

0023

**COPY**

**SAVAGE**

Savage Services Corporation  
2025 East 5000 South  
Price, UT 84501

(435) 637-5664  
Fax (435) 637-3418

INCOMING  
0070022

Track ID  
# 2035 OK

**Pamela Grubaugh-Littig**  
**Permit Supervisor**  
**Utah Division of Oil, Gas & Mining**  
**1594 West North Temple, Suite 1210**  
**Box 145801**  
**Salt Lake City, Utah 84114-5801**

**Re: Conveyor Amendment**  
**Savage Coal Terminal**  
**ACT/007/022**  
**Carbon County, Utah**

**Dear Pam:**

**Enclosed are 3 copies of a proposed conveyor amendment for the Savage Coal Terminal M.R.P. The proposal is to add 3 additional permanent conveyors to transfer coal from the new track loop storage area to the unit train loadout system. It is also proposed to eliminate a portion of the ditch north of the railroad by extending the existing culvert. The proposal is submitted as an appendix for ease of review; however, pertinent pages and maps of the M.R.P. have also been changed to reflect the proposed system.**

**Amended pages and maps for the M.R.P. are enclosed, along with a C<sub>1</sub>/C<sub>2</sub> Form.**

File in:

Confidential

Shelf

Expandable

Refer to Record No. 0023 Date 09/13/2004

In C 0070022, 2004, Incoming

For additional information

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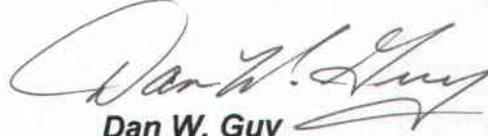
SEP 13 2004

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***If you have any questions, or need additional information, please let me know.***

***Sincerely,***

A handwritten signature in black ink, appearing to read "Dan W. Guy". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

**Dan W. Guy**  
**for**  
**Boyd Rhodes**

**cc: Boyd Rhodes - Savage**  
**Steve Demczak - DOGM**  
**File**

## APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/007/022
Title of Proposal: CONVEYOR AMENDMENT.						Mine: Savage Coal Terminal
						Permittee: Savage Services Corp.

Description, include reason for application and timing required to implement:

Addition of 3 conveyors to transfer coal from storage area.

**Instructions:** If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO #
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV #
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: Request by Division.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

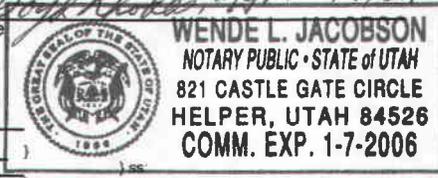
**X Attach 3 complete copies of the application.**

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

*Wende L. Jacobson, Notary Public*  
 Signed - Name - Position - Date

Subscribed and sworn to before me this 7 day of Sept, 2004.

*Wende L. Jacobson*  
 My Commission Expires: 1-7-2006  
 Attest: STATE OF Ut COUNTY OF Carbon



Received by Oil, Gas & Mining

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 ASSIGNED TRACKING NUMBER



3.2.5.2 Railroads

A major railroad grade embankment (approximately 4'-12' in height) is located on the eastern edge of the site, immediately outside of the permit area. This grade supports the main rail line(s) and is owned and maintained by the Denver and Rio Grande Western Railroad. This line will undoubtedly remain in service after closure of the C.V. Spur.

The railroad loop within the C.V. Spur is owned by Beaver Creek Coal Company. It consists of a single set of tracks slightly elevated (3') above natural ground. This rail serves as a loop for the unit trains to travel head-first into the silo, eliminating the need for engine switching. The loop is 8,340 feet long. This rail line will be used and maintained throughout the C.V. Spur operational life.

Grades and typical cross-section of the rail loop are shown on Plate 3-5, "Railroad Facilities".

