SHEPHERD AREA FIRES PROJECT

DEQ CONTRACT NO. 410012
Musselshell and Yellowstone Counties, Montana

FINAL REPORT

MONTANA
Mine Waste Cleanup Bureau

AUGUST 4, 2010

FINAL REPORT

SHEPHERD AREA FIRES PROJECT
CONTRACT DEQ NO. 410012

Musselshell and Yellowstone Counties, Montana

Sites Located in Southcentral, Montana

Marsh Fire - NW¼ of Section 16, T6N, R28E
Shepherd #1 Fire - NE¼NW¼ & NW¼NE¼ of Section 19, T6N, R28E
Charter Fire - NE¼ of Section 24, T9N, R27E

AUGUST 4, 2010

Spectrum Engineering
1413 4th Avenue North
Billings, Montana 59101

TABLE OF CONTENTS

1.0 INTRODUCTION 1

1.1 PROJECT DESCRIPTION 1
1.1.1 Location and Access 1
1.1.2 Land Ownership 3
1.1.3 History 3
1.2 PROJECT OBJECTIVES 4

2.0 RESPONSIBLE PARTIES 5

2.1 CONTRACTOR 5
2.2 RECLAMATION AND ENGINEERING PLAN 5
2.3 QUALITY CONTROL INSPECTION 5
2.4 MWCB PROGRAM COORDINATION 5

3.0 CHRONOLOGICAL LISTING OF EVENTS 6

3.1 PRE-BID CONFERENCE 6
3.2 BID DATE 6
3.3 LOWEST BIDS 6
3.4 CONTRACT AGREEMENT 6
3.5 CONSTRUCTION START-UP 7
3.6 CHANGE ORDERS 7
3.7 WORK STOPPAGES 8
3.8 REQUESTS FOR PAYMENT 9
3.9 SUBSTANTIAL COMPLETION 9
3.10 FINAL COMPLETION AND APPROVAL 9
3.11 FINAL PAYMENT 9
3.12 ESTIMATED AND ACTUAL QUANTITY AND COST COMPARISON. 9

4.0 CONSTRUCTION 13

4.1 DESCRIPTION OF PROJECT PLAN 13
4.1.1 Marsh Fire 13
4.1.2 Shepherd #1 Fire 21
4.1.3 Charter Fire 30
4.2 MAJOR EQUIPMENT LIST 34
4.3 CONTRACTOR EMPLOYEES 34
4.4 CONSTRUCTION ACTIVITIES 34
4.5 QUANTITIES USED 42

5.0 PAYMENT REQUESTS 43

5.1 PAY REQUEST 43
5.2 COST PER SITE 43
5.3 TOTAL PROJECT COST 43

6.0 PROJECT SUMMARY 44

6.1 SUMMARY OF PROJECT 44

6.2 SITE CONDITION AFTER COMPLETION 46
6.3 MAINTENANCE OR FOLLOW-UP 48
6.4 CONSTRUCTION BID PACKAGE 48
6.5 AS-BUILT DRAWINGS 48
7.0 COMMENTS/SUGGESTIONS 48
8.0 PHOTOGRAPHS 48
8.1 LISTING 48

APPENDIX A – BID TABULATION

APPENDIX B – CHANGE ORDERS

APPENDIX C – PAYMENT REQUESTS

APPENDIX D – ANALYSIS OF CONSULTANT COSTS INCURRED

APPENDIX E –MISCELLANEOUS FORMS

APPENDIX F – CONSTRUCTION BID PACKAGE DRAWINGS

APPENDIX G – AS-BUILT DRAWINGS

SHEPHERD AREA FIRES PROJECT

1.0 INTRODUCTION

1.1 Project Description

The Shepherd Area Fires Project was undertaken under the direction of the Abandoned Mine Lands Program administered by the Remediation Division of the Montana Department of Environmental Quality to perform coal mine and coal outcrop fire control work and to repair surface damage at three sites located in the Bull Mountains coalfield near the boundary between Musselshell and Yellowstone Counties. The coal fire control work employed excavation to expose and remove burning coal, to repair and seal cracked areas, and to prepare disposal areas. Backfilling, grading and contouring were required to fill excavated areas and to reclaim other surface damage. Associated work included improving site access roads; clearing and grubbing; handing cover soil; special handing and breaking of massive sandstone, mulching; seeding and fertilizing; installing fence; installing sediment control devices and providing construction water.

1.1.1 Location and Access

The project area is located in Township 6 North, Ranges 27 and 28 East in the Bull Mountains north of Billings, Montana. The project consisted of three separate sites that were situated in an 8 square-mile area. Site access is as follows:

1. **The Marsh Fire** is situated in the NW¼ of Section 16 of Township 6 North, Range 28 East, Musselshell County, Montana. It was located on State of Montana land leased to the Marsh Ranch and was situated near the head of a draw that drains southward about two miles to Dutch Oven Creek. There is good road access to within 2.8 miles of the site. To reach the site from Billings, drive northeast on Highway 312 to Shepherd Road. Turn north onto Shepherd Road and travel north about 2 miles to Scandia Road. Turn east on Scandia Road and drive about 2½ miles to CA Road. Turn north onto CA Road and travel about 27 miles to the Marsh Road junction. This road is marked with a road sign. At this junction, turn left and head to the north about 2.3 miles to where the road forks. The left fork goes west to the Marsh Ranch, which is 2 miles up this fork. Take the right branch of the road (labeled N. Marsh Rd.) and continue heading northwest along Dutch Oven Creek for another 2.0 miles. At this point, you will reach the fence line along the southern boundary of Section 21. There is a gate across the road that March Ranch keeps locked. Access permission and a key are required for access. After passing though the gate, travel 0.15 of a mile and turn off the right side of the road onto a 2-track trail. You will see a well with a red pump near this turnoff. The site is located 2.8 miles up the 2-track from this turnoff. On the first leg, drive east to where the road forks in a saddle on a

ridgeline. Take the north fork and travel along a tree-covered hillside before turning down to the drainage bottom where you will reach a well with a large watering tank. This well is located 0.9 of a mile from the turnoff on N. Marsh Road. Follow the 2-track north up the drainage bottom for 0.4 of a mile to the fence line and gate along the southern boundary of Section 16. Continue traveling north on the 2-track for another 0.8 of a mile to another well with a watering tank. Drive past this well, travel up the hill to the west and cross the ridgeline. From the upper well, follow the 2-track for 0.35 of a mile as it winds to the west to a steep downhill grade on the next ridge. From this point, drive another 0.25 of a mile west on the 2-track into the draw where the Marsh Fire site is located and turn off the 2-track. Head north up the west side of the draw about 500 feet to the Marsh Fire. The NAD 83 coordinates for the site are 46°16'32.505"N, 108°13'55.687"W. The site area is shown on the 7½ minute USGS Cherry Spring Quadrangle map.

2. **The Shepherd #1 Fire** is situated in the NE¼NW¼ and NW¼NE¼ of Section 19 of Township 6 North, Range 28 East, Yellowstone County, Montana. It was within the Dutch Oven Creek drainage on land leased to the Marsh Ranch. The Shepherd #1 site was situated 3½ miles southwest of the Marsh Fire and shared common access to the locked gate near Dutch Oven Creek on N. Marsh Road. To reach this site from the gate, proceed up the drainage to the ranch house. A 2-track road that joins N. March Road across from the ranch house leads to the site. The bottom section of this road heads west up a draw to a fence line. After driving through a gap in the fence, turn right and follow the fence to the road near the top of a low ridge. Turn left onto the road and follow it around to the north to a well. There are two forks in the road along this segment of the road. Bear right at each of the forks. The site is located about 100 yards south of the well and 2 miles from the ranch house. The site area is shown on the 7 ½ minute USGS Dunn Mountain North Quadrangle map. The NAD 83 coordinates for the site are 46°15'41.894"N, 108°16'04.608"W.

3. **The Charter Outcrop Fire** is situated within the NE¼ of Section 24 of Township 6 North, Range 27 East, Yellowstone County, Montana. The site is situated on a ridge between two draws that drain southward about 2½ miles to Railroad Creek. The Charter Fire is situated about 0.8 of a mile west of the Shepherd #1 site and shares a common access route to where the maintained road ends near the ranch house on N. Marsh Road. Both access routes proceed west from the ranch house on the same 2-track road. The bottom section of this road heads west up a draw to a fence line. After driving through a gap in the fence, turn right and follow the fence a short distance to the road near the top of a low ridge. Turn left onto the road and follow it around to the north. At the first fork, take the road that turns to the right. About 1.5 miles from the turnoff near the ranch house, the 2-track road forks again. The right fork goes north to the Shepherd #1 site, while the left fork keeps heading west for nearly another mile to the Charter site. Take the left fork, which is the one heading uphill, and drive about a half mile to the west to the fence line and gate on the east boundary of Section 24.

At this point you are 0.3 of a mile southeast of the site, and you can see it near the top of the ridge. Proceed through the gate and follow the road downhill to the end of the ridge. Turnoff the north side of the 2-track and follow the ridge line uphill toward the site. There is a short, steep grade about 400 feet south of the site. Above this steep grade, the terrain flattens out again. The site area is shown on the U.S.G.S. 7½ minute Dunn Mountain North quadrangle map. The NAD 83 coordinates for the site are 46°15'39.077"N, 108°17'03.531"W.

1.1.2 Land Ownership

Landowner Marsh Fire	State of Montana Trust Land Management Division Southern Land Office Airport Industrial Park Billings, MT 59105-1978 Telephone: 406-247-4400 Contact - Richard Moore
Landowners Shepherd #1 Fire	Carpenter Creek, LLC Nick Shakesby 3203 Third Ave. North, Ste 300 Billings, MT 59101 406-259-0751
Landowner Charter Fire	Steve Charter Charter Ranch, Inc 13838 US Highway 87 Shepherd, MT 59079-3018 Phone – 406-947-2151

1.1.3 History

Marsh Fire – This site is situated on land owned by the State of Montana. Spectrum initially visited the site in June of 2008. Although this fire had probably been burning for decades, the DNRC became concerned about the site following a 2006 range fire that swept across this area. Spectrum was accompanied by Ben Quinones of the MWCB, representative of the DNRC, and the Haven Marsh, who leases the land. At the time, this fire was actively burning along the side of a narrow draw and the DNRC was concerned about the potential of the coal bed fire igniting nearby vegetation. All parties agreed at that time that excavation would be required to control the fire. The site is situated on an outcropping of the Mammoth coal bed. There is no history of mining or evidence of coal extraction at the site.

Shepherd #1 Fire – During the June 2008 site tour of the Marsh site, Haven Marsh took the group to this site, which is situated near one of his stock-watering tanks. The site is situated in an area where the Mammoth coal bed had burned back into the hillside leaving numerous cracks at the surface. Haven Marsh told us that he remembered that an opening to a 7 to 8-foot high tunnel had been located in the central draw at the site. He also indicated that the tunnel had gone off in a direction that was aligned with the center of the draw. Hot stops were located on the little spur ridges on both side of the draw, and Ben Quinones found a warm crack further back on the hillside in deeper cover and over 60 feet away from the hot spot on the southeastern spur ridge. In addition, two sets of radial cracks, which are very suggestive of mine subsidence, were found over the area where the mine entry was reported. There was also a depression, which might have been associated with a caved adit trench, in this area. Although there is no reported history of mining in this area and no remaining surface evidence of any coal extraction, local residents might have developed a small trespass mine at this site due to its accessibility.

Charter Fire – During the June 2008 site tour of the Marsh site, Steve Charter took the group to this site, which is located on his land. At the time it appeared that this was an outcrop fire in a 3-4 foot thick coal bed that was situated well above the Mammoth. During excavation, evidence of a short mine entry that extended no more than 25 feet underground was uncovered. At some time in the past, local residents had apparently taken a few wagon loads of coal out of this site before the entry caved. The coal seam was burning along the sides of the entry and in the outcrop area on both sides. There is no history of mining activity at this relatively remote site.

1.2 Project Objectives

The project objectives were as follows:

- Control the coal bed and/or coal mine by either complete excavation or sealing.
- Repair surface damage associated with the fires.

2.0 RESPONSIBLE PARTIES

2.1 Contractor

The successful bidder was Donnes, Inc. Their address and phone number is:

Donnes Inc.
5807 Frey Road
Shepherd, MT 59079
Phone: 406-373-6601

2.2 Reclamation and Engineering Plan

Spectrum Engineering was assigned the responsibility of preparing engineering plans and specifications for this project. Spectrum's address and phone number are as follows:

Spectrum Engineering
1413 4th Avenue North
Billings, Montana 59101
Phone: 406-259-2412

2.3 Quality Control Inspection

Spectrum Engineering performed the quality control inspections. Mike Barnes from Spectrum Engineering provided construction inspection during the project. David Murja also performed the project-engineering functions.

2.4 MWCB Program Coordination

The MWCB Project Manager was Devin Clary, Montana Department of Environmental Quality, Mine Waste Cleanup Bureau.

3.0 CHRONOLOGICAL LISTING OF EVENTS

3.1 Pre-Bid Conference

A pre-bid conference was held for prospective bidders on October 20, 2009. The conference convened at 1:00 PM at the intersection of Marsh Road and CA Road south of the sites and progressed to each of the sites. The conference drew approximately 25 prospective bidders. Due to a number of questions about handing massive sandstone, an addendum was issued on October 26, 2009. The addendum changed the requirements for handing massive sandstone boulders and changed the associated bid item to a lump sum item.

3.2 Bid Date

The bid opening date for the Shepherd Area Fires Project, DEQ Contract No. 410012 was on November 3, 2009.

3.3 Lowest Bids

Donnes Inc. was awarded the Shepherd Area Fires Project with a low bid of $304,072.00. The Engineer's Estimate was $445,041.20. The bids were as follows:

(1) Donnes, Inc. at $304,072.00;
(2) Shumaker Trucking and Excavation at $408,555.00;
(3) Omdahl at $ 412,646.35;
(4) Western Municipal. at $ 519,771.6;
(5) HL Ostermiller at $ 525,996.64;
(6) J & S Construction $538,755.55,
(7) CMG at $635,359.00;
(8) Knife River at $640,812.46;
(9) Trapper Peak at $932,961.75
(9) Coleman Construction at $1,397,344.40; and,
(11) Riverside at $1,437,389.00.

A copy of the Bid Tabulation is provided in Appendix A.

3.4 Contract Agreement

The Contract Agreement for the Shepherd Area Fires Project was signed on November 19, 2009. The Notice to Proceed was issued for a starting date of not later than November 19, 2009. The term of the contract was 60 consecutive calendar days with an anticipated completion date of no later than January 18, 2010. Several change orders were subsequently issued changing the completion date to May 24, 2010.

3.5 Construction Start-up

Frank Donnes and Devin Clary conducted an informal meeting on November 12, 2009 by telephone. Donnes Inc. provided the required draft submittals electronically on November 12th. The submittals were reviewed and suggested edits were relayed to Donnes, Inc. on November 13th.

Donnes Inc. began mobilizing equipment to the project area several days prior to receiving the Notice to Proceed on November 19, 2009. Work was commenced on the morning of November 19th at the Charter Fire. A D8K dozer and a Caterpillar 330 hydraulic excavator had been moved to the site. On November 20, 2009, the project engineer toured the sites with Frank Donnes and Haven Marsh and discussed the site requirements. Based on the conversations at this meeting, Devin Clary was contacted by phone and a work directive was approved to change the grading plan for the Marsh site to incorporate drainage channel modifications suggested by Haven Marsh.

3.6 Change Orders

Four change orders were processed for the project. The change orders increased the contract amount by $137,726.00 to a total amount of $441,798.00. Copies of these documents are included in Appendix B of this report.

Change Order No. 1 was used to adjust the contract price for measured quantities at the Charter Fire. This change order added $4,435.00 to the contract price. The change in quantities was related to the discovery of a collapsed mine entry, which had to be completely excavated in order to remove smoldering coal along both side of the entry. This increased coal and overburden handling costs. One additional contract day was added to adjust for the increased level of work.

Change Order No. 2 was used to adjust the contract price for measured earthwork quantities at the Shepherd #1 Fire. This change order added $72,640.50 to the contract price. Quantity changes were related to expanding the excavations to search for, locate, and remove burning coal. The bottom of the burning coal was about 10 feet deeper than had been projected. Six contract days were added to adjust for the increased level of work, and 22 additional contract days were added for weather delays.

Change Order No. 3 was used to adjust the contract price for measured seeding and fencing payment items at the Shepherd #1 Fire. This change order decreased the contract price by $1,151.00. Other than eliminating the installation of erosion control mat changes were minor. Two contract days were added for weather delays.

Change Order No. 4 was used to adjust the contract price for measured quantities at the Marsh Fire. This change order added $61,801.50 to the contract price. Change in quantities were related: (1) To expanding the excavations to insure that all burning coal had been removed; and (2) To material handling and grading modifications that were made in order to provide an impoundment and additional flat ground that had been

requested by the local farmer. Expansion of the planned excavations caused significant increases in those bid items related to coal removal, overburden excavation, and hauling. Soil borrow necessary to seal exposed coal beds was also increased. However, the bid item covering excavation and repair of cracks was completely eliminated since coal removal was required throughout the cracked area. Water usage was significantly reduced as an operational decision by the Contractor. Construction of the impoundment and additional flat ground were provided by increasing excavation in the central ridge and by constructing an elongated dam. In order to create a significant flat area for the dam, all available backfill materials were concentrated in a common backfill/ disposal area. This eliminated the construction and capping of disposal trenches and most rehandling of stockpiled overburden. With the excavation area being contoured as an impoundment, the adjacent hillside along the west side of the excavated area could be extended down on a 2.5H:1V grade using highwall reduction, which eliminated the need for installing erosion control blanket to stabilized steep grades. However, the increased use of highwall reduction as the primary method increased the backfill, grade and contour payment item. Seeding and fencing payment items included an unused disposal area that had been stripped in anticipation of using it as the coal disposal area.

Change Order No. 4 was preceded by Work Directive No. 1 for the Marsh Fire, which was issued on November 25, 2009. This document directed the Contractor to modify the backfill plan to allow construction of a pond and embankment for post-construction stock watering. This required substantial changes in the grading configuration, overburden hauling, and overburden stockpiling. It was made pursuant to the local farmer's (lessee) request.

3.7 Work Stoppages

A series of winter storms shut the project down for 22 days in December 2009. After being unable to resume work for this extended period, a Temporary Suspension of Work was granted at the end of the work day on December 29, 2009. The project was shut down until April 5, 2010 when AML issued a Notice to Proceed Following Temporary Suspension of Work. However, weather and wet roads delayed the resumption of work until April 7, 2010.

Donnes Inc. completed the required seeding and fertilizing of the Charter site on November 20, 2009. After the Shepherd #1 site was disked and fertilized on April 14th, it was seeded and mulched on April 26, 2009. Fencing at this site was competed on May11, 2010. Seeding, fertilizing, and mulching at the Marsh site were completed on May 3, 2010. Fencing was not completed until May 16, 2010. Based on the Contractor’s Certificate of Completion, which was dated May 20, 2010, Donnes Inc. used 87 days of the amended contract time of 91 days.

3.8 Requests for Payment

Three payment requests were made during this project. Copies are included in Appendix C. The earned amount requested on each request is as follows:

No. 1-	For Period 11/19/2009 -11/20/2009	$10,942.50
No. 2-	For Period 11/21/2009 -12/29/2009	$218,630.50
Winter Shutdown Period		
Final-	For Period 4/05/2010 -5/24/2010	$212,225.00

3.9 Substantial Completion

Upon receipt of Contractor's Certificate of Completion dated May 20, 2010, Devin Clary (Project Officer from DEQ-MWCB), David Murja of Spectrum Engineering and Gary Davis of Donnes Inc. inspected the project sites for substantial completion on June16, 2010. No deficiencies in the completed work were noted. The Certificate of Substantial Completion was issued with a date of June 16, 2010.

3.10 Final Completion and Approval

Finding the completed work to be acceptable in all respects during the substantial completion inspection, the Certificate of Acceptance was issued with a final acceptance date of June 16, 2010.

3.11 Final Payment

The final payment request was recommended for approval by Spectrum Engineering on July 7, 2010. DEQ approved the request on July 14, 2010. Contractor invoice payment receive Program Manager approval on August 2, 2010. A copy of the Final payment request is included in Appendix C. The final payment request covered seeding at the Shepherd #1 site, all Marsh site work, and the release of retainage.

3.12 Estimated and Actual Quantity and Cost Comparison.

Tables summarizing the cost and quantities associated with the three Shepherd Fire sites are presented on the following pages. Comparisons of the as constructed cost and quantities are compared to the estimated cost and quantities in these tables. Spectrum Engineering did not perform any subsurface investigations when preparing the estimates and recognized at the onset that there could be substantial differences between the estimates and actual quantities on individual bid items. The Engineer's estimate and the actual cost for each of the sites are as follows:

Site	Engineer	Actual
Charter	$ 9,655.00	$ 10,942.50
Shepherd #1	$233,120.00	$232,694.50
Marsh	$202,266.20	$198,161.00
Total	**$445,041.20**	**$441,798.00**

CHARTER SITE COST AND QUANTITY COMPARISON TABLE											
Bid Item	*ESTIMATED QUANTITY*	*UNIT*	*DESCRIPTION*	*UNIT PRICE*	*BID PRICE*	*Actual Cost*	*Actual Quantity*	*Quantity Change*	*Percent Change In Quantity*	*Cost Change*	*Percent Change In Cost*
1	1	LS	Mobilization (Maximum 10% of total bid)	$250.00	$250.00	$250.00	1	0	100%	$0.00	100%
2	1	LS	Improve Access	$1,000.00	$1,000.00	$1,000.00	1	0	100%	$0.00	100%
3			SUPPLY WATER		$0.00	$0.00	0	0		$0.00	
3a.	0	LS	Water Delivery Setup		$0.00	$0.00	0	0		$0.00	
3b.	0	KGAL	Water Usage		$0.00	$0.00	0	0		$0.00	
4	0.45	AC	Clear and Grub	$250.00	$112.50	$27.50	0.11	0	24%	-$85.00	24%
5	340	CY	Salvage, Stockpile, and Replace Cover Soil	$1.00	$340.00	$165.00	165	-175	49%	-$175.00	49%
6	50	CY	Borrow and Place Cover Soil	$1.00	$50.00	$40.00	40	-10	80%	-$10.00	80%
7	900	CY	Overburden Excavation By Open Cut	$1.00	$900.00	$1,545.00	1545	645	172%	$645.00	172%
8	0	CY	Overburden Excavation By Trenching		$0.00	$0.00	0	0		$0.00	
9	0	CY	Haul and Stockpile Overburden		$0.00	$0.00	0	0		$0.00	
10	40	CY	Remove, Process, And Bury Hot Coal	$40.00	$1,600.00	$6,400.00	160	120	400%	$4,800.00	400%
11	125	CY	Excavate Disposal Trenches	$1.00	$125.00	$0.00	0	-125	0%	-$125.00	0%
12	35	CY	Cap Disposal Trenches	$1.00	$35.00	$0.00	0	-35	0%	-$35.00	0%
13	0	CY	Over-Excavate And Repair Cracks		$0.00	$0.00	0	0		$0.00	
14	40	CY	Haul And Place Backfill From Stockpile	$1.00	$40.00	$0.00	0	-40	0%	-$40.00	0%
15	0.31	AC	Backfill, Grade, And Contour	$3,000.00	$930.00	$690.00	0.23	-0.08	74%	-$240.00	74%
16	0	AC	Mulch		$0.00	$0.00	0	0.00		$0.00	
17	0	SY	Supply and Install Erosion Control Mat		$0.00	$0.00	0	0		$0.00	
18	0	LS	Sandstone Boulder Disposal		$0.00	$0.00	0	0		$0.00	
19	0.45	AC	Seed and Fertilize	$2,500.00	$1,125.00	$825.00	0.33	-0.12	73%	-$300.00	73%
20			FENCE		$0.00	$0.00	0	0		$0.00	
20a.	0	LF	F3M Fence		$0.00	$0.00	0	0		$0.00	
20b.	0	Each	Single Panels		$0.00	$0.00	0	0		$0.00	
20c.	0	Each	Double Panels		$0.00	$0.00	0	0		$0.00	
20d.	0	LF	Gate		$0.00	$0.00	0	0		$0.00	
21	0	LF	BMP Sediment Control		$0.00	$0.00	175	175		$0.00	
					$6,507.50	$10,942.50				$4,435.00	168%

SHEPHERD #1 SITE COST AND QUANTITY COMPARISON TABLE											
Bid Item	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	BID PRICE	Actual Cost	Actual Quantity	Quantity Change	Percent Change In Quantity	Cost Change	Percent Change In Cost
1	1	LS	Mobilization (Maximum 10% of total bid)	$2,500.00	$2,500.00	$2,500.00	1	0	100%	$0.00	100%
2	1	LS	Improve Access	$1,000.00	$1,000.00	$1,000.00	1	0	100%	$0.00	100%
3			SUPPLY WATER		$0.00	$0.00		0		$0.00	
3a.	1	LS	Water Delivery Setup	$5,000.00	$5,000.00	$5,000.00	1	0	100%	$0.00	100%
3b.	200	KGAL	Water Usage	$10.00	$2,000.00	$160.00	16	-184	8%	-$1,840.00	8%
4	5.65	AC	Clear and Grub	$100.00	$565.00	$243.00	2.43	-3	43%	-$322.00	43%
5	5,720	CY	Salvage, Stockpile, and Replace Cover Soil	$2.00	$11,440.00	$7,520.00	3760	-1,960	66%	-$3,920.00	66%
6	990	CY	Borrow and Place Cover Soil	$1.00	$990.00	$900.00	900	-90	91%	-$90.00	91%
7	9,350	CY	Overburden Excavation By Open Cut	$6.50	$60,775.00	$112,157.50	17255	7,905	185%	$51,382.50	185%
8	1,600	CY	Overburden Excavation By Trenching	$10.00	$16,000.00	$37,650.00	3765	2,165	235%	$21,650.00	235%
9	5,540	CY	Haul and Stockpile Overburden	$1.00	$5,540.00	$14,255.00	14255	8,715	257%	$8,715.00	257%
10	860	CY	Remove, Process, And Bury Hot Coal	$15.00	$12,900.00	$16,350.00	1090	230	127%	$3,450.00	127%
11	2,150	CY	Excavate Disposal Trenches	$1.00	$2,150.00	$1,600.00	1600	-550	74%	-$550.00	74%
12	500	CY	Cap Disposal Trenches	$3.00	$1,500.00	$4,800.00	1600	1,100	320%	$3,300.00	320%
13	12,600	CY	Over-Excavate And Repair Cracks	$1.00	$12,600.00	$9,700.00	9700	-2,900	77%	-$2,900.00	77%
14	5,900	CY	Haul And Place Backfill From Stockpile	$1.00	$5,900.00	$1,750.00	1750	-4,150	30%	-$4,150.00	30%
15	4.26	AC	Backfill, Grade, And Contour	$500.00	$2,130.00	$2,195.00	4.39	0.13	103%	$65.00	103%
16	5.50	AC	Mulch	$500.00	$2,750.00	$2,840.00	5.68	0.18	103%	$90.00	103%
17	780	SY	Supply and Install Erosion Control Mat	$2.00	$1,560.00	$0.00	0	-780	0%	-$1,560.00	0%
18	1	LS	Sandstone Boulder Disposal	$500.00	$500.00	$500.00	1	0	100%	$0.00	100%
19	5.65	AC	Seed and Fertilize	$500.00	$2,825.00	$2,840.00	5.68	0.03	101%	$15.00	101%
20			FENCE		$0.00	$0.00		0		$0.00	
20a.	2,710	LF	F3M Fence	$2.00	$5,420.00	$5,924.00	2962	252	109%	$504.00	109%
20b.	2	Each	Single Panels	$150.00	$300.00	$300.00	2	0	100%	$0.00	100%
20c.	11	Each	Double Panels	$200.00	$2,200.00	$2,000.00	10	-1	91%	-$200.00	91%
20d.	16	LF	Gate	$10.00	$160.00	$160.00	16	0	100%	$0.00	100%
21	1,250	LF	BMP Sediment Control	$2.00	$2,500.00	$350.00	175	-1,075	14%	-$2,150.00	14%
					$161,205.00	$232,694.50				$71,489.50	144%

MARSH SITE COST AND QUANTITY COMPARISON TABLE											
Bid Item	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	BID PRICE	Actual Cost	Actual Quantity	Quantity Change	Percent Change In Quantity	Cost Change	Percent Change In Cost
1	1	LS	Mobilization (Maximum 10% of total bid)	$2,500.00	$2,500.00	$2,500.00	1	0	100%	$0.00	100%
2	1	LS	Improve Access	$1,000.00	$1,000.00	$1,000.00	1	0	100%	$0.00	100%
3			SUPPLY WATER		$0.00	$0.00	0	0		$0.00	
3a.	1	LS	Water Delivery Setup	$5,000.00	$5,000.00	$5,000.00	1	0	100%	$0.00	100%
3b.	150	KGAL	Water Usage	$10.00	$1,500.00	$320.00	32	-118	21%	-$1,180.00	21%
4	5.10	AC	Clear and Grub	$100.00	$510.00	$240.00	2.4	-3	47%	-$270.00	47%
5	4,800	CY	Salvage, Stockpile, and Replace Cover Soil	$2.00	$9,600.00	$5,200.00	2600	-2,200	54%	-$4,400.00	54%
6	1,050	CY	Borrow and Place Cover Soil	$1.00	$1,050.00	$4,215.00	4215	3,165	401%	$3,165.00	401%
7	4,655	CY	Overburden Excavation By Open Cut	$6.50	$30,257.50	$48,945.00	7530	2,875	162%	$18,687.50	162%
8	2,070	CY	Overburden Excavation By Trenching	$10.00	$20,700.00	$77,640.00	7764	5,694	375%	$56,940.00	375%
9	5,485	CY	Haul and Stockpile Overburden	$1.00	$5,485.00	$13,643.00	13643	8,158	249%	$8,158.00	249%
10	1,455	CY	Remove, Process, And Bury Hot Coal	$10.00	$14,550.00	$19,820.00	1982	527	136%	$5,270.00	136%
11	3,500	CY	Excavate Disposal Trenches	$1.50	$5,250.00	$0.00	0	-3,500	0%	-$5,250.00	0%
12	584	CY	Cap Disposal Trenches	$3.00	$1,752.00	$0.00	0	-584	0%	-$1,752.00	0%
13	2,040	CY	Over-Excavate And Repair Cracks	$2.00	$4,080.00	$0.00	0	-2,040	0%	-$4,080.00	0%
14	6,000	CY	Haul And Place Backfill From Stockpile	$1.00	$6,000.00	$616.00	616	-5,384	10%	-$5,384.00	10%
15	3.65	AC	Backfill, Grade, And Contour	$1,000.00	$3,650.00	$4,160.00	4.16	0.51	114%	$510.00	114%
16	4.39	AC	Mulch	$500.00	$2,195.00	$2,550.00	5.1	0.71	116%	$355.00	116%
17	3,300	SY	Supply and Install Erosion Control Mat	$2.00	$6,600.00	$0.00	0	-3,300	0%	-$6,600.00	0%
18	1	LS	Sandstone Boulder Disposal	$500.00	$500.00	$500.00	1	0	100%	$0.00	100%
19	5.10	AC	Seed and Fertilize	$500.00	$2,550.00	$3,090.00	6.18	1.08	121%	$540.00	121%
20			FENCE		$0.00	$0.00	0	0		$0.00	
20a.	3,400	LF	F3M Fence	$2.00	$6,800.00	$6,002.00	3001	-399	88%	-$798.00	88%
20b.	5	Each	Single Panels	$150.00	$750.00	$600.00	4	-1	80%	-$150.00	80%
20c.	9	Each	Double Panels	$200.00	$1,800.00	$1,400.00	7	-2	78%	-$400.00	78%
20d.	32	LF	Gate	$10.00	$320.00	$320.00	32	0	100%	$0.00	100%
21	980	LF	BMP Sediment Control	$2.00	$1,960.00	$400.00	200	-780	20%	-$1,560.00	20%
					$136,359.50	$198,161.00				$61,801.50	145%

4.0 CONSTRUCTION

4.1 Description of Project Plan

The Shepherd Area Fires Project was undertaken to perform coal mine and coal outcrop fire control work and to repair surface damage at three sites located in the Bull Mountains coalfield near the boundary between Musselshell and Yellowstone Counties. The coal fire control work employed excavation to expose and remove burning coal, to repair and seal cracked areas, and to prepare disposal areas. Backfilling, grading and contouring were required to fill excavated areas and to reclaim other surface damage.

4.1.1 Marsh Fire

This outcrop fire involved the 15-foot thick Mammoth coal bed. The fire had impacted the surface along two ravines that are separated by a low ridge. Smoldering fires were burning underground along the west side of the western ravine, along the west side of the eastern ravine, and under a subsided area that extended across the low ridge. Although cracking extended into areas with 30 feet of overburden, the more active areas had less than 15 feet of cover over the top of the coal bed. Where the bedrock was undisturbed, the Mammoth seam occurred below a massive sandstone layer. However, the massive sandstone that was prevalent along the upper end of the site appeared to have been substantially eroded away in the lower portions of the site.

Cracking and slumping had developed along a span of approximately 250 feet along the west wall of the western ravine. There was a lower crack that was about 50 feet in length on a 25-foot wide bench that was situated about 14 feet above the bottom of the drainage. This crack was narrow, shallow and cool. A 5-foot deep sinkhole and another crack were located on the bench about 35 feet southwest of the lower crack. These features also appeared to be over the burned-out area, but just to the north of the sinkhole, the surface temperature over a 40-foot wide area along the bench and the slumped area above it were elevated. Within the slumped area, a series of three to four cracks had developed. All of these cracks were situated in heavily weathered sandstone that had decomposed. The lower cracks had partially caved into the slumped area. However, the uppermost crack, which extended along the upper edge of the slumped area, ran for 250 feet along the steep hillside. Portions of this crack were up to 10 feet deep and up to 5 feet wide at the top. At the south end of the slumped area, a new crack was developing about 7 feet uphill from the deep upper crack. Heat and combustion gasses were escaping from a series of small vent holes along the new crack, which was estimated to be 23 feet above the top of the coal bed.

Along the channel on the west side of the eastern ravine, the coal bed was smoldering below a 28-foot long segment of the bank, where surface temperatures were in the range of 120°F. The hot slumped area extended up to a sinkhole at the top of the low ridge. There was no sign of an active coal fire or past impacts on the lower end of the ridge between the east and west ravines. However, two fire-related subsidence features were located on top of the low ridge at the upper end of the site. These two features were probably interconnected below the surface. They extended

approximately 100 feet across the ridge from one side nearly to the other and appeared to be oriented with the sandstone outcrop. A 4-7 foot deep crack had developed just uphill from the depression. The crack extended through the sandstone outcrop, ending directly across the channel from the upper end of the crack on the opposite side.

The subsidence features were located only 12 to 14 feet above the top of the coal bed where the massive sandstone should have been located. The larger depression was 80-foot long by 15-foot wide and about 2 feet deep. The western 45 feet of the depression had 3-4 foot deep cracks extending along its perimeter. At the far western end of the depression, a sinkhole extended underground to the southeast on a slight downward angle for a distance of about 9 feet toward another sinkhole, which was located at the top of the slumped area on the east bank of the low ridge. This sinkhole extended underground about 12 feet to the northwest on a 40-degree angle. It appeared to be entirely in soil. It was about 7 feet wide by 2 feet high at the top, but the size gradually decreased with depth. Elevated temperatures and carbon monoxide were present inside this cavity.

4.1.1.1 Marsh Work Plan - The main elements of the work plan described in the construction bid package are outlined below:

1) After leaving N. Marsh Rd., access to the site would be over 2-track trails that are primarily used for ranch access to fields and stock-watering wells. The contractor would be required to examine these routes and determine their suitability for equipment access and for water haulage operations. The existing routes would be improved as necessary to support the construction operations.
2) Water for dust suppression and cooling was to be provided.
3) An estimated 1,455 BCY of burning and smoldering coal beneath the central ridge and the south end of the slumped area in the western ravine were to be removed, cooled and buried.
4) The site was to be prepared by first clearing vegetation that could interfere with excavation and stockpiling operations. The foot print of the entire construction disturbance area covers an estimated 5.10 acres and contains scattered brush and a number of burned trees, which have fallen.
5) All cover soil would be salvaged from excavation and spoil areas. Assuming 1 foot of cover soil can be salvaged on shallow vegetated slopes and up to 6 inches of soil can be salvaged on steep slope areas, 4,800 CY of cover soil will need to be salvaged and hauled to stockpiles.
6) Storm water best management practices such as the installation of silt fence or straw logs would be used to prevent sediment from leaving the site. An estimated 980 lineal feet of these measures would be installed.
7) Fire control work would begin in the hot area at the south end of the slumped area on the west bank of the western ravine. Contractor would work off the lower bench that is just above the top of the coal bed and excavate an open cut (1,990 CY) through the cracked area on the hillside. Because the working space in this narrow

ravine is limited, all of the excavated material would be hauled back to the south and stockpiled.

8) After the upper bench has been cut through the cracked area, trenching would be used to define the extent of the hot area and to remove the remainder of the overburden over the burning area. It was estimated that 1,010 CY of cover material would be removed by trenching and that about 40% of this material would be hauled to stockpile.

9) An estimated 580 CY of hot coal would be removed from the bottom of the trench excavation. This material would be partially cooled and mixed with soil before it could be hauled to a disposal trench. Following removal of hot materials, a two- foot thick layer of fine-grained soil would be placed over exposed portions of the coal bed.

10) The remainder of the excavated area would be backfilled and the bank of the ravine would be rebuilt using spoils from the trenching operation, hauling the stockpiled overburden back to the cut, and hauling open cut material from the central ridge excavation directly to the backfill area.

11) Cracked areas along the west bank of the western ravine, which lie to the north of the bench, would be over excavated to a depth of 15 feet and then backfilled in compacted lifts (2,040 CY). This area would be graded and contoured under Bid Item 15. Due to the steep banks in this area, sandstone blocks that have been excavated and broken under Bid Item 18 would be used to armor the lower portion of the bank (250 CY).

12) In order to excavate the burning coal under the low ridge between the two ravines, excavation in this area would be started by developing an open cut between the nose of the ridge and the sandstone outcrop just to the north of the subsidence features. The open cut would remove most of this section of the ridge down to an elevation that is about 2 feet above the structural top of the coal bed. An estimated 2,665 BCY of overburden would be excavated and hauled to a stockpile area located about 600 feet south of the excavation area. This excavation would also expose the slumped and burning area along the west bank of the eastern ravine.

13) After the upper bench has been cut through the depression to the sandstone bedrock, an estimated 1,060 CY of trenching would be used to define the limits of the burning coal and to remove the remaining material covering this area.

14) It was expected that to some limited extent, the coal bed was burning under the sandstone bed rock that was still in place at the north end of the site. In order to remove as much of the burning coal as possible, hard massive sandstone that would be excavated as large blocks (480 CY both areas) would require special handling to move and break this material. About 325 CY of the broken sandstone would be used to armor the west bank of the western ravine and a headcut in the eastern ravine.

15) An estimated 875 CY of hot coal would be removed from the bottom of the trench excavation in the ridge area. This material would be partially cooled and mixed with soil before it could be hauled to a disposal trench. Following removal of hot

materials, a two-foot thick layer of fine-grained soil would be placed over exposed portions of the coal bed.

16) After the coal bed has been sealed, the remainder of the excavated area would be backfilled and the top of the ridge would be rebuilt using spoils from the trenching operation and the remainder of the stockpiled overburden.

17) Hot material would be cooled with water and mixed with some soil inside the excavation area before being removed. At the surface, it would be spread and mixed with additional water before being hauled to a disposal area located at the south end of the site. The coal would be mixed to a 1:1 coal-soil ratio while it is being buried in disposal trenches in compacted lifts.

18) Disposal trenches would be sized to accommodate the coal/soil mixture and a 3 foot soil cap. Based on the estimated quantities and the available area, separate disposal pits for material from the west ravine and the ridge area were planned in adjacent areas. A 174' long x 12' wide x 18' deep trench would be required for the west ravine coal. Excavated trench material would be spoiled to one side. The coal from the ridge area would require a 132' long x 24' wide x 18' deep trench. Total disposal trench excavation would be 3,500 CY. Portions of this material would be used for mixing, for capping (584 CY), for fined-grained soil backfill, and for cover soil (1,050 CY).

19) Upon completion of hot coal removal and disposal, all construction disturbances, except cover soil stockpile areas, would be backfilled, graded and contoured. Approximately 3.65 acres would require grading.

20) This grade area would be dressed with the stockpiled cover soil, which would be supplemented with suitable soil from the disposal trench stockpiles.

21) The dressed area and the cover soil stockpile areas, which together have a footprint area of 5.10 acres, would be seeded and fertilized.

22) Steep slopes on the west side of the western ravine and the channel at the bottom of this ravine would be covered with 3300 square yards of erosion control blanket.

23) Straw mulch (4.39 acres) would be crimped into the soil over the remainder of the seeded area less those areas that are armored with rock riprap.

24) A fence with 3 strands of barbed wire would be installed around the reclaimed area. The anticipated alignment will require 3400 feet of fencing, 2 gates, 5 single panels, and 9 double panels.

4.1.1.2 **<u>Marsh: 1-Mobilization</u> -** On November 20, 2009, the project engineer toured the sites with Frank Donnes and Haven Marsh. During this meeting Haven Marsh, who leases and farms this area, suggested a number of modifications to the plan that would give him better utilization of the area. Based his requests, Devin Clary was contacted by phone and a work directive was approved to change the grading plan for the Marsh site to incorporate those drainage channel modifications suggested by Haven Marsh. On November 27, 2009, Donnes Inc. temporarily moved a scraper onto the site to strip cover

soil for a disposal area. Following this brief period of activity, work suspended during a winter shutdown. Donnes Inc. mobilized a, D9N, two 30-ton articulated dump trucks, two 637D scrapers, a 980 G wheel loader, a 16G motor grader, a water truck and a Caterpillar 330 hydraulic excavator to this site between April 7th and 8th of 2010.

