar type tractor is used to spread the coal and build the pile. Coal will be recovered from the pile using a front end loader, and/or crawler tractor which will push the coal to the hopper/feeder BC-13A. The coal pile pad area has 1-3% slope to accommodate overland flow towards the drainage ditch which drains to the sediment pond. The base of this coal storage pad area (as shown on Map 3.2.1-3) is constructed of coal waste rock gob material. This gob material was hauled to this area before the Scofield waste rock site was permitted. The material was placed at the site in 1-3' lifts and compacted by wheel rolling. There is a french drain underneath the pad area. It was agreed with the Division to monitor this french drain to see if the gob material has any affect on water quality. This water monitoring station is CS-13. This coal storage area may be enlarged in the future.

The South emergency only coal pile area will only be used on an emergency basis when a mechanical/electrical condition exists that prevents coal from being stored in the North Coal storage area. Coal in the South storage area will be on a last in-first out basis. (This does not preclude also removing simultaneously coal from the North storage area as long as coal is being removed from the South storage area at full capacity.) The Company will make a diligent effort to make the necessary repairs so that coal can be removed from the South storage area as soon as possible. Before coal is stored in this area, the Company will notify the Price District Ranger of the U.S. Forest Service of the need to use this area and the plan of use.

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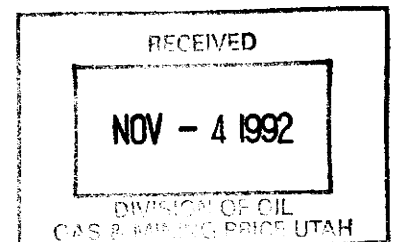
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UTAH DIVISION OIL, GAS AND MINING

The haul route from the truck tipple includes a section of Utah State Highway SR-264. To mitigate potential traffic hazards, the following actions have been taken: 1) Warning signs have been placed along the highway above and below the Truck Loadout tipple; 2) A traffic pattern has been implemented to allow for the best and safest traffic approach to the highway; and 3) Training sessions are required for contract truck drivers hauling coal on safe driving procedures to be followed on the haul route.

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!	Section 3.2	Page 3-27(a)	!! Section 3.2.1 Page 3-27	Date 9/4/92 !

3-27(a)



Coal hauled by trucks from the mine site permit area creates the possibility of coal spilling and coal being moved onto the non-permitted highway area. To help reduce the possibility of spillage, the Permittee will: 1) Load trucks so as to prevent spills and overloading; 2) apply dust pallative to unpaved haul roads; and 3) Clean up accidental coal spills on SR-264 promptly.

Both the North and South open coal storage areas are located within the Manti-LaSal National Forest. The necessary NPDES and PSD permits have been approved for the permitted area and the Permittee will continue to monitor the area carefully to prevent the degradation of air and water quality as a result of the coal storage areas. There have been no violations of air quality standards to date, and one water quality violation, to date.

3.2.4 Mine Surface Facilities - General Layout

The location of the major surface facilities components of the loadout area are shown on Map 3.2.1-3. These facilities consist of a coal storage and railroad loadout area located adjacent to Highway 96 and the mine portal facilities located approximately 2.5 miles from the loadout area at the mouth of Eccles Canyon.

The mine surface facilities have been built on three different bench elevations, as shown on Map 3.2.1-1. This arrangement provides optimal utilization of the existing topography to disturb the smallest practical area while maintaining required areas for storage of materials, operations and access to the mine portals. Facility shapes, sizes, amounts, etc. are subordinate to the characteristic surrounding landscape as viewed from middle

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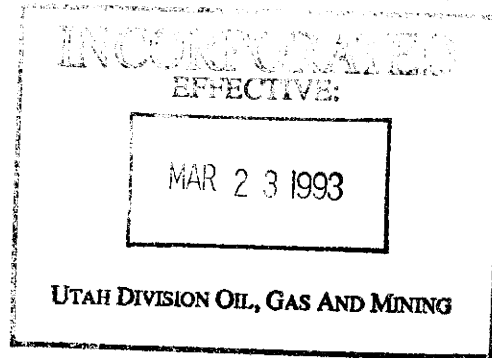
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UTAH DIVISION OIL, GAS AND MINING

ground. Colors of the structures and facilities complement earth tones. The upper level bench, at an elevation of about 8,700 feet, provides access to Mine No. 1 and a storage area. The middle bench, at an elevation of about 8,662 feet, provides the necessary space for operations and the area is used for the maintenance, warehouse, office and changehouse building complex.



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!	Section 3.2	Page 3-28) !! Section 3.2.3	Page 3.28(a) Date 09/25/92!

3-28(a)

James Canyon Wells

Permanent power cables will be buried from the Questar gas line building on Trough Spring Ridge, Township 13 South, Range 6 East, Section 25, SW $\frac{1}{4}$ SE $\frac{1}{4}$, to the wells in James Canyon, Township 13 South, Range 6 East, Section 35, SW $\frac{1}{4}$ SW $\frac{1}{4}$ (see Drawing 1.6-3). The cables will be 4-1/0 direct burial cables. There will be three cables for power and one for a ground. The cable diameter is $\frac{3}{4}$ inch and will supply 12,470 volts to the pumps. The route of the cable will be along Forest Service Road, FDR-018, from the Questar gas line building to James Canyon and down James Canyon Road to the well site. The trench will be excavated in the borrow ditch or at the edge of existing roads. Since the route is all ready in a disturbed area, no soil or archeological reports are required. The trench for the power cable will be excavated using either a trencher or a track-hoe depending on the soil conditions. All soils materials will be replaced in the trench and will be compacted to 100% of standard Proctor. Cross-sections of the road for both the trencher and track-hoe are shown on pages 3-28(b) through 3-28(e). Silt fences will be used for sediment control and placed at the inlet to each culvert, at the end of ditch that may discharge to open ground, and on the down hill side of the trench in areas where there is overland flow. The road surface will be restored to its pre-trench condition. The cable will be left in place at final reclamation. The proposed seed mix to be used during final reclamation is shown on page 3-28(f) and was developed by Mt. Nebo Scientific, Inc. after field studies in James Canyon.

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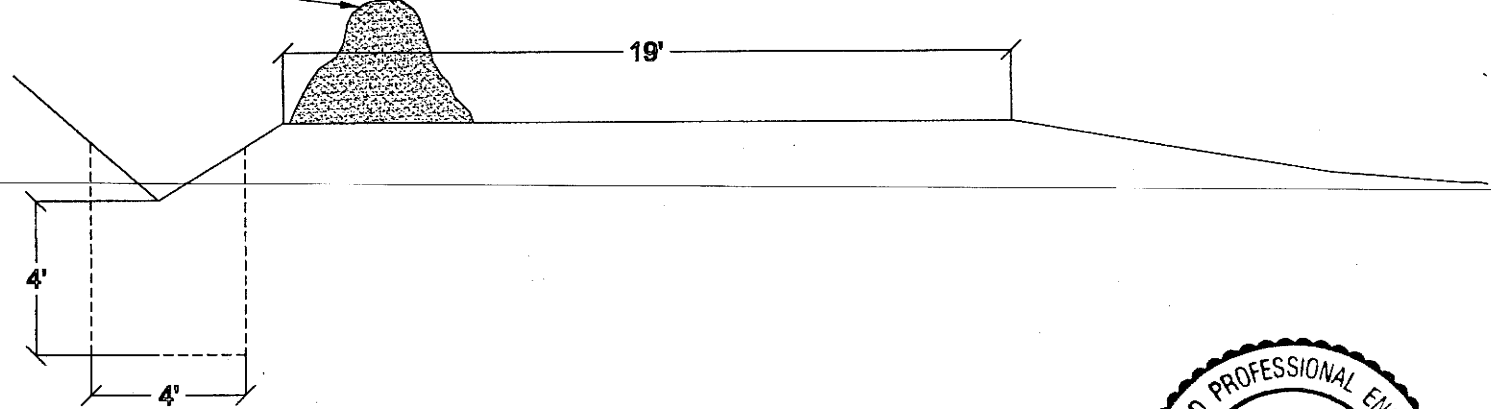
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TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH (WHEN ROCK IS ENCOUNTERED IN DRAINAGE DITCH)

TRENCH MATERIAL

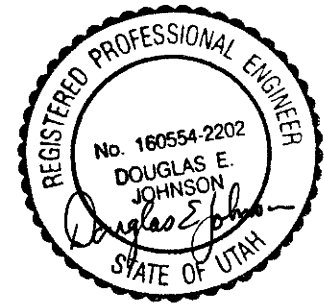


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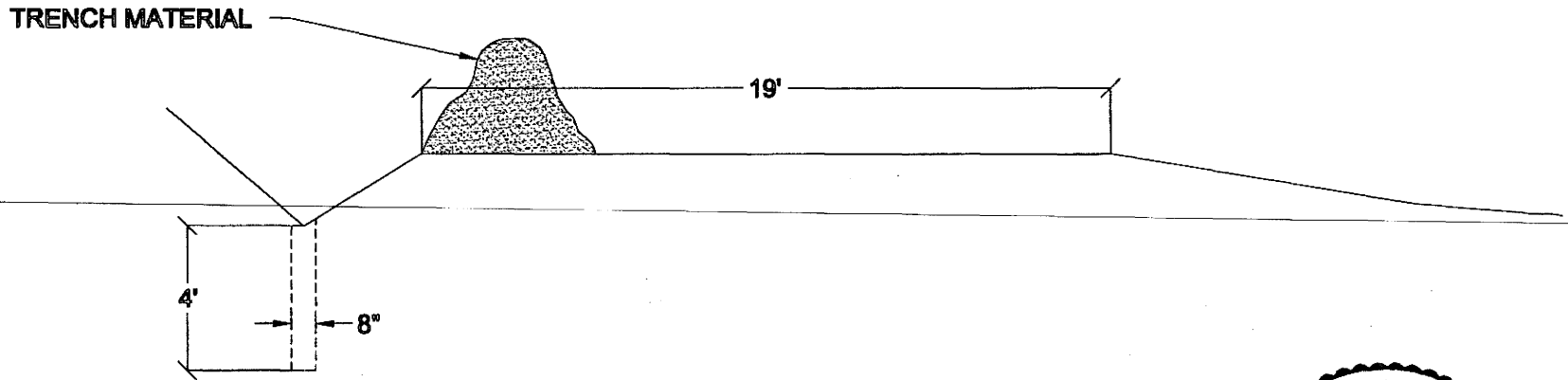
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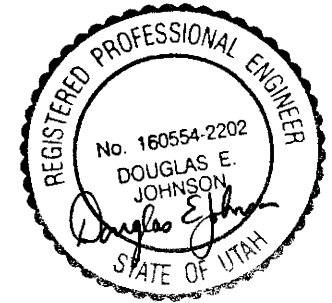
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TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH			
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	SCALE: 1"=5'	DR.BY: J. PORTER	
DWG. NO.: 0-200-002.DWG			

TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH (WHEN NO ROCK IS ENCOUNTERED IN DRAINAGE DITCH)



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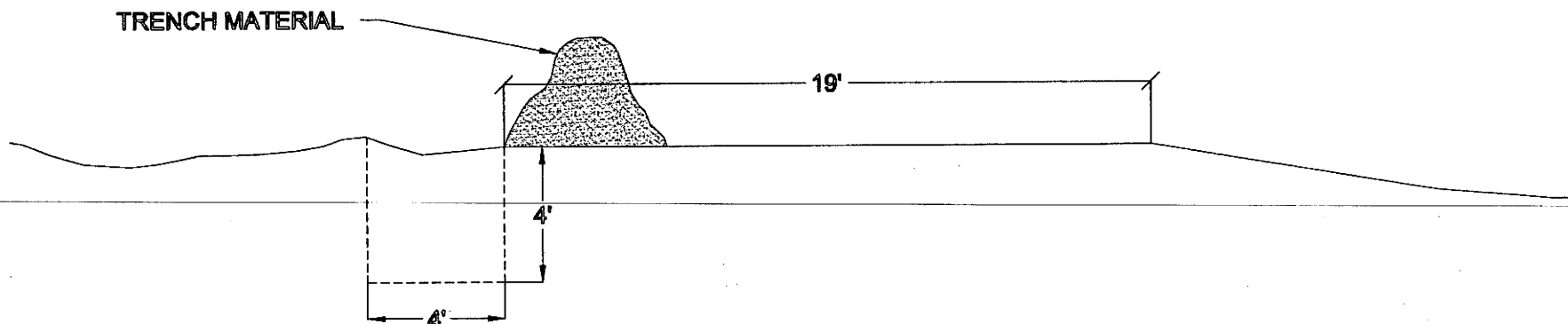
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TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH			
Canyon Fuel Company, LLC Skyline Mines			
P.O. BOX 718 HELPER, UTAH 84532 435-448-6463	DATE: 10-01-01 SCALE: 1"=5'	CK. BY: G. TAYLOR DR. BY: J. PORTER	REVISION:
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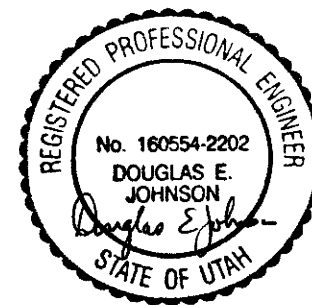


TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH (WHEN ROCK IS ENCOUNTERED IN NON-DRAINAGE DITCH AREAS)



3-28(d)

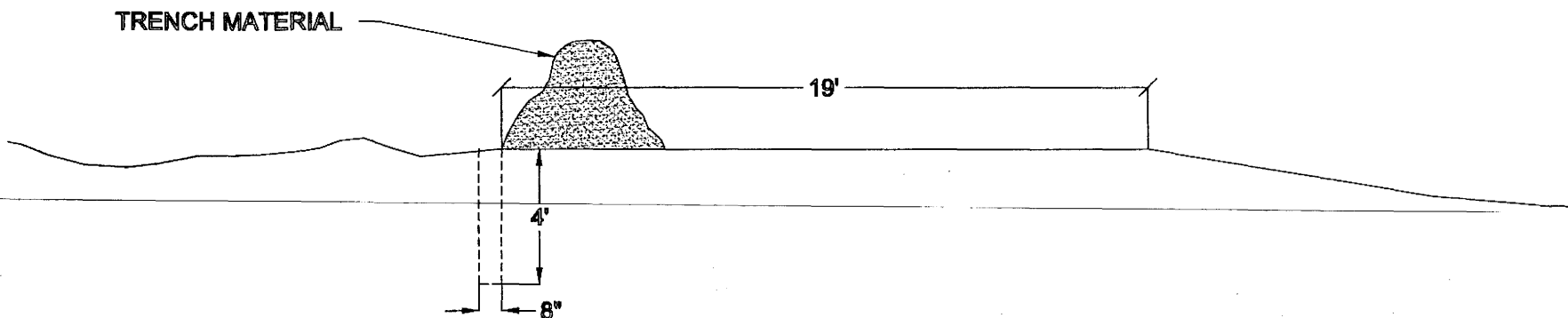
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TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH			
Canyon Fuel Company, LLC Skyline Mines			
P.O. BOX 710 HELPER, UTAH 84526 435-446-6463	DATE: 10-01-01	CK. BY: G. TAYLOR	REVISION:
	SCALE: 1"=5'	DR. BY: J. PORTER	
DWG. NO.: 0-200-004.DWG			

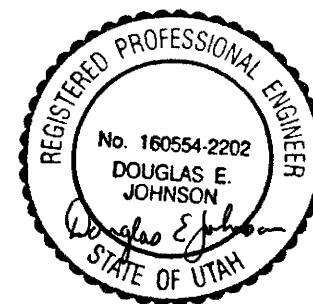


TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH (WHEN NO ROCK IS ENCOUNTERED IN NON-DRAINAGE DITCH AREAS)



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TYPICAL ROAD CROSS-SECTION WITH POWER LINE TRENCH			
Canyon Fuel Company, LLC Skyline Mines			
P.O. BOX 718 HELPER, UTAH 84532 435-448-6463	DATE: 10-01-01 SCALE: 1"=5'	CK. BY: G. TAYLOR DR. BY: J. PORTER	REVISION:
DWG. NO.: 0-200-005.DWG			



The lower level bench, at an elevation of about 8,600 feet, provides access to the Mine No. 3 portal. The raw coal storage silo is also located on the 8,600 foot bench next to a sedimentation pond for the collection, retention and treatment of the surface drainage water from the area disturbed by the entire portal facilities area and the crushing and loading facilities for the overland pipe conveyor system. All disturbed areas were promptly seeded to help reduce rate and volume of runoff.

Drainage and Diversion Facilities

The three main tributaries to Eccles Creek are diverted under the bench facilities through a system of large diameter culverts. This system has been designed to handle the runoff from the 100-year, 24-hour precipitation event (Section 3, Volume 5). All of the drainage areas for the watersheds for the minesite railroad loadout and South Fork areas are shown on Map 3.2.4-2.

During early construction, four seep areas were dewatered with french drains and discharged directly into the diversion culverts buried underneath the property. These drains, shown on Map 3.2.1-1, pick up undisturbed water.

Natural water runoff from the surrounding hillsides is intercepted (Map 3.2.1-1) by a system of diversion channels and will handle the 10 year, 24 hour storm event. These channels are lined with mature vegetation to reduce erosion and to provide energy dissipation (Map 3.2.1-1, Section 5, Volume 5). These constructed channels have all been seeded and have well established vegetation in them. No observations have been made of any overland flow entering these ditches since initial construction twelve years ago. These observations are further validated by numerous inspections by Utah Fuel Company environmental personnel, Utah Department of Oil, Gas and Mining personnel, and Office of Surface Mining personnel who have observed these channels being lined with grass and forb

vegetative litter, conifer needle fall and small twigs from adjacent aspen trees, conifer trees and browse plants. These observations conclude that no perceptible flows have occurred in these channels although there has been significant above average precipitation during the years of 1983 and 1984. The Permittee does commit to continue inspection and to maintain these channels in an operational state.

Except for small areas, all runoff from disturbed areas is directed to the sedimentation pond for settling through a collection system of surface ditches, paved swales and culverts (Map 3.2.1-1). Engineering design calculations for these collection structures are included in the Engineering Calculation section, Sections 4 and 6 in Volume 5. The drainage from the upper pads is collected and directed to a water chute (DD-7) which directs the water down the highwall slope into an energy dissipator, and then into drainage ditch DD-5, which empties into the sedimentation pond. The entrance to this culvert is by the main entrance gate to the mine maintenance complex area and is shown on Map 3.2.1-1. No drainage from the Utah State Highway system enters the mine drainage system.

An area above ditch DD-2 is unstable and has sloughed into the ditch. To correct his situation, a gabion barrier has been constructed to help stabilize the area, and to prevent sloughing into the ditch. The location of the gabions is shown on Map 3.1.2-1, and the construction detail is shown on page 5a of section 6, vol. 5. To further stabilize the unstable area, any tension cracks were filled in, and overland flow directed away from the cracks. The area will also receive treatments 1, 3 and 6 of the special SCS revegetation plan, as outlined in section 4.7.3.

! ADDITION TO !!
! Section 3.2 Page 3-30 !! Section 3.2 EFFECTIVE Page 3-30 Date 10/01/92!

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Due to the severe winter conditions most of the water conveniences become iced up and are not maintained during the winter months. During the spring thaw water is directed back into the water ways as they slowly thaw out.

Coal Storage and Load out Facilities

The enclosed coal storage, open coal storage, and the rail loadout facilities are shown in plan view on Map 3.2.1-3.

Facilities within this area consist of two 15,000-ton coal storage silos, an open coal storage area, the unloading facilities for the overland pipe conveyor (discussed in subsection 3.2.3), and a rail car load-out for unit trains. A sedimentation pond has been provided for the treatment of runoff water from the disturbed areas. A diversion channel is used to intercept runoff from the undisturbed hillside and route this water around the facilities into Eccles Creek. Due to space limitations in this area, it was necessary to divert the creek from its existing channel. This diversion was accomplished in such a manner as to mitigate any damage to the surrounding environment.

With an increase in truck traffic beginning in approximately 2009, the truck loop around the storage silos accessed from SR-96 was upgraded from gravel to asphalt to help control both dust and track-out. In 2015, areas of high traffic where asphalt deteriorated quickly were replaced with concrete. In addition, while high maintenance areas were being upgraded with concrete (approximately 123 cy), the entrances were widened to address problematic safety issues involving the turning radius and view corridors for the coal trucks exiting and entering SR-96. Sediment control for all disturbed areas within the Rail Loadout site report to the sediment pond via sheet-flow or ditches, with the exception of Alternate Sediment Control Areas (ASCAs) and Small Area Exemptions (SAEs) identified on Plate 3.2.1-3 and discussed in Section 3.2.12. The areas accessing SR-96 are considered Small Area Exemptions (SAEs) because they are part of the permit area not reporting to the sediment pond. Areas 18-22a were enlarged in 2015 (see Section 3.2.12 pages 3-69 through 3-71). Existing culverts in Areas 21 and 22 conveying SR-96 runoff were extended to accommodate the increased area of ditch covered with the expansion.

sedimentation pond has been provided for the treatment of runoff water from the disturbed areas. A diversion channel is used to intercept runoff from the undisturbed hillside and route this water around the facilities into Eccles Creek. Due to space limitations in this area, it was necessary to divert the creek from its existing channel. This diversion was accomplished in such a manner as to mitigate any damage to the surrounding environment.

Access Road Improvements

Approximately 2.5 miles of improvements were necessary to the existing access road paralleling Eccles Creek. Improvements to this road resulted in a paved width of 34 feet designed to criteria set forth by the UDOT which has been designated Utah State Highway No. SR-264.

The road improvements generally follow the alignment of the previously existing road. Grading and maintenance operations along the previously existing road had re-channeled Eccles Creek in some areas for considerable distances. The improvements to the access road also resulted in improvements to Eccles Creek since the past practice of pushing dirt from grading operations into the creek was eliminated. The new public road was constructed to bypass the mine portals and facility area.

Embankments

Construction areas were generally overlain with 10 to 15 feet of colluvial materials. Geotechnical investigations indicated that this material is stable for cut slopes of one foot horizontal to one foot vertical (1h:1v) and at a depth not to exceed 10 feet (Volume A-3). Fill slopes are stable at 1.5 feet horizontal to 1 foot vertical (1.5h:1v).

Winter Quarters Ventilation Facility

The Winter Quarters Ventilation Facility (WQVF) is required for ventilation of the underground workings to continue mining north of Winter Quarters Canyon. The approximate 7.93 acre permitted area consists of a

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Div. of Oil, Gas & Mining 3-31

decline slope/portal which provides both intake air and an emergency escapeway for the mine. Other auxiliary features of the site include a substation providing power to the fan, a mobile field office for emergency evacuation, a topsoil pile protecting the topsoil for reclamation, and a sediment pod designed to treat the disturbed area stormwater runoff prior to discharging to Winter Quarters Creek.

The WQVF pad construction will be initiated by constructing an auxiliary access road to the pad (see plates 3.2.4-3B and-3E for road designs). The first construction phase on the pad will focus on creating sufficient space to accommodate the electrical substation. A slope stability analysis addresses the stability of the steep cuts on the north side of the pad (See Volume 5, Section 24 of M&RP - Winter Quarters Ventilation Shaft Pad Slope Stability Analysis). Following the substation will be the extension of the pad to provide access and sufficient space to start the construction of the Declined Slope. The Declined Slope portal structure will be approximately 20 feet wide by 12 feet tall, driven at a 16-18 degree slope for an approximate distance of 900 feet where it will intersect the underground mine workings. Any material not stored underground or in the pad, will be shipped to the Waste Rock site via a combination of private and Scofield City roads (See Appendix 118A for Road agreements).

Sediment control during construction will be treated with a combination of silt fencing, straw bales, gravel filters, and other hard structures used as energy dissipaters until the sediment pond is constructed.. In conjunction with the WQVF pad a sediment pond will be constructed to treat runoff from the disturbed area prior to being discharged to Winter Quarters Creek.

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Disturbed area ditches are temporary and designed to convey runoff from a 10-year, 24-hour storm event. The Un-disturbed upper road ditch and associated culvert are considered permanent and were designed to convey runoff from a 100-year, 6-hour storm event (See Plate 3.2.4-3D for pond designs and Winter Quarters Ventilation Shaft Pad Runoff and Sediment Control Design Report-Volume 5, Section 24 for calculations).

The pad and decline slope will likely be reclaimed soon after equipment recovery operations have been completed in the North Lease area.

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Swens Canyon Ventilation Facility

The Swens Canyon Ventilation Facility (SCVF) and Power Line project are needed for the future of the Skyline Mine for multiple reasons. The 3-phase, 46 kV, single pole power line, with compact construction is necessary to supply the power needs as mining moves southwest. Attempts to supply the power through the mine is not practical due to the voltage-drop associated with running an insulated cable for a significant distance. Running the power overland eliminates the voltage-drop problem. Similarly, the ventilation shaft in Swens Canyon is necessary to exhaust the air from the mine closer to actual workings (See Section 3.2.10 for Electrical Power installation) through a 16-foot vertical shaft. (See Plate 3.2.4-4G for details). The approximately 46.33-acre disturbed area also includes space for a transformer, and a topsoil pile protecting the topsoil for reclamation.

The SCVF includes the construction of a 1,200-foot auxiliary access road to the site, beginning with approximately 500-feet of existing USFS road 0228 adjacent to Swens Canyon creek. Approximately 240-foot road 0228 will be re-aligned approximately 60-feet south of its current location to accommodate the auxiliary road to the pad. The re-alignment is through a pre-existing 'dispersed campground' that has already disturbed the upland vegetation in the area. Specific care has been taken to insure the floodplain and riparian vegetation will not be disturbed. This area is considered a Stream Buffer Zone and will be marked with signs prior to construction for delineation to insure no construction activity takes place in the area. The remainder of the access road is 17-feet wide, supported by roadbase and gravel, sloping at 2 percent into a 1.5H:1V ditch, with a minimum turning radius of 90-feet. Road drainage reports to ditches DD-1 through DD-3 as shown on Plate 3.2.4-4D, with flow from DD-1 reporting to culvert C-1 and comingling with flow from DD-2 at a tie-in pad and discharging to Swens Creek through C-2. Ditch DD-3 reports to Swens Creek through C-3. The disturbed area ditches are temporary and designed to convey runoff from a 10-year 24-hour storm event. The existing road grade begins at 2.3 percent to 3.3 percent, increases to 7.25 percent and tops out at the site at 1.99 percent. Plate 3.2.4-4A and -4B outline details of the road. The pad and associated cut are designed as an ASCA where storm water will report to the south end of the pad and settled out against the highwall/berm. Water from the east side of the pad will flow south then west through a swale to the settling area. Runoff from the settling area will not drain into either shaft as there is a minimum of 1.5-foot freeboard from the maximum height of the settling basin to the collar of the shafts as the collar of the shafts

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3-31(c)
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extend approximately 2-feet above the pad elevation (Plate 2.3.4-4G). Plates 3.2.4-4A through -4G illustrate both the overall and detailed designs of the site. A detailed report outlining the designs of the pad, the hydrologic and geotechnical analysis, and other design specifics are provided in a separate report located in Appendix Volume 5, Section 24 (Skyline Mine Swens Canyon Ventilation Shaft Pad Design Report – Earthfax, December 2014). The construction specifications outlined in the Earthfax report were included in the construction bid package to be followed, which includes compaction tests. See page 3-21 for the Professional Engineer certification that the site was constructed as designed.

Sediment control structures used during construction such as silt fencing and straw bales will remain in place for one year after construction and will be removed anytime thereafter. Erosion control blankets, wattles, or straw bales will be used to control erosion during interim vegetation establishment. The interim seed mix (Table 4.7.11A) will be applied following construction and associated surface-preparation, and prior to the first snowfall. Additional details of the topsoil/subsoil handling plan are located in Section 4.6. The timing of final revegetation will follow a similar timing and sequence.

Swens Canyon Fan

In 2021 the fan previously located at the Winter Quarters Ventilation Facility (WQVF) was moved to the Swens Canyon pad to exhaust ventilate mine workings located in the Flat Canyon lease (UTU-77114). The fan structure is identical to the configuration at Winter Quarters with only a few exceptions; minor additional housing has been added over the hoist structure, and a section of housing was added from Pace Canyon to reduce turbulence. The hoist serves as an emergency escapeway from the mine utilizing the shaft. The orientation of the fan is illustrated on Plate 3.2.4-4A with specifics of the design illustrated on Plate 3.2.4-4H.

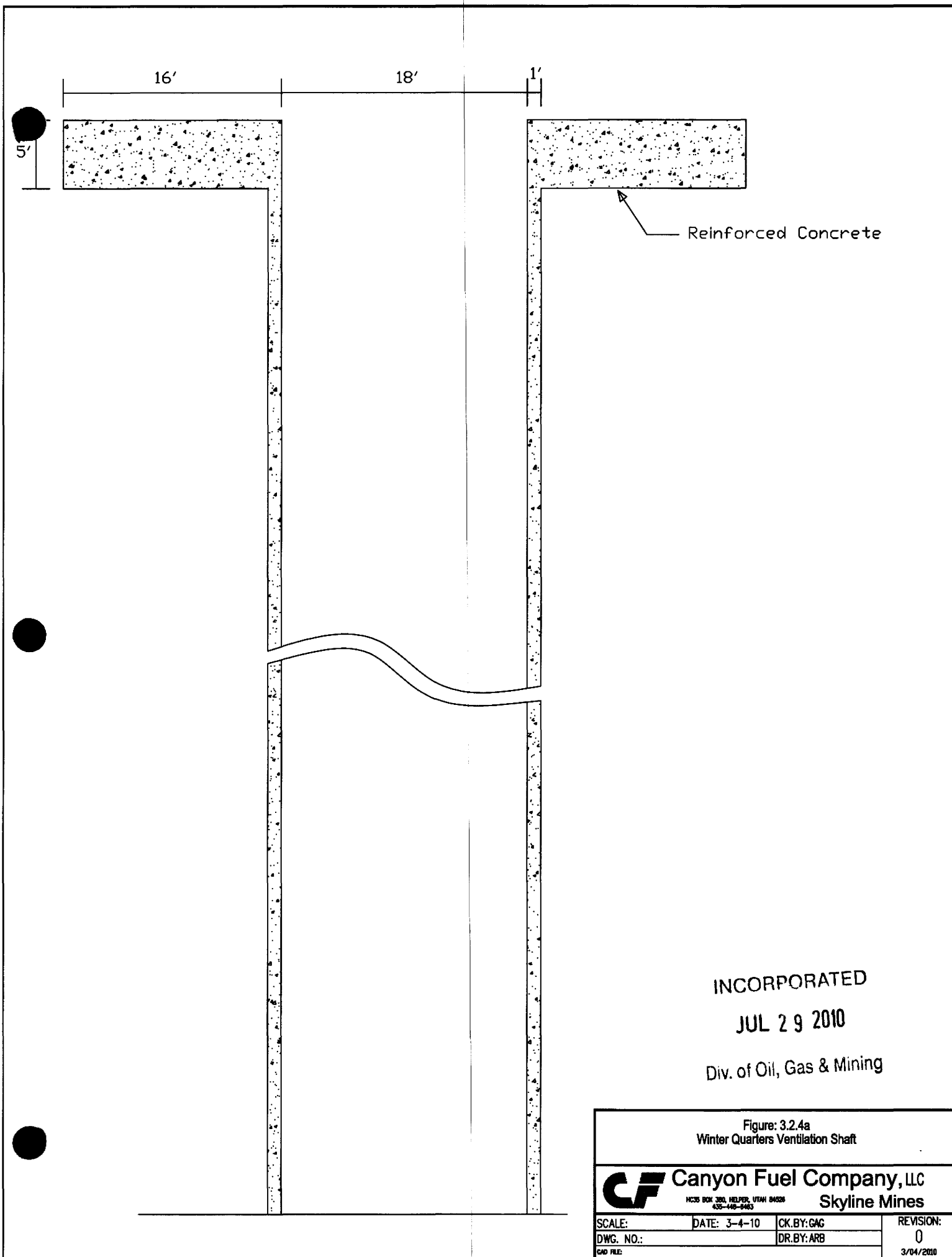
UPDES-005 Mine Discharge Line

The UPDES-005 Mine Discharge line was established in 2020 after adding the outfall to the Utah Pollution Discharge Elimination System (UPDES) permit from the Utah Division of Water Quality. The site is located approximately 200 feet east of State Road SR-264 in the NE¼NW¼ Section 34, T13S, R6E, and discharges mine water into Electric Lake. Due to anti-degradation rules the water discharged into the Lake is required to be of the highest quality. The discharge line will pump water from approximately 700-ft below the surface from the mine. All equipment for pumping including pumps and power will be from within the mine. An 18-inch pipe and associated pumping design will have a maximum capacity to pump 10,000 gpm from the mine. After drilling and construction the site will consist of an approximately 20-foot by 30-foot area containing a pipe protruding approximately 3-4 feet above ground level with associated plumbing such as a sampling port and flow meter. After a short distance, the pipe will be buried beneath the ground surface and extend to lake. Prior to entering the lake, the discharge pipe will have a designed riprap structure to reduce the water velocity below erosive levels prior to entering Electric Lake. Construction disturbance includes an approximately 100-foot by 150-foot pad to drill the well and an approximately 40-foot by 330-foot easement to install the pipeline. Installation of the pipeline will consist of stripping topsoil, digging an approximately 4-ft deep trench to bury the discharge pipe a minimum of 2.5 ft below the surface, then backfilling the entire area once the pipeline and outlet structure into the lake are installed. The total disturbance is approximately 0.65 acres, with all disturbance being reclaimed after construction other than the 20-foot by 30-foot area. Plate 3.2.4-5 illustrates both the site construction of the drill pad and buried pipeline construction, and the post construction configuration. Plate 3.2.4-5A illustrates the location of the discharge line relative to the Mine. The RB White Engineering report for the outlet structure design into Electric Lake is located in Appendix A-5, Section 27. A Bureau of Land Management exploration plan for the drilling is located in Appendix A-3, Volume 2.


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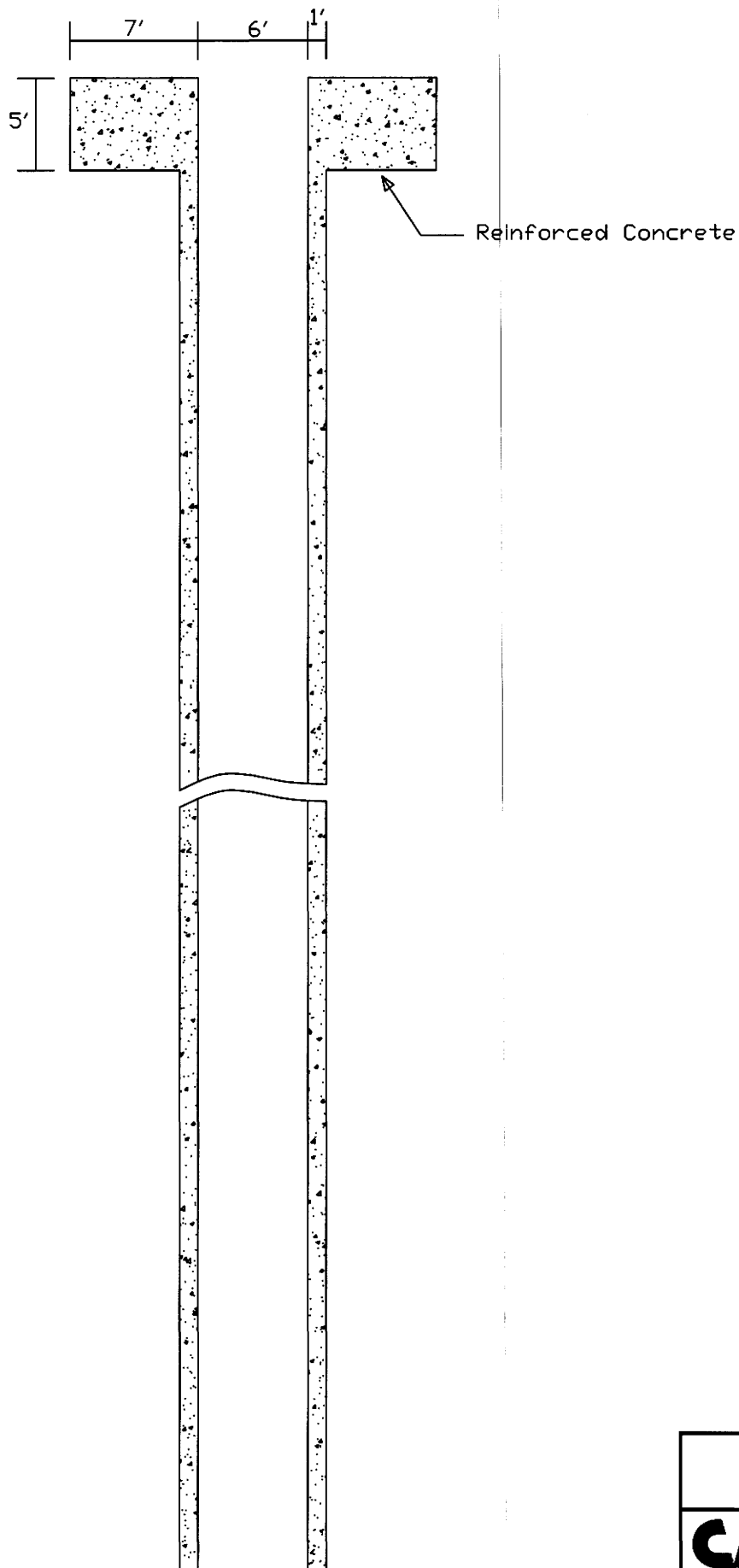
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Figure: 3.2.4a Winter Quarters Ventilation Shaft			
 Canyon Fuel Company, LLC <small>HC35 BOX 300, HELPER, UTAH 84026 435-440-0463</small> Skyline Mines			
SCALE:	DATE: 3-4-10	CK.BY: GAG	REVISION:
DWG. NO.:		DR.BY: ARB	0
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Figure: 3.2.4b
Winter Quarters Escape Shaft

CF Canyon Fuel Company, LLC
HC30 BOX 300, HELPER, UTAH 84026
 435-448-6963
 Skyline Mines

SCALE:	DATE: 3-4-10	CK. BY: GAG	REVISION:
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CAD FILE:			3/04/2010

3.2.5 Water Pollution Control Facilities

Water pollution control facilities provided for:

- Storm water runoff and snow melt from the disturbed area passes through a sedimentation pond (described in Section 4.13).
- Treatment of sanitary sewage effluent is done at an off-site treatment facility. Sewage is removed by truck.
- Oil and water separators are used for areas where maintenance operations and equipment cleaning takes place.
- To comply with 40CFR 112 EPA regulations off-loading and fueling containment structures have been constructed for the fuel storage areas shown on map (Mine Surface Facilities Plate 3.2.1-1, and 3.2.5-2)

Map 3.2.5-1 illustrates the water and waste water flow diagram.

Sanitary sewage from the mine surface facility is routed through a system of gravity pipes below grade to the collection tank. The sewage is removed by truck for disposal at a municipal facility.

No sewage effluent will be discharged into Eccles Creek. Oil and water separators are used within the maintenance complex building for separation of oils from wash-down water. Skimmed oil is then discharged to the waste oil storage tank for disposal. Waste oil is pumped from the tank and sold to a waste oil dealer for refining and or burned in approved waste oil furnaces. The remaining water is discharged to the sedimentation pond.

As mining progresses, underground storage sumps are developed for storage of mine drainage water. This water is pumped to these underground sumps for later reuse within the mine as process water. Quantities in excess of that necessary for this purpose will be discharged to the sedimentation pond for further clarification prior to discharge. Oil skimmers have been installed to remove oil and grease residue from mine discharge

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3-32
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water. Should the mine water drainage be either high or low in the pH reading or high in concentrations of regulated constituents, treatment will be provided to bring these values to acceptable levels prior to discharge from the permit area. Monthly and/or quarterly reports as specified by the UPDES permit conditions are submitted to the appropriate regulatory authority.

In 2020 the UPDES permit included a mine-water discharge outfall (UPDES-005) into Electric Lake. Electric Lake is such high quality receiving-water, that water encountered in the mine must be immediately captured and discharged through a dedicated clean-water system to be compliant with the stringent UPDES permit requirements. The current UPDES permit can be reviewed at the Mine; the 2020 permit that initially included Outfall 005 is located in Appendix A-1, Volume 2.

Water pollution control facilities for the railroad load-out and coal storage area at the mouth of Eccles Canyon consist of a septic tank for sewage effluent and a sedimentation pond. All storm water from the disturbed area will pass through the sediment pond except for some small areas of exemption which are shown on Map 3.2.1-3.

Equipment Abandonment

Poor mining conditions periodically necessitate abandoning equipment underground due to difficult or unsafe conditions. Prior to leaving the equipment underground Mine personnel must certify there has been no hazardous substances (per 40 CFR Part 261) or used oil left underground. The equipment is drained of hazardous materials, lubricating fluids, fuel, and any components that can be repurposed with the waste being disposed of properly when safely accessible. State personnel will be notified of the abandonment for possible inspection when possible. In the event hazardous substances cannot be removed a CERCLA certification will be provided to the appropriate agencies. See Chapter 1, Appendix 118-A for leases and lease stipulations.

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3.2.6 Procedures for Construction Through Removal of Major Structures and Facilities

Mine Site Benches and Cut Slopes

Vegetation and topsoil was removed prior to any earth work (see Section 4.6 - TOPSOIL AND SUBSOIL HANDLING PLAN). The two types of vegetation occurring at the mine site are: 1) trees and, 2) grasses and bushes. The trees were harvested, trimmed and placed in a location pre-described by the U.S. Forest Service. The bushes were piled in a location and burned according to directions given by the U.S. Forest Service. As required by state law, the Permittee obtained a valid State of Utah burning permit before burning to dispose of vegetation and other debris from clearing operations at the mine site. Once the vegetation was cleared, the topsoil was removed using rubber-tired scrapers, bulldozers, front-end loaders and haulage trucks. The topsoil was stored in the areas immediately north of the substation (Map 3.2.1-1). Following topsoil removal, based on the geotechnical investigation, selected areas within the mine site were either ripped by a dozer or blasted to obtain suitable material for placement in the compacted fills.

Revised: 5-24-21

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The cut slopes that resulted from obtaining the material required for the compacted fills were engineered so that they did not endanger wildlife and did not make additional contributions to the total suspended solids in stream flows. The overall slope of the cut banks is one horizontal to one vertical (1h:1v). This slope factor is based upon the geotechnical design recommendations (Volume A-3).

The benches that are made of compacted fill were constructed such that each lift was of sufficient height to ensure that maximum compaction occurred. When the benches reached the proper elevation, each bench was tested to ensure that compaction was adequate for building foundations and other structures and met the local and state building codes. Special geotechnical investigations were done on the Middle Fork Bench to insure that adequate design to support the stack tube occurred, and that the Middle Fork 48 inch bypass culvert was adequately protected (see Vol. A-3).

Upon abandonment of the mine site, the benches will be ripped, topsoiled and re-vegetated. The cut slopes will be reduced to a more gradual grade and will be topsoiled and re-vegetated as described in the topsoil and revegetation plans in Sections 4.6 and 4.7. This will allow a return of the mine site to the desired wildlife/grazing (rangeland) habitat.

Administration, Warehouse, and Shop Complex

The interior of the building consists of office-training-safety areas, change room areas, analytical laboratory, warehouse storage area, shops and maintenance bays. The building was designed to meet all applicable local and state codes and regulations. The exterior siding is of a material that requires little maintenance throughout the life of the mine.

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8,000 Ton Storage Silo

The foundations for the silos are built upon bedrock. After the foundation concrete cured, a concrete tunnel was constructed to house seven reclaim feeders and a 48-inch reclaim belt. After completion of the tunnel, the first 16 feet of the silo was poured and draw points constructed for each feeder. With completion of the draw points, the remaining 101 feet of the silo was constructed using slip forms. The cap of the silo was then formed and poured. *added*

Once the cap was cured, belt drives, gear reducers, coal sampling equipment and head pulleys were put in place. A building was constructed to house this equipment. The equipment house is constructed of structural steel and is covered with an exterior metal siding. Due to concrete silo construction, little maintenance is required.

On completion of mining, the above-ground portion of the silo will be demolished and used as backfill material or will be hauled away.

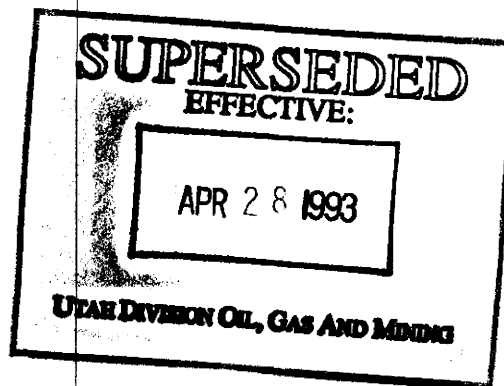
North Coal Storage Stack Tube and Reclaim Facility

This system consists of transferring the coal off of existing conveyor at the BC-4 transfer building onto a conveyor that carries the coal to a 116 foot high stacking tube. The coal is reclaimed through an underground system of five feeders which feed the coal onto a conveyor that carries the coal back to the BC-4 transfer building, where it re-enters the normal coal flow handling system.

Excavation was done for the foundations of the stack tube, reclaim tunnel, and drive house. Excavated material was temporarily stored. The foundation for the stack tube is substantial due to the large size of the tube and extends to

bedrock with a number of drill piers. Once the excavation was completed, the foundations were poured and the stack tube and reclaim tunnel were formed and poured. When the concrete work was completed, the BC-4 transfer building was modified and the drive house was constructed. Material that was originally excavated was used as backfill material. Excess material that was not used as backfill was kept on the site and used as berms, to level storage areas, to improve drainage control, and to improve other small sites within the permit area. Machinery was then installed and the conveyor covered with colored metal that matched the other conveyors at the mine.

On completion of mining, the machinery will be removed, and then the concrete stack tube and reclaim tunnel will be demolished and used as backfill in the portal entrances. Due to the depth of cover over them, the foundation for the stack tube and some of the foundations for the stack tube and reclaim tunnel will be left in place, where they don't interfere with final reclamation requirements.



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Section 3.2.6	Page 3-36	Section 3.2.6	Page 3-36	Date 04/14/93

Mine Surface Conveyors

Foundations for the conveyor bents were constructed on compacted fill. Once the foundations had cured, the bents were placed upon them. Both the bents and spans are made of welded structural steel. Interior to each span, a walkway is placed for maintenance of the belt and idlers. Each conveyor is covered on the top and along both sides with a baked enamel exterior metal, except the overland conveyor. The coal transported by the overland conveyor is fully enclosed in the conveyor tube. This protection exceeds air quality permit requirements. Part of the side covers are left off as needed on the overland conveyor for inspection and maintenance purposes. Once the spans for each conveyor belt were erected, the conveyor belt was pulled over the idlers and vulcanized, thus completing the construction of each conveyor belt.

The bents and spans are painted and repainted periodically as required. The exterior metal siding needs little maintenance during the life of the mine. After mining is completed, the bents and spans will be removed and salvaged.

BC-5 and steel drop tube foundations are constructed on compacted fills. Once the foundations have cured, the conveyor and tube supports will be placed on them. The BC-5 conveyor will be covered, thus meeting the requirements of the air quality permit. BC-5 will convey coal from C-1 in Mine 3, Level 3, to the steel drop tube. The steel tube will be five-feet in diameter and will convey coal from the middle level to the bottom level at the mine site. Coal will be reclaimed at the bottom of the tube and transported to a feeder/breaker on BC-6, which will blend the Level 3 coal with the Level 2 coal. After mining is completed and the two structures are no longer needed, the conveyor, steel tube, and foundations will be moved.

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Section 3.2.6 Page 3-36	Section 3.2.6 Page 3-36(a) Date 05/10/02

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Crusher Building

The foundation of the crusher building was constructed upon bedrock. After the concrete foundation had cured, steel erection began. Once the steel erection was completed, the floors and stairs for the different levels were installed. As soon as the stairs and floors were installed, the chutes, crusher, magnet, belt drive motors, gear reducers, head pulley and the dust collector system were installed. When the equipment installation was nearly completed, and exterior metal siding was placed on the steel structure.

All structural steel was painted and will be periodically repainted as necessary to maintain it. As for the metal siding, little maintenance is required throughout the life of the mine.

During the foundation construction, a sump was poured to collect wash down water when the interior of the building was being cleaned. The large coal particles settle out in the sump and the fine coal particles and water flow into the sediment pond. This causes an increased burden on the sediment pond. A pump will be placed in the sump and the slurry will be pumped to an underground sump in Mine No. 3, Level 3. The coal fines will settle out in the sump and remain underground and the clarified water will become part of the underground water handling system. The pump will run for one hour per day. This will amount to about 9,000 gallons of water being pumped. The pumping will occur seven days per week. It is estimated that 3,285,000 gallons per year will be pumped underground. The wash down water is taken out of the fire water line that is fed from the 300,000 gallon storage tank. The water in the tank is pumped directly from the underground workings to the tank. The water from the sumps will be pumped to the retention locations in polyethylene pipe to reduce the potential of contaminating the underground water. The water from the sump will be sampled and tested weekly to meet the UPDES permit requirements. The water sample will set for 24 hours before the samples to be tested are taken. This will simulate the pond environment by allowing the large coal particles to settle out.

Truck Load-out

The foundation for the load-out tower was built upon compacted fill. As soon as the concrete foundation was cured, steel support columns were erected. Once in place, a 200-ton capacity storage bin was installed. After bin installation was completed, the top floor was installed. With completion of the floor, the belt drive motor, gear reducer, head pulley and dust collector system were installed the top of the structure is completely enclosed with exterior siding. All structural steel was painted and will be periodically repainted to maintain it. The metal siding needs little maintenance throughout the life of the mine.

Mine Portals

A total of thirteen mine portals for the three mine are constructed for the mine: four on the upper bench, on the middle bench, five on the lower bench and three at the South Fork Breakout. The upper portals will consist of one belt portal and three air portals. The lower five portals are all air portals. The middle bench portal is the conveyor portal for Mines 2 and 3.

3-37

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BC-4 and BC-20 Transfer Building

During the foundation construction, a sump was poured to collect was down water when the interior of the bulilding was being cleaned. The larger coal particles settle out in the sump and the fine coal particles and water flow by ditch into the sediment pond from the upper bench. This causes an increased burden on the sediment pond. A pump will be placed in the sump and the slurry will be pumped down the BC-2 inclined slope into an underground sump in Mine Nol w, Level 2. The coal fines will settle out in the sump and remain underground and the clarified water will become part of the underground water handling system. The pump will run for one hour per day. This will amount to about 9,000 gallons of water being pumped. The pumping will occur seven days per week. It is estimated that 3,285,000 gallons per yeare will be pumped underground. The was down water is taken out of the fire water line that is fed from the 300,000 gallon storage tank. The water in the tank is pumped directly from the underground workings to the tank. The water from the sumps will be pumped to the retention locations in polyethylene pipe to reduce the potential for contaminating the underground water. The water from the sump will be sampled and tested weekly to meet the UPDES permit requirements. The water sample will set for 24 hours before the samples to be tested are taken. This will simulate the pond environment by allowing the large coal particles to settle out.