3.2.5.3 Conveyors

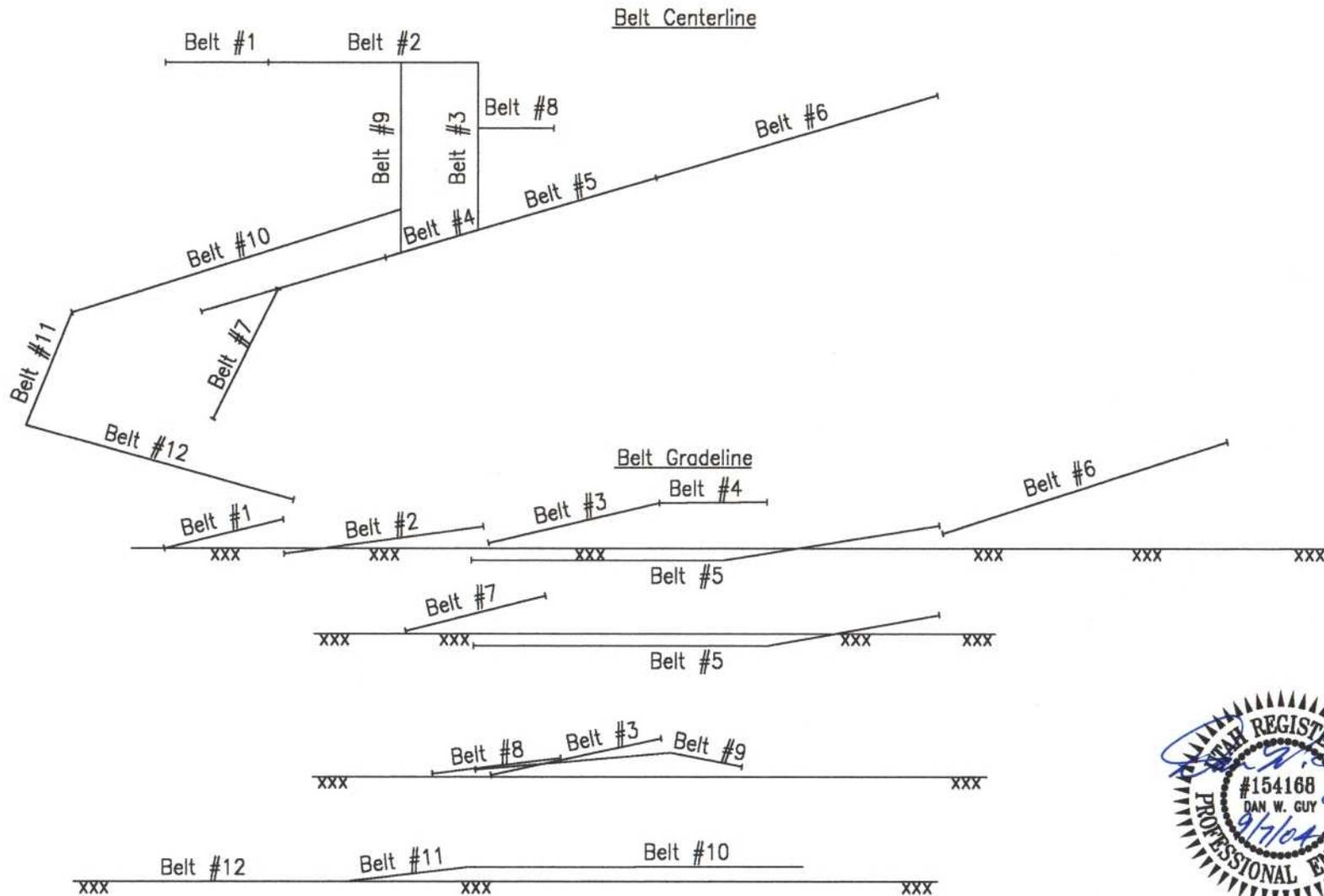
There are **twelve (12)** separate, **permanent** conveyor runs at the C.V. Spur (see Figure 3-7). In addition, there are temporary, portable conveyors used on the site. The number and location of the temporary conveyors varies according to need.