4.1.1.3 **Marsh: 2-Improve Access** – The existing 2-track roads and trails leading to the site area were graded. A switchback curve near the well in Section 16 about one half mile east of the project area had to be realigned and improved. A steep grade on the existing 2-track, which was located about a quarter of a mile east of the site, was abandoned and replaced with a long curved segment that extended about 100 yards to the north. Donnes Inc. had the D9 working on these road improvements on November 19th and 20th. Following a winter shutdown, the access roads were graded and repaired on April 7th and 8th of 2010.

4.1.1.4 **Marsh: 3-Supply Water** – Donnes Inc. constructed a lined pond adjacent to a well located near the Marsh ranch facilities on Railroad Creek and filled the pond with water from the well. Construction water from the pond was pumped into a 4,000 gallon water truck and transferred to the site. 32,000 gallons was used to suppress dust and to cool hot coal.

4.1.1.5 **Marsh: 4-Clear and Grub** - 2.4 acres of clearing and grubbing was required to remove dead trees that were still standing and partially burned fallen trees. The debris was scattered and buried under the disposal area.

4.1.1.6 **Marsh: 5-Salvage, Stockpile and Replace Cover Soil** - The contractor salvaged and stockpiled 1,100 CY of cover soil from the originally planned coal disposal area. This material was stockpiled along the east side of this area and was replaced on April 27, 2010. On April 9th, scrapers were used to salvage 1,240 BCY of cover soil from the backfill/disposal area in the drainage bottom. This soil was stockpiled at the south end of this area. An additional 260 BCY of soil was excavated and stockpiled along the east side of the disposal/backfill area by the trackhoe on April 30th. During reclamation, the stockpiled cover soil was combined with 2,980 BCY of borrow soil and was used to dress approximately 2 acres in the excavation and backfill areas. Due to the steepness of the highwall reduction area on the west side of the site and rock outcrops in this area, the thin cover soil in this area was not salvaged as had been planned. The Contractor also wasted the cover soil on the central ridge area where cover soil salvage had been planned.

4.1.1.7 **Marsh: 6-Borrow and Place Cover Soil** - Following excavation of hot coal, the exposed coal bed was covered and sealed with 885 CY of soil that was hauled by the wheel loader and another 350 CY of soil that was pushed over the coal bed by the D9 track dozer. The source of this soil was low ridge behind the southwest highwall. An additional 2,980 BCY of soil was borrowed

from the low ridge between the ravines on the east edge side. This material was used for grading fill and to dress the graded excavation and backfill areas.

4.1.1.8 **Marsh: 7-Overburden Excavation by Open Cut** – The two scrapers, wheel loader, hydraulic excavator, track dozer and two articulated trucks combined to excavate and move 7,530 BCY of overburden in the open cut mode of excavation. Of this total, 4,082 BCY was hauled to the disposal/backfill area, 616 BCY was stockpiled along the eastern edge of the excavation area, and 2,832 BCY was spoiled into the bottoms of the ravines around the open cut area.

- On the west side of the site, the open cut had to be extended 40 feet further to the south than planned because hot coal was found in this area.
- The entire area where crack repairs and over excavation had been planned was underlain with hot coal that required complete excavation. This extended the open cut on the west side an additional 140 feet to the north.
- In the central ridge area, the open cut was excavated about 8 feet deeper than planned at the south end to accommodate the use of multiple units of heavy haulage equipment. The north end of the cut didn't go as deep as planned on the west side.

4.1.1.9 **Marsh: 8-Overburden Excavation by Trenching** – Trenching removed 7,764 BCY of overburden to expose hot and burning portions of the coal bed. Nearly all material that was excavated was hauled to the disposal area by articulated trucks or by wheel loader.

4.1.1.10 **Marsh: 9-Haul and Stockpile Overburden** – 13,634 BCY of overburden, ash, rock and coal was hauled by scraper, 30 ton articulated trucks, or wheel loader to the disposal/backfill area. Because the local farmer wanted a small impoundment and additional flat ground, where he could cultivate grass, the original plans for stockpiling and rebuilding slopes were discarded. They were replaced with a working plan to block the drainage channel with a wide backfill plug that would extend down the channel nearly 500 feet. Because the site was situated near the top of the drainage area, making a viable impoundment required capturing the drainage from several small ravines. The large increase in the excavation quantity reflects extension of the west side trench an additional 140 feet to the north and an additional 40 feet to the south. Trenching in the central ridge area also followed the burning coal about 30 feet further to the northwest than planned.

4.1.1.11 **Marsh: 10-Remove, Process, and Bury Hot Coal** – 1,982 BCY of hot coal was removed from the 15.8 foot thick Mammoth coal bed. Along most of the west side, the top 10 to 12 feet of the coal bed was completely burned and

the bottom 4 to 5 feet of the seam was burning along a wedge. In the central ridge area, the upper 10 feet of the coal bed had burned back to a nearly vertical face. The lower part of the bed was separated from the burning upper portion of the bed by a 1-foot thick mudstone parting. Because the lower part of the coal bed was still very hard, the contractor was not able to expose the lower split in the ridge area trench excavation. Donnes Inc. excavated hot coal using a Cat 330 CL trackhoe. This material was piled with overburden outside the trench. A 980G wheel loader mixed the pile with additional overburden and loaded the mixture of coal and overburden into articulated dump trucks, which hauled the material to the disposal area where it was dumped into piles. A track dozer was periodically used to spread and mix piles that had been dumped by the trucks.

4.1.1.12 **Marsh: 11-Excavate Disposal Trenches** –Coal and hot ash were mixed thoroughly with soil and overburden and combined with other excavated materials in a common disposal/ backfill area located in the plugged drainage channel located downstream from the coal fire area. A separate coal disposal area was stripped and prepared but was never utilized.

4.1.1.13 **Marsh: 12-Cap Disposal Trenches** – Disposal trenches were not employed. The disposal/backfill area was covered with approximately 1 foot of cover soil.

4.1.1.14 **Marsh 13:- Over Excavate And Repair Cracks** – The planned crack repair was abandoned and replaced with complete excavation after a series of test excavations uncovered burning coal beneath the cracks. .

4.1.1.15 **Marsh: 14-Haul And Place Backfill from Stockpile** – Haulage of stockpiled material was not used to backfill and contour the excavations in the coal removal area. This work was primarily accomplished by the more economical means of highwall reduction. However, 616 BCY of stockpiled overburden was rehandled for use in processing the hot coal soil and was then hauled to the disposal/backfill area.

4.1.1.16 **Marsh: 15-Backfill, Grade, and Contour** – The excavations on the west side of the site were primarily backfilled and graded by reducing the highwalls. The excavated area along the central ridge was backfilled with overburden that was left in adjacent areas and with soil that had been excavated from the low ridge on the east side of the site. The footprint of the contoured area covered 4.16 acres, which excludes cover soil stockpile areas, and the entire disposal area that was stripped but not used.

4.1.1.17 **Marsh: 16-Mulch** – All disturbance areas except the staging area and a rock outcrop area were mulched with weed-free straw mulch. Straw mulch was blown over 6.18 acres at the site. The straw was only crimped into areas with slopes that were less than 3H:1V; so, crimping occurred on 4.93 acres. At an average weight of 60 pounds/bale (per the supplier's invoice), 15,300 pounds or 2,475 pound of straw was applied to each acre, although an application

rate of 3,000 pounds per acre was specified. Based on the quantity of materials supplied and the absence of crimping over a portion of the area, payment for 5.1 acres was allowed.

4.1.1.18 **Marsh: 17-Supply and Install Erosion Control Mat** – Because the area has been reclaimed as a shallow impoundment that intercepts runoff from several ravines and does not freely drain, sediment has been controlled. In addition, only .01 of an acre of transitional slopes exceed 2.5H:1V . None of these disturbed transitional slopes are longer than 50 feet. Therefore, erosion control mat was not installed.

4.1.1.19 **Marsh: 18-Sandstone Boulder Disposal** – Donnes Inc. used a single shank ripper mounted on the D9N track dozer to break some of the sandstone. He also raked some areas with the bucket teeth on the Cat 330CL hydraulic excavation. These procedures often caused hard sandstone layers to separate into large blocks along bedding planes and joints. To reduce the large blocks, Donnes Inc. employed a large wrecking ball that he lifted about 20 feet in the air in the excavator bucket and then dropped onto the sandstone blocks. 592 CY of large sandstone blocks were hauled to the downstream end of the backfill/disposal plug and were dumped in a large pile to construct a buttress.

4.1.1.20 **Marsh: 19-Seed and Fertilize** – On May 3, 2010, the contractor finished spreading and grading cover soil. The area was immediately fertilized by a towed broadcast spreader and then seeded. The seed and fertilizer were spread over 6.18 acres. Shallow slopes were seeding by an International Harvester 150 seed drill. Steep slopes, covering 1.25 acres of the total area, were seeded and fertilized using an electric broadcaster mounted on the back of an all terrain vehicle. Seed certifications were submitted to the Engineer, confirming that sufficient seed conforming to the project specification had been purchased and delivered to seed the disturbance areas at the specified rates. Sufficient fertilizer with additional nitrogen was delivered and spread to cover 10 acres at the specified rate.

FERTILIZER MIXTURE

Nutrient	Pounds	Fertilizer Material Used
Nitrogen (N)	225	Ammonium Nitrate (46-0-0)
Phosphorus (P)	560	Mono-Ammonium Phosphorus (11-52-0)
Potassium (K)	140	Potash (0-0-60)
Totals	**925**	Fertilizer Mixture

SEED MIXTURE

Common Name	Scientific Name	Variety	lbs PLS/Acre
Bluebunch Wheatgrass		Secar	6.0
Green Needlegrass		Lodorm	2.0
Western Wheatgrass	Pascopyrum smithii	Rosanna	2.0
Total			**10.0**

Notes: 1. PLS = Pure Live Seed
2. Reported rates are for drill seeding; rates were doubled for broadcast seeding.

4.1.2.3 **Marsh: 20-Fence** – Fencing at the Marsh site was completed on May 16, 2010. The fence conformed to the specifications of a F3M farm fence as required under the special provisions of the contract bid package. However, the substitution of galvanized pipe for wood brace rails was allowed. Because the reclamation plan was changed at the request of the farmer, substantial changes were made in the disturbance areas. Two separate fences were installed to accommodate the changes. One fence was installed around the reclaimed fire area and its associated disposal/backfill area. A second fence was installed around the planned disposal area, which was disturbed but not used. The following payment items were measured for payment.

- F3M Fence - 3,001 feet
- Single Panels - 4
- Double Panels - 7
- Gate - 32 feet

4.1.1.21 **Marsh: 21-BMP Sediment Control** – 200 feet of straw log sediment containment devices were installed across drainage swales and channels.

4.1.2 Shepherd #1 Fire

This outcrop and mine fire involved the 15-foot thick Mammoth coal bed. In this area, the bed dips to the west-northwest at about 2 percent and is usually found below a thick layer of sandstone. The apparent absence of coal bed outcroppings in proximity to the site suggested that the coal outcrop had burned deep into the hillside. Because the terrain rises to the west while the coal bed also dips in that direction, cover depth over the coal increases rapidly in this area. Between the bottom edge of the disturbed area and the top edge, there is a 45 foot elevation difference. Evidence of a coal fire included approximately 2,250 linear feet of cracking within a 1.35-acre area that

extended across a draw. The deepest cracks were up to 11 feet deep. However, most cracks were closed about 4 feet below the surface. Other cracks were thin and shallow. The cracking occurred in massive sandstone in the lower areas of the site and in soil in the upper areas.

Although there was no longer any sign of a mine opening or coal slack in this area, the local rancher reported that a 7 to 8-foot high tunnel had been located in the little draw where much of the cracking and slumping was concentrated. Cracking extended around the rim of the draw and along the hillside. Elevated surface temperatures and venting gasses were present on the two small ridges that jut out from the hillside at the sides of the draw. The warm area on the northwest side of the draw was 40' x 20' and extended over several cracks. The area with moderately elevated ground temperatures on the southeast side was a 20' x 20' square. Combustion gasses from a smoldering fire below this little ridge were escaping from several cracks. Both areas were at least 30 feet above the top of the coal bed and 60-80 feet into the hillside from the burned-out coal outcrop.

4.1.2.1 <u>Shepherd #1 Work Plan</u> - The main elements of the work plan described in the construction bid package are outlined below:

1) After leaving N. Marsh Rd., access to the site would be over 2-track roads that are primarily used for ranch access to fields and stock-watering wells. The contractor would be required to improve the existing routes as necessary to support the construction operations.
2) Water for dust suppression and cooling was to be provided by the contractor.
3) An estimated 860 BCY of burning and smoldering coal would be removed from the active fire areas below the little spur ridges on each side of the draw. After cooling the coal would be hauled to disposal area and buried.
4) The site would be prepared by first clearing vegetation that could interfere with excavation and stockpiling operations. The foot print of the entire construction disturbance area covers an estimated 5.65 acres and contains scattered brush.
5) All cover soil would be salvaged from excavation and spoil areas. Assuming 1 foot of cover soil can be salvaged, 5,720 CY of cover soil would need to be salvaged and hauled to stockpiles.
6) Best management practices would be use to preventing sediment from being carried off the site during storm events. These practices would include the installation of 1,250 lineal feet of silt fence or straw logs along the bank of the main drainage channel.
7) Fire control work would begin by stabilizing and repairing cracks, which would require an estimated 12,600 CY of excavation. Tension and subsidence cracks that are located outside the planned excavation areas would be probed and over-excavated to competent ground, then backfilled. Trenches that are approximately 15 feet deep would be excavated through the cracked areas to induce unstable areas to collapse and eliminate sub-surface cracks and cavities. Excavated

materials would be stockpiled adjacent to these excavations. Excavated features would be backfilled in compacted lifts with trench excavation materials and materials borrowed from the nearby areas. Large rocks and other blocky materials that cannot be broken-up and mixed into the backfill would require separate disposal.

8) After the cracks in the bottom and along the sides of the draw have been stabilized and filled, the draw would be partially backfilled using overburden from the northwest open cut excavation. This open cut is expected to require 5,830 BCY of excavation. The bottom of the cut would be positioned 2 feet above the top of coal elevation and would extend from the nose of the ridge through the cracks on the ridge. All of this material would be backfilled over the repaired cracks in the bottom of the draw. Of this total, 3,810 CY would be used to grade and contour the draw, while the remaining 2,020 CY would be stockpiled for backfilling the open cut.

9) After the upper bench in the northwest excavation area has been cut through the cracked area, trenching would be used to define the extent of the hot area and to remove the remainder of the overburden over the burning area. It was estimated that 720 CY of cover material would be removed by trenching. This material would be spoiled onto the floor of the open cut.

10) An estimated 325 CY of hot coal would be removed from bottom of the trench in the northwest excavation area. This material would be partially cooled with water and mixed with soil before it could be hauled to a disposal trench. Following removal of hot materials, a two-foot thick layer of fine-grained soil would be placed over exposed portions of the coal bed. After the coal bed has been sealed, trench excavation would be backfilled into the lower excavation.

11) Developing the open cut on the southeast side of the draw would require an estimated 3,520 BCY of excavation. The bottom of this cut would also be positioned about 2 feet above the top of coal. This cut would extend into the hot area located at the ends of the cracks that run parallel to the ridge. The overburden removed from this open cut would be stockpiled inside the completed northwest cut and over the backfill in the draw. After the upper bench has been cut into the hot area, an estimated 880 CY of trenching would be used to define the limits of the burning coal and to remove the remaining material covering this area.

12) A significant quantity of sandstone bed rock would need to be excavated in order to expose the burning coal. Hard massive sandstone that is excavated as large blocks (900 CY estimated) would require special handling to move and break this material. Some of this material could be buried in deep backfill areas in the draw. However, all massive sandstone must be broken sufficiently to prevent it from interfering with compaction of backfill.

13) In the southeast area, an estimated 535 CY of hot coal would be removed from the bottom of the trench excavation. This material would be partially cooled and mixed with soil before it could be hauled to a disposal trench. Following removal of hot materials, a two-foot thick layer of fine-grained soil would be placed over exposed portions of the coal bed.

14) After the coal bed has been sealed, the remainder of the excavated areas on both sides of the draw would be backfilled using spoils from the trenching operation, stockpiled overburden from the open cuts, and materials borrowed from the adjacent area. It was anticipated that the northwest area would require 3,350 CY of stockpiled overburden, 70 CY of adjacent borrow, and 130 CY of disposal pit soil. The southeast area would require 2,200 CY of stockpiled overburden, 200 CY of adjacent borrow, and 210 CY of disposal pit soil.

15) Hot material would be cooled with water and mixed with some soil inside the excavation area before being removed. At the surface, it would be spread and mixed with additional water before being hauled to a disposal area located at the south end of the site. The coal would be mixed to a 1:1 coal-soil ratio as it is being buried in disposal trenches in compacted lifts.

16) Disposal trenches would be sized to accommodate the coal/soil mixture plus a 3 foot soil cap. Based on the estimated quantities, a 122' long x 12' wide x 15' deep trench would be required for the northwest area coal disposal. Excavated trench material would be spoiled to one side. The coal from the southeast area would require a 200' long x 12' wide x 15' deep trench. Total disposal trench excavation would be 2,150 CY. Portions of this material would be used for mixing, for capping (500 CY), for fined-grained soil backfill, and for cover soil.

17) Upon completion of hot coal removal and disposal, all construction disturbances, except cover soil stockpile areas, would be backfilled, graded and contoured. This would include contouring the upper slope to provide fill for the northeast open cut (70 CY), the central draw (500 CY), and the southeast open cut (200 CY). About 4.26 acres would require grading. Backfill in the central draw would also be supplemented with 200 CY of material from the disposal trench excavation stockpiles.

18) Graded areas would be dressed with the stockpiled cover soil, which would be supplemented with an estimated 990 CY of suitable soil from the disposal trench stockpiles (240 CY) and from a cover soil borrow area (750 CY).

19) The dressed area and the cover soil stockpile areas, which together were estimated to have a footprint area of 5.65 acres, would be seeded and fertilized.

20) Steep slopes at the far northwest end of the site of the site would be covered with 780 square yards of erosion control blanket.

21) Straw mulch would be crimped into the soil over the remainder of the seeded area (5.50 acres).

22) A fence with 3 strands of barbed wire would be installed around the reclaimed area. The anticipated alignment would require 2710 feet of fencing, 1 gate, 2 single panels, and 16 double panels.

4.1.2.2 **Shepherd #1: 1-Mobilization** - Donnes Inc. mobilized a D8K dozer, D9N, two articulated dump trucks, two 637 scrapers, two front end loaders, a water truck and a Caterpillar 330 hydraulic excavator to this site. Fire control work began on the afternoon of November 20th, 2009.

4.1.2.4 Shepherd #1: 2-Improve Access – The existing 2-track road to the site area was graded. The short construction trail was extended from the stock water tank to the construction area. The rancher retained the road as constructed.

4.1.2.5 Shepherd #1: 3-Supply Water – Donnes Inc. constructed a lined pond adjacent to a well located near the Marsh ranch facilities and filled the pond with water from the well. Construction water from the pond was pumped into a 4,000 gallon water truck and transferred to the site. 16,000 gallons was used to suppress dust and to cool hot coal.

4.1.2.6 Shepherd #1: 4-Clear and Grub – Minor clearing was required over the 2.43 acres where cover soil was salvaged.

4.1.2.7 Shepherd #1: 5-Salvage, Stockpile and Replace Cover Soil - The contractor used scrapers to salvage and stockpile 3760 CY of cover soil on November 20th and 23rd. 1560 CY was stripped from south bank of the drainage channel and placed in a stockpile on the north bank of the drainage channel. 1300 CY was stripped from the disposal area. This soil was stockpiled near the east edge of the site. 900 CY was stripped from the relatively flat areas along the top edge of the excavation areas. This material was placed into a stockpile located in the northwest corner of the site. Stockpiled cover soil was used to dress the graded disposal area on December 4th. After site grading was completed on December 5th, the remainder of the stockpiled cover soil was spread over the graded excavation and backfill areas.

4.1.2.8 Shepherd #1: 6-Borrow and Place Cover Soil - On December 5th, 2009, Donnes Inc. borrowed 900 CY of suitable soil from the area below the cover soil stockpile on the north bank of the drainage channel. This material was used to supplement cover soil dressing on the graded area. A scraper was used to borrow and spread the soil.

4.1.2.9 Shepherd #1: 7-Overburden Excavation by Open Cut – Two open cuts were excavated in the planned areas.

- Donnes Inc. began working on the northwest open cut on November 20th and completed this open cut on November 27th. The hydraulic excavator, scrapers, bulldozers, and front end loaders were used to excavate and haul 6,760 BCY of overburden to backfill and stockpile areas in the central draw. Because an additional venting area was discovered during construction, the cut was extended further to the northwest than had been planned. With this addition, the excavation covered nearly the entire cracked area on the northwest side of the central draw. The cut was also a few feet deeper than planned. Much of

the material that was excavated was massive sandstone that required cross ripping.

- Work on the southeast open cut also began on November 20th with the D8 track dozer starting to gradually cut the down through the cracked area on the ridge. This work continued sporadically until November 30th when excavation in the northwest area was completed and entire excavation efforts were concentrated in this area. Scrapers and front end loaders were used in this area to haul the overburden up to a large stockpile that was piled over the top of the backfill in the central draw and to haul overburden to backfill the excavation in the northwest area. Total open cut excavation in the southeast open cut amounted to 10,495 BCY. Although the top edge of the cut was positioned in accordance with plan, the bottom of the cut was ultimately shifted about 50 feet to the northeast and had to be extend about 10 feet deeper than planned.

4.1.2.10 **<u>Shepherd #1: 8-Overburden Excavation by Trenching</u>** – Three trench excavations were used to probe for, locate, and excavate hot coal.

- A 2,000 BCY trench was excavated along the floor of the Northwest Open Cut. It was excavated to a depth of 13 to 14 feet and reached an average elevation of 3,943 feet without exposing any portion of the coal bed. However, separated bedding and cracks were exposed in the massive sandstone along the lower portion of the highwall. Warm air was venting from a few cracks while air was being pulled into other cracks. Donnes Inc. attempted to expose these areas by pushing the highwall further into the hillside by using the hydraulic excavator to smash the massive sandstone with a wrecking ball and to break the cracked material off the wall. This operation closed the larger cracks and succeeded in cutting off the noticeable venting. After observing this operation, the Engineer instructed Donnes Inc. to seal the cracked area with soil and to precede with backfilling this excavation.

- During the cover soil salvaging operation along the bank of the drainage channel, some coal had been exposed near the bottom the central draw. On November 28th, this area was probed by trenching and a small area of smoldering coal was uncovered. The trench 1 excavation extended southeast to the edge of the ridge on the southeast side of the central draw and eventually joined the trench associated with the southeast area excavation. 170 BCY of overburden was removed during the operation. All except 30 BCY of this material was mixed with the smoldering coal and was hauled to the hot coal disposal area. This trench was backfilled with material excavated from the southeast open cut.

- Excavation of the trench in the southeast area began on December 2nd and was completed on December 3rd. 1,595 BCY of overburden and ash

was excavated, mixed with hot coal in the trench, and loaded into articulated dump trucks by the hydraulic excavator. All of this material was hauled to the hot coal disposal area and buried. This trench was not positioned over the hot area that had been inventoried. It exposed an area of burning coal that was situated about 50 feet closer to the end of the ridge. The top of the coal in this area was extremely irregular but was at least 10 feet deeper than anticipated.

4.1.2.11 **Shepherd #1: 9-Haul and Stockpile Overburden** – Haulage was not bid and was not required at this site.

4.1.2.12 **Shepherd #1: 10-Remove, Process, and Bury Hot Coal** – 1,090 BCY of hot coal was removed from portions of the Mammoth coal bed in areas where the remaining part of the seam was between 4 feet and 15 feet thick. All excavated coal was thoroughly mixed with overburden during excavation and then hauled to the disposal area. In the disposal area the processed coal was spread out and allowed to completely cool before it was buried.

- No hot coal was found in the northwest open cut area. Trenching in this area extended down to an average elevation of 3,943 feet, which should have been deep enough to have exposed coal or ash. However, hard rock and the absence of elevated temperatures were found at the bottom of the excavation. A probing exaction at the northwest end of trench 1 indicated that the coal bed was completely burned in the direction of the northwest open cut.

- 140 BCY of smoldering coal was removed from Trench 1. The coal in this area was 0 t0 6 feet thick in this area.

- 950 BCY of smoldering and burning coal was removed from the southeast open cut area. The coal on the southeast side of the excavation pinched down to only a few inches of thickness. The coal on the northeast side of the removal area was completely burned out. However, a 4-8 foot thick sliver of coal was still in place along the west side of the removal area. The entire 14½ -foot seam was exposed in the southwest corner of the pit.

4.1.2.13 **Shepherd #1: 11-Excavate Disposal Trenches** – One 480’ long x 15’ wide x 6’ deep disposal trench was excavated by a scraper. The east end of the trench was situated in the planned disposal area while the west end extended nearly to the edge of the southeast open cut area. The 1,600 BCY of excavated material was place into a stockpile located on the north side of the trench. The disposal trench was constructed on November 25, 2009.

4.1.2.14 **Shepherd #1: 12-Cap Disposal Trenches** – The disposal trench was capped on December 4th. The entire 1,600 BCY of material in the excavation stockpile was required to cover the processed coal, which was heaped several feet above the top of the trench. Sufficient material was available to construct a cap that was approximately 3 feet thick.

4.1.2.15 **Shepherd #1: 13-Over Excavate And Repair Cracks** – Donnes Inc. performed 9,700 CY of crack repair work at this site. The cracks in the central draw backfill area and at the northwest end of the site were excavated and backfilled by the hydraulic excavator beginning on November 20th. The cracked area located uphill from the southeast open cut was cross ripped by a D9N track dozer then partially excavated and backfilled as the site was contoured. The quantity of work was reduced by the occurrence of massive sandstone and by the expansion of the open cuts into the designated crack repair areas.

4.1.2.16 **Shepherd #1: 14-Haul And Place Backfill from Stockpile** – Grading and contouring the site required hauling 1,750 CY by a scraper. This backfill material had been stockpiled on top of the backfill placed in the central draw.

4.1.2.17 **Shepherd #1: 15-Backfill, Grade, and Contour** – The Contractor backfilled, graded, and contoured 4.39 acres to produce free draining surfaces that blend into the surrounding terrain. Final grading and contouring were completed on December 4th and 5th of 2009, using the D8 and D9 track dozers and the 637 scrapers.

4.1.1.22 **Shepherd #1: 16-Mulch** – Following seeding, all disturbance areas were mulched with weed-free straw mulch. Straw mulch was blown over 5.68 acres. The straw was crimped into the soil in all areas. The contractor delivered 270 bales of straw to the site. At an average weight of 60 pounds/bale (per the supplier's invoice), 16,200 pounds or 2,852 pound of straw had been applied to each acre. An application rate of 3,000 pounds per acre was specified. This application rate (95% of ideal) was deemed satisfactory for payment.

4.1.2.18 **Shepherd #1: 17-Supply and Install Erosion Control Mat** – Although erosion control mat was bid, it was not used because grading produced acceptable slopes in all disturbed areas.

4.1.2.19 **Shepherd #1: 18-Sandstone Boulder Disposal** – Donnes Inc. used large track dozers with single shank rippers to break down most of the material to pieces that could be handled by the 637 scrapers and to a lesser extent by front end loaders. Any large chunks that might have been pushed into the central draw backfill area by dozer stripping would be buried in deep backfill. During excavation of the trench in the northwest open cut area, Donnes Inc. used a wrecking ball to breakup some of the large, blocky sandstone.

4.1.1.23 **Shepherd #1: 19- Seed and Fertilize** – The site disturbance was disked and then fertilized on April 14, 2010. A broadcast spreader towed by a pickup truck spread the fertilizer. Although only 5.68 acres were measured for seeding, sufficient fertilizer with additional nitrogen was delivered and spread to cover 10 acres at the specified rate.

FERTILIZER MIXTURE

Nutrient	Pounds	Fertilizer Material Used
Nitrogen (N)	225	Ammonium Nitrate (46-0-0)
Phosphorus (P)	560	Mono-Ammonium Phosphorus (11-52-0)
Potassium (K)	140	Potash (0-0-60)
Totals	**925**	Fertilizer Mixture

On April 26, 2010, an International Harvester 150 seed drill was used to seed 5.68 acres. Seed certifications were submitted to the Engineer, confirming that sufficient seed conforming to the project specification had been purchased and delivered to seed the disturbance areas at the specified rates.

SEED MIXTURE

Common Name	Scientific Name	Variety	lbs PLS/Acre
Bluebunch Wheatgrass		Secar	6.0
Green Needlegrass		Lodorm	2.0
Western Wheatgrass	Pascopyrum smithii	Rosanna	2.0
Total			**10.0**

Notes: 1. PLS = Pure Live Seed
2. Reported rates are for drill seeding; rates were doubled for broadcast seeding.

4.1.2.20 **Shepherd #1: 20-Fence** – Fencing at the Shepherd #1 site was completed on May 11, 2010. The fence conformed to the specifications of a F3M farm fences as required under the special provisions of the contract bid package. However, the substitution of galvanized pipe for wood brace rails was allowed. The following payment items were measured for payment.

- F3M Fence - 2,962 feet
- Single Panels - 2
- Double Panels - 10
- Gate - 16 feet

4.1.2.21 <u>Shepherd #1: 21-BMP Sediment Control</u> – 175 feet of straw log sediment containment dikes were installed in the drainage channel to prevent sediment from being carried downstream from the site. Three rows of containment dike were installed across the channel perpendicular to the flow direction.

4.1.3 Charter Fire

This outcrop fire was situated near the top of a ridge where a 2-6 foot thick coal bed had burned several feet in the steep hillside. Although surface temperatures at the site were not elevated, the seam was still believed to be smoldering underground. Only 65 feet of cracking was associated with this fire. The cracks were only 2-3 feet deep and about 1-1½ foot wide at the top. The maximum height between the top of the crack and bottom of this coal bed was around 10 feet. No exposed rock was observed in the cracks.

4.1.3.1 <u>Charter Work Plan</u> - The main elements of the work plan described in the construction bid package are outlined below:

1) All of the planned earthwork could be accomplished with a hydraulic excavator that could walk into the site with minimal surface disturbance. However, providing access for track dozer or possible water truck access would require cutting a ramp up a short steep grade.
2) Water for dust suppression and cooling would not be required.
3) The site would be prepared by first clearing vegetation, which could interfere with other operations, from excavation and stockpile areas. The foot print of the entire construction disturbance area covers an estimated 0.45 of an acre and contains a minimal amount of brush.
4) All cover soil would be salvaged from excavation and spoil areas. Cover soil (340 CY) would be stockpiled in a windrow along the south edge of the site.
5) An open cut would be excavated to expose the coal bed along the entire cracked area. An estimated 900 CY of overburden would be removed and placed in a spoil pile located adjacent to the bottom of the cut.
6) Hot and smoldering coal (40 CY) would be removed from the exposed bed, mixed with spoil, and placed in a temporary pile.
7) A disposal trench that has been sized to contain a 1:1 coal-soil mix with a 3-foot soil cap would be excavated near the end of the open cut in an area that is below the elevation of the coal bed. The material excavated (125 CY) from the trench would be piled along one edge of the trench. The partially processed hot coal would be mixed with soil and buried inside the disposal trench. Then the trench would be capped with 3 feet of soil (35 CY).
8) The remaining portion of the exposed coal bed would be covered and sealed with fine grained soil from the disposal pit stockpile (40 CY).

9) After the coal bed has been sealed the entire overburden stockpile would be used to backfill the open cut. The backfilled open cut and stockpile areas would be contoured to blend into the adjacent contours (0.31 ac.).

10) All remaining soil in the disposal pit stockpile (50 CY) would be used to supplement the salvaged cover soil. The available cover soil in stockpile would be spread evenly over the disturbed area.

11) The disturbed area (0.45 ac.) would be broadcast seeded with the specified seed mix and raked or lightly tracked to bury the seeds.

4.1.3.2 **Charter: 1-Mobilization -** Donnes Inc. mobilized a D8K dozer and a Caterpillar 330 hydraulic excavator to this site. Fire control work began on the morning of November 19, 2009. All site work including seeding was completed on the afternoon of November 20, 2009,

4.1.3.3 **Charter: 2-Improve Access** – The existing 2-track road to the site area was graded. This road was extended across the drainage channel, up the bottom of the draw leading to the site, and up the steep grade below the site. The landowner retained the road as constructed.

4.1.3.4 **Charter: 3-Supply Water** – Water supply was not bid for this site. Water was not required or used.

4.1.3.5 **Charter: 4-Clear and Grub** - Only 0.11 of an acre of clearing was required. Clearing was confined to the cover soil salvage area on bench area and flat area at the base of the hillside where the bottom of the open cut and the overburden stockpile would be situated.

4.1.3.6 **Charter: 5-Salvage, Stockpile and Replace Cover Soil** - The contractor salvaged and stockpiled 165 CY of cover soil from the cleared area below the bench at the base of the hillside where the bottom of the open cut and the overburden stockpile would be situated. After site grading was completed, all of the stockpiled cover soil was spread over the stripped area and partially up the rebuilt slope.

4.1.3.7 **Charter: 6- Borrow and Place Cover Soil** - Following excavation of hot coal, the exposed coal bed was covered and sealed with 40 CY of fine grained soil that was borrowed from the flat area at the base of the hillside.

4.1.3.8 **Charter: 7-Overburden Excavation by Open Cut** – The hydraulic excavator was used to excavate 1,545 BCY of overburden, which was required to completely expose all burning portions of the coal bed and to remove cracks associate with a short collapsed mine adit that was uncovered. The excavation was started by cutting a slot into a venting area and was subsequently expanded to both sides and further into the hillside as required to follow the collapsed mine entry. As the operation progressed, the

excavator gained digging height by constructing a working bench out of spoiled material and stockpiling the remainder of the excavated material directly in front of the cut.

4.1.3.9 **Charter: 8-Overburden Excavation by Trenching** – Trenching at this site was not bid and was not required.

4.1.3.10 **Charter: 9-Haul and Stockpile Overburden** – Haulage was not bid and was not required at this site.

4.1.3.11 **Charter: 10-Remove, Process, and Bury Hot Coal** – 160 BCY of hot coal was removed from a 3-4 foot thick coal bed. A 25-foot long mine adit had been driven into the seam. Although the adit had collapsed, the coal on both sides of the adit and at the end was smoldering. The coal bed on the west side of the adit was smoldering for 39 feet while about 20 feet of the bed was smoldering on the east site. During excavation another thin coal bed was exposed in the highwall. This bed was heavily oxidized but was not burning. Although the coal from the upper bed had to be mixed, it was not measured for payment. All excavated coal was thoroughly mixed with overburden during excavation and then incorporated into the spoil pile.

4.1.3.12 **Charter: 11-Excavate Disposal Trenches** – Because hot coal temperature were moderated and mixing with spoil provided approximately a 9:1 coal ratio, the engineer approved elimination of trench disposal.

4.1.3.13 **Charter: 12-Cap Disposal Trenches** – Elimination of the disposal trench eliminated the need for capping.

4.1.3.14 **Charter: 13-Over Excavate And Repair Cracks** – Crack repair at this site was not bid and was not required because all cracks were excavated by the open cut.

4.1.3.15 **Charter: 14-Haul And Place Backfill from Stockpile** – No haulage or special handling of stockpiled material was required.

4.1.3.16 **Charter: 15-Backfill, Grade, and Contour** – After the smoldering area on the west side of the caved adit had been excavated back to solid cool coal, this area was sealed with borrowed soil and then backfilled with material excavated directly from the east side of the adit. The remainder of the excavated area was backfilled from the soil stockpile and with material borrowed from the top edge of the excavation. The hydraulic excavator was used for the initial backfilling. Then the D8 track dozer was employed to push additional spoil material uphill and to contour the bottom portion of the backfill area. The hydraulic excavator completed grading the upper portion of the backfill area and blended this area into the existing terrain. The footprint of the contoured area covered 0.23 acres.

4.1.3.17 **Charter: 16-Mulch** – Due to the remote location of this site and limited access, mulch was not bid and not used.

4.1.3.18 **Charter: 17-Supply and Install Erosion Control Mat** – Erosion control mat was not bid and not used.

4.1.3.19 **Charter: 18-Sandstone Boulder Disposal** – Disposal of large sandstone blocks was not bid at this site. However, a few boulders were excavated. The boulders were piled on the edge of the site as a habitat enhancement.

4.1.3.20 **Charter: 19- Seed and Fertilize** – On November 20, 2009, the contractor broadcast seed and fertilizer over 0.33 acres. The seeded area had been left in a roughen condition and was raked to incorporated the seed and fertilizer. Seed certifications were submitted to the Engineer.

FERTILIZER MIXTURE

Nutrient	Rate (pounds/acre)	Fertilizer Material Specified
Nitrogen (N)	22.5	Ammonium Nitrate (34-0-0)
Phosphorus (P)	56	Mono-Ammonium Phosphorus (11-52-0)
Potassium (K)	14	Potash (0-0-60)
Totals	**92.5**	Fertilizer Mixture

SEED MIXTURE

Common Name	Scientific Name	Variety	lbs PLS/Acre
Bluebunch Wheatgrass			6.0
Green Needlegrass			2.0
Western Wheatgrass	Pascopyrum smithii	Rosanna	2.0
Total			**10.0**

Notes: 1. PLS = Pure Live Seed
2. Reported rates are for drill seeding; rates shall be doubled for hydraulic and broadcast seeding.

4.1.3.21 **Charter: 20-Fence** – Due to site access, fencing was not bid and was not used.

4.1.3.22 **Charter: 21-BMP Sediment Control** – Due to the limited stormwater runon potential at this site, sediment control was not bid and was not installed.

4.2 Major Equipment List

Type	Make/Model	Size/Horsepower	No. on Job
Wheel Loader	Caterpillar 988B	7 cy/375 HP	1
Wheel Loader	Caterpillar 980G	4.8 cy/350 HP	1
Hydraulic Excavator	Caterpillar 330 CL	2.3 cy/275 HP	1
Scraper	Caterpillar 637D	34 cy/785 HP	2
Bulldozer	Caterpillar D8K	350HP	1
Bulldozer	Caterpillar D9N	400HP	1
Articulated Dump Truck	Moxy	30 Ton/200 HP	1
Articulated Dump Truck	Terex	30 Ton/250 HP	1
Motor Grader	Caterpillar 140G	150 HP	1
Water Tanker	Kenworth	4000 Gal	1
Light Plant	Maxi Lite	15 HP	1
Fuel/Lube Truck	International-Harvester	200 HP	1
Service Truck	Peterbuilt	200 HP	1
Farm Tractor	John Deere 4430		1
Seed Drill	Int. Harvester IH-150		1
Disc			1
Crimper	Homemade		1
Straw Blower	Finn		1

4.3 Contractor Employees

All employees received wages in excess of the Davis-Bacon wage rates as verified by certified payrolls. During the project, Frank Donnes served as the construction superintendent while operating equipment. Gary Davis, who is a salaried engineer, worked with the crew during seeding and mulching. Over the course of the project, four wage-personnel employed by Donnes Inc. worked for various amounts of time on the project. Not counting drill seeding and fencing, which were sub-contracted to Haven Marsh, Donnes Inc. had crews working on the project on 28 days. Wage-personnel worked 69 man-shifts for a total of 612 hours. Frank Donnes and Gary Davis contributed an additional 275 working hours on site.

4.4 Construction Activities

Work on the Shepherd Area Fires Project preceded according to the general plan and work specifications. Notable changes in the plan quantities and in the planned work are discussed in Section ***3.6 Change Orders*** and in Section ***4.1 Description of the Project Plan***. A chronology of the construction activities is presented below:

Work in 2009

Pre Notice to Proceed - Contractor starts mobilizing equipment to the project area and begins grading roads for the local rancher.

Nov. 19- Notice to Proceed is issued.

Nov. 19 & 20 - Work on the Charter Fire started and completed using a Cat D8K dozer and a Cat 330 hydraulic excavator. The site was seeded by hand on the 20th.

Nov. 20 - Haven Marsh (rancher), project engineer, and Frank Donnes toured the Marsh and Shepherd #1 sites to discuss work requirements. A Work Directive is issued to cover changes to the Marsh Fire grading.

Nov. 24 - Donnes Inc. excavated and lined a pond near a well on the Marsh Ranch. It was constructed to function as a holding pond for loading construction water.

Nov. 27 - Access work to the Marsh Fire was completed. One Cat 637 worked all day at Marsh, stripping and stockpiling 55 loads of cover soil.

SHEPHERD #1 FIRE LOAD COUNT SUMMARY											
	Topsoil Strip	Topsoil Replace	Borrow Soil	Disposal Trench	Cap Disposal	Grading	Open Cut	Open Cut	Trench	Open Cut	Coal
Nov.	scraper	scraper	scraper	scraper	scraper	scraper	scraper	truck	truck	loader	truck
20	80										
23	70						23			15	
24							40			180	
25				64			40	10		40	
27									74	40	
28									10		7
30							137			70	
Dec.											
2									46		37
3									43		33
4		52			64						
5		98	36			70					
Loads	150	150	36	64	64	70	240	10	173	345	77
Capacity BCY	25	25	25	25	25	25	25	16	16	6	16
Total BCY	3750	3750	900	1600	1600	1750	6000	160	2910	2070	1090
							11140				

Nov. 20 thru Dec. 5 - Start work on the Shepherd #1 Fire on the afternoon of November 20th with a D8 track dozer, a Cat 330 hydraulic excavator, a water truck and a 637 scraper. An additional scraper, a D9 track dozer, two front end loaders, a light plant, and two articulated dump trucks were gradually mobilized to the site. Work on excavation of the northwest open cut area was completed on November 28th. The coal was either too deep to locate or completely burned out in this area. Hot coal was excavated from the trench 1 area (new) on Nov. 28th. Coal removal in the southeast open cut area was completed on December 3rd. The disposal area was capped and reclaimed on December 4th. Backfilling, grading, and topsoil dressing were completed at the site on December 5th.