Mine Site Water Tanks

Both a 50,000-gallon and a 300,000-gallon water tank are located approximately 1,570 feet southwest of the Mine Site and adjacent to State Road SR-264. The water transmission lines for the tanks are buried on the north side of the road. Due to the steep mountain topography in the area, all piping is located immediately adjacent to the road, beneath the road drainage ditch, and within the Utah Department of Transportation (UDOT) easement. Any necessary maintenance of the water transmission lines will be coordinated through UDOT. At final reclamation, the water transmission lines will not be recovered and will remain in place.

Revised 7-30-14

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Div. of Oil, Gas & Mining

UNDERGROUND MINE FILE	
DATE FWD.	10/10/01
INITIALS	RB

SURNAME	DATE
<i>Reitze</i>	10-9-01
<i>Sid Hansen</i>	10-9-01

Coal Mine Safety and Health
District 9

OCT 10 2001

James Poulson
Safety Director
Canyon Fuel Company, LLC
HC 35, Box 380
Helper, UT 84526

RE: Skyline Mine #3
ID No. 42-01566
Underground Discharge of Surface
Water

Dear Mr. Poulson:

The Underground Discharge of Surface Water plan, dated October 2, 2001, has been reviewed and is acceptable. This will be placed on file in this office. The plan is subject to review and possible revision at any time. All changes proposed to the plan shall be reviewed by MSHA prior to implementation. A copy of this plan should be made available to the miners and shall be reviewed with all affected personnel at the mine.

Be reminded that the current seals were not designed to impound water and cannot be used for this purpose. Increases in water outflows at the 1 West Mains, 2R1W, 1R1W, 1N Bleeders, or 2 West Mains to 1 West Mains seals, identified during your weekly examinations (30 CFR 75.364), shall require that you stop water injection immediately.

If you have any questions, please contact either Sid Hansen or Bill Reitze at 303-231-5463.

Sincerely,

Allyn C. Davis
Allyn C. Davis
Acting District Manager

Enclosure

cc: Coal Reclamation Program
Division of Oil, Gas, and Mining
1594 West Temple North, Suite 1210

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DIVISION OF OIL GAS & MINING

P. O. Box 145801
Salt Lake City, Utah 84114-5801

bcc: EC Plan File - MISCELLANEOUS
McAlester Dust
Price #1 FO
Price #1 UMF
VG Plan File
VG MHF
VG Chron V1270024
D-9 Chron 10-4-2001 #8

MSHA:WP(1270024.doc):Reitze(vent\slh\4201566):wpr

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DEPARTMENT OF ENERGY
BUREAU OF MINE SAFETY & HEALTH

The mine portals require little maintenance throughout the life of the mine. When mining is completed, the portals will be broken up and used as backfill material. The fans and motors will be salvaged.

Substation

The substation is located on the middle bench and isolated from other surface structures. The foundation for the transformers was poured and, once cured, the transformers were set. A dead-head structure was erected to which the fuse disconnect is attached. The steel structure is galvanized. Oil circuit breakers were also installed in proximity to the transformers. With the completion of the steel erection and the transformer and oil circuit breaker placement, a ground mat was constructed in accordance with MSHA standards. As soon as the ground mat was constructed, crushed rock was spread over the ground areas of the transformers and oil circuit breakers. A security fence was then constructed.

Overland Conveyor

The conveyor route is located on the north slope of Eccles Canyon. Topsoil was removed before an alignment route was cut for the conveyor bench on the upper portion of the route. The cut is approximately 30 feet wide. The lower portion of the conveyor route has been built without a conveyor bench by machinery operating from the adjacent UDOT highway right of way, or by hand. Salvageable topsoil was recovered from each tower location and stored at the RRLO topsoil site, while the remainder of the material removed at each site was hauled to the Scofield disposal site to be used as cover material. At the request of

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!	Section 3.2.6 Page 3-38	!!	Section 3.2.6 Page 3.38	!

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3-38

COAL DIVISION OIL, GAS AND MINING

UDOT, machinery was operated as far off the pavement as possible to insure traffic safety. As soon as each tower excavation is completed, silt control measures are installed. Seeding and mulching is done as soon as disturbing activities cease. The entire length of the overland conveyor system is located on bent towers. No towers are located in draw bottoms. An excavation was made at each tower location down to competent rock, or sufficient depth to support the structure. A concrete footer was then poured.

Once the concrete was cured, the conveyor support structure was erected. The conveyor trusses were then installed. The next construction step was to install the belt drive motors, gear reducers and pulleys. The conveyor belt was then placed on the idlers and vulcanized. With the completion of the vulcanizing, exterior metal roofing and siding was installed to cover the conveyor belt. Some of the side covers are left off as needed for inspection and maintenance purposes. A maintenance cart was designed to operate on top of the conveyor structure, which eliminated the need for a walkway or roadway along the system.

Routine maintenance is performed on the conveyor to ensure that the components are working properly. The exterior of the conveyor system is painted the same color as the other conveyors already built and requires little maintenance because of the type of siding selected.

A steel enclosure has been constructed around the conveyor dust collection system. The location of this structure is shown on Map 3.2.1-3 and the additional bonding amount required by this modification is shown on pages 4-13 and 4-16, as revised 8/31/95. During the construction period, runoff was controlled by either diverting potential runoff to the sedimentation pond or by installing straw-bale dikes or silt fencing, according to the standard designs used at the Skyline Mine, to treat the runoff.

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Page 3 of 8
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The overland conveyor will be completely removed when mining is completed. The structural steel, exterior siding and conveyor equipment will be salvaged. The concrete footers will be fractured to a minimum of two feet below the surface. The total two feet of concrete will be removed and the hole filled with top soil. Regrading and revegetation of the conveyor route will be performed as discussed in Part 4 of this Renewal Application.

15,000 Ton Storage Silos (Rail Loadout)

Topsoil was removed and stockpiled as discussed in Section 4.6. Following completion of the topsoil removal procedures, the first two storage silos were built. The foundations for the silos were poured and when the concrete was cured, the reclaim tunnel under the silos was formed and poured. Upon completion of the reclaim tunnel construction, the draw points were formed and poured. As soon as the draw points had cured, slip forms were erected and the silos were constructed. The top of the silos were formed and poured once the slip forms had been removed. When the concrete had cured, the conveyor equipment used to fill the silos was installed at the same time as the feeders and reclaim belt.

At a later date, two additional storage silos may be constructed in the same manner described above.

The conveyor equipment and feeders may be maintained in a routine manner to ensure proper function. The silos will require little maintenance because of the concrete construction.

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Section 3.2.6	Page 3-39	Section 3.2.6	Page 3-39	Date 02/02/06

3-39
INCORPORATED

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Div. of Oil, Gas & Mining

The silos and associated equipment will be removed once mining is completed. The equipment will be salvaged. The silos will be dynamited and used in areas which require backfilling.

Reclaim Belt

Construction of the reclaim belt began as the foundation for the conveyor bents were formed and poured. The bents and spans are made of welded structural steel. The walkway was constructed inside each span. Additional structural steel supports were added for the conveyor belt idlers. After the bents and spans were erected, the conveyor belt was placed on the idlers and vulcanized. Exterior siding was placed on all sides of the spans. The conveyor and associated support equipment will be adequately maintained throughout the life of the project. The bents and spans are painted and will be repainted as necessary for maintenance. The exterior siding will require little maintenance.

Following cessation of mining operations, the conveyor and support equipment will be removed and salvaged. The bents and spans will be dismantled and salvaged. The bench foundations will be broken up and removed. Regrading and revegetation of the bench slopes will be performed as discussed in Part 4 of this Renewal Application.

Load-out Structure

Initial construction of the load-out structure involved the forming and pouring of foundations. Structural steel support members were erected when the concrete was cured. Upon completion of the steel erection activities, the floors and stairs in the structure were added. Once the floor and stairs were added, a 300-ton capacity storage bin was installed. After the storage bin had been erected, the top floor, sampling system, dust collection system, conveyor belt drive motors, gear reducers and head pulley were installed. Following equipment installation, exterior metal siding was installed.

All equipment and structural entities will be maintained in a routine manner. The structural steel was painted and repainted periodically to maintain it. The exterior siding will require little maintenance throughout the life of the mine.

Utah SR-264

Vegetation and topsoil was removed prior to any extensive earth work. The road subgrade was cut using bulldozers, motor graders, front-end loaders and haul trucks. A culvert was added at the minesite to ensure hydrological system protection and will divert surface (disturbed area) runoff to the mine sedimentation pond. The culvert inlet is protected by a trash rack as shown on drawing 3.2.6-1D. Following completion of the subgrade cut and culvert addition, a road base was constructed to UDOT specifications. This road, designated as SR-264 is not part of the permit area.

Mine Site Culverts

The major culverts and inlets were constructed at the mine site as shown as a plan view in Map 3.2.1-1. The culverts were constructed in the early summer during the high runoff periods so that the temporary increase in the sedimentation load did not unnecessarily impact the aquatic biota of the stream.

The first step in construction was to form and pour the inlet structures. At that time, the stream was diverted from the work area. When the inlet structure was completed, the culverts were placed in trenches (excavated during inlet construction) as sections (10-foot length/section) and fastened together. When each culvert diversion was completed, it was backfilled and compacted to ensure culvert stability during subsequent mine bench construction.

The culvert inlet in the North Fork was reconstructed in 1984 after being plugged by debris flows (see map 3.2.6-1B). A new

culvert inlet in the Middle Fork was also constructed in 1984, and then in 1990 it was relocated approximately 100 feet upstream to accommodate the expanded North coal storage area. Calculations for the Middle Fork inlet structure and bypass 48" CMP are in Volume 5, Section 3. Since the Middle Fork has a past history of debris flow events, a special inlet structure and trash rack were designed (see map 3.2.6-1c). An area above the inlet structure approximately 50 feet by 50 feet has been leveled off. This area slopes about 1-2% towards the inlet structure and is approximately 6 inches above the lip of inlet. Down the middle of this area is a channel which will handle the 2 year 24 hour storm event (see Volume 5 Section 5 for calculations). The area on either side of the channel was seeded with the approved seed mixture in the fall of 1990. Willow cuttings were planted on the area in the spring of 1991. This area serves as a flood plain for storm events greater than the 2 year 24 hour event. In the event that the trash rack should become plugged and the inlet becomes non-functional, another 48 inch CMP with trash rack has been installed approximately six feet in elevation above the primary inlet to handle the emergency overflow. This culvert is directed back into the main 48" culvert 100' downstream from the main inlet structure to handle the water flow (see map 3.2.1-1). During the spring runoff season, machinery will be kept available at the minesite, which could build an emergency access road off of the stockpile so that in case of an emergency, equipment could re-establish the culvert inlets within a short period of time. The culvert in the south west fork was extended by UDOT in 1986 approximately 300 feet off of the permit area and the inlet is now within their jurisdiction.

The culvert system was designed to allow easy maintenance access. Manholes were placed at each directional change point as additional access points (Map 3.2.1-1). The culverts were constructed of plastic coated galvanized metal to ensure that the culverts do not rust. Culverts will be inspected periodically throughout the life of the mines.

Eccles Canyon Road

The Eccles Canyon road is part of the State Road collector system.

Mine Site Sediment Pond

The initial construction phase of the mine site sediment pond structure involved the removal of topsoil and vegetation. As the pond was being constructed, lift heights were maintained to ensure maximum compaction. The final lift, which achieved the proposed elevation of the pond bottom, is of an impermeable material, capable of preventing seepage. Following this construction operation, the bank and spillway pipe construction was begun. The bank was constructed in lift heights to ensure maximum compaction and was constructed of impermeable material to prevent seepage. A spillway pipe was added during construction of the bank. The pond is shown in plan view (Map 3.2.1-1) and in cross section (Map 3.2.1-2).

Surface runoff will enter the pond via gravitational flow.

Other than sediment removal when 60 percent of the design sediment storage volume is exceeded, only limited maintenance of the pond will be required. Past experience has shown that it takes a minimum of five years to achieve the 60% design storage level. Based on this, the pond will be surveyed three years after clean out, at which time a time table will be determined for subsequent surveys. Sediments will be tested for toxicity before being disposed of. They may be disposed of at the waste rock disposal area or pumped back into the mine.

Coal Load-out Sediment Pond

Prior to construction of the coal load-out sediment pond, topsoil and vegetation were removed from the pond site area. The pond was excavated to the proposed bottom elevation and the excavated

dam was completed, a principal emergency spillway was constructed. The pond is shown in plan view and in cross section on (Map 3.2.1-4). The pond requires only limited maintenance, i.e., sediment removal to an approved disposal site when 60% of the design sediment storage volume is exceeded. The pond was enlarged in 1993 to facilitate a small (.04 acres) area being added to the drainage area. Not in hard copy nor incorporated.

Swens Canyon Ventilation Facility Pond

The pond at the Swens Canyon Ventilation Facility is not a traditional sedimentation pond used for sediment control of the site. The sole intention of the pond is to store the cuttings from the drilling of the shafts. Upon completion of the shafts, the only storm water to report to the pond will be from the disturbed area of the pond itself. The pond is designed to contain the runoff from a 100-year, 24-hour storm event and not anticipated to discharge.

3.2.7 Signs and Markers

The Permittee has posted all signs and markers required by State of Utah and Federal requirements. Signs are constructed of durable material and are uniformly designed for high visibility and readability. All signs and markers will be maintained during operations to which they pertain and will conform to local ordinances and codes.

Mine and Permit Identification Signs

The Permittee has posted identification signs at the points of access to the permit area from public roads and highways. The signs state the name, business address and telephone number of the Permittee, the identification numbers of current mining and reclamation permits and other authorizations to operate in a color that will provide significant contrast to the color of the sign board and can easily be seen and read. The identification signs will be maintained in place until after release of all bonds.

Perimeter Markers

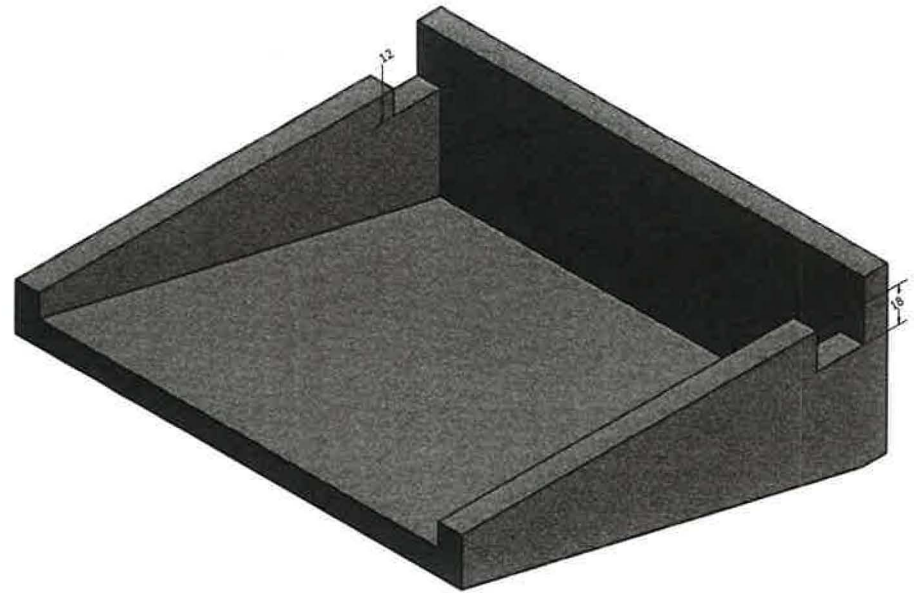
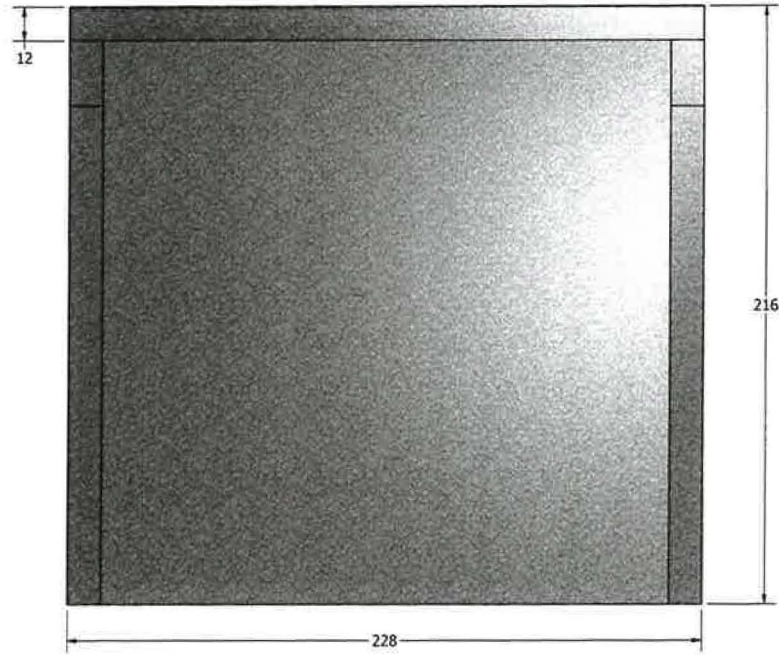
The perimeter of the areas affected by surface operations or mining facilities has been posted with easily identifiable markers with blue steel fence posts.

Revised: 5-27-16

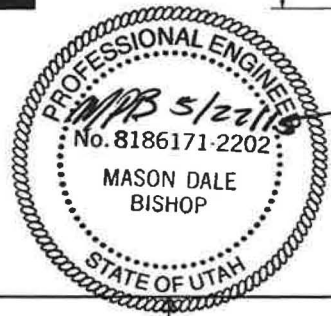
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Div. of Oil, Gas & Mining 3-44



Skyline Mine & Mining
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DRAWN	TEarl	5/22/15	Skyline Mine	
CHECKED	MBishop		TITLE	
QA			Rail Load Out Sediment Trap	
MFG			SIZE	DWG NO
APPROVED			C	Page 3-44a
			SCALE	REV
				0
			SHEET 1 OF 1	

Topsoil Markers

The topsoil signs are posted at all topsoil stockpile areas. The topsoil stockpiles are clearly marked. The signs can easily be seen and read. The signs will be maintained in place until the topsoil is redistributed during final reclamation.

Stream Buffer Zone Markers

Signs requiring protection of the environment have been placed at those points of the operation where public or employee access to perennial and intermittent streams is possible. Those points include the portal area on the southwest and middle forks of upper Eccles Creek, the pump houses along Eccles Creek and at the loadout facility near Eccles and Pleasant Valley Creeks, the South Fork Breakout area, and the mine discharge pipe entering Electric Lake. Intervisible buffer zone signs have been placed between the overland conveyor and Eccles Creek. Runoff from buffer zones: reports to a sedimentation pond; is treated by alternative sediment control (ASCA); or the buffer zone is demonstrated to be exempt (see descriptions of these zones in Section 3.2.12).

3.2.8 Plan for Disposal of Waste Rock

Skyline Mine employs the following methods to dispose of waste rock encountered during underground development and mining: 1.) conventional back stowing in underground working areas; 2) haulage to the surface for disposal at a permitted waste rock disposal site; and 3) slurry placement in abandoned underground workings. Slurry placement is a new method of disposal that has not been previously addressed in the MRP. A description of the slurry system follows:

The slurry system consists of the following components: feeder breaker; conveyor belts; crusher; and a rock hopper. A schematic of the slurry system is attached. The purpose of the slurry system is to dispose of waste rock in abandoned portions of the underground mine workings. In order to achieve this goal, the waste rock is crushed to a nominal size and is then mixed with water to create a 30-40% solids slurry. The slurry is then piped to abandoned mine workings for disposal.

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Div. of Oil, Gas & Mining

The waste rock encountered in the Skyline mine is not acid- generating or toxic. Furthermore, the process of grinding the waste rock in the slurry system also does not render acid-generating or toxic material. (See the attached analysis of recent sample of crushed waste rock taken from the slurry system belt line).

The portal yard sediment pond is the primary water source for the slurry system. Underground mine sumps are also used as a backup water source. The portal yard sediment pond is comprised of mine water (>95%) and a small amount of surface runoff. The Skyline mine water has a typical pH between 7 and 8 and is generally 40 times more alkaline than acidic. The mine water is also not toxic and contains levels of manganese and iron an order of magnitude below Clean Water Act requirements for underground coal mine discharges.

It is unlikely that the mine water used in the slurry system contains longwall emulsion fluid since Skyline has installed a double loop protection system to prevent emulsion spills. The mine water may contain minor amounts of oil and grease; however, it is anticipated that concentrations will be minimal. The slurry system will discharge water that may have high Total Suspended Solids (TSS) concentrations; however, it is expected that the larger diameter particles entrained in the slurry will rapidly settle.

The probable hydrological consequence (PHC) for the Skyline Mine is contained in Section of 2-15. The PHC states that mine water does not become available for use at the surface for at least 11,200 years due to the low permeability of the materials surrounding the mine workings. The great lag for groundwater to reach a potential water right user causes the impact of the slurry system discharge to be lessened. TSS is the principle pollutant associated with the system and the very slow rate of groundwater movement provides more than ample time to settle suspended solids. Furthermore, since emulsion fluid typically degrades in 28 days the potential for emulsion to contaminate surface water via the slurry system discharge is very unlikely.

The specific practice of discharging water from the slurry system to the underground workings has not been analyzed; however, the global impacts of flooding the entire mine workings has been evaluated in both the comprehensive hydrological assessment impact (CHIA) and the PHC.

Revised: 09/04/02

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The CHIA was prepared in 1995 by DOGM and states that the Skyline mine workings will fill with water at the cessation of mining. Due to the lack of toxic materials the hydrological impact of the water filling the workings is insignificant from a water quality standpoint. Furthermore, from a water quantity standpoint, filling the workings with water improves recharge due the increased porosity of the aquifer.

Therefore filling abandoned mine working with water is an analyzed event that poses no significant hydrological impacts. Since the slurry system is only expediting the process of filling abandoned workings with water it can logically be concluded that the groundwater impacts of this event are positive. The timing of the flooding of the mine workings is not a significant parameter. The CHIA and PHC have to address what the impacts are given current conditions. Thus, when these documents state that flooding the mine workings has no impact that means based on current conditions.

The disposal site at a location southeast of Scofield, Utah and approximately 3.6 air miles from the Skyline mine site (Map 3.2.8-2A). The rock waste disposal site is an abandoned strip mine pit and waste area which is accessed by existing roads (see Maps 3.2.8-1 and 3.2.8-2). The facility is required for the disposal of coal mine wastes to be generated from the Skyline Mines during the mine's developmental and operational phases. Additional discussion on this disposal site can be found in Section 4.16.

Skyline hauls the coal mine waste by truck from the Skyline mine site (portal area) and the unit train loadout facility to the waste disposal area. On occasion, should economics warrant the process, high-ash coal may be sent to a Wash Plant with the refuse being disposed of at the Dugout Canyon Mine Waste Rock site or returned to the Skyline disposal site. This process is noted and approved in the Dugout Canyon Mine M&RP. An operation plan has been developed to establish proper techniques for disposal of the coal mine waste. A reclamation plan provides for satisfactory final reclamation. The disposal site has been designed to facilitate proper management and operation of the overall disposal process as well as successful reclamation and revegetation. Only coal mine waste, sediment pond sediments, coal and concrete gob will be disposed of at the site. Since the site is an already existing abandoned strip mine pit and waste area, no design for construction of the disposal is needed.

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The disposal site and access road are located upon land owned by the Estate of George Telonis. The legal right of access and use of the lands for the disposal of rock waste was originally granted to Coastal by the heirs of the Estate in a lease effective January 1, 1982 and expiring, unless renewed, on December 31, 2011 (See Exhibit A for copy of lease). The lease was modified in 2006 and amended in 2007 to include lands that were previously disturbed and located adjacent to the Scofield cemetery. The lands referred to in the lease include a 0.97 acre right of way for the disposal site access road and a 36.51 acre tract of land containing the rock waste disposal site. Although the lease was modified in 2007, the size of the disturbed area increased by approximately 5.13 acres to accommodate expansion of the pile. The legal description of the leased lands is:

A. Access Road

A right-of-way for the purpose of maintaining a road over a strip of land 100 feet wide over a portion of the East half of Section 5, Township 13 South, Range 7 East, Salt Lake Base and Meridian, in the County of Carbon, State of Utah, the center line of which is described as follows:

Revised: 4/18/07

3-46

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Commencing at the found stone of the Northeast corner of Section 5;
 Thence South 582.76 feet and West 1228.10 feet to the point of beginning;
 thence North 52°20'45" West 50.58 feet;
 thence North 36°43'48" East 369.12 feet;
 thence North 78°34'35" East 104.33 feet;
 thence South 05°29'03" West 104.52 feet;
 thence South 78°34'35" West 35.70 feet;
 thence South 36°43'48" West 330.88 feet;
 thence North 53°16'12" West 50.00 feet to point of beginning..

The side lines of said right-of-way to be prolonged or shortened to meet at angle point intersections.

Contains approximately 0.97 acres

CHANGE TO		TEXT		
Section 3.2	Page 3-46	Section 3.2.1	Page 3-46(a)	Date 04/18/07

3-46(a)

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The bearings in the above description are based on the Utah State Plane Coordinate system, Central Zone.

B. Disposal Site

A tract of land located in Sections 4 and 5, Township 13 South, Range 7 East, Salt Lake Base and Meridian, Carbon County, Utah, and Section 32, Township 12 South, Range 7 East, Salt Lake Base and Meridian, Carbon, County, Utah, being further described as follows:

Commencing at the Northwest corner of said Section 4;

Thence South $0^{\circ} 28' 36''$ East (basis of bearing taken from Utah State Plane Coordinate System), a distance of 1603.82 feet along the West line of said section to the Northerly right-of-way line of a road;

thence South $39^{\circ} 54' 11''$ East a distance of 337.96 feet along said North right-of-way line to the point of beginning;

hence North $79^{\circ} 23' 34''$ East a distance of 834.50 feet;

thence South $76^{\circ} 48' 06''$ East a distance of 320.00 feet;

thence South $07^{\circ} 02' 16''$ East a distance of 224.51 feet;

thence South $41^{\circ} 01' 41''$ West a distance of 1413.36 feet;

thence North $26^{\circ} 33' 44''$ West a distance of 1855.35 feet;

thence North $24^{\circ} 10' 17''$ West a distance of 588.80 feet;

thence North $05^{\circ} 40' 59''$ East a distance of 78.98 feet;

thence North $40^{\circ} 51' 41''$ West a distance of 252.84 feet;

thence North $40^{\circ} 51' 41''$ West a distance of 252.84 feet;

thence North $17^{\circ} 12' 41''$ West a distance of 65.28 feet;

thence North $05^{\circ} 29' 03''$ East a distance of 263.95 feet;

thence South $88^{\circ} 43' 20''$ East a distance of 256.20 feet;

thence North $00^{\circ} 27' 51''$ East a distance of 98.03 feet;

thence North $86^{\circ} 08' 07''$ East a distance of 222.33 feet;

thence South $07^{\circ} 02' 02''$ West a distance of 190.58 feet;

thence South $00^{\circ} 35' 18''$ West a distance of 271.35 feet;

Revised: 4/18/2007

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thence South 60° 54' 14" West a distance of 233.31 feet;
 thence South 40°50'20" East a distance of 242.58 feet;
 thence South 29°55'11" East a distance of 611.32 feet;
 thence South 15°01'42" East a distance of 95.51 feet;
 thence South 39°54'11" East a distance of 654.24 feet to the point of beginning, containing approximately 36.51 acres.

The site and access roads are part of a larger area previously disturbed by surface and underground mining and never reclaimed. The Permittee believes that operations will not further de-grade the environmental state of the area, but rather will, by way of back filling the abandoned strip pit and waste rock area, grading, seeding and other reclamation techniques, greatly improve a portion of the previously disturbed area.

CHANGE TO		TEXT		
Section 3.2	Page 3-47	Section 3.2.1	Page 3-47(a)	Date 04/18/2007

3-47(a)

INCORPORATED

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In 2007 the Disposal site was modified to allow expansion of the refuse pile further up the hill, expanding the disturbed area footprint. Reports have been prepared for the Permittee (presented in Appendix Volume A-2, Volume 2) detailing the existing vegetation and soils of the area to be affected by disposal site expansion. In addition cultural, wildlife, runoff, and slope stability, analyses have been provided. The pre-mining land use of the disposal site area is assumed to have been for native rangeland. Since the previous mining activity left the area in very poor condition, the existing baseline information is of little use in establishing reclamation goals for determining the success of reclamation efforts within the original pit area. The studies conducted in the expansion area in 2006 and 2007 were impacted by timbering activities conducted in the 1990s. Portions of the surface to be affected have been used for grazing after abandonment of the strip pit and waste area, although the pre-existing conditions (lack of reclamation and underground coal fires) have greatly reduced the area's potential for grazing or for any other use.

No aquatic resource inventories have been prepared due to the ephemeral character of waterways in the study area. Water is present only for the very brief periods during and immediately following precipitation events and/or during spring runoff. The climate of the study area is similar to that described for the lower elevations of the Skyline permit area. No additional monitoring is proposed.

CHANGE TO		TEXT		
Section 3.2	Page 3-48	Section 3.2.1	Page 3-48	Date 04/18/07

3-48

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Description of Site

The general location of the waste disposal site is shown on the USGS 7-1/2 minute Scofield quadrangle map (Map 4-16-1A). The land affected by the disposal of rock waste is located in the SW 1/4 of the NW 1/4 of Section 4, Township 13 South, Range 7 East, Carbon County, Utah. The Estate of George Telonis owns the surface of the lands to be affected and the Western Reserve Coal Company owns the minerals in the subject lands and adjacent areas. A copy of the Telonis lease agreement is appended to this Section as Exhibit A. Mining in the coal seams beneath and adjacent to the abandoned strip pit is extremely unlikely due to variable seam thickness, seam pinch outs, and coal fires in one of the abandoned underground mines adjacent to the site. In

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3-48 A

addition, the coal seams are terminated to the East by large displacement faulting and terminated to the West by faulting and erosion. The above factors effectively sterilize any un-mined coal beneath or adjacent to the site.

The Permittee uses the disposal site to dispose of underground coal mine waste produced during mining operations which cannot be permanently stored underground due to either the lack of adequate storage room or the content of coal which has the potential for combustion. The volume of material which must be disposed of at a surface disposal site will be limited to a very small fraction of the total waste produced because of the large volume of potential underground waste storage areas which result from mining coal. The economics of loading, hauling, and disposing of waste at any point other than underground effectively mitigate against the extensive use of a surface rock waste storage site. Coal mine waste deposited at the site may also contain other materials such as concrete, roof bolts, metal and other non-combustible materials.

The roof and floor rock for the three mineable Skyline coal seams is estimated to be comprised of 60 percent sandstone, 30 percent shale, and 10 percent clay stone. The igneous dike rock varies in composition but is essentially comprised of 100 percent ferromagnesian minerals. The majority of dike rock which would require surface disposal appears very similar to basalt and is very durable being extremely resistant to weathering. The volumetric swell factor for the igneous and sedimentary rock is estimated to be 30 percent.

The Permittee estimates that approximately 9,840 tons or approximately 8,000 cubic yards (at 91 lb./cubic feet density) per year of waste will be disposed of at the site (Volume 5, section 16). However, this could fluctuate considerably due to changing mining conditions. The 2007 expansion added approximately 300,294 cubic yards of potential storage to the site.

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3-49

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The waste disposal site is unique in that it is an abandoned strip pit and waste area. The configuration of the area and the requirements of 30 CFR:77.215(h) which requires that refuse be disposed of in compacted layers not exceeding two feet in thickness, will, in combination with the operational necessity of operating heavy vehicles on the fill, lead to a very stable fill.

Limited hydrologic information is available for the quality and quantity of the ground water of the area. One monitoring well has been developed down gradient from the site. The Permittee believes that the proper sealing of the waste containment area, as outlined in the Development and Operations Plan, will prevent the communication of any accidental ignitions of the rock/coal waste into the adjacent coal seams, thereby eliminating degradation of the ground water resources beyond the effects of the existing underground coal fires.

Minimal surface water information is available herein due to the ephemeral nature of surface water flows in the disposal site area. The Permittee redirected any surface runoff waters around the site into the original pre-strip mining drainage system in order to prevent contamination of the surface runoff by the disposal activities. The Permittee directs all runoff water from both the undisturbed drainage above the site and within the disturbed area to a sedimentation pond.

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3-50

Site Development

The development of the waste disposal site required upgrading the existing unpaved access road to the abandoned pit as well as the development work required to convert the abandoned strip pit and waste area into a disposal site.

Access Road

The access road to the disposal site follows the alignment of an existing access road shown on Map 3.2.8-1 is classified as a primary road (see Section 4.20 for certification). Approximately 3,900 feet of the pre-existing road were upgraded and is classified as a primary road. The graveled surface road is approximately 16 feet wide.

Near-surface portions of the UP coal seams which were mined and then burned have subsided at the intersection of entries. Other areas have developed subsidence cracks which transfer the coal fire combustion products to the surface, generally leaving coal-like condensates which were readily apparent in field examinations. These areas were treated through an AML project in 1992. This project has generally controlled the underground coal fire. No evidence of subsidence or of coal fires has been observed under or within ten or more feet from either side of the existing road. Truck drivers have been trained to look for the surface evidence of subsidence and, should subsidence occur, good engineering practices will be employed in back filling depressions and compacting the subsided area. A subsidence monitoring program is not needed due to the absence of current mining and the inferred low density of underground development beneath the access road alignment.

Disposal Site Preparation

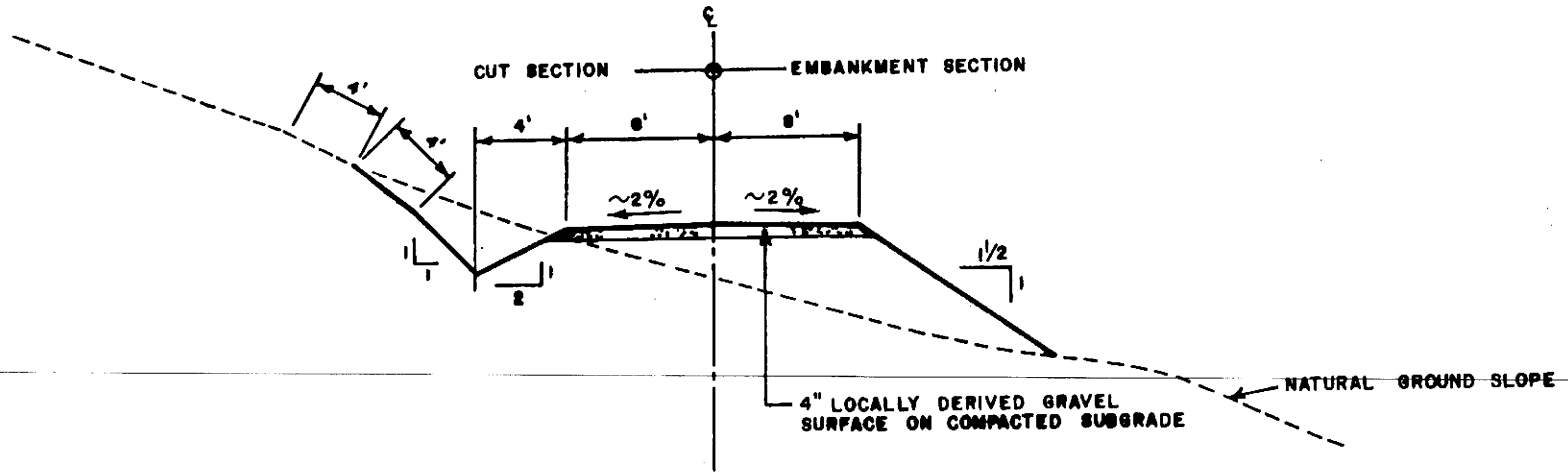
The preparation of the disposal site entailed:

1. Emplacement of drainage controls to redirect surface waters around the site and into the original, pre-strip mining drainage system.

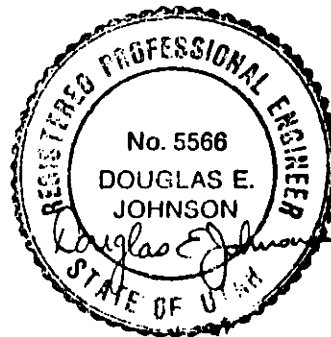
CHANGES TO	TEXT
Section 3.2 Page 3-51	Section 3.2.1 Page 3-51(a) Date 08/09/93

3-51(a)

ACCESS ROAD - TYPICAL SECTION

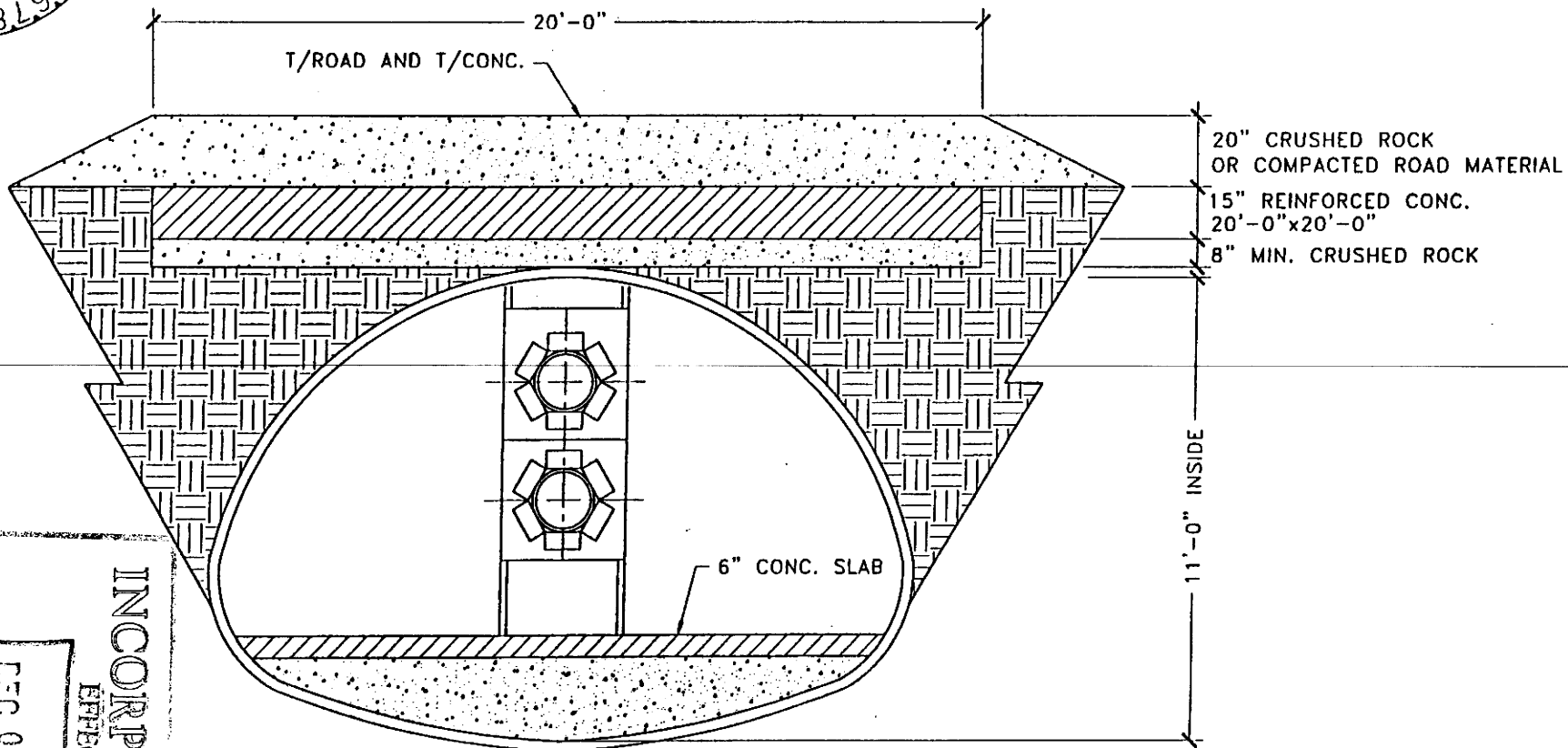


ROCK DISPOSAL SITE ACCESS ROAD
TYPICAL SECTION



UTAH FUEL CO.		
ROAD TYPICAL SECTION		
DESIGNED BY: G. KENZY	DATE: 5 - 82	Figure 3.2. 8-A
DRAWN BY: G. R. PETERSON	SCALE: 1" = 8'	

Received
 CANYON FUEL CO., LLC
 SKYLINE MINES
 DEC 1997



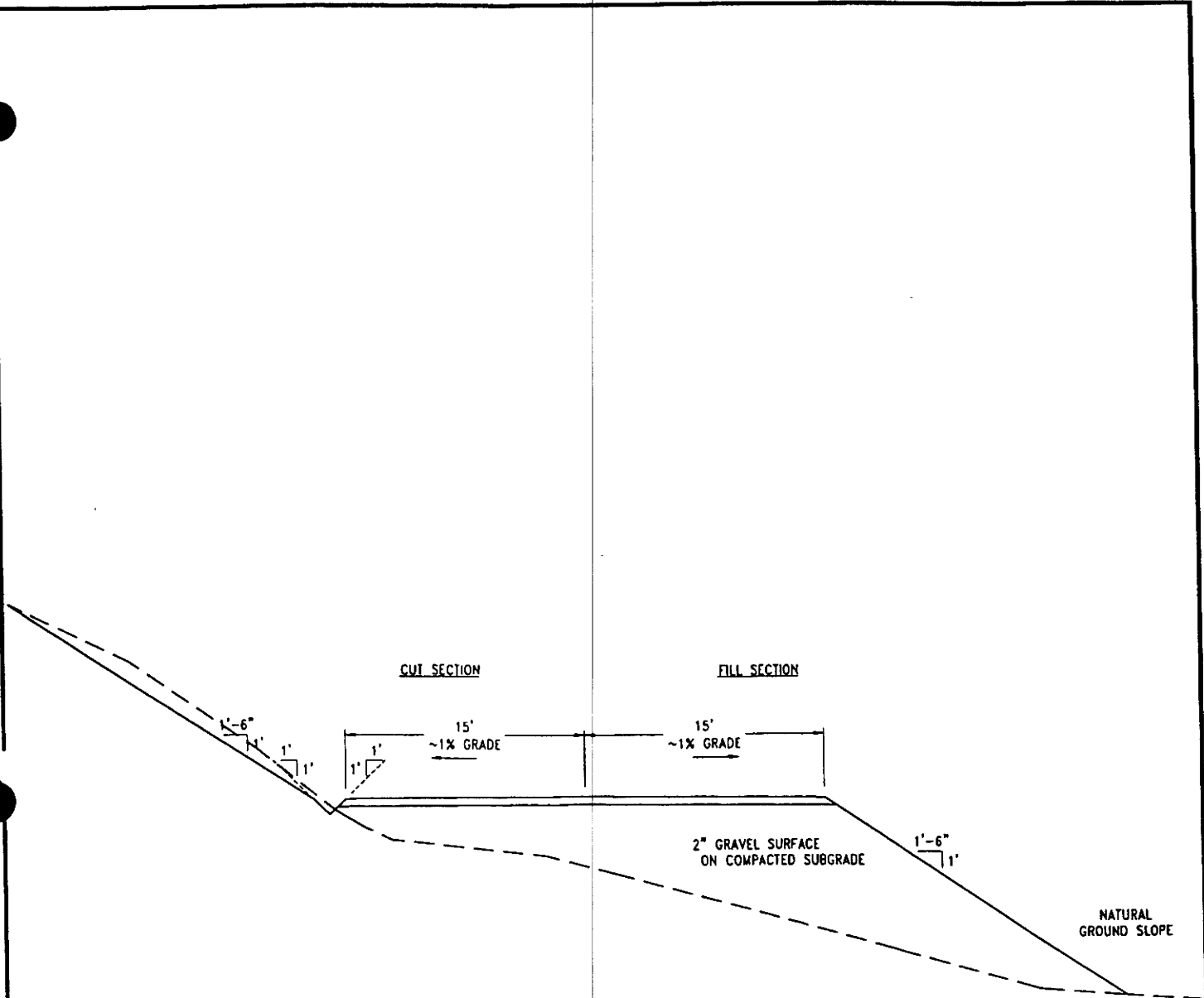
INCORPORATED
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 UTAH DIVISION OIL, GAS AND MINING
 3-528

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 NOV - 7 1997
 DIVISION OF OIL
 GAS & MINING PRICE UTAH

OVERLAND CONVEYOR
 SECTION THROUGH TUNNEL

CF Canyon Fuel Company, LLC
 Skyline Mines

P.O. BOX 710 HELPER, UTAH 84314 801-837-7929	DATE: 11-6-97	CK. BY: G. TAYLOR	REVISION:
WWW.CANYONFUEL.COM	SCALE: 1/4"=1'-0"	DR. BY: T. FREEBARN	
DWG. NO.: 3.2.8-B	(C14A019)		



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EFFECTIVE:
MAR 03 1999 98F
UTAH DIVISION OIL, GAS AND MINING

WASTE ROCK DISPOSAL SITE NEW ACCESS ROAD TYPICAL SECTION			
		Canyon Fuel Company, LLC Skyline Mines	
P.O. BOX 770 HENRIEVILLE, UTAH 84520 435-448-2462	DATE: 9-2-98	CK. BY: G. TAYLOR	REVISION:
CAD FILE m:\cadd\mns\mns\mns\mns.dwg	SCALE: FULL	DR. BY: T. FREEBARN	
DWG. NO.: 3.2.8-1			

3-52b

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2. The emplacement of a minimum of four feet of non-combustible fill material to form a barrier across the floor and along the walls of the abandoned strip pit where coal seams were exposed during prior mining activities and where cracks or fissures are venting from adjacent coal fires.
3. The construction of a fence and gate to control access to the disposal site and to protect re-vegetated areas from domestic livestock.
4. Some shrubs will be removed from near the top and south side of the pit just prior to the time the area they occupy will be covered with waste rock. The sparse grass and weeds will not be removed.
5. Any topsoil or growth material will be recovered and saved to used for reclamation of the site.

The previous course of the drainage from the canyon to the east of the abandoned strip pit was rerouted around the disposal site and along a portion of the access road and then into the original stream course. An open channel and dip are used to redirect the water flow (Maps 3.2.8-1 and 3.2.8-2). In 2015, a culvert (UC-1) was installed to divert water from the undisturbed ditch (UD-6B) across the access road, down the slope, and empty into the existing drainage to the east of the access road. The culvert has been designed as to not cause any erosion at exit. See drawing 3.2.8-1a and calculations in Engineering Calculations, Appendix A-5, Volume 1, Section 14. The Permittee searched for seeps and springs in the down slope area west of the disposal site during the spring of 1984. No seeps or springs were found.

After careful investigation by both the Company and the Division, it was determined that an undisturbed ditch would not be constructed above the site. This decision was based upon the following facts:

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1. The existing highwall is unstable and therefore would prevent building a drainage ditch except at a considerable distance from the edge of the highwall.
2. The topography of the area above the highwal (see Map 3.2.8-3) is such that only a small area is actually tributary to the disposal pit.

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3-53(a)

3. The area above the highwall is a moderately vegetated slope that supported a heavy stand of mixed Aspen and conifer trees prior to timbering in the 1990s.

Due to the slope of this area, the construction of a drainage ditch would destroy a considerable portion of this stand of timber and would create more of an erosion hazard than it would solve. Since a by-pass ditch is impractical, the original upper sedimentation pond in the abandoned pit will be used to treat any additional surface run-off that may flow off the highwall and the area above it. A ditch at the base of the highwall has been constructed to catch this surface runoff. This pond was removed in 1999, due to needed rock storage space and lack of water reporting to the pond.

The swale to redirect the drainage across the road above the site and into the undisturbed drainage channel was constructed of concrete. The swale where the water is redirected across the access road is also constructed of concrete and located so that water is directed into the original stream channel to the south of the road (Map no. 3.2.8-2).

The four feet of compacted non-combustible fill was placed along the floor and walls of the pit in order to isolate the coal seams and venting cracks or fissures.

3-54

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The material to isolate exposed coal and venting cracks or fissures along the walls was built up and compacted in lifts during normal waste disposal operations after an initial 4 foot high barrier is constructed. Any new venting cracks or fissures will be reported. Drainage from the disposal area is directed to the sediment pond at the west end of the disposal site (Map 3.2.8-2). A fence and gate were installed in order to prevent unauthorized access to the disposal site (Map 3.2.8-1) and around the site to protect re-vegetated areas (Map 3.2.8-2.)

There were two locations in the abandoned pit where coal is exposed. The exposure in the west end of the pit required sealing before any dumping of waste was undertaken. The initial 3 to 4 feet high

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barrier was built-up of incombustible material and was obtained from the slope detritus along the highwall. The material was dumped alongside and on top of the coal and compacted to form the barrier between the exposed coal and material being dumped.

Waste Rock Disposal Operational Plan

A. Access Road

During operations, the access road will be maintained using a road grader and any other equipment which may be necessary to ensure compliance with the pertinent requirements. Drainage ditches and cross drains will be maintained to ensure proper functioning. The outfall of the cross drains are rip rapped to control erosion and sediment. Additional gravel will be selectively placed as required to ensure approximately four inches of road base gravel on the road. Map 3.2.8-1 shows the boundary and location of the access road. A guard rail has been installed along portions of the road as required by MSHA along with other MSHA requirements.

Revised 4/18/2007

3-55

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used in contemporaneous reclamation or stored in a UDOGM-approved location identified on Plate 3.2.8-2. It is anticipated that through the combination of contemporaneous reclamation of the pile and the narrowing footprint of the pile, no more than approximately 3 acres will not be in a stage of reclamation at any time.

The compacted layers of fill will be sloped to direct any surface runoff to ditches on the edges of the pile. The ditches collect and direct any drainage from the disturbed disposal area into the sediment pond (Map 3.2.8-2A).

Shrubs that are along the north and west sides of the disposal area will be removed just prior to the time the area they occupy will be covered with waste rock.

The material will be placed in compacted two foot layers and sloped to the east on a 2:1 slope (Map 3.2.8-2). When an approximate overall twenty foot lift is reached, it, and each succeeding 20' lift, will be reclaimed as outlined in section 4.6.4.1.

On occasion, should economics warrant the process, the Waste Rock pile may be re-mined and screened (on site) with the screened product sold as high-ash coal. Sufficient waste rock will remain in the pile to establish Approximate Original Contours (AOC) at reclamation. If an area to be re-mined has had topsoil place in conjunction with contemporaneous reclamation, topsoil/subsoil will be stripped and stored in an approved location. See Section 4.6.4.1 Topsoil/Subsoil Handling Plan – Coal Mine Waste Disposal Site for details of the topsoil handling during re-mining of the site.

The spreading and compaction of the waste will be accomplished through the use of a dozer/loader and dump trucks. The dozer/loader will be used to spread and level the material and both the dozer/loader and the dump truck will be used to compact the material. Repeated, long-term operation of the equipment on each lift of material will ensure adequate compaction of the fill.

The Permittee cannot commit to the size of the dozer or the number of trucks to be used during the infrequent use of the pit. The Permittee will use its 10-ton capacity truck that may be supplemented by others which, in addition to the dozer, will be used as the need occurs.

There is approximately 1,444 yd³ of topsoil which was salvaged by the 1992 AML project which has been used in contemporaneous reclamation (Map 3.2.8-2). The old waste site contains approximately 13,470 yd³ of growth cover material. This material will be salvaged as each twenty foot lift is reclaimed. All other necessary topsoil necessary for reclamation will be imported to the site unless suitable material is located on site.