Conveyor #1 - 36" x 250' long stacking conveyor from the truck dump to the raw coal stacking tube.

Conveyor #2 - 36" x 420' reclaim conveyor from raw coal pile into wash plant.

Conveyor(s)# 3-(2) 36" x 365' clean fine and coarse coal conveyors from the plant to the clean coal stacking tube.

Figure 3-7



Savage Coal Terminal

### Centerline and Grade of Belts

3.2.5.3 Conveyors (continued)

Conveyor #4 - 36" x 225' clean fine coal transfer conveyor from coarse coal stacking tube to fine coal stacking tube.

Conveyor #5 - 48" x 600' clean coal reclaim conveyor from clean coal piles to transfer in loadout sample building.

Conveyor #6 - 48" x 660' loading conveyor from transfer point in sample building to 10,000 ton silo.

Conveyor #7 - This conveyor is 36" x approximately 350' and runs from the new truck dump to a crushed coal stacking tube.

Conveyor #8 - 42" x 150' conveyor from the new truck dump to the twin 36" conveyors described in #3 above.

Conveyor #9 - 48" x 440' conveyor from the plant feed belt to the clean coal stacking tube area.

Conveyor #10 - 48" x 728' elevated conveyor from truck loop storage area to conveyor #9.

Conveyor #11 - 48" x 246' feed conveyor from the truck loop storage area to conveyor #10.

Conveyor #12 - 48" x 564' future surface transfer system to move coal from the track loop storage area to conveyors #10 and #11.

Grade of all conveyors are shown on Figure 3-7, "Conveyors - Loadout & Grades". All surface conveyors are covered and equipped with walkways. All conveyors will be used throughout the C.V. Spur operational life.

3.2.5.4 Maintenance

Transportation facilities are maintained and will be restored to prevent damage to fish, wildlife and related environmental values, as well as additional contributions of suspended solids to streamflow or runoff outside the permit area. In addition, they are maintained in a manner to control and minimize degradation of water quality and quantity, control and minimize erosion and siltation as well as pollution. This is accomplished in the following ways:

- (1) All conveyors are covered to minimize fugitive dust;
- (2) The use of stacking tubes for coal pile minimizes fugitive dust from free-falling coal;
- (3) Coal is drawn into the plant and silo conveyors by underground feeders, equipped with water sprays to minimize dust;
- (4) The unit train loadout is within the enclosed area, and water sprays are available if necessary to reduce dust;
- (5) Roads are watered as necessary to minimize dust;
- (6) Drainage controls are maintained to prevent contaminated water from the disturbed area from leaving the permit area.

3.2.6 Water Management Facilities

3.2.6.1 Process-Water System

The process water system for the preparation plant is designed so that under normal operating conditions no waste water is discharged and makeup water is added only to replace absorption losses of water into the coal and refuse. A six-inch pipeline from a pumping station at the Price River is the primary water supply. This pipeline, as well as the secondary makeup water source (the sedimentation ponds described

in section 3.2.6.3) feeds a collection sump (housed on the northeast corner of the site, see Plate 3-1) from which water is then drawn on demand into the prep plant. At the present time, water is used for dust control, processing, wash down and road watering. No washing of coal is presently being performed in the plant.

3.2.6.1 Process-Water System (continued)

As previously stated, the preparation plant is designed to operate as a non-discharging facility. In the event that a mechanical failure or some other unforeseen circumstance would cause an overflow of water while the drainwater storage sump within the plant was completely full, provisions have been made to directly convey the water to series of sediment ponds. The UPDES permit for C.V. Spur has established discharge point No. 002 as the preparation plant in the event an emergency discharge is required.

3.2.5.2 Sewage Systems

There are two (2) wastewater disposal facilities at C.V. Spur (see Plate 3-2). Both sites are of the septic tank-drainfield type and each is approved by the Utah Health Department.