Dec. 6 thru Dec. 29 - No work. 22 weather days granted.

Dec. 29, 2009 - Temporary Winter Shutdown Order issued by Devin Clary, the AML officer.

Dec. 30 thru Feb.1 - Project shutdown

Work in 2010

April 5, 2010 - Notice to Proceed issued terminating the Temporary Winter Shutdown.

April 5 and 6 - Wet weather delayed the resumption of work. Two weather days were granted.

April 7 - Donnes Inc. completed grading the areas at the Shepherd #1 site, which had been dressed with cover soil on December 5, 2010. All of the site access roads were graded.

April 8 - During the morning, Frank Donnes and three employees moved equipment from the Shepherd #1 site to the Marsh site. After 200 feet of straw logs were installed in drainage areas, the trackhoe and D9N track dozer cleared dead trees, pulled down all of the cracks on the west side of the site, and began working on the west side open cut. Near the end of the shift, the track hoe dug three test excavations to locate the top of coal. Hot coal was discovered under the area that had been designated for crack repair work.

April 9 - Frank Donnes and two employees started working at about 8:00 AM. They used the D9N track dozer to prepare a new disposal area in the drainage bottom for cover soil removal. Then they ran two 637D scrapers to strip and stockpile 62 loads of cover soil from the disposal area. During the afternoon, the scrapers were used to haul 95 loads of overburden from the open cut areas into the prepared disposal/backfill area. The D9N dozer and the trackhoe were used intermittently to rip material and to push material into areas where it could be picked up by the scrapers.

April 12 – After taking the weekend off, Frank Donnes was back at the Marsh site with three employees on Monday morning. They started excavating overburden from the open cut areas and hauling it to the disposal/backfill area in the drainage bottom at 8:30 AM. The 330CL hydraulic excavator was used to load two 30-ton articulated trucks, while a 980G wheel loader load-haul-dumped overburden. In the morning the work was concentrated in the southwest corner of the open cut area until an old burn edge was located. Before noon, the open cut excavation was completed in the central ridge area. After lunch, open cut work was completed and surveyed. 97 truckloads of open cut overburden were excavated and haul to the disposal/backfill area. Trench excavation in the afternoon removed an additional 44 truckloads of material. Approximately 50 CY of smoldering coal was excavated in the afternoon. The coal was mixed with trench overburden and hauled to the disposal/backfill area in the drainage bottom.

Haven Marsh started fencing work at the Shepherd #1 site.

April 13 – Poor weather made site access dangerous. A weather day was not requested.

April 14 – At Shepherd #1, Haven Marsh prepared the surface for seeding by disking the soil. In the afternoon, Gary Davis brought in a towed spreader with enough fertilized to do 10 acres and fertilized the area.

At Marsh, Frank Donnes and four employees completed about 90 feet of trench excavation and coal removal. They got most of the way though the mapped area on the west side. However, they had to follow hot coal about 40 feet further to the south than had been planned. Donnes Inc. had removed most of the hot coal in this area, before it got too deep and the highwall on the south end started to unravel. As this area was being abandoned, the south highwall caved filling part of the trench. With an increasing percentage of hot coal being excavated, the trackhoe concentrated on excavating and mixing hot coal in the trench. After the mixture of hot material was removed from the trench it was dumped in a common pile with excavated overburden. A wheel loader then loaded two articulated dump trucks with the mixture of materials excavated from this pile and soil borrowed from adjacent areas. 124 truckloads of mixed coal and overburden removed by trenching were excavated today. All removed material was hauled to the disposal/backfill area where it was dumped in a series of lifts. At the end of the day, the trackhoe excavated 260 CY of cover soil along the east edge of the disposal/backfill area. The soil was stockpiled in an adjacent pile. They were able to get one load of water to the site in the afternoon. The water was sprayed on the exposed coal in the trench for cooling and to locate hot spots.

April 15 – Four Donnes Inc. employees worked all day at the site. Frank Donnes arrived shortly after lunch. The crew worked on extending the west side trench to the north until they hit cold coal along an old burn front. At the south end of the trench, the entire 15.8 foot coal bed was exposed along a nearly vertical wall. Toward the north, the burned portion gradually decreased until only the top 9-10 feet of the coal bed had to be removed. The coal remaining inside the trench was still very hot is places, and

flames were breaking out. Two loads of water were sprayed on the exposed coal in an attempt to cool it. At 4:00 PM, the excavator, wheel loader and trucks started trenching in the central ridge area. The D9N track dozer spent about an hour ripping sandstone. The trucks hauled 136 loads of mixed coal and overburden to the disposal/backfill area in the drainage today.

April 16 – Frank Donnes was on site with three employees. They worked on the central ridge trench excavation until 4:30 PM. Then they moved back to the west side trench and expanded the cut along the inside edge to locate the bottom edge of the burn wedge along the bottom of the coal seam. Another load of water was sprayed on the exposed coal in the west trench to coal the coal. Another 132 loads of coal and overburden were removed by trenching. Due to the amount of hot coal that was still exposed, Donnes Inc. scheduled work for Saturday.

April 17 – Frank Donnes and four employees worked until 4:00 PM. They expanded the west side trench to east and cleaned up the bottom of the excavation. Another load of water was sprayed into the trench. Steam continued to be produced, so, they dug out the steaming areas. The problem in most of the trench was that they had dug down to a little parting and thought they were at the bottom. The coal was burning below the parting in these areas. At the end of the day, there was still an area in the southwest corner under unstable highwall where the coal was still hot enough to flash and burn as soon as it was excavated. Donnes Inc. tried to dig it out but the work could not be done safely without significant reduction of the highwall. 122 truckloads of mixed coal and overburden were hauled to the disposal/backfill area in the drainage by the end of the day.

April 18 – No work was scheduled on Sunday.

April 19 – Frank Donnes and four employees arrived on site at about 8:00 AM. Frank Donnes and one employee worked until 6:20 PM. The other personnel left the site between 4:15 PM and 5:30 PM. The excavator, loader, and two trucks worked until 3:00 PM on the central ridge excavation area, removing hot coal. To get to the burning coal, the excavator used a wrecking ball to break the tough sandstone ledge above the coal bed. While the excavator worked on the sandstone ledge, the loader and truck moved piles of coal and overburden that had left along the edge of the western trench. By noontime, the trucks had hauled 50 loads to the disposal/backfill area. The truck operated another hour in the afternoon, before they ran out of material to haul. Then they started hauling in water to cool the ridge area and check for hot spots. By 3:30 PM, excavation work in the ridge area was completed, and the trench excavation on the western side of the site had been surveyed. The D9N dozer and the trackhoe spent the remainder of the day reducing the southern highwall.

April 20 through 25 - Although weather conditions were fair, Donnes did not schedule work through this period.

April 26 - Haven Marsh drill seeded the Shepherd #1 site. Frank Donnes and five employees spread and crimped straw much. The Finn straw blower required repairs, but got the job done.

April 27 - Frank Donnes and two employees arrived on site at about 9:00 AM. With the south highwall reduced, Donnes Inc. was able to trench down and excavate the chimney and hot coal in the southwest corner in 1.75 hours. While the excavator was working on the coal, the wheel loader and track dozer started covering the exposed coal seam with soil. The 16G motor grader was used to replace cover soil on the unused disposal area at the south end of the site. At 1:30 PM, the trackhoe and the dozer began reducing the high wall along the western trench, while the 980 loader continued to seal the coal seam. By the end of the day, 177 bucket loads of soil had been placed over the exposed coal in addition to the soil (350 CY) pushed over the exposed seam by the track dozer. The entire western trench was backfilled with material produced by highwall reduction.

April 28 - Frank Donnes and three employees arrived on site at 9:20 AM to reclaim the site. The disposal/backfill area in the drainage was graded and covered with stockpiled cover soil. The D9N track dozer worked most of the day reducing and grading the highwall along the western side of the site. The trucks hauled 37 loads of large sandstone block to the lower end of the disposal/backfill area, where the rock was piled to form a buttress. Most of the coal seam that was exposed along the central ridge was covered by rebuilding the bottom of the slope with backfill material. One scraper was used to borrow soil material from the low ridge on the east side of the site and spread it over graded areas in the coal excavation area.

April 29 - Frank Donnes and one of his employees began working at the Marsh site at about 8:00 AM. The dozer operator finished the grading work along the west site of the site. Frank Donnes used the loader and the motor grader to spread soil borrowed from the ridge on the east side. Snow and rain hit the site at about 10:00 in the morning. It quickly became impossible to work with the cover soil. Work was abandoned at 11:00. The drive out was a somewhat controlled slide all the way to the gravel on Marsh Road.

April 30 and May 1 - More bad weather and muddy conditions delay work.

May 2 - Haven Marsh worked on fencing the Shepherd #1 site.

May 3 - Donnes Inc. finished grading and spreading cover soil on the Marsh site in the morning. The site was fertilized, seeded and mulched. Haven March did the seed drilling and crimping. About 1.25 acres were considered too steep for operation of the seed drill, fertilizer spreader, or crimper. An ATV with a broadcast spreader mounted on the back seeded and fertilized these areas. Straw was spread on the steep area but was not crimped.

	330CL Trackhoe		980G Loader		D9N Dozer		16G Grader		637D Scraper		30 Ton Art Truck		Water Truck	
			4.5 BCY						20 CY		16 BCY		4000 Gal	
Date	hrs: min	Bid Item	hrs: min	Bid Item	hrs: min	Bid Item	hrs: min	Bid Item	hrs: min	Bid Item	hrs: min	Bid Item	hrs: min	Bid Item
Nov 27									**8:00**	SOIL				
									55	**Loads**				
8	**1:00**	SS			**2:25**	Clearing								
	3:55	Open Cut			**2:15**	Open Cut								
9	**0:35**	Open Cut			**0:45**	Clearing			**2:35**	SOIL				
					1:50	Open Cut			**62**	**Loads**				
									5:15	Open Cut				
									95	**Loads**				
12	**6:05**	Open Cut	**4:20**	Open Cut	**1:15**		**0:55**	Open Cut			**12:00**	Open Cut		
	3:45	Trench	**2:30**	Trench							**5:00**	Trench		
			Loads								**Loads**			
			120	Open Cut							97	Open Cut		
			40	Trench							44	Trench		
14	**6:10**	Trench	**6:30**	Trench	**2:05**	Trench					**12:45**	Trench	**2:25**	Water
	0:30	Soil									**124**	**Loads**	**1**	**Load**
	260 BCY	Soil												
15	**7:50**	Trench	**7:50**	Trench	**1:00**	Trench	**0:55**	Access			**15:40**	Trench	**2:40**	Water
											136	**Loads**	**2**	**Loads**
16	**9:15**	Trench	**7:30**	Trench	**1:00**	Trench					**14:15**	Trench	**1:30**	Water
											132	**Loads**	**1**	**Load**
17	**6:30**	Trench	**6:30**	Trench							**13:00**	Trench	**1:45**	Water
											122	**Loads**	**2**	**Loads**
19	**6:30**	Trench	**4:30**	Trench	**1:30**	Trench					**8:45**	Trench	**2:45**	Water
	2:30	Grading			**3:30**	Grading					**92**	**Loads**	**2**	**Loads**
27	**1:45**	Trench	**5:15**	Seal-coal	**1:15**	Grading	**2:00**	Topsoil						
	460	BCY	**177**	**Loads**	**5:40**	HWR	1100	BCY						
	0:10	Grading												
	5:00	HWR												
28	**7:30**	Rock Disp.	**2:50**	Various	**5:45**	HWR	**0:40**	Grading	**3:40**	SOIL	**5:55**	Rock Disp.		
									47	**Loads**	**37**	**Loads**		
									2:10	Borrow				
									70	**Loads**				
29			**1:30**	Soil	**3:45**	HWR	**2:15**	Soil						
			380	BCY			200	BCY						
3-May	**0:50**	Grading	**2:10**	Mulch	**1:10**	Grading	**1:55**	Soil	**0:30**	Soil				
							0:15	Mulch	**1:30**	Borrow				
									Loads					
									8	Soil				
									60	Borrow				
	330CL Trackhoe		980G Loader		D9N Dozer		16G Grader		637D Scraper		30 Ton Art Truck		Water Truck	
HRS	**70.2**		**56.1**		**42.1**		**8.9**		**23.7**		**85.1**		**11.1**	

Note: Trench loads include overburden, coal, and stockpile rehandle

May 5 - Donnes Inc. demobilized equipment. An as-built survey of the Marsh site was completed. Haven Marsh installed most of the panel for the Shepherd #1 fence installed.

May 11 - Fencing at the Shepherd #1 site was completed.

May 16 - Fencing at the Marsh site was completed.
May 17 - Fencing at the Marsh and Shepherd #1 sites were surveyed and measured for payment. Devin Clary was informed that the project has been completed and is ready for inspection.

May 20 - Donnes Inc. submitted the Contractor's Certificate of Completion.

May 11 through June 14, 2010 – Marsh quantities were calculated from GPS survey information and load counts then submitted to Owner and Contractor for review. Several short meetings were required to resolve disputes.

June 16 – Substantial inspection was performed by Devin Clary (DEQ), David Murja (Spectrum Engineering), Gary Davis (Donnes Inc.), and Haven Marsh (lease). The Certificate of Substantial Completion was issued with no outstanding work required.

4.5 Quantities Used

Description	Measured Quantity	Unit Price
Improve Access	LS	$1000 per site
Water Delivery Setup	LS	$5000 per site
Water Usage	48	$10.00 per KGAL
Clear and Grub	4.94	$100 - $250 per Ac.
Salvage, Stockpile, and Replace Cover Soil	6525	$1.00 - $2.00 per CY
Borrow and Place Cover Soil	5155	$1.00 per CY
Overburden Excavation By Open Cut	26330	$1.00 - $6.50 per CY
Overburden Excavation By Trenching	11529	$10.00 per CY
Haul and Stockpile Overburden	27898	$1.00 per CY
Remove, Process, And Bury Hot Coal	3232	$10.00 - $40.00 per CY
Excavate Disposal Trenches	1600	$1.00 - $1.50 per CY
Cap Disposal Trenches	1600	$1.00 - $2.00 per CY
Over-Excavate And Repair Cracks	9700	$1.00 - $3.00 per CY
Haul And Place Backfill From Stockpile	2366	$1.00 per CY
Backfill, Grade, And Contour	8.78	$500 - $3000 per Ac.
Mulch	10.78	$500 per Ac.
Supply and Install Erosion Control Mat	0	$2.00 per Sq-Yd
Sandstone Boulder Disposal	LS	$500 per site
Seed and Fertilize	12.19	$500 - $2500 per Ac.
F3M Fence	5963	$2.00 per Foot
Single Panels	6	$150 per panel
Double Panels	17	$200 per panel
Gate	48	$10 per Foot
BMP Sediment Control	375	$2.00 per Foot

5.0 PAYMENT REQUESTS

5.1 Pay Request

Three payment requests were processed during the project. Four change orders were used to increase the contract amount by $137,726.00 to a total amount of $441,798.00. Copies of the change order and the pay request are provided in Appendix B and. Appendix C respectively.

5.2 Cost per Site

PROJECT SITE	AREA SEEDED	CONST. COST	COST PER ACRE
Charter Fire	0.33 Ac.	$10,943	$33,159
Shepherd #1 Fire	0.26 Ac.	$232,695	$40,967
Marsh Fire	6.18 Ac	$198,161	$32,065

5.3 Total Project Cost

The total construction and engineering cost for the Shepherd Area Fires Project amounted to $550,071.05. Donnes Inc. received $441,798.00 for construction.

Total engineering costs were $108,273.05 or 19.68% of the total construction cost. An analysis of the engineering costs versus total construction costs is presented in Appendix D. Design and bid document preparation amounted to $35,550.25 of this total. The construction administration, inspection, and final report preparation cost was $72,722.80, which was 13.22% of the total construction cost.

6.0 PROJECT SUMMARY

6.1 Summary of Project

The Shepherd Area Fires Project was undertaken under the direction of the Abandoned Mine Lands Program to perform coal fire control and surface repair work at three sites located in an 8-square mile area along the boundary between Musselshell and Yellowstone Counties. Spectrum Engineering's participation in the Shepherd Area Fires Project commenced with a June 24th and 25th, 2008 tour of coal fire sites with Ben Quinones from the AML program. Members of DNRC accompanied us to the sites in the Shepherd Area. Spectrum supplied a short report covering our observations at each of the sites and later submitted a draft task order for work on all of the sites. The coal fire sites were transferred to another AML project office, Heather Luinstra, in 2009, and Spectrum was again contacted in January of 2009 to transfer files. On May 5, 2009, a revised draft task order and cost estimate covering ten fires in Eastern Montana was submitted. Subsequent discussions concerning the scope of the project resulted in breaking off the four coal fire sites in the Bull Mountains north of Billings and assigning only this work to Spectrum. Task Order 407040-T04 was approved and became effective on June 19, 2009 with an approved engineering budget of $127,029.48.

Spectrum Engineering completed its fieldwork and survey tasks on July 9, 2009. A Draft Preliminary Design Report was submitted on July 16, 2009. It provided site characterizations, outlined design concepts, and recommended dropping one of the four sites. Preparation of the draft bid document began the following day. The first draft of the bid form and the special provisions was submitted for AML review on July 24, 2009. AML revisions to the Preliminary Design Report were incorporated into this document and the Final Design Report was submitted on August 3, 2009. Draft construction drawings were provided to AML on August 10, 2009. Three bound copies of the completed draft bid document were mailed to MWCB on August 17. 2009. Review comments from AML were received on September 10th and a PDF version of the entire document was resubmitted for review by the Remediation Division staff attorney. On September 14th, Devin Clary assumed the AML project officer responsibilities. After final edits to the bid document were received from AML on September, 17, 2009, Spectrum was instructed to prepare 25 copies of the bid document. After a few subsequent minor revisions the bid documents were delivered on October 2, 2009.

On October 20, 2009, a Pre-Bid Conference was held at the site. Approximately 25 prospective bidders attended it. Due to a number of questions about handing massive sandstone, an addendum was issued on October 26, 2009. The addendum changed the requirements for handing massive sandstone boulders and changes the associated bid item to a lump sum item. Eleven qualified bidders submitted sealed bids for the November 3, 2009, bid opening. Donnes Inc. was awarded the Shepherd Area Fires Project with a low bid of $304,072.00. The Contract Agreement was signed on November 19, 2009. The Notice to Proceed was issued with a starting date of November 19, 2009. The term of the contract was 60 consecutive calendar days.

Donnes, Inc. mobilized equipment to the Charter Fire on November 19, 2009 and completed work on November 20, 2009. The prescribed complete excavation method was used to extinguish this coal fire. During excavation, a collapsed mine adit that was about 25 feet in length was uncovered. The adit was involved in the fire. Change Order No. 2 was written to cover the additional work required at this site.

Work on the Shepherd #1 Fire began on November 20, 2009 immediately following completion of the Charter Fire. The earthwork portion of the work was completed on December 5, 2009. One coal fire, which extended from the central draw and under the southeast ridge, was completely extinguished by complete excavation. It was determined that the fire front under the northwest ridge had burned into too deep of cover to be excavated. All cracked areas in this area were excavated to a depth that was projected to be about 10 feet above the bottom the coal bed. The bottom of the excavation was sealed with earth before the remainder of the excavation was backfilled with common fill. Cracks in the central draw, which were probably associated with a trespass mine entry were repaired by excavation and backfilling before the entire draw was backfilled. Cracks on the upper portion of the hillside above the southeast ridge were partially excavated, deep ripped, and repaired. The backfilled draw, the excavated ridges on both sides of the draw, and the repaired areas on the upper hillside were graded as a uniform slope. The graded area was capped with about 9 inches of coversoil. The Shepherd #1 site was disked and fertilized on April 14, 2010. It was seeded and mulched on April 26, 2009. Fencing at this site was competed on May11, 2010.

Donnes Inc. began preparing the Marsh Fire for excavation by improving access to it between November 20th and 27th. On November 27th, cover soil was salvaged from a proposed disposal area. However, before the excavation equipment could be moved from the Shepherd #1 site to the Marsh Fire, winter storms began hitting the area shutting the project down for 22 days in December 2009. After being unable to resume work for this extended period, a Temporary Suspension of Work was granted at the end of the workday on December 29, 2009. The project was shut down until April 5, 2010 when AML issued a Notice to Proceed Following Temporary Suspension of Work. However, weather and wet roads delayed the resumption of work until April 7, 2010.

Donnes Inc. used two 637D scrapers, two 30-ton articulated dump trucks, a larger hydraulic excavator, a D9N track dozer, a 16G motor grader, and a 980 G wheel loader to completely excavate the fire at the Marsh site in nine working days. The fire was substantially extinguished on April 19, 2010. During this period, 2,600 BCY of cover soil were stripped/stockpiled and 16,000 BCY of excavation was performed to expose and remove hot and smoldering coal. Because the farmer, who leases this property, had requested changes to incorporate of a small impoundment and additional flat ground in the reclaimed surface, the approved stockpiling, disposal, and backfill plans were completely modified during construction. Additional soil was excavated from the coal removal area to provide an impoundment and the drainage channel below the shallow impoundment area was plugged to trap additional water. The top of the dam was extended downstream to provide flat ground suitable for a small hay field. The large

plug in the drainage channel was formed by backfilling the channel with a mixture of overburden and coal excavated from the coal fire area. This eliminated the need for temporary stockpiling and excavation of disposal trenches. In addition to these changes, burning coal was found below all of the cracked areas. Thus, plans to repair some cracks had to be discarded and replaced with additional overburden and coal excavation. It took an additional four working days to grade and contour the site and to cover most of the disturbed areas with cover soil. 3,865 BCY of cover soil borrow was required. Seeding, fertilizing, and mulching at the Marsh site was completed on May 3, 2010. Fencing was completed on May 16, 2010.

Donnes, Inc. used 87 days of the approved 91 contract days that were allowed. However, not counting fencing activities, crews were only on site performing work on 28 days. During the project, four change orders were used to increase the contract amount by $137,726.00 to a total amount of $441,798.00. Final inspection of the work occurred June 16, 2010. The projected was accepted on the same day.

The total project cost was $550,071.05. Of this total $35,550.25 was expended for design and bid package preparation. An additional $72,722.80 was expended on inspection, construction management, and project documentation. Total engineering costs were $108,273.05 or 19.68% of the total construction project cost.

6.2 Site Condition after Completion

Marsh Fire – The Marsh Fire was an outcrop fire that had damage approximately 0.5 of an acre and had ignited two range fires. Smoldering and burning coal had to be removed from 520 lineal feet of the Mammoth coal bed in order to completely extinguish this coal outcrop fire. Following excavation the coal bed was covered with soil and buried. In some areas on the northern and eastern sides of the site, the top of the coal seam is still under fairly low cover.

Per the local farmer's specific request on November 20th, 2009, site reclamation incorporated a small impoundment and created additional flat areas where grass could be cultivated. Because the site was situated in a small sub-basin with only 16 acres of contributing area, the eastern side of the site was contoured to join several small ravines, thereby increasing the contributing area to nearly 29 acres. The pool area, which has a depth of about 3 feet, covers 0.33 of an acre. The additional flat area, which was requested, was provided by extending the top of the dam downstream thereby backfilling two of the ravines. The dam and backfill area were constructed with a mixture of overburden and coal that had been removed from the area impacted by the outcrop fire. The outlet for the impoundment is a swale that has been routed along the east side of the backfilled area before reconnecting with the original channel. A boulder riprap was installed at the downstream end the backfilled area.

Creation of the impoundment and elimination of the deep ravines allowed the steep walls of the ravine on the west side of the site to be reclaimed with 3H:1V slopes except for a small area at the north end where the reclaimed contours transition into the

undisturbed portion of the channel. Portions of a massive sandstone ledge, which had been undercut and cracked by the coal fires, were excavated to remove unstable blocks.

In the short term, the addition of the impoundment and the additional flat ground, as well as, the improved access into the site are expected to enhance utilization of the area for cattle grazing. These changes reflect improvised, field modifications that were made during the course of construction to accommodate the requests of the local farmer. They are a substantial departure from the original plans. The small impoundment will ultimately fill with silt and have little long-term utility unless the local farmer provides periodic maintenance.

Shepherd #1 Fire – One coal fire, which extended from the central draw and under the southeast ridge was extinguished by complete excavation. A fire that was smoldering beneath the northwest ridge could not be excavated and had to be controlled by sealing the cracked area. Because the burn front appeared to be very deep and all possible sources of airflow to it have been cut-off by deep excavation and backfill, these measures should prove to be more than adequate in controlling this portion of the fire. Cracks in the central draw, which were probably associated with a trespass mine entry were repaired by excavation and backfilling before the entire draw was backfilled. Although the fire in the draw had probably burned out before this work was completed, the broken and collapsed rock in this area was probably providing pathways for air to flow into the smoldering fires below the ridges and further back under the hillside. Crack repair work in this area and backfilling are expected to eliminate this area as a source of airflow. Cracks on the upper portion of the hillside above the southeast ridge were partially excavated, deep ripped, and repaired. These features were probably associated with a smoldering fire or collapsing mine workings under deep cover behind the central draw. With the draw backfilled and the cracks repaired, any airflow that might support a fire should be sufficiently blocked to either control or extinguish a fire. The backfilled draw, the excavated ridges on both sides of the draw, and the repaired areas on the upper hillside were graded as a uniform slope and capped with cover soil. All disturbed areas were seeded and mulched. A fence was erected around the disturbed area to prevent grazing on newly established vegetation. This site should require no further work.

Charter Fire – The coal fire at the Charter site was completely dug out and extinguished. A caved mine adit that was associated with the fire, was completely excavated and backfilled. The steep hillside in the fire area was rebuilt to its approximated original contours with excavation spoils. The bottom portion of the backfilled slope and the disturbed area at the base of the slope were dressed with salvaged cover. The entire disturbed area was seeded on November 20, 2009. This site requires no further work.

6.3 Maintenance or Follow-up

Requirements for weed control, supplemental fertilization, and reseeding on the revegetated areas should be evaluated in the spring of 2011.

6.4 Construction Bid Package

Copies of the site plan drawings, which were provided in the bid package, can be found in Appendix F.

6.5 As-Built Drawings

As-built drawings are located in Appendix G.

7.0 COMMENTS/SUGGESTIONS

Because coal fires are difficult and costly to thoroughly investigate, subsurface investigations were not conducted prior to construction. The project planners had hoped to provide fairly generic plans that could be adapted to the conditions that were uncovered during construction. We also anticipated that compensation for the work would be paid at hourly equipment rental rates. Although using hourly equipment rental rates for change order type work is acceptable, State laws disallow contracting in this manner. Actual equipment operating hours were collected during construction of the Marsh site and are presented in Section 4.4 of this report. Comparison of hourly rental rate costs and the actual measurement and payment for this fire will demonstrate the value of having this payment mechanism available.

8.0 PHOTOGRAPHS

8.1 Listing

The pictures are organized according to the following topics:

TOPIC	
Equipment	1 - 20
Charter Fire	1 - 12
Shepherd #1 Fire	1 - 71
Marsh Fire	1 - 143

EQUIPMENT PHOTOS

(01) Cat 330 CL Hydraulic Excavator.JPG

(02) Cat 637 Scraper.JPG

(03) 2nd Cat 637 Scraper.JPG

(04) Cat D9N Track Dozer.JPG

(05) Cat D8 Track Dozer.JPG

(06) Terex 30 Ton Articulated Dump Truck.JPG

(07) Moxi MT30 Articulated Dump Truck.JPG

(08) Cat 980G Wheel Loader.JPG

(09) Front End Loader & Mechanic Truck.JPG

(10) Cat 16G Motor Grader.JPG

(11) Fuel-Lube Truck.JPG

(12) Maxi Lite.JPG

(13) Water Supply Pond Using Marsh Well.JPG

(14) Disc.JPG

(15) Fertilizer spreader.JPG

(16) Seed Drill IH-150.JPG

(17) Equipment - Broadcast Spreader Mounted On An ATV.JPG

(18) Straw Blower.JPG

(19) Crimper.JPG

(20) Tractor With Post Hole Auger.JPG

CHARTER FIRE PHOTOS

(01) Charter - Pre-Const 1.JPG

(02) Charter - Pre-Const Cracks 3.JPG

(03) Charter - Pre-Const Looking North 2.JPG

(04) Charter Nov 19 - Starting To Expose The Upper Coal Bed.JPG

(05) Charter Nov 19 - Wall On West Side With 4 Ft Seam on Bottom .JPG

(06) Charter Nov 19 - Smoldering 4 Ft Seam Exposed.JPG

(07) Charter Nov 20 - West Side Excavated And Sealed.JPG

(08) Charter Nov 19 - Excavation.JPG

(09) Charter Nov 19 - Upper Coal Bed Above Burned-Out Notch.JPG

(10) Charter Nov 19 - Overburned Slumped Into Burned-Out Notch.JPG

(11) Charter Nov 19 - Backfilling Against Upper Coal Bed.JPG

(12) Charter Nov 20 - Final Grading.JPG

SHEPHERD #1 FIRE PHOTOS

(01) Shepherd Pre - South End.JPG

(02) Shepherd Pre - Center Draw And Entry Area.JPG

(03) Shepherd Pre - North End.JPG

(04) Shepherd Pre - New Vent Nov 20.JPG

(05) Shepherd Nov 23 - Scraper Salvaging Cover Soil.jpg

(06) Shepherd Nov 23 - Crack Repair Work.jpg

(07) Shepherd Nov 23 - Trackhoe Working On Crack Repair.jpg

(08) Shepherd Nov 23 - Cover Soil Stripping.jpg

(09) Shepherd Nov 23 - Disposal Area With Cover Soil Stripped.jpg

(10) Shepherd Nov 23 - NW Open Cut.jpg

(11) Shepherd Nov 23 - Trackhoe Breaking Massive Sandstone.jpg

(12) Shepherd Nov 23 - Trackhoe Excavating & Loader Hauling In NW Open Cut.jpg

(13) Shepherd Nov 24 - NW Open Cut & Central Draw Backfill.jpg

(14) Shepherd Nov 25 - Progress On The NW Open Cut.jpg

(15) Shepherd Nov 27 - Bed Separation In NW Cut Highwall.jpg

(16) Shepherd Nov 27 - Trench Excavation At The NW Cut.jpg

(17) Shepherd Nov 27 - Disposal Area Stockpilies.jpg

(18) Shepherd Nov 28 - Burned Top Of Coal Bed Exposed In Trench 1 At Base Of The Central Dra

(19) Shepherd Nov 28 - Revoving Smoldering Coal From Trench 1.jpg

(20) Shepherd Nov 28 - First Load Of Mixed Coal Dumped In Disposal Excavation.jpg

(21) Shepherd Nov 28 - Flooding A Hot Spot In Trench 1 With A Load Of Water.jpg

(22)Shepherd Nov 30 - Trench 1 Backfilled With South End At The Edge Of The SE Cut.jpg

(23) Shepherd Nov 30 - NW Cut Nearly Ready To Backfill.jpg

(24) Shepherd Nov 30 - Looking From Top Of SE Cut Across Drainage Channel To Soil Stockpile.

(25) Shepherd Nov 30 - Scraper Working On The SE Open Cut.JPG

(26) Shepherd Nov 30 - Deep Crack In SE Cut.jpg

(27) Shepherd Nov 30 - SE Open Cut And Disposal Area.JPG

(28) Shepherd Nov 30 - Dozer Cut Along the Top Edge Of The SE Open Cut.jpg

(29) Shepherd Dec 1 - Exposed Crack In SE Cut.JPG

(30) Shepherd Dec 2 - Loading Trucks At SE Cut Trench.jpg

(31) Shepherd Dec 2 - Mixed Coal Spread & Piled In The Disposal Area.jpg

(32) Shepherd Dec 2 - Mixing Buring Coal Adjacent To SE Trench.jpg

(33) Shepherd Dec 2 -Exposing Smoldering Coal In SE Cut Area.JPG

(34) Shepherd Dec 3 - Overburned Stockpile & Partially Backfilled NW Cut.JPG

(35) Shepherd Dec 3 - SE Open Cut.JPG

(36) Shepherd Dec 3 - Trenching At the SECut .JPG

(37) Shepherd Dec 3 - Burning Coal.JPG

(38) Shepherd Dec 3 - Coal Disposal.JPG

(39) Shepherd Dec 3 - Exposed Full Mammoth Bed In SE Cut.JPG

(40) Shepherd Dec 3 - Hauling Mixed Coal.JPG

(41) Shepherd Dec 3 - Hot Coal Removal 1.JPG

(42) Shepherd Dec 3 - Hot Coal Removal 2.JPG

(43) Shepherd Dec 3 - Loading The Terex With Coal And Ash In SE Cut.JPG

(44) Shepherd Dec 3 - Mixing Hot Coal.JPG

(45) Shepherd Dec 3 - Spreading Mixed Coal In Disposal Area.jpg

(46) Shepherd Dec 3 - Trackhoe Excavating The Trench At The SE Cut.jpg

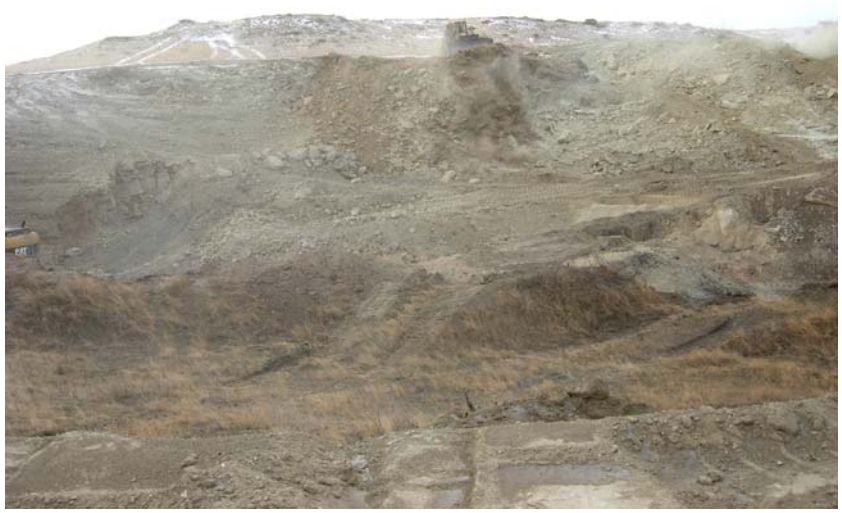
(47) Shepherd Dec 3 - Trench & Coal Removal Operation In The SE Cut.jpg

(48) Shepherd Dec 4 - Sealing The Exposed Coal Bed With Soil.jpg

(49) Shepherd Dec 4 - Backfill Ramp Into The Completed SE Trench.jpg

(50) Shepherd Dec 4 - Backfill & Contour SE Cut.jpg

(51) Shepherd Dec 4 - D8 & D9 Dozers Backfill The NW Cut.jpg



(52) Shepherd Dec 4 - Dozer Backfilling The SE Cut.jpg

(53) Shepherd Dec 4 - Scraper And Dozer Grading.JPG

(54) Shepherd Dec 4 - Starting To Cap The Disposal Area.jpg

(55) Shepherd Dec 5 - Dozer Contouring Slopes .jpg

(56) Shepherd Dec 4 - Final Grading And Contouring.jpg

(57) Shepherd Dec 5 - Multiple Pieces of Equipment Working On Final Conouring.jpg

(58) Shepherd Dec 5 - Scraper Placing Cover Soil.jpg

(59) Straw Logs For Sediment Control.JPG

(60) Spreading Fertilizer.JPG

(61) Seeding Gentle Slopes.JPG

(62) Seeding Steep Slope Area.JPG

(63) Seeded Area.JPG

(64) Straw Bales Used For Mulch.JPG

(65) Spreading Mulch.JPG

(66) Spreading Mulch On Disposal Area.JPG

(67) Mulched Disposal Area.JPG

(68) Crimping.JPG

(69) Shepherd 1 Site Following Final Grading.jpg

(70) Shepherd #1 Fence.JPG

(71) Shepherd #1 Gate.JPG

MARSH FIRE PHOTOS

(01) Marsh Pre - Deep Upper Crack In Western Ravine.JPG

(02) Marsh Pre - North End Of The Cracking Along The Western Ravine.JPG

(03) Marsh Pre - South End Of The Cracking Along The Western Ravine.JPG

(04) Marsh Pre - Slumped Cracks On West Side Of Western Ravine.JPG

(05) Marsh Pre - Sinkhole On Lower Bench In Western Ravine.JPG

(06) Marsh Pre - Lower Bench In Western Ravine.JPG

(07) Marsh Pre - Low Ridge Between East and West Ravines.JPG

(08) Marsh Pre - Depression And Sinkhole On The Low Ridge.JPG

(09) Marsh Pre - Cracked Sandstone At North End Of The Low Ridge.JPG

(10) Marsh Pre - Sinkhole At End Of Depression On Low Ridge.JPG

(100) View Of The Backfilled Western Trench.JPG

(11) Marsh Pre - 11 Foot Deep Sinkhole Above Slump In Eastern Ravine.JPG

(12) Marsh Pre - Hot Slumped Area On West Side Of The Eastern Ravine.JPG

(13) Marsh Pre - Smothered Fire Area That Was Burning In 2008.JPG

(14) Marsh Nov 27 - Disposal Area Stripping.jpg

(15) Coal Disposal Area Stripped.JPG

(16) BMP Devise in Drainage Channel At Marsh.JPG

(17) Clearing Burned Trees.JPG

(18) Stripping Cover Soil From The Disposal-Backfill Area.JPG

(19) Cover Soil Stockpile.JPG

(20) Disposal-Backfill Area Prepared.JPG

(21) Excavating Sandstone Ledge In Cental Open Cut.JPG

(22) Starting The West Side Open Cut.jpg

(23) Intial West Side Open Cut Highwall; Note Scoria In Foreground.jpg

(24) West Open Cut 4 Ft Above Coal & Starting Central Open Cut.JPG

(25) 637D Scraper Excavating & Hauling In The Central Open Cut.JPG

(26) Open Cut Operation On West Side.JPG

(27) Open Cut Excavation To Locate The Southernmost Edge.JPG

(28) Open Cut Highwalls.JPG

(29) Dump A Load In The DisposalBackfill Area.JPG

(30) Breaking Sandstone Boulder With Wrecking Ball.JPG

(31) Beginning The Trench Excavation On The West Side.JPG

(32) Start Trenching In The Central Ridge.JPG

(33) Wheel Loader Exposing The Coal Bed Along The Central Ridge.JPG

(34) Burn Front Below A Chimney In The Western Trench.jpg

(35) Equipment Used In The Trenching Operation.JPG

(36) Mixing Pile In The Disposal Area.JPG

(37) Trenching Operation At South End Of The West Trench.JPG

(38) View of The Burn Wedge Exposed In The Western Trench.jpg

(39) Cracks In The SW Corner Of The Highwall Before It Caved.JPG

(40) Applying A Load Of Water.JPG

(41) Mammoth Seam With Spilt Exposed In Western Trench.JPG

(42) Quenching Hot Coal Inside The Trench.jpg

(43) Salvaging Cover Soil Along The Side Of The Disposal Area .JPG

(44) Excavating Inside Edge Of The West Trench.JPG

(45) West Trench Following Collapse Of South Highwall .JPG

(46) Veiw Of Burn Wedge Exposed In West Trench With Fire Burning In the Highwall.JPG

(47) Piles With Mixture Of Coal And Overburden.JPG

(48) Spraying Water To Cool The West Trench And Locate Hot Spots.JPG

(49) Trackhoe Working At The North End Of The West Trench.JPG

(50) Dumping Upper Lift In the Backfill-Disposal Area.JPG

(51) Cold Burn Front At The North End Of The West Trench.JPG

(52) Trenching To Expose Hot Coal In The Ravine On The East Side.JPG

(53) Breakng Sandstone Along The Central Ridge Trench.JPG

(54) Central Ridge Trench Excavation.JPG

(55) Excavating Hot Coal From Below The Sandstone Ledge In The Ridge Area.JPG

(56) Loading A 30 Ton Articulated Truck.JPG

(57)Dangerous Sandstone Block On the West Side Of The Central Ridge.JPG

(58) Dozer Leveling And Mixing Piles in The Disposal-Backfill Area.JPG

(59) Excavating Hot Coal Along The Side Of The East Ravine.JPG

(60) Using Water To Check For Hot Spots In The West Trench.JPG

(61) Looking Southeast Across The Disposal-Backfill Area.JPG

(62) Excavating Hot Material Along The East Side Of The Western Trench.JPG

(63) Wheel Loader Dumping Trench Excavation Material Into A 30 Ton Truck.JPG

(64) Digging Hot Ash And Coal Near The SW Corner.JPG

(65) Finding The Edge Of The Burn At The South End Of The Western Trench.JPG

(66) Excavator Working On The Floor Of The Western Trench.JPG

(67) Unburned Wedge Of Coal On The Floor At The North End Of The Western Trench .JPG

(68) Old Burn Exposed On East Side Of Western Trench.JPG

(69) Cleaning-Up The Floor Of The Western Trench.JPG

(70) Burning Area In The SW Corner Following Crack Under The Slumped Highwall.JPG

(71) Trench Excavation On East Side Of The Central Ridge.JPG

(72) Back To Cool Coal Along Central Ridge Except Under Slumped Sandstone Block.JPG

(73) Break Sandstone Under Overhang.JPG

(74) Dispoal-Backfill Area Filled.JPG

(75) Removing Hot Coal From The Coal Face On The Central Ridge.JPG

(76) Using Wreking Ball To Smash Sandstone Blocks Removed From The Overhang.JPG

(77) Extending Central Ridge Trench To The Northwest.JPG

(78) Finishing Excavation Of The Central Ridge.JPG

(79) Reducing The Unstalbe Highwall In the Southwest Corner.JPG

(80) Equipment working.JPG

(81) Dislodging Sandstone Block From Overhang .JPG

(82) D9N Dozer Reducing The South Highwall.JPG

(83) Coal Bed Exposed Along the Central Ridge.JPG

(84) Excavation Work Completed On The Sandstone Ledge.JPG

(85) Water Truck Reading To Cool Coal Along The Central Ridge Trench.JPG

(86) Coal Bed At The North End Of The West Trench.JPG

(87) Cool Burn Front Under The West Side Of The Sandstone Ledge In Central Ridge Area.JPG