In 2007 the original pit was near capacity and the permit was modified to allow expansion of the Waste Rock pile further up the hill. Studies to insure safe expansion of the pile included wildlife, vegetation, soils, and slope stability analysis. All studies are located in the appropriate appendices. The rock waste disposal site will be inspected at least quarterly during active disposal operations.

All ditches, ponds and swales have been designed and certified. These calculations and descriptions are found in the engineering calculations in Volume 5.

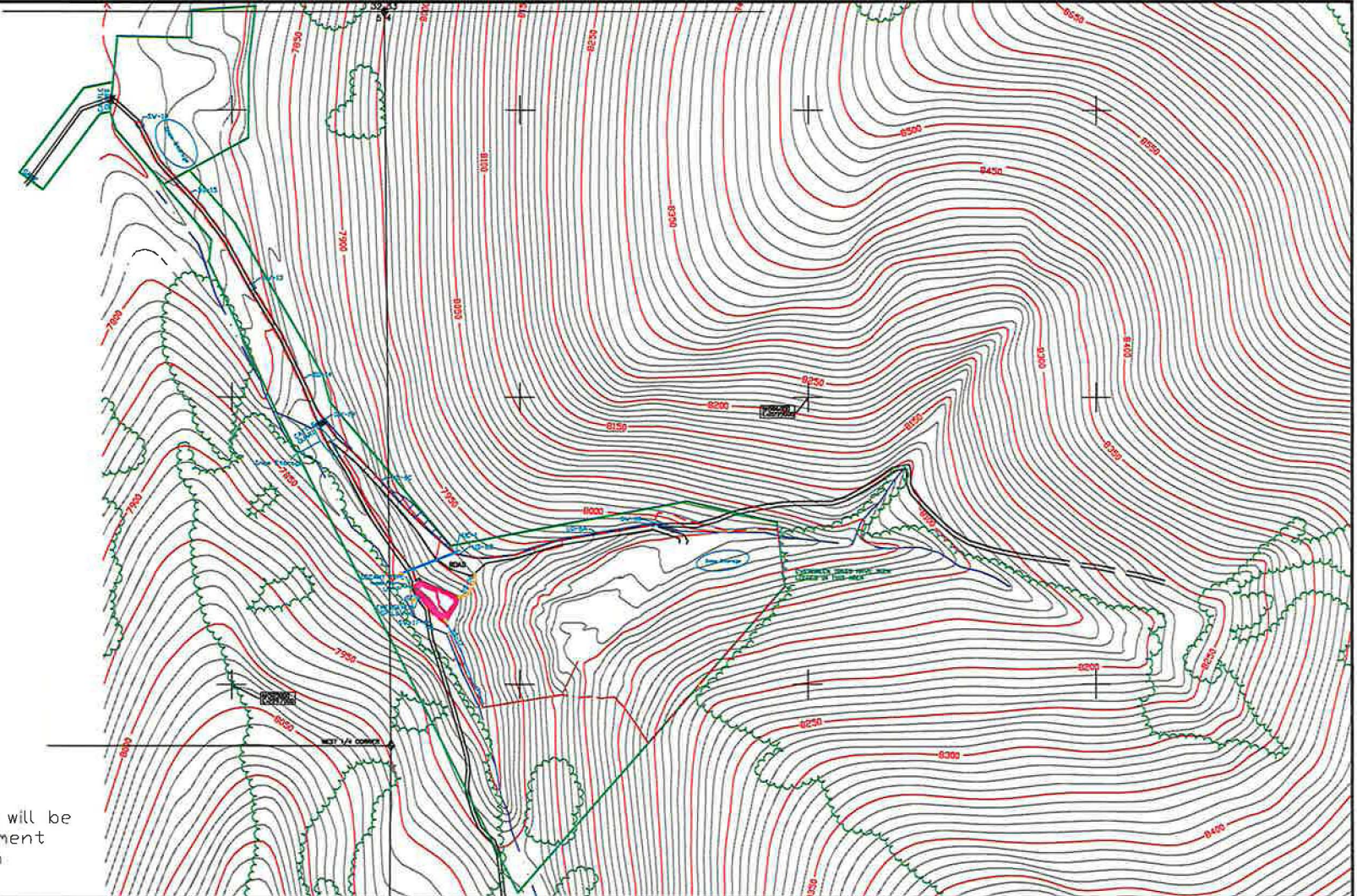
Revised: 04/18/07

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Runoff from snow melt will be treated using the sediment pond or other siltation structures.

- Permit Boundary
- Disturbed Area Boundary

DATE	No.	REVISIONS	APP'D	CHK'D	DES.	DR.
09-14-15	10	ADDED UC-1			/	J.A./J.A.

Wasla Rock Snow Removal Plan

CF Canyon Fuel Company, LLC
Skyline Mines

DATE: 11-04-08
SCALE: NONE
BY: C. Colecki
DR: B.A. Belcher

REVISION: 1
1/11/2015

The Permittee's registered engineer or other qualified professional specialist will provide the Division a certified report within two weeks after each quarterly inspection and after the completion of construction. The reports will describe the activities and appearances of instability, structural weakness, and other hazardous conditions during the reporting period and will certify that the site has been constructed and operated as specified in the design approved by the Division. A copy of this certification will be retained at the minesite. The overall design and operational procedures do not present a public hazard. This refuse pile meets the requirements of R614-536.900.

Acid and Toxic-Forming Material

The potential for encountering acid or toxic-forming materials is discussed in Section 4.4.5. Based on these tests, these materials are not expected to be present. If encountered, a handling and disposal plan will be formulated as outlined in Section 4.4.5.

3.2.9 Blasting

Surface blasting within the permitted area is not routine and in any event will be minimal. The amount of powder used during blasting will be no more than five pounds. When safe blasting requires using more than five pounds the surface blasting will be done by a certified blaster as outlined in 30CFR850 and will meet all applicable regulations of R614-301-524.100 through R614-301-524.700.

3.2.10 Electrical Power

The original utility corridor design located the power line immediately adjacent to the conveyor system in Eccles Canyon. A subsequent decision placed the power lines further up on the north side of the canyon above the permit area.

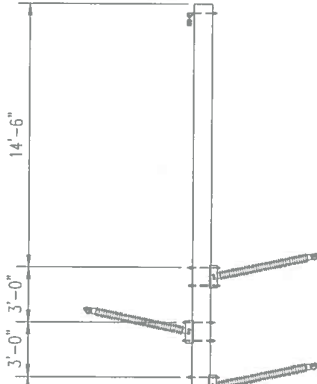
Utah Power and Light Company policy dictated that the separation of responsibility would be at the connection to the electrical sub-station which means that the power line corridor was established by Utah Power and Light and the line construction and maintenance remains their responsibility. Consequently, the Permittee was not in position to require a particular power line construction technique. The Permittee did, however, relay the Division request to provide raptor protection to Utah Power and Light. (See Division correspondence dated June 19, 1981, James W. Smith Jr. to Vernal J. Mortensen; Re: Guidelines on Perimeter Markers and Raptor Protection on Power Lines - Exhibit 1.) Utah Power and Light responded that it is their standard procedure to adhere to raptor protection practices. A copy of the Utah Power and Light correspondence is attached. (See Exhibit 2.)

Swens Power Line

To meet the increased power demands of mining in the Southwest Reserves district, an overhead power line was extended from Eccles Canyon to Swens Canyon. The 3-phase, 46 kV, single pole power line, with compact construction is necessary to supply the power needs as mining moves southwest. Between permitting in 2016 and installation in 2020 the power line voltage was increased from 12.6 kV to 46 which required the easement to be increased from 15- to 50-feet. Figures 3.2.10-1 and 3.2.10-2 illustrate the pole configuration and use of the easement, respectively. Attempts to supply the power through the mine is not practical due to the voltage-drop associated with running an insulated cable for a significant distance. Running the power overland eliminates the voltage-drop problem. Installation of the power line will not affect the Stream Buffer Zone of Huntington Creek as installation of power poles will be greater than 100-feet from the stream. One exception will be with pole #2 that is located approximately 40-feet from the stream, however the pole will be hand-dug and set with a helicopter. Figure 3.2.10-3 illustrates the approximate pole locations and wire configuration through the Huntington drainage. Figure 3.2.10-4 illustrates the power line corridor, approximate pole locations, and construction method. Pole installation will be constructed with a combination of cross-country travel by tracked equipment, minor ancillary road building, and helicopter use. In addition to ancillary roads, temporary 10x20-foot level pads will be necessary at numerous pole locations for pole installation. Table 3.2.10-1 delineates the construction activity for each pole location. Figure 3.2.10-5 illustrate both the pad and road design installations. Assuming the 12-foot road, road outslope, and topsoil storage is an approximately 20-foot wide disturbance, the approximately 6900-feet of ancillary roads and pad will disturb approximately 3.2 acres which is already included in the disturbed area of the permit. With only a few exceptions (poles 22, 28-31), any level pole-pads will be incorporated into the temporary ancillary road. Both the ancillary roads and pole-pads will be contemporaneously reclaimed following the power line installation. Figure 3.2.10-4 illustrates poles 3-7, 8-13, 14-17, 32-35, and 38-43 require ancillary roads; poles 22, and 28-31 anticipate needing only a pole-pad, and poles 44-52 will be installed using helicopter with the holes dug by hand. All other installation will be accessed without blading disturbance using tracked equipment. Attachment 3.2-B (located at the end of Section 2.3) provides electrical contractor pole installation drawings which may be used to establish line gradients. Throughout 2020 extensive logging and associated skid-trails exist throughout the area of the power line corridor. Figures 3.2.10-6A through -6C illustrate logging activity from approximately poles 11 through 24 located west of Trough Springs road that Skyline is not responsible to reclaim. Logging skid-trails east of Trough Springs road, parallel the power line corridor without intersecting each other. Sediment control is illustrated on Figure 3.2.10-5; and addressed in Section 3.2.12 as ASCA area 43. Topsoil salvage and protection measures are addressed in Chapter 2 Section 2.11 and Chapter 4, Section 4.4. Revegetation is addressed in Chapter 4, Section 4.7.

Table 3.2.10-1	
Construction Type	Pole Number
Auxillary Road	3-7, 8-13, 14-17, 33-35, 38-43
10X20 Pad/Cross Country travel	22, 28-31
Cross Country Travel Only	13-14, 17-21, 23-27, 32-33, 35-38
Helicopter	2, 43-52

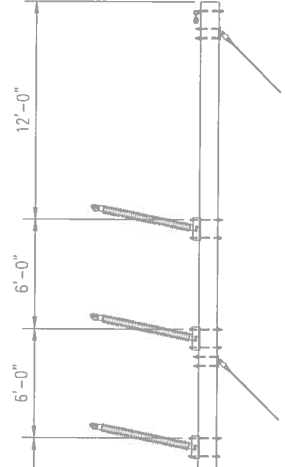
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 October 29, 2020
Division of Oil, Gas & Mining



$23.2' + 17.3' \text{ SAG} = 40.5'$
 (18.7' NESC MIN. + 4.5' = 23.2')
 (SEE NOTE 1)

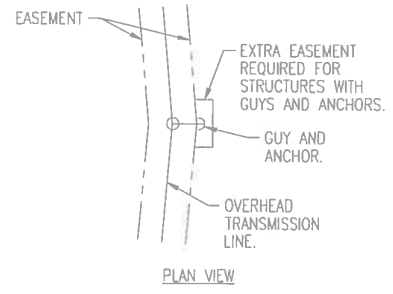
NOTE:
 1. POLE HEIGHT SHOWN IS BASED ON LEVEL
 600' SPAN. ACTUAL POLE HEIGHT WILL VARY
 WITH TERRAIN AND ACTUAL SPAN LENGTHS.

50' EASEMENT



$19.7' + 17.3' \text{ SAG} = 37'$
 (18.7' NESC MIN. + 1' = 19.7')
 (SEE NOTE 1)

NOTE:
 1. POLE HEIGHT SHOWN IS BASED ON LEVEL
 600' SPAN. ACTUAL POLE HEIGHT WILL VARY
 WITH TERRAIN AND ACTUAL SPAN LENGTHS.



PLAN VIEW

50' EASEMENT

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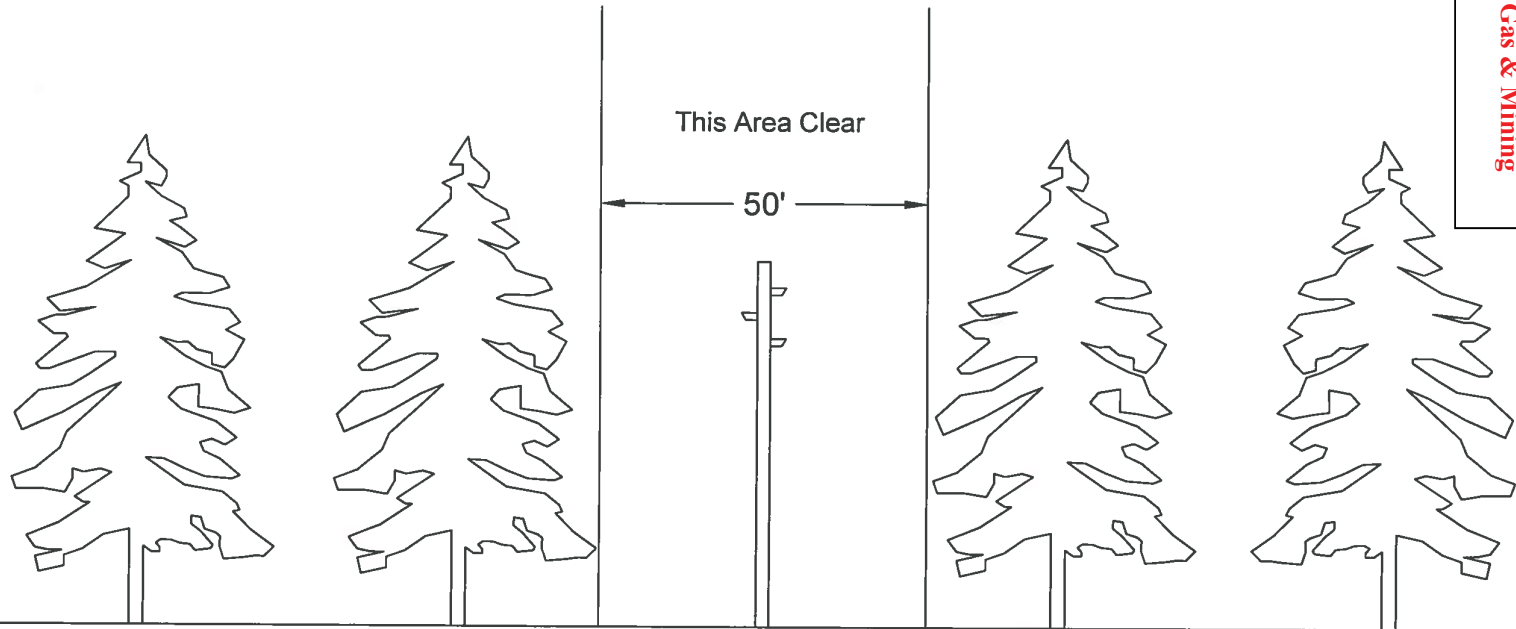
Skyline Mine
 Swens Canyon Powerline
 Pole Details


Canyon Fuel Company, LLC
 Skyline Mines

HCR 35 BOZEMAN, NEAPER, UT, 84526 CAD FILE: 435-116-2832	DATE: 6/8/20 SCALE: NTS	CK.BY: GGalecki DR.BY: TEarl	REVISION: <div style="text-align: center; font-size: 24px; font-weight: bold;">0</div>
DWG. NO.: 3.2.10-1			

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October 29, 2020
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Wooden Poles
Approximately 24 Structures
Any Roads Built For Construction Will Be Reclaimed



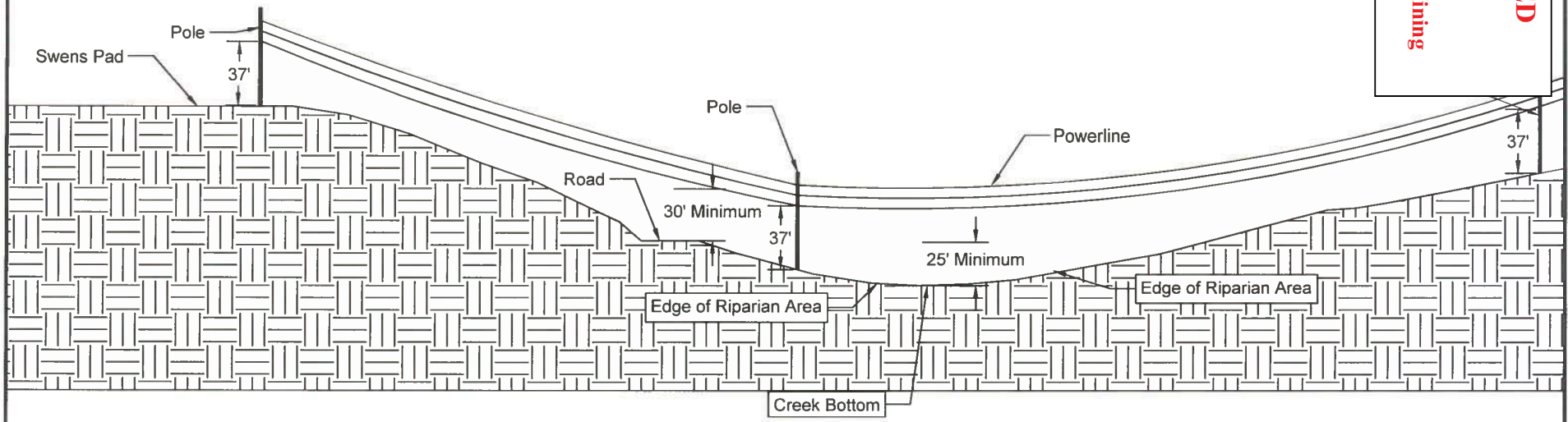
Powerline Clear Area

Skyline Mine
Swens Powerline
Clear Area

CF Canyon Fuel Company, LLC
Skyline Mines

FOR 35 BIRCHMOUNT, HELPER, UT, 84202 CUM FILE: 420-140-2832	DATE: 6/8/2020	CK.BY: GGalecki	REVISION:
DWG. NO.: 3.2.10-2	SCALE: NTS	DR.BY: TEarl	0

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 Division of Oil, Gas & Mining



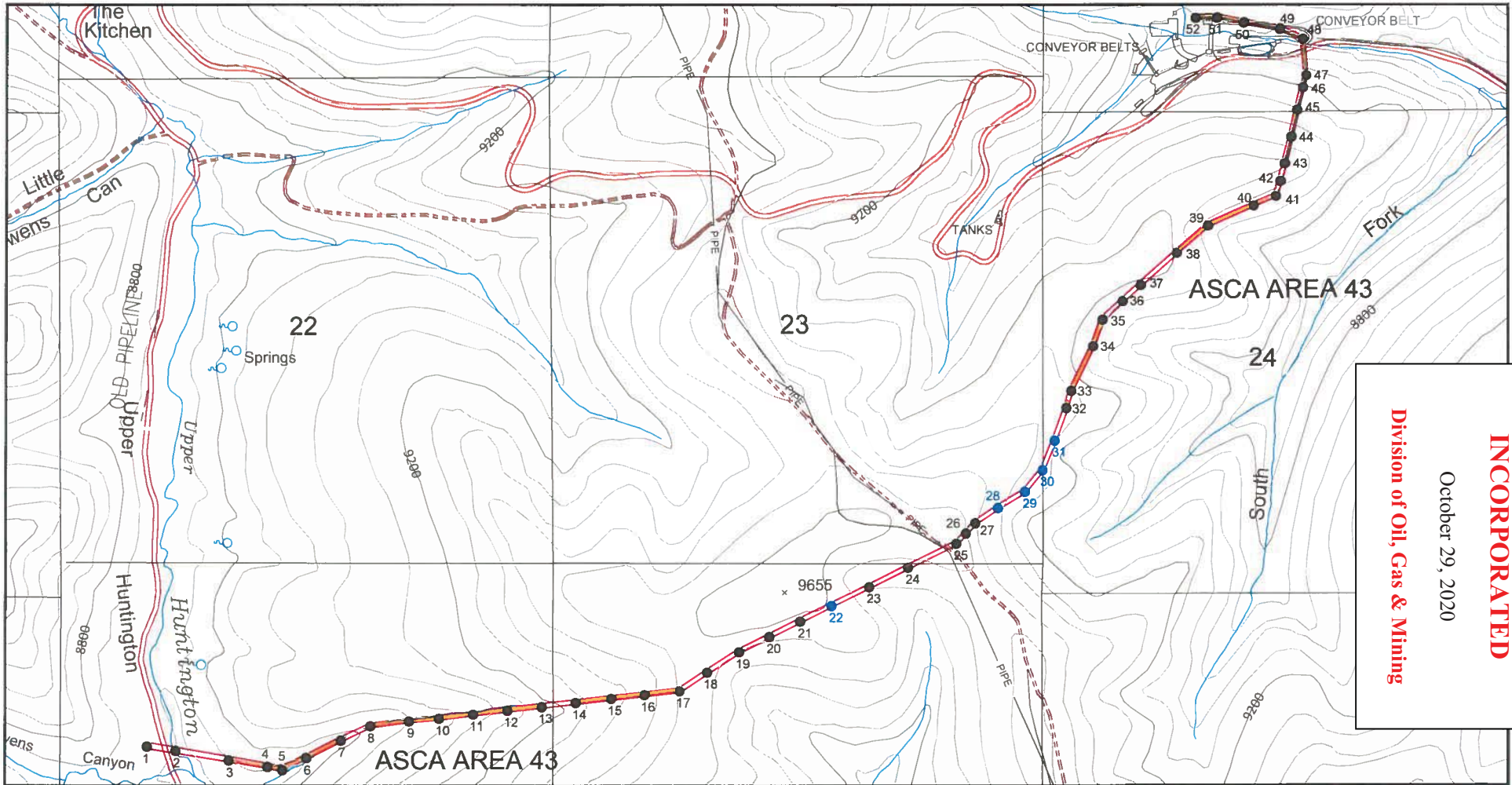
DATE	#	REVISIONS	DR. / CHKD.
10/2/2020	1	Changed Pole locations	TE / GG

Swens Canyon Powerline
 Road and Creek Crossing
 Approximate Representation

CF Canyon Fuel Company, LLC
 Skyline Mines

<small>HR 35 BOICMA, HELPER, UT, 04020 430-240-2832</small>	DATE: 7/6/20	CK.BY: GGalecki	REVISION:
CAD FILE:	SCALE: NTS	DR.BY: TEarl	1

3.2.10-3



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 October 29, 2020
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Legend

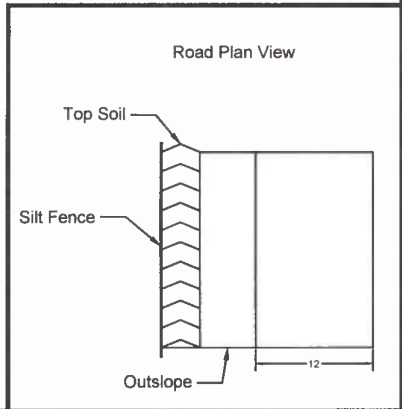
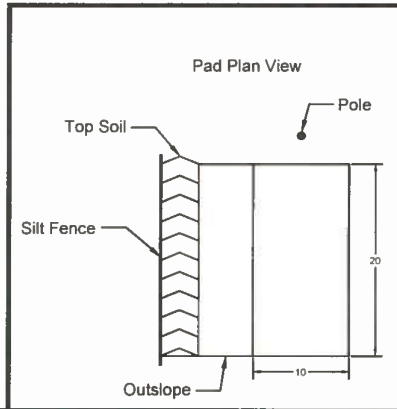
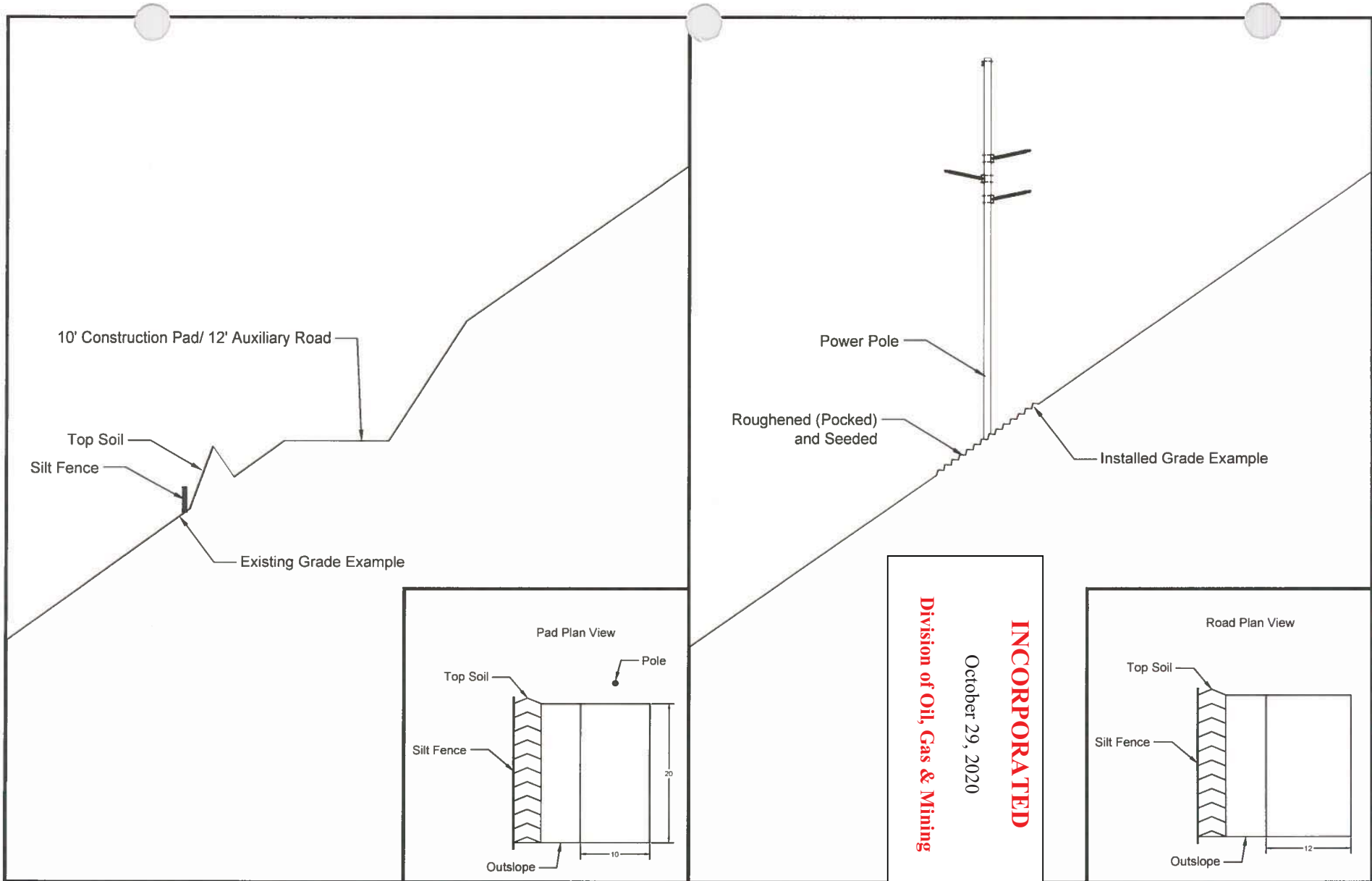
- Power Pole
- Cross Country Travel
- Auxiliary Road Construction
- Helicopter Installation
- Pole Site with Pad but no Auxiliary Road

DATE	#	REVISIONS	DR. / CHKD.
10/2/2020	1	Added pole numbers and disturbance zones	TE / GG

Swens Canyon
 Approximate Power Line
 Construction


Canyon Fuel Company, LLC
 Skyline Mines

MCR 35 BOX380 HELPER, UT, 84526 435-448-2832	DATE: 4/20/20	CK.BY: GGalecki	REVISION:
END FILE:	SCALE: 1"=1000'	DR.BY: TEarl	1
DWC. NO.: 3.2-10-4			



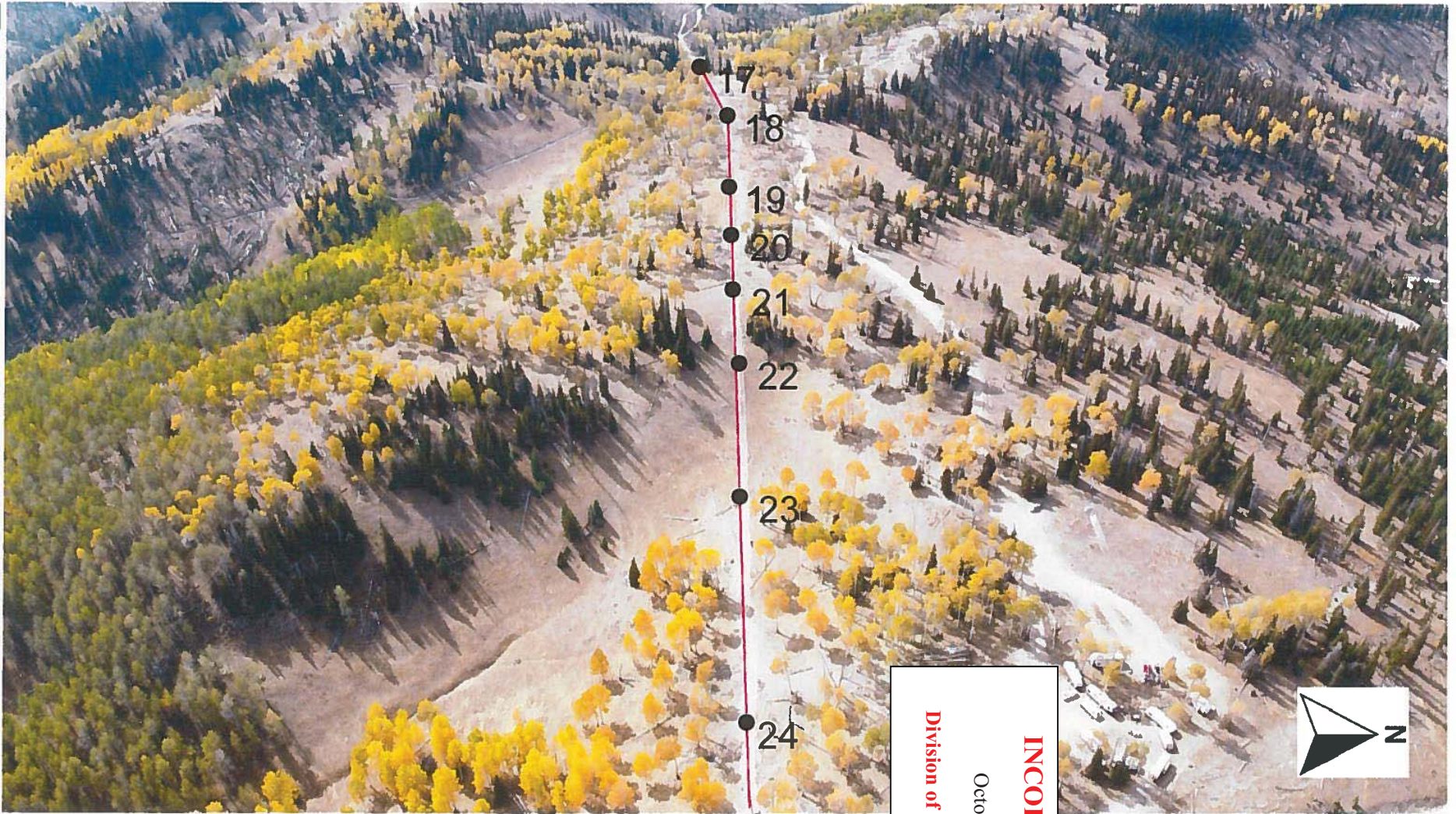
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Skyline Mine
 Swens Power Line Installation
 Auxiliary Road and Pad Examples


Canyon Fuel Company, LLC
 Skyline Mines

<small> PROJECT: SWENS POWER LINE INSTALLATION, SKYLINE MINE DATE: 9/30/20 CK.BY: GGalecki SCALE: NTS DR.BY: TEarl </small>	<small> REVISION: 0 </small>
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3.2.10-5



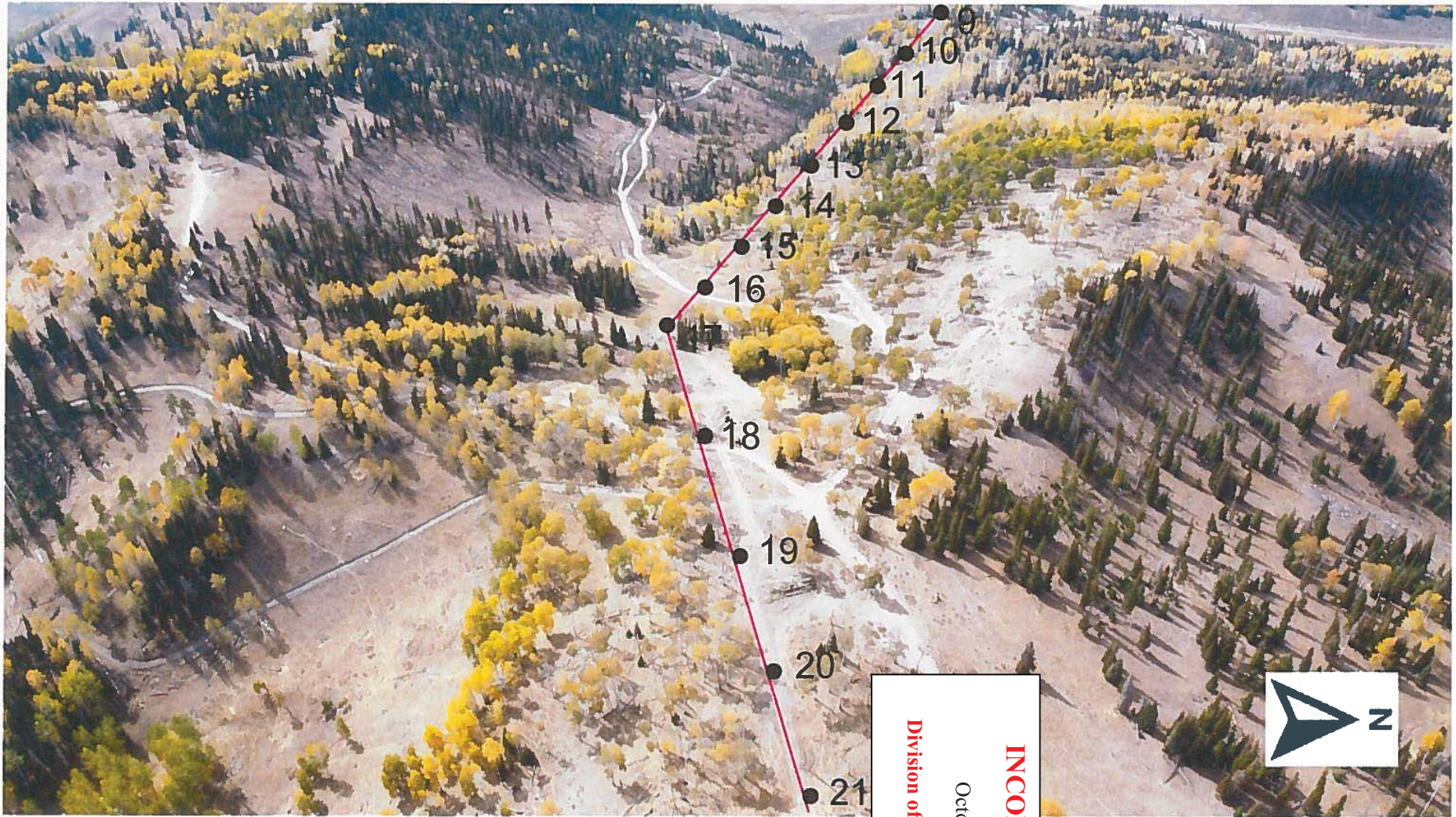
Legend

- Approximate Power Line Routing
- Approximate Power Line Poles

INCORPORATED
 October 29, 2020
 Division of Oil, Gas & Mining

Skyline Mine - Swens Canyon Power Line Overhead Photo - West 1 With Approximate Power Line and Pole Locations			
 Canyon Fuel Company, LLC Skyline Mines		DATE: 10/7/20 SCALE: NTS	CK.BY: GGalecki DR.BY: Tearl
<small>FOR 35 BOGARD, HUNTER, UT, 84003 CAD FILE: 15C-140-2020</small>		<small>REVISION:</small>	<small>FORM NO. 3.2.10-6A</small>


3.2.10-6A



Legend

- Approximate Power Line Routing
- Approximate Power Line Poles

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 Division of Oil, Gas & Mining

Skyline Mine – Swens Canyon Power Line Overhead Photo – West 2 With Approximate Power Line and Pole Locations			
 Canyon Fuel Company, LLC Skyline Mines			
<small>PER 35 BOCCING, HELPER, UT, 54020 435-442-2632</small>	<small>DATE: 10/7/20</small>	<small>CK.BY: CGalecki</small>	<small>REVISION:</small>
<small>CDU FILE:</small>	<small>SCALE: NTS</small>	<small>DR.BY: TEarl</small>	

3.2.10-6B



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October 29, 2020

Legend

- Approximate Power Line Routing
- Approximate Power Line Poles

Skyline Mine – Swens Power line
 Overhead Photo – East
 With Approximate Power Line and Pole Locations

CF Canyon Fuel Company, LLC
 Skyline Mines

DATE: 10/7/20	CK.BY:GCalecki	REVISION:
SCALE: NTS	DR.BY:TEarl	

3.2.10-6C



LOCATION MAP

THIS PROJECT

CANYON FUEL COMPANY

46kV OVERHEAD TRANSMISSION LINE SKYLINE MINE - SWENS CANYON

PRELIMINARY PLANNING

DWG No.	DRAWING TITLE
GENERAL	
E0.0	TITLE PAGE
E0.1	GENERAL NOTES AND ABBREVIATIONS
E0.2	ELECTRICAL SYMBOLS LEGEND
E0.3	46kV OVERHEAD TRANSMISSION LINE MATERIAL LIST
TRANSMISSION LINE PLANS	
E2.0	OVERHEAD TRANSMISSION LINE KEY MAP
E2.1	TRANSMISSION LINE POLE SCHEDULE
E2.2	OVERHEAD TRANSMISSION LINE PLAN & PROFILE
E2.3	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.4	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.5	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.6	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.7	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.8	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.9	OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)
E2.10	OVERHEAD TRANSMISSION LINE ROAD CROSSING DETAILS
46kV TRANSMISSION STRUCTURE DETAILS	
E3.0	TRANSMISSION LINE NOTES AND DETAILS
E3.1	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P1 (SIDE POST - TANGENT)
E3.2	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P2 (SIDE POST - TURNS UP TO 5')
E3.3	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P3 (SIDE POST - TURNS UP TO 5' - 15')
E3.4	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P4 (SIDE POST - TURNS UP TO 15' - 25')
E3.5	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P5 (SUSPENSION - TURNS UP TO 30' - 45')
E3.6	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P6 (DEAD-END)
E3.7	46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P7 (DOUBLE DEAD-END)
E3.10	TRANSMISSION LINE STRUCTURE MISC. DETAILS

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! - ATTENTION!

SCOPE OF WORK:

THIS PROJECT SCOPE COVERS THE DESIGN AND DRAWINGS NECESSARY TO FABRICATE AND CONSTRUCT THE 46kV OVERHEAD TRANSMISSION LINE

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PLANNING**

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REVISIONS				CURRENT DRAWING			
NO.	DATE	BY	APPV.	DATE	BY	APPV.	DATE
1				07/12/20			

CF Canyon Fuel Company, LLC
Scafield, Utah



90 EAST 1300 SOUTH
PRINC. UTAH 84501
PHONE: (435) 813-0700
EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
SKYLINE MINE - SWENS CANYON
46kV OVERHEAD TRANSMISSION LINE
TITLE PAGE

DESIGNED BY: ADB	CHECKED BY: MVV	DATE: ADB	DWG NO: E0.0	SHEET NO: A
PROJECT: 21208 E0.0 TITLE PAGE				

Date & Time plotted: 8/5/2020 12:48:48 PM

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October 29, 2020

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GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (2017 NEC), ALL OTHER LOCAL AND STATE ELECTRICAL CODES AND NATIONAL FIRE PROTECTION ASSOCIATION RULES AND REGULATIONS, AND MSHA CFR TITLE 30.
- EXISTING UTILITIES HAVE NOT BEEN VERIFIED BY BRUNO ENGINEERING. THE CONTRACTOR SHALL EXERCISE DUE CAUTION WHEN EXCAVATING. THE CONTRACTOR IS RESPONSIBLE TO REPAIR/REPLACE ANY UTILITY DAMAGED DURING CONSTRUCTION/EXCAVATING. COORDINATE WITH THE OWNER PRIOR TO EXCAVATION IN ANY AREA.
- ALL BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- DISTANCES AND QUANTITIES SHOWN ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND MAKING THEIR OWN MATERIAL TAKE-OFFS. DISTANCES DO NOT ACCOUNT FOR MULTIPLE CIRCUITS BETWEEN THE SAME LOCATION, OR REQUIRED MAKE-UP DISTANCES.
- PRIOR TO COVERING ANY BURIED CONDUITS OR PIPING THE CONTRACTOR SHALL SURVEY SUCH INSTALLATION AND PROVIDE SURVEYING DATA TO THE OWNER.

ABBREVIATIONS

A	AMMETER	FU	FUSE	OL	OVERLOAD	XFMR OR T	TRANSFORMER
AC	ALTERNATING CURRENT	FV	SOLENOID VALVE	OS	OIL SWITCH	Y	ANTI PUMP RELAY
A.C.	ABOVE COUNTER - VERIFY HEIGHT	FWD	FORWARD	OV	OVERVOLTAGE	ZS()	LIMIT SWITCH
ACB	AIR CIRCUIT BREAKER	GA	GAUGE	(P) OR (PART)	PARTIAL CIRCUIT USED IN MULTIPLE LOCATIONS	ZSM	BELT MISALIGNMENT SWITCH
AF	AMPERES FRAME SIZE	GALV	GALVANIZED	P	POLE		
AFCI	ARC-FAULT CIRCUIT INTERRUPTER	GS	GALVANIZED STEEL	PF	POWER FACTOR		
AFI	ABOVE FINISH FLOOR	GEN	GENERAL OR GENERATOR	PH OR #	PHASE		
AG	ABOVE GROUND/GROUND FAULT INTERRUPTING	GFI	GROUND FAULT INTERRUPTER	PMP	PROGRAMMABLE MOTOR PROTECTOR		
ALM	ALARM	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	POS	POSITIVE		
AMP	AMPERE	GM	GROUND MONITOR	PP	POWER PANEL OR POWER POLE		
ASA	AMERICAN STANDARDS ASSOCIATION	GND	GROUND	PR	PROTECTIVE RELAY		
AT	AMPERES TRIP (CONTINUOUS)	GP	GENERAL PURPOSE	PS()	PRESSURE SWITCH		
ATS	AUTOMATIC TRANSFER SWITCH	H-O-A	HAND-OFF-AUTO	HS	PUSHBUTTON		
AWG	AMERICAN WIRE GAUGE	HP	HORSE POWER	JB	PULL BOX (USE JUNCTION BOX)		
AUTO	AUTOMATIC	HS	PUSHBUTTON OR SELECTOR SWITCH	QTY	QUANTITY		
AUX	AUXILIARY	HT	HEAT TRACE	RVS	REDUCED VOLTAGE STARTER		
BATT	BATTERY	HTR	HEATER	SCH	SCHEDULE		
BKR	BREAKER	HZ OR Hz	HERTZ	SCHM	SCHEMATIC		
BLOC	BUILDING	IE	CURRENT TRANSFORMER	SPEC	SPECIFICATION		
BOM	BILL OF MATERIALS	IH	INSTA HOT	SR	SPRING RELEASE COIL (CLOSE CALL)		
BTM	BOTTOM	IN OR (")	INCH	SS()	SPEED SWITCH		
BSHG	BUSHING	INST	INSTANTANEOUS	ST1	SHUNT TRIP		
ZSM	BELT MISALIGNMENT SWITCH	IT	INSTANTANEOUS TRIP	STA	STATION		
C OR CAP	CAPACITOR	J	JOG	STD	STANDARD		
CB	CIRCUIT BREAKER	JB	JUNCTION BOX	SW	SWITCH		
CKT	CIRCUIT	JS	JOG STOP	SUB	SUBSTATION		
CL	CENTER LINE	JY	MAIN CONTACTOR	SWGR	SWITCHGEAR		
C OR COND	CONDUIT	kcmil	CIRCULAR MILLS, THOUSANDS	FV	SOLENOID VALVE		
CONIT	CONTROL	KV OR kV	KILOVOLT	HS	SELECTOR SWITCH		
CP	CONTROL PANEL	KVA	KILOVOLT-AMPERE				
CR	CONTROL RELAY	KVAR	KILOVAR				
IE	CURRENT TRANSFORMER	KW	KILOWATT				
kcmil	CIRCULAR MILLS, THOUSANDS	KWH	KILOWATT HOUR				
DB	DUCT BANK	LA	LIGHTNING ARRESTER				
DC	DIRECT CURRENT	LP	LIGHTING PANEL				
DM	DIMENSION	LTG	LIGHTNING				
DS	DISCONNECT SWITCH	ZS()	LIMIT SWITCH				
DTL	DETAIL	M	SPRING CHARGING MOTOR				
DWN	DOWN	MAN	MAN CIRCUIT BREAKER				
DWG	DRAWING	MAN	MANUAL				
E	EXISTING TO REMAIN	MAX	MAXIMUM				
EA	EACH	MCC	MOTOR CONTROL CENTER				
EF	EXHAUST FAN	MCP	MOTOR CIRCUIT PROTECTOR				
EC	ELECTRICAL CONTRACTOR	MCR	MASTER CONTROL RELAY				
EF	EXHAUST FAN	MCS	MULTILIN CURRENT SENSOR				
ELEC	ELECTRICAL	MG	MOTOR GENERATOR				
ELL	ELBOW	MH	MANHOLE				
EL	ELEVATION (HEIGHT)	MIN	MINIMUM				
ELEV	ELEVATION (VIEW)	MISC	MISCELLANEOUS				
EMERG	EMERGENCY	MLO	MAIN LUGS ONLY				
ENCL	ENCLOSURE	MTD	MOUNTED				
ENGR	ENGINEER	MTG	MOUNTING				
EP	EXPLOSION PROOF	MTR	MOTOR				
EQUIP	EQUIPMENT	MVA	MEGA VOLT-AMPERE				
ER	EXISTING TO BE RELOCATED	MW	MEGAWATTS				
EST	ESTIMATE	NC	NORMALLY CLOSED				
EX	EXISTING TO BE REMOVED	NEC	NATIONAL ELECTRICAL CODE				
EXIST	EXISTING	NEG	NEGATIVE				
EWC	ELECTRICAL WATER COOLER	NEMA	NATIONAL ELEC. MFR'S. ASSOCIATION				
F	FAHRENHEIT	NEUT	NEUTRAL				
FDR	FEEDER	NO	NORMALLY OPEN				
FIG	FIGURE	NO. OR #	NUMBER				
FF OR FIN FLN	FINISH FLOOR	NTS	NOT TO SCALE				
FG OR FIN GR	FINISH GRADE	OC	OVERCURRENT				
FIX	FIXTURE	OCB	OIL CIRCUIT BREAKER				
FLEX	FLEXIBLE						
FREQ	FREQUENCY						
FS	FLOW SWITCH						
FT OR (')	FEET						

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REVISIONS		CURRENT DRAWING	
NO.	DATE	BY	CHK
1	07/21/20		
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CF Canyon Fuel Company, LLC
Scofield, Utah



80 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
 SKYLINE WARE - 3RD FLOOR CANYON
 48W OVERHEAD TRANSMISSION LINE
 GENERAL NOTES AND ABBREVIATIONS

21208 ED.1 GEN. NOTES-ABBREV **E0.1**

INCORPORATED

October 29, 2020

Division of Oil, Gas & Mining

	8	7	6	5	4	3	2	1																																											
	ELECTRICAL PLAN SYMBOLS		SINGLE-LINE DIAGRAM SYMBOLS			LINE TYPES																																													
D	COMB. STARTER /DISCON. SWITCH NON-FUSED DISCON. SWITCH EQUIPMENT FUSED DISCON. SWITCH MAGNETIC CTRL (STARTER) ELECT. PANELBOARD TELEPHONE TERMINAL BOARD PULL BOX METER PHOTOCELL CONDUIT CAP CONDUIT CONTINUATION GUY WIRE AND ANCHOR	INDICATES DETAIL NUMBER INDICATES DRAWING ON WHICH DETAIL APPEARS INDICATES SECTION NUMBER INDICATES DRAWING ON WHICH SECTION APPEARS WORK PLAN I.D. NO. / EQUIP TAG INDICATES ITEM NUMBER ON MATERIALS LIST INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST INDICATES WIRE TAG INDICATES RACEWAY TAG INDICATES ITEM NUMBER IN INSTALLATION NOTES & STRUCTURAL CALLOUTS DELTA REVISION NOTE INDICATES SHEET NOTE DIRECT BURIED CONDUIT DUCT BANK CONCRETE-ENCASED CONDUIT DUCT BANK	12.47kV, 3ø, 60Hz. AC POWER SUPPLY CIRCUIT BREAKER FUSE FUSED DISCONNECT DISCONNECT SWITCH STABS CONDUCTORS RISE/FALL DOWN OVERHEAD POLE CONDUCTORS ENTER/EXIT DUCTBANK OR RACEWAY STRESS CONE LIGHTING TRANSFORMER DISTRIBUTION TRANSFORMER LONG LEAD FILTER VARIABLE FREQUENCY DRIVE SOFT START (REDUCED VOLTAGE STARTER) DEVICENET NETWORK NODE MOTOR STARTER CONTACTOR	MOTOR OVERLOAD HEATER VISUAL CIRCUIT BREAKER POWER FUSED CUTOUT HOOK STICK OPERATED FUSED DISCONNECT CAPACITOR VOLTAGE REGULATOR AUTOMATIC TRANSFER SWITCH FLEX CONDUIT MOTOR FUSED SWITCH	AIR-BREAK INTERRUPTER SWITCH GANG OPERATED LINE ISOLATION SWITCH AIR-BREAK INTERRUPTER SWITCH MOTORIZED CURRENT TRANSFORMER, SINGLE RATIO (WINDOW TYPE) CURRENT TRANSFORMER w/ POLARITY MARKS (BUSHING TYPE) HIGH VOLTAGE AC CIRCUIT BREAKER MEDIUM VOLTAGE AC CIRCUIT BREAKER RESISTANCE GROUND RATE AT CIRCUIT BREAKER DRAW-OUT TYPE TRANSFER SWITCH GANG OPERATED TYPE MTS - MANUAL TRANSFER SWITCH GROUND	WATT HOUR METER WATT-HOUR METER WITH 15 MINUTE DEMAND AMMETER VOLTMETER AMMETER SWITCH VOLTMETER SWITCH DIGITAL LCD DISPLAY BUS DUCT VOLTAGE REGULATORS w/ BYPASS SWITCHES	EQUIPMENT ENCLOSURE / AREA DESIGNATION EQUIPMENT / VENDOR WIRING FIELD WIRING SHIELD TERMINAL JUMPER / BRIDGE EXISTING 800V SECONDARY POWER FEEDER NEW 800V SECONDARY POWER FEEDER EXISTING FUTURE EXISTING HIGH VOLTAGE POWER FEEDER NEW HIGH VOLTAGE POWER FEEDER BUILDING MANUFACTURER WIRING EXISTING SUBSTATION FENCE NEW SUBSTATION FENCE EXISTING OVERHEAD ELECTRIC LINE NEW OVERHEAD ELECTRIC LINE EXISTING UNDERGROUND ELECTRIC LINE NEW UNDERGROUND ELECTRIC LINE EXISTING FIBER OPTIC LINE NEW FIBER OPTIC LINE EXISTING ETHERNET CABLE NEW ETHERNET CABLE NEW / IN SCOPE OF WORK / FUTURE	D																																											
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	PRELIMINARY PLANNING		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">REVISIONS</th> <th colspan="2">CURRENT DRAWING</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>CHK</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		REVISIONS		CURRENT DRAWING		NO.	DATE	BY	CHK	1				2				3				4				5				6				7				8				Canyon Fuel Company, LLC Scofield, Utah		BRUNO ENGINEERING 90 EAST 1300 SOUTH PRICE, UTAH 84501 PHONE: 435 613-0700 EMAIL: info@brunoengineering.com		CAUTION FUEL COMPANY SKYLINE MINE - SWEDE'S CANYON 48KV OVERHEAD TRANSMISSION LINE ELECTRICAL SYMBOLS LEGEND	21208 ELEC SYMB LEGEND E0.2	A
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 October 29, 2020
 Division of Oil, Gas & Mining