Circular Channel Analysis & Design  
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: SAVAGE COAL TERMINAL

Comment: CULVERT C-8 (EXTENDED)

Solve For Full Flow Diameter

Given Input Data:

Slope.....	0.0350 ft/ft
Manning's n.....	0.024
Discharge.....	1.44 cfs

Computed Results:

Full Flow Diameter.....	0.71 ft
Full Flow Depth.....	0.71 ft
Velocity.....	3.65 fps
Flow Area.....	0.39 sf
Critical Depth....	0.56 ft
Critical Slope....	0.0376 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	1.44 cfs
QMAX @.94D.....	1.55 cfs
Froude Number.....	FULL



Open Channel Flow Module, Version 3.43 (c) 1991  
Haestad Methods, Inc. \* 37 Brookside Rd \* Waterbury, Ct 06708

Table 7-25  
CULVERT DESIGN SPECIFICATIONS

Culvert Number	Design Discharge (cfs)	Diameter (ft)	Length (ft)	Normal Depth	Velocity (ft/sec)
C-1	0.81	1.0	30	0.45	2.38
C-1a	0.81	2.0	40	0.45	2.38
C-2	0.98	1.5	35	0.35	2.80
C-3	3.70	(2) 1.5	30	0.59	2.90
C-4	0.36	2.0	60	0.26	1.81
C-5	9.68	2.0	70	1.35	3.59
C-6	0.80	1.5	30	0.38	2.20
C-7	10.56	2.0	30	1.43	4.40
C-8	0.77	1.5	860	0.71	3.65
C-9	1.44	1.5	50	0.51	2.70
C-10	11.97	2.0	70	1.60	4.44
C-11	-	-	-	-	-
C-12	5.11	1.5	40	1.11	3.64
C-13	5.11	1.5	180	1.17	4.73
<del>C-13A</del>	<del>5.11</del>	<del>1.5</del>	<del>50</del>	<del>1.11</del>	<del>3.64</del>
C-13B	5.11	1.50	60	1.11	3.64
C-14**	-	-	-	-	-
C-15	20.50	2.0	20	2.87*	7.60*
C-16	1.34	2.0	30	0.45	2.10
C-17	0.36	2.0	40	0.26	1.81
C-18	0.80	1.0	40	0.46	2.20
C-19	0.22	1.0	20	0.28	1.19
C-20	0.22	1.0	20	0.28	1.19
C-21	1.11	2.0	60	0.34	2.05
C-22	13.88	2.0	100	2.10****	11.49
C-23	0.15	1.0	30	0.20	1.50
C-24	1.44	1.5	30	0.51	2.70
C-25	1.11	1.5	20	0.40	2.05
<del>C-26</del>	<del>1.44</del>	<del>1.5</del>	<del>30</del>	<del>0.51</del>	<del>2.70</del>

\* Head Water Depth = 3.50 ft.

\*\* Removed 12/18/91 - Replaced with open spillway

\*\*\* Erosion to be minimized by the use of 9" med. diam. rip-rap at the culvert outlet.