(88) Final Excavation Face On The Coal Bed Exposed In The East Ravine.jpg

(89) D9N Rough Grading The Disposal Area.JPG

(90) Fill Bench Pushed Down To Excavate The SW Corner.JPG

(91) Coal Re-Exposed In The SW Corner.JPG

(92) Cracks And Coal Exposed In SW Corner.JPG

(93) Reducing Highwalls And Hauling Soil To Seal Coal Bed.JPG

(94) 980 Loader Sealing Exposed Coal With Soil.JPG

(95) Soil Borrow Area Used To Seal The Coal Bed.JPG

(96) Excavator & Loader Sealing The Coal Bed.JPG

(97) Track Dozer Sealing The Coal Bed.JPG

(98) Working On Filling The Western Trench.JPG

(99) Trackhoe Reducing The Highwall.JPG

(101) Beginning Grading And Contouring.JPG

(102) Grade Disposal-Backfill Area.JPG

(103) Dressing The Disposal-Backfill Area With Cover Soil.JPG

(104) Grading And Contouring.JPG

(105) Grading And Contouring West Side.JPG

(106) Grading And Countouring East Side.JPG

(107) East Ridge Soil Borrow Area.JPG

(108) Soil Borrow Operations.JPG

(109) Hauling Rocks.JPG

(110) Rock Pile Butress.JPG

(111) Motor Grader Spreading Soil.JPG

(112) D9N Track Dozer Grading West Slope.JPG

(113) View Of The Slope Following Highwall Reduction.JPG

(114) Grading The Cover Soil Borrow Area Located Below The East Ravine.JPG

(115) Grading And Spreading Cover Soil With A 637D Scraper.JPG

(116) Motor Grader Spreading Cover Soil.JPG

(117) Track Dozer Spreading Soil And Grading Along The Base Of The Sandstone Ledge.JPG

(118) Final Contouring On The Central Ridge Fire Area.JPG

(119) Final Grading In The Fire Control Area.JPG

(120) Final Grading In The Disposal-Backfill Area.JPG

(121) North End Of The Site Showing Transitions Into The East And West Ravines.JPG

(122) Steep Slope At The North End Of The West Ravine.JPG

(123) Rock Pile Butress, Unused Disposal Area (Background),Soil Stockpile (Foreground).JPG

(124) Fertilizing The Cover Soil Stockpile Area.JPG

(125) Spreading Fertilizer.JPG

(126) Drill Seeding The Disposal-Backfill Area.JPG

(127) Drill Seeding The Fire Control Area.JPG

(128) Broadcast And Drill Seeding The North End.JPG

(129) Broadcast Seeding The West Slope.JPG

(130) Blowing Straw On The Unused Disposal Area Following Seeding And Fertilizing.JPG

(131) Mulching The South End Of The Site.JPG

(132) Mulching The North End Of The Site.JPG

(133) Mulching The West Slope.JPG

(134) Crimping Mulch On The Unused Disposal Area.JPG

(135) Crimping Straw Mulch.JPG

(136) Crimped Straw.JPG

(137)Site Mulched.JPG

(138) Marsh South Area Fence.JPG

(139) Marsh South Area Gate .JPG

(140) Double Panel Construction.JPG

(141) Marsh Main Area Gate.JPG

(142) Marsh Main Area Fence Running Uphill.JPG

(143) Marsh Main Area Fence.JPG

APPENDIX A

BID TABULATION

BID TABULATION SHEPHERD AREA FIRES				Engineers Estimate		Donnes Inc.		Shumaker		Omdahl		Western Municipal		HL Ostermiller		J & S Construction		CMG		Knife River		Trapper Peak		Coleman Construction		Riverside	
Bid Item	*ESTIMATED QUANTITY*	*UNIT*	***MARSH FIRE***	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*
1	1	LS	Mobilization (Maximum 10% of total bid)	$18,000.00	$18,000.00	$2,500.00	$2,500.00	$17,000.00	$17,000.00	$15,000.00	$15,000.00	$23,500.00	$23,500.00	$21,736.00	$21,736.00	$20,000.00	$20,000.00	$16,000.00	$16,000.00	$30,000.00	$30,000.00	$27,500.00	$27,500.00	$66,000.00	$66,000.00	$60,000.00	$60,000.00
2	1	LS	Improve Access	$2,800.00	$2,800.00	$1,000.00	$1,000.00	$12,250.00	$12,250.00	$2,700.00	$2,700.00	$27,000.00	$27,000.00	$10,500.00	$10,500.00	$7,500.00	$7,500.00	$9,000.00	$9,000.00	$14,000.00	$14,000.00	$7,500.00	$7,500.00	$7,200.00	$7,200.00	$100,000.00	$100,000.00
3			SUPPLY WATER																								
3a.	1	LS	Water Delivery Setup	$12,000.00	$12,000.00	$5,000.00	$5,000.00	$1,500.00	$1,500.00	$2,800.00	$2,800.00	$8,200.00	$8,200.00	$750.00	$750.00	$3,000.00	$3,000.00	$8,000.00	$8,000.00	$7,600.00	$7,600.00	$7,500.00	$7,500.00	$14,400.00	$14,400.00	$105,000.00	$105,000.00
3b.	150	KGAL	Water Usage	$80.00	$12,000.00	$10.00	$1,500.00	$50.00	$7,500.00	$300.00	$45,000.00	$90.00	$13,500.00	$145.10	$21,765.00	$90.00	$13,500.00	$175.00	$26,250.00	$42.50	$6,375.00	$275.00	$41,250.00	$420.00	$63,000.00	$156.00	$23,400.00
4	5.1	AC	Clear and Grub	$400.00	$2,040.00	$100.00	$510.00	$1,500.00	$7,650.00	$2,235.00	$11,398.50	$650.00	$3,315.00	$900.00	$4,590.00	$400.00	$2,040.00	$2,000.00	$10,200.00	$959.00	$4,890.90	$1,000.00	$5,100.00	$3,600.00	$18,360.00	$3,950.00	$20,145.00
5	4,800	CY	Salvage, Stockpile, and Replace Cover Soil	$3.50	$16,800.00	$2.00	$9,600.00	$2.00	$9,600.00	$1.80	$8,640.00	$3.40	$16,320.00	$4.12	$19,776.00	$4.00	$19,200.00	$7.00	$33,600.00	$8.00	$38,400.00	$6.75	$32,400.00	$9.00	$43,200.00	$7.00	$33,600.00
6	1,050	CY	Borrow and Place Cover Soil	$3.00	$3,150.00	$1.00	$1,050.00	$2.50	$2,625.00	$2.70	$2,835.00	$2.40	$2,520.00	$2.25	$2,362.50	$5.00	$5,250.00	$8.00	$8,400.00	$4.00	$4,200.00	$11.00	$11,550.00	$10.20	$10,710.00	$5.00	$5,250.00
7	4,655	CY	Overburden Excavation By Open Cut	$1.50	$6,982.50	$6.50	$30,257.50	$2.00	$9,310.00	$1.85	$8,611.75	$0.75	$3,491.25	$2.40	$11,172.00	$2.50	$11,637.50	$4.00	$18,620.00	$3.25	$15,128.75	$5.00	$23,275.00	$6.60	$30,723.00	$6.00	$27,930.00
8	2,070	CY	Overburden Excavation By Trenching	$2.20	$4,554.00	$10.00	$20,700.00	$2.80	$5,796.00	$1.40	$2,898.00	$2.75	$5,692.50	$2.65	$5,485.50	$3.50	$7,245.00	$6.00	$12,420.00	$5.00	$10,350.00	$8.50	$17,595.00	$7.80	$16,146.00	$9.00	$18,630.00
9	5,485	CY	Haul and Stockpile Overburden	$2.50	$13,712.50	$1.00	$5,485.00	$3.00	$16,455.00	$1.60	$8,776.00	$1.85	$10,147.25	$3.15	$17,277.75	$4.00	$21,940.00	$3.00	$16,455.00	$3.00	$16,455.00	$4.75	$26,053.75	$9.60	$52,656.00	$1.50	$8,227.50
10	1,455	CY	Remove, Process, And Bury Hot Coal	$15.00	$21,825.00	$10.00	$14,550.00	$4.00	$5,820.00	$3.90	$5,674.50	$10.50	$15,277.50	$6.45	$9,384.75	$28.66	$41,700.30	$8.00	$11,640.00	$11.00	$16,005.00	$15.00	$21,825.00	$12.00	$17,460.00	$27.00	$39,285.00
11	3,500	CY	Excavate Disposal Trenches	$1.25	$4,375.00	$1.50	$5,250.00	$2.00	$7,000.00	$1.65	$5,775.00	$0.50	$1,750.00	$3.46	$12,110.00	$2.25	$7,875.00	$4.00	$14,000.00	$1.75	$6,125.00	$7.00	$24,500.00	$7.80	$27,300.00	$6.50	$22,750.00
12	584	CY	Cap Disposal Trenches	$1.80	$1,051.20	$3.00	$1,752.00	$2.00	$1,168.00	$1.95	$1,138.80	$0.50	$292.00	$2.06	$1,203.04	$2.50	$1,460.00	$5.00	$2,920.00	$1.25	$730.00	$9.00	$5,256.00	$7.20	$4,204.80	$8.25	$4,818.00
13	2,040	CY	Over-Excavate And Repair Cracks	$5.00	$10,200.00	$2.00	$4,080.00	$3.00	$6,120.00	$1.40	$2,856.00	$1.75	$3,570.00	$6.15	$12,546.00	$3.50	$7,140.00	$7.00	$14,280.00	$7.00	$14,280.00	$11.00	$22,440.00	$11.40	$23,256.00	$8.75	$17,850.00
14	6,000	CY	Haul And Place Backfill From Stockpile	$3.50	$21,000.00	$1.00	$6,000.00	$1.50	$9,000.00	$1.45	$8,700.00	$1.90	$11,400.00	$3.15	$18,900.00	$2.75	$16,500.00	$3.00	$18,000.00	$4.00	$24,000.00	$4.25	$25,500.00	$9.60	$57,600.00	$7.75	$46,500.00
15	3.65	AC	Backfill, Grand, And Contour	$1,500.00	$5,475.00	$1,000.00	$3,650.00	$1,500.00	$5,475.00	$2,345.00	$8,559.25	$1,560.00	$5,694.00	$1,500.00	$5,475.00	$2,000.00	$7,300.00	$2,000.00	$7,300.00	$2,680.00	$9,782.00	$3,150.00	$11,497.50	$4,800.00	$17,520.00	$3,520.00	$12,848.00
16	4.39	AC	Mulch	$800.00	$3,512.00	$500.00	$2,195.00	$2,000.00	$8,780.00	$1,000.00	$4,390.00	$600.00	$2,634.00	$1,900.00	$8,341.00	$825.00	$3,621.75	$2,200.00	$9,658.00	$1,800.00	$7,902.00	$3,000.00	$13,170.00	$3,600.00	$15,804.00	$925.00	$4,060.75
17	3,300	SY	Supply and Install Erosion Control Mat	$3.80	$12,540.00	$2.00	$6,600.00	$4.00	$13,200.00	$4.50	$14,850.00	$2.80	$9,240.00	$2.07	$6,831.00	$4.50	$14,850.00	$2.00	$6,600.00	$2.00	$6,600.00	$5.95	$19,635.00	$14.40	$47,520.00	$3.75	$12,375.00
18	1	LS	Sandstone Boulder Disposal	$15,000.00	$15,000.00	$500.00	$500.00	$3,840.00	$3,840.00	$10,000.00	$10,000.00	$44,000.00	$44,000.00	$12,000.00	$12,000.00	$9,000.00	$9,000.00	$15,000.00	$15,000.00	$18,000.00	$18,000.00	$21,000.00	$21,000.00	$40,160.00	$40,160.00	$40,000.00	$40,000.00
19	5.1	AC	Seed and Fertilize	$800.00	$4,080.00	$500.00	$2,550.00	$2,000.00	$10,200.00	$550.00	$2,805.00	$1,800.00	$9,180.00	$530.00	$2,703.00	$1,760.00	$8,976.00	$600.00	$3,060.00	$580.00	$2,958.00	$1,000.00	$5,100.00	$2,400.00	$12,240.00	$1,960.00	$9,996.00
20			FENCE																								
20a.	3,400	LF	F3M Fence	$1.50	$5,100.00	$2.00	$6,800.00	$3.00	$10,200.00	$2.60	$8,840.00	$5.00	$17,000.00	$1.40	$4,760.00	$2.75	$9,350.00	$1.50	$5,100.00	$1.25	$4,250.00	$7.35	$24,990.00	$3.00	$10,200.00	$1.50	$5,100.00
20b.	5	Each	Single Panels	$140.00	$700.00	$150.00	$750.00	$90.00	$450.00	$170.00	$850.00	$100.00	$500.00	$175.00	$875.00	$100.00	$500.00	$150.00	$750.00	$153.00	$765.00	$300.00	$1,500.00	$306.00	$1,530.00	$178.00	$890.00
20c.	9	Each	Double Panels	$200.00	$1,800.00	$200.00	$1,800.00	$125.00	$1,125.00	$172.00	$1,548.00	$200.00	$1,800.00	$290.00	$2,610.00	$150.00	$1,350.00	$300.00	$2,700.00	$279.00	$2,511.00	$400.00	$3,600.00	$450.00	$4,050.00	$325.00	$2,925.00
20d.	32	LF	Gate	$12.00	$384.00	$10.00	$320.00	$6.00	$192.00	$8.25	$264.00	$8.00	$256.00	$7.50	$240.00	$3.00	$96.00	$7.00	$224.00	$6.50	$208.00	$10.00	$320.00	$240.00	$7,680.00	$7.75	$248.00
21	980	LF	BMP Sediment Control	$3.25	$3,185.00	$2.00	$1,960.00	$4.00	$3,920.00	$3.00	$2,940.00	$2.00	$1,960.00	$6.00	$5,880.00	$2.25	$2,205.00	$8.00	$7,840.00	$5.50	$5,390.00	$3.00	$2,940.00	$4.80	$4,704.00	$8.50	$8,330.00
			TOTAL BID FOR MARSH FIRE:	TOTAL BID =	$202,266.20	TOTAL BID =	$136,359.50	TOTAL BID =	$176,176.00	TOTAL BID =	$187,849.80	TOTAL BID =	$238,239.50	TOTAL BID =	$219,273.54	TOTAL BID =	$243,236.55	TOTAL BID =	$278,017.00	TOTAL BID =	$266,905.65	TOTAL BID =	$402,997.25	TOTAL BID =	$613,623.80	TOTAL BID =	$630,158.25

		Engineers Estimate		Donnes Inc.		Shumaker		Omdahl		Western Municipal		HL Ostermiller		J & S Construction		CMG		Knife River		Trapper Peak		Coleman Construction		Riverside	
Bid Item	*ESTIMATED QUANTITY*	*UNIT*	***SHEPHERD #1 FIRE***	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*
1	1	LS	Mobilization (Maximum 10% of total bid)	$19,000.00	$19,000.00	$2,500.00	$2,500.00	$21,000.00	$21,000.00	$18,000.00	$18,000.00	$27,600.00	$27,600.00	$19,736.00	$19,736.00	$24,800.00	$24,800.00	$15,000.00	$15,000.00	$37,000.00	$37,000.00	$15,000.00	$15,000.00	$75,000.00	$75,000.00	$70,000.00	$70,000.00
2	1	LS	Improve Access	$2,000.00	$2,000.00	$1,000.00	$1,000.00	$13,500.00	$13,500.00	$1,800.00	$1,800.00	$26,100.00	$26,100.00	$10,500.00	$10,500.00	$5,000.00	$5,000.00	$4,000.00	$4,000.00	$7,000.00	$7,000.00	$7,500.00	$7,500.00	$7,200.00	$7,200.00	$80,000.00	$80,000.00
3			SUPPLY WATER																								
3a.	1	LS	Water Delivery Setup	$4,000.00	$4,000.00	$5,000.00	$5,000.00	$1,500.00	$1,500.00	$2,500.00	$2,500.00	$12,300.00	$12,300.00	$750.00	$750.00	$2,500.00	$2,500.00	$6,500.00	$6,500.00	$7,900.00	$7,900.00	$7,500.00	$7,500.00	$14,400.00	$14,400.00	$105,000.00	$105,000.00
3b.	200	KGAL	Water Usage	$80.00	$16,000.00	$10.00	$2,000.00	$50.00	$10,000.00	$250.00	$50,000.00	$90.00	$18,000.00	$130.68	$26,136.00	$90.00	$18,000.00	$175.00	$35,000.00	$42.50	$8,500.00	$275.00	$55,000.00	$420.00	$84,000.00	$156.00	$31,200.00
4	5.65	AC	Clear and Grub	$400.00	$2,260.00	$100.00	$565.00	$1,500.00	$8,475.00	$2,235.00	$12,627.75	$650.00	$3,672.50	$900.00	$5,085.00	$600.00	$3,390.00	$2,000.00	$11,300.00	$959.00	$5,418.35	$1,200.00	$6,780.00	$3,600.00	$20,340.00	$4,300.00	$24,295.00
5	5,720	CY	Salvage, Stockpile, and Replace Cover Soil	$3.50	$20,020.00	$2.00	$11,440.00	$2.00	$11,440.00	$1.80	$10,296.00	$3.20	$18,304.00	$4.12	$23,566.40	$3.75	$21,450.00	$7.00	$40,040.00	$8.00	$45,760.00	$6.00	$34,320.00	$9.00	$51,480.00	$7.00	$40,040.00
6	990	CY	Borrow and Place Cover Soil	$2.50	$2,475.00	$1.00	$990.00	$2.50	$2,475.00	$2.70	$2,673.00	$2.40	$2,376.00	$2.25	$2,227.50	$5.00	$4,950.00	$8.00	$7,920.00	$4.00	$3,960.00	$11.00	$10,890.00	$10.20	$10,098.00	$5.50	$5,445.00
7	9,350	CY	Overburden Excavation By Open Cut	$2.20	$20,570.00	$6.50	$60,775.00	$2.00	$18,700.00	$1.85	$17,297.50	$1.15	$10,752.50	$2.40	$22,440.00	$2.35	$21,972.50	$4.00	$37,400.00	$3.25	$30,387.50	$6.00	$56,100.00	$6.60	$61,710.00	$5.00	$46,750.00
8	1,600	CY	Overburden Excavation By Trenching	$2.00	$3,200.00	$10.00	$16,000.00	$2.80	$4,480.00	$1.40	$2,240.00	$1.40	$2,240.00	$2.65	$4,240.00	$3.50	$5,600.00	$6.00	$9,600.00	$5.00	$8,000.00	$8.50	$13,600.00	$7.80	$12,480.00	$8.50	$13,600.00
9	5,540	CY	Haul and Stockpile Overburden	$2.10	$11,634.00	$1.00	$5,540.00	$3.00	$16,620.00	$1.60	$8,864.00	$1.85	$10,249.00	$3.15	$17,451.00	$3.25	$18,005.00	$3.00	$16,620.00	$3.00	$16,620.00	$5.50	$30,470.00	$9.60	$53,184.00	$1.50	$8,310.00
10	860	CY	Remove, Process, And Bury Hot Coal	$15.00	$12,900.00	$15.00	$12,900.00	$4.00	$3,440.00	$3.90	$3,354.00	$10.90	$9,374.00	$6.45	$5,547.00	$25.20	$21,672.00	$8.00	$6,880.00	$11.00	$9,460.00	$20.00	$17,200.00	$12.00	$10,320.00	$27.50	$23,650.00
11	2,150	CY	Excavate Disposal Trenches	$1.25	$2,687.50	$1.00	$2,150.00	$2.00	$4,300.00	$1.65	$3,547.50	$0.50	$1,075.00	$3.46	$7,439.00	$2.25	$4,837.50	$4.00	$8,600.00	$1.75	$3,762.50	$7.00	$15,050.00	$7.80	$16,770.00	$6.50	$13,975.00
12	500	CY	Cap Disposal Trenches	$1.80	$900.00	$3.00	$1,500.00	$2.00	$1,000.00	$1.95	$975.00	$0.50	$250.00	$2.06	$1,030.00	$2.75	$1,375.00	$5.00	$2,500.00	$1.25	$625.00	$9.00	$4,500.00	$7.20	$3,600.00	$8.75	$4,375.00
13	12,600	CY	Over-Excavate And Repair Cracks	$3.80	$47,880.00	$1.00	$12,600.00	$3.00	$37,800.00	$1.40	$17,640.00	$1.05	$13,230.00	$5.50	$69,300.00	$3.95	$49,770.00	$5.00	$63,000.00	$7.00	$88,200.00	$7.50	$94,500.00	$11.40	$143,640.00	$8.75	$110,250.00
14	5,900	CY	Haul And Place Backfill From Stockpile	$2.80	$16,520.00	$1.00	$5,900.00	$1.50	$8,850.00	$1.45	$8,555.00	$1.90	$11,210.00	$3.15	$18,585.00	$3.00	$17,700.00	$3.00	$17,700.00	$4.00	$23,600.00	$4.25	$25,075.00	$9.60	$56,640.00	$8.00	$47,200.00
15	4.26	AC	Backfill, Grand, And Contour	$1,500.00	$6,390.00	$500.00	$2,130.00	$1,500.00	$6,390.00	$2,345.00	$9,989.70	$1,560.00	$6,645.60	$1,500.00	$6,390.00	$2,000.00	$8,520.00	$2,000.00	$8,520.00	$2,680.00	$11,416.80	$2,500.00	$10,650.00	$4,800.00	$20,448.00	$3,525.00	$15,016.50
16	5.50	AC	Mulch	$800.00	$4,400.00	$500.00	$2,750.00	$2,000.00	$11,000.00	$1,000.00	$5,500.00	$600.00	$3,300.00	$1,500.00	$8,250.00	$825.00	$4,537.50	$1,500.00	$8,250.00	$1,210.00	$6,655.00	$2,700.00	$14,850.00	$3,600.00	$19,800.00	$920.00	$5,060.00
17	780	SY	Supply and Install Erosion Control Mat	$3.80	$2,964.00	$2.00	$1,560.00	$4.00	$3,120.00	$4.50	$3,510.00	$2.80	$2,184.00	$2.07	$1,614.60	$4.50	$3,510.00	$2.00	$1,560.00	$2.00	$1,560.00	$5.95	$4,641.00	$14.40	$11,232.00	$5.00	$3,900.00
18	1	LS	Sandstone Boulder Disposal	$22,000.00	$22,000.00	$500.00	$500.00	$3,000.00	$3,000.00	$10,000.00	$10,000.00	$74,200.00	$74,200.00	$14,000.00	$14,000.00	$21,000.00	$21,000.00	$15,000.00	$15,000.00	$21,000.00	$21,000.00	$27,000.00	$27,000.00	$55,800.00	$55,800.00	$75,000.00	$75,000.00
19	5.65	AC	Seed and Fertilize	$800.00	$4,520.00	$500.00	$2,825.00	$2,000.00	$11,300.00	$500.00	$2,825.00	$850.00	$4,802.50	$1,000.00	$5,650.00	$1,760.00	$9,944.00	$600.00	$3,390.00	$580.00	$3,277.00	$1,000.00	$5,650.00	$2,400.00	$13,560.00	$1,960.00	$11,074.00
20			FENCE																								
20a.	2,710	LF	F3M Fence	$1.50	$4,065.00	$2.00	$5,420.00	$3.00	$8,130.00	$2.60	$7,046.00	$5.00	$13,550.00	$1.40	$3,794.00	$3.00	$8,130.00	$1.50	$4,065.00	$1.25	$3,387.50	$7.35	$19,918.50	$3.00	$8,130.00	$1.50	$4,065.00
20b.	2	Each	Single Panels	$140.00	$280.00	$150.00	$300.00	$90.00	$180.00	$170.00	$340.00	$100.00	$200.00	$174.00	$348.00	$130.00	$260.00	$150.00	$300.00	$153.00	$306.00	$300.00	$600.00	$306.00	$612.00	$178.00	$356.00
20c.	11	Each	Double Panels	$200.00	$2,200.00	$200.00	$2,200.00	$125.00	$1,375.00	$172.00	$1,892.00	$200.00	$2,200.00	$290.00	$3,190.00	$200.00	$2,200.00	$300.00	$3,300.00	$279.00	$3,069.00	$400.00	$4,400.00	$450.00	$4,950.00	$325.00	$3,575.00
20d.	16	LF	Gate	$12.00	$192.00	$10.00	$160.00	$9.00	$144.00	$8.25	$132.00	$8.00	$128.00	$7.50	$120.00	$3.00	$48.00	$7.00	$112.00	$6.50	$104.00	$20.00	$320.00	$240.00	$3,840.00	$7.75	$124.00
21	1,250	LF	BMP Sediment Control	$3.25	$4,062.50	$2.00	$2,500.00	$4.00	$5,000.00	$3.00	$3,750.00	$2.00	$2,500.00	$6.00	$7,500.00	$2.25	$2,812.50	$7.00	$8,750.00	$5.50	$6,875.00	$3.00	$3,750.00	$4.80	$6,000.00	$8.00	$10,000.00
			TOTAL BID FOR SHEPHERD #1 FIRE	TOTAL BID =	$233,120.00	TOTAL BID =	$161,205.00	TOTAL BID =	$213,219.00	TOTAL BID =	$205,354.45	TOTAL BID =	$276,443.10	TOTAL BID =	$284,889.50	TOTAL BID =	$281,984.00	TOTAL BID =	$335,307.00	TOTAL BID =	$353,843.65	TOTAL BID =	$485,264.50	TOTAL BID =	$765,234.00	TOTAL BID =	$752,260.50

		Engineers Estimate		Donnes Inc.		Shumaker		Omdahl		Western Municipal		HL Ostermiller		J & S Construction		CMG		Knife River		Trapper Peak		Coleman Construction		Riverside	
Bid Item	*ESTIMATED QUANTITY*	*UNIT*	***CHARTER FIRE***	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*	*UNIT PRICE*	*TOTAL PRICE*
1	1	LS	Mobilization (Maximum 10% of total bid)	$900.00	$900.00	$250.00	$250.00	$1,800.00	$1,800.00	$600.00	$600.00	$1,000.00	$1,000.00	$2,000.00	$2,000.00	$1,000.00	$1,000.00	$5,000.00	$5,000.00	$1,500.00	$1,500.00	$4,000.00	$4,000.00	$0.00	$0.00	$5,000.00	$5,000.00
2	1	LS	Improve Access	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$5,000.00	$5,000.00	$1,800.00	$1,800.00	$1.00	$1.00	$6,000.00	$6,000.00	$2,000.00	$2,000.00	$3,000.00	$3,000.00	$9,500.00	$9,500.00	$3,500.00	$3,500.00	$7,200.00	$7,200.00	$29,000.00	$29,000.00
3			SUPPLY WATER																								
3a.	0	LS	Water Delivery Setup																								
3b.	0	KGAL	Water Usage																								
4	0.45	AC	Clear and Grub	$400.00	$180.00	$250.00	$112.50	$1,500.00	$675.00	$2,235.00	$1,005.75	$1,100.00	$495.00	$2,000.00	$900.00	$1,000.00	$450.00	$3,000.00	$1,350.00	$956.27	$430.32	$5,000.00	$2,250.00	$3,600.00	$1,620.00	$10,000.00	$4,500.00
5	340	CY	Salvage, Stockpile, and Replace Cover Soil	$3.50	$1,190.00	$1.00	$340.00	$5.00	$1,700.00	$1.80	$612.00	$2.00	$680.00	$8.85	$3,009.00	$5.00	$1,700.00	$7.00	$2,380.00	$8.00	$2,720.00	$10.00	$3,400.00	$5.40	$1,836.00	$10.00	$3,400.00
6	50	CY	Borrow and Place Cover Soil	$3.00	$150.00	$1.00	$50.00	$5.00	$250.00	$2.70	$135.00	$1.20	$60.00	$4.00	$200.00	$10.00	$500.00	$30.00	$1,500.00	$4.00	$200.00	$75.00	$3,750.00	$6.60	$330.00	$12.00	$600.00
7	900	CY	Overburden Excavation By Open Cut	$4.00	$3,600.00	$1.00	$900.00	$5.00	$4,500.00	$1.85	$1,665.00	$1.00	$900.00	$6.25	$5,625.00	$3.00	$2,700.00	$5.00	$4,500.00	$3.25	$2,925.00	$9.00	$8,100.00	$4.20	$3,780.00	$4.50	$4,050.00
8	0	CY	Overburden Excavation By Trenching																								
9	0	CY	Haul and Stockpile Overburden																								
10	40	CY	Remove, Process, And Bury Hot Coal	$15.00	$600.00	$40.00	$1,600.00	$20.00	$800.00	$3.90	$156.00	$12.00	$480.00	$25.00	$1,000.00	$40.00	$1,600.00	$15.00	$600.00	$11.50	$460.00	$50.00	$2,000.00	$8.40	$336.00	$48.00	$1,920.00
11	125	CY	Excavate Disposal Trenches	$4.00	$500.00	$1.00	$125.00	$10.00	$1,250.00	$1.65	$206.25	$1.00	$125.00	$4.00	$500.00	$5.00	$625.00	$5.00	$625.00	$1.75	$218.75	$50.00	$6,250.00	$5.40	$675.00	$18.25	$2,281.25
12	35	CY	Cap Disposal Trenches	$3.00	$105.00	$1.00	$35.00	$10.00	$350.00	$1.95	$68.25	$1.00	$35.00	$3.50	$122.50	$12.00	$420.00	$8.00	$280.00	$1.25	$43.75	$50.00	$1,750.00	$4.80	$168.00	$39.00	$1,365.00
13	0	CY	Over-Excavate And Repair Cracks																								
14	40	CY	Haul And Place Backfill From Stockpile	$3.50	$140.00	$1.00	$40.00	$10.00	$400.00	$1.45	$58.00	$2.00	$80.00	$3.50	$140.00	$10.00	$400.00	$7.00	$280.00	$4.75	$190.00	$25.00	$1,000.00	$8.64	$345.60	$16.75	$670.00
15	0.31	AC	Backfill, Grand, And Contour	$3,000.00	$930.00	$3,000.00	$930.00	$3,500.00	$1,085.00	$2,345.00	$726.95	$1,800.00	$558.00	$4,000.00	$1,240.00	$4,000.00	$1,240.00	$4,500.00	$1,395.00	$2,681.74	$831.34	$15,000.00	$4,650.00	$3,600.00	$1,116.00	$4,200.00	$1,302.00
16	0	AC	Mulch																								
17	0	SY	Supply and Install Erosion Control Mat																								
18	0	CY	Sandstone Boulder Disposal																								
19	0.45	AC	Seed and Fertilize	$800.00	$360.00	$2,500.00	$1,125.00	$3,000.00	$1,350.00	$550.00	$247.50	$1,500.00	$675.00	$2,438.00	$1,097.10	$2,000.00	$900.00	$2,500.00	$1,125.00	$2,320.00	$1,044.00	$9,000.00	$4,050.00	$2,400.00	$1,080.00	$1,960.00	$882.00
20			FENCE																								
20a.	0	LF	F3M Fence																								
20b.	0	Each	Single Panels																								
20c.	0	Each	Double Panels																								
20d.	0	LF	Gate																								
21	0	LF	BMP Sediment Control																								
			TOTAL BID FOR CHARTER FIRE:	TOTAL BID =	$9,655.00	TOTAL BID =	$6,507.50	TOTAL BID =	$19,160.00	TOTAL BID =	$7,280.70	TOTAL BID =	$5,089.00	TOTAL BID =	$21,833.60	TOTAL BID =	$13,535.00	TOTAL BID =	$22,035.00	TOTAL BID =	$20,063.16	TOTAL BID =	$44,700.00	TOTAL BID =	$18,486.60	TOTAL BID =	$54,970.25

	Engineers Estimate		Donnes Inc.		Shumaker		Omdahl		Western Municipal		HL Ostermiller		J & S Construction		CMG		Knife River		Trapper Peak		Coleman Construction		Riverside	
GRAND TOTAL BID :	**BID**	**$445,041.20**	**BID**	**$304,072.00**	**BID**	**$408,555.00**	**BID**	**$400,484.95**	**BID**	**$519,771.60**	**BID**	**$525,996.64**	**BID**	**$538,755.55**	**BID**	**$635,359.00**	**BID**	**$640,812.46**	**BID**	**$932,961.75**	**BID**	**$1,397,344.40**	**BID**	**$1,437,389.00**
	Engineers Estimate		Donnes Inc.		Shumaker		Omdahl		Western Municipal		HL Ostermiller		J & S Construction		CMG		Knife River		Trapper Peak		Coleman Construction		Riverside	

APPENDIX B

CHANGE ORDERS

CHANGE ORDER

ORDER NO. 2

PROJECT TITLE: Shepherd Area Fires Project

DEQ Contract No. 410012

CONTRACT DATE: November 19, 2009

OWNER: Dept. of Environmental Quality, Mine Waste Cleanup Bureau - Remediation Division

CONTRACTOR: Donnes, Inc.

Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)

SHEPHERD #1 FIRE					
Item No.	Description of Changes	Quantity	Unit	Total Unit Cost	Total Cost
3b	Water Usage	-184	Kgal	$10.00	($1,840.00)
4	Clear and Grub	-3.22	Ac	$100.00	($322.00)
5	Salvage, Stockpile, and Replace Cover Soil	-1960	CY	$2.00	($3,920.00)
6	Borrow and Place Cover Soil	-90	CY	$1.00	($90.00)
7	Overburden Excavation By Open Cut	7905	CY	$6.50	$51,382.50
8	Overburden Excavation By Trenching	2165	CY	$10.00	$21,650.00
9	Haul and Stockpile Overburden	8715	CY	$1.00	$8,715.00
10	Remove, Process, and Bury Hot Coal	230	CY	$15.00	$3,450.00
11	Excavate Disposal Trenches	-550	CY	$1.00	($550.00)
12	Cap Disposal Trenches	1100	CY	$3.00	$3,300.00
13	Over-Excavate and Repair Cracks	-2900	CY	$1.00	($2,900.00)
14	Haul and Place Backfill From Stockpile	-4150	CY	$1.00	($4,150.00)
15	Backfill, Grand, and Contour	0.13	Ac	$500.00	$65.00
21	BMP Sediment Control	-1075	Ft	$2.00	($2,150.00)
					Increase of
	TOTAL COST				$72,640.50
	GRAND TOTAL - THIS CHANGE ORDER				$72,640.50

Original Contract Price: $304,072.00

Current Contract Price Adjusted by Previous Change Order: $308,507.00

Cost this Change Order (+): $ 72,640.50

New Contract Price including this Change Order: $381,147.50

The completion date as set forth in the Contract Documents shall be (~~unchanged~~, increased, ~~decreased~~) by 6 calendar days. The number of allowed calendar days will be increased from 61 days to 67 days based on extra work requirements. In addition, weather days were granted for December 4-5, 7-12, 14-19, 21-26, and 28-29. These 22 weather days extend the total number of allowed calendar days from 67 to 89 days.

The date for completion of all work will be February 15, 2010 .

Description and Justification for Change:

Bid Item 3b - Water usage was reduced to the actual measured quantity. The reduced use of water was related to the cool weather and the spotty nature of the fire.

Bid Items 4 and 5 - Quantities for Clear and Grub and for Salvage, Stockpile, and Replace Cover were decreased to reflect actual measured quantities. Area of disturbance was reduced because outside stockpile areas were reduced.

Bid Item 6 - This bid item was reduced to reflect the actual measured quantity of borrowed cover soil.

Bid Item 7 - Quantities for Overburden Excavation by Open Cut was increased to reflect actual measured quantities determined by GPS surveys. The increase was necessary the search area for hot coal was extended and because the hot coal was 10 feet deeper than projected.

Bid Item 8 - Quantities for Overburden Excavation by Trenching was increased to reflect actual measured quantities as determined by GPS surveys of the excavations and by load counts. The increase was necessary because the search area for hot coal was extended and because additional hot coal was located.

Bid Item 9 – Haul and Stockpile Overburden was increased to reflect actual measured quantities as determined by load counts. The increase reflects haulage requirements to handle the additional open cut and trenching quantities.

Bid Item 10 – Remove, Process, and Bury Hot Coal were increased to reflect actual measured quantities as determined by GPS surveys of the top and bottom of the excavated coal area.

Bid Item 11 - Disposal trench excavation was reduced to reflect the actual measured quantity as determined by the inspector's measurement of average length, width, and depth.

Bid Item 12 - Cap Disposal trench was increased to reflect the actual measured quantity as determined by the inspector's measurements of average length, width, and depth.

Bid Item 13 - Over Excavate and Repair Cracks was decreased to reflect the actual measured quantity as determined by the inspector's measurements. The reduction was possible because the open cuts expanded into a greater portion of the cracked area. Also due to the massive sandstone, excavation depths were reduced in some areas and cross ripping was employed.

Bid Item 14 – Haul and Place Backfill from Stockpile was decreased to reflect the actual measured quantities as determined by load counts. The decrease reflects the change in stockpile location and the greater use of large bulldozers to push the stockpile material into the backfill areas.

Bid Item 15 - Quantities for Backfill, Grand, and Contour was slightly increased to reflect the actual measured quantities as determined by GPS surveys.

Bid Item 21 – Quantities for BMP Sediment Control were decreased to reflect actual measured quantities. Because the drainage channel was disturbed, three 25-foot long rows of straw log containment barriers were placed inside the channel area perpendicular to the flow direction.

Six additional calendar days have been added as an adjustment for the increased level of work at the Shepherd #1 Fire site. There was a 23% increase in excavation quantities and a corresponding increase in backfill quantities. In addition, 22 calendar days have been added due to weather delays.

SURETY CONSENT

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order. The Principal and the Surety further agree that on or after execution of this consent, the penalty of the applicable Performance Bonds or Bonds is hereby increased by $ 72,640.50 (100 percent of the Change Order amount) and the penalty of the applicable Labor and Material Bond or Bonds is hereby increased by $ 72,640.50 (100 percent of the Change Order amount).

COUNTERSIGNED BY MONTANA RESIDENT AGENT

Rene C. LeVeque

RENE C. LEVEQUE
HUB INTERNATIONAL MOUNTAIN STATES LIMITED

SURETY

GREAT AMERICAN INSURANCE COMPANY

By: _____

Seal JOHN D. LEAF, ATTORNEY-IN-FACT

Recommended by: David M. Klapp (SPECTRUM ENG) Jan 7 2010
Engineer — Date

Accepted by: [illegible] 1/8/10
Contractor — Date

Approved by: Devin Cleary 1-12-2010
Owner — Date

Rev. 6/04

CHANGE ORDER

ORDER NO. 3

PROJECT TITLE: Shepherd Area Fires Project

DEQ Contract No. 410012

CONTRACT DATE: November 19, 2009

OWNER: Dept. of Environmental Quality, Mine Waste Cleanup Bureau - Remediation Division

CONTRACTOR: Donnes, Inc.

Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)

SHEPHERD #1 FIRE				
Item No.	*Description of Changes*	*Quantity Adjustment*	*Unit Price*	*Price Adjustment*
16	Mulch	0.18 Ac	$500.00	$90.00
17	Supply and Install Erosion Control Mat	-780 SY	$2.00	($1,560.00)
19	Seed and Fertilize	0.03 Ac	$500.00	$15.00
20a	F3M Fence	252 FT	$2.00	$504.00
20C	Double Panels	-1 EA	$200.00	($200.00)
				Decrease of
	TOTAL COST			($1,151.00)
	GRAND TOTAL - THIS CHANGE ORDER			($1,151.00)

Original Contract Price:	$304,072.00
Current Contract Price Adjusted by Previous Change Order:	$381,147.50
Cost this Change Order (-):	$ 1,151.00
New Contract Price including this Change Order:	$379,996.50

The completion date as set forth in the Contract Documents shall be (~~unchanged~~, increased, ~~decreased~~) by 2 calendar days. A Temporary Suspension of Work was granted at the end of the work day on December 29, 2009. The project was shut down until April 5, 2010 when AML issued a Notice to Proceed Following Temporary Suspension of Work. However, weather and wet roads delayed the resumption of work until April 7, 2010. These 2 weather days extend the total number of allowed calendar days from 89 to 91 days.

The date for completion of all work will be May 24, 2010.

Description and Justification for Change:

Bid Item 16 - Mulch was increased by 0.18 Ac reflecting a grading change that eliminated the need for erosion control mat.

Bid Items 17 - The need for erosion control mat was eliminated by a grading change, eliminating this payment item.

Bid Item 19 - The measured quantity for seed and fertilize was 0.03 of an acres more than had been estimated.

Bid Item 20a - A change in fence alignment caused the actual quantity of fencing to increase by 252 feet.

Bid Item 20c - The actual number of double panels in the fence was measured at one less than the estimated quantity.

SURETY CONSENT

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order. The Principal and the Surety further agree that on or after execution of this consent, the penalty of the applicable Performance Bonds or Bonds is hereby decreased by $1,151.00 (100 percent of the Change Order amount) and the penalty of the applicable Labor and Material Bond or Bonds is hereby decreased by $1,151.00 (100 percent of the Change Order amount).

COUNTERSIGNED BY MONTANA RESIDENT AGENT

Rene C. LeVeaux

RENE C. LEVEAUX
HUB INTERNATIONAL MOUNTAIN STATES LIMITED

SURETY

GREAT AMERICAN INSURANCE COMPANY

By: John D. Leaf

Seal JOHN D. LEAF, ATTORNEY-IN-FACT

Recommended by: David M. Murja — **Engineer** — June 14, 2010 — **Date**

Accepted by: Tom Power — **Contractor** — June 24, 2010 — **Date**

Approved by: Devin Clancy — **Owner** — July 2, 2010 — **Date**

CHANGE ORDER

ORDER NO. 4

PROJECT TITLE: Shepherd Area Fires Project

DEQ Contract No. 410012

CONTRACT DATE: November 19, 2009

OWNER: Dept. of Environmental Quality, Mine Waste Cleanup Bureau - Remediation Division

CONTRACTOR: Donnes, Inc.

Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)

MARSH FIRE				
Item No.	*Description of Changes*	*Quantity Adjustment*	*Unit Price*	*Price Adjustment*
3b.	Water Usage	-118 Kgal	$10.00	($1,180.00)
4	Clear and Grub	-2.70 Ac	$100.00	($270.00)
5	Salvage, Stockpile, and Replace Cover Soil	-2200 CY	$2.00	($4,400.00)
6	Borrow and Place Cover Soil	3165 CY	$1.00	$3,165.00
7	Overburden Excavation By Open Cut	2875 CY	$6.50	$18,687.50
8	Overburden Excavation By Trenching	5694 CY	$10.00	$56,940.00
9	Haul and Stockpile Overburden	8158 CY	$1.00	$8,158.00
10	Remove, Process, And Bury Hot Coal	527 CY	$10.00	$5,270.00
11	Excavate Disposal Trenches	-3500 CY	$1.50	($5,250.00)
12	Cap Disposal Trenches	-584 CY	$3.00	($1,752.00)
13	Over-Excavate And Repair Cracks	-2040 CY	$2.00	($4,080.00)
14	Haul And Place Backfill From Stockpile	-5384 CY	$1.00	($5,384.00)
15	Backfill, Grade, And Contour	0.51 Ac	$1,000.00	$510.00
16	Mulch	0.71 Ac	$500.00	$355.00
17	Supply and Install Erosion Control Mat	-3300 SY	$2.00	($6,600.00)
19	Seed and Fertilize	1.08 Ac	$500.00	$540.00
20a	F3M Fence	-399 FT	$2.00	($798.00)
20b	Single Panels	-1 EA	$150.00	($150.00)
20c	Double Panels	-2 EA	$200.00	($400.00)
21	BMP Sediment Control	-780 FT	$2.00	($1,560.00)
				Increase of
	TOTAL COST			$61,801.50
	GRAND TOTAL - THIS CHANGE ORDER			$61,801.50

Original Contract Price: **$304,072.00**

Current Contract Price Adjusted by Previous Change Order: **$379,996.50**

Cost this Change Order (+): **$ 61,801.50**

New Contract Price including this Change Order: **$441,798.00**

The completion date as set forth in the Contract Documents shall be unchanged.

The date for completion of all work will be May 24, 2010.

Description and Justification for Change:

Bid Item 3b - Water usage was reduced to the actual measured quantity. The reduced use of water was related to the remote site location and additional in pit soil mixing.

Bid Items 4 and 5 - Quantities for Clear and Grub and for Salvage, Stockpile, and Replace Cover were decreased to reflect actual measured quantities.

Bid Item 6 - The actual measured quantity of borrowed cover soil reflects increased cover depth over flat area requested by the local farmer and increased soil required to cover additional areas of exposed coal bed. The majority of this material was measured by the final GPS survey.

Bid Item 7 - Quantity for Overburden Excavation by Open Cut was increased to reflect actual measured quantities determined by GPS surveys. The west cut was extended 40 feet further south and through the entire crack repair area to the north.

Bid Item 8 - Quantity for Overburden Excavation by Trenching was increased to reflect actual measured quantities as determined by GPS survey. The increase reflects extensions of the excavation areas necessary to follow the burn face and remove hot coal.

Bid Item 9 – Haul and Stockpile Overburden was increased to reflect actual measured quantities as determined by load counts as adjusted to match GPS survey quantities. The increase reflects haulage requirements to handle the additional open cut and trenching quantities.

Bid Item 10 – Remove, Process, and Bury Hot Coal were increased to reflect actual measured quantities as determined by GPS surveys.

Bid Item 11 - Disposal trenches were not used for coal disposal. Coal was mixed with overburden in the excavation area and then dumped in a common disposal/backfill area to provide flat areas requested by the local farmer. Therefore this payment item was not measured for payment.

Bid Item 12 - Because disposal trenches were not used for coal disposal, trenches were not capped. Therefore this payment item was not measured for payment.

Bid Item 13 - Over Excavate and Repair Cracks was eliminated and Overburden Excavation by Open Cut was substituted throughout the defined area after burning coal was discovered below the cracked area, requiring complete excavation and removal of the overburden from the entire cracked area. Therefore this payment item was not measured for payment.

Bid Item 14 – Because the local farmer requested changes that would allow incorporation of a small impoundment and flat areas into the reclaimed area, nearly all Haul and Place Backfill from Stockpile was eliminated. Only 616 CY of overburden that was stockpiled along the eastern ravine was subsequently used for mixing and then hauled to a backfill area.

Bid Item 15 - The actual quantity for Backfill, Grade, and Contour was determined by GPS survey. The increased area reflects the increased use of highwall reduction and soil borrow to achieve acceptable grades.

Bid Item 16 - The quantity measured for mulch was calculated from the amount of straw delivered to the site. Although the mulch was applied evenly across the site, only enough straw was delivered to cover 5.1 acres at the specified application rate. The increased area reflects the increased use of highwall reduction and soil-borrow areas to achieve acceptable grades and the elimination of erosion control mat.

Bid Item 17 - Changes in grading and backfilling requested by the local farmer, eliminated anticipated drainage channel preservation and stabilization work. Grading the lower end of the excavation area as an impoundment provided greater flexibility in the grading of the excavated ravine walls, which resulted in the elimination of steep slope conditions within the regarded area. Hence, erosion control mat was eliminated and was not measured for payment.

Bid Item 19 - The actual quantity for Seed and Fertilize was measured by GPS survey. The increase quantity reflects reclamation of a 1.60-acre coal disposal area that was stripped but not used.

Bid Item 20a - Fencing was broken into two separated areas and was realigned to avoid steep terrain and rock outcrops. The actual measured length was 399 feet shorter than estimated.

Bid Item 20b - The actual number of single panels in the fence was measured at one less than the estimated quantity.

Bid Item 20c - The actual number of double panels in the fence was measured at two less than the estimated quantity.

Bid Item 21 – Quantities for BMP Sediment Control were decreased to reflect actual measured quantities. Elimination of stockpile and disposal area on the west side of the site, disturbance of main channel, and partial containment inside the excavation area eliminated the need for extensive straw log containment barriers.

SURETY CONSENT

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order. The Principal and the Surety further agree that on or after execution of this consent, the penalty of the applicable Performance Bonds or Bonds is hereby increased by $ 61,801.50 (100 percent of the Change Order amount) and the penalty of the applicable Labor and Material Bond or Bonds is hereby increased by $ 61,801.50 (100 percent of the Change Order amount).

COUNTERSIGNED BY MONTANA RESIDENT AGENT

Rene C. LeVeaux

RENE C. LEVEAUX
HUB INTERNATIONAL MOUNTAIN STATES LIMITED

SURETY

GREAT AMERICAN INSURANCE COMPANY

By: _____ **Seal**
JOHN D. LEAF, ATTORNEY-IN-FACT

Recommended by: _____ June 14, 2010
Engineer **Date**

Accepted by: _____ June 24, 2010
Contractor **Date**

Approved by: Dewin Clancy July 2, 2010
Owner **Date**

CHANGE ORDER

ORDER NO. 1

PROJECT TITLE: Shepherd Area Fires Project

DEQ Contract No. 410012

CONTRACT DATE: November 19, 2009

OWNER: Dept. of Environmental Quality, Mine Waste Cleanup Bureau - Remediation Division

CONTRACTOR: Donnes, Inc.

Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)

CHARTER FIRE

Item No.	Description of Changes	Quantity	Total Unit Cost	Total Cost
4	Clear and Grub	-0.34 Ac	$250.00	($85.00)
5	Salvage, Stockpile, and Replace Cover Soil	-175 CY	$1.00	($175.00)
6	Borrow and Place Cover Soil	-10 CY	$1.00	($10.00)
7	Overburden Excavation By Open Cut	+645 CY	$1.00	$645.00
10	Remove, Process, and Bury Hot Coal	+120 CY	$40.00	$4,800.00
11	Excavate Disposal Trenches	-125 CY	$1.00	($125.00)
12	Cap Disposal Trenches	-35 CY	$1.00	($35.00)
14	Haul and Place Backfill From Stockpile	-40 CY	$1.00	($40.00)
15	Backfill, Grand, and Contour	-0.08 Ac	$3,000.00	($240.00)
19	Seed and Fertilize	-0.12 Ac	$2,500.00	($300.00)
				Increase of
	TOTAL COST			$4,435.00
	GRAND TOTAL - THIS CHANGE ORDER			$4,435.00

Original Contract Price:	$304,072.00
Current Contract Price Adjusted by Previous Change Order:	$304,072.00
Cost this Change Order (+ or -):	$ 4,435.00
New Contract Price Including this Change Order:	$308,507.00

The completion date as set forth in the Contract Documents shall be (~~unchanged~~, increased, ~~decreased~~) by 1 calendar days. The number of allowed calendar days will be increased from 60 days to 61 days.

The date for completion of all work will be January 18, 2010 .

Description and Justification for Change:

Bid Items 3 and 4 - Quantities for Clear and Grub and for Salvage, Stockpile, and Replace Cover were decreased to reflect actual measured quantities. Upper slope areas were too steep and rocky to strip

Bid Item 6 - This bid item was used to produce soil to seal the exposed coal bed. The actual measured quantity was 10 CY less than what was estimated for use as supplemental cover soil.

Bid Items 7 and 10 - Quantities for Overburden Excavation By Open Cut and for Remove, Process, and Bury Hot Coal were increased to reflect actual measured quantities. A 25 foot collapsed mine entry was associated with the site. Coal was smolders along the sides of the entry and the overburden was cracked around it, requiring additional excavation. An upper coal be was also discovered deep in the hillside.

Bid Items 11, 12 and 14 - A disposal trench was not required because the coal was adequately cooled and mixed into the overburden stockpile. Also caving along the highwall made it difficult to segregate the coal from the overburden.

Bid Items 15 and 19 - Quantities for Backfill, Grand, and Contour, and for Seed and Fertilize were decreased to reflect actual measured quantities. Because the contractor was able to divide the excavation into two sections, he was able to backfill directly into a portion of the open cut reducing the area required for outside spoil area. Decreased cover soil salvage also contributed to the decrease in construction disturbance.

One additional calendar day has been added as an adjustment for the increased level of work at the Charter Fire site. There was a 25% increase in excavation quantities and a corresponding increase in backfill quantities.

SURETY CONSENT

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order. The Principal and the Surety further agree that on or after execution of this consent, the penalty of the applicable Performance Bonds or Bonds is hereby increased by $ 4,435.00 (100 percent of the Change Order amount) and the penalty of the applicable Labor and Material Bond or Bonds is hereby increased by $ 4,435.00 (100 percent of the Change Order amount).

COUNTERSIGNED BY MONTANA RESIDENT AGENT

Rene C. LeVeaux

RENE C. LEVEAUX
HUB INTERNATIONAL MOUNTAIN STATES LIMITED

SURETY

GREAT AMERICAN INSURANCE COMPANY

By: _____ **Seal**

JOHN D LEAF, ATTORNEY-IN-FACT

Recommended by: David M. Mecja **Engineer** 11/24/09 **Date**

Accepted by: _____ **Contractor** 12/2/09 **Date**

Approved by: _____ **Owner** **Date**

Rev. 8/04

APPENDIX C

PAYMENT REQUESTS

DEQ PAYMENT REQUEST

PAYMENT REQUEST NO. 1
PROJECT NAME: Shepherd Area Fires Project
NAME OF THE CONTRACTOR: Donnes, Inc
ADDRESS OF THE CONTRACTOR: 5807 Frey Road, Shepherd, MT 59079

PAYMENT PERIOD: 11/19/2009 -11/20/2009
DEQ CONTRACT NO.: 410012

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
11/19/2009	1	$ 10,942.50	$ 1,547.13		$ 9,395.37	$ 93.95	$ 9,301.42
			$ -		$ -	$ -	$ -
			$ -		$ -	$ -	$ -
			$ -		$ -	$ -	$ -
	FINAL REQUEST			$ -	$ -	$ -	$ -
TOTAL TO DATE		$ 10,942.50	$ 1,547.13	$ -	$ 9,395.37	$ 93.95	$ 9,301.42

DATE	CONTRACT PRICE SUMMARY	
11/19/2009	Original	$ 304,072.00
12/14/2009	C.O. #1	$ 4,435.00
CONTRACT PRICE TO DATE		$ 308,507.00

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	96.45%
PERCENT COMPLETE TO DATE	3.55%

*RETAINAGE WITHHELD IS 5% PLUS $1,000
LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST	
EARNED	$ 10,942.50
RETAINAGE WITHHELD	$ 1,547.13
RETAINAGE RELEASED	$ -
GROSS PAYMENT	$ 9,395.37
TAX (1%)	$ 93.95
NET PAYMENT	$ 9,301.42

REQUESTED BY: CONTRACTOR: Donnes Inc
SIGNATURE: Tony McInnis
DATE: Jan 4, 2010

RECOMMENDED BY: ENGINEER: David M. Murfin
COMPANY: Spectrum Engineering Inc.
DATE: Jan 4, 2010

APPROVED BY: OWNER: Devin Clary - DEQ
SIGNATURE: Devin Clary
DATE: 1-6-2010

Bid Item	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	Actual Cost	Actual Quantity	Quantity Adjustment	Cost Adjustment (change order)	Work Completed to Date	Total Cost of Work Completed	Percent Complete
1	1	LS	Mobilization (Maximum 10% of total bid)	$250.00	$250.00	$250.00	1.00	0.00	$0.00	1.00	$250.00	100.00%
2	1	LS	Improve Access	$1,000.00	$1,000.00	$1,000.00	1.00	0.00	$0.00	1.00	$1,000.00	100.00%
3			SUPPLY WATER:									
3a	0	LS	Water Delivery Setup									
3b	0	KGAL	Water Usage									
4	0.45	AC	Clear and Grub	$250.00	$112.50	$27.50	0.11	-0.34	-$85.00	0.11	$27.50	100.00%
5	340	CY	Salvage, Stockpile, and Replace Cover Soil	$1.00	$340.00	$165.00	165.00	-175.00	-$175.00	165.00	$165.00	100.00%
6	50	CY	Borrow and Place Cover Soil	$1.00	$50.00	$40.00	40.00	-10.00	-$10.00	40.00	$40.00	100.00%
7	900	CY	Overburden Excavation By Open Cut	$1.00	$900.00	$1,545.00	1545.00	645.00	$645.00	1,545.00	$1,545.00	100.00%
8	0	CY	Overburden Excavation By Trenching									
9	0	CY	Haul and Stockpile Overburden									
10	40	CY	Remove, Process, And Bury Hot Coal	$40.00	$2,600.00	$6,400.00	160.00	120.00	$4,800.00	160.00	$6,400.00	100.00%
11	125	CY	Excavate Disposal Trenches	$1.00	$125.00	$0.00	0.00	-125.00	-$125.00	0.00	$0.00	100.00%
12	35	CY	Cap Disposal Trenches	$1.00	$35.00	$0.00	0.00	-35.00	-$35.00	0.00	$0.00	100.00%
13	0	CY	Over-Excavate And Repair Cracks									
14	40	CY	Haul And Place Backfill From Stockpile	$1.00	$40.00	$0.00	0.00	-40.00	-$40.00	0.00	$0.00	100.00%
15	0.33	AC	Backfill, Grand, And Contour	$3,000.00	$930.00	$690.00	0.23	-0.08	-$240.00	0.23	$698.00	100.00%
16	0	AC	Mulch									
17	0	SY	Supply and Install Erosion Control Mat									
18	0	CY	Sanitouse Boulder Disposall									
19	0.45	AC	Seed and Fertilize	$2,500.00	$1,125.00	$825.00	0.33	-0.12	-$300.00	0.33	$825.00	100.00%
20			FENCE									
20a	0	LF	T3M Fence									
20b	0	Each	Single Panels									
20c	0	Each	Double Panels									
20d	0	LF	Gate									
21	0	LF	BMP Sediment Control									
			TOTAL BID FOR CHARTER FIRE:	TOTAL BID =	$6,507.50				$4,435.00		$10,942.50	

TOTAL PAY REQUEST FOR CHARTER FIRE: **$10,942.50**

DEQ PAYMENT REQUEST

PAYMENT REQUEST NO. 2 | **PAYMENT PERIOD: 11/21/2009 - 12/29/2009**
PROJECT NAME: Shepherd Area Fires Project | **DEQ CONTRACT NO.: 410012**
NAME OF THE CONTRACTOR: Donnes, Inc
ADDRESS OF THE CONTRACTOR: 5807 Frey Road, Shepherd, MT 59079

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
11/19/2009	1	$ 10,942.50	$ 1,547.13		$ 9,395.37	$ 93.95	$ 9,301.42
1/16/2010	2	$ 218,630.50	$ 10,931.53		$ 207,698.97	$ 2,076.99	$ 205,621.98
			$ -		$ -	$ -	$ -
			$ -		$ -	$ -	$ -
	FINAL REQUEST			$ -	$ -	$ -	$ -
TOTAL TO DATE		$ 229,573.00	$ 12,478.66	$ -	$ 217,094.34	$ 2,170.94	$ 214,923.40

DATE	CONTRACT PRICE SUMMARY	
11/19/2009	Original	$ 304,072.00
12/14/2009	C.O. #1	$ 4,435.00
1/19/2010	C.O. #2	$ 72,640.50
CONTRACT PRICE TO DATE		$ 381,147.50

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	97.13%
PERCENT COMPLETE TO DATE	2.87%

*RETAINAGE WITHHELD IS 5% PLUS $1,000
LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST		
EARNED	$	218,630.50
RETAINAGE WITHHELD	$	10,931.53
RETAINAGE RELEASED	$	-
GROSS PAYMENT	$	207,698.97
TAX (1%)	$	2,076.99
NET PAYMENT	$	205,621.98

REQUESTED BY: CONTRACTOR: Donnes Inc - Gary M Davis
SIGNATURE: Gary M Davis
DATE: 1-27-2010

RECOMMENDED BY: ENGINEER: David M. Murja
COMPANY: Spectrum Engineering Inc.
DATE: Jan 26, 2010

APPROVED BY: OWNER: DEQ-AML
SIGNATURE: Dennis Clancy
DATE: 2-2-2010

RECEIVED
FEB 02 2010
Department of Environmental Quality Remediation Division

G:\ MWC\PAYMENT REQUEST FORM Updated 6/2000

ITEMIZATION OF QUANTITIES AND COSTS

Bid Item	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	Actual Cost	Actual Quantity	Quantity Adjustment	Cost Adjustment (change order)	Work Completed to Date	Total Cost of Work Completed	Percent Complete
1	1	LS	Mobilization (Maximum 10% of total bid)	$2,500.00	$2,500.00	$2,500.00	1	0.00	$0.00	1	$2,500.00	100.00%
2	1	LS	Improve Access	$1,000.00	$1,000.00	$1,000.00	1	0.00	$0.00	1	$1,000.00	100.00%
3			SUPPLY WATER									
3a	1	LS	Water Delivery Setup	$5,000.00	$5,000.00	$5,000.00	1	0.00	$0.00	1	$5,000.00	100.00%
3b	200	KGAL	Water Usage	$10.00	$2,000.00	$160.00	16	-184.00	-$1,840.00	16	$160.00	100.00%
4	3.63	AC	Clear and Grub	$100.00	$363.00	$243.00	2.43	-3.22	-$322.00	2.43	$243.00	100.00%
5	5,720	CY	Salvage, Stockpile, and Replace Cover Soil	$2.00	$11,440.00	$7,520.00	3760	-1960.00	-$3,920.00	3760	$7,520.00	100.00%
6	990	CY	Borrow and Place Cover Soil	$1.00	$990.00	$900.00	900	-90.00	-$90.00	900	$900.00	100.00%
7	9,350	CY	Overburden Excavation By Open Cut	$6.50	$60,775.00	$112,157.50	17255	7905.00	$51,382.50	17255	$112,157.50	100.00%
8	1,600	CY	Overburden Excavation By Trenching	$10.00	$16,000.00	$37,650.00	3765	2165.00	$21,650.00	3765	$37,650.00	100.00%
9	5,540	CY	Haul and Stockpile Overburden	$1.00	$5,540.00	$14,255.00	14255	8715.00	$8,715.00	14255	$14,255.00	100.00%
10	860	CY	Remove, Process, And Bury Hot Coal	$15.00	$12,900.00	$16,350.00	1090	230.00	$3,450.00	1090	$16,350.00	100.00%
11	2,150	CY	Excavate Disposal Trenches	$1.00	$2,150.00	$1,600.00	1600	-550.00	-$550.00	1600	$1,600.00	100.00%
12	500	CY	Cap Disposal Trenches	$3.00	$1,500.00	$4,800.00	1600	1100.00	$3,300.00	1600	$4,800.00	100.00%
13	12,600	CY	Over-Excavate And Repair Cracks	$1.00	$12,600.00	$9,700.00	9700	-2900.00	-$2,900.00	9700	$9,700.00	100.00%
14	5,900	CY	Haul And Place Backfill From Stockpile	$1.00	$5,900.00	$1,750.00	1750	-4150.00	-$4,150.00	1750	$1,750.00	100.00%
15	4.26	AC	Backfill, Grade, And Contour	$500.00	$2,130.00	$2,195.00	4.39	0.13	$65.00	4.39	$2,195.00	100.00%
16	5.50	AC	Mulch	$500.00	$2,750.00	$0.00			$0.00	0	$0.00	0.00%
17	780	SY	Supply and Install Erosion Control Mat	$2.00	$1,560.00	$0.00			$0.00	0	$0.00	0.00%
18	1	LS	Sandstone Boulder Disposal	$500.00	$500.00	$500.00	1	0.00	$0.00	1	$500.00	100.00%
19	5.65	AC	Seed and Fertilize	$500.00	$2,825.00	$0.00			$0.00	0	$0.00	0.00%
20			FENCE									
20a	2,710	LF	FJM Fence	$2.00	$5,420.00	$0.00			$0.00	0	$0.00	0.00%
20b	2	Each	Single Panels	$150.00	$300.00	$0.00			$0.00	0	$0.00	0.00%
20c	11	Each	Double Panels	$200.00	$2,200.00	$0.00			$0.00	0	$0.00	0.00%
20d	16	LF	Gate	$10.00	$160.00	$0.00			$0.00	0	$0.00	0.00%
21	1,250	LF	BMP Sediment Control	$2.00	$2,500.00	$350.00	175	-1075.00	-$2,150.00	175	$350.00	100.00%
			TOTAL BID FOR SHEPHERD FIRE:	**TOTAL BID =**	**$161,205.00**	**$218,630.50**			**$72,640.50**			93.49%
			TOTAL BID FOR CHARTER FIRE:	**TOTAL BID =**	**$6,507.50**	**$10,942.50**			**$10,942.50**			100.00%
			TOTAL BID FOR MARSH FIRE:	**TOTAL BID =**	**$136,359.50**	**$0.00**			**$0.00**			0.00%

DEQ PAYMENT REQUEST

PAYMENT REQUEST NO. 3-Final
PAYMENT PERIOD: 4/05/2010 - 5/24/2010
PROJECT NAME: Shepherd Area Fires Project
DEQ CONTRACT NO.: 410012
NAME OF THE CONTRACTOR: Donnes, Inc
ADDRESS OF THE CONTRACTOR: 5807 Frey Road, Shepherd, MT 59079

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
11/19/2009	1	$ 10,942.50	$ 1,547.13		$ 9,395.37	$ 93.95	$ 9,301.42
1/16/2010	2	$ 218,630.50	$ 10,931.53		$ 207,698.97	$ 2,076.99	$ 205,621.98
			$ -		$ -	$ -	$ -
			$ -		$ -	$ -	$ -
7/7/2010	**FINAL REQUEST**	$212,225.00		$ 12,478.66	$ 224,703.66	$ 2,247.04	$ 222,456.62
TOTAL TO DATE		$ 441,798.00	$ 12,478.66	$ 12,478.66	$ 441,798.00	$ 4,417.98	$ 437,380.02

DATE	CONTRACT PRICE SUMMARY	
11/19/2009	*Orignial*	$ 304,072.00
12/14/2009	C.O. #1	$ 4,435.00
1/12/2010	C.O. #2	$ 72,640.50
6/14/2010	C.O. #3	$ (1,151.00)
6/14/2010	C.O. #4	$ 61,801.50
CONTRACT PRICE TO DATE		$ 441,798.00

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	0.00%
PERCENT COMPLETE TO DATE	100.00%

*RETAINAGE WITHHELD IS 5% PLUS $1,000

LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST	
EARNED	$ 212,225.00
RETAINAGE WITHHELD	$ -
RETAINAGE RELEASED	$ 12,478.66
GROSS PAYMENT	$ 224,703.66
TAX (1%)	$ 2,247.04
NET PAYMENT	$ 222,456.62

REQUESTED BY: CONTRACTOR: Donnes Inc
SIGNATURE: Cindy Donnes
DATE: 7-12-10

RECOMMENDED BY: ENGINEER: David M. Murya
COMPANY: Spectrum Engineering
DATE: July 7, 2010

APPROVED BY: OWNER: MT-DEQ
SIGNATURE: Devin Clary
DATE: 7-14-2010

RECEIVED
JUL 13 2010
Department of Environmental Quality Remediation Division

ITEMIZATION OF QUANTITIES AND COSTS

Bid Item	*ESTIMATED QUANTITY*	*UNIT*	*DESCRIPTION*	*UNIT PRICE*	*TOTAL PRICE*	*Actual Cost*	*Actual Quantity*	*Quantity Adjustment*	*Cost Adjustment (change order)*	*Work Completed Pay Request 3*	*Cost of Work Completed Pay Request 3*	*Percent Complete To Date*
1	1	LS	Mobilization (Maximum 10% of total bid)	$2,500.00	$2,500.00	**$2,500.00**	**1**	**0**	**$0.00**	**1**	**$2,500.00**	100%
2	1	LS	Improve Access	$1,000.00	$1,000.00	**$1,000.00**	**1**	**0**	**$0.00**	**1**	**$1,000.00**	100%
3			SUPPLY WATER				**0**					
3a.	1	LS	Water Delivery Setup	$5,000.00	$5,000.00	**$5,000.00**	**1**	**0**	**$0.00**	**1**	**$5,000.00**	100%
3b.	150	KGAL	Water Usage	$10.00	$1,500.00	**$320.00**	**32**	**-118**	**-$1,180.00**	**32**	**$320.00**	100%
4	5.1	AC	Clear and Grub	$100.00	$510.00	**$240.00**	**2.4**	**-2.7**	**-$270.00**	**2.4**	**$240.00**	100%
5	4,800	CY	Salvage, Stockpile, and Replace Cover Soil	$2.00	$9,600.00	**$5,200.00**	**2600**	**-2200**	**-$4,400.00**	**2600**	**$5,200.00**	100%
6	1,050	CY	Borrow and Place Cover Soil	$1.00	$1,050.00	**$4,215.00**	**4215**	**3165**	**$3,165.00**	**4215**	**$4,215.00**	100%
7	4,655	CY	Overburden Excavation By Open Cut	$6.50	$30,257.50	**$48,945.00**	**7530**	**2875**	**$18,687.50**	**7530**	**$48,945.00**	100%
8	2,070	CY	Overburden Excavation By Trenching	$10.00	$20,700.00	**$77,640.00**	**7764**	**5694**	**$56,940.00**	**7764**	**$77,640.00**	100%
9	5,485	CY	Haul and Stockpile Overburden	$1.00	$5,485.00	**$13,643.00**	**13,643**	**8158**	**$8,158.00**	**13643**	**$13,643.00**	100%
10	1,455	CY	Remove, Process, And Bury Hot Coal	$10.00	$14,550.00	**$19,820.00**	**1982**	**527**	**$5,270.00**	**1982**	**$19,820.00**	100%
11	3,500	CY	Excavate Disposal Trenches	$1.50	$5,250.00	**$0.00**	**0**	**-3500**	**-$5,250.00**	**0**	**$0.00**	XXXX
12	584	CY	Cap Disposal Trenches	$3.00	$1,752.00	**$0.00**	**0**	**-584**	**-$1,752.00**	**0**	**$0.00**	XXXX
13	2,040	CY	Over-Excavate And Repair Cracks	$2.00	$4,080.00	**$0.00**	**0**	**-2040**	**-$4,080.00**	**0**	**$0.00**	XXXX
14	6,000	CY	Haul And Place Backfill From Stockpile	$1.00	$6,000.00	**$616.00**	**616**	**-5384**	**-$5,384.00**	**616**	**$616.00**	100%
15	3.65	AC	Backfill, Grade, And Contour	$1,000.00	$3,650.00	**$4,160.00**	**4.16**	**0.51**	**$510.00**	**4.16**	**$4,160.00**	100%
16	4.39	AC	Mulch	$500.00	$2,195.00	**$2,550.00**	**5.1**	**0.71**	**$355.00**	**5.1**	**$2,550.00**	100%
17	3,300	SY	Supply and Install Erosion Control Mat	$2.00	$6,600.00	**$0.00**	**0**	**-3300**	**-$6,600.00**	**0**	**$0.00**	XXXX
18	1	LS	Sandstone Boulder Disposal	$500.00	$500.00	**$500.00**	**1**	**0**	**$0.00**	**1**	**$500.00**	100%
19	5.1	AC	Seed and Fertilize	$500.00	$2,550.00	**$3,090.00**	**6.18**	**1.08**	**$540.00**	**6.18**	**$3,090.00**	100%
20			FENCE									
20a.	3,400	LF	F3M Fence	$2.00	$6,800.00	**$6,002.00**	**3001**	**-399**	**-$798.00**	**3001**	**$6,002.00**	100%
20b.	5	Each	Single Panels	$150.00	$750.00	**$600.00**	**4**	**-1**	**-$150.00**	**4**	**$600.00**	100%
20c.	9	Each	Double Panels	$200.00	$1,800.00	**$1,400.00**	**7**	**-2**	**-$400.00**	**7**	**$1,400.00**	100%
20d.	32	LF	Gate	$10.00	$320.00	**$320.00**	**32**	**0**	**$0.00**	**32**	**$320.00**	100%
21	980	LF	BMP Sediment Control	$2.00	$1,960.00	**$400.00**	**200**	**-780**	**-$1,560.00**	**200**	**$400.00**	100%
			TOTAL BID FOR MARSH FIRE:	**TOTAL BID =**	**$136,359.50**	**$198,161.00**			**$61,801.50**		**$198,161.00**	100%
			TOTAL BID FOR CHARTER FIRE:	**TOTAL BID =**	**$6,507.50**	**$10,942.50**			**$4,435.00**		**$0.00**	100.00%
			TOTAL BID FOR SHEPHERD FIRE:	**TOTAL BID =**	**$161,205.00**	**$232,694.50**			**$71,489.50**		**$14,064.00**	100.00%
			TOTAL FOR PROJECT:		**$304,072.00**	**$441,798.00**			**$137,726.00**		**$212,225.00**	100.00%

ITEMIZATION OF QUANTITIES AND COSTS

Bid Item	*ESTIMATED QUANTITY*	*UNIT*	*DESCRIPTION*	*UNIT PRICE*	*TOTAL PRICE*	*Actual Cost*	*Actual Quantity*	*Quantity Adjustment*	*Cost Adjustment (change orders)*	*Work Completed Pay Request 3*	*Cost of Work Completed Pay Request 3*	*Percent Complete To Date*
1	1	LS	Mobilization (Maximum 10% of total bid)	$2,500.00	$2,500.00	**$2,500.00**	**1**	**0**	**$0.00**		**$0.00**	100.00%
2	1	LS	Improve Access	$1,000.00	$1,000.00	**$1,000.00**	**1**	**0**	**$0.00**		**$0.00**	100.00%
3			SUPPLY WATER									
3a.	1	LS	Water Delivery Setup	$5,000.00	$5,000.00	**$5,000.00**	**1**	**0**	**$0.00**		**$0.00**	100.00%
3b.	200	KGAL	Water Usage	$10.00	$2,000.00	**$160.00**	**16**	**-184**	**-$1,840.00**		**$0.00**	100.00%
4	5.65	AC	Clear and Grub	$100.00	$565.00	**$243.00**	**2.43**	**-3.22**	**-$322.00**		**$0.00**	100.00%
5	5,720	CY	Salvage, Stockpile, and Replace Cover Soil	$2.00	$11,440.00	**$7,520.00**	**3760**	**-1960**	**-$3,920.00**		**$0.00**	100.00%
6	990	CY	Borrow and Place Cover Soil	$1.00	$990.00	**$900.00**	**900**	**-90**	**-$90.00**		**$0.00**	100.00%
7	9,350	CY	Overburden Excavation By Open Cut	$6.50	$60,775.00	**$112,157.50**	**17255**	**7905**	**$51,382.50**		**$0.00**	100.00%
8	1,600	CY	Overburden Excavation By Trenching	$10.00	$16,000.00	**$37,650.00**	**3765**	**2165**	**$21,650.00**		**$0.00**	100.00%
9	5,540	CY	Haul and Stockpile Overburden	$1.00	$5,540.00	**$14,255.00**	**14255**	**8715**	**$8,715.00**		**$0.00**	100.00%
10	860	CY	Remove, Process, And Bury Hot Coal	$15.00	$12,900.00	**$16,350.00**	**1090**	**230**	**$3,450.00**		**$0.00**	100.00%
11	2,150	CY	Excavate Disposal Trenches	$1.00	$2,150.00	**$1,600.00**	**1600**	**-550**	**-$550.00**		**$0.00**	100.00%
12	500	CY	Cap Disposal Trenches	$3.00	$1,500.00	**$4,800.00**	**1600**	**1100**	**$3,300.00**		**$0.00**	100.00%
13	12,600	CY	Over-Excavate And Repair Cracks	$1.00	$12,600.00	**$9,700.00**	**9700**	**-2900**	**-$2,900.00**		**$0.00**	100.00%
14	5,900	CY	Haul And Place Backfill From Stockpile	$1.00	$5,900.00	**$1,750.00**	**1750**	**-4150**	**-$4,150.00**		**$0.00**	100.00%
15	4.26	AC	Backfill, Grade, And Contour	$500.00	$2,130.00	**$2,195.00**	**4.39**	**0.13**	**$65.00**		**$0.00**	100.00%
16	5.50	AC	Mulch	$500.00	$2,750.00	**$2,840.00**	**5.68**	**0.18**	**$90.00**	**5.68**	**$2,840.00**	100.00%
17	780	SY	Supply and Install Erosion Control Mat	$2.00	$1,560.00	**$0.00**	**0**	**-780**	**-$1,560.00**	**0**	**$0.00**	XXXX
18	1	LS	Sandstone Boulder Disposal	$500.00	$500.00	**$500.00**	**1**	**0**	**$0.00**		**$0.00**	100.00%
19	5.65	AC	Seed and Fertilize	$500.00	$2,825.00	**$2,840.00**	**5.68**	**0.03**	**$15.00**	**5.68**	**$2,840.00**	100.00%
20			FENCE									
20a.	2,710	LF	F3M Fence	$2.00	$5,420.00	**$5,924.00**	**2962**	**252**	**$504.00**	**2962**	**$5,924.00**	100.00%
20b.	2	Each	Single Panels	$150.00	$300.00	**$300.00**	**2**	**0**	**$0.00**	**2**	**$300.00**	100.00%
20c.	11	Each	Double Panels	$200.00	$2,200.00	**$2,000.00**	**10**	**-1**	**-$200.00**	**10**	**$2,000.00**	100.00%
20d.	16	LF	Gate	$10.00	$160.00	**$160.00**	**16**	**0**	**$0.00**	**16**	**$160.00**	100.00%
21	1,250	LF	BMP Sediment Control	$2.00	$2,500.00	**$350.00**	**175**	**-1075**	**-$2,150.00**		**$0.00**	100.00%
			TOTAL BID FOR SHEPHERD FIRE:	**TOTAL BID =**	**$161,205.00**	**$232,694.50**			**$71,489.50**		**$14,064.00**	100.00%

APPENDIX D

ANALYSIS OF CONSULTANT COSTS INCURRED

ANALYSIS OF CONSULTANT COSTS INCURRED
SHEPHERD AREA FIRES PROJECT
DEQ PROJECT NUMBER: 410012
August 4, 2010

DESIGN ENGINEERING & BID PACKAGE		$ 35,550.25
CONSTRUCTION MANAGEMENT ENGINEERING		$ 72,722.80
Inspection	$ 19,903.00	
Engineering Oversight	$ 52,819.80	
TOTAL ENGINEERING PROJECT COST:		$ 108,273.05
CONTRACTOR CONTRACT COST:		$441,798.00

TOTAL CONSTRUCTION COST $550,071.05

PERCENTAGE ENGINEERING FEES TO CONSTRUCTION COST:

DESIGN ENGINEERING/TOTAL CONSTRUCTION COST	6.46%
CONSTRUCTION MGT. ENGINEERING/TOTAL CONSTRUCTION COST	13.22%
TOTAL ENGINEERING /TOTAL CONSTRUCTION COST	19.68%

REMARKS: Services provided by Spectrum Engineering included site map preparation, site evaluation, project design, prepare bid package, provide construction bid services, project administration and construction management, and a final project close-out report.

APPENDIX E

MISCELLANEOUS FORMS

SECTION II

2.1 BID FORM

OWNER: The Montana Department of Environmental Quality

CATEGORY OF IMPROVEMENTS: Mine Reclamation

CONTRACT TITLE: Shepherd Area Fires Project

CONTRACT NUMBER: DEQ Contract No. 410012

ASSURANCES BY BIDDER

In presenting this Bid, the undersigned Bidder expressly (1) makes the following assurances and representations, (2) acknowledges that the Montana Department of Environmental Quality may rely on these assurances and representations by Bidder and (3) acknowledges that, in the event Bidder is awarded the contract for the work contemplated herein, these representations will become part of the agreement between Bidder and the Montana Department of Environmental Quality for the performance of the work. Terms used herein shall have the meanings set forth in the definitions appearing in the form of agreement presented in the Project Manual, including the Conditions of the Contract.

1. The undersigned Bidder has familiarized itself with the nature and extent of the Contract Documents, work, locality, and with all local conditions and federal, state and local laws, ordinances, rules, and regulations that in any manner may affect cost, progress, or performance of the work.

2. Bidder has made or caused to be made such examinations, investigations, and tests and studies of such reports and related data in addition to those referred to in the above paragraph as are necessary for the performance of the work at the Contract Price within the Contract Times and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports, or similar data are or will be required by Bidder for such purposes.

3. Bidder has correlated the results of all such observations, examinations, investigations, tests, reports, and data with the terms and conditions of the Contract Documents.

4. Bidder has given Engineer written notice of any conflict, error, or discrepancy that he has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder.

5. Bidder agrees that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work. Bidder acknowledges that it has adequate information, independently verified by Bidder, to prepare and offer this Bid.

6. Bidder has prepared this bid and stands prepared to perform the work in accordance with all terms and conditions of the Agreement and the Contract Documents and all applicable laws and regulations regarding performance of the work, including without limitation, wage and hour requirements, health and safety requirements, equal employment opportunity and nondiscrimination requirements and those requirements specifically discussed in detail in Part II of the Supplementary Conditions (and attachments).

7. Bidder agrees that this Bid shall be good and may not be withdrawn for a period of 30 calendar days after the scheduled Bid opening.

8. Bidder further certifies: that the only persons or parties interested in this Bid as principals are as stated herein; that at least 50% of the work will be performed by bona fide Montana residents as defined in Section 18-2-401, MCA; that Subcontractors will perform less than 50% of the work; that the Bid is made without any collusion, as defined by state and federal anti-trust laws, with other persons, firms, or corporations; and that the Bid is made upon the Bidder's independent price determination.

9. The Bidder acknowledges receipt of addenda numbered:

#1 10/26/09 #2 10/27/09

10. Bidder has attached a copy of its current Montana Certificate of Contractor Registration to the Bid Form. Failure to submit a Certificate will result in a determination that the Bidder is not a responsible bidder and is a basis for Owner to reject the Bid under Article 11, Instructions to Bidders.

11. Time is of the essence in completing this project. Should Contractor fail to complete the work within the Contract Time, as adjusted in accordance with the terms of the Contract Documents, it will be charged the sum of Seven Hundred Fifty ($750.00) dollars per each day the work remains incomplete after the Contract Time has expired.

12. In accordance with the above understanding, and under the terms and conditions set out in the Instruction to Bidders, the undersigned proposes to furnish all materials and perform the Work within **the Contract Time of Sixty (60) consecutive calendar days**, complete in its entirety in the manner and under the conditions required in the Contract Documents, at the price listed herein as Total Contract Price. This price shall cover all expenses to be incurred in performing the Work required under the Contract Documents, of which this Bid Form is a part. Amounts are shown in both words and figures, where indicated. In case of discrepancy, the amount shown in words will govern.

The Total Contract Price includes all labor, materials, mobilization and demobilization, overhead, profit, insurance, bonds, and incidentals required to complete the work.

Specified bond and insurance costs:

1. The Total Contract Price includes the following sums for 100 percent Payment and Performance Bonds:
Eight Hundred Nineteen and 00/100 Dollars ($ 8,940.00)

2. The Total Contract Price includes any necessary sums for pollution liability insurance premiums. If pollution liability insurance premium is to be paid separately for the Work at this site, the amount of the separate premium is:

Ten Thousand & 00/100 Dollars ($ 10,000.00)
Coverage period: (a) annual X or (b) other (specify) _____

(The information requested above is simply for Owner to determine the fiscal impact of specific requirements of the contract. Owner's request for this additional information is not to affect Bidder's Total Contract Price.)