46KV TRANSMISSION LINE MAJOR MATERIAL LIST					
ITEM	QTY.	DESCRIPTION	MANUFACTURER	PART NO.	NOTES
1	38	INSULATOR, SUSPENSION, POLYMER, 138KV CLASS	NGK-LOCKE	251-SS410-YJ	OR EQUAL
3	0	SURGE ARRESTER GE TRANQUELL STATION CLASS, 48KV RATING, 39KV MCOV	GENERAL ELECTRIC	8L11ZGA048S	NO SUBSTITUTE
8	12	DEAD-END ALUMINUM STRAIN CLAMP, BOLTED	ANDERSON	SD86C	NO SUBSTITUTE
13	AS REQ	MISCELLANEOUS POLE MOUNTING HARDWARE	AFL	-	OR EQUAL
14	AS REQ	MISCELLANEOUS POLE GUY AND ANCHOR HARDWARE	-	-	OR EQUAL
23	0	UNISTRUT SUPPORT	-	-	-
24	0	4" RGS CONDUIT	-	-	-
25	0	4" WEATHERHEAD	-	-	-
26	0	2" RGS CONDUIT	-	-	-
27	0	2" WEATHERHEAD	-	-	-
40	147	LINE POST INSULATOR, POLYMER, w/ HORIZONTAL TOP CLAMP, 138KV CLASS	NGK-LOCKE	L3-SN341-23	OR EQUAL
41	147	MOUNTING STUDS FOR LINE POST INSULATORS	HUBBELL	DF19M16	OR EQUAL
42	46	SHIELD WIRE SUPPORT BRACKET w/ BOLTED SUSPENSION CLAMP HARDWARE (w/ TROUGH BOLT)	HUBBELL	PSC2060822	OR EQUAL
44	AS REQ	GROUND BONDING CLP	-	-	OR EQUAL
43	9	65', CLASS 2 WOOD POLE	-	-	OR EQUAL
45	23	70', CLASS 2 WOOD POLE	-	-	OR EQUAL
46	16	75', CLASS 2 WOOD POLE	-	-	OR EQUAL
47	4	80', CLASS 2 WOOD POLE	-	-	OR EQUAL

LEGEND

INDICATES DETAIL NUMBER → 1
 INDICATES DRAWING ON WHICH DETAIL APPEARS → E2.0

INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST → 1

SHEET NOTES:

- ① CONSTRUCTOR SHALL SUPPLY ALL PARTS AND MATERIAL TO INSTALL THE OVERHEAD TRANSMISSION LINES AS SPECIFIED.
- ② FOR CONDUCTOR & CABLE SCHEDULE SEE DWG E3.0

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REVISIONS		CURRENT DRAWING	
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CF Canyon Fuel Company, LLC
 Scofield, Utah



90 EAST 1350 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
 SKYLINE MINE - SWERS CANYON
 48KV OVERHEAD TRANSMISSION LINE
 48KV OVERHEAD TRANSMISSION LINE MATERIAL LIST

DATE: 10/29/20 11:27 AM BY: AD
 PROJECT: 21208 E0.3 TRANSM. LINE MATLS LIST 48KV
 SHEET: E0.3

Date & Time printed: 10/29/20 12:47:11 PM

GENERAL NOTES:

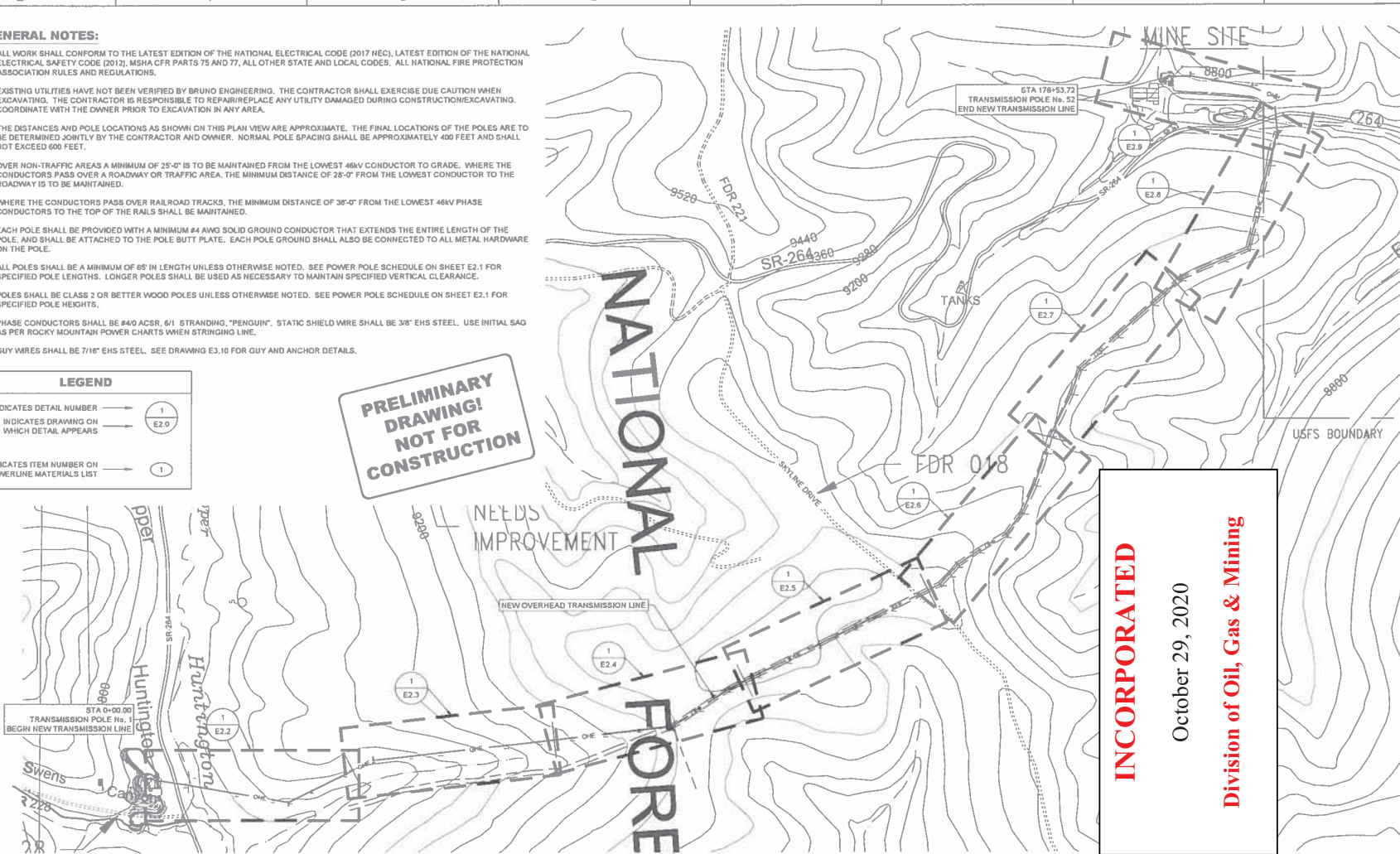
- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (2017 NEC), LATEST EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE (2012), 49 CFR PARTS 75 AND 77, ALL OTHER STATE AND LOCAL CODES, ALL NATIONAL FIRE PROTECTION ASSOCIATION RULES AND REGULATIONS.
- EXISTING UTILITIES HAVE NOT BEEN VERIFIED BY BRUNO ENGINEERING. THE CONTRACTOR SHALL EXERCISE DUE CAUTION WHEN EXCAVATING. THE CONTRACTOR IS RESPONSIBLE TO REPAIR/REPLACE ANY UTILITY DAMAGED DURING CONSTRUCTION/EXCAVATING. COORDINATE WITH THE OWNER PRIOR TO EXCAVATION IN ANY AREA.
- THE DISTANCES AND POLE LOCATIONS AS SHOWN ON THIS PLAN VIEW ARE APPROXIMATE. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED JOINTLY BY THE CONTRACTOR AND OWNER. NORMAL POLE SPACING SHALL BE APPROXIMATELY 400 FEET AND SHALL NOT EXCEED 600 FEET.
- OVER NON-TRAFFIC AREAS A MINIMUM OF 25'-0" IS TO BE MAINTAINED FROM THE LOWEST 48KV CONDUCTOR TO GRADE. WHERE THE CONDUCTORS PASS OVER A ROADWAY OR TRAFFIC AREA, THE MINIMUM DISTANCE OF 28'-0" FROM THE LOWEST CONDUCTOR TO THE ROADWAY IS TO BE MAINTAINED.
- WHERE THE CONDUCTORS PASS OVER RAILROAD TRACKS, THE MINIMUM DISTANCE OF 36'-0" FROM THE LOWEST 48KV PHASE CONDUCTORS TO THE TOP OF THE RAILS SHALL BE MAINTAINED.
- EACH POLE SHALL BE PROVIDED WITH A MINIMUM #4 AWG SOLID GROUND CONDUCTOR THAT EXTENDS THE ENTIRE LENGTH OF THE POLE, AND SHALL BE ATTACHED TO THE POLE BUTT PLATE. EACH POLE GROUND SHALL ALSO BE CONNECTED TO ALL METAL HARDWARE ON THE POLE.
- ALL POLES SHALL BE A MINIMUM OF 65' IN LENGTH UNLESS OTHERWISE NOTED. SEE POWER POLE SCHEDULE ON SHEET E2.1 FOR SPECIFIED POLE LENGTHS. LONGER POLES SHALL BE USED AS NECESSARY TO MAINTAIN SPECIFIED VERTICAL CLEARANCE.
- POLES SHALL BE CLASS 2 OR BETTER WOOD POLES UNLESS OTHERWISE NOTED. SEE POWER POLE SCHEDULE ON SHEET E2.1 FOR SPECIFIED POLE HEIGHTS.
- PHASE CONDUCTORS SHALL BE #40 ACSR, 6/1 STRANDING, "PENGUIN". STATIC SHIELD WIRE SHALL BE 3/8" EHS STEEL. USE INITIAL SAO AS PER ROCKY MOUNTAIN POWER CHARTS WHEN STRINGING LINE.
- GUY WIRES SHALL BE 7/16" EHS STEEL. SEE DRAWING E3.10 FOR GUY AND ANCHOR DETAILS.

LEGEND	
INDICATES DETAIL NUMBER	1
INDICATES DRAWING ON WHICH DETAIL APPEARS	E2.0
INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST	1

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INCORPORATED
October 29, 2020
Division of Oil, Gas & Mining



OVERHEAD TRANSMISSION LINE KEY MAP
SCALE: 1" = 500'

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NO.	REVISIONS	DATE	BY	CHKD	APPD	CURRENT DRAWING	
						DATE	BY
1						07/21/20	

Canyon Fuel Company, LLC
Scofield, Utah



80 EAST 1300 SOUTH
PRICE, UTAH 84501
PHONE: (435) 813-0700
EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
SKYLINE MINE - SWENIS CANYON
48KV OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE KEY MAP
DATE: ADB BY: MYW CHECK: ADB
PROJECT: 21208 E2.0 TRANSM LINE KEY MAP
SCALE: **E2.0**

Date & Time plotted: 05/20/20 12:47:28 PM

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TRANSMISSION LINE POLE SCHEDULE

POLE NO.	POLE LENGTH (FT)	SETTING DEPTH (FT)	POLE DESIGN	REF. SHEET	POLE CLASS	POLE GROUND	NORTHING	EASTING	GROUND ELEV.
1	65'	8.5'	P6	E3.6	2	#4 AWG SOLID COPPER	484785.9264	2072105.3901	9682.66
2	75'	9.5'	P1	E3.1	2	#4 AWG SOLID COPPER	484719.7680	2072420.9630	9646.74
3	75'	9.5'	P1	E3.1	2	#4 AWG SOLID COPPER	484618.3199	2072997.4772	8737.78
4	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	484547.2002	2073401.6396	8801.03
5	70'	8.0'	P5	E3.5	2	#4 AWG SOLID COPPER	484516.8717	2073573.8915	8783.39
6	75'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	484647.5692	2073837.0091	8830.78
7	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	484834.4702	2074213.1315	8865.39
8	70'	9.0'	P4	E3.4	2	#4 AWG SOLID COPPER	484993.2895	2074532.7018	8897.54
9	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485040.2193	2074950.0694	8930.97
10	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485077.0436	2075277.4247	8969.26
11	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485116.9307	2075649.7811	9033.33
12	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485180.6386	2076022.3352	9122.01
13	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485202.7407	2076394.5061	9211.36
14	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485244.5916	2076766.6705	9266.38
15	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	485286.4768	2077139.2320	9357.79
16	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	485328.3659	2077511.5935	9407.68
17	70'	9.0'	P5	E3.5	2	#4 AWG SOLID COPPER	485370.2500	2077883.9390	9509.00
18	75'	9.5'	P1	E3.1	2	#4 AWG SOLID COPPER	485573.8540	2078192.2380	9556.31
19	75'	9.5'	P3	E3.3	2	#4 AWG SOLID COPPER	485796.4480	2078530.2170	9600.00
20	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	485963.2884	2078966.0777	9600.00
21	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	486130.1308	2079290.8983	9600.00
22	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	486296.9721	2079637.7390	9600.00
23	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	486501.8309	2079949.7036	9505.58
24	75'	9.5'	P1	E3.1	2	#4 AWG SOLID COPPER	486710.7388	2080370.6239	9547.35
25	70'	9.0'	P4	E3.4	2	#4 AWG SOLID COPPER	486871.8090	2080896.3020	9523.30
26	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	487082.8645	2080996.9935	9520.54
27	75'	9.5'	P3	E3.3	2	#4 AWG SOLID COPPER	487193.8800	2081101.8850	9482.66
28	65'	8.5'	P2	E3.2	2	#4 AWG SOLID COPPER	487382.3170	2081345.0670	9418.19
29	80'	10.0'	P4	E3.4	2	#4 AWG SOLID COPPER	487540.5000	2081640.0690	9361.25
30	75'	9.5'	P3	E3.3	2	#4 AWG SOLID COPPER	487778.0990	2081819.8920	9353.08
31	70'	9.0'	P2	E3.2	2	#4 AWG SOLID COPPER	488096.0320	2081961.8177	9334.80
32	75'	9.5'	P2	E3.2	2	#4 AWG SOLID COPPER	488449.6485	2082006.6389	9290.89
33	75'	9.5'	P3	E3.3	2	#4 AWG SOLID COPPER	488639.2420	2082137.2330	9241.88
34	75'	8.5'	P3	E3.3	2	#4 AWG SOLID COPPER	488119.3020	2082376.2760	9171.15
35	80'	10.0'	P5	E3.5	2	#4 AWG SOLID COPPER	488408.9680	2082474.3040	9200.50

TRANSMISSION LINE POLE SCHEDULE

POLE NO.	POLE LENGTH (FT)	SETTING DEPTH (FT)	POLE DESIGN	REF. SHEET	POLE CLASS	POLE GROUND	NORTHING	EASTING	GROUND ELEV.
36	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	489608.8660	2082696.6960	9201.37
37	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	489786.0950	2082896.3490	9201.96
38	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	490134.5076	2083289.0750	9200.01
39	70'	9.0'	P4	E3.4	2	#4 AWG SOLID COPPER	490432.3400	2083623.3640	9120.01
40	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	490645.8710	2084114.9690	9196.76
41	75'	9.5'	P7	E3.7	2	#4 AWG SOLID COPPER	490750.6460	2084364.6820	9107.11
42	80'	10.0'	P7	E3.7	2	#4 AWG SOLID COPPER	490918.1130	2084410.8370	9120.30
43	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	491108.7750	2084461.2430	9036.78
44	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	491396.1440	2084527.1890	8934.35
45	65'	8.5'	P1	E3.1	2	#4 AWG SOLID COPPER	491689.8300	2084598.2120	8821.71
46	70'	9.0'	P1	E3.1	2	#4 AWG SOLID COPPER	491931.9874	2084660.3394	8727.62
47	70'	9.0'	P7	E3.7	2	#4 AWG SOLID COPPER	492063.8760	2084694.1770	8620.22
48	75'	9.5'	P7	E3.7	2	#4 AWG SOLID COPPER	492666.9012	2083491.0960	8663.23
49	75'	9.5'	P4	E3.4	2	#4 AWG SOLID COPPER	492694.8550	2083718.3870	8703.33
50	75'	9.5'	P1	E3.1	2	#4 AWG SOLID COPPER	492640.8485	2084015.8475	8731.47
51	80'	10.0'	P4	E3.4	2	#4 AWG SOLID COPPER	492569.3466	2084409.2050	8718.62
52	75'	9.5'	P6	E3.6	2	#4 AWG SOLID COPPER	492462.4594	2084680.5193	8666.61

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 October 29, 2020
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REVISIONS				CURRENT DRAWING			
NO.	DATE	BY	APP'D.	NO.	DATE	BY	APP'D.
1				1	07/24/20		

Canyon Fuel Company, LLC
 Scofield, Utah



80 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
 SKYLIE MBIE - SWHIS CANYON
 46W OVERHEAD TRANSMISSION LINE
 TRANSMISSION LINE POLE SCHEDULE

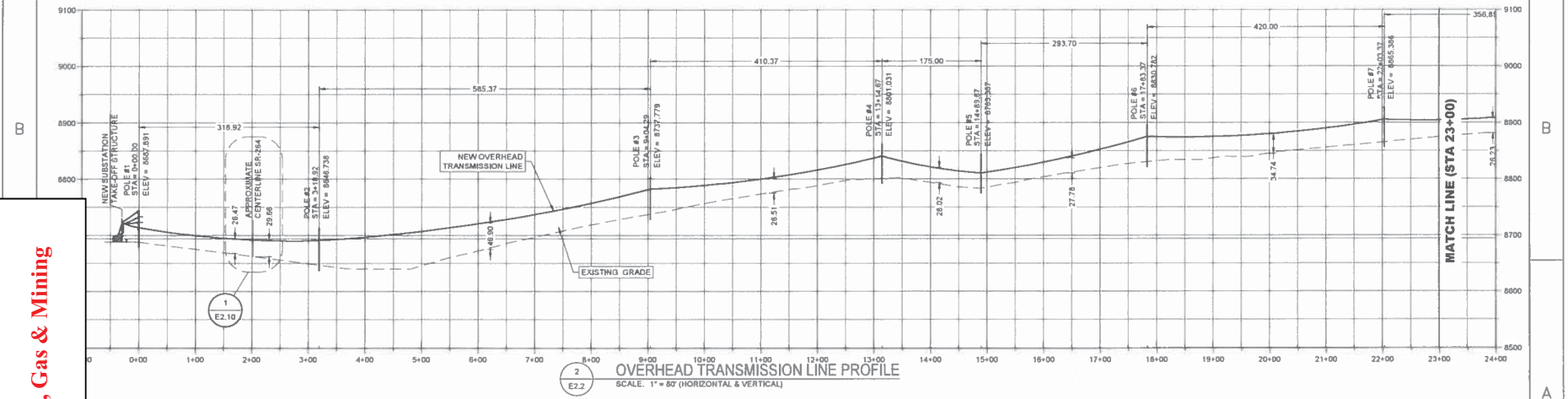
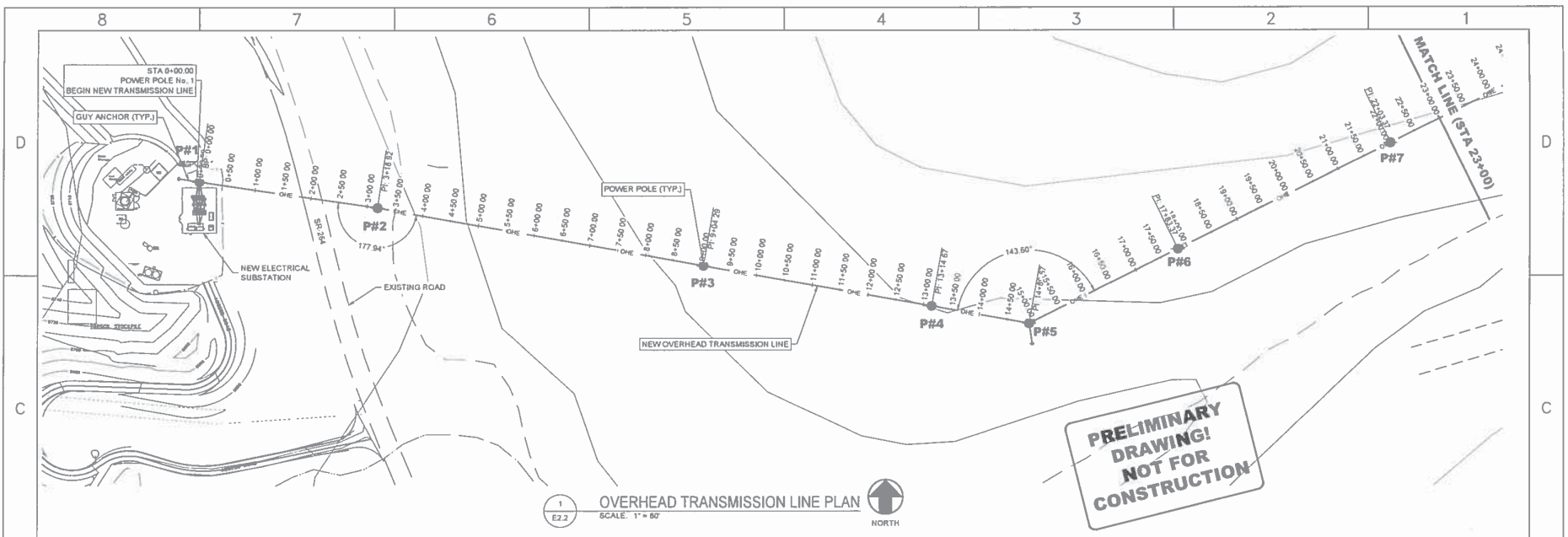
DATE: 21208 E2.1 TRANSM LINE SCHED SCALE: E2.1

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REVISIONS					CURRENT DRAWING	
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Scofield, Utah



90 EAST 1300 SOUTH
PRICELY, UTAH 84501
PHONE: (435) 613-0700
EMAIL: info@brunoengineering.com

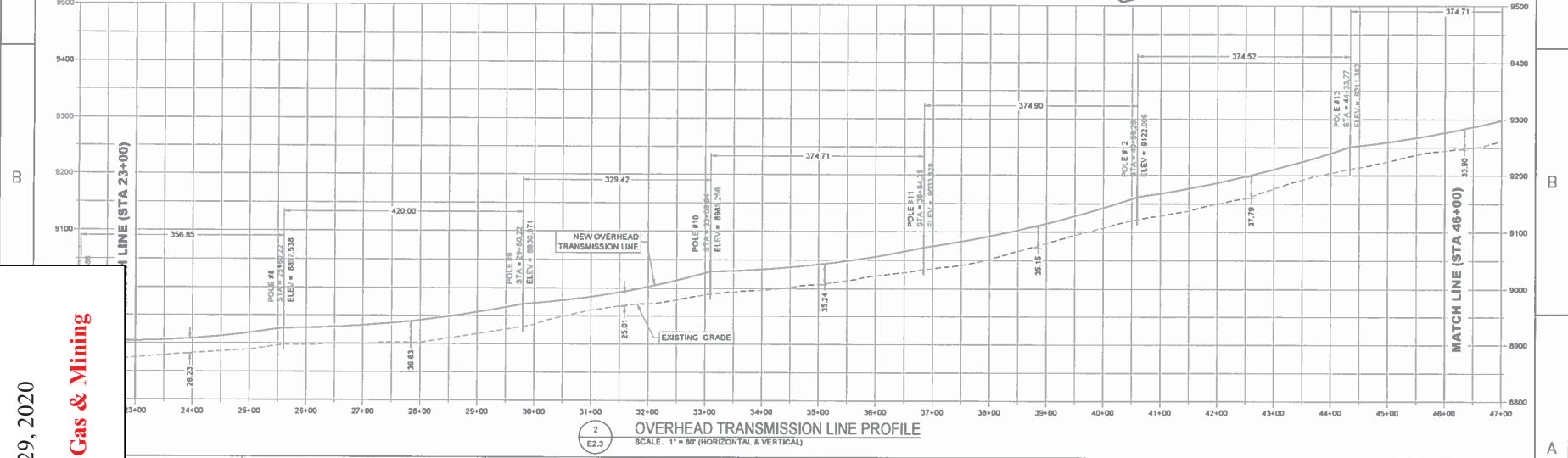
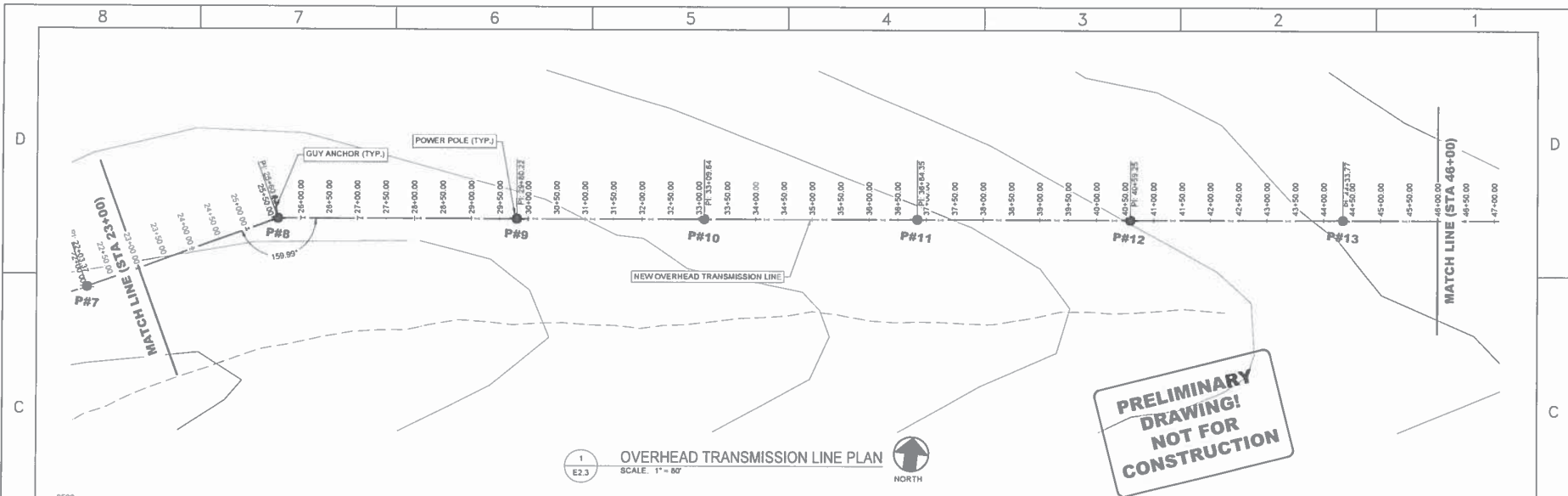
CANYON FUEL COMPANY
SKYLINE MINE - SWEHS CANYON
48KV OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE PLAN & PROFILE

DATE: 10/29/20 11:20 AM 11:20 AM
DRAWN BY: E2.2
CHECKED BY: E2.2
SCALE: 1" = 60'
SHEET: E2.2 OF 2
PROJECT: SKYLINE MINE - SWEHS CANYON 48KV OVERHEAD TRANSMISSION LINE PLAN & PROFILE

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CF Canyon Fuel Company, LLC
Scofield, Utah

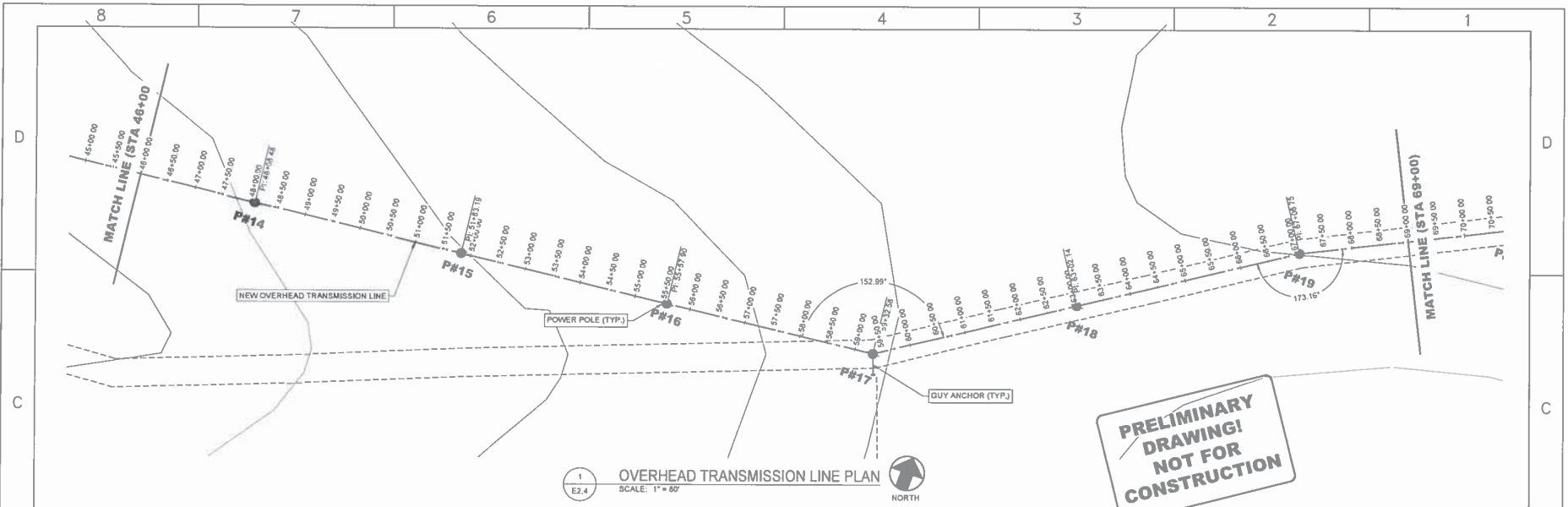


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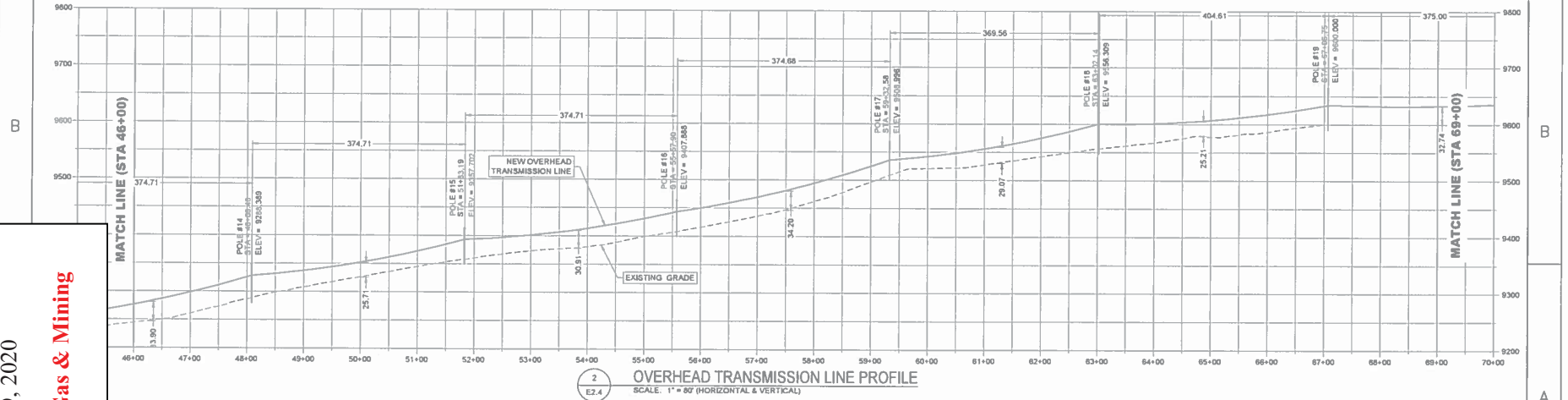
CANYON FUEL COMPANY
SKYLINE MINE - SWEDIS CANYON
66KV OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)

DATE: 10/29/20 DRAWN BY: ADB CHECKED BY: MWW
PROJECT: 21208_E2.3_TRANSM LINE P&P-COIT

E2.3



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REVISIONS		CURRENT DRAWING	
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Scofield, Utah



BRUNO ENGINEERING
80 EAST 1300 SOUTH
PRICE, UTAH 84501
PHONE: (435) 613-0700
EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
SKYLINE MINE - SNEIS CANYON
46W OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)

DATE: 11/11/20
DRAWN BY: ADB
CHECKED BY: MMYW
SCALE: 1" = 60'
PROJECT: 21208-E2.4-TRANSM LINE-P&P-COIT

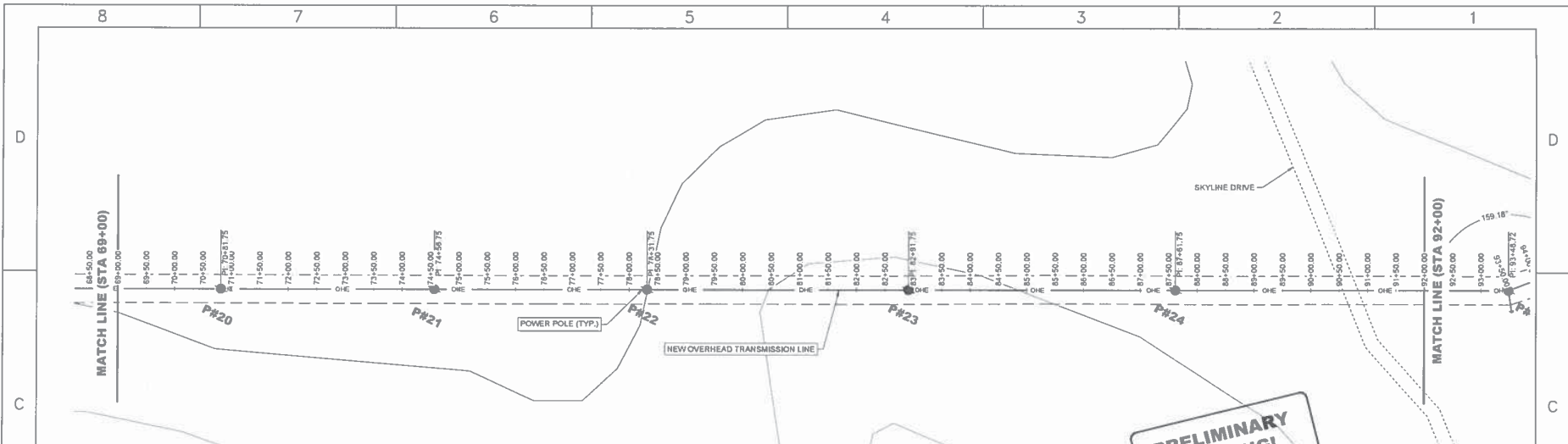
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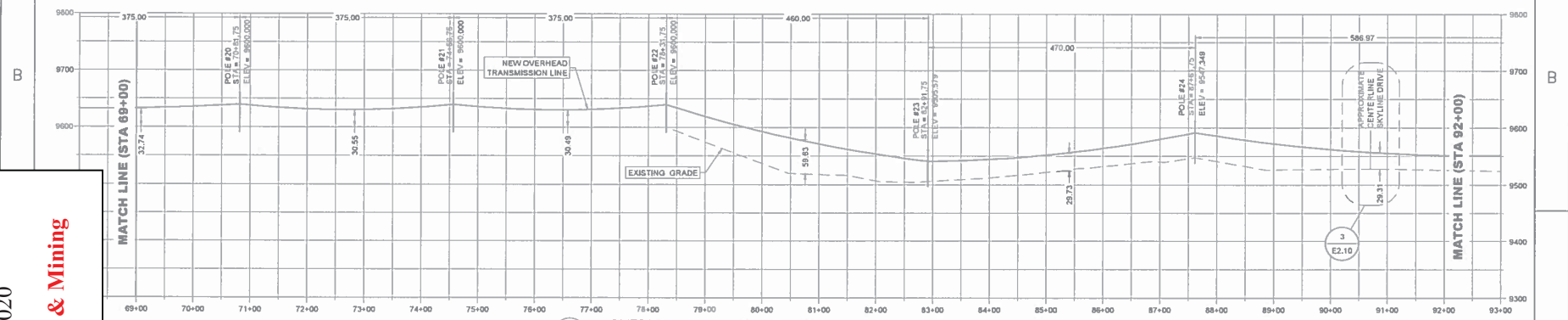
October 29, 2020

Division of Oil, Gas & Mining



1 OVERHEAD TRANSMISSION LINE PLAN
SCALE: 1" = 60'

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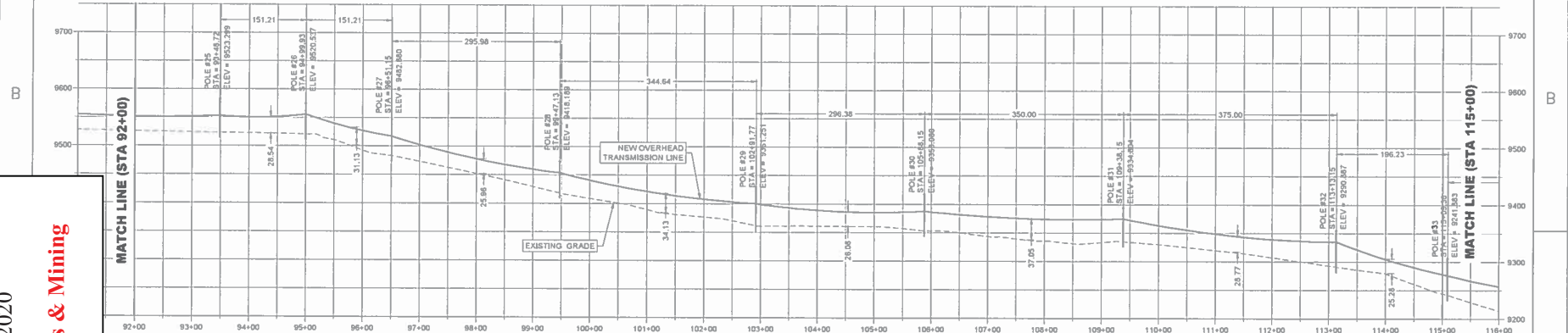
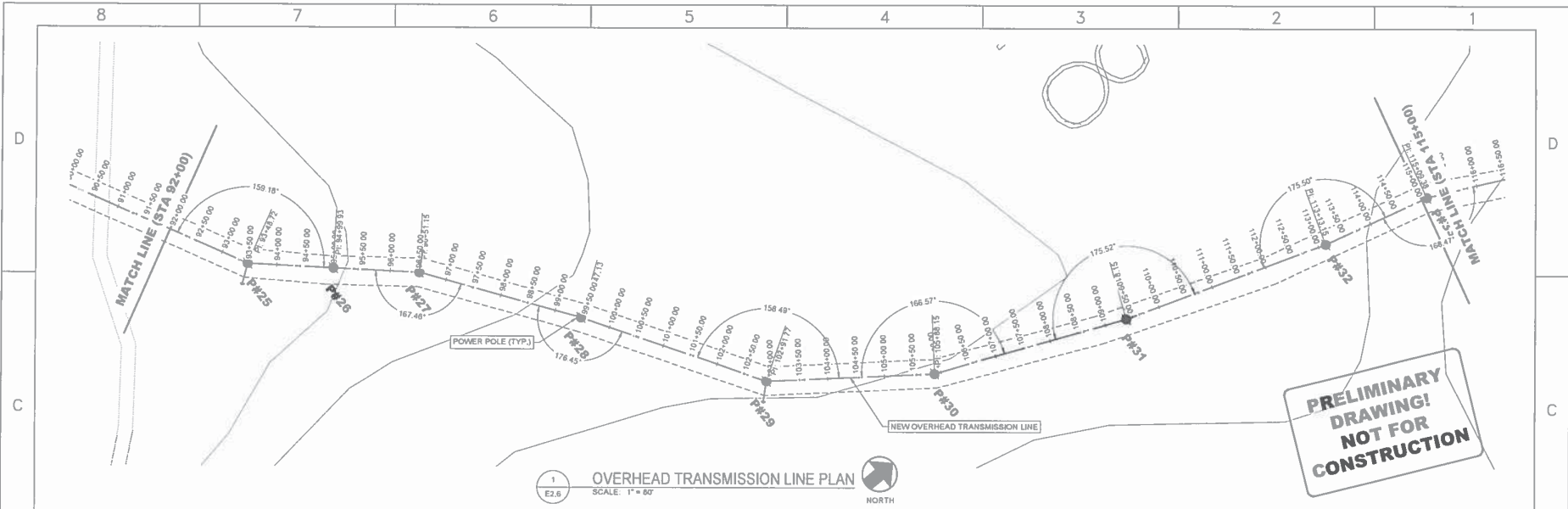
2 OVERHEAD TRANSMISSION LINE PROFILE
SCALE: 1" = 60' (HORIZONTAL & VERTICAL)

<p>PRELIMINARY PLANNING</p>	<p>All design information depicted on this drawing is proprietary and the sole property of Bruno Engineering, P.C. This design/drawing may be used only by authorization by Bruno Engineering. This design in part or in total may not be used or duplicated for any other project or purpose. Non payment for this design automatically revokes the authorization for use.</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>APP.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10/29/20</td> <td>ADB</td> <td></td> <td>ISSUED FOR PERMITTING</td> </tr> </tbody> </table>		NO.	DATE	BY	APP.	DESCRIPTION	1	10/29/20	ADB		ISSUED FOR PERMITTING	<p>CURRENT DRAWING</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>APP.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10/29/20</td> <td>ADB</td> <td></td> <td>ISSUED FOR PERMITTING</td> </tr> </tbody> </table>		NO.	DATE	BY	APP.	DESCRIPTION	1	10/29/20	ADB		ISSUED FOR PERMITTING	<p>CF Canyon Fuel Company, LLC Scofield, Utah</p>	<p>BRUNO ENGINEERS</p>	<p>80 EAST 1300 SOUTH PRICELAKE, UTAH 84051 PHONE: (435) 613-0700 EMAIL: info@brunoengineering.com</p>
	NO.	DATE	BY	APP.	DESCRIPTION																								
1	10/29/20	ADB		ISSUED FOR PERMITTING																									
NO.	DATE	BY	APP.	DESCRIPTION																									
1	10/29/20	ADB		ISSUED FOR PERMITTING																									
<p>DO NOT SCALE THIS DRAWING: The scale factor shown on this drawing (if any) is based on a final print size of 24" x 36". Due to the differences in printers and final print size, the scale of the printed drawing may not be accurate. The dimensions shown on the drawing shall govern.</p>		<p>DATE: 10/29/20 PROJECT: 21208_E2.5_TRANSMISSION LINE_P&P-COINT</p>		<p>E2.5</p>	<p>A</p>																								

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October 29, 2020

Division of Oil, Gas & Mining



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NO.	DATE	REVISIONS	BY	CHKD	APP'D	DATE
1						
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3						
4						
5						
6						
7						

CF Canyon Fuel Company, LLC
Scofield, Utah



CANYON FUEL COMPANY
5000 N. HWY 89, SHELBY, UTAH 84401
460V OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)

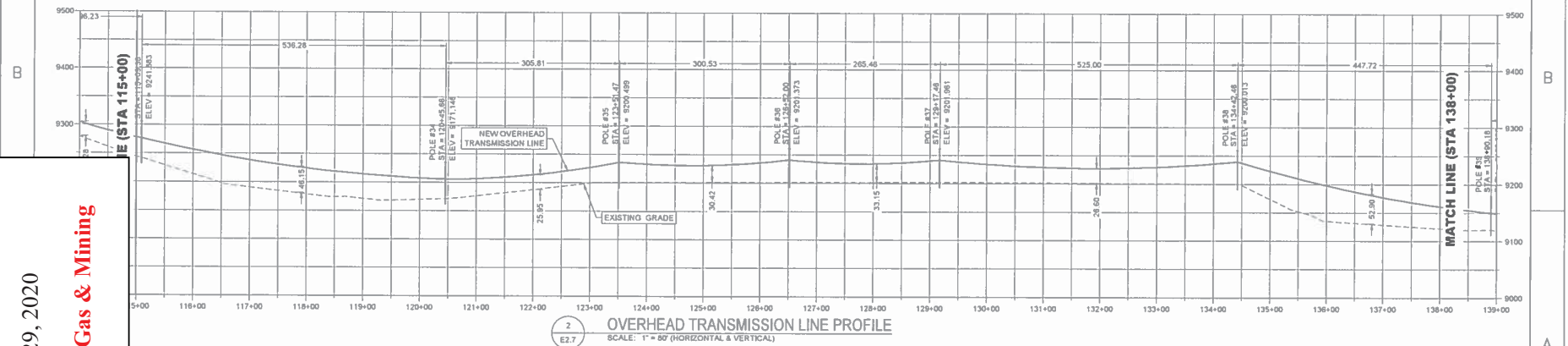
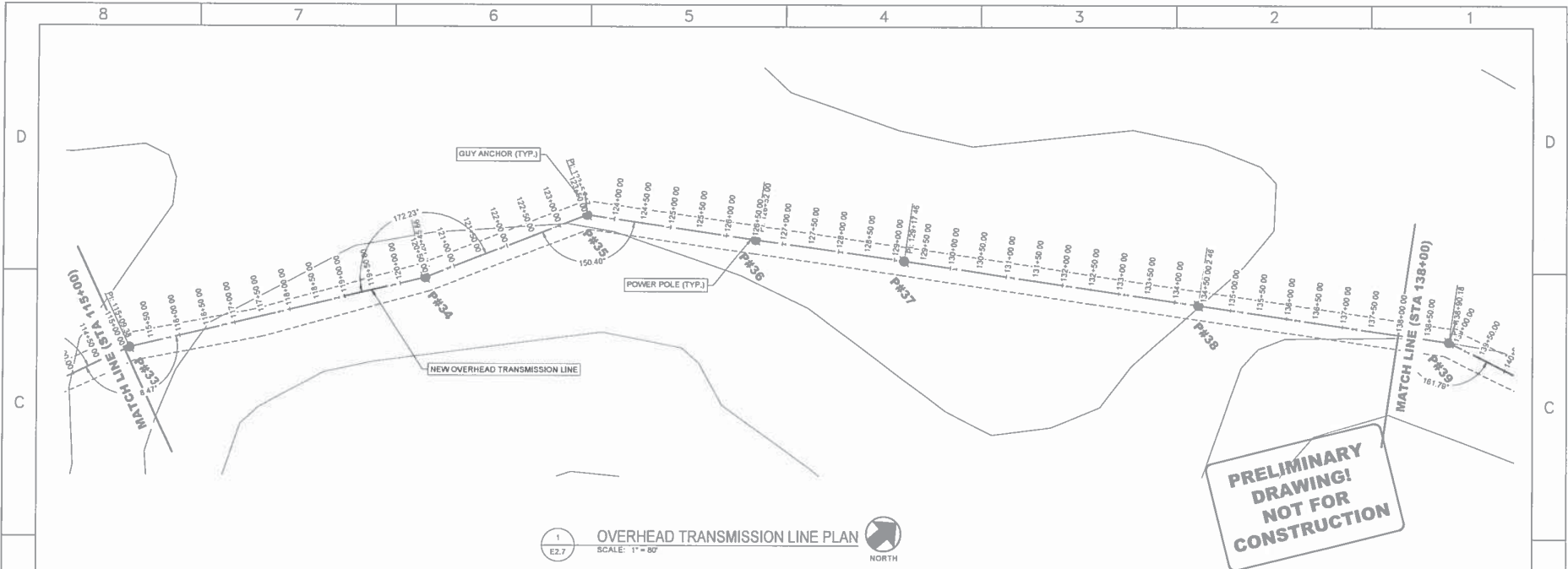
80 EAST 1300 SOUTH
PRICE, UTAH 84501
PHONE: (435) 813-4700
EMAIL: info@brunoengineering.com

DATE: 21208, E3.6, TRANSM. LINE, P&P-CONT. DRAWN BY: MYY CHECKED BY: ADB DESIGNED BY: ADB SCALE: **E2.6**

INCORPORATED

October 29, 2020

Division of Oil, Gas & Mining



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REVISIONS		CURRENT DRAWING	
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CF Canyon Fuel Company, LLC
Scofield, Utah



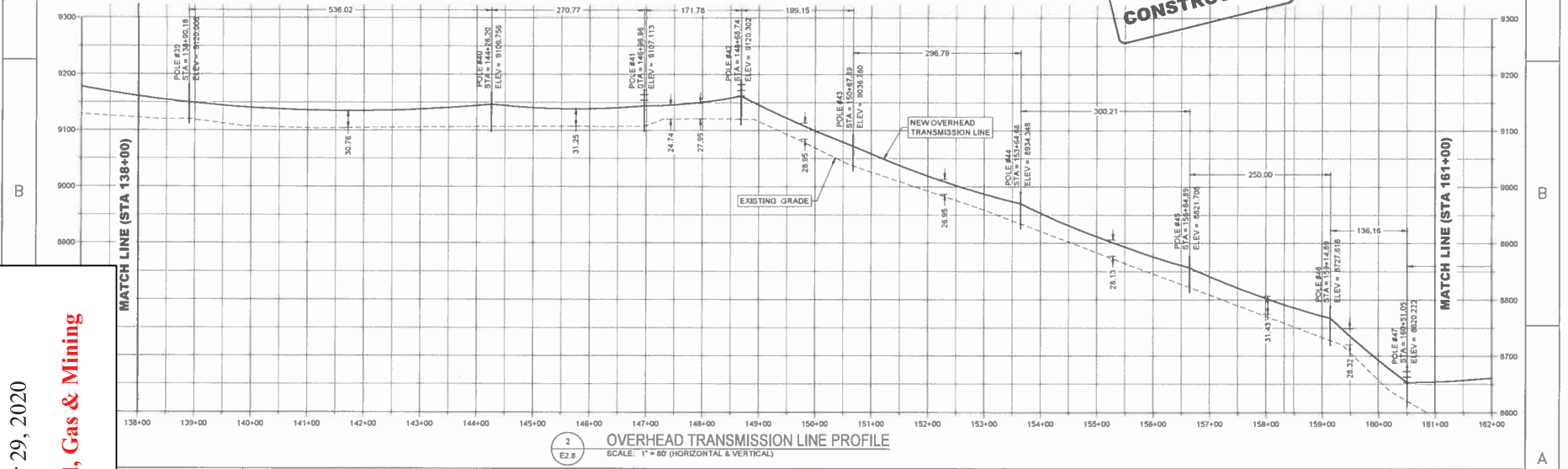
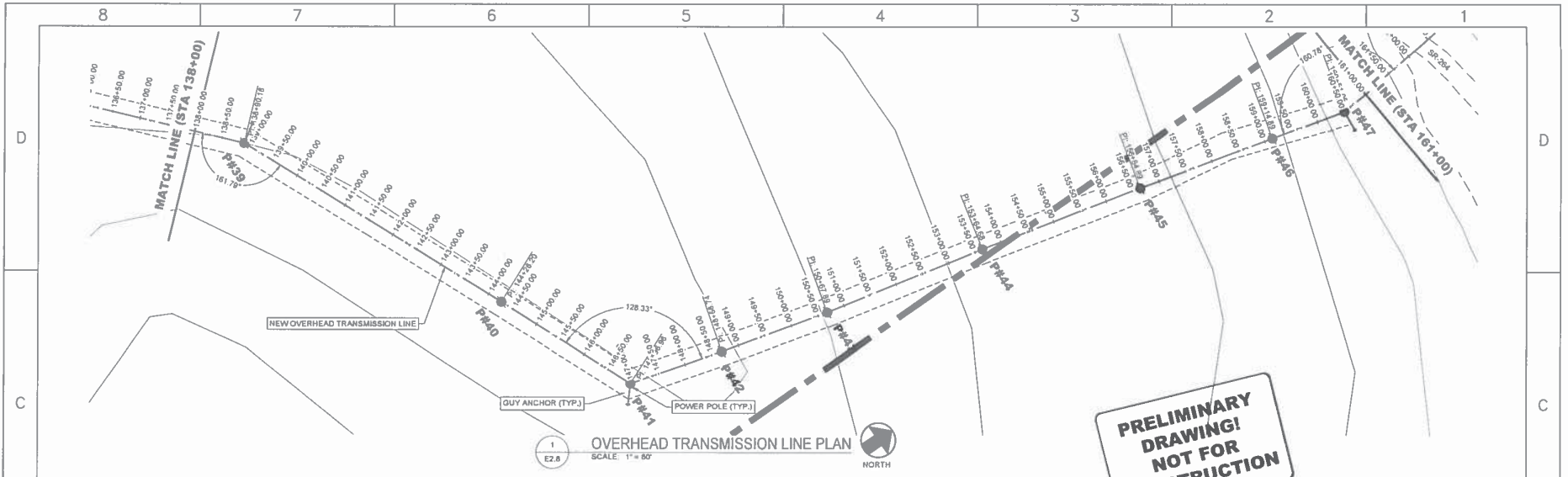
90 EAST 1300 SOUTH
PRICE, UTAH 84501
PHONE: (435) 813-0700
EMAIL: info@stroneengineering.com

CANYON FUEL COMPANY / SKYLINE MINE - SMOGGS CANYON 48KV OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)

DATE: 2/10/20 E2.7 TRANSM LINE P&P-CONT

E2.7

A



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REVISIONS		CURRENT DRAWING	
NO.	DATE	BY	CHKD

DATE: 07/21/20
DRAWN BY: [Signature]
CHECKED BY: [Signature]
SCALE: 1" = 80'

CF Canyon Fuel Company, LLC
Scofield, Utah

BRUNO ENGINEERING
80 EAST 1306 SOUTH
PRICEL, UTAH 84501
PHONE: (435) 813-0700
EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
SKYLINE MINE, SWEETS CANYON
48W OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE PLAN & PROFILE (CONT.)