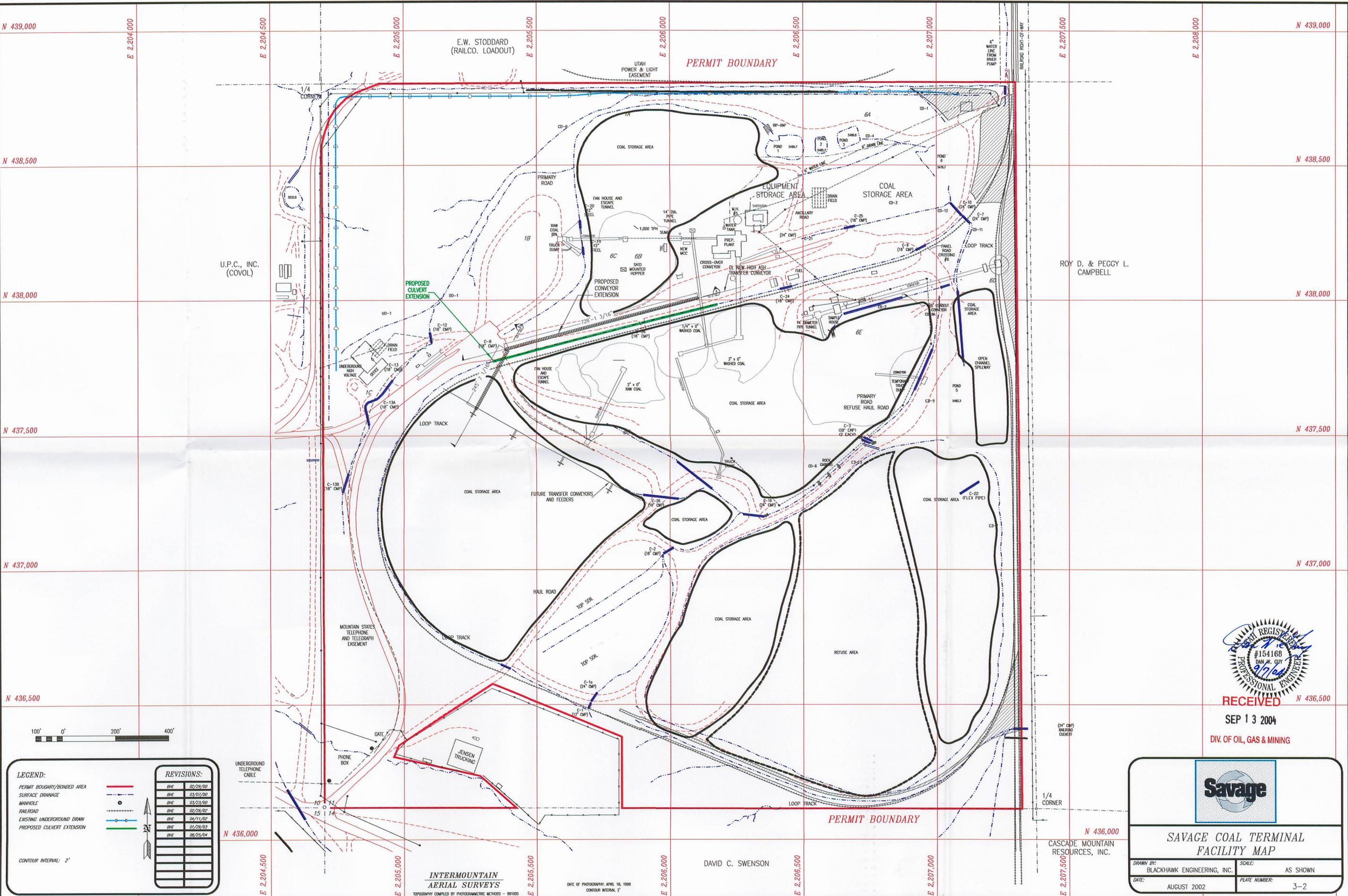
\*\*\*\* Head Water Depth - 3.50 ft.

Note: Culvert C-11 has been removed and replaced with extended 24" culvert C-21.

Culvert C-13A has been replaced with extended culvert C-13.

Culvert C-26 will be replaced with extended 18" Culvert C-8.

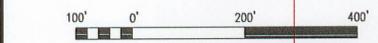
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**LEGEND:**

- PERMIT BOUNDARY/BONDED AREA
- SURFACE DRAINAGE
- MANHOLE
- RAILROAD
- EXISTING UNDERGROUND DRAIN
- PROPOSED CULVERT EXTENSION

**REVISIONS:**

EHE	02/29/00
EHE	03/01/00
EHE	03/23/00
EHE	02/26/02
EHE	04/11/02
EHE	01/29/03
EHE	08/29/04

CONTOUR INTERVAL: 2'