PRELIMINARY BID FORM
MARSH FIRE

Bid Item	Estimated Quantity	Unit	Description	Unit Price	Total Price
1	1	LS	Mobilization (Maximum 10% of total bid)	xxxx	$ 2500.xx
2	1	LS	Improve Access	xxxx	$ 1,000.xx
3			Supply Water		
a.	1	LS	Water Delivery Setup	xxxx	$ 5,000.xx
b.	150	KGAL	Water Usage	$ 10.00	$ 1500.00
4	5.1	AC	Clear and Grub	$ 100.00	$ 510.00
5	4800	CY	Salvage, Stockpile, and Replace Cover Soil	$ 2.00	$ 9600.00
6	1050	CY	Borrow and Place Cover Soil	$ 1.00	$ 1050.00
7	4655	CY	Overburden Excavation By Open Cut	$ 6.50	$ 30,257.50
8	2070	CY	Overburden Excavation By Trenching	$ 10.00	$ 20,700.00
9	5485	CY	Haul And Stockpile Overburden	$ 1.00	$ 5485.00
10	1455	CY	Remove, Process, And Bury Hot Coal	$ 10.00	$ 14,550.00
11	3500	CY	Excavate Disposal Trenches	$ 1.50	$ 5250.00
12	584	CY	Cap Disposal Trenches	$ 3.00	$ 1752.00
13	2040	CY	Over-Excavate And Repair Cracks	$ 2.00	$ 4080.00
14	6000	CY	Haul And Place Backfill From Stockpile	$ 1.00	$ 6,000.00
15	3.65	AC	Backfill, Grade, And Contour	$ 1,000.00	$ 3650.00
16	4.39	AC	Mulch	$ 500.00	$ 2,195.00
17	3300	SY	Supply and Install Erosion Control Mat	$ 2.00	$ 6600.00
18	1	LS	Sandstone Boulder Disposal	xxxx	$ 500.00

Bid Item	Estimated Quantity	Unit	Description	Unit Price	Total Price
19	5.1	AC	Seed and Fertilize	$ 500.00	$ 2550.00
20			Fence		
a.	3400	LF	F3M Fence	$ 2.00	$ 6,800.00
b.	5	Each	Single Panels	$ 150.00	$ 750.00
c	9	Each	Double Panels	$ 200.00	$ 1800.00
d.	32	LF	Gate	$ 10.00	$ 320.00
21	980	LF	BMP Sediment Control	$ 2.00	$ 1960.00
			TOTAL BID FOR MARSH FIRE:	$ 136,359.50	

(Price in Words) One hundred thirty six thousand three hundred fifty Nine & 50/100 US Dollars

AC = Acres
CY = Cubic Yards
LF = Lineal Feet
LS = Lump Sum
KGAL = 1,000 Gallons
SY = Square Yards

PRELIMINARY BID FORM
SHEPHERD #1 FIRE

Bid Item	Estimated Quantity	Unit	Description	Unit Price	Total Price
1	1	LS	Mobilization (Maximum 10% of total bid)	xxxx	$ 2,500.00
2	1	LS	Improve Access	xxxx	$ 1,000.00
3			Supply Water		
a.	1	LS	Water Delivery Setup	xxxx	$ 5000.00
b	200	KGAL	Water Usage	$ 10.00	$ 2000.00
4	5.65	AC	Clear and Grub	$ 100.00	$ ~~2,565.00~~ 565.00 F.D.
5	5720	CY	Salvage, Stockpile, and Replace Cover Soil	$ 2.00	$ 11,440.00
6	990	CY	Borrow and Place Cover Soil	$ 1.00	$ 990.00
7	9350	CY	Overburden Excavation By Open Cut	$ 6.50	$ 60,775.00
8	1600	CY	Overburden Excavation By Trenching	$ 10.00	$ 16,000.00
9	5540	CY	Haul And Stockpile Overburden	$ 1.00	$ 5,540.00
10	860	CY	Remove, Process, And Bury Hot Coal	$ 15.00	$ 12,900.00
11	2150	CY	Excavate Disposal Trenches	$ 1.00	$ 2150.00
12	500	CY	Cap Disposal Trenches	$ 3.00	$ 1500.00
13	12,600	CY	Over-Excavate And Repair Cracks	$ 1.00	$ 12,600.00
14	5900	CY	Haul And Place Backfill From Stockpile	$ 1.00	$ 5900.00
15	4.26	AC	Backfill, Grade, And Contour	$ 500.00	$ 2130.00
16	5.50	AC	Mulch	$ 500.00	$ 2750.00
17	780	SY	Supply and Install Erosion Control Mat	$ 2.00	$ 1560.00
18	1	LS	Sandstone Boulder Disposal	xxxx	$ 500.00

Bid Item	Estimated Quantity	Unit	Description	Unit Price	Total Price
19	5.65	AC	Seed and Fertilize	$ 500.00	$ 2825.00
20			Fence		
a.	2710	LF	F3M Fence	$ 2.00	$ 5420.00
b.	2	Each	Single Panels	$ 150.00	$ 300.00
c.	11	Each	Double Panels	$ 200.00	$ 2,200.00
d.	16	LF	Gate	$ 10.00	$ 160.00
21	1250	LF	BMP Sediment Control	$ 2.00	$ 2500.00
			TOTAL BID FOR SHEPHERD #1 FIRE:		$ 161,205.00

(Price in Words) One hundred sixty one thousand two hundred five & 00/100 US Dollars

AC = Acres
CY = Cubic Yards
LF = Lineal Feet
LS = Lump Sum
KGAL = 1,000 Gallons
SY = Square Yards

PRELIMINARY BID FORM
CHARTER FIRE

Bid Item	Estimated Quantity	Unit	Description	Unit Price	Total Price
1	1	LS	Mobilization (Maximum 10% of total bid)	XXXX	$ 250.XX
2	1	LS	Improve Access	XXXX	$ 1000.XX
3			Supply Water		
a.	0	LS	Water Delivery Setup	XXXX	XXXX
b.	0	KGAL	Water Usage	XXXX	XXXX
4	0.45	AC	Clear and Grub	$ 250.XX	$ 112.50
5	340	CY	Salvage, Stockpile, and Replace Cover Soil	$ 1.XX	$ 340.XX
6	50	CY	Borrow and Place Cover Soil	$ 1.00	$ 50.XX
7	900	CY	Overburden Excavation By Open Cut	$ 1.00	$ 900.XX
8	0	CY	Overburden Excavation By Trenching	XXXX	XXXX
9	0	CY	Haul And Stockpile Overburden	XXXX	XXXX
10	40	CY	Remove, Process, And Bury Hot Coal	$ 40.XX	$ 1600.XX
11	125	CY	Excavate Disposal Trenches	$ 1.00	$ 125.XX
12	35	CY	Cap Disposal Trenches	$ 1.00	$ 35.XX
13	0	CY	Over-Excavate And Repair Cracks	XXXX	XXXX
14	40	CY	Haul And Place Backfill From Stockpile	$ 1.00	$ 40.XX
15	0.31	AC	Backfill, Grade, And Contour	$ 3000.00	$ 930.XX
16	0	AC	Mulch	XXXX	XXXX
17	0	SY	Supply and Install Erosion Control Mat	XXXX	XXXX
18	0	LS	Sandstone Boulder Disposal	XXXX	XXXX

Bid Item	Estimated Quantity	Unit	Description	Unit Price	Total Price
19	0.45	AC	Seed and Fertilize	$ 2500.00	$ 1,125.00
20			Fence		
a.	0	LF	F3M Fence	XXXX	XXXX
b.	0	Each	Single Panels	XXXX	XXXX
c.	0	Each	Double Panels	XXXX	XXXX
d.	0	LF	Gate	XXXX	XXXX
21	0	LF	BMP Sediment Control	XXXX	XXXX
			TOTAL BID FOR CHARTER FIRE:	$ 6507.50	

(Price in Words) Six thousand five hundred seven & 50/100 US Dollars

AC = Acres
CY = Cubic Yards
LF = Lineal Feet
LS = Lump Sum
KGAL = 1,000 Gallons
SY = Square Yards

SECTION II
2.1 BID FORM (cont.)

SHEPHERD AREA FIRES PROJECT
SUMMARY BID SHEET

SITE	Bid Price Amount
MARSH FIRE	$ 136,359.00
SHEPHERD #1 FIRE	$ 161,205.00
CHARTER FIRE	$ 6,507.00
TOTAL BID	$ 304,072.00

TOTAL BID IN WORDS

Three hundred four thousand seventy two & xx/100 Us Dollars

Signature of Bidder

Contractor Registration Number / Effective Date 7448 / Oct 1, 2009
[Attach copy of current Certificate of Contractor Registration(s) to Bid Form]

If an individual: _____, doing business as _____ See Addenda

If a Partnership: _____

by _____, partner

If a Corporation: Donnes Inc.

In Montana Corporation

by Frank Donnes

Title Vice President (SEAL AND ATTEST)

attest Amy M Rauch estimator

Business Address of Bidder: 5807 Frey Road

Shepherd, Montana 59079

Telephone No: (406) 373-6601

Fax Number: (406) 373-5047

If Bidder is a joint venture, other party must sign the Bid and provide the same information (set forth above).

SECTION II

2.3 CONTRACTOR QUESTIONNAIRE AND OWNERSHIP INFORMATION

The undersigned warrants the truth and accuracy of all statements and answers herein contained. Include additional sheets if necessary.

QUESTIONNAIRE

1. How many years has your organization been in business as a (circle one) General Contractor / Subcontractor?

23 YEARS

2. Describe and give the date and owner of the last five projects that you have completed similar in type, size and nature to the one proposed?

2009 Lake DeSmet — Lake DeSmet Counties Coalition - Sheridan WY

2008 Custer Waco — Custer Waco Irr Co. Custer, MT

2007 Sarpy Road — Big Horn County Montana

2006 DS Scour — Montana Dept of Highways

2004 Logan Airport — City of Billings

3. Name five individuals or corporations for which you have performed work and to which you refer. Provide their names, addresses and telephone numbers.

2009	Lake DeSmet Coalition	Bruce Yates 133 West Brundage Sheridan WY 82801 Custer, MT		(307) [redacted] 674-6406
2008	Custer Waco	Attn: Scott Ruff		749-5772
2007	Sarpy Road	Big Horn County Commissioners Attn: Candy Wells	121 3rd St Hardin MT	665-9700
2006	Montana Dept of Highways	Paul Reiger	2701 Prospect Helena MT	657-0260
2004	Logan Airport	City of Billings Attn Kim Annin	210 No 27th Billings, MT 59101	657-8495

4. Have you reviewed that portion of the Instruction to Bidder (Article 20) which explains the completion dates, liquidated damages and the consequenses for failing to complete the Work on time? Have you ever failed to complete the work awarded to you on time? If so, when, where, and why?

YES - We have reviewed

No - Never Failed to Complete

5. Have you personally inspected the site of the proposed work? Describe any anticipated problems with the site and your proposed solutions.

Yes -

Difficult terrain, but we are Experienced in this area

6. List the names and addresses of Subcontractors to be used and the portions of the Work they will perform. Only those Subcontractors conducting significant (greater than $50,000) portions of the Work need be listed.

None greater than $50,000

7. Summarize the Financial Condition of the undersigned demonstrating the Bidder has financial resources to perform the project (or attach financial statements):

Excellent - Ref. Joel Hansen - 1st Interstate Bank

8. List the following information about the Surety which is providing the Bid Bond:

Surety's Name: Great American Insurance
Surety's Address: 580 Walnut St
Cincinnati Ohio 45202

Name and address of Surety's resident agent for service of process in Montana:

HUB International
3533 Gable Rd
Billings MT 59102

9. State the true and exact, correct and complete name under which you do business.

BIDDER

Name: Donnes Inc.

By: Frank Donnes / Vice President
Name /Title:

Phone No.: (406) 373-6601

OWNERSHIP INFORMATION

1. Contractor's Legal Structure:

( ) Sole Proprietorship
(X) Corporation
( ) Limited Liability Company
( ) Partnership
( ) Limited Partnership
( ) Other _____

If Contractor is a sole proprietorship, list:

Owner's Name _____ Phone _____

Mailing Address _____

City _____ State _____ Zip _____

SSN _____ EIN _____

Beginning date as owner of sole proprietorship _____

2. If the contractor's legal structure is other than a sole proprietorship, provide all the information set forth below for every officer, general partner, shareholder (10% or greater of voting stock) and director or any other person or entity who owns or controls the contractor. **If additional space is needed, use the Supplemental Information Form, pages CQ-7 and CQ-8.**

Name Cindy Donnes Percent of Ownership 51%

Mailing Address 5807 Frey Rd

City Shepherd State MT Zip 59079

Phone 373-6601 Title President Date Position Assumed 1980

SSN 517-72-3384 EIN 81-045-4061

Name Frank Donnes Percent of Ownership 49%

Mailing Address 5807 Frey Rd

City Shepherd State MT Zip 59079

Phone 373-6601 Title V. Pres Date Position Assumed 1980

SSN 516-82-3879 EIN 81-045-4061

3. Identify below all persons who have the authority or ability to commit the financial, real estate or working assets of the contractor who are not otherwise identified above, as owners, officers, or directors of the contractor.

Name Cindy Dawes Percent of Ownership See P 4

Mailing Address

City State Zip

Phone Title Date Position Assumed

SSN EIN

Name Frank Dawes Percent of Ownership See Page 4

Mailing Address

City State Zip

Phone Title Date Position Assumed

SSN EIN

4. Identify any other relationships, if any, (not listed above) which gives one person authority, directly or indirectly, to determine the manner in which the contractor conducts the reclamation contract work.

Name Darren Dawes Percent of Ownership Heir Apparent

Mailing Address

City State Zip

Phone Title Date Position Assumed

SSN EIN

Name Percent of Ownership

Mailing Address

City State Zip

Phone Title Date Position Assumed

SSN EIN

5. **VERIFICATION**

I certify under penalty of perjury that I am the individual authorized to submit the attached bid, that I have personally examined and am familiar with the information submitted in this disclosure and all attachments, and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in this disclosure, I believe that the information is true, accurate, and complete.

Signature _____

Title VICE PRESIDENT

Date 11-1-09

CERTIFICATE OF ACKNOWLEDGMENT

State of Montana)
: ss.
County of Yellowstone

Signed and sworn to (or affirmed) before me on November, 2009.
(date)

by Frank Donnes
(name)

(NOTARIAL SEAL)

Notary Public for the State of Montana _____

Residing at: _____

My commission expires: _____

Teri L Davis

SEAL

TERI L. DAVIS
NOTARY PUBLIC for the
State of Montana
Residing at Shepherd, Montana
My Commission Expires
November 01, 2013

Supplemental Information for Item_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Supplemental Information for Item_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

Name_____ Percent of Ownership_____

Mailing Address_____

City_____ State_____ Zip_____

Phone_____ Title_____ Date Position Assumed_____

SSN_____ EIN_____

SECTION II

2.2 CONTRACTOR PERSONNEL AND PROPOSED PROJECT APPROACH

Contractor is required to prepare a written proposal discussing their specific experience on related or similar projects as well as their proposed project approach including project personnel, project sequencing, schedule (including identification of critical work items), and resources to be used on this project. The written proposal shall be organized into the following sections:

Section I: Project Personnel - provide a detailed chain of command list or diagram identifying key administrative and supervisory personnel. Include resumes of all identified personnel.

Section II: Proposed Project Approach - provide a detailed written description of the approach proposed for completing the major tasks. Include discussion on the sequencing of each task, if applicable.

Section III: Proposed Project Schedule - provide a proposed project schedule broken down to each major work task. Identify critical work items that must be attained to meet the project schedule. Identify estimated production rates, for example soil and waste excavation, stockpiling, crushing, hauling and grading (cubic yards or tons per day) and liner installation (square yards placed per day).

(Attach Additional Pages, If Needed)

Section 1 - Project Personnel

Frank Donnes
↓
Darren Donnes
↓ ↓
CREW GARY H. DAVIS

Section 2 - Proposed Project Approach

Well defined by contract documents. We will work w/ engineer to follow contract but are able to react to site conditions as needed

Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

ADDENDUM NO. ONE (1)

SHEPHERD AREA FIRES PROJECT
MUSSELSHELL and YELLOWSTONE COUNTIES
DEQ Contract No. 410012

Addendum Date: October 26, 2009
Bid Date and Time: November 4, 2009 at 2:00 PM

The construction specifications, drawings and bidding documents for the Shepherd Area Fires Project, Musselshell and Yellowstone Counties are hereby modified and superseded by this Addendum.

1. Insert the following Technical Specification into the Table of Contents, Section IV: Technical Specifications:

   530 Riprap

2. Delete Section II, 2.1 Bid Form, pages BF-3, BF-4, BF-5, BF-6, BF-7, and BF-8 and replace with the attached revised bid form consisting of 6 pages.

3. Delete Sandstone Boulder Disposal (Bid Item no. 18) from the fourth paragraph with unit prices, page III-10 of Section III: Special Provisions:

   And replace:

   "Sandstone Boulder Disposal (Bid Item no. 18) in paragraph 3, page III-10 of Section III Special Provisions, lump sum prices".

4. Add the following sentence to the end of the first paragraph of Bid Item 18: Sandstone Boulder Disposal, page III-22 of Section III: Special Provisions:

   "Boulder sized pieces shall meet Technical Specification 530. Riprap, Type 3. Type 3 riprap shall not be used in backfill. Type 4 riprap may be used as backfill."

5. Delete the sentence under Bid Item 18: Sandstone Boulder Disposal that reads:

   "Measurement: "Sandstone Boulder Disposal" will be measured by the number of cubic yards of massive sandstone blocks that in the judgment of the engineer requires special handling, breaking and disposal. The quantity for payment will be computed by Engineer using dimension measurement of individual sandstone blocks."

And replace with:

"Measurement. There will be no direct measurement of this bid item."

6. Delete the sentence under Bid Item 18: Sandstone Boulder Disposal that reads:

"Payment: "Payment shall be made at the unit price bid per cubic yard for "Sandstone Boulder Disposal" which payment shall constitute full compensation for all labor, tools, equipment, materials, and incidentals necessary to accomplish the Work as specified."

And replace with:

"Payment. Payment shall be made at the lump sum price bid for "Sandstone Boulder Disposal" which payment shall constitute full compensation for all labor, tools, equipment, materials, and incidentals necessary to accomplish the Work as specified."

Issued by:

Montana Department of Environmental Quality

John Koerth

John Koerth
Mine Waste Cleanup Bureau

Bidder hereby acknowledges the receipt of Addendum No. One (1)

Received By: Frank Donnes - Vice President

(Name and Title) Frank Donnes

Donnes Inc

(Bidder)

Nov 1, 2009

(Date)

END

Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

ADDENDUM NO. TWO (2)

SHEPHERD AREA FIRES PROJECT
MUSSELSHELL and YELLOWSTONE COUNTIES
DEQ Contract No. 410012

Addendum Date: October 27, 2009
Bid Date and Time: November 3, 2009 at 2:00 PM

The construction specifications, drawings and bidding documents for the Shepherd Area Fires Project, Musselshell and Yellowstone Counties are hereby modified and superseded by this Addendum.

1. Delete the following language from Addendum No. One (1):

   Bid Date and Time: November 4, 2009 at 2:00 PM

   And replace with:

   Bid Date and Time: November 3, 2009 at 2:00 PM

Issued by:

Montana Department of Environmental Quality

John Koerth
Mine Waste Cleanup Bureau

Bidder hereby acknowledges the receipt of Addendum No. Two (2)

Received By: F. K. Dennes - Vice President
(Name and Title) Frank Dennes
Dennes Inc
(Bidder)
Nov 1, 2009
(Date)

END

MONTANA DEPARTMENT OF LABOR & INDUSTRY
CONSTRUCTION CONTRACTOR
REGISTRATION PROGRAM

STATE OF MONTANA
DEPARTMENT OF LABOR & INDUSTRY
★
CONSTRUCTION CONTRACTOR REGISTRATION UNIT

CERTIFICATE OF CONTRACTOR REGISTRATION

REGISTRATION NO. 7448

DONNES INC

5807 FREY RD
SHEPHERD, MT 59079 - 4459

Effective Date: Oct 01, 2009
Expiration Date: Sep 30, 2011

Employer

★ ★

5807 Frey Road
Shepherd, MT 59079

(406) 373-6601
Fax 373-5047

FRANK DONNES

VICE PRESIDENT OF DONNES INCORPORATED

AS PROJECT SUPERINTENDENT, FRANK HAS RECENTLY COMPLETED THESE PROJECTS

2009	**Lake DeSmet Dam Revetment. A 1.1 million dollar rip-rap project on the face of Lake DeSmet South Dam north of Buffalo, Wyoming**
2008	**Custer- Waco Revetment. $200,000 protection of irrigation diversion dam on Yellowstone River** **Davis Development. Install water and sewer service to apartment complex in Billings Heights**
2007	**Sarpy Road Reconstruction. $1.2 million project constructing new gravel road in Big Horn County, Montana** **Nobelwood Pipeline. $200,000 extension of Lockwood Water main**
2006	**MDT D5 Scour.** $900,000 contract to install revetment around piers in various Rivers in District 5. **BBWA Crooked Creek Siphon.** Install 860 l f. of 60" HDPE Pipe to replace inverted siphon Total cost $450,000
2005	**Saddleback Subdivision, Phase II.** Provide earthwork, underground utilities and pavement for 3 miles of roads in this subdivision. **Musselshell Mine Reclamation.** $180,000 reclamation of underground mines near Roundup, Montana
2004	**Logan International Airport.** Prime contractor on 1 2 million dollar earthwork and paving project in Billings, Montana
2003	**Weber Gravel Pit Reclamation** Move 180,000 cubic yards of gravel and topsoil to reclaim gravel pit for Northern Line Layers in Billings, Montana.
2002	**Pat Dahl Subdivision.** Construct roads, install water lines and sewer lines in residential subdivision. Project included paving roads and curb and gutter
2001	**B.B.W.A. Inverted Siphon.** Construct 1000 l f. of 48" H.D.P E. pipe across Razor Creek north of Shepherd, Montana.Project included dewatering saturated soils and constructing concrete terminal structures as well as earthwork. Cost of project $161,000.
2000	**Couleon Park Rip-Rap.** Prime contractor for the U S Army Corps of Engineers Protection of the north bank of the Yellowstone River in Billings, Montana Provided and installed a rock armament to Corps Specifications Total cost of project $450,000

Frank has owned and operated his construction company since 1976. He has completed numerous other projects; the larger ones are shown above. Frank typically works onsite with his crew of two to three operators, providing an unusual but beneficial mix of management and hands-on skills resulting in an extremely efficient operation.

5807 Frey Road
Shepherd, MT 59079

(406) 373-6601
Fax: 373-5047

DARREN DONNES

AS OPERATING FOREMAN, DARREN HAS RECENTLY COMPLETED THESE PROJECTS

2009	**Lake DeSmet Dam Revetment. A 1.1 million dollar rip-rap project on the face of Lake DeSmet South Dam north of Buffalo, Wyoming**
2008	**Custer- Waco Revetment. $200,000 protection of irrigation diversion dam on Yellowstone River** **Davis Development. Install water and sewer service to apartment complex in Billings Heights**
2007	**Noblewood Waterline Extension.** $200,000 main waterline extension for Lockwood Water Users. Included fire hydrants, paving and valving on 8" main waterline extension **Sarpy Road Reconstruction.** 1.2 million dollar road improvement project including 90,000 cubic yards of excavation for Big Horn County, Montana.
2006	**MDT D5 Scour.** $900,000 contract to install revetment around piers in various Rivers in District 5 **BBWA Crooked Creek Siphon.** Install 860 l.f. of 60" HDPE Pipe to replace inverted siphon. Total cost $450,000.
2005	**Saddleback Subdivision, Phase II.** Provide earthwork, underground utilities and pavement for ¾ mile of roads in this subdivision.
2004	**Logan International Airport.** Prime contractor on 1.2 million dollar earthwork and paving project in Billings, Montana.
2003	**Weber Gravel Pit Reclamation.** Move 180,000 cubic yards of gravel and topsoil to reclaim gravel pit for Northern Line Layers in Billings, Montana.
2002	**Exxon Refinery.** Construct a pre-cast bridge including approaches and abutments. Included extensive safety and hazardous materials training courses and practical experience.
2001	**B.B.W.A. Inverted Siphon.** Construct 1000 l.f. of 48" H.D.P.E. pipe across Razor Creek north of Shepherd, Montana. Project included dewatering saturated soils and constructing concrete terminal structures as well as earthwork. Cost of project $161,000.
2000	**Coulson Park Rip-Rap.** Prime contractor for the U.S. Army Corps of Engineers. Protection of the north bank of the Yellowstone River in Billings, Montana. Provided and installed a rock armament to Corps Specifications. Total cost of project $450,000.
1999	**Huntley Diversion Dam.** As subcontractor for COP Construction, Darren performed earth moving and rock placement in repair of an existing concrete diversion dam crossing the Yellowstone River. Approximate project cost $600,000.
1998	**Shiloh Overpass.** As subcontractor for northern Line layers, Darren constructed compacted earth fill and removed and replaced topsoil. Approximate subcontract cost $200,000.

Darren has worked in the family construction since 1996. He has completed numerous other projects, the larger ones are shown above. Darren typically works onsite with his crew of two to three operators, providing an unusual but beneficial mix of management and hands-on skills resulting in an extremely efficient operation.

2745 Horner Davis Rd
Shepherd, MT 59079

(406) 373-6770
Fax 373-6770

Gary M. Davis

PROJECT ENGINEER

As Project Engineer for a small family-owned construction company, Gary sees the construction industry from bidding to final closing. Gary assists in bidding, project documentation, safety, equal employment opportunity enforcement, project layout, project control and quality assurance, quantity computations and pay requests, dispute resolutions and project closing. Examples of his experience are presented below.

Compacted Earth Fills	**Shiloh Overpass**, 150,000 c.y. of special embankment - completed 1998. **Miles City Slope Flattening**, 10,000 c.y. fill in highway r.o.w., 1993. **Billings East Bridge**, 120,000 c.y. of imported fill for bridge approaches and highway cross-section, 1992. **Sarpy Creek Road**. 100,000 cubic yard cut/fill for county road, 2007
Mine Reclamation	**Vosberg**, U.S. Forest Service mine in remote mountains southeast of Helena, Montana. Included hazardous waste disposal, 1995. **Jardine Tailings Pond**, build and seal mine tailings pond to hold heavy metals waste, 1991. **Benbow Mine Reclamation**, DNRC project to reclaim hard rock mine, 1990. **Timberline and Trailcreek Mines**, DNRC project to reclaim coal mines east of Bozeman, Montana, 1988
River Revetments	**Huntley Diversion.** Restore irrigation diversion dam's downstream face worn by years in Yellowstone River, 1999. **Bendway Weirs**, several customers installed Bendway Weirs to channelize the Yellowstone River. Clients included Billings Bench Water Users, Canyon Creek Ditch Co., Yellowstone County through NRCS and US Bureau of Land Management at the Clark's Fork. **Rootwad Revetment**, Montana Department of Transportation west of Roundup, MT, 1996. **Lockwood Channel Cleaning**, clean water user's channel, 1996. **Lake Desmet Rearmoring**, 15,000 C.Y. Rip-Rap for Lake DeSmet, WY 2009
Slope Stability	**Billings Bench Water Users.** Stabilize slipping slope beneath rims in Billings, Montana through which their canal passes, 1985 and 1996
Coal Mines and Power Plants	**Antelope Valley Power Plant**, Beulah, ND. Quality control testing for Northern Engineering, 1980-1983. Miscellaneous involvement in numerous coal plants in Wyoming and Montana including Decker and Coteau 1978-1985.
Airports	**Pinedale Airport**, Pinedale Wyoming. Owner's Rep. during reconstruction of main runway, 1984 **Billings Logan International Airport.** Project Engineer for contractor on 1.2 million dollar earthwork and paving project 2004.

Construction Schedule - Shepherd Area Fires -Contract # 410012

30-Oct-09	Pre N T P.	wk 1	wk 2	wk 3	wk 4	wk 5	wk 6	wk 7	wk 8	wk9
MARSH FIRE SITE										
Permits										
Mob - Demob										
Erosion Control										
Access and water supply										
Clear & Grub										
Cover Soil										
Open Cut										
Trenching										
Process Coal										
Repair Cracks										
Recontour										
Seed, Fert, Mulch										
Fence										
SHEPHERD #1 FIRE SITE										
Mob - Demob										
Erosion Control										
Access and water supply										

CERTIFICATION OF NONSEGREGATED FACILITIES

The federally-assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies further that the will not maintain or provide for his employees segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract.

As used in this certification, the term "segregated" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time-clocks, locker rooms and other storage or dressing areas, parking lots, drinking foundations, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin, because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where obtained identical certification from proposed subcontractor for specific time periods) he will obtain identical certification from proposed subcontractors prior to the award of subcontractors exceeding $10,000 which are not exempt from the provisions of the equal opportunity clause, and that he will retain such certifications in his files.

Certifications: The information is true and complete to the best of my knowledge and belief.

Frank Donner - Vice President
Name and Title of Signer (please type)

Signature

Nov 1, 2009
Date

Note: The penalty for making false statements in offers is prescribed in 18 USC 1001.

Firm Name: Donner, Inc.

6/00

NOTICE OF AWARD

TO: Donnes, Inc.
5807 Frey Road
Shepherd, MT 59079

DATE: November 10, 2009

PROJECT: Shepherd Area Fires Project

DEQ Contract No.: 410012

PROJECT DESCRIPTION: The work will consist of, but not be limited to, providing all labor, materials, earthwork, and incidentals necessary to perform coal fire control work and to repair surface damage at three sites. Fire control work will include the removal, cooling, and burying of hot coal at three coal seam fire sites.

The Owner has considered the Bid submitted by you for the above-described Work in response to its Invitation for Bid dated November 3, 2009 and Instructions to Bidders.

You are hereby notified that your bid has been accepted for items in the amount of $304,072.00.

Within five (5) days after receipt of this Notice of Award (Saturdays, Sundays and legal holidays excluded) or as Owner and Contractor otherwise mutually agree, you are required (Article 13, Instructions to Bidders) to execute and deliver to Owner a copy of the Acceptance of Notice of Award, all executed copies of the Agreement and the properly issued and effective Performance and Payment Bonds, Certificates of Insurance and copies of applicable insurance policies.

If you fail to execute said Agreement and to furnish said Bonds and Insurance within five (5) days from the date of this Notice, said Owner will be entitled to consider all your rights (arising out of the Owner's acceptance of your Bid) as abandoned and to forfeit your Bid Bond. The Owner will be entitled to exercise such other and further rights as may be granted by law.

Please return an acknowledged copy of this Notice of Award to the Owner.

Dated 10th day of November, 2009.

OWNER: DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
NOV 12 2009
Department of Environmental Quality

By: John Kosta
Title: Abandoned Mines Section Mgr.

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above Notice of Award is hereby acknowledged this 12 day of November, 2009.

CONTRACTOR: Donnes INC
By: Frank Donnes
Title: V.P

Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

November 10, 2009

Donnes Inc
5807 Frey Road
Shepherd, MT 59079

RE: Notice of Award & Agreement
DEQ Contract No. 410012
Shepherd Area Fires Project

Dear Donnes, Inc.:

In accordance with Article 13 of Section 1.2 of the Contract Documents, I am pleased to enclose the Notice of Award (NOA) and Agreement to you for DEQ Contract No. 410012, Shepherd Area Fires Project.

I have enclosed four (4) copies of the NOA. Please sign the "Acceptance of Notice of Award" section of the NOA, on all four (4) copies, keep one (1) copy and return the other three (3) copies to me.

I have also enclosed four (4) copies of the Agreement. Please sign all four (4) copies and return all four (4) copies to me, along with your required Performance and Payment Bonds, certificates of insurances and copies of applicable insurance policies as required under Article 13 of Section 1.2 of the Contract Documents.

All documents referenced above shall be submitted to me within five (5) days of receipt of this notification (Saturdays, Sundays and legal holidays excluded). **Submit documents to the following address:**

Hand Delivery / FedEx:
DEQ Remediation Division
Attn: Devin Clary
1100 N. Last Chance Gulch
Helena, MT 59620

Regular Mail Delivery
DEQ Remediation Division
Attn: Devin Clary
P.O. Box 200901
Helena, MT 59620

Within ten (10) days of receipt of the above referenced and signed documents, DEQ will execute and deliver a fully signed copy of the Agreement to Donnes, Inc., along with a Notice to Proceed.

I look forward to working with Donnes, Inc. on this project. If you have any questions or concerns, I can be contacted at my office telephone (406) 841-5029 or through email at djclary@mt.gov.

Sincerely,

Devin Clary

Devin Clary
Reclamation Specialist
Department of Environmental Quality
Abandoned Mines Section

Encl: Notice of Award (4 copies)
Agreement (4 copies)

DEQ Contract No. 410012
Federal Catalog No. 15.252
DUNS No. 792992372

RECEIVED
NOV 16 2009

AGREEMENT

OWNER: The Montana Department of Environmental Quality

CATEGORY OF IMPROVEMENTS: Mine Waste Reclamation

CONTRACT TITLE: Shepherd Area Fires Project

CONTRACT NUMBER: DEQ Contract No. 410012

THIS AGREEMENT made as of the 10th day of November, 2009, by and

between the Montana Department of Environmental Quality, hereinafter called Owner, and

Donnes Inc. with legal address and principal place of business at 5807 Frey Road, Shepherd, Montana, 59079 hereinafter called Contractor. Owner and Contractor in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. WORK

1.1 Contractor shall perform the work as indicated in the Contract Documents. The work is summarized in the Special Provisions.

ARTICLE 2. ENGINEER

2.1 Spectrum Engineering, 1413 4th Avenue North, Billings, MT 59101 will act as Engineer in connection with completion of the work in accordance with the Contract Documents, unless another engineer is designated by Owner.

ARTICLE 3. CONTRACT TIMES

3.1 The work will commence as provided in Article 2 of the Conditions of the Contract. All Work shall be substantially complete, as defined in the General Conditions, **within 60 consecutive calendar days**, as adjusted under Article 12 of the Contract Documents.

3.2 Contractor agrees that the work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the Contract Times stated above. It is expressly understood and agreed that the Contract Times are reasonable for the completion of the work, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

ARTICLE 4. CONTRACT PRICE

4.1 Owner will pay Contractor for performance of the work in accordance with the Contract Documents in current funds at the Total Contract Price appearing in the Contractor's Bid Form attached to this Agreement.

ARTICLE 5. APPLICATIONS FOR PAYMENT

5.1 Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

ARTICLE 6. PROGRESS AND FINAL PAYMENTS

6.1 Owner will make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, monthly during construction as provided below. All progress payments will be on the basis of the progress of the work provided for in Paragraph 14.02 of the General Conditions.

6.2 Prior to Substantial Completion, and so long as Contractor is performing by the terms of the Agreement, progress payments will be in an amount equal to 95 percent of the value of the work completed, less, in each case, the aggregate of payments previously made [less the additional retainage of $1000 dollars per Section 18-2-404(2)]. Owner reserves the right, without prejudice to any other remedy, to increase the retainage, if Owner determines that Contractor is not performing in accordance with the terms of this Agreement.

6.3 Upon Substantial Completion of the principal elements of the Work, Owner may, at its discretion, deliver a portion of the retainage to Contractor.

6.4 Upon final inspection and acceptance of all of the work, in accordance with Paragraph 14.07. of the General Conditions, Owner will pay the remainder of the Contract Price as recommended by Engineer, retaining $1,000 until termination of the Agreement as required by Section 18-2-404(2), MCA.

ARTICLE 7. LIQUIDATED DAMAGES

7.1 Owner and Contractor acknowledge that time is of the essence in the performance of the work required under this Agreement and that Owner will suffer financial and other losses if the work is not completed within the Contract Times (specified in Article 3 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions). They also recognize the delay, expense, and difficulty involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the work is not completed on time. Accordingly, to avoid the time, expense, delay, and difficulty in proving or disputing such damages and to provide certainty and predictability for both parties, Owner and Contractor agree that Contractor

shall pay Owner as liquidated damages for delay (and not as a penalty) the amount of $750.00 per day for each day beyond the Contract Time that the work is not substantially complete.

The completion dates specified here are subject to adjustment in accordance with Paragraph 12.03 of the General Conditions, provided that Contractor shall furnish Owner the required notification of such delays in accordance with Paragraph 12.02 of the General Conditions.

ARTICLE 8. CONTRACT DOCUMENTS

8.1 The Contract Documents which, together with this executed document, comprise the Agreement between Owner and Contractor are attached hereto and made a part hereof and consist of the following:

8.1.1 The Instructions to Bidders

8.1.2 Contractor's submitted Bid Form and Questionnaire Responses, together with any properly and timely submitted amendments or supplements thereto, and other documentation requested by Owner and submitted by Contractor with the Bid or prior to the Notice of Award;

8.1.3 The required and properly issued Construction Performance Bond, Construction Payment Bond and other required bonds and certificates of insurance;

8.1.4 Notice of Award;

8.1.5 Notice to Proceed;

8.1.6 General Conditions, EJCDC Document 1910-8, 1996 Edition (modified);

8.1.7 Supplementary Conditions, Parts I and II;

8.1.8 Special Provisions;

8.1.9 Technical Specifications;

8.1.10 Drawings: Sheets 1 through 17

8.1.11 Addenda numbers ___1___ through ___2___ modifying documents which are part of this Agreement; and

8.1.12 All properly executed or issued amendments and modifications of this Agreement, including Written Amendments, Change Orders, Work Change Directives, Field Orders or Engineer's written interpretations and clarifications issued after execution of this Agreement.

ARTICLE 9. LIAISONS

9.1 Notices to be given by one party to the other shall, unless the Contract Documents provide otherwise, be sent to the following contacts for each party. Required written notices shall be sent by registered or certified mail, return receipt requested, or by similar service. A party may change a contact person(s) or address given below by notifying the other party in writing.

For DEQ/Owner:

Department of Environmental Quality
Attention: Devin Clary
Remediation Division
P.O. Box 200901
1100 N. Last Chance Gulch
Helena, MT 59620
(406) 841-5029

For Contractor:

Donnes, Inc
Attention: Frank Donnes
5807 Frey Road
Shepherd, MT 59079
(406) 373-6601

with a copy to:

Department of Environmental Quality
Attention: Mr. Thomas E. Root - Legal Counsel
P.O. Box 200901
1100 N. Last Chance Gulch
Helena, MT 59620
(406) 841-5022

ARTICLE 10. MISCELLANEOUS

10.1 Terms used in this Agreement which are defined in Article 1 of the Conditions of the Contract shall have the meanings assigned in the Conditions of the Contract.

10.2 Neither Owner nor Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his/her interest under any of the Contract Documents; and, specifically but without limitation, Contractor shall not assign any monies due or to become due without the prior written consent of Owner. In case Contractor, with Owner's written consent, assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause providing that the right of the assignee in and to any monies due or to become due to Contractor shall be subject to prior claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the work called for in this Contract.

10.3 Owner and Contractor each binds himself, his/her partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.4 The Contract Documents constitute the entire agreement between Owner and Contractor and, except as expressly provided in the Contract Documents themselves, may be altered, amended, or repealed only by a Written Modification signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement. All portions of the Contract Documents have been signed or identified by Owner and Contractor or by Engineer on their behalf.

This Agreement shall become effective on November 19th, 2009.

OWNER: CONTRACTOR:

Montana Department of Environmental Quality

By: Vicki J. Woodrow

Vicki Woodrow
Contracts Officer
Financial Services
1520 E. Sixth Avenue
Helena, MT 59620-0901

Approved for legal content by:

Thomas E. Root

Thomas E. Root
Legal Counsel, DEQ

CONTRACTOR:
Donnes, Inc.

By: Frank Donnes

(CORPORATE SEAL)(if Applicable)

Frank Donnes
Vice President, Donnes, Inc.
5807 Frey Road
Shepherd, MT 59079

Note: If Contractor is a corporation, a certificate evidencing the principal's authority to sign on behalf of the corporation must accompany the executed Agreement.

NOTICE TO PROCEED

TO: Donnes, Inc
5807 Frey Road
Shepherd, MT 59079

DATE November 18, 2009
PROJECT: **Shepherd Area Fires Project**
DEQ Contract No. 410012

In accordance with the Agreement dated November 10, 2009, you are hereby notified to commence Work no later than November 19, 2009, and you are to complete the Work within 60 consecutive calendar days. The date of completion of all Work is, therefore, 5:00 pm on January 17, 2010

OWNER: DEPARTMENT OF ENVIRONMENTAL QUALITY

By: John Koelle
Title: AML Program Manager

ACCEPTANCE OF NOTICE TO PROCEED

Receipt of the above Notice to Proceed is hereby acknowledged this 18 day of November 2009

CONTRACTOR: Donnes Inc

By: Cindy Donnes
Title: pres

WORK DIRECTIVE CHANGE

(Instructions on Reverse Side) No. 1

PROJECT: Shepherd Area Fires Project

DATE OF ISSUANCE: November 25, 2009

CONTRACTOR:
Donnes Inc.
5807 Frey Road
Shepherd, MT 59079

OWNER:
Montana Department of Environmental Quality
Mine Waste Cleanup Bureau, Remediation Division
DEQ Contract No.: 410012

CONTRACT FOR: Coal Fire Control Work

ENGINEER: Spectrum Engineering, Inc.

You are directed to proceed promptly with the following change(s): The "Marsh Fire Backfill Plan" will be modified to allow construction of a pond and embankment for post-construction stock watering.

Description: Improvements will change the planned grading configuration and overburden hauling and stockpiling. These changes will only be made provided they do not increase the overall construction cost or require additional time to implement.

Purpose of Work Directive Change: Pursuant to Lessee's request, site grading will be changed to improve the post-construction usage of this site by allowing construction of a pond and embankment for post-construction stock watering.

Attachments: (list documents supporting change)

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of determining change in Contract Price:

- ☐ Time and Materials
- ☐ Unit Prices
- ☐ Lump Sum
- ☐ Other _____

Estimated increase (decrease) in Contract Price: $0 no change. If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Method of determining change in Contract Time:

- ☐ Contractor's Records
- ☐ Engineer's Records
- ☐ Other _____

Estimated increase (decrease) in Contract Time: 0 days. If the change involves an increase, the estimated time is not to be exceeded without further authorization.