DATE: 10/29/20
DRAWN BY: ADB
CHECKED BY: MWW
SCALE: 1" = 80'

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October 29, 2020

Division of Oil, Gas & Mining

Date: 01/29/2020 10:57:00 AM

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REVISIONS		CURRENT DRAWING	
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3	REVISED FOR COMMENTS		
4	REVISED FOR COMMENTS		
5	REVISED FOR COMMENTS		
6	REVISED FOR COMMENTS		
7	REVISED FOR COMMENTS		
8	REVISED FOR COMMENTS		
9	REVISED FOR COMMENTS		
10	REVISED FOR COMMENTS		

CF Canyon Fuel Company, LLC
Scafield, Utah



CANYON FUEL COMPANY
SKYLINE MINE - SWENS CANYON
46W OVERHEAD TRANSMISSION LINE
OVERHEAD TRANSMISSION LINE ROAD CROSSING DETAILS

80 EAST 1300 SOUTH
PRICED, UTAH 84001
PHONE: (435) 813-0700
EMAIL: info@brunoengineering.com

REV: ADB

DATE: 21208

BY: MMY

DATE: 21208

BY: ADB

DATE: 21208

BY: ADB

DATE: 21208

BY: ADB

DATE: 21208

BY: ADB

E2.10

A

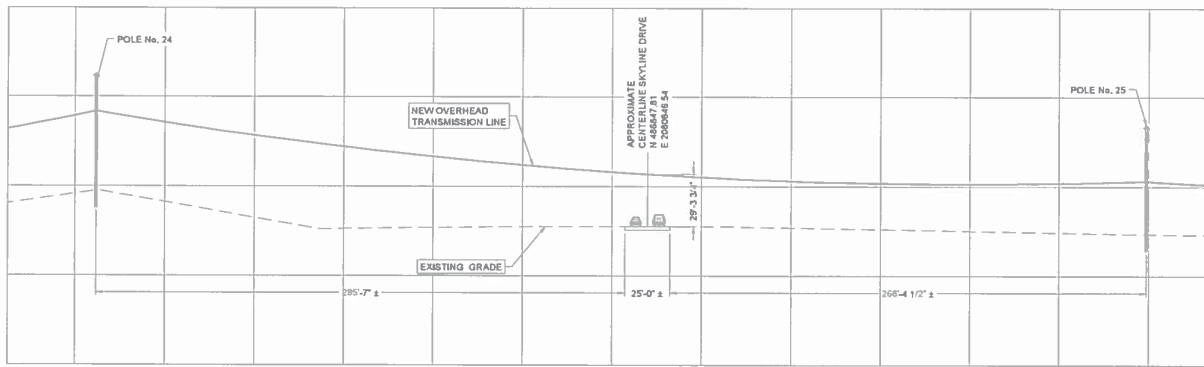
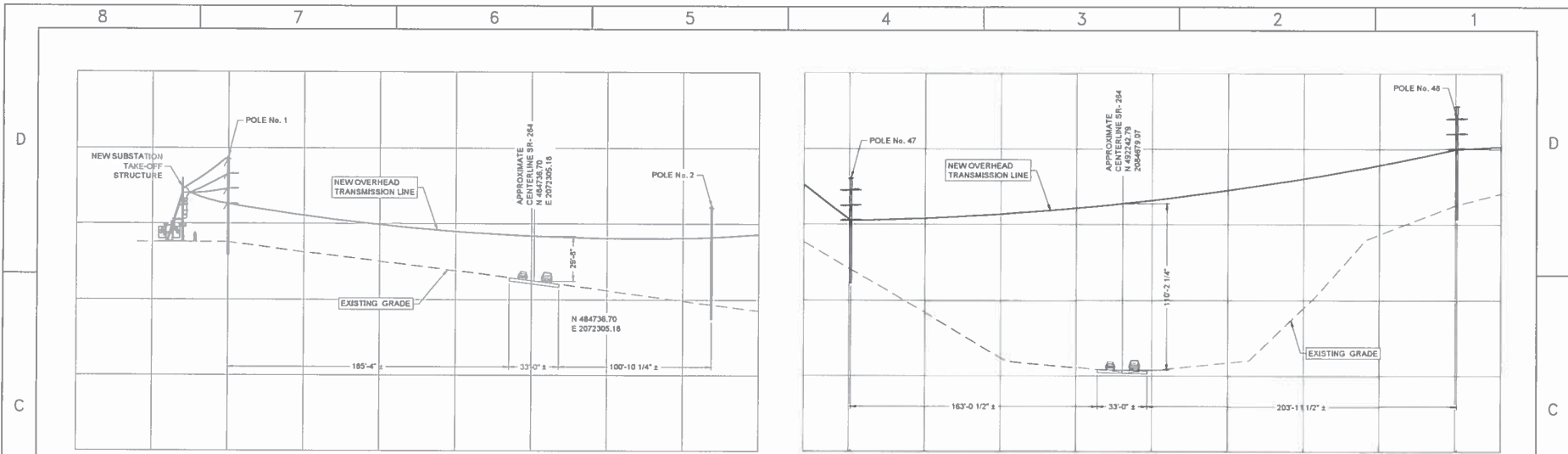
1 HIGHWAY (SR-264) CROSSING DETAIL AT SWENS CANYON SUBSTATION
SCALE: 1" = 30'

2 HIGHWAY (SR-264) CROSSING DETAIL AT SKYLINE MINE
SCALE: 1" = 30'

3 ROADWAY (SKYLINE DRIVE) CROSSING DETAIL
SCALE: 1" = 30'

NOTE:
COORDINATE SYSTEM: NAD83

**PRELIMINARY
DRAWING!
NOT FOR
CONSTRUCTION**



INSTALLATION NOTES:

- SEE POWER POLE SCHEDULE (E2.1) AND PLAN & PROFILE DRAWINGS (E2.2 - E2.6) FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
- THE NORMAL SPACING BETWEEN POLES SHALL BE APPROXIMATELY 400 FEET AND SHALL NOT EXCEED 600 FEET.
- OVER NON-TRAFFIC AREAS A MINIMUM OF 25'-0" IS TO BE MAINTAINED FROM THE LOWEST CONDUCTOR TO GRADE.
- WHERE THE CONDUCTORS PASS OVER A ROADWAY OR TRAFFIC AREA, THE MINIMUM DISTANCE OF 28'-0" FROM THE LOWEST CONDUCTOR TO THE ROADWAY IS TO BE MAINTAINED.
- EACH POLE SHALL BE PROVIDED WITH A MINIMUM #4 AWG SOLID GROUND CONDUCTOR THAT EXTENDS THE ENTIRE LENGTH OF THE POLE, AND SHALL BE ATTACHED TO THE POLE BUTT PLATE. EACH POLE GROUND SHALL ALSO BE CONNECTED TO THE TOP GROUND/STATIC CONDUCTOR, AND METAL HARDWARE ON THE POLE.
- LIGHTNING ARRESTERS SHALL NOT BE GROUNDED TO THE ISOLATED MINE GROUND CONDUCTOR.
- ALL POLES SHALL BE A MINIMUM OF 85' IN LENGTH. LONGER POLES SHALL BE USED AS NECESSARY TO MAINTAIN SPECIFIED VERTICAL CLEARANCE. SEE POWER POLE SCHEDULE ON SHEET E2.1 FOR SPECIFIED POLE HEIGHTS.
- POLES SHALL BE CLASS 2 OR BETTER WOOD POLES.
- MINIMUM SETTING DEPTHS FOR POLES SHALL BE AS FOLLOWS:

POLE LENGTH (FEET)	SETTING DEPTH (FEET)
65'	8.5'
70'	9'
75'	9.5'
80'	10'
85'	10.5'
90'	11'

3 PHASE 46kV TRANSMISSION LINE CONDUCTOR AND CABLE SCHEDULE		
CONDUCTOR AND CABLE REFERENCE LETTER	CONDUCTOR	POWER LINE CIRCUIT DESCRIPTION
A	#40 AWG ACSR 6/1 STRANDING "PENGUIN"	46kV PHASE CONDUCTOR
B	#40 AWG ACSR 6/1 STRANDING "PENGUIN"	46kV PHASE CONDUCTOR
C	#40 AWG ACSR 6/1 STRANDING "PENGUIN"	46kV PHASE CONDUCTOR
D	3" EHS STATIC SHIELD WIRE	46kV TRANSMISSION LINE STATIC SHIELD WIRE

TRANSMISSION LINE WOOD STRUCTURE GROUNDING

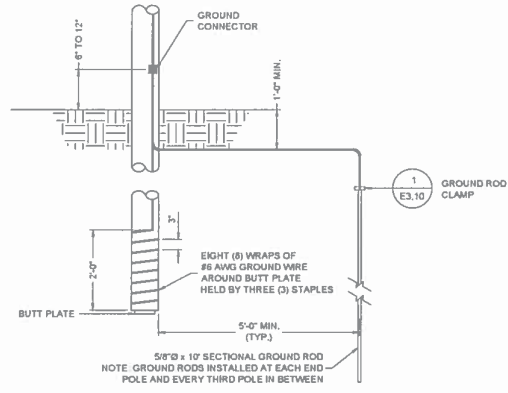
ALL WOOD TRANSMISSION STRUCTURES ARE TO BE GROUNDED. ALL WOOD POLES ARE TO BE INSTALLED WITH A BUTT PLATE AND A BUTT WRAP EXTENDING TWO FEET FROM THE BUTT.

THE FOOTING RESISTANCE IS TO BE MEASURED AT EACH STRUCTURE SITE. ON MULTIPLE POLE STRUCTURES, THE POLE GROUND WIRES MUST BE CUT ON ALL THE POLES OF THE STRUCTURE. AND ALL THE GROUND WIRES ON THE BUTT END OF THE POLES MUST BE BONDED TOGETHER PRIOR TO MEASURING THE STRUCTURE FOOTING RESISTANCE. THE POLE GROUND WIRE(S) MUST BE REPAIRED AFTER THE FOOTING RESISTANCE HAS BEEN MEASURED AND ANY ADDITIONAL GROUNDING ADDED.

STRUCTURE FOOTING RESISTANCES SHOULD BE 15 OHMS OR LESS.

THE FOLLOWING SEQUENCE SHOULD BE USED WHEN MEASURING STRUCTURE FOOTING RESISTANCE AND INSTALLING ADDITIONAL STRUCTURE GROUNDING.

- MEASURE THE STRUCTURE FOOTING RESISTANCE. (FOLLOW INSTRUMENT MANUFACTURERS INSTRUCTIONS)
 - IF THE STRUCTURE FOOTING RESISTANCE IS 15 OHMS OR LESS, RECORD THE STRUCTURE NUMBER AND STRUCTURE FOOTING RESISTANCE AND PROCEED TO THE NEXT STRUCTURE.
 - IF THE STRUCTURE FOOTING RESISTANCE IS GREATER THAN 15 OHMS, GO TO STEP 2.
- INSTALL A 5/8" x 10 FOOT SECTIONAL GROUND ROD AS SHOWN. ATTACH THE GROUND LEAD(S) FROM THE POLE GROUND WIRE TO THE GROUND ROD. (SPLIT BOLT CONNECTOR SHOULD BE USED FOR THE TEMPORARY GROUND ROD LEAD-POLE GROUND WIRE CONNECTION.)
- MEASURE THE STRUCTURE FOOTING RESISTANCE.
 - IF THE STRUCTURE FOOTING RESISTANCE IS 15 OHMS OR LESS, RECORD THE STRUCTURE NUMBER, STRUCTURE FOOTING RESISTANCE AND NUMBER OF GROUND RODS DRIVEN.
 - (1) IF THE STRUCTURE FOOTING RESISTANCE IS LESS THAN ONE HALF OF THE PREVIOUS MEASUREMENT, BUT STILL EXCEEDS 15 OHMS GO TO STEP 2 AND INSTALL DEEP DRIVEN GROUND ROD. IF DEEP DRIVEN GROUND ROD CANNOT BE INSTALLED, INSTALL ANOTHER GROUND ROD IN A NEW LOCATION MAINTAINING 5 FEET MINIMUM DISTANCE FROM ONE POLE OR OTHER GROUND RODS. (MAXIMUM OF 3 GROUND RODS PER STRUCTURE).
 - (2) IF THE STRUCTURE FOOTING RESISTANCE IS NOT REDUCED TO ONE HALF OR LESS OF THE PREVIOUS MEASUREMENT, RECORD THE STRUCTURE NUMBER, STRUCTURE FOOTING RESISTANCE AND NUMBER OF GROUND RODS DRIVEN.
- THE GROUND WIRE FASTENED BY STAPLES ON A POLE SHALL BE SPACED TWO (2) FEET APART EXCEPT FOR A DISTANCE OF EIGHT (8) FEET ABOVE THE GROUND AND EIGHT (8) FEET FROM THE TOP OF THE POLE WHERE THEY SHALL BE SIX (6) INCHES APART.
- THE POLE GROUND WIRE SHALL BE TIED TO THE POLE BUTT PLATE.
- ALL METAL HARDWARE SHALL BE BONDED TO THE POLE GROUND WIRE.



1
E3.0
TYPICAL POLE GROUNDING CONNECTION
SCALE: 3/4" = 1'-0"

INCORPORATED

October 29, 2020

Division of Oil, Gas & Mining

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REVISIONS				CURRENT DRAWING			
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CF Canyon Fuel Company, LLC
Soofield, Utah

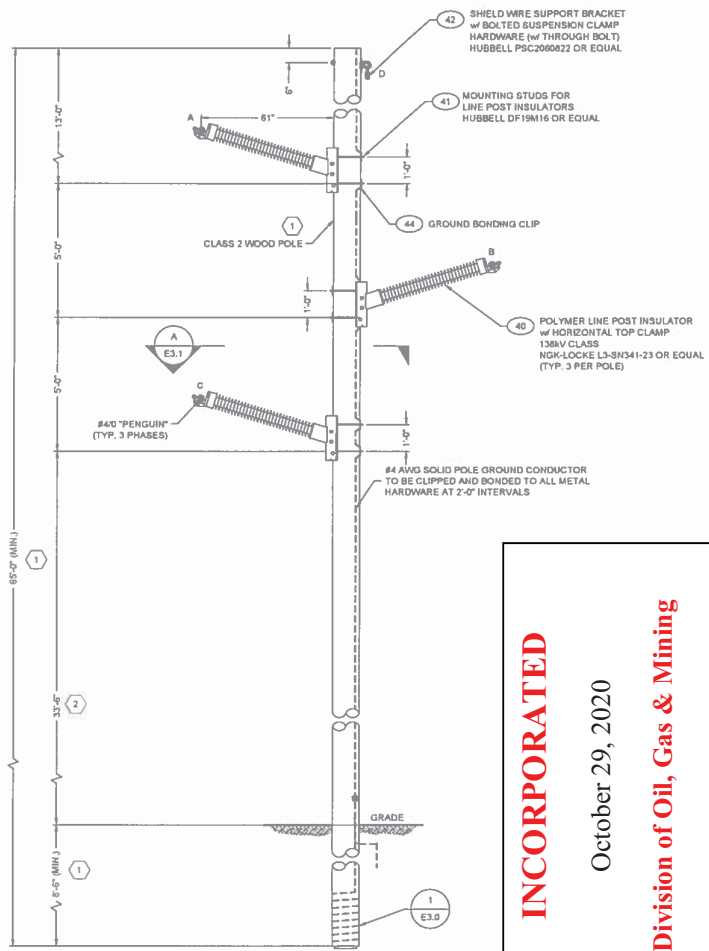


BRUNO ENGINEERING
80 EAST 1300 SOUTH
PRINCE, UTAH 84501
PHONE: (435) 613-0700
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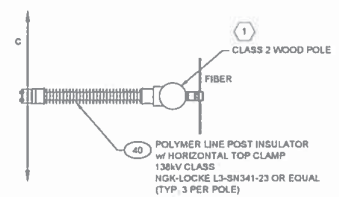
CANYON FUEL COMPANY
SKYLINE MINE - SMD IS CANYON
46kV OVERHEAD TRANSMISSION LINE
TRANSMISSION LINE NOTES AND DETAILS

DATE: ADB 11/23/20 11/23/20
DRAWING: 21208_E3.0_TRANSMISSION_LINE_STRUCT_NOTES&DETAILS_46kV
SCALE: E3.0

Date & Time plotted: 05/20/20 12:49:34 PM



INCORPORATED
 October 29, 2020
 Division of Oil, Gas & Mining



A
 E3.1 TOP VIEW (SECTION "A")
 SCALE: 1/2" = 1'-0"

FRONT VIEW

46kV TRANSMISSION LINE STRUCTURE - POLE DESIGN P1
 (SIDE POST - TANGENT) (INSULATED UP TO 138KV)
 SCALE: 1/2" = 1'-0"

LEGEND	
INDICATES DETAIL NUMBER	1
INDICATES DRAWING ON WHICH DETAIL APPEARS	E3.0
INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST	1

GENERAL NOTES:

- SEE DRAWING E2.1 FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
- SEE SHEET E3.0 FOR POLE INSTALLATION NOTES AND POLE LINE CONDUCTOR AND CABLE SCHEDULE AND WOOD POLE GROUNDING NOTES AND GROUNDING CONNECTION DETAIL.
- SEE SHEET E0.3 FOR OVERHEAD TRANSMISSION LINE MATERIALS LIST

SHEET NOTES:

- SEE TRANSMISSION LINE POLE SCHEDULE (E2.1) FOR POWER POLE LENGTHS AND BURY DEPTH.
- DIMENSION SHOWN IS FOR A 65' POLE. ADJUST ACCORDINGLY IF LONGER POLE IS USED.

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Canyon Fuel Company, LLC
 Scofield, Utah

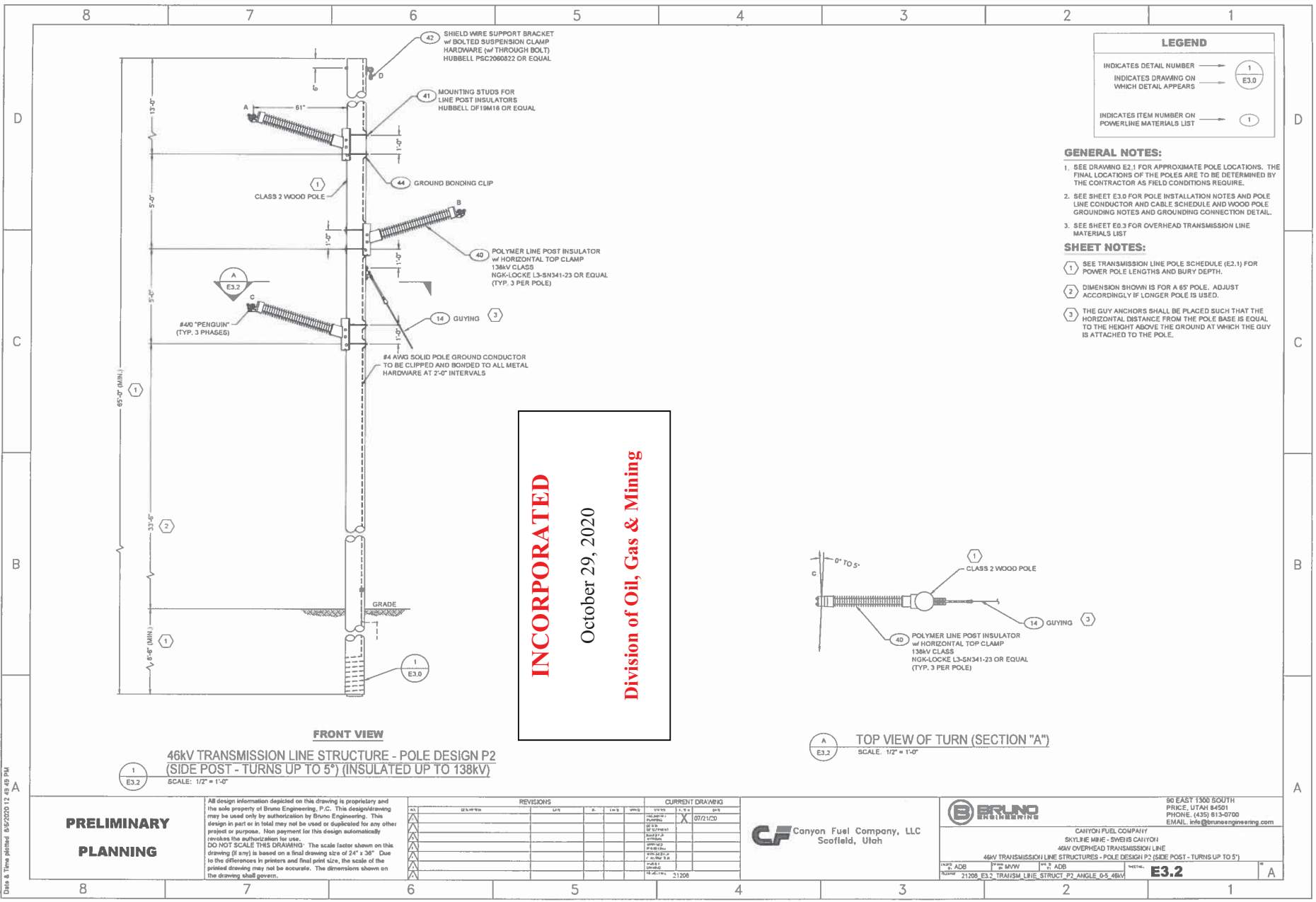


CANYON FUEL COMPANY
 SKYLINE MINE - SWEETS CANYON
 46KV OVERHEAD TRANSMISSION LINE

90 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

46KV TRANSMISSION LINE STRUCTURES - POLE DESIGN P1 (SIDE POST - TANGENT)
 DATE: 07/21/20
 DRAWN BY: MWW
 CHECKED BY: ADB
 PROJECT: 21208_E3.1_TRANSMISSION_LINE_STRUCTURE_P1_TANGENT_46KV
 SHEET: **E3.1**

Date & Time Plotted: 6/6/2020 12:49:42 PM



LEGEND

INDICATES DETAIL NUMBER → (1)
 INDICATES DRAWING ON WHICH DETAIL APPEARS → E3.0

INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST → (1)

- GENERAL NOTES:**
- SEE DRAWING E2.1 FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
 - SEE SHEET E3.0 FOR POLE INSTALLATION NOTES AND POLE LINE CONDUCTOR AND CABLE SCHEDULE AND WOOD POLE GROUNDING NOTES AND GROUNDING CONNECTION DETAIL.
 - SEE SHEET E0.3 FOR OVERHEAD TRANSMISSION LINE MATERIALS LIST
- SHEET NOTES:**
- SEE TRANSMISSION LINE POLE SCHEDULE (E2.1) FOR POWER POLE LENGTHS AND BURY DEPTH.
 - DIMENSION SHOWN IS FOR A 65' POLE. ADJUST ACCORDINGLY IF LONGER POLE IS USED.
 - THE GUY ANCHORS SHALL BE PLACED SUCH THAT THE HORIZONTAL DISTANCE FROM THE POLE BASE TO THE GUY IS EQUAL TO THE HEIGHT ABOVE THE GROUND AT WHICH THE GUY IS ATTACHED TO THE POLE.

INCORPORATED

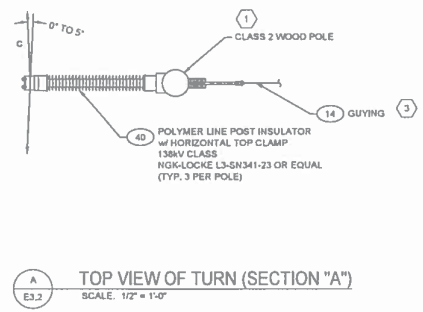
October 29, 2020

Division of Oil, Gas & Mining

FRONT VIEW

46kV TRANSMISSION LINE STRUCTURE - POLE DESIGN P2 (SIDE POST - TURNS UP TO 5°) (INSULATED UP TO 138kV)

SCALE: 1/2" = 1'-0"



Date & Time plotted: 05/20/2020 12:48:48 PM

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REVISIONS					CURRENT DRAWING	
NO.	DATE	BY	CHKD	APPV	DESCRIPTION	DATE
1					ISSUED FOR PERMIT	07/21/20

Canyon Fuel Company, LLC
 Scofield, Utah

BRUNO ENGINEERING

80 EAST 1500 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

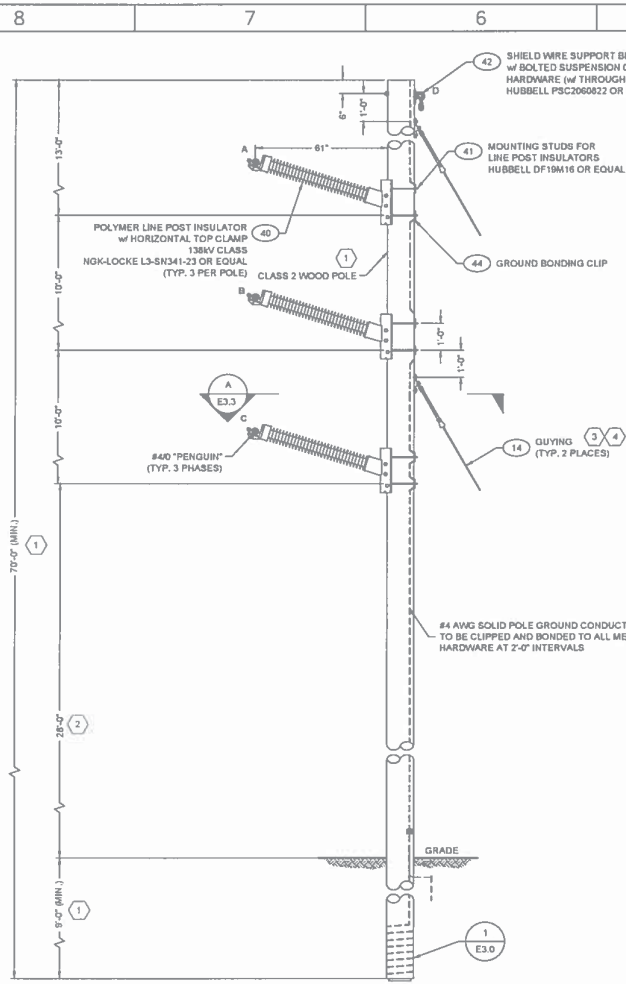
CANYON FUEL COMPANY
 SKYLINE MINE - SWEIS CANYON
 46KV OVERHEAD TRANSMISSION LINE

46KV TRANSMISSION LINE STRUCTURES - POLE DESIGN P2 (SIDE POST - TURNS UP TO 5°)

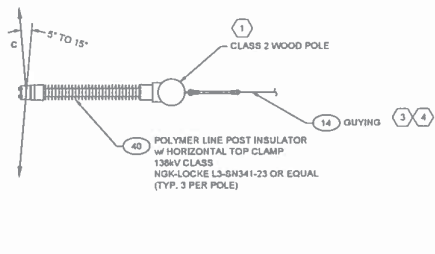
DATE: ADB DATE: MYY DATE: ADB DATE: ADB

PROJECT: 21208_E3.3_TRANSM LINE STRUCT P2_ANGLE 0-5_46KV

SCALE: **E3.2**



INCORPORATED
 October 29, 2020
 Division of Oil, Gas & Mining



LEGEND	
INDICATES DETAIL NUMBER	1
INDICATES DRAWING ON WHICH DETAIL APPEARS	E3.0
INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST	1

- GENERAL NOTES:**
- SEE DRAWING E2.1 FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
 - SEE SHEET E3.0 FOR POLE INSTALLATION NOTES AND POLE LINE CONDUCTOR AND CABLE SCHEDULE AND WOOD POLE GROUNDING NOTES AND GROUNDING CONNECTION DETAIL.
 - SEE SHEET E0.3 FOR OVERHEAD TRANSMISSION LINE MATERIALS LIST
- SHEET NOTES:**
- SEE TRANSMISSION LINE POLE SCHEDULE (E2.1) FOR POWER POLE LENGTHS AND BURY DEPTH.
 - DIMENSION SHOWS FOR A 70' POLE. ADJUST ACCORDINGLY IF LONGER POLE IS USED.
 - THE GUY ANCHORS SHALL BE PLACED SUCH THAT THE HORIZONTAL DISTANCE FROM THE POLE BASE IS EQUAL TO THE HEIGHT ABOVE THE GROUND AT WHICH THE GUY IS ATTACHED TO THE POLE.
 - BOTH GUYS SHALL TIE TO A COMMON ANCHOR.

FRONT VIEW

46kV TRANSMISSION LINE STRUCTURE - POLE DESIGN P3
 (SIDE POST - TURNS UP TO 5° - 15°) (INSULATED UP TO 138kV)
 SCALE: 1/2" = 1'-0"

TOP VIEW OF TURN (SECTION "A")
 SCALE: 1/2" = 1'-0"

**PRELIMINARY
 PLANNING**

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REVISIONS				CURRENT DRAWING			
NO.	DESCRIPTION	DATE	BY	DATE	BY	DATE	BY
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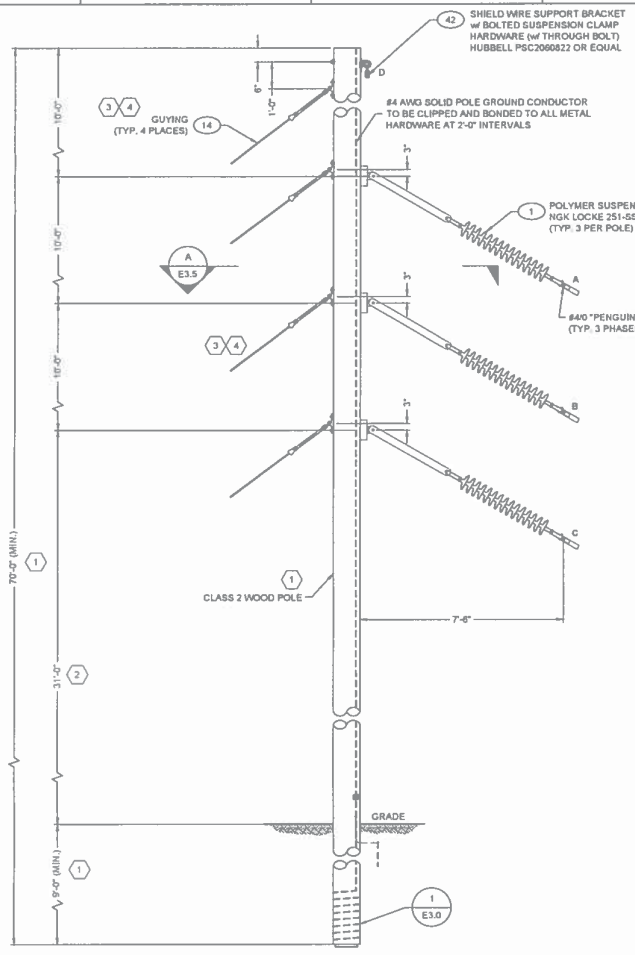
Canyon Fuel Company, LLC
 Scofield, Utah



80 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
 SKYLEE MINE - SWEET CANYON
 46W OVERHEAD TRANSMISSION LINE
 46W TRANSMISSION LINE STRUCTURES - POLE DESIGN P3 (SIDE POST - TURNS UP TO 5° - 15°)
 11/20/20 E3.3 TRANSM. LINE STRUCT. P3 ANGLE 5-15 46W
E3.3

Date & Time plotted: 08/20/20 12:49:57 PM



FRONT VIEW

46kV TRANSMISSION LINE STRUCTURE - POLE DESIGN P5
 (SUSPENSION - TURNS UP TO 30° - 45°) (INSULATED UP TO 138kV)
 SCALE: 1/2" = 1'-0"

LEGEND

INDICATES DETAIL NUMBER → 1

INDICATES DRAWING ON WHICH DETAIL APPEARS → E3.0

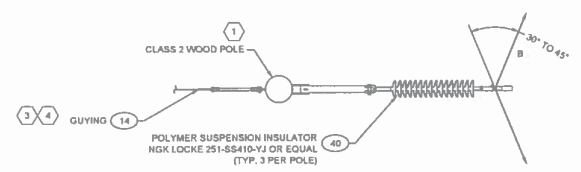
INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST → 1

- GENERAL NOTES:**
- SEE DRAWING E2.1 FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
 - SEE SHEET E3.0 FOR POLE INSTALLATION NOTES AND POLE LINE CONDUCTOR AND CABLE SCHEDULE AND WOOD POLE GROUNDING NOTES AND GROUNDING CONNECTION DETAIL.
 - SEE SHEET E0.3 FOR OVERHEAD TRANSMISSION LINE MATERIALS LIST
- SHEET NOTES:**
- SEE TRANSMISSION LINE POLE SCHEDULE (E2.1) FOR POWER POLE LENGTHS AND BURY DEPTH.
 - DIMENSION SHOWN IS FOR A 7'0" POLE. ADJUST ACCORDINGLY IF LONGER POLE IS USED.
 - THE GUY ANCHORS SHALL BE PLACED SUCH THAT THE HORIZONTAL DISTANCE FROM THE POLE BASE IS EQUAL TO THE HEIGHT ABOVE THE GROUND AT WHICH THE GUY IS ATTACHED TO THE POLE.
 - UPPER TWO GUYS SHALL TIE TO A COMMON ANCHOR AND LOWER TWO GUYS SHALL TIE TO A DIFFERENT ANCHOR. ANCHORS SHALL BE AT LEAST 7' APART.

INCORPORATED

October 29, 2020

Division of Oil, Gas & Mining



TOP VIEW OF TURN (SECTION "A")
 SCALE: 1/2" = 1'-0"

Date & Time plotted: 08/20/20 12:58:12 PM

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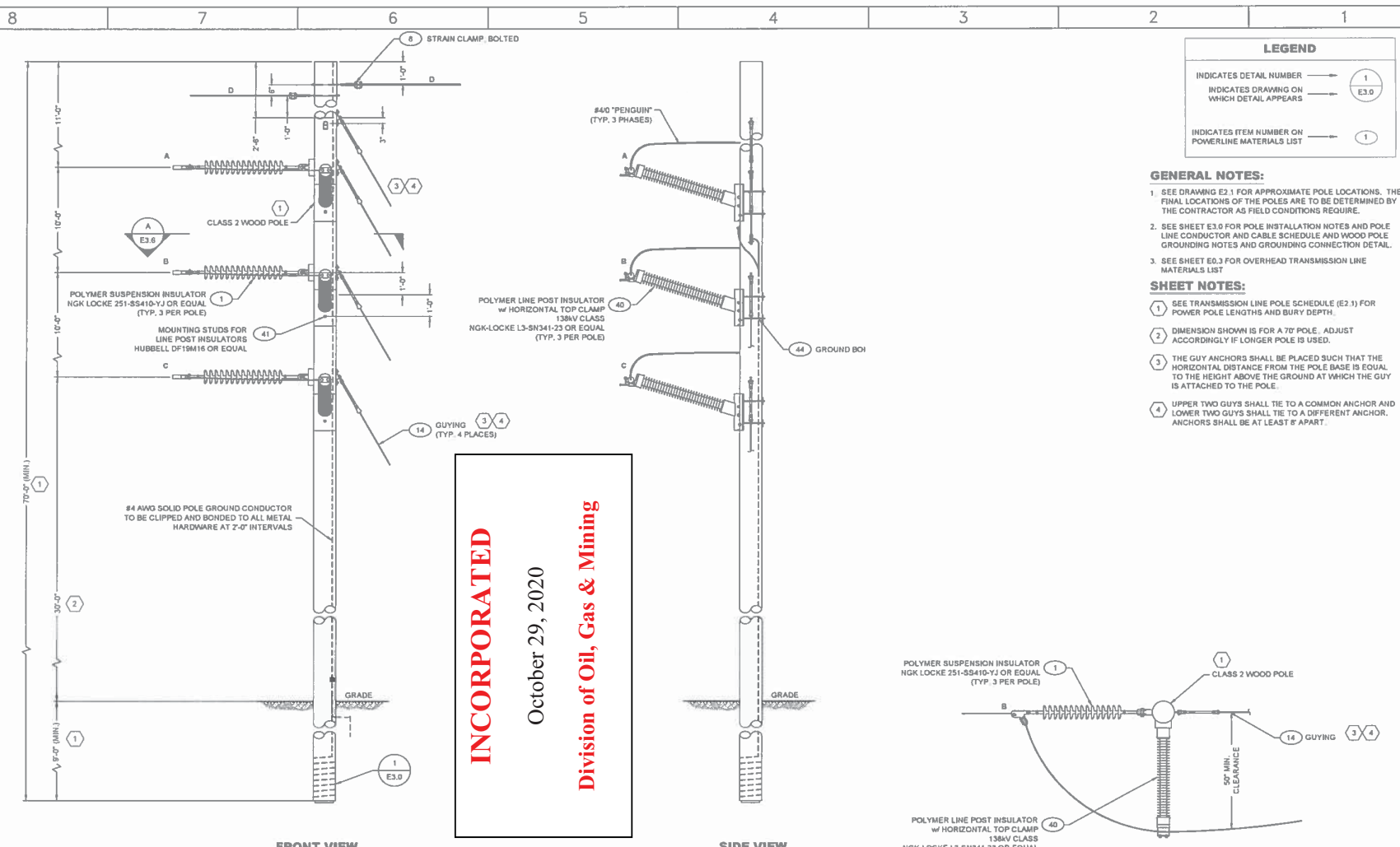
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Canyon Fuel Company, LLC
 Scofield, Utah

BRUNO ENGINEERING

80 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 613-0700
 EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
 SKYLINE MINE - SWEBIS CANYON
 46KV OVERHEAD TRANSMISSION LINE
 46KV TRANSMISSION LINE STRUCTURES - POLE DESIGN P5 (SUSPENSION - TURNS UP TO 30° - 45°)
 21208 E3.5 TRANSM LINE STRUCT PS ANGLE 30-45 46KV
E3.5



LEGEND	
INDICATES DETAIL NUMBER	1
INDICATES DRAWING ON WHICH DETAIL APPEARS	E3.0
INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST	1

- GENERAL NOTES:**
- SEE DRAWING E2.1 FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
 - SEE SHEET E3.0 FOR POLE INSTALLATION NOTES AND POLE LINE CONDUCTOR AND CABLE SCHEDULE AND WOOD POLE GROUNDING NOTES AND GROUNDING CONNECTION DETAIL.
 - SEE SHEET E0.3 FOR OVERHEAD TRANSMISSION LINE MATERIALS LIST
- SHEET NOTES:**
- SEE TRANSMISSION LINE POLE SCHEDULE (E2.1) FOR POWER POLE LENGTHS AND BURY DEPTH.
 - DIMENSION SHOWN IS FOR A 70' POLE. ADJUST ACCORDINGLY IF LONGER POLE IS USED.
 - THE GUY ANCHORS SHALL BE PLACED SUCH THAT THE HORIZONTAL DISTANCE FROM THE POLE BASE IS EQUAL TO THE HEIGHT ABOVE THE GROUND AT WHICH THE GUY IS ATTACHED TO THE POLE.
 - UPPER TWO GUYS SHALL TIE TO A COMMON ANCHOR AND LOWER TWO GUYS SHALL TIE TO A DIFFERENT ANCHOR. ANCHORS SHALL BE AT LEAST 8' APART.

INCORPORATED
 October 29, 2020
 Division of Oil, Gas & Mining

**46kV TRANSMISSION LINE STRUCTURE - POLE DESIGN P6
 (TERMINAL POLE - DEAD-END) (INSULATED UP TO 138KV)
 SCALE: 1/2" = 1'-0"**

Date & Time plotted: 10/29/2020 12:50:20 PM

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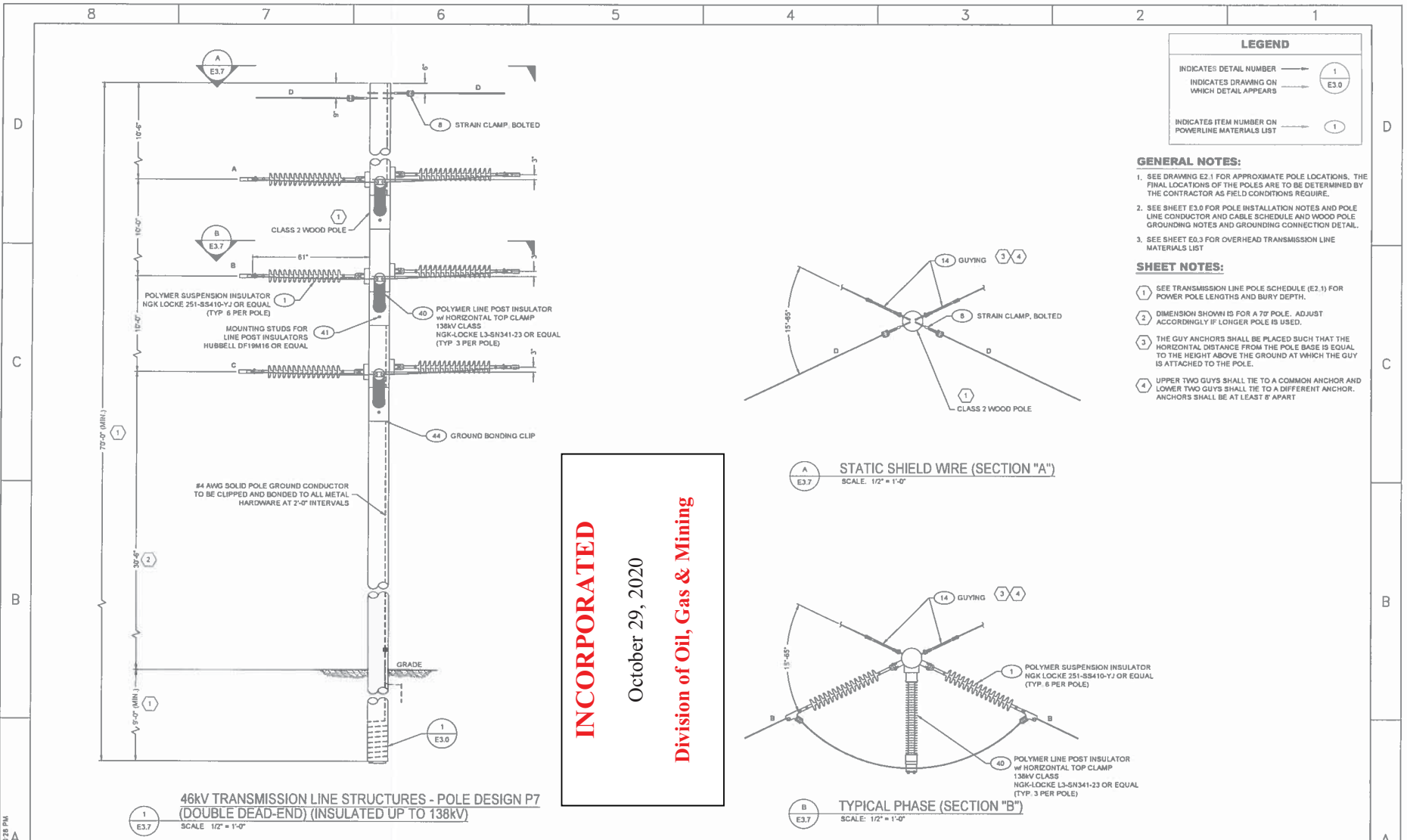
Canyon Fuel Company, LLC
 Scofield, Utah

BRUNO ENGINEERING

CANYON FUEL COMPANY
 SKYLINE MIRE - SWEET'S CANYON
 46KV OVERHEAD TRANSMISSION LINE
 46KV TRANSMISSION LINE STRUCTURES - POLE DESIGN P6 (DEAD-END)

50 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 813-0700
 EMAIL: info@brunoengineering.com

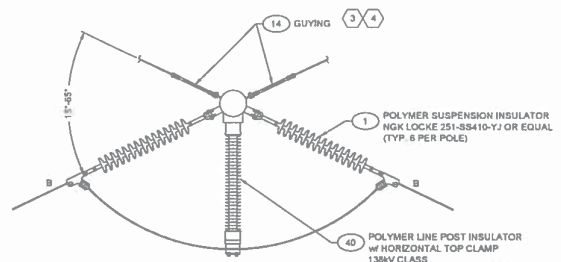
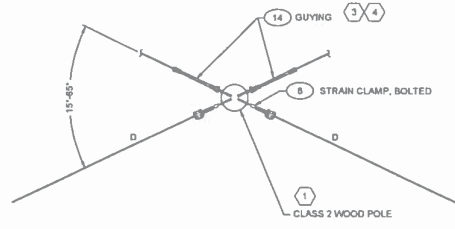
DATE: 10/29/20 12:50:20 PM
 DRAWN: ADB
 CHECKED: MRY
 TITLE: 21206 E3.6 TRANSM LINE STRUCT P6 DEAD-END 3PH 46KV
 SCALE: 1/2" = 1'-0"
E3.6



LEGEND

INDICATES DETAIL NUMBER → 1
 INDICATES DRAWING ON WHICH DETAIL APPEARS → E3.7
 INDICATES ITEM NUMBER ON POWERLINE MATERIALS LIST → 1

- GENERAL NOTES:**
- SEE DRAWING E2.1 FOR APPROXIMATE POLE LOCATIONS. THE FINAL LOCATIONS OF THE POLES ARE TO BE DETERMINED BY THE CONTRACTOR AS FIELD CONDITIONS REQUIRE.
 - SEE SHEET E3.0 FOR POLE INSTALLATION NOTES AND POLE LINE CONDUCTOR AND CABLE SCHEDULE AND WOOD POLE GROUNDING NOTES AND GROUNDING CONNECTION DETAIL.
 - SEE SHEET E0.3 FOR OVERHEAD TRANSMISSION LINE MATERIALS LIST
- SHEET NOTES:**
- SEE TRANSMISSION LINE POLE SCHEDULE (E2.1) FOR POWER POLE LENGTHS AND BURY DEPTH.
 - DIMENSION SHOWN IS FOR A 7' POLE. ADJUST ACCORDINGLY IF LONGER POLE IS USED.
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 - UPPER TWO GUYS SHALL TIE TO A COMMON ANCHOR AND LOWER TWO GUYS SHALL TIE TO A DIFFERENT ANCHOR. ANCHORS SHALL BE AT LEAST 6' APART



INCORPORATED
 October 29, 2020
 Division of Oil, Gas & Mining

46kV TRANSMISSION LINE STRUCTURES - POLE DESIGN P7 (DOUBLE DEAD-END) (INSULATED UP TO 138KV)
 SCALE: 1/2" = 1'-0"

Date & Time defined: 8/30/2020 12:50:28 PM

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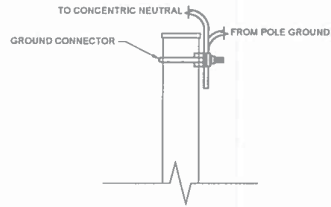
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CF Canyon Fuel Company, LLC
 Sofield, Utah



90 EAST 1300 SOUTH
 PRICE, UTAH 84501
 PHONE: (435) 813-0700
 EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
 SKYLIE MINE - SWE/IS CANYON
 46KV OVERHEAD TRANSMISSION LINE
 46KV TRANSMISSION LINE STRUCTURES - POLE DESIGN P7 (DOUBLE DEAD-EN) P72 ADD P72 ADD P72 ADD
 2100 E3.7 TRANSM LINE STRUCT P7 DBL DEAD-EN 46V **E3.7**

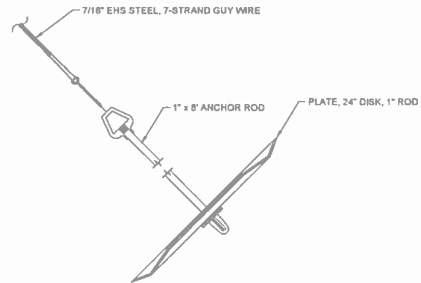


1 GROUNDING CLAMP DETAILS
SCALE: 2" = 1'-0"

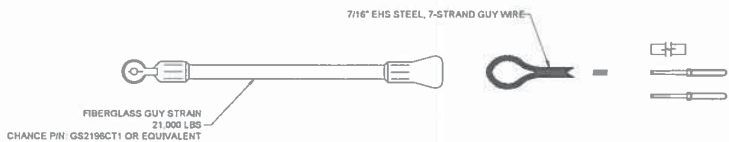
INCORPORATED

October 29, 2020

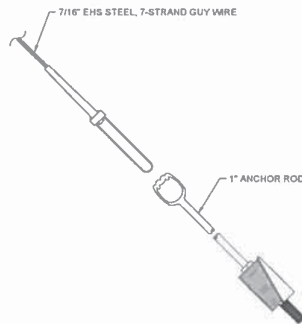
Division of Oil, Gas & Mining



3 GUY ANCHOR ASSEMBLY DETAILS
SCALE: N.T.S.



2 GUY ASSEMBLY, DEADEND, TEE POLE ATTACHMENT DETAILS
SCALE: N.T.S.



4 ROCK ANCHOR ASSEMBLY DETAILS
SCALE: N.T.S.

Date & Time Plotted: 6/5/2020 12:50:37 PM

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CF Canyon Fuel Company, LLC
Scotfield, Utah



90 EAST 1300 SOUTH
PRICE, UTAH 84501
PHONE: (435) 613-0700
EMAIL: info@brunoengineering.com

CANYON FUEL COMPANY
SKYLINE MINE - SWENIS CANYON
48KV OVERHEAD TRANSMISSION LINE
TRANSMISSION LINE STRUCTURE MISC. DETAILS

21200 E3.10 TRANSM. LINE STRUCT. MISC DTLS 48KV E3.10 A

3.2.11 South Fork Breakout Area

The Upper O'Connor seam required a breakout to improve ventilation. The breakout is on a south facing slope in a side canyon of the South Fork of Eccles Creek (see map 3.2.11-1).