UNDERGROUND TELEPHONE CABLE  
PHONE BOX  
GATE  
JENSEN TRUCKING

N 436,500  
E 2,204,500  
E 2,205,000  
E 2,205,500  
E 2,206,000  
E 2,206,500  
E 2,207,000  
E 2,207,500

INTERMOUNTAIN  
AERIAL SURVEYS  
TOPOGRAPHY COMPILED BY PHOTOGRAMMETRIC METHODS - 981005

DATE OF PHOTOGRAPHY: APRIL 15, 1998  
CONTOUR INTERVAL: 2'

DAVID C. SWENSON

**Savage**

SAVAGE COAL TERMINAL  
FACILITY MAP

DRAWN BY: BLACKHAWK ENGINEERING, INC.	SCALE: AS SHOWN
DATE: AUGUST 2002	PLATE NUMBER: 3-2

CASCADE MOUNTAIN  
RESOURCES, INC.

**APPENDIX 3-8**

Proposed

Transfer Conveyor Addition

## I. Introduction

This proposal is for the addition of a new transfer conveyor system to move coal from the new loop track storage area to the reclaim and silo loadout system. This conveyor system will vastly reduce the movement of the coal by trucks and loaders.

## II. General

The proposed system consists of 3 conveyors. Two of the conveyors will be elevated, and are approximately 246' and 728' in length, respectively. The third conveyor is a surface transfer system, and is approximately 564' in length. This conveyor is shown as a future installation; however, it is included in this proposal for permitting purposes. Conveyor details are shown on enclosed Plates A3-8-1, A3-8-2, and A3-8-3. All conveyors are 48" wide and will be equipped with covers.

The only other change to the site plan will be the extension of culvert C-8 for a distance of approximately 800'. This will be an 18" CMP culvert in place of the existing ditch beneath the proposed 728' conveyor. No other drainage controls will be changed as a result of this installation. All construction will be within the existing disturbed area.

## III. Environmental Controls

### A. Hydrology

As indicated above, the only change in hydrology will be the extension of existing culvert C-8 to replace the ditch beneath the 728' conveyor structure. This will reduce the potential impact to the open ditch and eliminate the need for ditch maintenance beneath the conveyor structure. Runoff from the area of culvert extension is primarily by sheet flow in the northeasterly direction, and will remain the same after installation. The culvert will still drain to the open ditch below and flow to the sediment pond. There will be no changes to drainage areas or other hydrologic controls from this system.

The proposed culvert installation is shown on Plate 3-2. Culvert sizing and flow details are shown on Table 7-25, page 7-88a.

**B. Vegetation**

All construction will be within the existing disturbed area; therefore, there will be no effect on vegetation.

**C. Soils**

There will be no impact to soils, since this is an existing disturbed area.

**D. Air Quality**

The existing stockpile area is within the approved air quality permit. The installation of the conveyors will likely have a positive effect on actual emissions due to the reduction in coal handling by loaders and trucks.