RECOMMENDED:

By: David M. Murja
Engineer

AUTHORIZED:

By _____
Owner

ACCEPTED:

By: _____
Contractor

Rev. 6/04

Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

December 29, 2009

Frank Donnes
Donnes, Inc
5807 Frey Road
Shepherd, MT 59079

RE: Temporary Suspension of Work
Shepherd Area Fires Project, DEQ Contract 410012

Dear Mr. Donnes:

The Montana Department of Environmental Quality (DEQ) is providing notification of a Temporary Suspension of Work on the Shepherd Area Fires Project, DEQ Contract 410012. Work must cease at 5:00 pm December 29th, 2009.

The purpose of this Temporary Suspension of Work is to alleviate inefficiencies and avoid lost contract time due to inclement weather and frozen ground conditions. These conditions will be reviewed regularly to determine if the temporary suspension can be lifted and work can resume earlier than April 1st, or if a second Temporary Suspension of Work needs to issued due to continuing unfavorable working conditions.

Please note that you will have fourty eight (48) days to complete the remaining work once the Temporary Suspension of Work has been lifted. If you have any questions, please do not hesitate to call me at (406) 841-5029.

Sincerely,

Devin Clary
Project Officer

Copy: David Murja, Spectrum Engineering

Clary, Devin

From: Gary Davis [garymdavis@hotmail.com]
Sent: Tuesday, December 29, 2009 11:38 AM
To: Clary, Devin
Subject: Winter Shutdown - Shepherd Area Fires

Dear Devin:

Donnes Inc. requests a Winter Shutdown for the subject project effective December 30, 2009.

Thanks.

Gary M. Davis

NOTICE TO PROCEED

TO Donnes, Inc
5807 Frey Road
Shepherd, MT 59079

DATE: April 5, 2010
PROJECT: **Shepherd Area Fires Project**
DEQ Contract No. 410012

In accordance with the Temporary Suspension of Work letter dated December 29, 2009, you are hereby notified to commence Work no later than April 5, 2010, and you are to complete the Work within 48 consecutive calendar days. Mobilization expenses for equipment required to complete the remaining tasks are to be paid for by the Contractor. The date of completion of all Work is, therefore, 5:00 pm on May 22, 2010.

OWNER: DEPARTMENT OF ENVIRONMENTAL QUALITY

By Devin Clary
Title DEQ Project Manager

ACCEPTANCE OF NOTICE TO PROCEED

Receipt of the above Notice to Proceed is hereby acknowledged this 5th day of April, 2010

CONTRACTOR: Donnes, Inc.

By Cindy Donnes
Title President

CONTRACTOR'S CERTIFICATE OF COMPLETION

TO (Owner): Montana DEQ – Remediation Div DATE: May 20, 2010

PROJECT TITLE: Shepherd Area Fires Project

DEQ Contract No. 410012

ATTN: Engineer Dave Muria – Spectrum Eng. CONTRACT DATE: November 19, 2009

FROM: Donnes Inc

(Firm or Corporation)

This is to certify that I, Frank Donnes, am an authorized official of Donnes Inc, working in the capacity of Vice President and have been properly authorized by said firm or corporation to sign the following statements pertaining to the subject contract:

I know of my own personal knowledge, and do hereby certify, that the work of the contract described above has been performed, and materials used and installed in every particular, in accordance with, and in conformity to, the Contract Plans and Specifications.

The contract work is now complete in all parts and requirements and ready for your substantial completion inspection.

I understand that neither the determination of the Engineer that the work is complete nor the acceptance thereof by the Owner shall operate as a bar to claim against the Contractor under the terms of the guarantee provisions of the Contract Documents.

CONTRACTOR: Donnes Inc - Frank Donnes

By: Frank Donnes - Vice President

Title

Distribution:
1. Project Manager
2. Field Office
3. File

Rev. 6/04

CERTIFICATE OF SUBSTANTIAL COMPLETION

TO: Montana Dept. of Environmental Quality; Mine Waste Cleanup Bureau (OWNER)

PROJECT TITLE: Shepherd Area Fires Project
DEQ Contract No. 410012
CONTRACT DATE: November 19, 2009
LOCATION: T6N, R27-28E of Musselshell and Yellowstone Counties
PROJECT OR PART SHALL INCLUDE: ALL

CONTRACTOR: Donnes Inc.
ADDRESS: 5807 Frey Road
Shepherd, MT 59079
TELEPHONE NO: 1-406-679-6601

SUBSTANTIAL COMPLETION DATE: June 16, 2010
DEQ INSPECTION DATE: June 16, 2010
ENGINEER: Spectrum Engineering, Inc.
1413 Fourth Ave N., Billings, MT 59101
PERFORMANCE BOND NO:
DATE OF BOND:
SURETY:
MONTANA AGENT:
ADDRESS:

The Work performed under this Contract has been inspected by authorized representatives of the Owner, Contractor, and Engineer, and the Project (or specified part of the Project, as indicated above) is hereby declared to be substantially completed on the above date.

DEFINITION OF SUBSTANTIAL COMPLETION

The date of substantial completion of a project or specified area of a project is the date when the construction is sufficiently completed, in accordance with the contract documents, as modified by any change orders agreed to by the parties, so the Owner can occupy or use it for the purpose for which it is intended.

A tentative list of items to be completed is appended hereto. This list is not exhaustive, and the failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents.

ENGINEER: Spectrum Engineering, Inc.

By [signature] June 16 2010
Authorized Representative Date

The Contractor accepts the above Certificate of Substantial Completion and agrees to complete and correct the items on the tentative list within the time indicated.

CONTRACTOR: Donnes, Inc

By [signature] June 16, 2010
Authorized Representative Date

The Owner accepts the Project or specified area of the Project as substantially complete and will assume full possession of the project or specified area at _____ (time), on _____ (date). The responsibility for heat, utilities, security, and insurance under the Contract Documents shall be as set forth under "Remarks" below.

OWNER: [signature]

By DEQ-AML 6-16-2010
Authorized Representative Date

Remarks: (Attach additional sheet, if necessary) No punch list

Rev. 6/04

CERTIFICATE OF ACCEPTANCE

TO: Mine Waste Cleanup Bureau, State of Montana, Department of Environmental Quality (OWNER)

PROJECT TITLE: Shepherd Area Fires Project

DEQ Contract No. 410012
CONTRACT DATE: November 19, 2009
LOCATION: T6N, R27-28E of Musselshell and Yellowstone Counties
PROJECT OR PART SHALL INCLUDE: ALL

CONTRACTOR: Donnes Inc.
ADDRESS: 5807 Frey Road
Shepherd, MT 59079
TELEPHONE NO: 1-406-679-6601

FINAL ACCEPTANCE DATE: June 16, 2010
DEQ INSPECTION DATE: June 16, 2010
ENGINEER: Spectrum Engineering, Inc.
1413 Fourth Ave N., Billings, MT 59101
PERFORMANCE BOND NO:
DATE OF BOND:
SURETY:
MONTANA AGENT:
ADDRESS:

The Work performed under this Contract has been inspected by authorized representatives of the Owner, Contractor, and Engineer, and the Project (or specified part of the Project, as indicated above) is hereby declared to be totally completed and accepted on the above date.

ENGINEER: Spectrum Engineering, Inc.

By _____ June 16, 2010
Authorized Representative Date

The Contractor accepts the above Certificate of Acceptance and agrees to abide by the conditions of the one-year warranty period which began on the substantial completion date.

CONTRACTOR: Donnes, Inc.

By _____ June 16, 2010
Authorized Representative Date

The Owner accepts the Project as totally complete, and final payment is due to the Contractor as provided in the contract documents.

OWNER: Department of Environmental Quality

By _____ 6-29-10
Authorized Representative Date

Rev. 6/04

AFFIDAVIT ON BEHALF OF CONTRACTOR

STATE OF Montana)
: ss
COUNTY OF Yellowstone / Musselshell)

DEQ Contract No.:

DATE: May 20, 2010

I certify to the best of my knowledge and belief that all work has been performed and materials supplied in strict conformance with the terms and conditions of the corresponding contract documents between Montana DEQ, Remediation Division, the Owner, and Donnes Inc, the Contractor, dated November 19, 2009 for the Shepherd Area Fires Project, DEQ Contract No. 410912, and further declare that all bills for materials, supplies, utilities, and for all other things furnished or caused to be furnished by the above-named Contractor and used in the execution of the above Contract have been fully paid, and there are no unpaid claims or demands of State Agencies, subcontractors, materialmen, mechanics, laborers or any others resulting from or arising out of work done or ordered to be done by said Contractor under the above-identified Contract.

In consideration of the prior and final payments made and all payments made for authorized changes, the Contractor releases and forever discharges the Owner from any and all obligations and liabilities arising by virtue of said Contract and authorized changes between the parties hereto, either verbal or in writing, and any and all claims and demands of every kind and character whatsoever against the Owner, arising out of or in any way relating to said Contract, and authorized changes.

This affidavit is made for the purpose of inducing the Owner to make Final Payment under the terms of the Contract, relying on the truth and statements contained therein.

Dated this 20 day of May, 2010, at Billings, Montana.

CONTRACTOR: Donnes Inc

By: Frank Donnes Frank Donnes
Title: Vice President

Subscribed and sworn to before me this 24th day of MAY, 2010.

William L Aamold
Notary Public for the State of Montana
Residing at 495 Usher #312 Billings, MT
My commission expires Oct 17, 2011

(SEAL) WILLIAM L AAMOLD NOTARY PUBLIC for the State of Montana Residing at Billings, Montana My Commission Expires Oct 17, 2011

Rev. 6/04

BOND NO. CA2246063

CONSENT OF SURETY COMPANY TO FINAL PAYMENT

(From AIA Document G707)

OWNER [ ]
ENGINEER [ ]
CONTRACTOR [ ]
SURETY [ ]
OTHER

PROJECT: Shepherd Area Fires Project

TO (Owner)
Montana Dept. of Environmental Quality
Remediation Division
Mine Waste Cleanup Bureau
P.O. Box 200901
Helena, MT 59620-0901

DEQ Contract No.: 410012

CONTRACT FOR: Coal Fire Control Work

CONTRACT DATE: November 19, 2009

CONTRACTOR: Donnes, Inc; 5807 Frey Road; Shepherd, MT 59079

In accordance with the provisions of the contract between the Owner and the Contractors indicated above,

the GREAT AMERICAN INSURANCE COMPANY, 580 WALNUT STREET, CINCINNATTI, OH 45202, SURETY COMPANY, on bond
(here insert name and address of Surety Company)

of DONNES, INC., 5807 FREY ROAD, SHEPHERD, MT 59079, CONTRACTOR, hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to Montana Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901, OWNER, as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this 30TH day of JUNE, 2010.

GREAT AMERICAN INSURANCE COMPANY
Surety Company

Attest: JENNY JOHNSON, BOND CLERICAL
(Seal)

Signature of Authorized Representative

JOHN D. LEAF, ATTORNEY-IN-FACT
Title

NOTE: This form is to be used as a companion document to the Affidavit on Behalf of Contractor (current edition)

RECEIVED
JUL 08 2010

Rev. 6/04

APPENDIX F

CONSTRUCTION BID PACKAGE DRAWINGS

STATE OF MONTANA

Department of Environmental Quality, Remediation Division

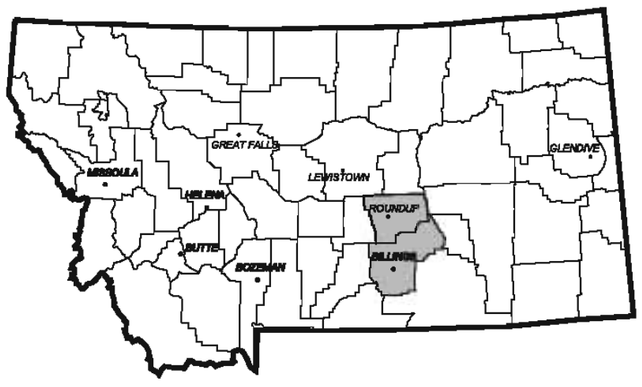
SHEPHERD AREA FIRES

DEQ CONTRACT NO. 407040

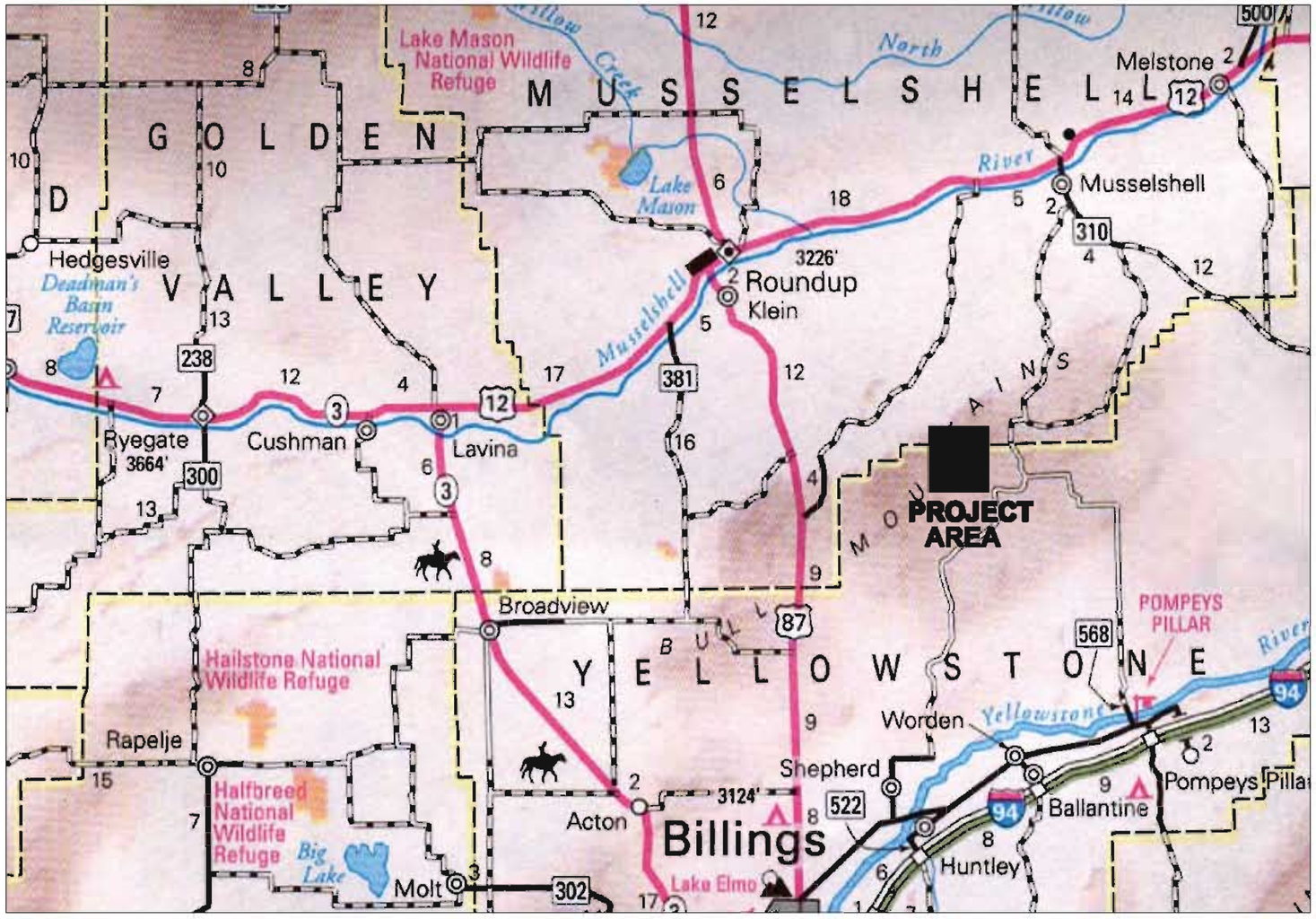
Musselshell & Yellowstone Counties, Montana

MAP SHEET INDEX

SHEET	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2	ROAD MAP
3	SHEPHERD AREA SITES ACCESS AND LOCATION
4	MARSH FIRE SITE FEATURES AND TOPOGRAPHY
5	MARSH FIRE SITE PREPARATION
6	MARSH FIRE FIRE CONTROL EARTHWORK
7	MARSH FIRE COAL REMOVAL & DISPOSAL
8	MARSH FIRE BACKFILL PLAN
9	MARSH FIRE REVEGETATION PLAN
10	SHEPHERD #1 FIRE SITE FEATURES AND TOPOGRAPHY
11	SHEPHERD #1FIRE SITE PREPARATION
12	SHEPHERD #1 FIRE FIRE CONTROL EARTHWORK
13	SHEPHERD #1 FIRE COAL REMOVAL & DISPOSAL
14	SHEPHERD #1 FIRE BACKFILL PLAN
15	SHEPHERD #1 FIRE REVEGETATION PLAN
16	CHARTER FIRE SITE FEATURES AND TOPOGRAPHY
17	CHARTER FIRE SITE PLAN



STATE OF MONTANA



NOTICE

THE WORK DESCRIPTION INFORMATION PRESENTED ON THE DRAWINGS IS NOT COMPLETE. REFER TO THE SPECIAL PROVISIONS AND THE REFERENCED TECHNICAL SPECIFICATIONS FOR DETAILED WORK DESCRIPTIONS.

CONSTRUCTION LIMITS

ACCESS ROUTES, WORK AREAS, AND CONSTRUCTION LIMITS WILL BE FIELD STAKED BY THE ENGINEER. VEHICLE TRAVEL WILL BE LIMITED TO ROUTES FLAGGED AT POSTED SPEED LIMITS.

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THE WORK SHOWN ON THESE PLAN SHEETS WERE PREPARED UNDER MY SUPERVISION. I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MONTANA.

William C. Maehl
Montana PE No. 5274PE

REVISIONS		
NO.	DESCRIPTION	DATE
1		

SPECTRUM ENGINEERING
1413 4th Ave. North
Billings, MT 59101
Phone: (406) 259-2412

August 2009

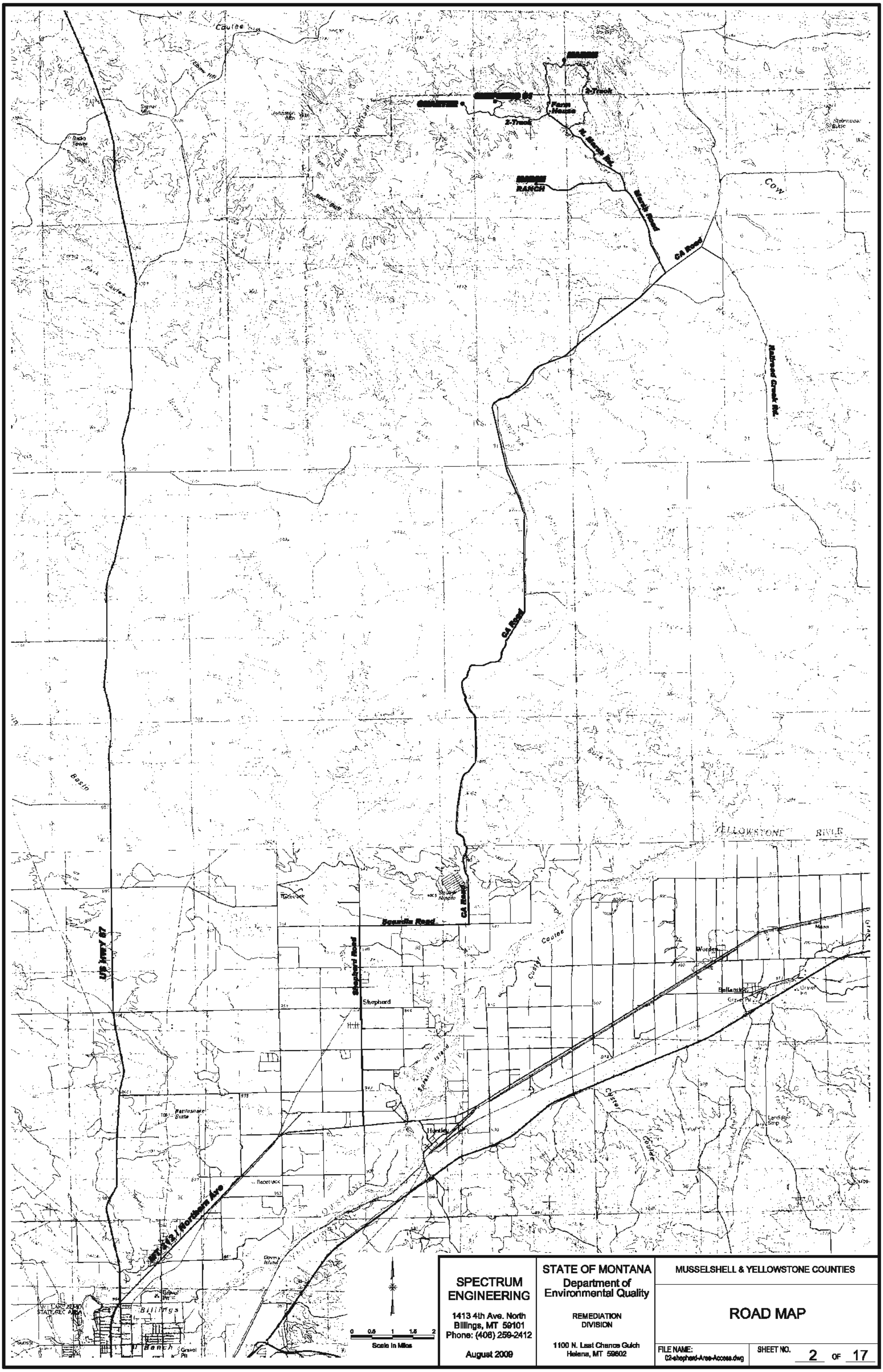
STATE OF MONTANA
Department of Environmental Quality
REMEDIATION DIVISION
1100 N. Last Chance Gulch
Helena, MT 59602

MUSSELSHELL & YELLOWSTONE COUNTIES

TITLE SHEET AND LOCATION MAP

FILE NAME: 01-Title-page.dwg

SHEET NO. 1 OF 17



SPECTRUM ENGINEERING

1413 4th Ave. North
Billings, MT 59101
Phone: (406) 259-2412

August 2009

STATE OF MONTANA
Department of Environmental Quality

REMEDIATION DIVISION

1100 N. Last Chance Gulch
Helena, MT 59602

MUSSELSHELL & YELLOWSTONE COUNTIES

ROAD MAP

FILE NAME: 02-shepherd-Area-Access.dwg

SHEET NO. 2 OF 17

BID ITEM 2 - IMPROVE ACCESS
Contractor Shall Make Necessary Improvements Along The Existing Routes, Which Are Shown, Except As Noted

MARSH FIRE
SHEPHERD #1 FIRE
CHARTER FIRE
Sheep Grade
Areas Cleared For Const.
Cross Country Routes
Gate
Ranch House
2-Track Road
N. MARSH RD.
500 Ft. To Locked Gate
Fence Line
Well
Dutch Oven Creek
MUSSELSHELL CO
YELLOWSTONE CO

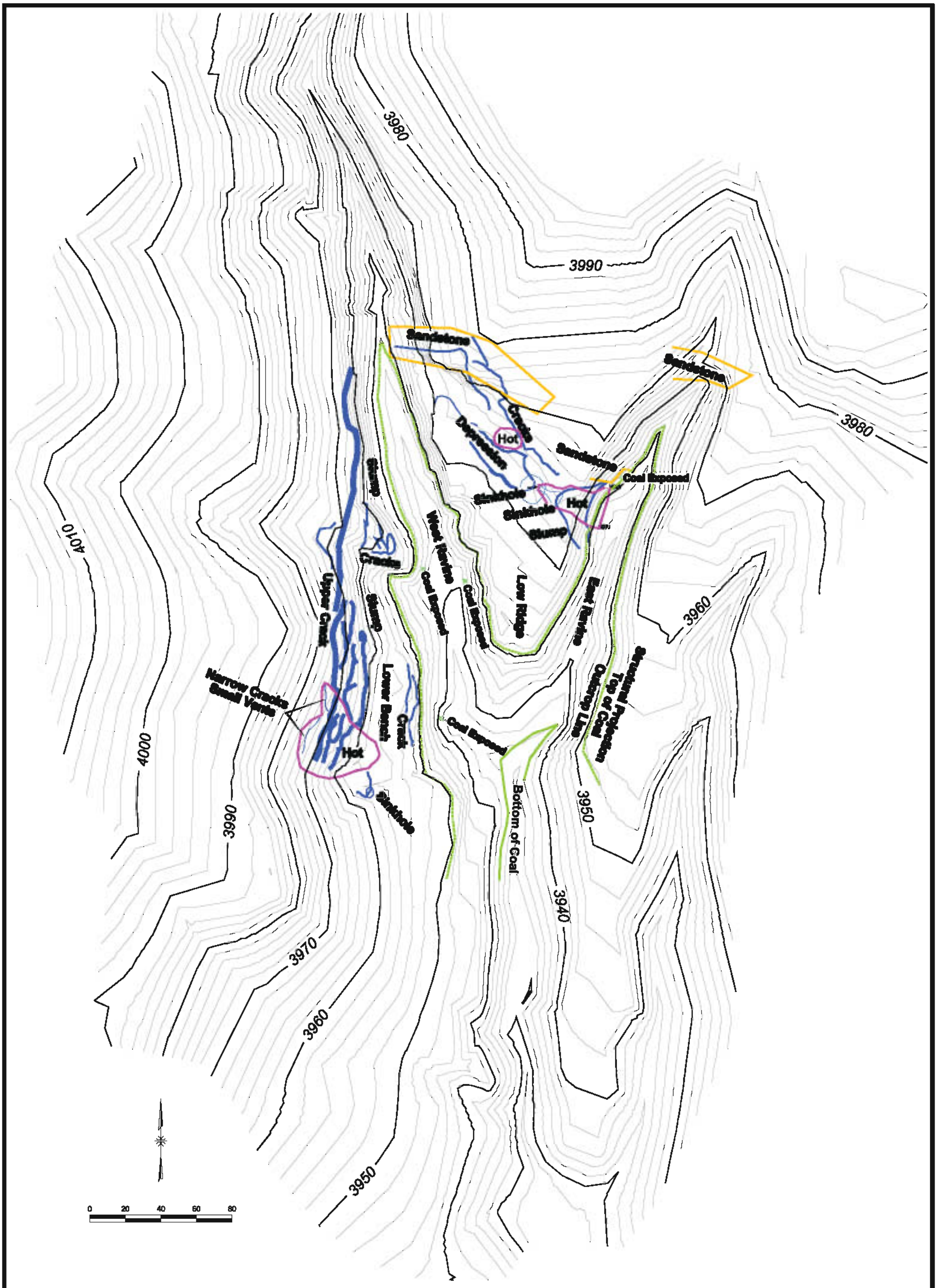
T6N, R27 & 28E
of Musselshell & Yellowstone Counties, Montana

SHEPHERD AREA SITES
ACCESS AND LOCATION

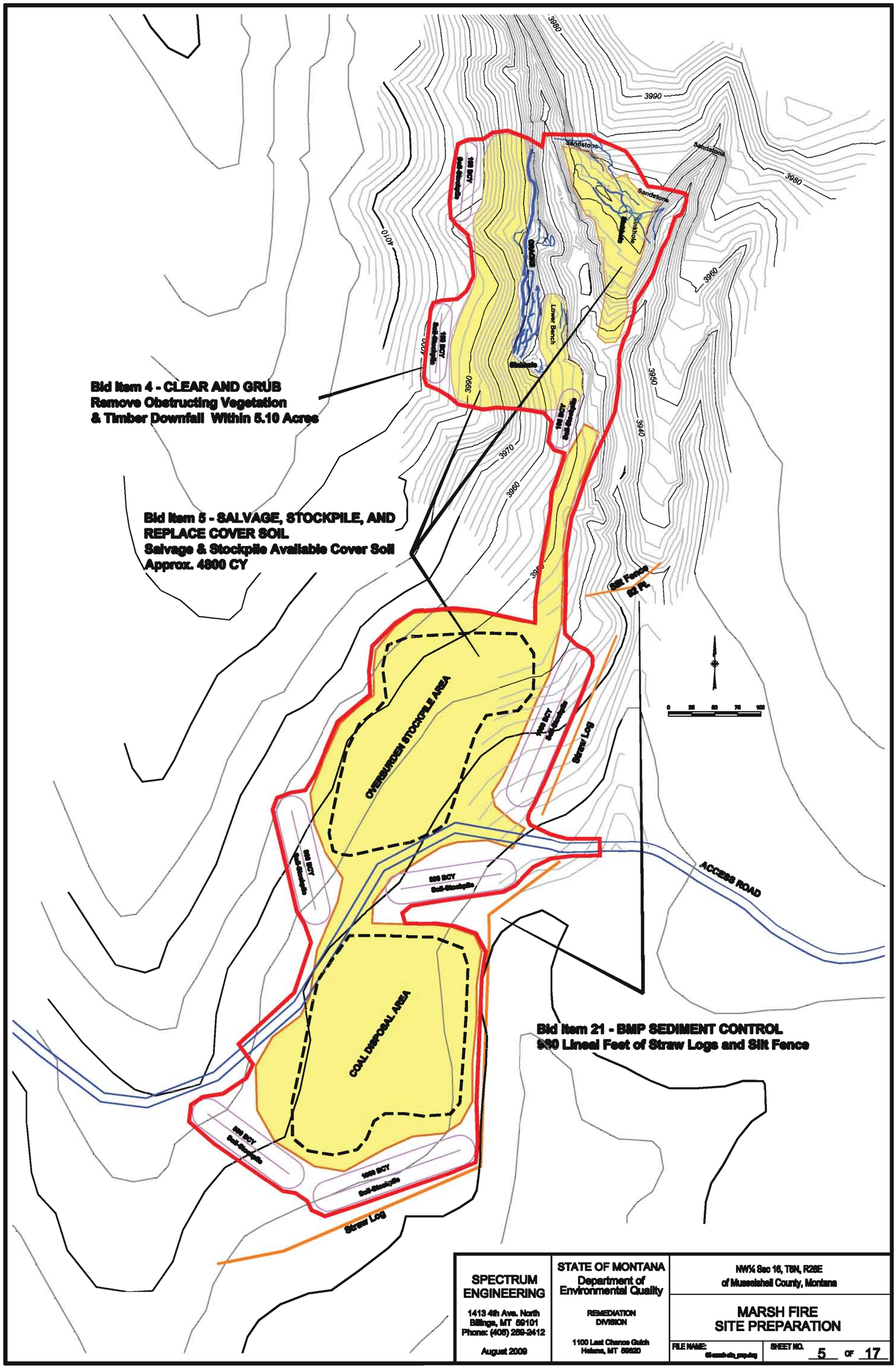
FILE NAME: 09-Const-Access.dwg
SHEET NO. 3 OF 17

STATE OF MONTANA
Department of Environmental Quality
REMEDIATION DIVISION
1100 Lost Chance Gulch
Helena, MT 59620

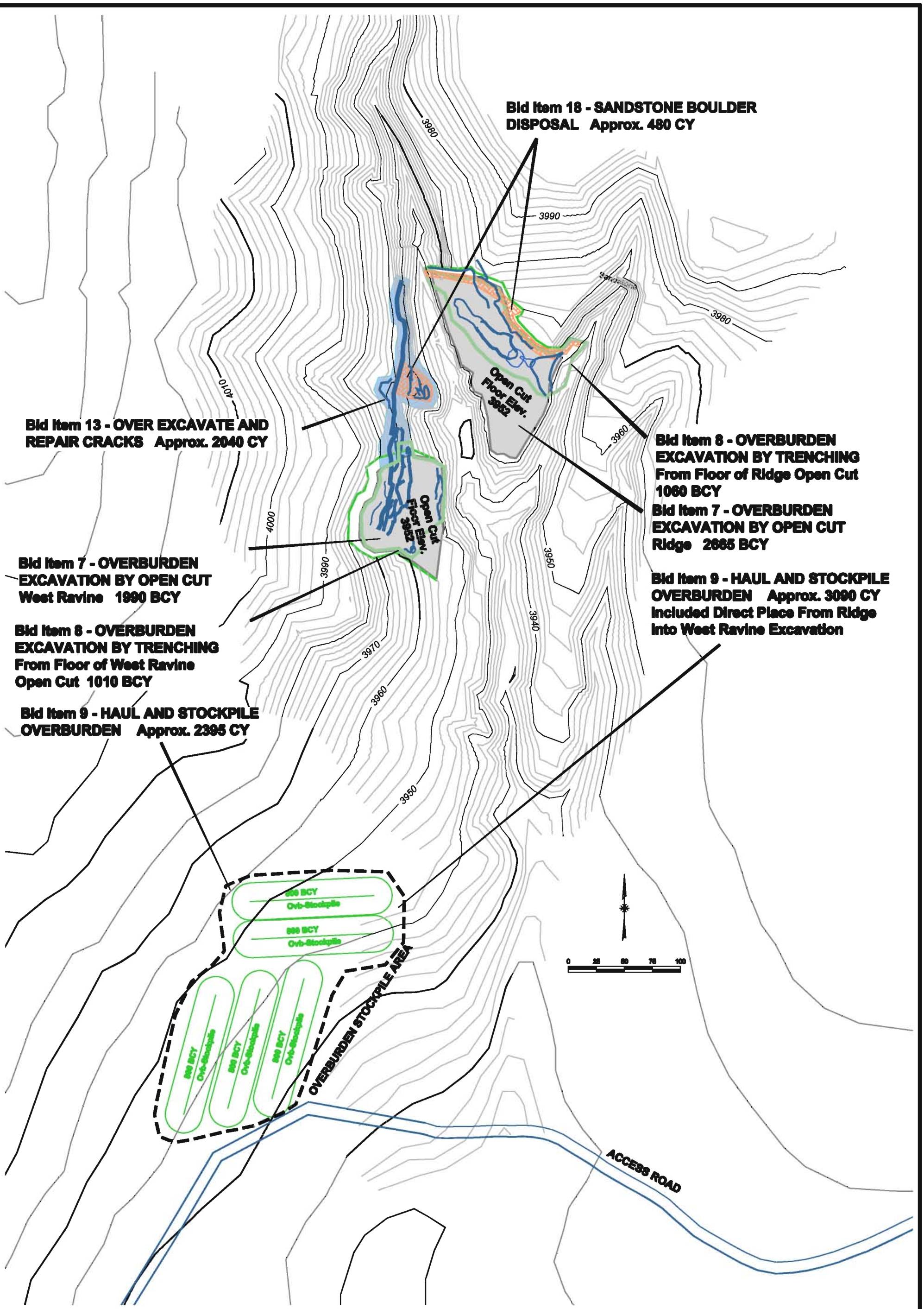
SPECTRUM ENGINEERING
1413 4th Ave. North
Billings, MT 59101
Phone: (406) 259-2412
August 2009



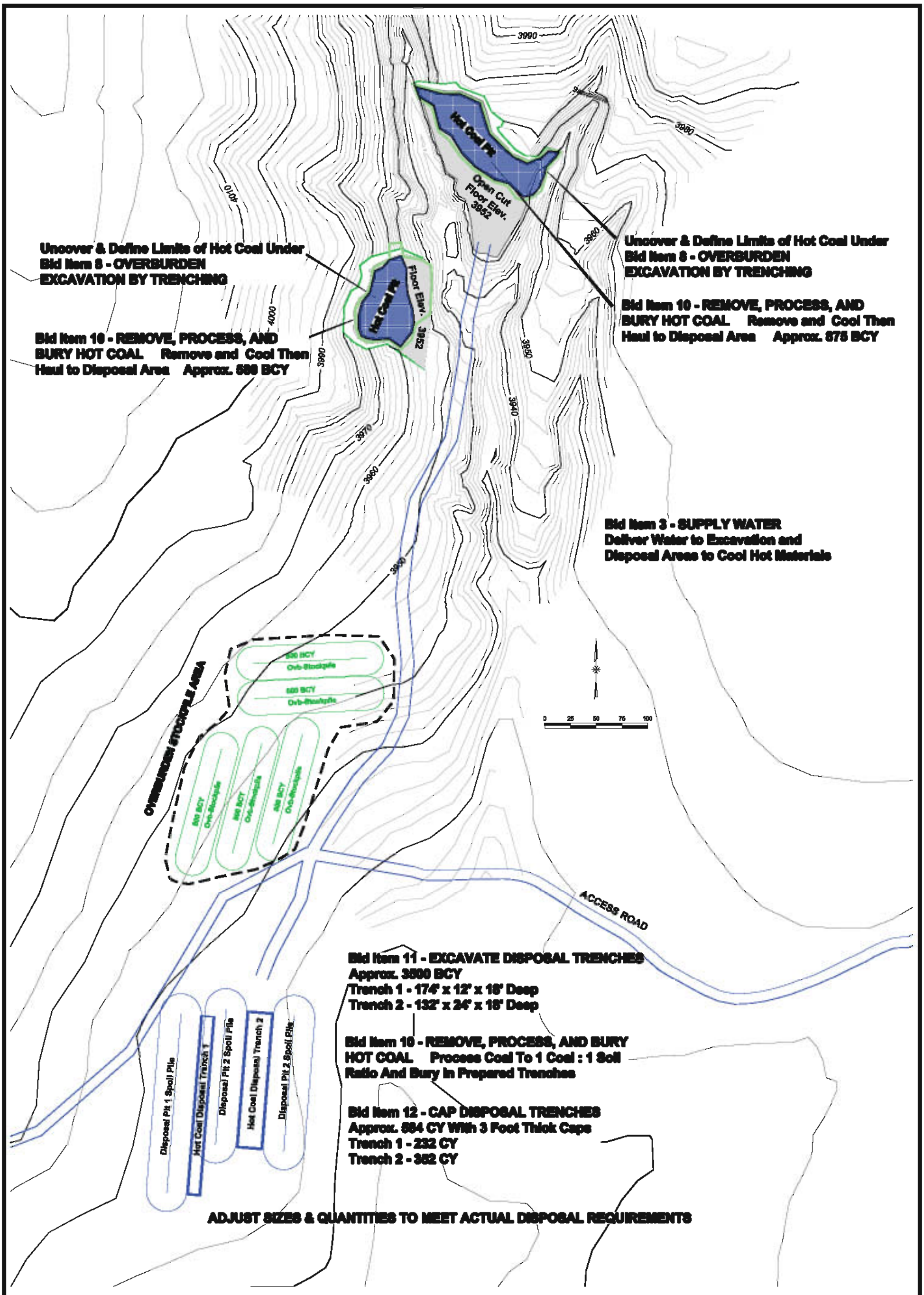
SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R28E of Musselshell County, Montana **MARSH FIRE** **SITE FEATURES AND TOPOGRAPHY** FILE NAME: [redacted] SHEET NO. 4 OF 17



SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T5N, R26E of Musselshell County, Montana MARSH FIRE SITE PREPARATION FILE NAME: [illegible] SHEET NO. 5 OF 17



SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T8N, R28E of Musselshell County, Montana MARSH FIRE FIRE CONTROL EARTHWORK FILE NAME: 09-marsh-fire6.dwg SHEET NO. 6 OF 17



SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R28E of Musselshell County, Montana MARSH FIRE COAL REMOVAL & DISPOSAL FILE NAME: [redacted] SHEET NO. 7 OF 17

Bid Item 18 - SANDSTONE BOULDER
DISPOSAL 85 CY Riprap Armor

Replace Cover Soil - Bid Item 5

Bid Item 18 - SANDSTONE BOULDER
DISPOSAL 250 CY Riprap Armor

Bid Item 15 - BACKFILL, GRADE, AND
CONTOUR 3.65 Acres

Backfill - Bid Items 14 & 15

Replace Cover Soil - Bid Item 5

Bid Item 5 - SALVAGE, STOCKPILE,
AND REPLACE COVER SOIL
Replace 4808 CY From Stockpiles on
Contoured Area (Excludes Riprap Area)

Replace Cover Soil - Bid Item 5

Bid Item 14 - HAUL AND PLACE
BACKFILL FROM STOCKPILE
Backfill Excavations With Stockpiled
Overburden Approx. 5429 CY

Replace Cover Soil - Bid Item 5

Replace Cover Soil - Bid Item 5

Bid Item 14 - HAUL AND PLACE
BACKFILL FROM STOCKPILE
Backfill Exposed Coal With
Fine-Grained Soil 580 CY

Bid Item 6 - BORROW AND PLACE COVER SOIL
Supplement Salvaged Cover Soil With
1050 CY Of Suitable Soil From Disposal
Trench Stockpiles

Replace Cover Soil - Bid Item 5

Replace Cover Soil - Bid Item 5

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R28E of Musselshell County, Montana MARSH FIRE BACKFILL PLAN FILE NAME: SHEET NO. 8 OF 17

Bid Item 18 - SANDSTONE BOULDER
DISPOSAL 85 CY Riprap Armor

Bid Item 17 - SUPPLY AND INSTALL EROSION
CONTROL MAT 3300 SQ-YDS

Bid Item 18 - SANDSTONE BOULDER
DISPOSAL 250 CY Riprap Armor

DOUBLE PANEL

Bid Item 19 - SEED AND FERTILIZE 5.16 Acres

Bid Item 20 - FENCE
Install 3400 Ft. of F3M Fence
with 5 Single Panels, 9 Double Panels
& 2 Gates (Ea. 16 Ft.)