Access to the breakout area is via an existing road up the South Fork of Eccles Creek to the Manti-LaSal National Forest boundary. From the Forest boundary on, the road had been water barred and was reopened. Where the road leaves the main South Fork tributary, it crosses two side drainages. Temporary 18" culverts were installed in these drainages during the construction period. The Forest Service road then continues up the side drainage. Approximately 600 feet up the side drainage a new ancillary life of project road was constructed for a distance of 75' across the drainage to the breakout area (see map 3.2.11-1). During installation of the culverts silt fence and/or straw bales, dikes were placed downstream to control sediment in the stream.

Revised: 10-7-20

3-58(a)

INCORPORATED

October 29, 2020

Division of Oil, Gas & Mining

EXHIBIT 1



SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

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MAXILIAN A. FARBMAN
EDWARD T. BECK
E. STEELE McINTYRE

June 19, 1981

Mr. Vernal J. Mortensen
Utah Fuel Company
411 West 7200 South
Midvale, Utah 84047

RE: Guidelines on Perimeter Markers and
Raptor Protection on Power Lines

Dear Mr. Mortensen:

As you know, on January 23, 1981, Utah's partial or conditional approval under the permanent program appeared in the Federal Register.

Some of the regulations in the permanent program are supplemental to those enforced under the Interim Program. More specifically, these regulations deal with perimeter markers and electrical power line design and construction. Because of their relative newness there exists some ambiguity concerning what the Division is actually looking for, particularly from the inspection viewpoint.

This letter, then, is to inform you of the Division's policy with regard to the enforcement of UMC 817.11(b) (Perimeter Markers) and UMC 817.97(c) (Raptor Protection on Power Lines).

Perimeter Marker Guidelines

1. The perimeter markers should be durable and should be visible enough to allow easy detection by the public, the mine equipment operator and the inspector under a wide range of weather conditions.
2. The perimeter markers should extend along the entire boundary of the permit area as indicated on maps submitted to the Division pursuant to the Mining and Reclamation Plan. At a minimum, all areas which are currently, or will be, affected by any surface effects of underground mining during the permit term shall be so marked.

Mr. Vernal J. Mortensen
June 19, 1981
Page two

EXHIBIT 1 (page 2)

Special attention is due in any and all areas of the minesite where the public, an equipment operator, or any individual associated in any way with the mining operation, or any authorized representative of the Division or other concerned agency will be aided by their presence.

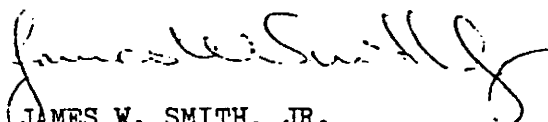
Any mine which does not have adequate perimeter markers as of July 1, 1981, shall be considered in violation and subject to enforcement action.

Raptor Protection on Power Lines

You should also be aware of UMC 817.97(c) requiring that operators ensure that the design and construction of electric power lines and other transmission features used for, or incidental to, the underground mining activities on the permit area be designed and constructed in accordance with the guidelines set forth in Environmental Criteria for Electric Transmission Systems (USPI, USDA 1970). Power lines should be designed and constructed in accordance with REA Bulletin 61-10, Power Line Contacts by Eagles and Other Large Birds. These and other guidelines, including diagrams of inexpensive pole modifications are available from the Division, the Office of Surface Mining and the Department of Interior. The Division requires that this regulation be addressed by July 1, 1981, or enforcement action will be warranted.

If you have any questions concerning these or other regulations in the permanent program please contact the Division.

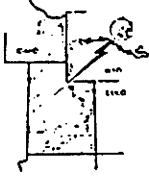
Sincerely,



JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

JWS/TLP/te

EXHIBIT 2



UTAH POWER & LIGHT COMPANY

51 EAST MAIN STREET
P. O. BOX 277
AMERICAN FORK, UTAH 84003
801-756-7611

SOUTHERN DIVISION

March 19, 1982

Mr. Roland Heath
Utah Fuel Company
PO Box 719
Helper, UT 84526

Dear Mr. Heath:

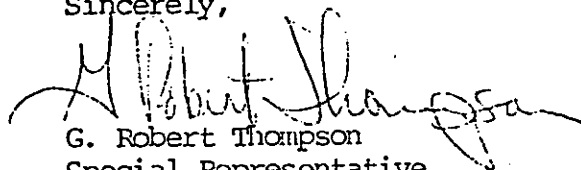
This letter will confirm our discussion in meeting March 18, 1982 regarding raptor protection of the 46 KV facilities which have been installed to serve your Skyline Mine operation.

For several years Utah Power & Light Company has had an active program to protect birds of prey from power line electrocution. Upon detailed research into the possible solutions of the problem and following documentation of raptor electrocution, Utah Power & Light began formulating the procedures and developing designs and methods which would eliminate raptor electrocution on our power line structures.

At present, we adhere to such practices for raptor protection on power lines and such practices were incorporated into a design and construction of all electrical facilities which were recently installed to provide service to you. You will be receiving shortly from Ron Devenish information pertinent to our design which he will be resubmitting to you in reference to your letter dated July 2, 1982, concerning the matter.

If we may provide further information, please advise us accordingly.

Sincerely,


G. Robert Thompson
Special Representative

GRT/sh

cc Ron Devenish
Bill Patterson

As construction started on the project, the trees and brush were cleared from the road location. The topsoil was then stripped from the road location and stored on the abandoned temporary Forest Service road above the construction area and on the small opening at the mouth of the canyon where the knob was removed. All of the topsoil was stored in lifts not to exceed 2' deep, and then seeded to the approved seed mixture and fertilized. After the topsoil from the road location was removed, a 36" culvert was placed in the stream bed to provide a life of project crossing. The initial fill material over the culvert was hauled in from the mouth of the side canyon where a small knob was partially removed to help dress up an area. This also created a safe open area to burn slash created by the breakout construction. After the slash was burned, the area was dressed up and seeded with the approved seed mixture and fertilized. No further activity is planned for this area unless there is fill material that was not used and is needed for final reclamation. The fill slopes of the fill covering the 36" culvert were seeded, fertilized, and covered with excelsior mats to help prevent erosion until the vegetation is established. A flared inlet and a trash rack were installed on the culvert. The fill slope was rocked up to the high water line to also help protect the inlet and outlet. The culvert was bedded in washed gravel at the slope of the natural channel of 14.3%.

A track hoe removed the topsoil from the breakout area so it could be stored in the storage area. As the subsoils were encountered, they were used to bring the ancillary road up to grade. The road was built with a 1-2% adverse grade from the existing road to the breakout area. Subsoil not used as road fill was stored on the small opening at the mouth of the canyon where the knob was removed. All of the stored soil was then seeded with the approved seed mix, and then a layer of straw mulch was applied.

The ancillary road and the breakout area disturbed .42 acres, and the area where the knob was partially removed disturbed .19 acres, for a total new disturbance of .61 acres. The road that was reopened for access and to provide topsoil storage disturbed an additional .35 acres, making a total disturbed area of .96 acres.

The breakout pad was constructed so that the surface drainage is directed into the mine where it enters the normal mine drainage and will eventually enter the portal area sedimentation pond. A small seep was encountered during construction. A French drain was constructed to drain this seep into the creek drainage system.

A combination of silt fences and strawbales was used to treat the surface run-off from the disturbed area of the ancillary road, the breakout pad and the topsoil and subsoil storage areas. The silt fences and strawbales were located as needed between the disturbed and undisturbed areas to treat run-off from the disturbed area. These silt fences and strawbales will be maintained until adequate vegetation is established.

The breakout portals are screened to prevent humans or animals from entering the mine. No exhaust fans or permanent activity is planned for this area once construction is finished.

Once the breakout portals were established, all of the disturbed areas were seeded and all of the roads on National Forest land were water barred and seeded. All seeding was done with the approved seed mixtures and then fertilized. One of the temporary 18" culverts was removed but left on site in case emergency access is needed back into the breakout area.

All slash created by the project was piled and burned.

Once the breakout area had been faced up and the portals established, no further activities are planned or anticipated at

of three times a year: (1) early spring; (2) mid-summer at the beginning of the thunderstorm season, and (3) late fall before freeze-up.

In 2017, the road and topsoil portion of the south fork breakout area were approved to accommodate a pre-mining land use of forestry as approved by the US Forest Service. The original disturbed and permit area boundary was 0.96 acres. The new disturbed and permit area boundary will be 0.60 acres which includes only the pad area. See plate 3.2.11-1 for details.

3.2.11(a) James Canyon Area

The Upper O'Connor B seam has a large inflow of ground water into the active mining operations. To reduce the amount of inflow, three de-watering wells were drilled in James Canyon (see Drawings 1.6-3, 1.6-3A, and 3.4-1). Access to the water well site is via an existing road in James Canyon. The road had been water barred and reseeded in the 1970's. Approximately, 4,400 feet of the James Canyon was reopened to reach the drill pad location. As construction started the topsoil from the road was pushed aside and used a berm. A 18-inch culvert was installed in a side drainage to James Canyon. The water bars were left in place and silt fences were installed at the outflow of each bar for sediment control.

A track hoe was used to remove the topsoil from the drill pad and stored at the head of James Canyon. The topsoil was encircled by silt fence for sediment control and marked with a sign. The subsoils were used as fill to create the drill pad. The drill pad is approximately 100 feet wide and 200 feet long or about 0.46 acres. A ditch was constructed above the drill pad to divert water from the undisturbed area. The runoff calculations and ditch design are included in Volume 5, Section 22 James Canyon. An 18-inch culvert was placed in the road just east of the drill pad to allow drainage from the undisturbed area to enter James Canyon Creek. The culvert design calculation are included in Volume 5, Section 22 James Canyon. A sediment pond was dug on the west end of the drill pad to treat runoff from the disturbed area. The sediment pod is designed for total containment and the design calculatins are in Volume 5, Section 22 James Canyon. Silt fence was placed at the toe of the out-slope for sediment control.

Two water wells were drilled in the fall of 2001. The first hole, JC-1, was bored to a 19-inch diameter and cased the 14-inch diameter steel pipe and wire-wrap screen. The hole was drilled at an approximate angle of 22 degrees from vertical, dips to the east, and penetrates the water producing fault below the 10 Left panel area. The total length of the drill hole is 1,030 feet. The second hole, JC-2, was drilled vertically, has a 29-inch diameter borehole, and was cased with 20-inch diameter steel pipe and wire-wrap screen. The hole was drilled into the sandstone below the coal seam and bottoms out at 1,010 feet. Electric well pumps were installed in each well and were initially operated using a diesel generator. The diesel generator was replaced by underground power cables in November 2001

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that run from a PacifiCorp power line located near the head of James Canyon to the well site. An 8-inch wide three foot deep trench was dug on the outer edge of the James Canyon road for routing power cables to the drill pad. Three power cables and one communication cable were placed in the trench. The cables are rated for 12,400 volts. A transformer is used to reduce the voltage to 4,160 volts and switch gear are used to turn the pumps on and off.

A 16-inch diameter HDPE pipe, capable of carrying 10,300 gpm of water, was buried from the drill pad to Electric Lake. The pipeline was routed along the old James Canyon road to the lake. Once the pipeline was buried, the road surface was deep gouged, the water bars were reestablished, silt fences installed at the outflow of the water bars for sediment control, and the disturbed area was reseeded.

A third well, JC-3, will be drilled at the James Canyon well pad site in March-April 2003. This well will be drilled and completed within the 10 Left area of Skyline mine. This area of the mine was sealed in October 2002 after mining of the 9 Left panel was complete. The purpose of the well is to remove water from the mine and discharge it to Electric Lake. It is likely the pumping rate will not exceed 4700 gpm from this well. . Water from the JC-3 well will be pumped to the lake through the existing buried 16-inch HDPE pipe. A transformer and switching gear separate from the JC-1 and JC-2 equipment will be used to operate this well. No additional disturbance outside the existing James Canyon well pad disturbed area is anticipated as a result of drilling and completing JC-3. Plate 3.4-1 illustrates the location of the JC-3 well and related power equipment.

While Skyline Mine remains the SMCRA permittee and operator regarding the installation and operation of the JC-3 well, PacifiCorp has chosen to be the holder of the UPDES permit for the discharge of mine-water from the well. Skyline will obtain from PacifiCorp and provide to the Division with the monthly UPDES DMR records for this well discharge.

The JC-3 well will be drilled at an angle of 13.61° from vertical and in an eastward direction from the well pad. The depth of the hole will be approximately 1090 to 1100 feet deep vertically with an angle length of approximately 1120 to 1130 feet. The boring will drill through the mine workings and terminate approximately 350 feet below the workings. The details of the well construction and surface piping were provided by PacifiCorp and Hansen, Allen, and Luce and are included as Drawing 3.2.11-A, Sheets C-1 through C-4. Please note the "Future Fence" as illustrated on sheet C-1 of Drawing 3.2-11-A would only be built if the wells are transferred to Pacific Corp and are no longer part of this M&RP.

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3-63(b)

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The JC-1 well currently produces 3,900 gpm of water (March 31, 2003), a slight decrease from the initial 4,200 gpm produced from the well after a new pump was installed in October 2002. The JC-2 well was capable of producing less than 300 gpm and was shut-in shortly after completion. The JC-3 well should be capable of producing 4,700 gpm of mine water after completion. The combined flow from JC-1 and JC-3 to Electric Lake is anticipated to be about 8,600 gpm, well below the carrying capacity of the 16-inch HDPE pipe.

Skyline Mine will reclaim the entire James Canyon well site at final mine reclamation unless other arrangements are made and agreed upon by the Division, the Manti-LaSal National Forest, and PacifiCorp. Skyline Mine has included the costs of reclaiming the three dewatering wells in James Canyon, including the plugging and abandonment of the wells, in the mine reclamation bond.

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3-63(c)

APPROXIMATE ORIGINAL CONTOUR

24'-7"

ORIGINAL TOE OF FILL

2'-4"

SECTION 1

10'-3"



NOTE:

CURRENT THICKNESS OF ROAD BASE IS 4 INCHES

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CAD FILE: Y:/SKYLINE ENGINEERING/FAT CANYON/GARY SECTIONS.DWG

**JAMES CANYON
ROAD CROSS SECTIONS**



P.L. BOX 710 HELPER, UTAH 84031 435-442-2441	DATE: 11-13-01	CK. BY: G. TAYLOR	REVISION:
	SCALE: 1"=5'	DR. BY: S. CURTIS	

DWG. NO.: GARY SECTIONS.DWG

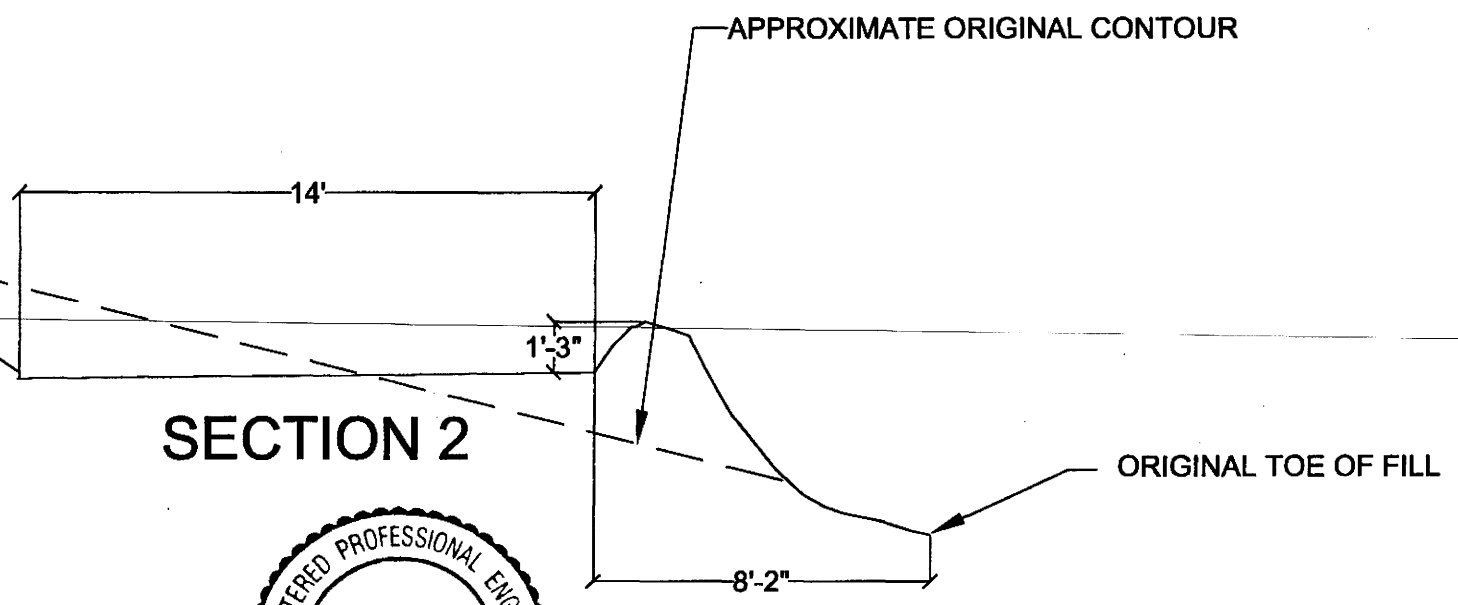
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DIV OF OIL GAS & MINING

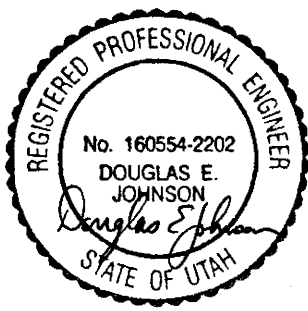
11-13-01

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SECTION 2



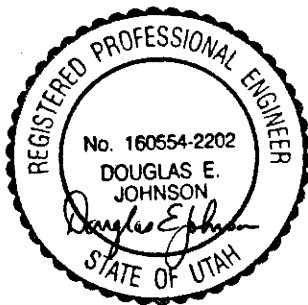
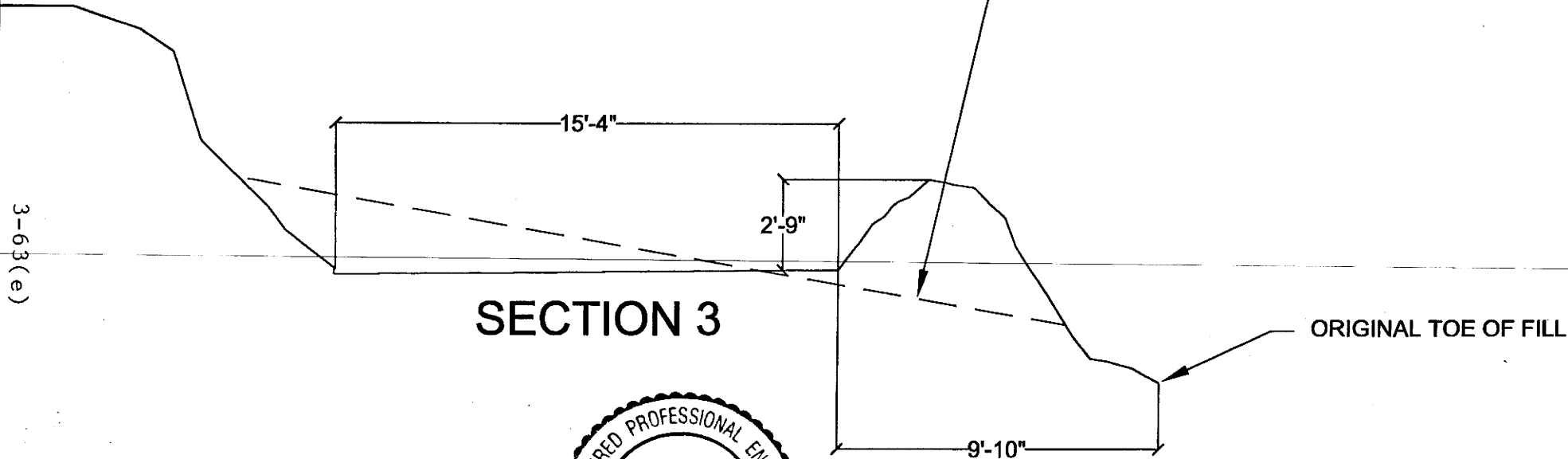
NOTE:
CURRENT THICKNESS OF ROAD BASE IS 4 INCHES

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 ENGINEER
 DIVISION OF OIL GAS & MINING


DIVISION OF OIL GAS & MINING
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Dwg File: Y:/SKYLINE ENGINEERING/FAT CANYON/GARY SECTIONS.DWG			
JAMES CANYON ROAD CROSS SECTIONS			
Canyon Fuel Company, LLC Skyline Mines			
P.A. REG. 7th MILEPL. UTAH 00001	DATE: 11-13-01	CK. BY: G. TAYLOR	REVISION:
	SCALE: 1"=5'	DR. BY: S. Curtis	
DWG. NO.: GARY SECTIONS.DWG			

SECTION 3



NOTE:
CURRENT THICKNESS OF ROAD BASE IS 4 INCHES

Dwg. No. Y:/SKYLINE ENGINEERING/FAT CANYON/GARY SECTIONS.DWG			
JAMES CANYON ROAD CROSS SECTIONS			
 Canyon Fuel Company, LLC Skyline Mines			
PAL BOX 718 HELPER, UTAH 84301 313-442-9263	DATE: 11-13-01	CK. BY: G. TAYLOR	REVISION:
	SCALE: 1" = 5'	DR. BY: S. CURTIS	
DWG. NO.: GARY SECTIONS.DWG			

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DIVISION OF OIL GAS & MINING

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SECTION 4

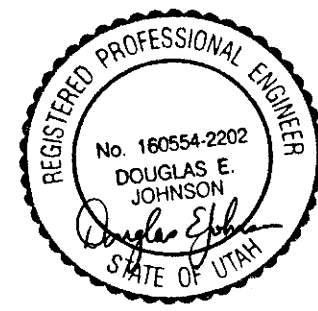
APPROXIMATE ORIGINAL CONTOUR

ORIGINAL TOE OF FILL

19'-7"

2'-2"

7'-4"



NOTE:
CURRENT THICKNESS OF ROAD BASE IS 4 INCHES

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CAD FILE: Y:\SKYLINE ENGINEERING\FAT CANYON\GARY SECTIONS.DWG			
JAMES CANYON ROAD CROSS SECTIONS			
CF Canyon Fuel Company, LLC Skyline Mines			
P&L BOX 718 HEMPER, UTAH 84301-442-9461	DATE: 11-13-01	CK.BY: G. TAYLOR	REVISION:
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DWG. NO.: GARY SECTIONS.DWG			



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APPROXIMATE ORIGINAL CONTOUR

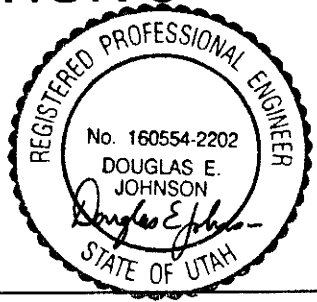
ORIGINAL TOE OF FILL

16'-10"

2'-4"

6'-10"

SECTION 5



NOTE:
CURRENT THICKNESS OF ROAD BASE IS 4 INCHES

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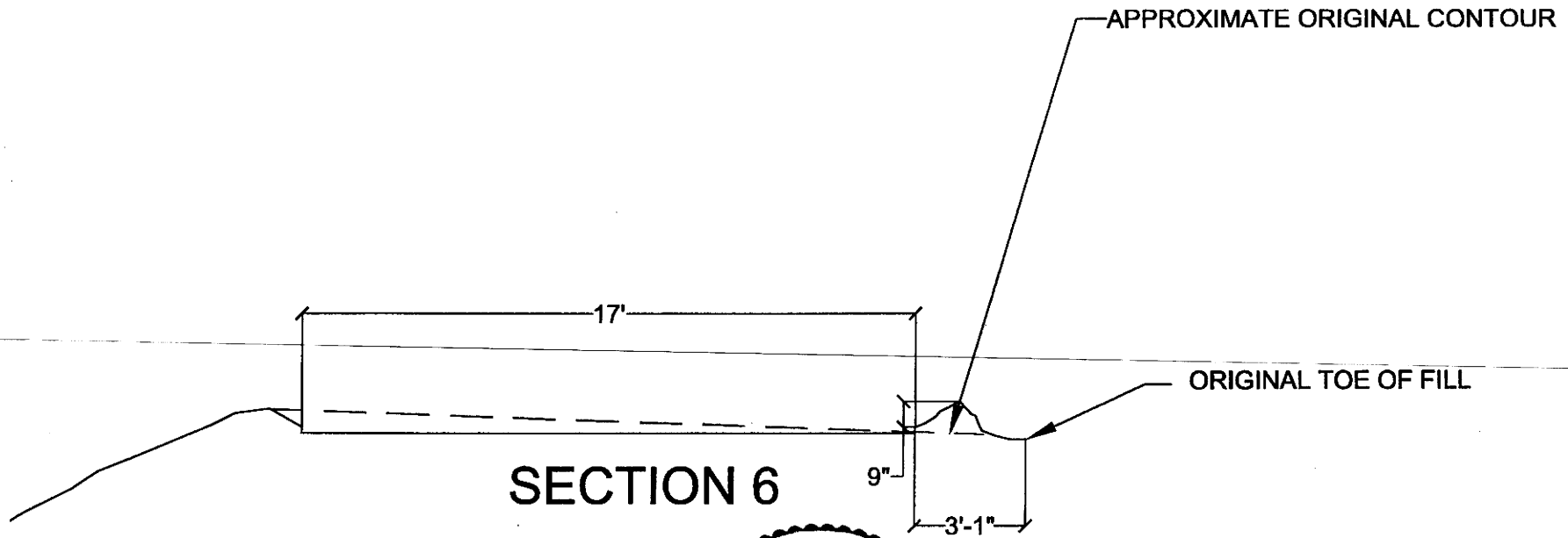


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JAMES CANYON ROAD CROSS SECTIONS			
CF Canyon Fuel Company, LLC		Skyline Mines	
DATE: 11-13-01	CK BY: G. TAYLOR	REVISION:	
SCALE: 1"=5'	DR BY: S. Curtis		
DWG: NO. GARY SECTIONS.DWG			

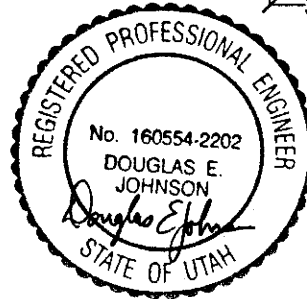
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SECTION 6



NOTE:
 CURRENT THICKNESS OF ROAD BASE IS 4 INCHES

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CAD FILE: Y:/SKYLINE ENGINEERING/FAT CANYON/GARY SECTIONS.DWG			
JAMES CANYON ROAD CROSS SECTIONS			
 Canyon Fuel Company, LLC Skyline Mines			
<small>P.L. BOX 718 HUNTER, UTAH 84038</small>	DATE: 11-13-01	CKL BY: G. TAYLOR	REVISION:
	SCALE: 1"=5'	DR. BY: S. Curtis	
DWG. NO.: GARY SECTIONS.DWG			

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3.2.11(b) Winter Quarters Ventilation Facility

The Winter Quarters Ventilation Facility (WQVF) was required to improve ventilation for underground mining north of Winter Quarters Canyon. The WQVF is located on a south facing slope in Winter Quarters Canyon approximately two (2) miles west of Scofield, Utah, and approximately 1/2-mile east of the United States Forest Service (USFS) boundary.

Access to the WQVF pad site is via an existing road up Winter Quarters Canyon which is maintained by Skyline Mine as part of an easement agreement outlined in the WQVF lease with the landowner. A road extending approximately 500 feet from the existing road will be constructed to access the pad site. Canyon Fuel Company, LLC. leases approximately 12.7 acres that encompasses the WQVF site, with an additional approximately 4.9 acres of existing road that is maintained in the easement agreement. lease with the landowner, Canyon

Power is being provided to the WQVF site by Rocky Mountain Power. Similar to the power arrangement at the Eccles Canyon Mine site, Rocky Mountain Power policy dictated the separation of responsibility would be at the connection to the electrical sub-station. The power line corridor, line construction, and maintenance of the power line up to the sub-station remain the responsibility of Rocky Mountain Power.

As construction is initiated, topsoil and brush will be collectively salvaged, separated and stored for reclamation purposes. Any large trees will be segregated as well for placement on the topsoil pile or other interim habitat enhancement.

Initial construction will include upgrades to the existing Winter Quarters Canyon road (See plates 3.2.11-B-1 and 3.2.11-B-2 for details), then construction of an access road from the existing road to access the WQVF pad site to create a pad for an electrical substation to provide power for further site construction. Initial drainage control will be established through concentrating runoff to ditches along the access road as it is being developed. Sediment control along the road will be treated through a combination of armoring of the ditch with rock, gravel filtering, and energy dissipaters. Areas of drainage not reporting to a specific temporary ditch and representing sheet flow from the site will be treated with silt fencing. Silt fencing will line the toe of the construction site serving as a barrier between the construction site and the creek.

Once power is established at the site, further pad construction will continue with extending the substation bench west to the location of the Declined Slope Portal for those activities to begin. Material generated from boring of the slope will be used to create the remainder of the WQVF pad. Construction of the Declined Slope is scheduled to begin in Spring 2011 with the Vertical Shaft construction to begin in Spring 2012. Once pad construction is complete, the WQVF pad and

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3-63(i)

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topsoil storage area will be fenced to prevent humans or animals from accessing the facility.

All disturbed area drainage from the WQVF pad will report to the sedimentation pond, undisturbed ditches will route undisturbed drainage around the site, and a combination of rock armoring, vegetation, gravel filters or silt fencing will treat run-off from the access road.

Revised: 12-30-09

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the area until final reclamation begins, except for periodic inspections. The culvert trash rack and portal highwall will be inspected at a minimum of three times a year: (1) early spring; (2) mid-summer at the beginning of the thunderstorm season, and (3) late fall before freeze-up.

3.2.12 Areas Not Reporting to Sedimentation Ponds, Alternate Sediment Control Areas and Special Exempt Areas

There are 41 areas that do not report to any sedimentation pond. There is also a small area in front of the Mine #3 portal which drains back into the mine. This water enters the normal mine drainage system and is pumped back into the sedimentation pond.

On all areas not reporting to a sediment pond, sediment control measures such as strawbales, silt fences, straw dikes, excelsior mats, etc. will be installed and maintained until there is adequate vegetative cover to properly filter any surface runoff. See Vol. 5, Sec. 20 for designs for all ASCA treatment. When this occurs, the alternate control measures will be removed and not maintained if it can be demonstrated that they are not needed and approved by the Division.

Maintenance is done on all structures (straw bales, silt fences and straw dikes) a minimum of three times a year. It is done first in the spring as soon as they are accessible after snow melt, second during mid-summer, and third in late fall just before snow fall. All areas are observed for effectiveness almost daily by trained mine personnel and if deficiencies are seen, corrective action is taken.

Area 1. The Water Tank area is shown on Map No. 4.4.2-1F. It contains .19 acres and is classified as an "Exempt Area". This area has been reseeded and has a well established cover of grass, forbs and trees. The permittee has run a SedCAD program to demonstrate the runoff so that this area can be classified as an exempt area. (See Vol. 5 Sec. 21).

Area 2. The South Fork of Eccles Creek area is shown on Map No. 3.2.1-1. It contains .23 acres and is classified as an "Alternative Sediment Control Area." This area has been reseeded, but as of 1989 does not have a well established cover of vegetation. All runoff leaving this area is treated with straw bales and/or silt fences.

Area 3. The Middle Fork of Eccles Creek area is shown on Map No. 3.2.1-1. It contains .29 acres and is classified as an "Alternative Sediment Control Area." This area has been reseeded but is not well established. Straw bales and/or silt fences are being used to treat the runoff water until adequate vegetation is established.

Area 4. The North Fork of Eccles Creek area is shown on Map No. 3.2.1-1. It contains 1.0 acre and is classified as an "Alternative Sediment Control Area." The area has been reseeded and most of the area has a well established cover of grass and forbs. Runoff water is treated with straw bales and/or silt fences.

Area 5. This area is highway approach area to the main mine office maintenance complex and Mine No. 1 portal area and is shown on Map No. 3.2.1-1. This area contains .18 acres and has been classified as a "Special Exempt area." The area extends from the shoulder of SR-264 to the entrance gates of the mine area. This road approach is paved and is part of the permitted area and will be reclaimed during final reclamation; however, this area falls within the rights-of-way of SR-264 (refer to UDOT letter dated 4-14-89 from L. Archie Hamilton, District Four Pre/Construction Engineer, found in this section). The Permittee has no control over the activities of UDOT or the public who utilize this approach; therefore, the Permittee is not responsible for the activities (other than his own) which occur on this approach. Since the area is paved, no further treatment of the runoff is necessary.

Area 6. This area is the highway approach area to the Mine No. 3 portal area and is shown on Map No. 3.2.1-1. This area contains .07 acres and has been classified as a "Special Exempt Area." This area extends from the shoulder of SR-264 to the entrance gates to the mine area. This road approach is paved and is part of the permitted area and will be reclaimed during final reclamation; however, this area falls within the rights-of-way of SR-264 (refer to UDOT letter of 4-14-89 from L. Archie Hamilton, District Four Pre/Construction Engineer, found in this section). The Permittee has no control over the activities of UDOT or the public who utilize this approach; therefore, the Permittee is not responsible for activities (other than his own) which occur on this approach. Since the area is paved, no further treatment of the runoff is necessary.



State of Utah
UTAH DEPARTMENT OF TRANSPORTATION

Eugene H. Findlay, C.P.A.
Director
Gene Sturzenegger, P.E.
Assistant Director
Dyke LeFevre, P.E.
District Four Director

Route #3 Box 75C5
940 South Carbon Avenue
Price, Utah 84501
(801) 637-1100

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Elva H. Anderson
Secretary

April 14, 1989

Mr. John Garr
Community Affairs & Public Relations Director
175 East 400 South #3
Suite 800
Salt Lake City, UT 84111

Dear Mr. Garr:

During our recent conversation you asked me the official status of the approach to your property from our highway SR-264.

I have checked our records and find these approaches were pre-approved in our Right-of-Way from the United States Forest Service and, therefore, they would automatically be permitted by UDOT to Coastal States Energy.

Sincerely,

L. Archie Hamilton
District Four Pre/Construction Engineer

bt

Area 7. This area is above the conveyor bench and is shown on Map No. 3.2.1-1. It contains .58 acres and has been classified as an "Alternative Sediment Control Area." (ASCA) The area contains both reseeded areas and areas that are undisturbed and support the native vegetation. All disturbance has been reseeded and mulched. The fill slope of the docking station road has been revegetated and is now considered a "Small Area Exemption" (SAE) (see Sec. 21 (a), Vol. 5 for demonstration).

Areas 8, 9, 10. These areas make up the conveyor bench that goes down Eccles Canyon and is shown on Maps No. 3.2.3-3 through 3.2.3-3f, and goes from overland conveyor bent 173 to bent 4. These areas contain 1.82 acres, .72 acres, 6.04 acres, and .045 acres, respectively, and have been classified as an "Alternative Sediment Control Area." The conveyor drainage system for areas 8, 9, & 10 entails allowing the runoff to flow to selected locations. Where this water leaves the conveyor bench, it is treated with straw and/or silt fences (see Sec. 20, Vol. 5 for design). The conveyor bench has been seeded, fertilized and mulched. Erosion control mats have also been used in selected locations to help in the establishment of vegetation. After September 2002, all the runoff in areas 8 and 9 are classified as "Small Area Exemption" (SAE) and will now be treated using grass filters. 3.40 acres in area 10 will be treated using grass filters and the remaining 2.64 acres (located between bents 69 and 76) will be treated as stated above with straw bales and/or silt fences.

Area 10a. The bent foundations of bents GB-3, GB-4 and GB-5 at the end of the overland conveyor makes up Area 10a. At these three locations where the enclosed conveyor crosses the highway, the access road and Eccles Creek, special foundations were dug using both machine and hand labor. At these three locations, the average disturbance is 660 square feet (.015 acres). At each tower location, the disturbed area was reseeded with seed mix on Table 4.7-6b and mulched with excelsior mats, or straw. Straw bales and/or silt fences were installed for water treatment at each location, along with selective berming to insure BCTA, and will be maintained until the disturbed areas are fully re-vegetated. The total disturbance for this alternate sediment control area is .045 acres. In 2005 GB-3 and GB-4 were reclassified as Small Area Exemption (SAE), based on a demonstration of adequate vegetative cover (see Sec. 21 (a), Vol. 5 for demonstration). The vegetative demonstration refers to GB-3 and GB-4 as Rail Load Out (east side of road) and (west side of road), respectively.

Area 11. This area is the upper well house area and is shown on Map No. 3.2.3-3a. This area contains approximately .02 acres and has been classified as an "Alternative Sediment Control Area". The area is basically a roadway to the well house and therefore, the area has not been reseeded. The area is lined with straw bales, silt fence or gravel to treat the runoff water.

Area 12. This area is the lower well house area and is shown on Map No. 3.2.3-3b. This area contains approximately .01 acres and has been classified as an "Alternate Sediment Control Area". The area is lined with straw bales, silt fence, or gravel to treat the runoff water.

Area 12a. This area is a roadway to the well house and the South Fork Area. It is classified as a "Small Area Exemption. The area has not been reseeded as the fill slope is basically covered with large rocks and the road is covered with gravel to treat runoff water. It contains approximately .03 acres.

Area 13. This area is the Railroad Loadout well house area and is shown on Map No. 3.2.3-3f. This area contains approximately .01 acres of area and has been classified as an "Alternative Sediment Control Area." This area has straw bales or gravel to treat any surface runoff water.

Area 14. This area is the highway approach to the truck dump area at the Railroad Loadout area and is shown on Map No. 3.2.1-3. This area contains .31 acres and has been classified as a "Special Exempt Area." The area extends from the shoulder of SR-264 to the entrance gates of the Railroad Loadout area. This road approach is paved and is part of the permitted area and will be reclaimed during final reclamation; however, this area falls within the rights-of-way of SR-264 (refer to UDOT letter dated 4-14-89 from L. Archie Hamilton, District Four Pre/Construction Engineer, found in this section). The Permittee has no control over the activity of UDOT or the public who utilize this approach. Therefore, the Permittee is not responsible for activities (other than his own) which occur on this approach. Since the area is paved, no further treatment of the runoff is necessary.

Area 15. This area is just north of the truck dump and is shown on Map No. 3.2.1-3. This area contains 3.3 acres and has been classified as an "Alternative Sediment Control Area." This area has been reseeded and has a well established cover of grass and forbs. Where needed, the toe of the slope is lined with straw bales and/or silt fences to treat any runoff. The disturbance around the overland conveyor towers has been

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seeded and mulched, and, where needed, additional straw bales and/or silt fences, erosion mats installed to treat any runoff. Part of the area also has a collection ditch below the straw bales. Where needed, this ditch has a series of straw bales across the drainage at 15-20 foot intervals. Much of the ditch has become well grassed-in and is almost indistinguishable from the adjacent undisturbed areas and does not need any additional silt control devices as the runoff has already been treated with strawbales and/or silt fences.

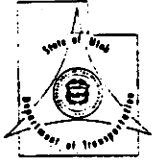
Area 16. This area is south of the truck dump and is shown on Map No. 3.2.1-3. This area contains .61 acres and is the fill slope of the access road. The slope has been reseeded and basically has a well established cover of vegetation. The disturbance around the overland conveyor towers have been seeded and mulched, and have additional straw bales and/or silt fences, erosion mats, where needed, to treat any surface runoff. (See Area 10a)

Area 17. This area is south of the RLO sediment pond and is shown on Map No. 3.2.1-3. This area contains .35 acres and has been classified as an "Alternative Sediment Control Area." Much of the area has been paved. There are straw bales and/or silt fences and three small straw dikes to treat any runoff water. One of these straw dikes is on the UDOT rights-of-way of SR-96. This treatment location has been approved by UDOT (refer to UDOT letter dated 7/18/89 from L. Archie Hamilton, District Four Pre/construction Engineer, Page 3-70).

Area 17a. This area is adjacent to RRLO sediment ponds and is shown on Map 3.2.1-3. This area contains .15 acres and has been classified as an "Exempt Area" since it is the outslope of the sediment pond embankment.

Areas 18. This area is adjacent to the Railroad Loadout structure and is shown on Map No. 3.2.1-3. This area contains .1 acres and has been classified as an exempt area as the entire area is paved with concrete.

Area 19. This area is adjacent to the Railroad loadout structure and is shown on Map No. 3.2.1-3. This area contains .1 acres and has been classified as a Small Area Exception (SAE) as the entire area is paved with asphalt.



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Assistant Director
Dyke LeFevre, P.E.
District Four Director

Route #3 Box 75C5
940 South Carbon Avenue
Price, Utah 84501
(801) 637-1100

July 18, 1989

Mr. John M. Garr
Coastal States Energy Company
175 East 400 South
Suite 800 Box 3
Salt Lake City, Ut 84111

Dear John:

In your letter dated June 21, 1989 you made reference to a DOGM requirement for UDOT authority to use approaches to SR-96 and SR-264. As you are aware these approaches were constructed for the purpose of Coastal States Energy (Utah Fuel Company) to ingress and egress the state highway system in your general mining operations in Eccles Canyon; therefore, the authority for usage was pre-approved prior to highway construction. No additional approvals are necessary.

Concerning the silt retention fence in the drainage ditch within the right-of-way along US-96 in the train loadout area; we do not object to this installation because it would aid in the elimination of silt entering into Eccles Creek/Pleasant Valley Creek drainage. This effort on your part is a positive mitigation for both Utah Department of Transportation and Coastal States Energy.

If you have any further questions, please call.

Sincerely,

L. Archie Hamilton
District Pre/Construction Engineer

bt

pc: Dyke LeFevre, P.E., District Director

Areas 20, 21, 22 AND 22a. These areas are the highway approaches from SR-96 to the Railroad Loadout area itself (two approaches), and the area south of the loadout structure. These areas are shown on Map 3.2.1-3. These areas contain .1 acre and have been classified as "Special Exempt Areas." These road approaches are paved. Area 20 also contains a small straw dike to treat water from the area that is not paved and additional treatment for water leaving the paved area. All of these areas are part of the permitted area and will be reclaimed during final reclamation; however, these areas fall within the rights-of-way of SR-96 (refer to UDOT letter dated 7-18-89 from L. Archie Hamilton, District Four Pre/Construction Engineer, found in this section). The Permittee has no control over the activities of UDOT or the public who utilize these approaches; therefore, the Permittee is not responsible for the activities (other than his own) which occur on these approaches.

Area 23. This area is the South Fork Breakout Area and is shown on Map No. 3.2.11-1. This area contains 0.60 acres (see Areas 32 and 33 which are classified as exempt areas). The South Fork Breakout Area was reclaimed in 2003 and the access trail was completely reclaimed in 2005 and is considered a Small Area Exemption. All existing silt fencing was removed, with the exception of temporary silt fencing that was used during reclamation construction. Extreme surface roughening or >deep gouging= was used as the form of sediment control until vegetation is established. Figure 3.2.11-1 will be modified to reflect these changes once the area is flown to establish the reclamation topography. A portion of the original 0.96 acres contained in the South Fork Breakout Area was approved for final bond release to allow for a USFS timber sale.

Area 24. The access road to the Scofield Waste Rock Disposal Site is shown on Map No. 3.2.8-1. It contains 3.45 acres and is classified as a "Primary Access Road".

Area 24a. A small area of .1 acre was disturbed adjacent to the Scofield Waste Rock access road. This area has been reseeded and is becoming well re-vegetated. Any runoff water leaving this area enters the roadside drainage. A SedCad model program has been done for this area which demonstrated that alternate sediment control measures are not needed. This area is therefore classified as an exempt area. (See Vol. 5 Sec. 21 and 21 (a))

Area 25. This area goes from overland conveyor bent 155 to bent 154a, shown on Map 3.2.3-3a. This area is permitted but has no disturbance within it. The overland conveyor does span across this area.

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NOV 16 2017

Area 26. This area goes from the vicinity of overland conveyor bent 147 down to bent 145 as shown on Map 3.2.3-3a. This area contains six bent leg concrete supports. These supports are approximately 24 inches in diameter. These supports are the only area that was disturbed. The topsoil and subsoil was removed and the hole filled with concrete. Since these disturbed areas have no exposed disturbance, the area is classified as an exempt area.

Area 27. This area is located at overland conveyor bents 137, 136 and 135 (as shown on Map 3.2.3-3B). Bents 137 and 136 each have one bent leg support just outside the boundary of ASCA Area 10 and bent 135 has two. These supports are approximately 24 inches in diameter. These support areas are the only areas that was disturbed. The topsoil and subsoil was removed and the hole filled with concrete. Since these disturbed areas have no exposed disturbance, the area is classified as an exempt area.

Area 28. This area is located at overland conveyor bents 97 thru 94 (as shown on Map 3.2.3-3C). Bents 97, 96, and 94 each have one bent leg support just outside the boundary of ASCA area 10 and bent 95 has two. These supports vary from 18 to 48 inches in diameter. The support areas are the only areas that were disturbed. The topsoil and subsoil was removed from the holes and then filled with concrete. Since these areas have no exposed disturbance, the area is classified as an exempt area.

Area 29. The area is located at bents 90, 89, 88, 87, 86, 85, 84 and 83 (as shown on Maps 3.2.3.3D and 3.2.3.3E). All of these bents have one bent leg support just outside the boundary of ASCA area 10, except bents 89 and 83 which have two leg supports. These leg supports vary from 18 to 36 inches in diameter. The support areas are the only areas that were disturbed. The topsoil and subsoil was removed from the holes and then filled with concrete. Since the areas have no exposed disturbance, the area is classified as an exempt area.

Area 30. The area is located at bents 68 through GB-6 (as shown on Maps 3.2.3-3E and 3.2.3-3F). There are 150 support legs in this area. They vary in size from 12 inches in diameter to a 24" x 60" area. The topsoil and subsoil was removed from each support leg area and then filled with concrete. Since there is no exposed disturbance, this area is classified as an exempt area, except for areas described in Area 30a.

of adequate vegetative cover (see Sec. 21 (a), Vol. 5 for demonstration). Silt fences at Bent 59 and 44 were used in the demonstration. The area consisted of construction and operational disturbances that were previously not re-vegetated at the following locations: (1) Bent 59, The upper 24" diameter support; (2) Bent 44, the lower 24" diameter leg support; (3) Bent 36, the upper 30" leg support; (4) Bent 32, both leg supports; (5) Bents 28, 26 and 22, all leg supports; and (6) the area from Bent GB6 to approximately midway of truss No. 3 has been disturbed due to a coal spill and is classified as an ASCA area. The area from Bent GB6 is the only portion of the area still classified as an ASCA and will be treated with straw bales and/or silt fences. Area 30a is mis-labeled on Plates 3.2.3-3E and -3F as Area 10a, and will be corrected at a future date.

Area 31. This area is a topsoil storage area in the South Fork of Eccles Creek drainage, as shown on Map 3.2.11-1. This area was mulched and seeded in the fall of 1989. A thick cover of vegetation has become established. There is no visible evidence of soil movement. The permittee has run a Sedcad program to demonstrate the run-off, so that this area can be classified as an exempt area. (See Vol. 5 Sec. 21)

Area 32. This area is a topsoil storage area in a side drainage of the South Fork of Eccles Creek, as shown on Plate 3.2.11-1. This area is an old roadbed that has been filled in with topsoil from the South Fork Breakout. The area was mulched and seeded in the Fall of 1989. A thick cover has become established. There is not visible evidence of soil movement. The permittee has run a SedCad program to demonstrate the run-off, so that this area could be classified as an exempt area (See Vol 5 Sec.21). The area was re-disturbed in 2003 to reclaim the South Fork Breakout area. The area was roughened and seeded in 2003, then re-disturbed in 2005 to eliminate the footprint of the former roadbed. Extreme surface roughening was the only form of sediment control until vegetation was established. In 2017, Area 32a topsoil storage area associated with the South Fork Breakout, was approved for final bond release and removed from the permit and disturbed area.

Area 33. This area is a snow storage area and is adjacent to State Highway 264 and is directly south of the docking station for the overland conveyor, as shown on Map 3.2.3-3. This area is what is commonly referred to as the UDOT pad and has been used by UDOT as a snow storage area. Part of the pad to be used is within the UDOT right-of-way and the remainder of the pad is owned by Canyon Fuel Company,

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NOV 16 2017

Div. of Oil, Gas & Mining

LLC. Exhibit B shows the letter from UDOT giving permission to use its portion of the pad and indicating that the post-mining land use as a snow storage pad. The post-mining land use for the Canyon Fuel Co., LLC, portion of the pad will also be a snow storage pad. The configuration of the pad is such that all of the drainage will be directed to straw bales and/or silt fencing for treatment before entering the natural drainage (see Volume 5, Section 6 for the design). This area contains 0.64 acres and is classified as an Alternate Sediment Control Area.