**E. Reclamation Cost Estimate**

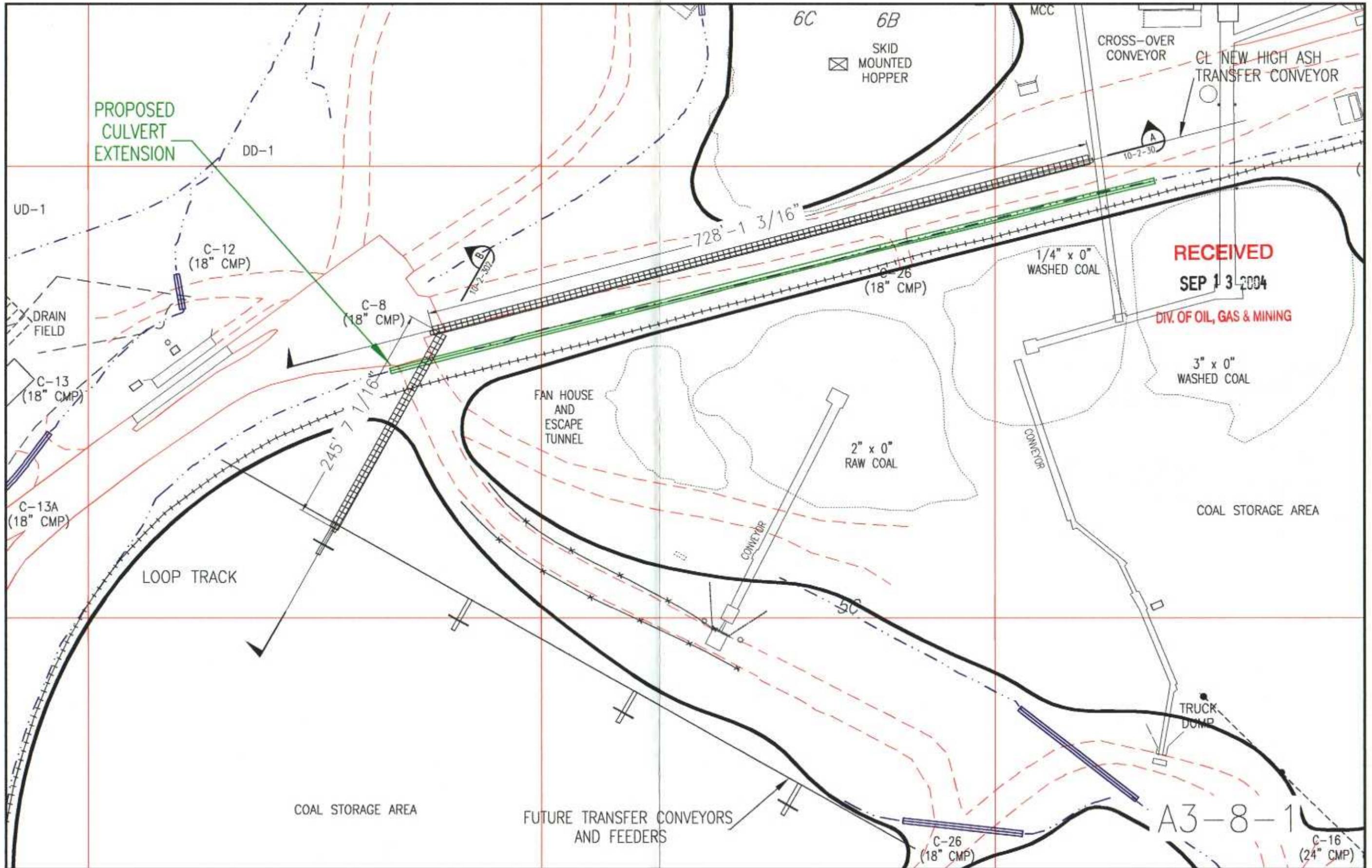
**Introduction** : Reclamation cost estimates for the Transfer Conveyor Addition are based on those used in Appendix 3-5 - "Reclamation Cost Estimate" dated April 2002. Demolition and Labor costs are based on the latest figures provided by the Division. No additional costs are estimated for earthwork or revegetation for this area, since these costs are included with the overall reclamation estimate in Appendix 3-5.

**Procedure** : The only additional reclamation costs included on this area will be the removal of the conveyors and culvert and demolition/disposal of the concrete. The proposed reclamation will include removal and transport of steel structures. Concrete will be broken up and placed in the Sediment Pond No. 1 during final reclamation.

**Calculations** :

<u>Item</u>	<u>Size</u>	<u>Disposal</u>	<u>Cost/Unit</u>	<u>Cost</u>
Concrete 22@(2'x2'x8')	26 CY	On-Site	\$26.88/CY	\$698.88
48" Conveyor	1538'x7'x4'	Haul	\$0.22/CF	\$9,478.08
18" CMP Culvert	18"x800'	Haul	\$0.22/CF	\$1,243.44
Labor	48 Hours	-	\$35.75/MH	\$1,716.00
Foreman	24 Hours	-	\$50.00/MH	\$1,200.00