No salt or other deicing chemicals will be used on the snow placed on this area. Each spring, following use of the pad, after the snow placed on the pad has melted any sediment or coal fines which have accumulated on the site will be removed.

Area 34. This area is located on road out slopes at the waste-rock disposal site as shown on Map 3.2.8-4. In order to make the road more usable for third parties, minor gravel fills were placed at the locations shown on the map. Silt fences were placed at the base of gravel fills, then later removed once the gravel fills were fully compacted. Since the fills are constructed of gravel they will not erode.

Area 35 and 36. These areas are the James Canyon road from the forest Service Mounment Peck Road to the drill pad and includes the buried pipeline to Electric Lake. The James Canyon road is graveled with water bars approximately every 150 feet. Road runoff water flows to a water bar and is directed to a silt fence for sediment control. The buried pipeline disturbed area has been regraded and deep gouged. The area has been reseeded. Water bars have been constructed approximately every 150 feet. In 2005, both the drill pad topsoil pile (see plate 3.4-1) and the reseeded area was reclassified as a "Small Area Exemption" based on a demonstration of adequate vegetative cover (see Sec. 21 (a), Vol. 5 for demonstration). All silt fences were removed from these areas.

Area 37. This 0.67 acre area is the topsoil storage area for the Winter Quarters Ventilation Facility (WQVF) located in Winter Quarters Canyon as illustrated on Plate 3.2.4-3A, and -3B. The area consists of previous disturbance that includes the out slope of an existing road, remnants of stone foundations and signs of heavy livestock grazing. During construction of the WQVF pad topsoil will be placed in the location in a controlled manner. Once all the topsoil is in place the surface of the pile will be roughened, seeded, and mulched. The pile will be contained with a berm around the entire circumference. A designed silt trap (Plate 3.2.4-3F) will allow any storm water runoff to discharge from the pile area in a controlled manner.

Area 38. This 0.48 acre area addresses drainage from the out slopes of the WQVF pad and sediment pond to the prescribed creek buffer zone, minimizing any sediment reporting to the creek. This area encompasses an area approximately six (6) feet wide by approximately 515 feet wide immediately below pad, followed by a zone approximately 70 feet long by 70 feet wide that is not anticipated to be disturbed, then completed by approximately 165 foot length intended to treat the out slope of the sediment pond (Plate 3.2.4-3A). Sediment control will be addressed with silt fencing and vegetation. The area will initially be utilized as work space in constructing the WQVF retaining wall and sediment pond. During construction, silt fencing will provide the primary sediment control. Following construction of the retaining wall and sediment pond, the area will be roughened, seeded, and mulched. Once vegetation is sufficiently established, the silt fences will be removed.

Area 39. This 1.01 acre area addresses both the undisturbed area between the upper undisturbed ditch (UDW-4 from Earth Fax report) and the primary portion of the WQVF access road (DW-5 from Earth Fax report). Sediment from the area is controlled by a catch basin that incorporates a wattle to trap sediment prior entering a culvert taking water under the road (Plate 3.2.4-3A). The ditch has been widened in the vicinity of catch basin to accommodate the installation of the wattles. The outfall of the culvert, although not having a erosive velocity, is armored with riprap to further reduce any sediment loading.

Area 40: The Swens Canyon Ventilation Facility pad is an area that addresses both a small undisturbed area (UW3) and the pad (DW3) totaling 1.5 acres (Plate 3.2.4-4D). Storm water runoff and sediment from the area flows to the east-southeast area of the pad. Water and sediment reaching the east side of the pad will either be treated by a silt fence or directed to the south portion of the pad using a berm. Water and sediment reaching the south end of the pad is controlled by a swale and small catch basin located at the southern portion of the pad. At that location, the small amount of water will collect to a maximum depth of 1.28-inches and eventually evaporate. The maximum design velocity is 1.02 ft/sec which is not considered erosive. See Attachment A of Earthfax Swens Canyon Design Report in Appendix Volume 5, Engineering Calculations, Section 24 for details.

Area 41: The Swens Canyon Ventilation Facility Topsoil Pile is designed to safely retain runoff from a 100-year, 24-hour storm event (176 cu-yds.) and one year of predicted sediment yield (195 cu-yds.) Topsoil will be collected/contained in the sediment basin and will either be retained in-place or re-deposited on the pile. Once vegetation is established on the Topsoil Pile, the sediment yield will be significantly reduced. Plate 3.2.4-4D illustrates the area.

Area 42: Attachment 4.17-1 of Section 4.17 Subsidence Control Plan, Chapter 4 of this M&RP contains the Boulger Dam Subsidence Monitoring Plan. The plan includes six (6) Seismic sites (A-F) shown of Figure 1-1 of Attachment 4.17-1. The sites are approximately 0.01-acres in size. Sediment is controlled by existing vegetation as the sites were located on level ground with minimal disturbance during installation.

Area 43: The Swens power line corridor is approximately 3.05 miles long by 50-feet wide extending from the Mine site to the Swens Canyon Vent Facility. Installation of the power line was constructed with a combination of cross-country travel by tracked equipment, minor ancillary road building, and helicopter use. Ancillary roads and pads used for pole installation disturbed approximately 3.2 acres extending approximately 6,900 feet. The areas were contemporaneously reclaimed following construction using extreme roughening or pocking of the surface. Figure 3.2.10-4 and -5 illustrate the type and location of disturbance. No other blading of trails was outlined but soil protection is outlined in Section 4.4.2. The combination of extreme roughening and returning to the approximate original contour (AOC) will prohibit ATV travel. Figure 3.2.10-4 illustrates the entire power line corridor as ASCA Area 43.

Area 44: The Electric Lake Discharge area is an approximately 30-foot by 20-foot area on a gravel pad containing a short section of pipe extending from underground, with associated valving and meter, then the pipe returns underground extending to Electric Lake. Sediment load is minimized and controlled by the gravel pad, and extreme roughening or pocking of the surface as the pipeline was buried.

On all areas not reporting to a sediment pond, and classified as Alternate Sediment Control Areas, the alternate sediment control measure such as straw bales, silt fences, catch basins, excelsior mats, etc. will be maintained until there is adequate vegetative cover to properly filter any surface runoff (see Sec. 20, Vol. 5 for design). When this can be demonstrated, the alternate control measures will be removed and the area reclassified as an "Exempt area". (See Sec. 21, Vol. 5 for Demonstrations) On all areas classified as Exempt Areas, if they should become redisturbed they will be reclassified as ASCA areas and will have the runoff treated with a designed treatment.

NOV 09 2020

EXHIBIT A

LEASE AGREEMENT

This Lease ("Lease") made and entered into this 10th day of June, 1982, but effective as of January 1, 1982, by and among FOTINI TELONIS, ANGELO G. TELONIS, THOMAS G. TELONIS and JOHN G. TELONIS, by and through their attorneys-in-fact, ANGELO GEORGEDES, STEVE J. DIAMANTI and LUKE G. PAPPAS, P. O. Box AD, Price, Utah 84501 ("Lessors"), and COASTAL STATES ENERGY COMPANY ("Coastal"), a Texas corporation, with offices at Nine Greenway Plaza, Houston, Texas 77046, and GETTY MINING COMPANY ("Getty"), a Delaware corporation with offices at 5250 South 300 West, Salt Lake City, Utah 84107, as tenants in common (Coastal and Getty are the "Lessee"),

WITNESSETH:

1. GRANT. Lessors for and in consideration of the rents, covenants, and promises hereinafter mentioned and reserved to be paid, kept and performed by Lessee, its successors and assigns, have demised, leased and let, and by these presents do hereby demise, lease and let unto Lessee, and Lessee does hereby rent and accept from Lessors, all those certain premises ("the leased premises") situate, lying and being in the County of Carbon, State of Utah, designated and particularly described on Schedule A hereunto attached and by this reference made a part hereof. Reserving, however, unto the Lessors, all of the oil, gas and other minerals, in and under the leased premises, but releasing and waiving all rights of ingress and egress over and upon the leased premises for the purpose of exploring, developing, mining, drilling or extracting the same.

2. TERM. This Lease shall be for a term of thirty (30) consecutive years from January 1, 1982 through December 31, 2011, and continuing for each year thereafter so long as Lessee, or its assigns, has need for use of the leased premises.

3. RENTAL. Lessee agrees to pay to Lessors as rental for the use and occupancy of the leased premises the sum of Two Thousand Dollars (\$2,000.00) per year, the payment for the first year upon execution of this Lease by Lessors, and thereafter payable annually in advance. All rents herein reserved shall be tendered to Angelo Georgeades at the address set forth in Section 18, or at any other place designated by Lessors pursuant to Section 18 and tender of payment to Angelo Georgeades shall constitute full payment of rent hereunder and relieve Lessee of any liability for ownership or distribution of such rental among Lessors.

4. ESCALATION. On January 1, 1985, and each two (2) years thereafter that this Lease is in effect, the annual rental rate specified herein shall be adjusted in the same proportion that the "Consumer Price Index", as published by the United States Department of Labor (1967 = 100), has changed for the month of September in the previous calendar year from such index for the month of January, 1982, which latter index is the "Base Index", and such adjusted rental rate shall apply for the following two (2) years; provided, however, that the rental rate specified herein shall never be less than \$2,000.00 per year.

5. USE OF PREMISES. Lessee shall have the right to use the leased premises for the purpose of disposing of rock, materials, ordinary trash and any other waste or refuse by landfill or any other disposal methods. Lessee agrees to dispose of all such waste and refuse in accordance with applicable rules and regulations imposed by county, state and federal regulatory agencies.

6. LESSEE MAY FENCE. Lessee may fence the leased premises and construct gates or, at Lessee's option, may install cattleguards where necessary for crossing fenced land in connection with Lessee's operations conducted thereon and shall thereafter keep such gates, fences and/or cattleguards in good repair and all gates closed at all times. The cost and expense of constructing and maintaining the fence, gates and/or cattleguards shall be borne by Lessee.

7. QUIET ENJOYMENT. Lessors covenant and agree that Lessee, on paying the rent and other charges herein reserved and upon observing and keeping the covenants, conditions and terms of this Lease on Lessee's part to be kept or performed, shall lawfully and quietly hold, occupy and enjoy the leased premises during the term of this Lease without hindrance or molestation of Lessors or any persons claiming by or under Lessors, except such portion of the leased premises, if any, as may, in the future, be taken under the power of eminent domain.

8. ACCESS ROAD. Lessors grant unto Lessee a right-of-way for purposes of ingress and egress to and from the leased premises across the lands described in Schedule B hereunto attached and by this reference made a part hereof. Lessee shall have the right, at all times hereunder, to construct, maintain and use access roads on the right-of-way as required to travel to and from the leased premises.

9. SURRENDER OF PREMISES. Lessee shall, at the termination of this Lease, for whatever cause, vacate the leased premises in a reasonably good condition and state of repair, except for reasonable use and wear thereof, acts of God, or damage by casualty beyond the control of Lessee. All rock, materials, waste and refuse deposited on the leased premises

shall remain on the leased premises. Lessors hereby agree to accept the leased premises with such rock, materials, waste and refuse and hereby grant Lessee rights of ingress and egress and such other rights as Lessee may need after termination of this Lease to satisfy its reclamation obligations arising before or after termination of this Lease under its applicable federal, state or local permits.

10. LIMIT ON LIABILITY. Lessee shall have no obligation, responsibility or liability with respect to the existing highwall or with respect to fires in or upon the leased premises. Upon termination of this Lease, Lessee shall have no further duty to make annual rental payments to Lessors.

11. DEFAULT. If the rent herein reserved, or any part thereof, is not paid when due and shall remain unpaid for a period of thirty (30) consecutive days after notice thereof in writing, or if Lessee shall fail, in good faith, to promptly perform any other covenant, condition or agreement by it to be performed hereunder and such failure shall continue for a period of ninety (90) consecutive days after such notice in writing, specifying the nature of such failure, or if Lessee abandons the leased premises, then, in any such event, Lessee shall be deemed to be in default, and Lessors, without further notice, may, at their option, re-enter and take possession of the leased premises and pursue all remedies available to them under the law, including the re-letting thereof, and Lessee shall be responsible for and pay any deficiency.

12. RIGHT TO TERMINATE. Lessors, in addition to their rights under paragraph 11, may terminate on December 31, 2011, or on any December 31 thereafter upon the giving of not less than twelve (12) months prior written notice. Lessee may terminate on December 31, 2011, or on any December 31 thereafter, or at such earlier time as the leased premises have been used and reclaimed to the extent allowed by governmental permits issued with respect to Lessee's use of the leased premises, or at such time as Lessee permanently terminates its mining operations at its Skyline Mine, provided that Lessee gives Lessors not less than twelve (12) months prior written notice. Lessee, at its option, shall also have the right to terminate this Lease at any time prior to June 30, 1983, unless prior to such time it has received all permits from governmental agencies necessary for it to use the leased premises for the purposes above set forth in paragraph 5, provided however, that all rental theretofore paid to Lessors shall be retained by Lessors.

13. AMENDMENTS TO BE IN WRITING. This Lease may be modified or amended only by a writing duly authorized and executed by Lessors and Lessee and may not be amended or modified by oral agreements or understandings between the parties.

14. LEASE BINDING ON SUCCESSORS AND ASSIGNS. The covenants and agreements contained in this Lease shall be binding on the parties hereto and on their respective heirs, successors, executors, administrators and assigns, provided, however, that no assignment by Lessee of its interests hereunder shall operate to relieve Lessee from its primary obligations to Lessors hereunder unless Lessors shall, in writing, expressly release Lessee from its obligations and covenants hereunder.

15. ASSIGNMENT. Either party hereto shall have the right to assign this Lease in whole or in part, subject however the provisions of paragraph 14.

16. APPLICABLE LAW. Utah law shall be used in interpreting this Lease and in determining the rights of the respective parties hereto.

17. HEADINGS FOR CONVENIENCE ONLY. The headings used herein are for convenience and shall not be resorted to for purposes of interpretation or construction hereof.

18. PAYMENTS AND NOTICES. Lessors hereby designate Angelo Georgedes as their representative hereunder, and Lessee hereby designates Coastal as its representative hereunder, for all purposes including, but not limited to, the giving and receiving of notices and payments hereunder. The address of Lessors' representative is P.O. Box AD, Price, Utah 84501, and the address of Lessee's representative is Nine Greenway Plaza, Houston, Texas 77046. Lessors may change their representative by notice to Lessee signed by all of the persons or their legal representatives and Lessee may change its representative by notice to Lessors signed by Coastal and Getty. Notwithstanding the death of any of Lessors and/or their representative, the tender of payment and/or notices to Lessors' representative shall be binding upon the successors, heirs, devisees, executors, and administrators of such persons. Changes in addresses and/or representatives shall not become effective until fifteen (15) days after the party to be notified receives such notice. All notices shall be in writing and shall be either personally delivered or sent by certified mail, postage prepaid, return receipt requested.

19. ENTIRE AGREEMENT. This Lease constitutes the entire agreement between the parties and supersedes any other written or oral agreements or understanding between the parties concerning the subject matter hereof.

LESSORS:

By their attorneys-in-fact


ANGELO GEORGE DES


STEVE J. DIAMANTI


LUKE G. PAPPAS

ATTEST:

Robert Klumet
Asst. Secretary

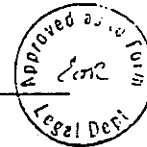
ATTEST:

D/83-S/4

LESSEE:

COASTAL STATES ENERGY COMPANY

BY *Lou A. McNamee*
Vice President



GETTY MINING COMPANY

BY *D. Paulding*

THE STATE OF UTAH :

COUNTY OF CARBON :

On the 27th day of July, A.D., 1982, personally appeared before me ANGELO GEORGEDES, and LUKE G. PAPPAS, two of the signers of the above instrument, who duly acknowledged to me that they executed the same as attorneys-in-fact.

My Commission Expires:

10-19-83

Frank H. Decker
Notary Public
Residing at Price, Utah

THE STATE OF ARIZONA :

COUNTY OF COCONINO:

On the 30 day of July, A.D., 1982, personally appeared before me STEVE J. DIAMANTI, the signer of the above instrument, who duly acknowledged to me that he executed the same as attorney-in-fact.

My Commission Expires:

My Commission Expires Jan. 5, 1986

Deborah T. Lewis
Notary Public
Residing at 11 W. Silver Springs Flagstaff AZ

THE STATE OF TEXAS :

COUNTY OF HARRIS :

On the 17th day of August, A.D., 1982, personally appeared before me Rosen A. Williams, who being by me duly sworn, did say that he is Vice President of COASTAL STATES ENERGY COMPANY, and that above instrument was signed in behalf of the corporation by authority of its Board of Directors, and he further acknowledged to me that the corporation executed the same.

Witness my hand and official seal.

Barbara J. Hickman
Notary Public for the State of Texas
Residing at: Cypress, Texas
My commission expires: July 17, 1985

THE STATE OF UTAH :

COUNTY OF SALT LAKE :

On the 27th day of September, A.D., 1982, personally appeared before me D. D. Scudding, who being by me duly sworn, did say that he is Vice President of GETTY MINING COMPANY, a Delaware corporation, and that the above instrument was signed in behalf of the corporation by authority of its Board of Directors, and he further acknowledged to me that the corporation executed the same.

Witness my hand and official seal.

Lawrence M. Leake
Notary Public for the State of Utah
Residing at: Salt Lake City, Utah
My commission expires: 11/6/84

D/83-S/4

SCHEDULE "A"

A tract of land located in Section 4, Township 13 South, Range 7 East, Salt Lake Base and Meridian, Carbon County, Utah, being further described as follows: Commencing at the Northwest corner of said section;

thence South 0 degrees 00' 4" East (basis of bearing taken from Utah State Plane Coordinate System), a distance of 1603.39 feet along the West line of said section to the Northerly right-of-way line of a road;

thence South 39 degrees 22' 14" East a distance of 337.81 feet along said North right-of-way line to the point of beginning;

thence North 79 degrees 55' 31" East a distance of 834.50 feet;

thence South 76 degrees 16' 09" East a distance of 320.00 feet;

thence South 6 degrees 30' 20" East a distance of 224.51 feet;

thence South 41 degrees 33' 38" West a distance of 1273.99 feet;

thence North 19 degrees 32' West a distance of 1060.25 feet to the Southerly right-of-way line of said road;

thence the following 6 courses along said right-of-way line South 84 degrees 53' 29" East a distance of 127.64 feet;

thence North 79 degrees 55' 31" East a distance of 506.66 feet;

thence North 10 degrees 04' 20" West of a distance of 100.00 feet;

thence South 79 degrees 55' 31" West a distance of 493.34 feet;

thence North 84 degrees 53' 29" West a distance of 72.36 feet;

thence North 39 degrees 22' 14" West a distance of 13.76 feet to the point of beginning, containing 17.83

acres.

D-83/S-6

SCHEDULE "B"

A right-of-way for the purpose of maintaining a road over a strip of land 100 feet wide over a portion of the East half of Section 5, Township 13 South, Range 7 East and a portion of the West half of Section 4, Township 13 South, Range 7 East, Salt Lake Base and Meridian, in the County of Carbon, State of Utah, the center line which is described as follows:

Commencing at the found stone of the Northeast corner of Section 5:

thence South 582.76 feet and West 1228.10 feet to the point of beginning;

thence North 37 degrees 15' 46" East 350.00 feet;

thence North 7° degrees 06' 31" East 100.00 feet;

thence South 16 degrees 40' 44" East 100.00 feet;

thence South 40 degrees 19' 44" East 500.00 feet;

thence South 29 degrees 23' 14" East 500.00 feet;

thence South 14 degrees 29' 44" East 100.00 feet;

thence South 39 degrees 22' 14" East 388.24 feet to a point on the East line of Section 5 from which

point the Northeast corner of said Section bears North 0 degrees 00' 04" West 1682.02 feet;

thence South 39 degrees 22' 14" East 311.76 feet;

thence South 84 degrees 53' 29" East 100 feet;

thence North 79 degrees 55' 31" East 500 feet. The

side lines of said right-of-way to be prolonged or shortened to meet at angle-point intersections, and at the East line of Section 5.

Contains 7.00 acres.

**SHORT FORM MEMORANDUM OF
AMENDED LEASE AND EASEMENT AGREEMENT**

This Short Form Memorandum of Amended Lease and Easement Agreement ("Short Form"), made and entered into as of March 1, 2007, by and between Fotini Telonis, Angelo G. Telonis, Thomas G. Telonis and John G. Telonis, whose address is c/o 190 North Carbon Avenue, Price, Utah 84501 ("Lessor") and Ark Land Company, a Delaware corporation, whose address is One CityPlace Drive, Suite 300, St. Louis, Missouri 83141 ("Lessee").

Recitals

A. The parties have heretofore entered into that certain Lease and Easement dated effective August 1, 2006 ("Lease Agreement"). Capitalized terms used herein and not otherwise defined shall have the meanings assigned to them in the Lease Agreement. A Short form Memorandum of Lease and Easement Agreement was filed for recording on August 28, 2006 in the office of the Carbon County Recorder, Carbon County, Utah, and recorded in Book 627 at page 180.

B. The parties have entered into an Amendment to Lease and Easement dated as of March 1, 2007 ("Lease Amendment"), amending the Lease Agreement in certain respects, including, without limitation, revising the description of the Premises.

C. The parties desire to enter into this Short Form for purposes of placing of record a notice of the Lease Agreement as amended by the Lease Amendment.

Short Form

NOW, THEREFORE, for and in consideration of the covenants of the Lease Agreement, as amended by the Lease Amendment, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. Grant.

(a) Lessor has leased to Lessee and hereby makes a confirmatory lease to Lessee of, the lands situated in Carbon County, Utah, more fully described on **Exhibit 1 - Amended** attached hereto and by this reference made a part hereof ("Premises") for the purposes set forth herein.

(b) Lessor has granted to Lessee and hereby makes a confirmatory grant to Lessee of, a right of way and easement over and across lands owned by Lessor and more particularly described on **Exhibit 2** attached hereto ("Access Lands") for purposes of ingress and egress to and from the Premises. Lessee shall have the right to construct, maintain and use access roads on the Access Lands as are necessary and reasonable to travel to and from the Premises for all purposes related granted under the Lease Agreement.

(c) Subject to Lessor's reservations set forth in the Lease Agreement, Lessee shall have the right to use the Premises for the following purposes:

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(i) Construction and operation of a coal waste-rock site to be used in connection with the Skyline Mine for the disposal of waste rock as permitted by the Utah Division of Oil, Gas and Mining;

(ii) Operation of a sedimentation pond to be used in conjunction with the coal waste-rock site; and

(iii) Construction and use of an access road "turn around" to be used in conjunction with the coal waste-rock site.

2. Term. The term of the Lease Agreement shall commence on August 1, 2006 and shall remain in full force and effect for a term of fifteen (15) Lease Years ("Term") (each twelve (12) month period beginning on the Effective Date is referred to herein as a "Lease Year").

3. Miscellaneous.

(a) All notices provided for herein shall be given to the parties at the following address:

If to LESSOR:

c/o Nick Sampinos
190 North Carbon Avenue
Price, Utah 84501

If to LESSEE:

Ark Land Company
Attn: President
One CityPlace Drive, Suite 300
St. Louis, MO 63141
Telephone: 800-238-7398
Fax: (314) 994-2940

With a copy to:

Skyline Mine
Attn: Mine Manager
Telephone: (435) 448-2619
Fax: (435) 448-2632

or at such other address or number as shall be designated by either party in a notice to the other party given in accordance with this section. Except as otherwise provided in the Lease Agreement, all such communications shall be deemed to have been duly given, (a) in the case of a notice sent by regular mail, on the date actually received by the addressee, (b) in the case of a notice sent by registered or certified mail, on the date received for (or refused) on the return receipt, (c) in the case of a notice delivered by hand, when personally delivered, (d) in the case of a notice sent by facsimile or electronic transmission, upon transmission subject to telephone

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confirmation of receipt, and (e) in the case of a notice sent by overnight mail or overnight courier service, the date delivered at the designated address, in each case given or addressed as aforesaid.

(b) The Lease Agreement as amended by the Lease Amendment contains terms and conditions that are not set forth in this Short Form but which nevertheless are by reference made a part hereof. If there is a conflict between the terms of this Short Form and the terms of the Lease Agreement, as amended, the terms of the Lease Agreement, as amended, shall control in all respects. Lessor and Lessee intend that the terms of the Lease Agreement, as amended, remain separate and distinct from and not merge into the terms of this Short Form. Requests for information regarding the Lease Agreement should be made to the parties at the addresses set forth above.

(c) This Short Form may be executed in any number of counterparts, and each counterpart hereof shall be deemed to be an original instrument, but all such counterparts shall constitute but one original.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have hereunto set their hands the day and year first above written.

LESSOR

Fotini Telonis, Angelo G. Telonis, Thomas G. Telonis and John G. Telonis

By: *Phil Sampson*
Its: *Attorney in fact*

LESSEE

Ark Land Company

By: _____
Its: _____

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1955
Oil, Gas & Minerals

A.S.

IN WITNESS WHEREOF, the parties have hereunto set their hands the day and year first
above written.

LESSOR

Fotini Telonis, Angelo G. Telonis, Thomas G.
Telonis and John G. Telonis

By: _____

Its: _____

LESSEE

Ark Land Company

By: _____

Its: _____

[Handwritten signature]
[Handwritten signature]

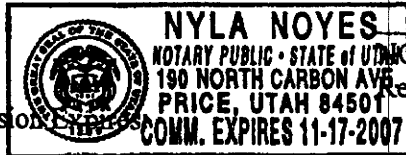
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2007 JUN 10 10:10

NOTARY PUBLIC

STATE OF UTAH)
 : ss.
COUNTY OF CARBON)

On the 19 day of March, 2007, personally appeared before me Nick Sampinos, who being by me duly sworn, did say that pursuant to a power of attorney the said instrument was signed on behalf of Fotini Telonis, Angelo G. Telonis, Thomas G. Telonis and John G. Telonis and he duly acknowledged to me that he executed the same.



My Commission Expires:

11/17/2007

Nyla Noyes
NOTARY PUBLIC
Residing at: Price, Utah

STATE OF _____)
 : ss.
COUNTY OF _____)

On the ___ day of _____, 2007, personally appeared before me _____, who being by me duly sworn, did say that he is the _____ Ark Land Company, and that the said instrument was signed on behalf of said company and the said _____ duly acknowledged to me that said company executed the same.

NOTARY PUBLIC
Residing at: _____

My Commission Expires:

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1980

Oil, Gas & Mining

A.S.

STATE OF UTAH)
 : ss.
COUNTY OF _____)

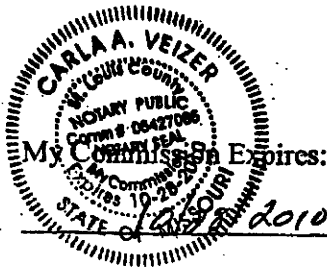
On the ___ day of _____, 2007, personally appeared before me Nick Sampinos, who being by me duly sworn, did say that pursuant to a power of attorney the said instrument was signed on behalf of Fotini Telonis, Angelo G. Telonis, Thomas G. Telonis and John G. Telonis and he duly acknowledged to me that he executed the same.

NOTARY PUBLIC
Residing at: _____

My Commission Expires:

STATE OF Missouri)
 : ss.
COUNTY OF St Louis)

On the 19th day of March, 2007, personally appeared before me Steven F. McCurdy who being by me duly sworn, did say that he is the President Ark Land Company, and that the said instrument was signed on behalf of said company and the said Steven F. McCurdy duly acknowledged to me that said company executed the same.



Carla A. Veizer

NOTARY PUBLIC
Residing at: St. Louis, MO

**EXHIBIT 1 - Amended
to Short Form of Amended Lease and Easement Agreement**

PREMISES

A tract of land located in Sections 4 and 5, Township 13 South, Range 7 East, Salt Lake Base and Meridian, Carbon County, Utah, and Section 32, Township 12 South, Range 7 East, Salt Lake Base and Meridian, Carbon, County, Utah, being further described as follows:
Commencing at the Northwest corner of said Section 4;

Thence South $0^{\circ} 28' 36''$ East (basis of bearing taken from Utah State Plane Coordinate System), a distance of 1603.82 feet along the West line of said section to the Northerly right-of-way line of a road;

thence South $39^{\circ} 54' 11''$ East a distance of 337.96 feet along said North right-of-way line to the point of beginning;

thence North $79^{\circ} 23' 34''$ East a distance of 834.50 feet;

thence South $76^{\circ} 48' 06''$ East a distance of 320.00 feet;

thence South $07^{\circ} 02' 16''$ East a distance of 224.51 feet;

Thence South $41^{\circ} 01' 41''$ West a distance of 1413.36 feet;

Thence North $26^{\circ} 33' 44''$ West a distance of 1855.35 feet;

thence North $24^{\circ} 10' 17''$ West a distance of 588.80 feet

thence North $05^{\circ} 40' 59''$ East a distance of 78.98 feet;

thence North $40^{\circ} 51' 41''$ West a distance of 252.84 feet;

thence North $40^{\circ} 51' 41''$ West a distance of 252.84 feet;

thence North $17^{\circ} 12' 41''$ West a distance of 65.28 feet;

thence North $05^{\circ} 29' 03''$ East a distance of 263.95 feet;

thence South $88^{\circ} 43' 20''$ East a distance of 256.20 feet;

thence North $00^{\circ} 27' 51''$ East a distance of 98.03 feet;

thence North $86^{\circ} 08' 07''$ East a distance of 222.33 feet;

thence South $07^{\circ} 02' 02''$ West a distance of 190.58 feet;

thence South $00^{\circ} 35' 18''$ West a distance of 271.35 feet;

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Oil, Gas & Mining

H.S.

thence South 60° 54' 14" West a distance of 233.31 feet;

thence South 40° 50' 20" East a distance of 242.58 feet;

thence South 29° 55' 11" East a distance of 611.32 feet;

thence South 15° 01' 42" East a distance of 95.51 feet;

thence South 39° 54' 11" East a distance of 654.24 feet to the point of beginning, containing approximately 36.51 acres.

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Div. of Oil, Gas & Mining

A.S.

EXHIBIT 2
to Short Form of Amended Lease and Easement Agreement

ACCESS LANDS

A right-of-way for the purpose of maintaining a road over a strip of land 100 feet wide over a portion of the East half of Section 5, Township 13 South, Range 7 East, Salt Lake Base and Meridian, in the County of Carbon, State of Utah, the center line which is described as follows:

Commencing at the found stone of the Northeast corner of Section 5:

Thence South 582.76 feet and West 1228.10 feet to the beginning;

thence North 52°20'45" West 50.58 feet;

thence North 36°43'48" East 369.12 feet;

thence North 78°34'35" East 104.33 feet;

thence South 05°29'03" West 104.52 feet;

thence South 78°34'35" West 35.70 feet;

thence South 36°43'48" West 330.88 feet;

thence North 53°16'12" West 50.00 feet to point of beginning.

The side lines of said right-of-way to be prolonged or shortened to meet at angle-point intersections.

Contains approximately 0.97 acres.

March 6, 2007

Telonis Family
c/o Nick Sampinos
190 North Carbon Avenue
Price, Utah 84501

Re: Lease and Easement Agreement dated effective August 1, 2006

Dear Mr. Sampinos,

Skyline Mine appreciates your time last Thursday, March 1, in meeting with Doug Downing, Carl Winters and Bill Prince representing Canyon Fuel Company in connection with the revised and restated Lease and Easement Agreement (Lease) between the Skyline Mine (Mine), through Ark Land Company, and the Telonis family adopted last year covering lands owned by the Telonis family for use by the Mine as a waste rock disposal site. This letter provides an outline of the issues discussed at that meeting.

The Mine has prepared, and submits with this letter a copy of, a revised reclamation drawing (Plat) depicting the final configuration of the Lease property, including the benched area, the access road and the stock watering pond. The final configuration satisfies the terms of the Lease and applicable regulatory requirements, but raises a couple of land use issues that Doug, Carl and Bill presented to you for review with the Telonis family.

Livestock Watering Pond. The Plat outlines two alternatives for a future pond on the property. The Telonis family has requested that the Mine preserve the sedimentation pond for future use as a livestock watering pond. The Mine previously contemplated that waste rock would be used to fill-in the current sedimentation pond (outlined in red on the Plat) and that a new sedimentation pond (outlined in blue on the Plat) would be constructed to the north of the existing sedimentation pond. The Mine had intended to preserve the new pond post reclamation for livestock use. You can get a sense of the relative locations and sizes of the two ponds from the Plat. In assessing the final configuration for permitting, the Mine has concluded that the new pond would be disadvantageous to livestock watering use because of its design resulting in steep sides and a deeper, narrower water source. We believe that rather than unnecessarily disturbing more of the natural state of the property, the old pond (which benefits from a shallow depth and gradual-sloping sides) should be retained and preserved post reclamation for livestock use.

Additional Lease Property. In reviewing the reclamation plan for the Lease property and preparing the attached Plat, we have concluded that a small additional strip of land located directly to the west of the current leased lands (just west of the stream) will provide a more reasonable working space in which to access and complete the reclamation contouring and final design and construction of the road and pond for long term use. The Plat outlines both the current Lease boundary (solid green line) and the proposed, revised Lease boundary (dashed orange line) incorporating approximately five and one-half additional acres. The Mine has no intention of conducting any surface disturbance in or across the stream. However, the additional land would help avoid impacts off the current leased property. Accordingly, the Mine requests consideration to

Skyline Mine

Telonis Family
March 6, 2007
Page 2

increase the leased lands to include the additional strip as outlined on the Plat. Upon approval of extending the leased area to the west, we can prepare a simple amendment with a revised description of the property covered by the lease for your review and execution by the parties

Configuration of Reclaimed Property As outlined on the attached Plat, the post reclamation configuration includes a benched area amenable to grazing uses, corrals, cabin sites or other development. As the parties have discussed many times, the property thus reclaimed will be perfectly suited to use for recreational and livestock purposes upon termination of the Lease. The drawing also shows the access road which will remain as depicted. In the event the Mine does not generate a sufficient volume of waste rock, the ultimate elevation of the benched area will obviously be lower than that shown on the Plat.

As a final matter, this meeting provided the Mine with the opportunity to outline the status of the improvements required to be completed by the Mine and as described in Exhibit C to the Lease. The Mine intends to complete the required survey of the property in 2007. The Mine also plans to complete the fencing work in 2007 as weather conditions permit and subject, as noted in the lease, to delays arising from ownership conflicts, if any.

As we discussed, the Mine is anxious to move forward with the revised surface plan for the waste rock site. We hope to complete a review process with the State Division of Oil, Gas and Mining in the next couple of weeks. We appreciate your commitment to getting this information to your client promptly. Please let us know if additional information would be helpful in addressing these issues. We value our relationship with the Telonis family and welcome comments and questions on any matter covered by this letter.

Very truly yours,



Wesley K. Sorensen
General Manager
Skyline Mine

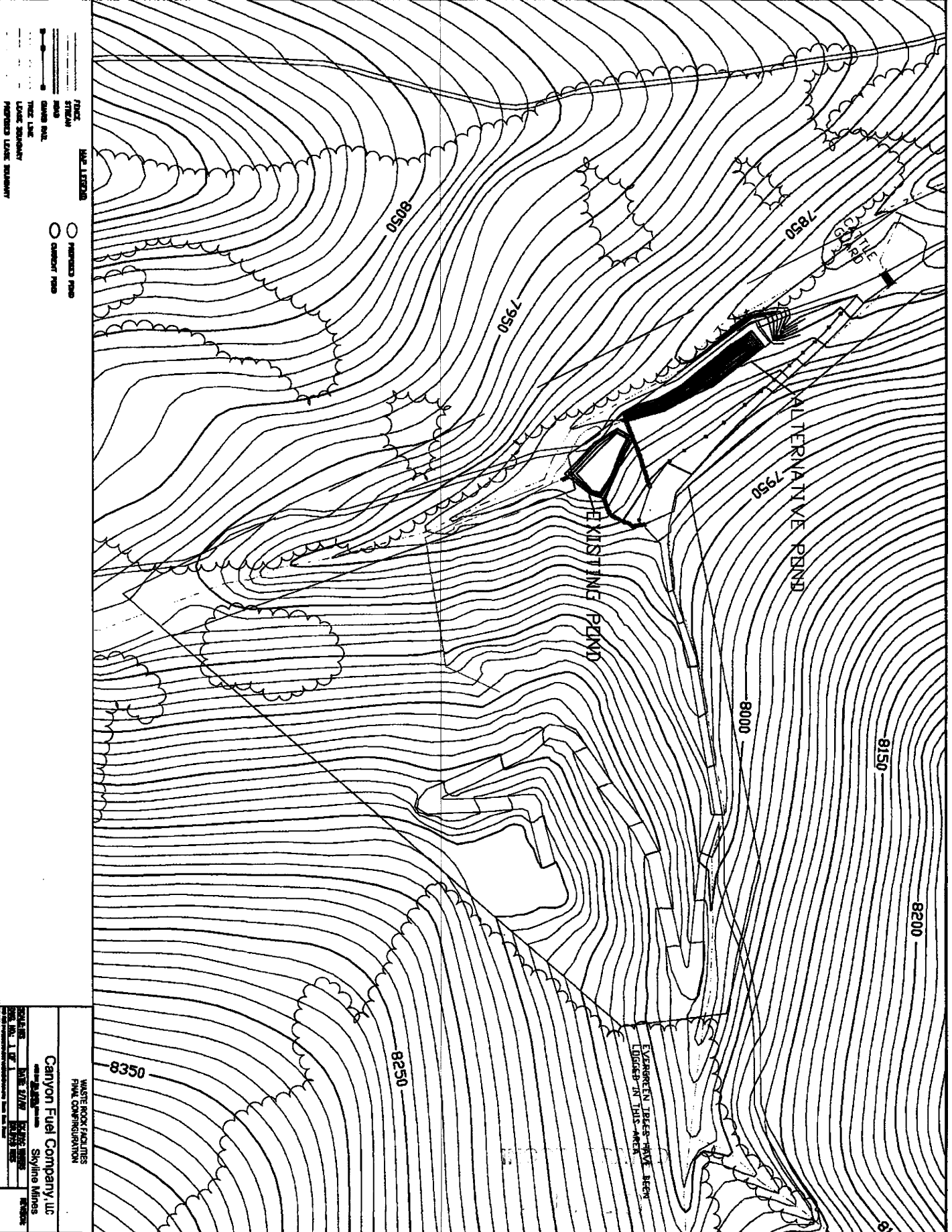
Enc.

cc. Doug Downing
B. J. Sturgill
William B. Prince
Carl Winters

INCORPORATED

1997

Div. of Oil, Gas & Mining





State of Utah
DEPARTMENT OF TRANSPORTATION

Michael O. Leavitt
Governor
Thomas Warne
Executive Director
Clint Topham
Deputy Director
Kleston H. Laws
Price District Engineer

Route #3 Box 75C5
940 So. Carbon Ave.
Price, Utah 84501
(801) 636-1470
(801) 636-1471 (FAX)

Commission
Glen E. Brown
Chairman
Todd G. Weston
James G. Larkin
Ted D. Lewis
Hal M. Clyde

February 4, 1997

Mr. Stan Christensen, Surface Superintendent
Canyon Fuel Company
Skyline Mine
Scofield, Ut

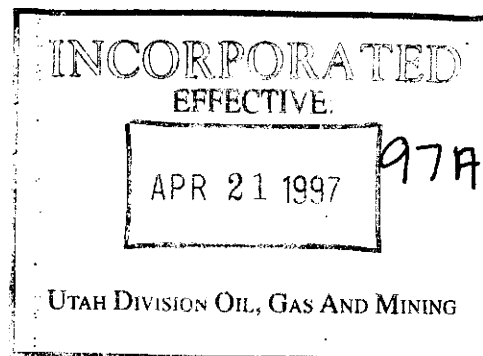
Dear Mr. Christensen:

This letter will serve as permission to stockpile snow within UDOT Right of Way along SR-264 just below your mining facility. The UDOT Right of Way in that area is 100 ft. (50 ft each side of centerline). Snow, materials, and equipment are not be stockpiled within the clear zone defined as the area 10 feet adjacent to the edge of pavement. Any excess right of way beyond that 10 feet is available for your use. This is only on the area below the Forest Service Boundary and not beyond 50 feet from centerline. USFS or private property owners should be contacted beyond these limits. You are responsible for maintaining a drainage that will prevent water from entering the paved part of the highway. Equipment crossing signs should be in place during times that the snow is being taken across the highway. The area should be left in the condition you found it. We expect this area could be modified by future highway construction, but we expect it can be used for the next twenty years.

If I can be of further assistance or if you have questions, please either call Dale Stapley (636-1402) or Dave Babcock, Colton Maintenance Supervisor (870-8772).

Sincerely,
Kleston H. Laws
Kleston H. Laws, P.E.
Price District Engineer

c Dave Babcock
Dale Stapley



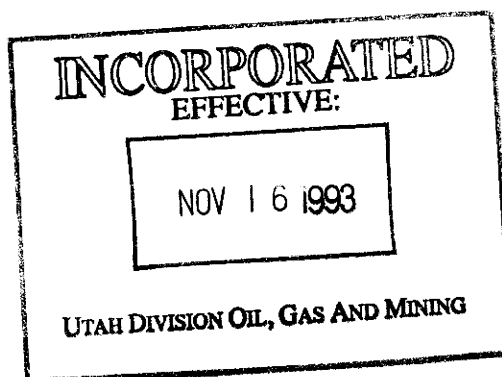
3.7 GEOTECHNICAL DRILLING

Periodically it may be necessary to do some additional geotechnical drilling within the already approved disturbed area. When this situation arises, the permittee will develop a drilling plan, and submit it to the Division for approval.

The drilling plan will include:

- A location map of the proposed drill hole/holes,
- Description of the hole,
- Purpose of the hole,
- Operational procedures for drilling the hole,
- How the hole will be sealed, and who is the onsite company representative.

When drilling is completed, the permittee will notify the Division of final completion of the project.



Traditionally waste rock at Skyline Mine has been either stowed in underground working areas or hauled to the surface for disposal at a permitted waste rock disposal site. During the Fall of 1996, Skyline formulated plans on how to handle a large sandstone channel that had displaced the upper portion of the coal seam in Mine 2. About 100,000 tons of the sandstone had to be removed to allow mining to continue. Conventional disposal methods were either uneconomical (i.e. hauling to the waste rock site) or not feasible (i.e. stowing in underground working areas). Therefore, Skyline chose an alternative method of disposal which consisted of crushing the rock, mixing it with water, and disposing of the resulting slurry in abandoned mine workings.

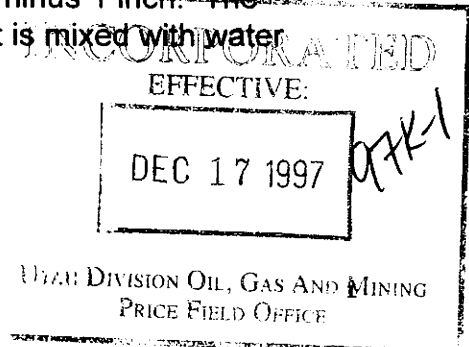
A flow diagram for the slurry system is attached (see Slurry System Flow Diagram). The slurry system consists of four main parts: 1) waste rock feed; 2) water supply 3) crushing and mixing; and 4) slurry disposal. Each component of the slurry system is described below.

Waste Rock Feed: The sandstone channel is located in the West Mains of Mine 2. The continuous miner in the West Mains has two conveyor belts. One belt transports coal when the miner is in the lower portion of the seam. The other belt is used to transport waste rock when the sandstone channel is being removed at the top of the seam. The rock belt typically transports 100 tons/hour of rock to the slurry system crusher.

Water Supply: The portal yard sediment pond is the primary water source for the slurry system. Typically about 300,000 gallons per day of water are pumped from Mine 2 to the sediment pond. During storm events, the sediment pond also collects a small amount of surface runoff from the disturbed area around the Skyline facilities. The sediment pond usually contains more than 95% mine water.

The portal yard sediment pond normally discharges on a continuous basis to Eccles Creek. However, when the slurry system is operating approximately 500 gallons per minute of water are pumped from the sediment pond preventing any discharges to the creek.

Crushing and Mixing: A schematic of the slurry system crushing and mixing components is attached (see Slurry System Profile). Waste rock is initially dumped onto a feeder breaker which reduces the rock to a nominal 6 inches. Once the waste rock has passed through the feeder breaker it is conveyed to an impact crusher. The crusher reduces the waste rock to minus 1 inch. The crushed rock is then dumped into a rock hopper where it is mixed with water producing a slurry which is 30-40% solids by weight.



Slurry Disposal: The slurry is pumped from the crusher to a sealed-off area in Mine 3. (See the attached Slurry Pipe Line Layout diagram.) The steep grade at this location allows the slurry to drain down dip from the seals.

The slurry system is anticipated to process approximately 100,000 tons of waste rock and use about 45 million gallons of water over an expected 10 month period. If the slurry system is successful, it may be used in other applications in the future. In the event that the slurry system is significantly modified or used in a new application, DOGM will be notified.

The preceding information is intended to provide a general understanding of the slurry system. The following information will specifically address each regulation that was cited in the Notice of Violation for the slurry system.

536.520 Underground Disposal

The waste rock disposed from the slurry system is very unlikely to have an adverse impact on groundwater for the following reasons. Groundwater currently flows through the in-place sandstone channel without any adverse impacts; in fact, sandstone channels are a significant source of water discharged from the mine. An analysis of the crushed waste rock verifies that grinding does not cause the material to become toxic or acid-generating. A copy of the analysis is attached and shows that the waste rock is primarily sand (77%) and is alkaline with an acid base potential of about 80 tons of limestone equivalent per 1000 tons of rock. A proposed monitoring program for the waste rock is also attached. The purpose of the monitoring program is to track the quality of the material disposed by the slurry system.

The practice of backfilling the abandoned workings with slurry will not impact the current operations since the slurry discharges into abandoned workings which are located down dip from the current operations. The slurry backfill will enhance ground stability and in turn reduce potential surface subsidence effects. Backfilling underground mines to increase ground stability is a common industry practice in Europe and in the hardrock industry. It is also used to dispose of fine coal waste from preparation plants.

As described previously, the portal yard sediment pond serves as the water source for the slurry system. Although the sediment pond captures small amounts of surface runoff, the vast majority of the water in the pond is from dewatering Mine 2. Once the slurry has discharged into the underground workings, it will pool in the abandoned mine workings. There the solids will settle to the lowest point and the clarified water will rise to the top, analogous to what occurs in a sediment pond. The abandoned workings in Mine 3 have more than ample capacity to hold the 45 million gallons of water and 100,000 tons of rock currently planned to exit the slurry system.

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EFFECTIVE:
DEC 17 1997
UTAH DIVISION OIL, GAS AND MINING
PAGE FIELD OFFICE

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Water pooled in the abandoned workings will eventually infiltrate into the underlying strata and enter the groundwater regime. However, due to the very slow rate of groundwater movement in the underlying aquifer, water decanted from the slurry operation will not reach the surface for thousands of years. A more detailed explanation of the hydrological impacts of the slurry system are discussed below in Section 731.511.1.

Additional groundwater monitoring wells are not planned for the slurry system since the current groundwater monitoring plan and the current Probable Hydrological Consequences (PHC) remain valid. The slurry discharges into abandoned mine workings that are already naturally filling up with water. According to the PHC, all of the underground workings will fill with water when mining ceases. The PHC concludes that the likely impact of the eventual flooding of the underground workings is a higher recharge rate and lower TDS concentration in the ground water. The slurry system does not alter the conclusions reached in the PHC.

513.300 Underground Development Waste Disposal

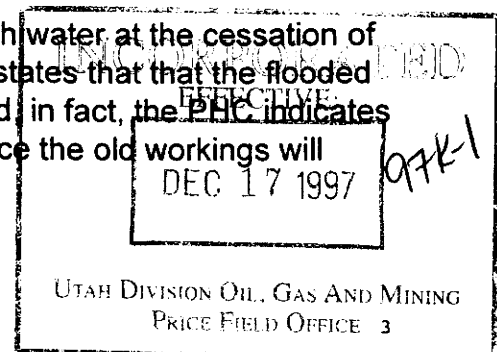
The information provided above addresses this provision.

731.511 - 731.520 Discharges

731.511.1 Minimize Disturbance to the Hydrologic Balance

It is unlikely that the slurry system will have any significant impact on the hydrologic balance for the following reasons:

1. The slurry system returns water to its point of origin. In other words, the slurry system returns mine water to the mine and limits the prior practice of discharging to Eccles Creek. Returning the mine water underground keeps the mine water in the groundwater regime instead of artificially and prematurely entering the surface water regime.
2. The mine water is several thousands of years older than the surrounding surface water. The reason for the age disparity is due to the very low hydraulic conductivity of the local aquifer and the subsequent slow rate of groundwater movement. According to the Skyline Probable Hydrological Consequence (PHC), mine water encountered today will not reach the surface for several thousands of years.
3. The long term effect of flooding the entire mine with water at the cessation of mining has been analyzed in the PHC. The PHC states that that the flooded workings pose no significant hydrology impact; and, in fact, the PHC indicates that they may be slightly higher recharge rates since the old workings will effectively increase the porosity of the aquifer.



731.511.2 - Not Violate Water Quality Standards or Effluent Limitations -

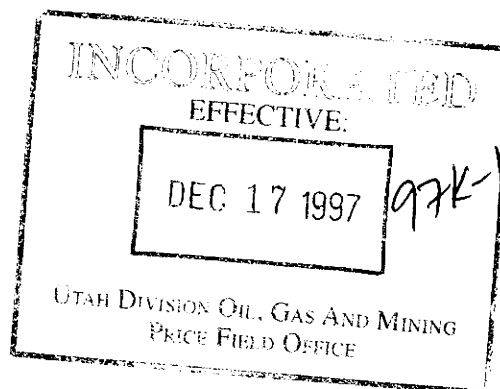
Skyline has proposed a monitoring program for the slurry system supply water. The monitoring program mimics the current UPDES permit limitations for Skyline except that TSS will not be monitored.

731.511.3 - Do Not Exceed pH and TSS Limitations Unless Approved by the

Division - The slurry system will use approximately 500 gpm of water. The quality of the water will be determined by the monitoring program which is attached. Skyline is specifically asking to not monitor for TSS since the water in the pond may not meet the design retention time when it is utilized in the slurry system. Moreover, Skyline feels that a TSS measurement is inappropriate since the water will be used to produce a 30-40% solids slurry, and in essence will be discharging to an underground sediment pond.

731.511.4 Meet with the Approval of MSHA - Skyline requested MSHA approval for the slurry system in January 1997. MSHA responded that the project did not require specific approval; however, MSHA stated that the project was adequate and addressed all the specific safety concerns that they had. Skyline submitted a second letter to MSHA regarding the slurry system in September, 1997. The follow-up letter described the source and quantity of water used in the slurry system. MSHA once again stated that their concerns regarding the slurry system had been had been addressed in their January response. They also recommended that DOGM contact them if there are any concerns regarding the potential safety hazards associated with the slurry system. All of the written correspondence between MSHA and Skyline regarding the slurry system is attached.

731.512 Limit the Type of Discharges - Discharges from the slurry system are limited to water and underground mine development waste.