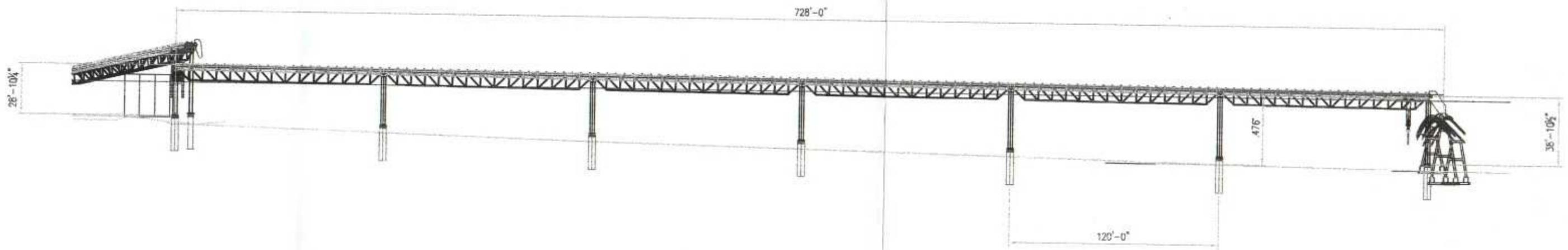
**Summary** : The total projected reclamation cost for the Transfer Conveyor Addition is \$14,332.40. The Savage Coal Terminal is presently bonded for a total of \$2,525,000.00 this figure includes a 5% contingency of \$126,250.00. Reclamation cost for this amendment amounts to 11.35% of the contingency figure and only 0.57% of the posted bond.



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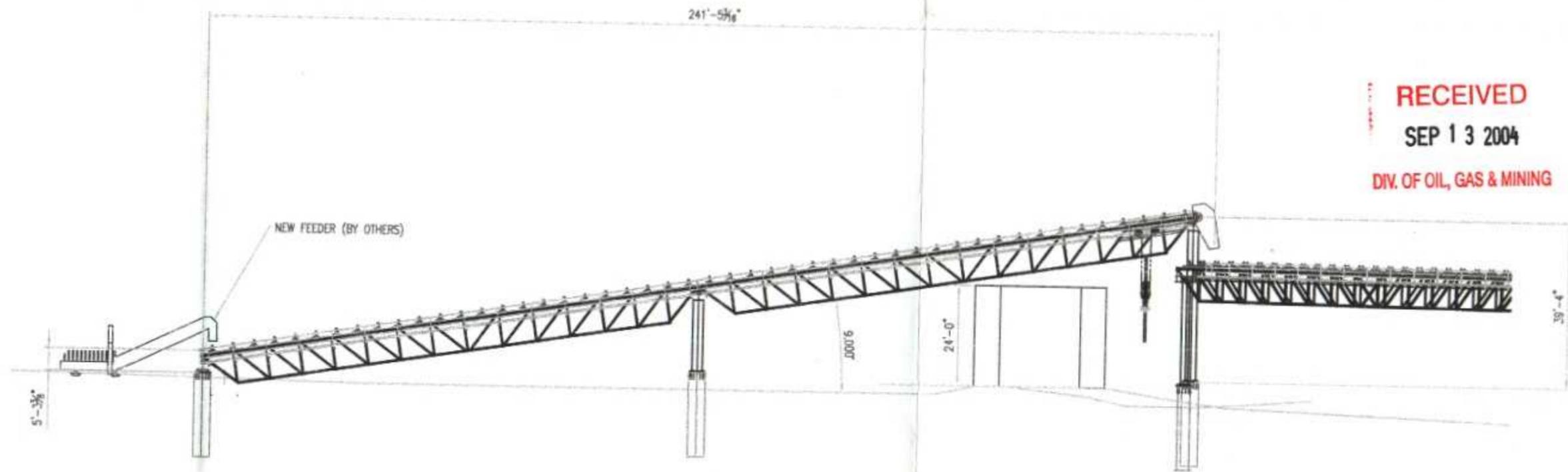
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SECTION (A)

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SECTION (B)  
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