731.513 - Water from Underground Workings may be Diverted to other Underground Workings According to the Requirements of R645-3010731.100 through R645-301-731.522 and R645-301-731.800. -

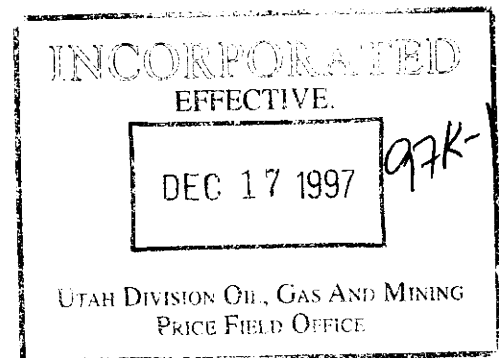
This provision requires addressing the following issues:

- hydrologic-balance protection;
- water monitoring;
- acid- and toxic-forming materials;
- transfer of wells;
- discharges; and
- water rights and replacement.

These issues have already been addressed with the exception of transferring water wells and water rights and replacement. Transferring wells does not apply to the slurry system. Water rights also do not apply since the water used in the slurry system is unclaimed water that has not been allocated to a downstream user.

731.520 Gravity Discharges- The slurry system will not result in any type of gravity discharge from the mine.

300.142 & 143 Follow Approved Permit- Approval of this amendment will allow the operator to satisfy these requirements.



SLURRY SYSTEM MONITORING PROGRAM

1.1 WATER

Water samples will be taken from the portal yard sediment pond weekly. If the pond is discharging to Eccles Creek, the sample will serve as a normal UPDES sample. If the pond is not discharging, the sample will serve as measurement of the source water for the slurry system. Sample parameters will alternate according to the current UPDES permit for Skyline Mine with the exception that TDS and TSS will not be monitored for slurry samples. The current sampling schedule follows. One week the flow rate, pH, total dissolved solids, total suspended solids, oil and grease, total iron, and dissolved iron will be taken. The next week the flow rate, pH, and oil and grease will be taken. The following are the effluent standards for the UPDES permit:

Dissolved Iron, mg/L	Daily maximum - 1.0
Oil and Grease, mg/L	Daily maximum - 10
Total Iron, mg/L	Daily maximum - 2.0

pH not less than 6.5 standard units nor greater than 9.0 standard units

These parameters meet the requirements of Section R645-301-731.200 of the Coal Mining Rules.

The Division of Oil, Gas, and Mining (DOG M) will be notified immediately if any of the parameters are out of compliance as required under Section R645-300-145.300 of the Coal Mining Rules.

Section R645-300-145.300	
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EFFECTIVE:	
DEC 17 1997	97K
UTAH DIVISION OIL, GAS AND MINING	
PRICE FIELD OFFICE	

1.2 UNDERGROUND MINE WASTE

Homogeneous slurry material will be sampled every 450 feet of advance and nonhomogeneous slurry material will be sampled as encountered. Analysis of potential toxic or acid forming material will follow a modified Guideline 6 for Topsoil and Overburden. The parameters to be analyzed for are as follows:

pH

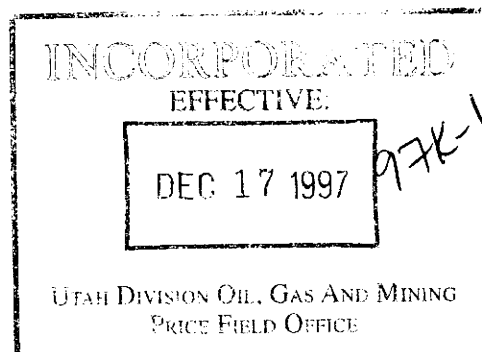
Conductance

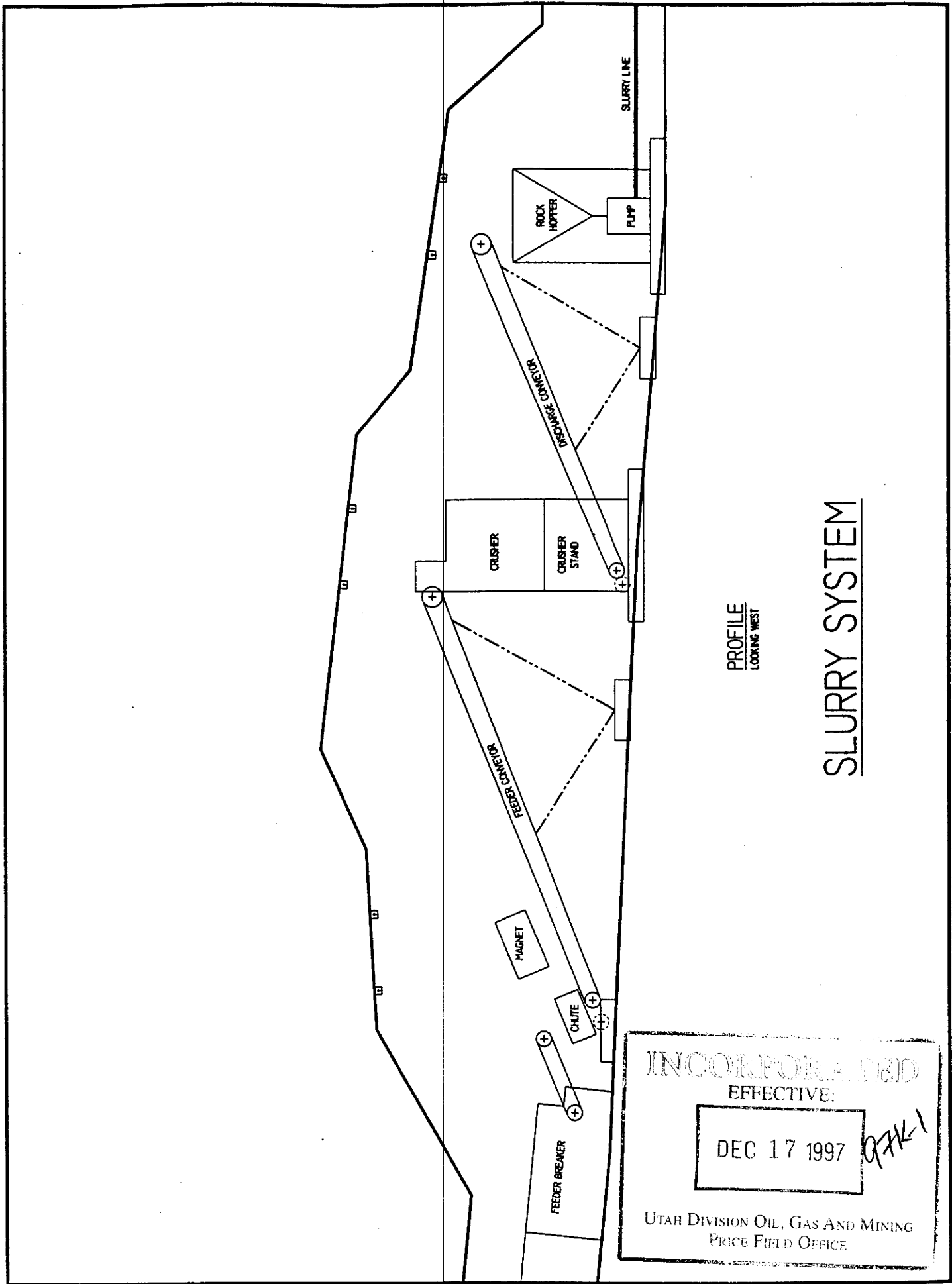
Selenium

Boron

Acid/base potential

The Division will be immediately notified if any of the parameters are out of compliance with the limitations established in Guideline 6.

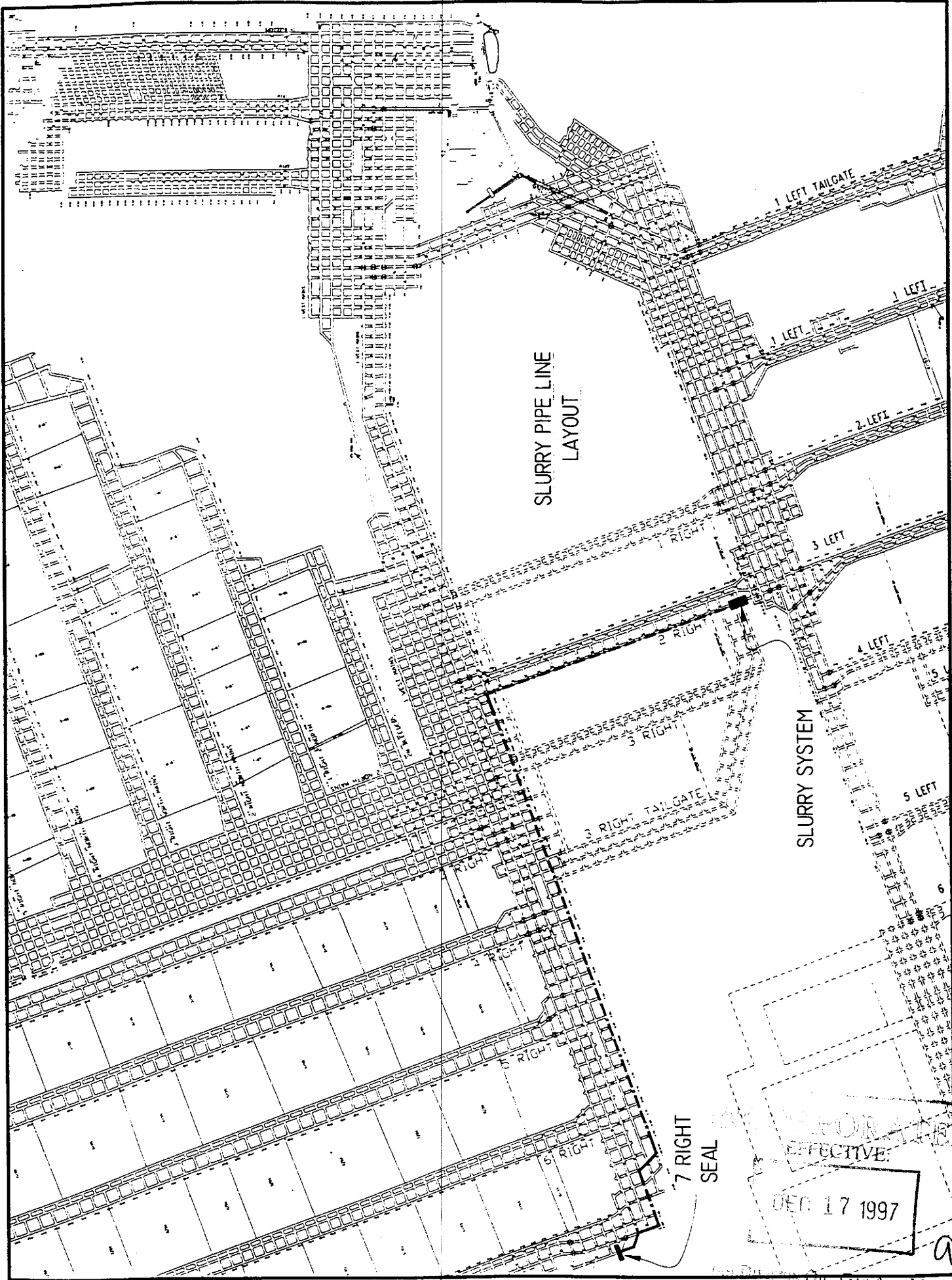




PROFILE
LOOKING WEST

SLURRY SYSTEM

INCORPORATED
EFFECTIVE:
DEC 17 1997 *AKK*
 UTAH DIVISION OIL, GAS AND MINING
 PRICE FIELD OFFICE



FORWARDED
EFFECTIVE:
DEC 17 1997
GPK

Xc: DH, RP, DF, GT

U. S. Department of Labor

Mine Safety and Health Administration
P.O. Box 25367
Denver, Colorado 80225-0367



Coal Mine Safety and Health
District 9

OCT - 7 1997

Dan Meadors
General Manager
Canyon Fuel Company, LLC
P. O. Box 719
Helper, UT 84526



RE: Skyline Mine No. 3
ID No. 42-01566
Slurry Disposal

Dear Mr. Meadors:

This is to acknowledge receipt of your letter, dated September 11, 1997, regarding the slurry project. The project is not subject to MSHA approval; however, MSHA does have jurisdiction over this waste disposal project.

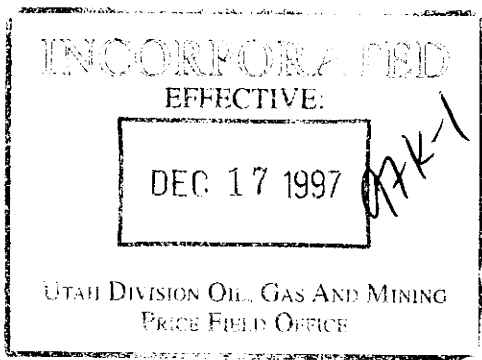
Concerns of this waste disposal project relate to the impact on the health and safety of miners and possible environmental effect on the surrounding community. MSHA's concerns were addressed in the MSHA response letter dated January 28, 1997.

It is recommended that the Division of Oil, Gas, & Mining (DOGM) discuss issues of possible environmental effect of the project with the Environmental Protection Agency (EPA), and call our MSHA office at (303) 231-5462 with any questions regarding the potential safety and health hazards for miners.

Sincerely,

John A. Kuzar
John A. Kuzar
District Manager

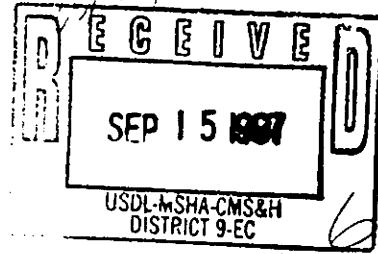
Enclosure





Canyon Fuel Company, LLC
 Skyline Mines
 P.O. Box 719
 Helper, Utah 84526
 (801) 637-7925 Fax: (801) 636-2632

Perry
 V1025009



September 11, 1997

Mr. John Kuzar
 District Manager
 Mine Safety & Health Administration
 P.O. Box 25367
 Denver, CO 80225-0367

RE: Ventilation Plan Amendment
 Skyline Mine No. 3
 I.D. #42-01566

Dear Mr. Kuzar:

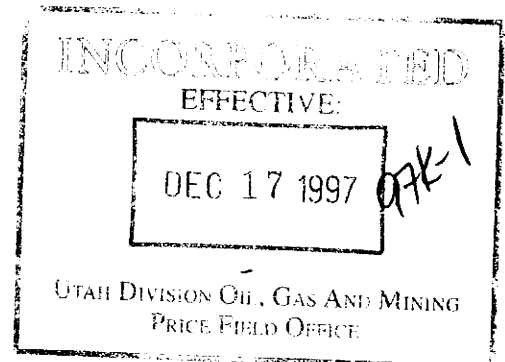
The Division of Oil, Gas, & Mining (DOGM) regulations require MSHA approval for discharging water underground and for storing mine waste rock underground. DOGM feels that since the slurry system discharges water and waste rock underground that the system needs MSHA approval. Skyline Mines sought approval from MSHA for the slurry system on January 17, 1997 (see attached letter). MSHA responded that the project was not subject to MSHA approval, but that the project addressed MSHA concerns about ventilation, grounding, and discharging down dip (see attached MSHA response letter).

At the request of DOGM, Skyline is providing MSHA with additional information on the slurry system to see if further approval is needed. The slurry system utilizes 500 gpm of water to slurry 100 tons/hr of waste rock to the 7 Right Tailgate Seals in the West Mains. The waste rock typically contains less than 1% coal. The portal yard sediment pond is used as the primary source of water for the slurry system.

As previously mentioned, the slurry pipeline is grounded and discharges down dip behind the seals. The area in front of the seals is continuously ventilated to maintain acceptable air quality. If you have any additional questions, please call Dan Ferriter at (801) 636-2669.

Sincerely,

Dan Meadors FOR DAN MEADORS 9/11/97
 General Manager





Skyline Mines

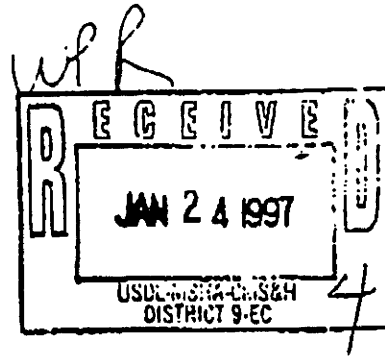
P. O. Box 719
Helper, UT 84526

(801) 637-7925
Fax (801) 636-2632

January 17, 1997

Mr. John A. Kuzar
District Manager
Mine Safety & Health Administration
P.O. Box 25367
Denver, Colorado 80225-0367

Re: Ventilation Plan Amendment
Skyline Mine No. 3
I. D. #42-01566



Dear Mr. Kuzar:

Attached is a proposed amendment to the currently approved ventilation plan for the above referenced mine. This amendment is being sought in anticipation of a possible slurry project at Skyline Mine No. 3. This project is being considered as an option for disposal of the rock that will be mined when the current 2 West Mains section continues its progress through an area of extremely low coal. This area will be an estimated 2800 feet long. The crusher and pumping station would be located in this 2 West Mains area.

The slurry will be pumped through a pipe in the 7 Right Tailgate seals in the West Mains of Mine 3. The slurry pipe will be grounded to prevent buildup of static electricity. The area in front of the seals will be continuously ventilated with sufficient air to render harmless and carry away any methane or other gases being displaced from behind the seals.

The discharge of the slurry will be located down dip from the seals and the seals will not be used as an impoundment structure. Approval of this proposal would be specific to this area of Mine 3.

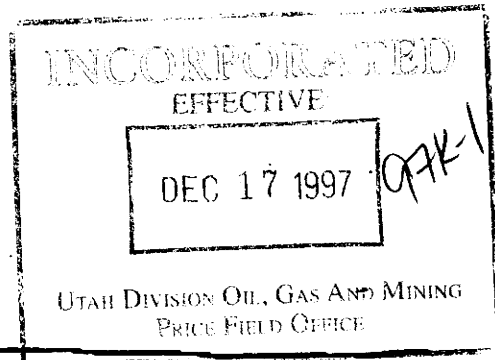
If you have any questions or need additional information, please contact Gary Taylor of my staff at 801-636-2620.

Sincerely,

Dan Meadors
General Manager

DM/dh

cc: Jim Kirk / MSHA - Price, Ut.



Canyon Fuel Company LLC
6955 South Union Park Center Suite 550
Midvale, UT 84047

(801) 569-4700
Fax: (801) 569-4799

U. S. Department of Labor

Mine Safety and Health Administration
P.O. Box 25367
Denver, Colorado 80225-0367

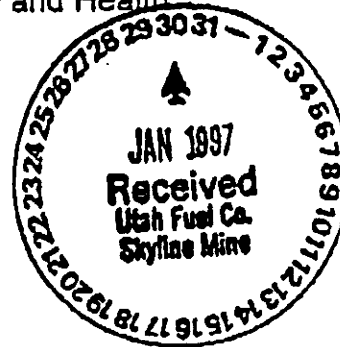
GT
DH
DK



Coal Mine Safety and Health
District 9

JAN 28 1997

Ken Payne
Vice President and General Manager
Utah Fuel Company
P. O. Box 719
Helper, UT 84526



RE: Skyline Mine No. 3
ID No. 42-01566
Slurry Option

Dear Mr. Payne:

This is to acknowledge receipt of your letter, dated January 17, 1997, regarding an option for a slurry project. The project is not subject to MSHA approval; however, the concerns associated with the request have been reviewed and appear adequate as follows:

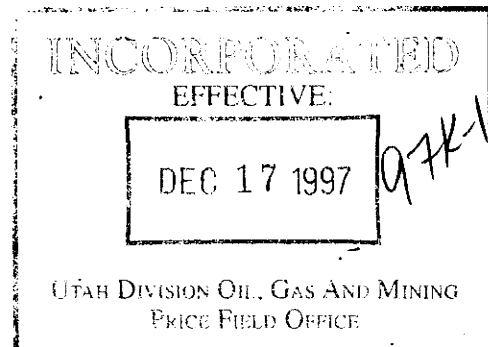
1. The project is site specific for 7 Right Tailgate seals in the West Mains.
2. The slurry pipe will be grounded to prevent buildup of static electricity.
3. The area in front of the affected seals will be continuously ventilated with sufficient air to render harmless and carry away any methane or other gases being displaced from behind the seals.
4. The discharge of the slurry will be down dip from the affected seals, and the seals will not be used as impoundment structures.

A copy of this letter shall be made available to the miners and reviewed with all miners affected.

Sincerely,

John A. Kuzar
John A. Kuzar
District Manager

Enclosure



Canyon Fuel

DATA REPORTED: October 15, 1997

Lab No.	Location	Depths Feet	pH	EC µmhos/cm @ 25°C	Calcium mg/l	Magnesium mg/l	Sodium mg/l	SAR	Sand %	Silt %	Clay %	Texture	Organic Carbon %
56894	Slurry	0.0-0.0	7.4	0.87	4.44	4.70	1.94	0.93	77.0	13.0	10.0	SANDY LOAM	1.3

UTAH DIVISION OF OIL, GAS AND MINING
 PRICE FIELD OFFICE
 INCOME TAX FIELD
 EFFECTIVE
 DEC 17 1997
 PPKA

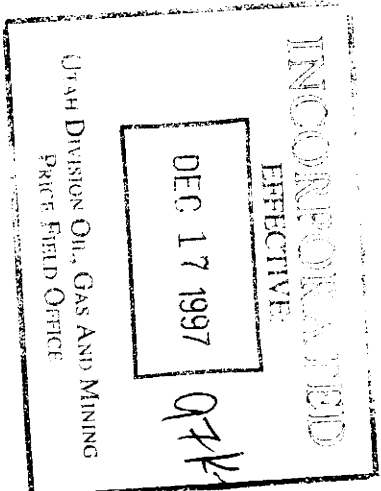
miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, SES= Exchangeable Sodium Percentage, EXCH= Exchangeable, Avail.= Available

Canyon Fuel

DATE REPORTED: October 15, 1997

Lab No.	Location	Depth Feet	Total Sulfur %	T.S. AB t/1000t	Neat. Pot. t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyrS AB t/1000t	PyrS ABP t/1000t
56354	Slurry	0.0-6.0	6.26	8.25	87.1	78.9					

FROM: IML-FARMINGTON, NM TO:



Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neat. Pot.= Neutralization Potential.

Canyon Fuel

DATE REPORTED: October 15, 1997

Lab No.	Location	Depth Feet	Nitrate- Nitrogen ppm	Boron ppm	Exch Na meq/100g	Total Kjeldahl Nitrogen %	H2O Sol Selenium ppm
56894	Slurry	0.0-0.0	0.01	0.36		0.55	0.02

UTAH DIVISION OF OIL, GAS AND MINING
 PRICE FIELD OFFICE
 INCOMPLETE
 EFFECTIVE
 DEC 17 1997
 074-1

Abbreviations for extractants: P2= Saturated Paste Extract, H2O Sol= water soluble, ABPTA= Ammonium Bicarbonate-OPTA, AAU= Acid Ammonium Citrate
 Miscellaneous Abbreviations: SAR= Solids Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage, Exch= Exchangeable, Avail= Available

3.12.13 James Canyon Pipeline

In the summer of 2001, a dewatering well was drilled in the SW 1/4 SW 1/4 of Section 35, T13 South R6 East. Access to the drill site is via a reclaimed road. The road was abandoned by Emery County shortly after the completion of construction of the Electric Lake Dam. The road was reclaimed by constructing large water bars across the road at spacings of a few hundred feet. The abandoned road surface was seeded in 1972 using a Forest approved seed mix. The abandoned road is located on both U.S. Forest Service land and private property.

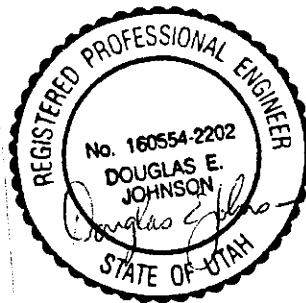
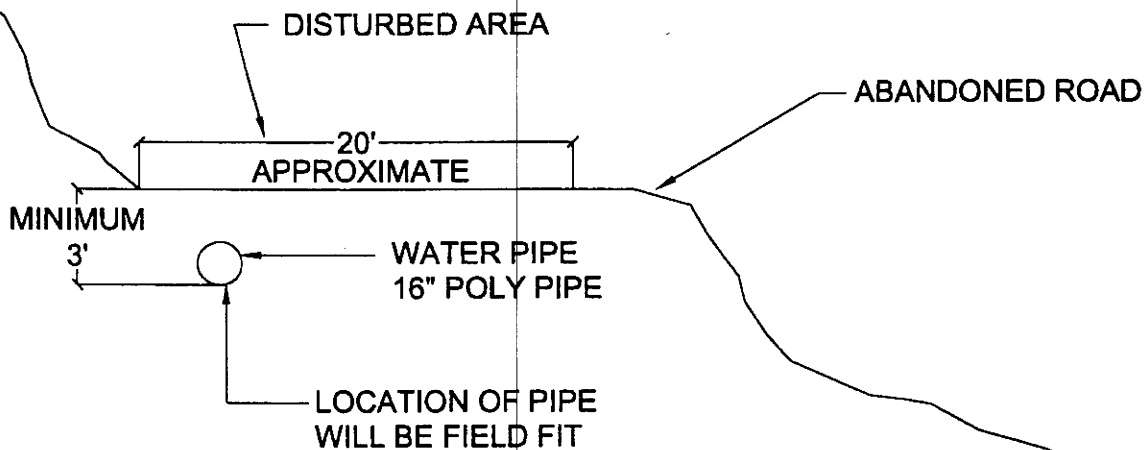
A 16-inch poly pipe water line was laid on the ground surface from the well site to Electric Lake. In the fall of 2001, the mine intends to bury the pipe line in the abandoned road way (Figure 3.2.13A). The pipe will be buried to a depth of at least three feet with the trench running from near the wellhead to a location in Electric Lake that is several feet below the high water level. Excavation of the pipeline trench will consist of first removing available topsoil, where present, and isolating it in a separate windrow. The subsoils will be removed from the trench, the pipe placed in the trench, and the subsoils placed back on top of the pipe. After placement of the subsoils, the available topsoil will be replaced on the subsoils. Vegetation that is present in the area of the excavation will be removed and redistributed with the topsoil.

The pipeline area will be reclaimed immediately after construction. The surface will be deep gouged and left in a roughened condition. Water bars previously constructed during the initial abandonment operations will be left in place. The disturbed area of the road will be reseeded with a seed mix that will be based on the results of vegetation study of the area conducted in September of 2001.

3-80A

Revised 9-2001

0002 2001



09-20-2001

3-80 (b)

CAD FILE
Y:\SKYLINE ENGINEERING\REGULATORY\300\DWG\0-300-002.DWG

TYPICAL PIPELINE
SECTION



Canyon Fuel Company, LLC
Skyline Mines

P.A. 602 THE HELPERS, UTAH 84002 435-148-2063	DATE: 09-20-01	CK. BY: G. TAYLOR	REVISION:
	SCALE: NONE	DR. BY: J. PORTER	
DWG. NO.: 0-300-002.DWG		FIGURE 3.2.13A	

Section 3.2

Appendix B

INCORPORATED

JUN 05 2008

Div. of Oil, Gas & Mining



Canyon Fuel Company, LLC
Skyline Mine
Attn: Mr. Gregg Galecki

Re: Marion Energy Proposed Pipeline ROW

Dear Mr. Galecki,

After meeting with Mr. Carl Winters and Mr. Gregg Galecki at the Skyline Mine on Monday March 31, 2008, I am writing to you with the information that they requested. As proposed to the Arch Coal Company on December 10, 2007, Marion Energy proposes to do the following:

Marion Energy would like to run a 16-inch Gas Line and a 16 inch water line across the property of the Skyline Mine Load Out facility. Marion Energy is the current operator of the Clear Creek Federal Unit. Our proposed water and gas line fall inside the Clear Creek Federal Unit and will be crossing around 1186.30 feet of the property owned by the Skyline Mine. We will be using the gas and water lines to run produced gas and water from our wells in the Northern half of the Clear Creek Federal Unit to the Questar sales line. We expect the construction process not to take more than a few weeks. Marion Energy agrees to stay outside of the blue stakes that marks the disturbed area of the Skyline Mine load out facility.

Below is a list contact list for Marion Energy:

Clear Creek Field Supervisor:	Mr. Eric Norton Cell: 435-820-2304 E-mail: enorton@marionenergy.com
Vice President of Land:	Mr. Keri Clarke Phone: 972-540-2967 ext 3003 Cell: 214-704-4377 E-mail: kclarke@marionenergy.com
Vice President of Operations:	Mr. Doug Endsley Phone: 505-564-8005 E-mail: dendsley@marionenergy.com

119 South Tennessee, Suite 200, McKinney, TX, 75069
Telephone: (972) 540-2967
Fax: (972) 547-0442

INCORPORATED

JUN 05 2008

Div. of Oil, Gas & Mining



Landman:

Mr. Scott Jacoby
Phone: 972-540-2967 ext 3008
Cell: 817-937-6931
E-mail: sjacoby@marionenergy.com

Please do not hesitate to contact me if you have any further questions.

Sincerely,

Scott Jacoby
Landman
Marion Energy
19 S. Tennessee
McKinney, TX 75069
Phone: 972-540-2967 ext 3008
Cell: 817-937-6931
E-mail: sjacoby@marionenergy.com

119 South Tennessee, Suite 200, McKinney, TX, 75069
Telephone: (972) 540-2967
Fax: (972) 547-0442

INCORPORATED

JUN 05 2008

Div. of Oil, Gas & Mining



TALON RESOURCES, INC.
 615 North 400 East P.O. Box 1230
 Huntington, Utah 84528
 Phone (435)687-5310 Fax (435)687-5311
 E-Mail talonsetv.net

REVISIONS

DATE:	BY:

RECEIVED

MAY 19 2008

DIV. OF OIL, GAS & MINING

Marion Energy Inc.

**PIPELINE
 ROAD CROSSING**
 SECTIONS 17 & 19
 T13S, R7E, S.L.B.&M.

DRAWN BY: N. BUTKOVICH	CHECKED BY: LWJ / AJS
DRAWING: M-xxxx	DATE: 3/28/08
JOB NUMBER: xxxx	SCALE: 1" = 400'
	SHEET 1 OF 1

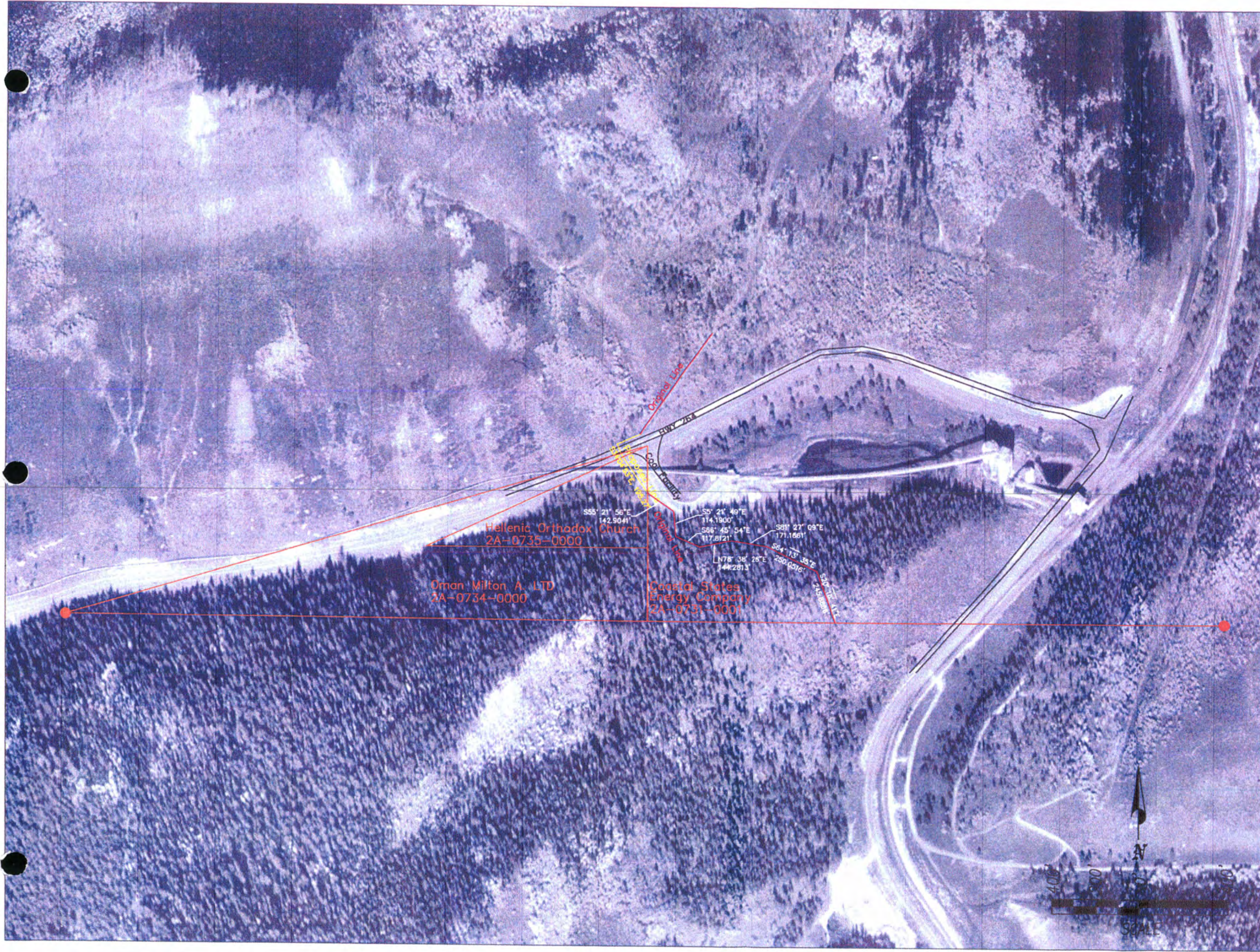
LEGEND

SECTION LINE	—
1/4 SECTION LINE	- - -
40 ACRE LINE	---
SECTION CORNER (Found)	◆
SECTION CORNER (Searched for but not found)	○
GPS BEARING & DIST.	N00°00'00"W
GLO BEARING & DIST.	(N00°00'W)

INCORPORATED

JUN 0 2008

Div. of Oil, Gas & Mining



3.3 TIMING OF OPERATION

The construction phase of the Skyline Mines project commenced in the summer of 1980. The construction phase included the dirt-work and installation of surface facilities and pre-mining activities such as driving the portal conveyor slope. The construction phase continued during 1982 with the installation of surface facilities and portals. Construction is expected to continue throughout the life of the mines to support and maintain the operation.

No. 3 mine commenced coal production in October 1981. The total period of coal production is expected to be 38 years: life of Mine No.1, 30 years; life of Mine No.2, 27 years; and life of Mine No. 3, 38 years. Plate 3.3-1 shows Mine No. 1 (Upper O'Connor Seam), Plate 3.3-2 shows Mine No. 3 (Lower O'Connor "A" and Flat Canyon Seams), and Plate 3.3-3 shows Mine No, 2 (Lower O'Connor B Seam. The timing and sequence of mining of any or all seams is dependent upon mining conditions. North Lease modifications are located on Plate 3.3-2.

Mine No. 4 was initiated in early 2015 with rehabbing portions of the West Mains and driving a slope down to the Lower O'Connor A/Flat Canyon Seam. At the completion of the first three (3) longwall panels, mining slopes back up to the Lower O'Connor B seam mining panels oriented north-northwest to south-southeast to begin Mine No. 5. Mine 5 consists of the 7-Right through 15-Right panels. Following the completion of the 15-Right panel, slopes will be driven back down to the Lower O'Connor A seam with panels oriented in west-north to east-south orientation pending a future lease modification to federal lease UTU-77114. The total period of coal production is estimated through approximately the year 2032. Plate 3-3-4 illustrates the timing, sequence of mining, and the mining of the various seams in Mines No. 4, No. 5, and No. 6. The timing and sequence of mining of any or all seams is dependent on right of entry and mining conditions that are subject to change.

Cessation of Operation

Prior to any temporary cessation of the Skyline mining operations for a period of 30 days or more, or as soon as it is determined that a temporary cessation will extend beyond 30 days, the Permittee will submit to the appropriate regulatory authority a notice of its intent to cease or abandon operations.

The Permittee's notice will state the exact number of surface acres and extent of subsurface strata which had been affected by underground or surface developments in the permit area prior to cessation or abandonment of mining. The cessation notice will also state the extent and kind of surface reclamation completed to date and the backfilling, regrading, revegetation, environmental monitoring, underground opening closures completed. It will also state water treatment activities the Permittee plans to continue during the temporary cessation period. During periods of temporary cessation, the Permittee will effectively support and maintain all surface access openings to underground operations, and secure surface facilities in areas

Revised: 6-10-21

3-81

INCORPORATED

August 4, 2021

Division of Oil, Gas & Mining

in which there are no current operations, but operations are to be resumed under an approved permit. The Permittee acknowledges that temporary abandonment shall not relieve the obligation to comply with any provisions of the approved permit.

Following a decision to permanently cease mining operations at the Skyline Mines, all affected areas will be permanently reclaimed in accordance with the approved permit. Unless approved as suitable for postmining land use purposes or environmental monitoring, the surface equipment, structures, and other facilities no longer required for mining activity and monitoring will be removed and affected lands reclaimed.

Revised: 9/04/02

INCORPORATED

DEC 6 1 2002

DIV OF OIL GAS & MINING

3-82

3.4 AREA AFFECTED BY EACH PHASE OF OPERATIONS

The area affected by the Skyline Mines project can be divided into two major categories:

- (a) Surface acreage disturbed by construction/installation of coal handling and associated facilities or permitted areas, and
- (b) Surface acreage overlying underground mine workings or adjacent areas.

Permitted Disturbed Surface Acreage

The offices, bathhouse, workshop, portal, fans, and other necessary facilities utilize a site of 42.55 acres. Approximately 0.26 acres is used for water tank and well pads. The coal loading and handling facility at the mouth of Eccles Canyon utilizes approximately 13.86 acres. The covered pipe belt conveyor, transporting material from the mine portals to loading points, disturbs approximately 14.18 acres. The waste rock disposal site is permitted to include utilizes approximately 32.48 acres. The South Fork breakout area has disturbed 0.60 acres. The James Canyon buried power line, buried pipeline, water wells pad and road include 4.85 acres. The Winter Quarters Ventilation Facility utilizes 7.93 acres with an additional 4.9 acres permitted to include the existing Winter Quarters Canyon road. The Swens Canyon Ventilation Facility utilizes 6.33 acres with an additional 18.46 acres permitted in the power line. The Electric Lake Discharge Line utilizes approximately 0.65 acres, much of which was contemporaneously reclaimed following construction. In total, the surface acres disturbed permitted area is 147.39 acres. The disturbed and permitted area and bonded area for the Mine Portal area, Loadout area, Waste Rock Disposal area, Winter Quarters Ventilation Facility area, Swens Canyon Ventilation Facility and power line, and miscellaneous areas are shown on maps 3.2.1-1, 3.2.1-3, 3.2.8-1, 3.2.4-3a , 3.2.3-3 through 3.2.3-3f, 3.2.4-4A through -4G, and 3.2.4-5, respectively.

The pre-mining phase of earth work and dirt removal commenced in the spring of 1980 and was completed in 1981. The actual construction and installation of facilities necessary for coal mining and handling began in early 1981.

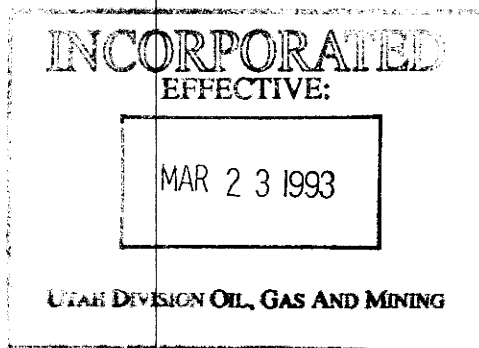
INCORPORATED

NOV 09 2020

Div. of Oil, Gas & Mining

Area Overlying Underground Mining

Interpretation of the available geological data and bore holes information indicates that certain portions of all three seams within the leasehold are non-mineable. Total acreage values for



!	CHANGE TO	!!	TEXT	!
!	Section 3.4	Page 3-83	!! Section 3.4	Page 3-83(a) Date 09/24/92!

3-83(a)

mineable acreage do not include such areas. Surface area to be affected by underground mining is shown in Section 4.17 Subsidence Control Plan.

3.5 MAJOR EQUIPMENT LIST

The proposed mine plan will utilize up to 13 mining units. Up to eight units will be continuous miners and up to five will be longwalls.

Table 3.5-1 is a current (December, 1991) Equipment List by Section. This list is continuously updated and a current list is available at the mine.

TABLE 3.5-1

EQUIPMENT LIST BY SECTION

6 LEFT TAILGATE 2 WEST DEVELOPMENT SECTION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
CM-004	Joy Continuous Miner	12CM	JM2279
CH-001	Jeffrey Coal Hauler	4114	37967
CH-003	Jeffrey Coal Hauler	4114	37966
CH-004	Jeffrey Coal Hauler	4114	38007
CH-011	Jeffrey Coal Hauler	4114	37685
CH-534	Jeffrey Coal Hauler	4114	
RB-001	Fletcher Roof Bolter	HDDR-13-A	81129
FB-001	Stamler Feeder Breaker	BF-14B-2-4C	12089
LT-004	Getman Lube Truck Welder		5121
PW-007	Lincoln Portable Welder		
UT-002	Utility Tractor		
UT-014	Utility Tractor		
UV-001	Eimco Utility Vehicle		975-0644
FF-003	Face Fan		1615I & 1616I
FF-010	Face Fan		
BP-006	Booster Pump		39467
BP-007	Booster Pump		
BP-008	Booster Pump		90-2034
BB-3385	Isuzu Boss Buggy		JAACL14S9H0 744981
M7-009	Chevrolet Mantrip		1G8EK16L5FF 133943
MS-002	Maintenance Station	UFCO	

TABLE 3.5-1 (Continued)

EQUIPMENT LIST BY SECTION

2 WEST MAINS DEVELOPMENT SECTION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
CM-005	Joy Continuous Miner	12CM	JM3383
CH-002	Jeffrey Coal Hauler	4114	37968
CH-008	Jeffrey Coal Hauler	4114	38449
CH-009	Jeffrey Coal Hauler	4114	38450
RB-005	Fletcher Roof Bolter	HDDR-13-A	888069
FB-002	Stamler Feeder Breaker	BF-14B-2-4C	12223
FB-003	Stamler Feeder Breaker	BF-14B-2-4C	12222
LT-002	Getman Fuel & Lube Truck	200	5154
PW-005	Lincoln Portable Welder		A-1054616
UT-007	Utility Tractor		181
UV-002	Eimco Utility Vehicle		9750648
BB-3381	Isuzu Boss Buggy		JAACL14S8H 0744972
M7-010	Chevrolet Mantrip		CKY2641F 120253

TABLE 3.5-1 (Continued)

EQUIPMENT LIST BY SECTION

5 LEFT 2 WEST PRODUCTION SECTION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
JY-001	Joy Shearer	3LS	LWS241
LW-006	Service Machine Electric		
LW-007	American Longwall Conveyor		
LW-008	American Longwall Stageloader		
LW-009	KB Crusher		
LW-010	Mobile Tail		D-0070
LW-100	Longwall General		
MT-011	Chevrolet Mantrip	1GNGV26KXMF132374	
MU-001	Eimco Shield Mover		51.403
PT-001	Pipe Trailer	UFCO	
PT-002	Pipe Trailer	UFCO	
PW-006	Lincoln Portable Welder		617152
US-005	Sioux Steam Cleaner		
UT-010	Utility Tractor		
UV-006	Utility Vehicle		
WP-001	Water Pump		86-9017
WP-002	Water Pump		86-9023
BB-013	Boss Buggy		
MS-003	Maintenance Station	UFCO	
EP-001	Emulsion Pump		
EP-002	Emulsion Pump		
EP-003	Emulsion Pump		

TABLE 3.5-1 (Continued)

EQUIPMENT LIST

6 LEFT HEADGATE 2 WEST DEVELOPMENT SECTION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
CM-006	Joy Continuous Miner	12CM	JM4252
CH-010	Jeffrey Coal Hauler	4114	37971
CH-012	Joy Coal Hauler	10SC32	ET16610
CH-013	Joy Coal Hauler	10SC32	ET16611
RB-006	Fletcher Roof Bolter	HDDR-13-A	90014
FB-006	Meco-Owen Feeder Breaker		939
LT-003	Getman Fuel & Lube Truck	200	14779
UT-013	Utility Tractor		SA11P0316
UV-010	Utility Vehicle		4856
BP-004	Booster Pump		39357
BB-3380	Isuzu Boss Buggy	JAACL1458H0744874	
MT-008	Chevrolet Mantrip	1GNGV26KXHF159385	

TABLE 3.5-1 (Continued)

EQUIPMENT LIST

6 RIGHT WEST MAINS DEVELOPMENT SECTION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
CM-001	Joy Continuous Miner	12CM	JM3237
CM-14	Joy Coal Hauler	10SC32	ET-16068
CM-15	Joy Coal Hauler	10SC32	ET-16069
CH-529	Jeffrey Coal Hauler	4114	37687
CH-530	Jeffrey Coal Hauler	4114	37908
RB-002	Fletcher Roof Bolter	HDDR-13-A	85078
FB-004	Meco-Owens Feeder Breaker		90014
LT-001	Getman Lube Truck	200	5153
PW-001	Lincoln Portable Welder		1-975930
UT-015	Utility Tractor		SA11P0318
UV-005	Utility Vehicle		0729
LU-004	Lunch Unit		
BB-3382	Isuzu Boss Buggy	JAACL14S8H0745068	
MT-002	Ranger Mantrip		82-256

TABLE 3.5-1 (Continued)

EQUIPMENT LIST

7 RIGHT WEST MAINS PRODUCTION SECTION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
JY-002	Joy Shearer	6LS	LWS 295
LW-012	American Longwall Conveyor		
LW-013	American Longwall Stageloader		
LW-014	KB Crusher		
LW-015	Mobile Tail		
LW-016	L/P Electrical		
LW-300	Longwall General		
BB-025	Isuzu Boss Buggy	JAACL1458E0754302	
MT-012	Chevrolet Mantrip	1GNGV26K5LF144804	
EP-011	Emulsion Pump		
EP-012	Emulsion Pump		
EP-013	Emulsion Pump		
LU-006	Lunch Unit		
SV-001	Crew Trailer		81243
US-006	Sioux Steam Cleaner		
UT-003	Utility Tractor		472-81
UT-006	Utility Tractor		183
UV-012	Utility Vehicle		
WP-011	Water Pump		
WP-012	Water Pump		

TABLE 3.5-1 (Continued)

EQUIPMENT LIST

OUTBY

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
AC-007	Air Compressor		M41961
AC-008	Air Compressor		M39705
AC-009	Air Compressor		M39704
AC-010	Air Compressor		M50177
AC-014	Air Compressor		M62766
BB-019	Isuzu Boss Buggy	1JCHM85E8B7050624	
BB-024	Isuzu Boss Buggy	1JCWL7829F7144037	
BB-026	Isuzu Boss Buggy	J8ZCL14S0B8244573	
BB-3143	Isuzu Boss Buggy		
BB-3386	Isuzu Boss Buggy	JAACL145XH0745198	
BB-3394	Isuzu Boss Buggy	J8ZBR1459B8253685	
ET-001	Emulsion Trailer		
ET-002	Emulsion Trailer		
ET-003	Emulsion Trailer		
ET-004	Emulsion Trailer		
JL-001	Joy Loading Machine	14BU	10533
LU-005	Lunch Unit		
MT-007	Man Trip		
PD-001	Pod Duster		
PD-002	Pod Duster		
PD-003	Pod Duster		
PD-004	Pod Duster		
PD-005	Pod Duster		
PD-008	Pod Duster		PTS 8808
PD-009	Pod Duster		PTS 8807
PD-010	Pod Duster		PTS 8901
PG-001	Portable Generator		9963
PP-001	Permanent Pump		0784/804

TABLE 3.5-1 (Continued)

EQUIPMENT LIST

OUTBY (continued)

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
BB-3153	Isuzu Boss Buggy	JAACL1459F0720421	
BB-3384	Isuzu Boss Buggy	JAACL14S9H0744804	
PW-004	Lincoln Portable Welder		A-1054614
UT-004	Utility Tractor		911-0645
UT-012	Utility Tractor		9106
UV-011	Utility Vehicle		
AC-006	Portable Air Compressor		1754246
BW-001	Belt Winder		
UT-009	Utility Tractor		SA04P0233
U7-010	Utility Tractor		SA04P0240
UV-004	Utility Vehicle		0730
MT-006	Mantrip		100-81-247
AC-003	Portable Air Compressor		R88807
BD-001	Bantam Duster		5118401
BD-002	Bantam Duster		62084
PW-008	Lincoln Portable Welder		A1123641
UV-003	Utility Vehicle		5474
BB-3393	Isuzu Boss Buggy		
BB-018	Isuzu Boss Buggy	JAACH15U3G5444212	
BB-021	Isuzu Boss Buggy	JAACL14SH0743043	
MT-003	Mantrip		100-81-248
BB-3381	Isuzu Boss Buggy	JAACL1458H07434972	
BB-3379	Isuzu Boss Buggy	JAACL14S8H0744809	
CM-006	Jeffrey Coal Hauler		218-86
DD-001	US Core Drill		
JC-001	Joy Cutting Machine		17665
PD-006	Mobile Pod Duster		
PD-007	Mobile Pod Duster		87-4935

TABLE 3.5-1 (Continued)

EQUIPMENT LIST

OUTBY (continued)

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
RD-001	Rock Drill		2016
RG-002	Road Grader	310	
SD-001	Slinger Duster		MD5-D20
SD-001	Slinger Duster		MD50D23
UV-007	Utility Vehicle		5778
UV-008	Utility Vehicle		4855
AC-005	Portable Air Compressor		1754233
BB-020	Isuzu Boss Buggy	JAACL14SH0742944	
PM-002	Large Portable Concrete Mixer		
PM-003	Large Portable Concrete Mixer		
PW-002	Lincoln Portable Welder		A-986788
RB-003	Eimco Roof Bolter		2018
RD-002	Fletcher Rock Drill		90103
SP-005	Diesel Water Pump		32750-1189
UL-010	Eimco Loader		915-1060
UL-011	Eimco Loader		915-1059
UV-009	Utility Vehicles		4678

TABLE 3.5-1

EQUIPMENT LIST

EMPLOYEE TRANSPORTATION

<u>MACHINE</u>	<u>MAKE</u>	<u>MODEL</u>	<u>SERIAL</u>
BU-3122	International	Bus	1981
BU-3123	Wayne	Two-Wheel Bus	1990
BU-3125	Blue Bird	- Two Wheel Bus	1986
BU-3126	Blue Bird	- Four Wheel Bus	1986
PU-3367	Chevrolet	3/4 Ton PU	
PU-3368	Chevrolet	3/4 Ton PU	
PU-3388	Chevrolet	3/4 Ton PU	
PU-3390	Chevrolet	3/4 Ton PU	
RV-3017			
RV-3124			
RV-3151			
RV-3152			
RV-3203			
RV-3370			
RV-3387			
RV-3389			
RV-3391	Dodge	Ram Charger	
RV-3392			
RV-3397			
UA-31229	Chevrolet	Ambulance	1984

3.6 EXISTING STRUCTURES TO BE USED IN THE OPERATION

There are no pre-existing structures within the permit area which have been or will be used in conjunction with the mining operation.