GRADED STOCKPILE AREA

SINGLE PANEL

GATE

ACCESS ROAD

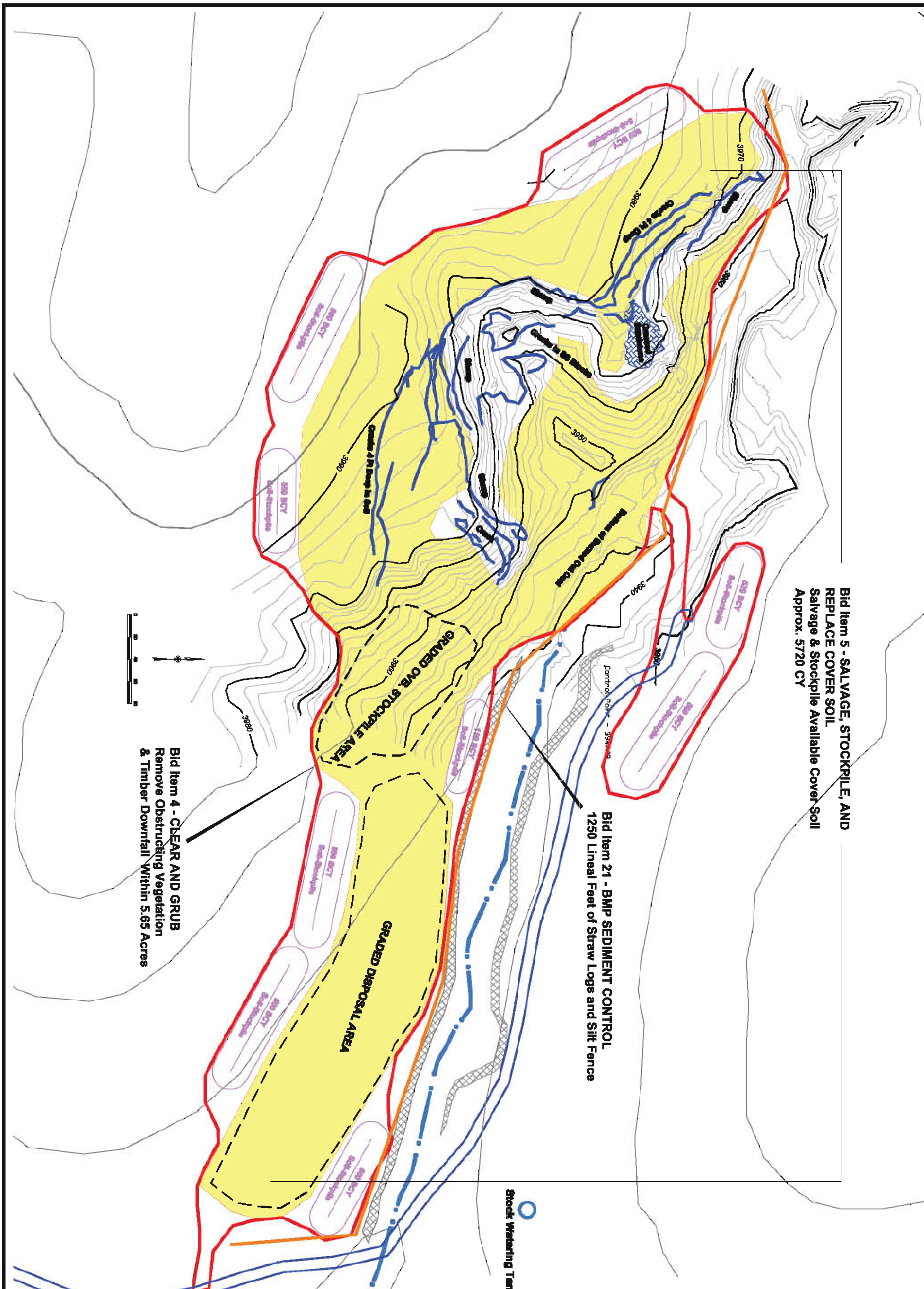
Bid Item 16 - MULCH 4.30 Acres
Excludes Riprap & EC Mat Areas

GRADED DISPOSAL AREA

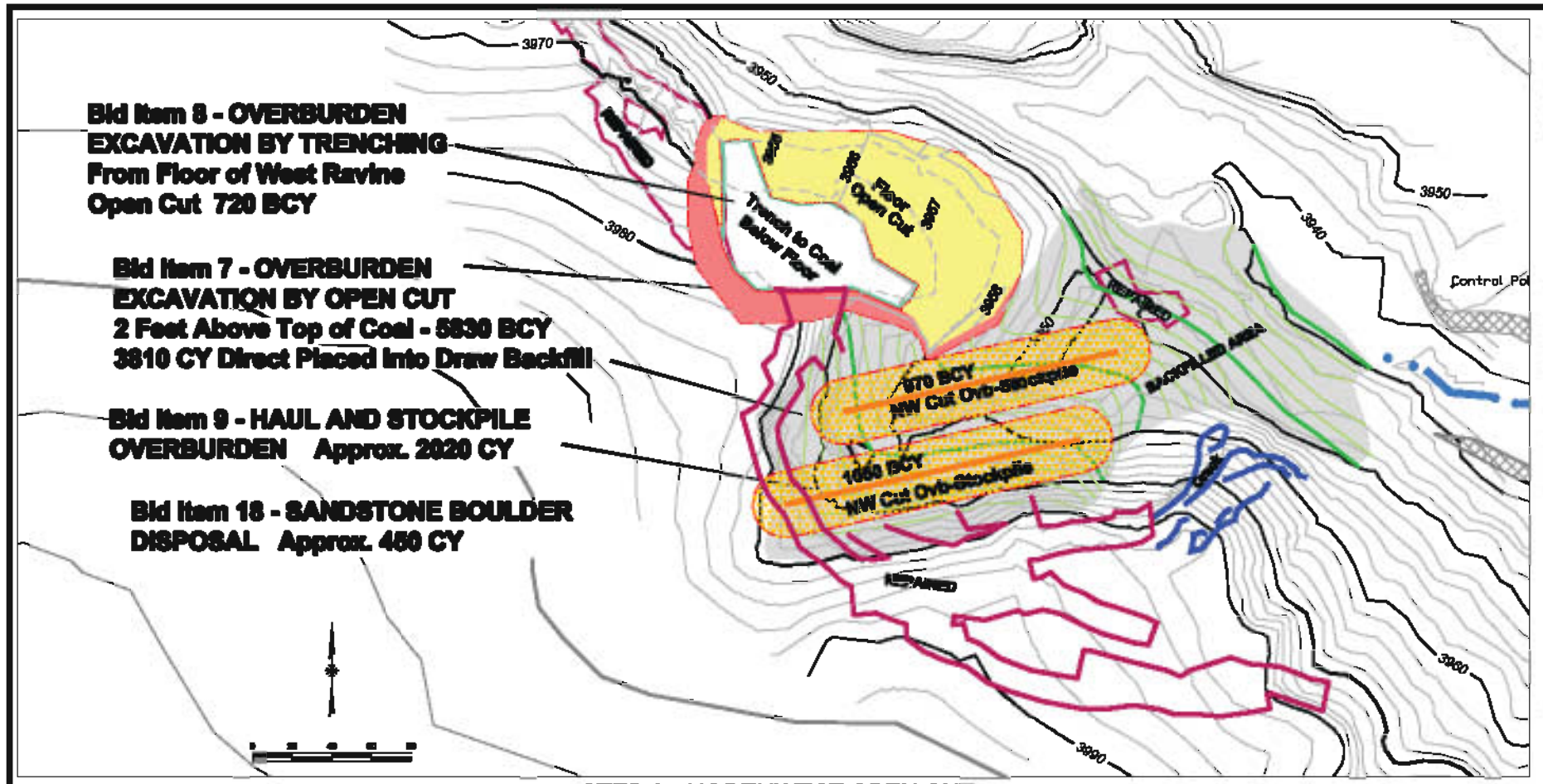
GATE

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R26E of Musselshell County, Montana MARSH FIRE REVEGETATION PLAN FILE NAME: SHEET NO. 9 OF 17

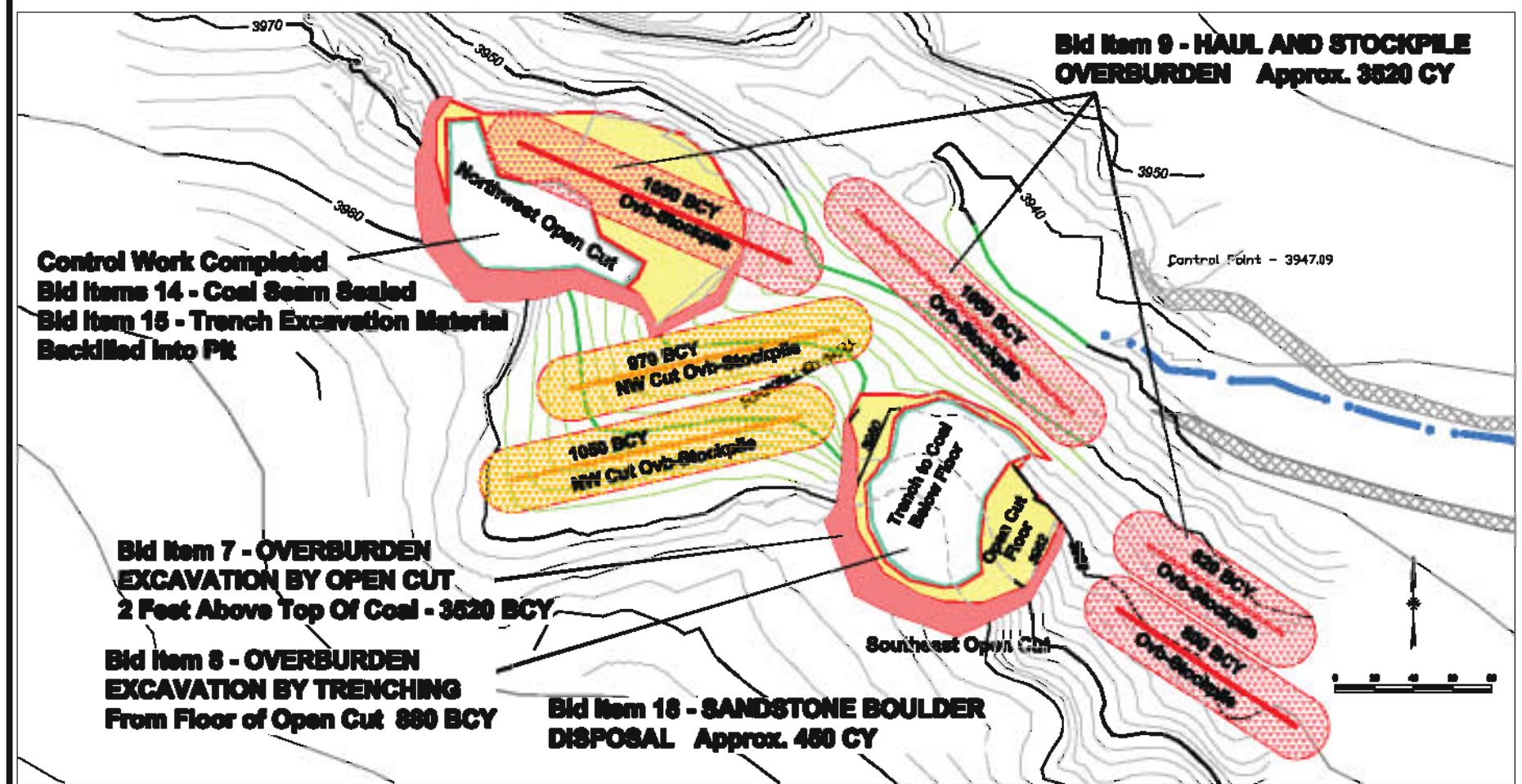
SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 18, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE SITE FEATURES AND TOPOGRAPHY FILE NAME: [illegible] SHEET NO. 10 OF 17



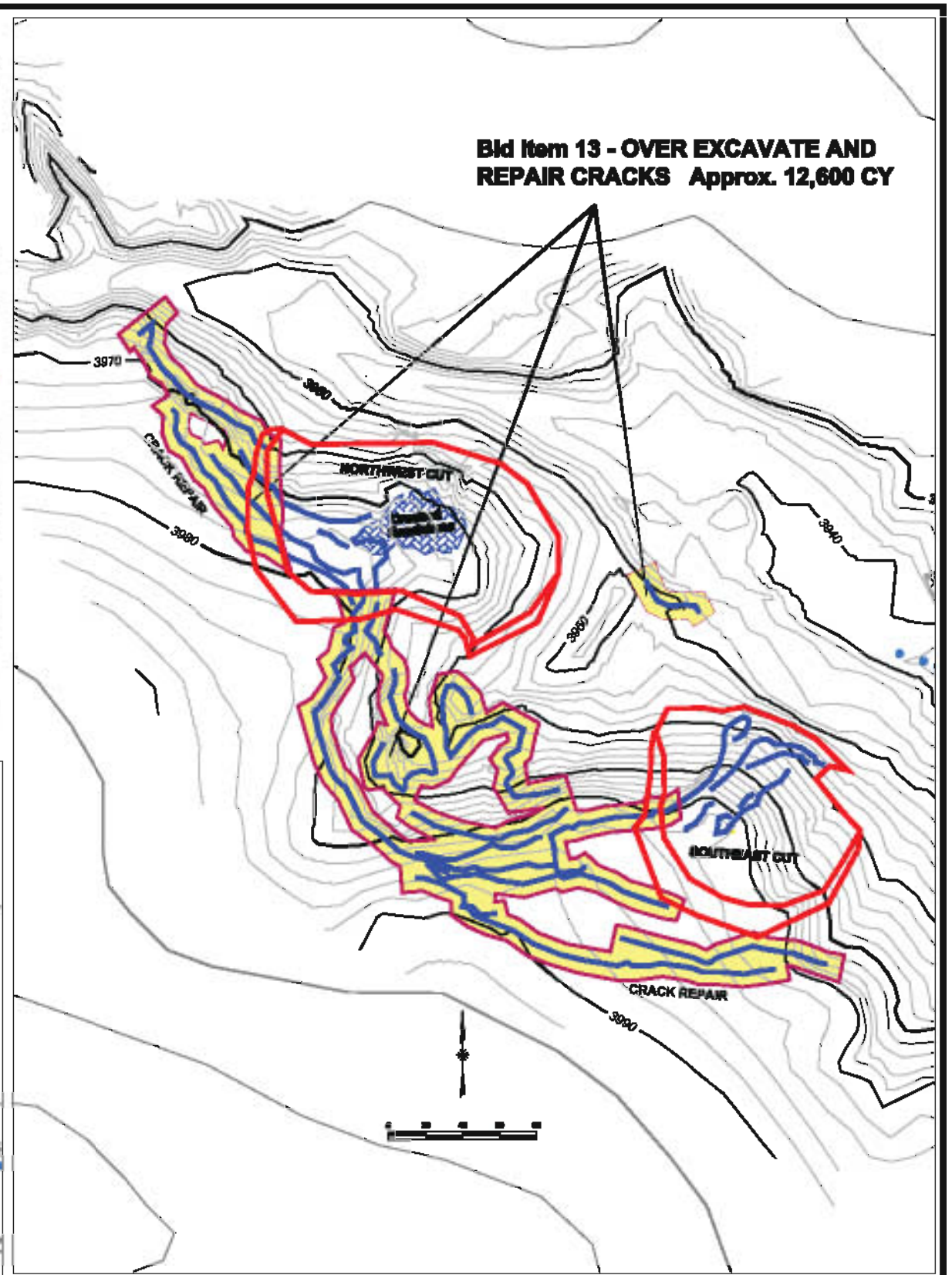
SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE SITE PREPARATION FILE NAME: 11-shep1-site_prep.dwg — SHEET NO. 11 OF 17



STEP 2 - NORTHWEST OPEN CUT

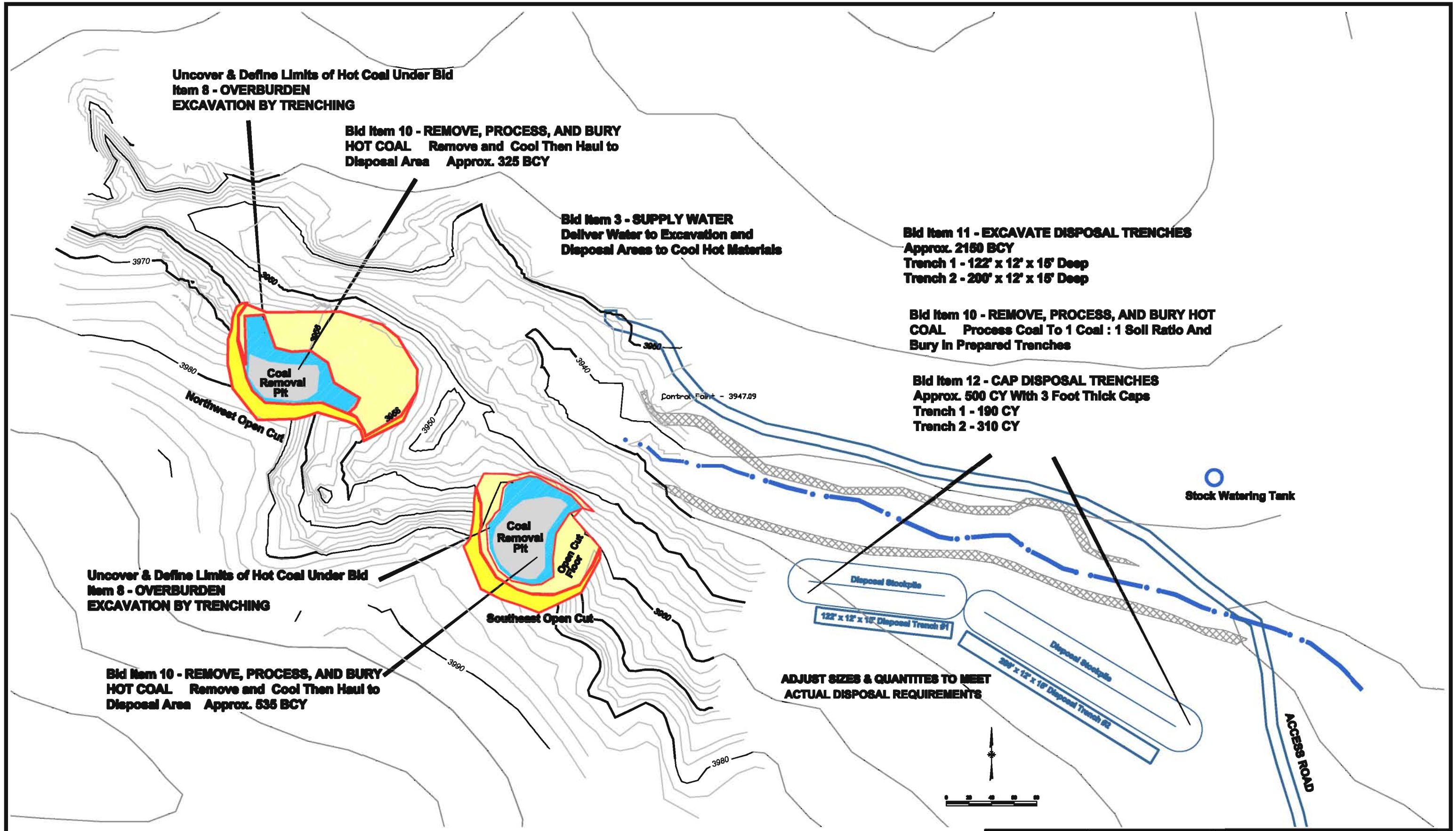


STEP 3 - SOUTHEAST OPEN CUT



STEP 1 - CRACK EXCAVATION AND REPAIR

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE FIRE CONTROL EARTHWORK FILE NAME: 12shepf-earthwork.dwg SHEET NO. 12 OF 17



SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE COAL REMOVAL & DISPOSAL FILE NAME: 13-shep1-coal-removal.dwg SHEET NO. 13 OF 17

Bid Item 18 - SANDSTONE BOULDER
DISPOSAL Riprap Armor Along Base of Slope

Bid Item 5 - SALVAGE, STOCKPILE,
AND REPLACE COVER SOIL
Replace 5720 CY From Stockpiles on
Contoured Area (Excludes Riprap Area)

Bid Item 14 - HAUL AND PLACE
BACKFILL FROM STOCKPILE
Cover Exposed Coal With Fine Soil - 130 CY
Ovb. Stockpiles - 3350 CY

Replace Cover Soil
Bid Item 5

Replace Cover Soil
Bid Item 5

Bid Item 14 - HAUL AND PLACE
BACKFILL FROM STOCKPILE
Fine Soil To Cover Exposed Coal- 280 CY
Common Fill To Contour Draw - 200 CY

Bid Item 6 - BORROW AND PLACE COVER SOIL
Supplement Salvaged Cover Soil With
240 CY Of Suitable Soil From Disposal
Trench Stockpiles

Stock Watering

Bid Item 14 - HAUL AND PLACE
BACKFILL FROM STOCKPILE
Disposal Trench Stockpiles - 200 CY

Bid Item 15 - BACKFILL, GRADE, AND CONTOUR
4.26 Acres Includes
Direct Place Overburden
All Ovb. Trench Excavation Material
70 CY of Adj. Borrow for Northwest Open Cut,
200 CY of Adj. Borrow for Southeast Open Cut,
& 500 CY of Adj. Cut to Contour the Draw

Bid Item 6 - BORROW AND PLACE COVER SOIL
Supplement Salvaged Cover Soil With
750 CY Of Borrowed Suitable Soil

Bid Item 14 - HAUL AND PLACE
BACKFILL FROM STOCKPILE
Cover Exposed Coal With Fine Soil - 210 CY
Ovb. Stockpiles - 2200 CY

Northwest Open Cut
Backfill Area

Coal
Removal
Pit

Southeast Open Cut
Backfill Area

Coal
Removal
Pit

Cover Soil Borrow Area

Replace Stockpiles
Bid Item 14

Disposal Stockpile

122' x 12' x 10' Disposal Trench #1

Disposal Stockpile

266' x 12' x 10' Disposal Trench #2

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 August 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE BACKFILL PLAN FILE NAME: 14s-shep1-backfill-grading.dwg SHEET NO. 14 OF 17

Bid Item 17 - SUPPLY AND INSTALL EROSION CONTROL MAT 780 SQ-YDS

Bid Item 18 - SANDSTONE BOULDER DISPOSAL Riprap Armor Along Base of Slope

EC BLANKET

GRADED OVB. STOCKPILE AREA

GRADED DISPOSAL AREA

Stock Watering Tank

Bid Item 16 - MULCH 5.50 Acres
Excludes Riprap & EC Mat Areas

DOUBLE PANEL

Bid Item 20 - FENCE
Install 2710 Ft. of F3M Fence
with 2 Single Panels, 11 Double Panels
& 1 Gate (Ea. 16 Ft.)

Bid Item 19 - SEED AND FERTILIZE 5.65 Acres

GATE

SINGLE PANEL

ACCESS ROAD

NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E
of Yellowstone County, Montana

SHEPHERD #1 FIRE REVEGETATION PLAN

FILE NAME: shepherd-reveg.dwg

SHEET NO. 15 OF 17

STATE OF MONTANA
Department of
Environmental Quality

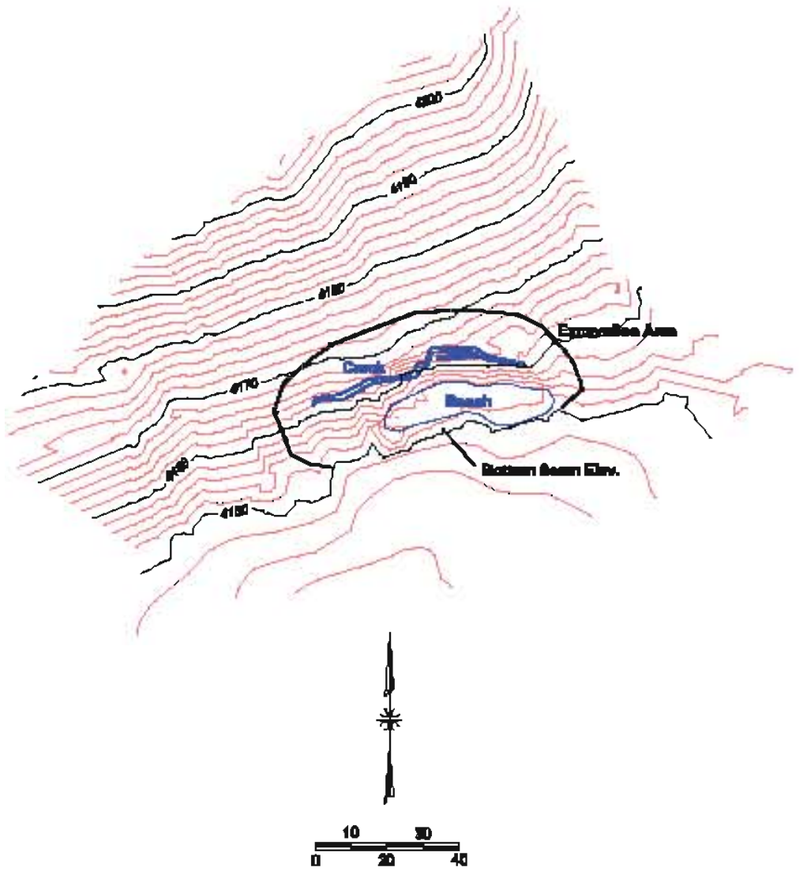
REMEDIATION
DIVISION

1100 Lost Chance Gulch
Helena, MT 59620

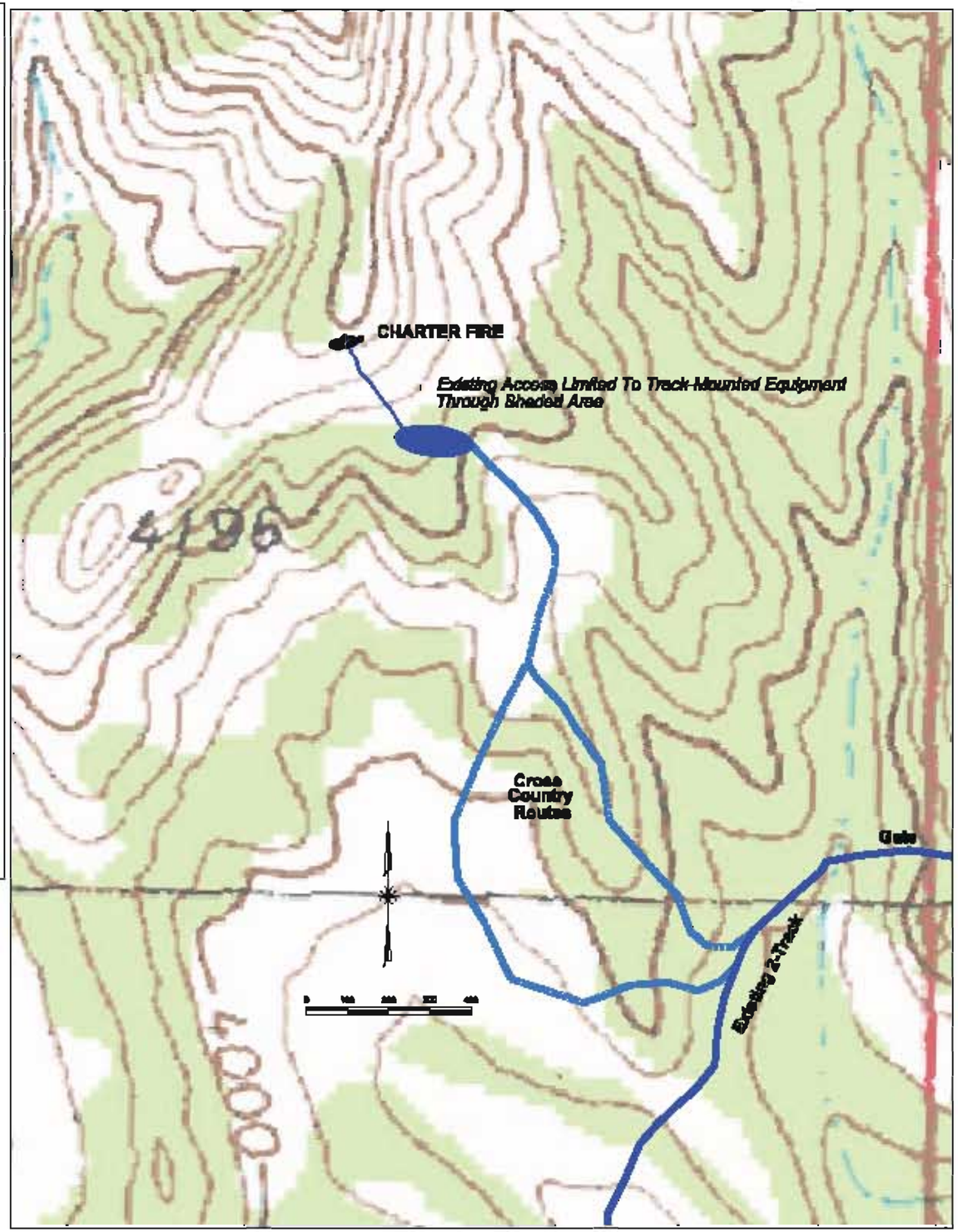
SPECTRUM
ENGINEERING

1413 4th Ave. North
Billings, MT 59101
Phone: (406) 259-2412

July 2009



DUE TO THE LIMITED WORK REQUIREMENTS, ACCESS DISTURBANCE BEYOND THE EXISTING 2-TRACK ROAD WILL BE KEPT TO A MINIMUM. GRADING IMPROVEMENTS SHALL BE ARROVED BY THE ENGINEER. SURFACE REPAIRS WILL BE MADE AT CONTRACTOR'S EXPENSE.



NE¼ Sec 24, T6N, R3E
of Yellowstone County, Montana

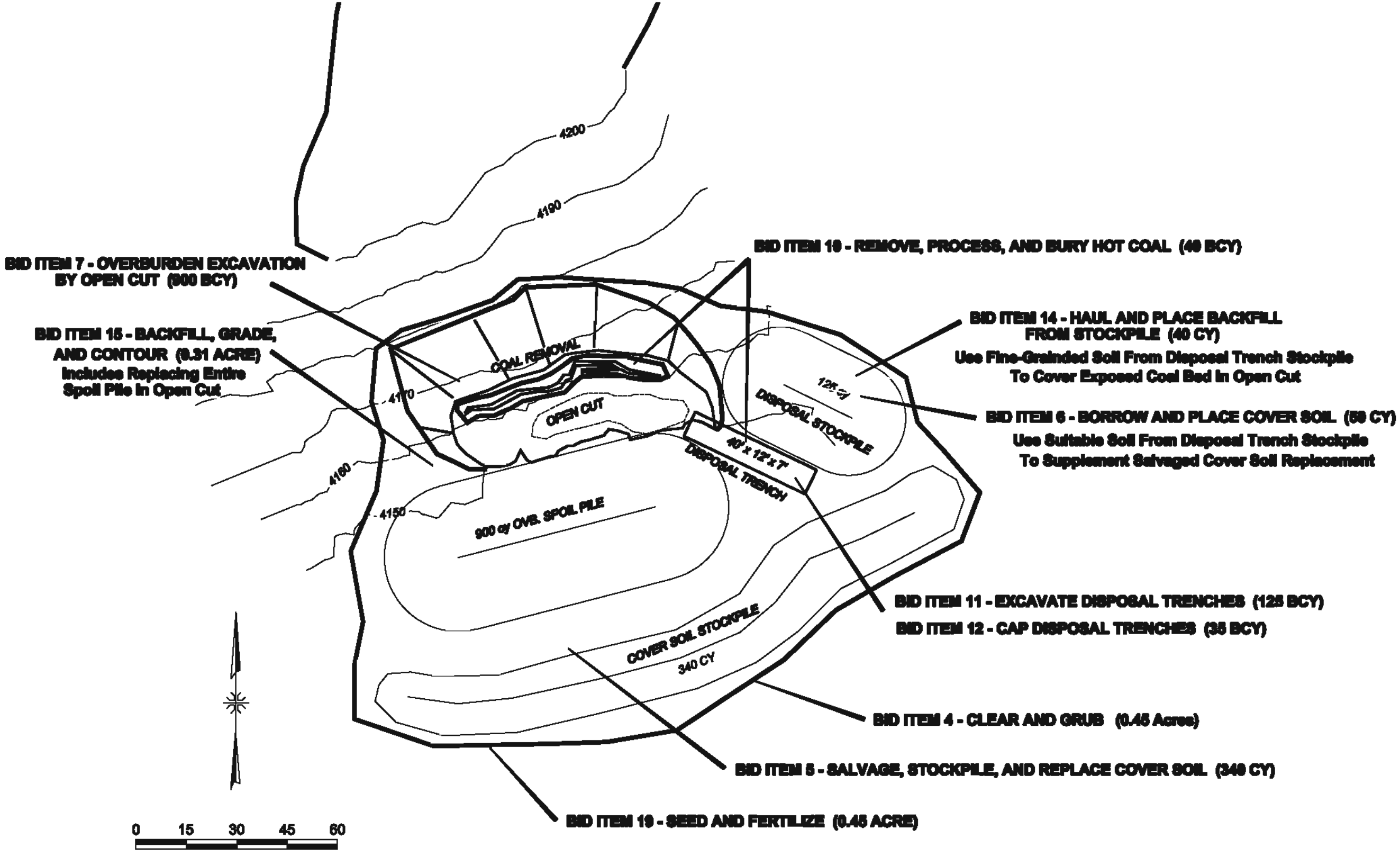
CHARTER FIRE
SITE FEATURES AND TOPOGRAPHY

SHEET NO. 16 OF 17

STATE OF MONTANA
Department of Environmental Quality
REMEDIATION DIVISION
1100 Lost Creek Blvd.
Helena, MT 59602

SPECTRUM ENGINEERING
1413 4th Ave. North
Billings, MT 59101
Phone: (406) 252-6478

August 2009



NE¼ Sec 24, T8N, R27E
of Yellowstone County, Montana

CHARTER FIRE
SITE PLAN

FILE NAME: 17-charter-reclamation.dwg

SHEET NO. 17 OF 17

STATE OF MONTANA
Department of
Environmental Quality

RECLAMATION
DIVISION

1100 Lost Chance Gulch
Helena, MT 59620

SPECTRUM
ENGINEERING
1413 4th Ave. North
Billings, MT 59101
Phone: (406) 259-2412

August 2009

APPENDIX G

AS-BUILT DRAWINGS

735,600

735,500

735,400

BID ITEM 7 - OVERBURDEN EXCAVATION
BY OPEN CUT (1545 BCY)

BID ITEM 10 - REMOVE, PROCESS, AND BURY HOT COAL (160 BCY)

BID ITEM 14 - HAUL AND PLACE BACKFILL
FROM STOCKPILE (Not Used)

BID ITEM 15 - BACKFILL, GRADE,
AND CONTOUR (0.23 ACRE)
Includes Replacing Entire
Spoil Pile In Open Cut

Boulder Pile Feature

BID ITEM 6 - BORROW AND PLACE COVER SOIL (40 CY)
Use Fine-Grainded Soil From Disposal Trench Stockpile
To Cover Exposed Coal Bed In Open Cut

BID ITEM 11 - EXCAVATE DISPOSAL TRENCHES (Not Used)

BID ITEM 12 - CAP DISPOSAL TRENCHES (Not used)

BID ITEM 4 - CLEAR AND GRUB (0.11 Acres)

BID ITEM 5 - SALVAGE, STOCKPILE, AND REPLACE COVER SOIL (165 CY)

BID ITEM 19 - SEED AND FERTILIZE (0.33 ACRE)

4200
4190
4180
4170
4160
4150

COAL REMOVAL
OPEN CUT
OVB. SPOIL PILE
COVER SOIL STOCKPILE
COVER SOIL STOCKPILE

0 15 30 45 60

2,275,700
2,275,800
2,275,900
2,276,000

Coordinates: Montana State Plane, NAD 83

NE¼ Sec 24, T6N, R27E
of Yellowstone County, Montana

CHARTER FIRE
AS-BUILT

SHEET NO. ____ OF ____

FILE NAME: charter-as-built.dwg

STATE OF MONTANA
Department of
Environmental Quality

REMEDIATION
DIVISION

1100 Last Chance Gulch
Helena, MT 59620

SPECTRUM
ENGINEERING

1413 4th Ave. North
Billings, MT 59101
Phone: (406) 259-2412

11/21/2009

736,000

Stock Watering Tank

Control Point - 3947.09

BMP Installed Along Channel (175 feet)

1300 BCY (10 inches of soil)
Soil-Stockpile

Soil-Stockpile
1500 BCY (Appr 14 inches Stripped)

906 BCY (6 inches stripped)
Soil-Stockpile

CRACK REPAIR
1706 Sq-Ft
15 Ft

CRACK REPAIR
13,660 Sq-Ft
10 Ft

CRACK REPAIR
3,480 Sq-Ft
12 Ft

3950
3960
3970
3980
3990

Bid Item 5 - Salvage, Stockpile and Replace Cover Soil (3760 BCY) Load Count & Area x Depth

Bid Item 4 - Clear and Grub (2.43 Acres)

Bid Item 13 - Over-Excavate and Repair Cracks (9700 BCY)

735,500

2,280,500

2,280,000

0 40 80 120 160

Coordinates; Montana State Plane, NAD 83

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 December 2009	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE AS-BUILT PREPARATION WORK FILE NAME: AS-shep1_PREP_WORK.dwg SHEET NO. ____ OF ____

736,000

Bid Item 10 - Remove, Process and Bury Hot Coal (1090 BCY) by Survey

Bid Item 3a - Water Delivery Setup (Lump Sum)

Bid Item 3b - Water Usage (16 Kgal)

Stock Watering Tank

Soil-Stockpile
1560 BCY (Avg. 34 inches Stripped)

Control Point – 3942.09

ACCESS ROAD

BMP Installed Along Channel (175 feet)

Northwest Open Cut

900 BCY (6 inches stripped)
Soil-Stockpile

Coal Removal Pit

Disposal Stockpile
1600 CY

1300 BCY (10 inches of soil)
Soil-Stockpile

Mixed coal mounded 3 feet high

480' x 15' x 8 deep' Disposal Trench

OVB. STOCKPILE

Southeast Open Cut

735,500

2,280,500

Bid Item 11 - Excavate Disposal Trenches (1600 CY)

Bid Item 7 - Overburden Excavation By Open Cut (17,255 BCY) by Survey

Bid Item 8 - Overburden Excavation By Trenching (3765 BCY) by Load Count & Survey

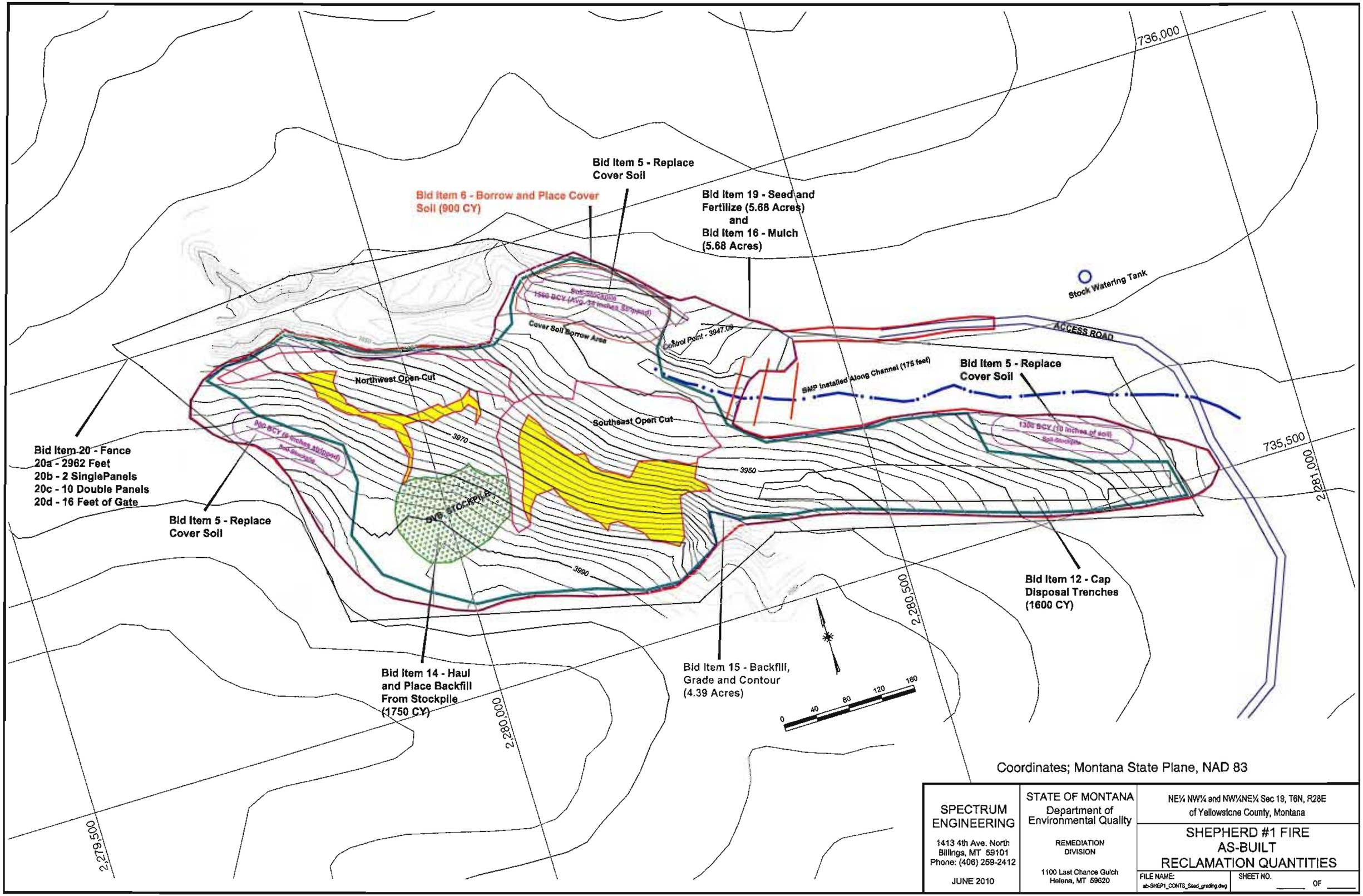
Bid Item 9 - Haul ad Stockpile Overburden (14,255) BCY by Load Count

2,280,000

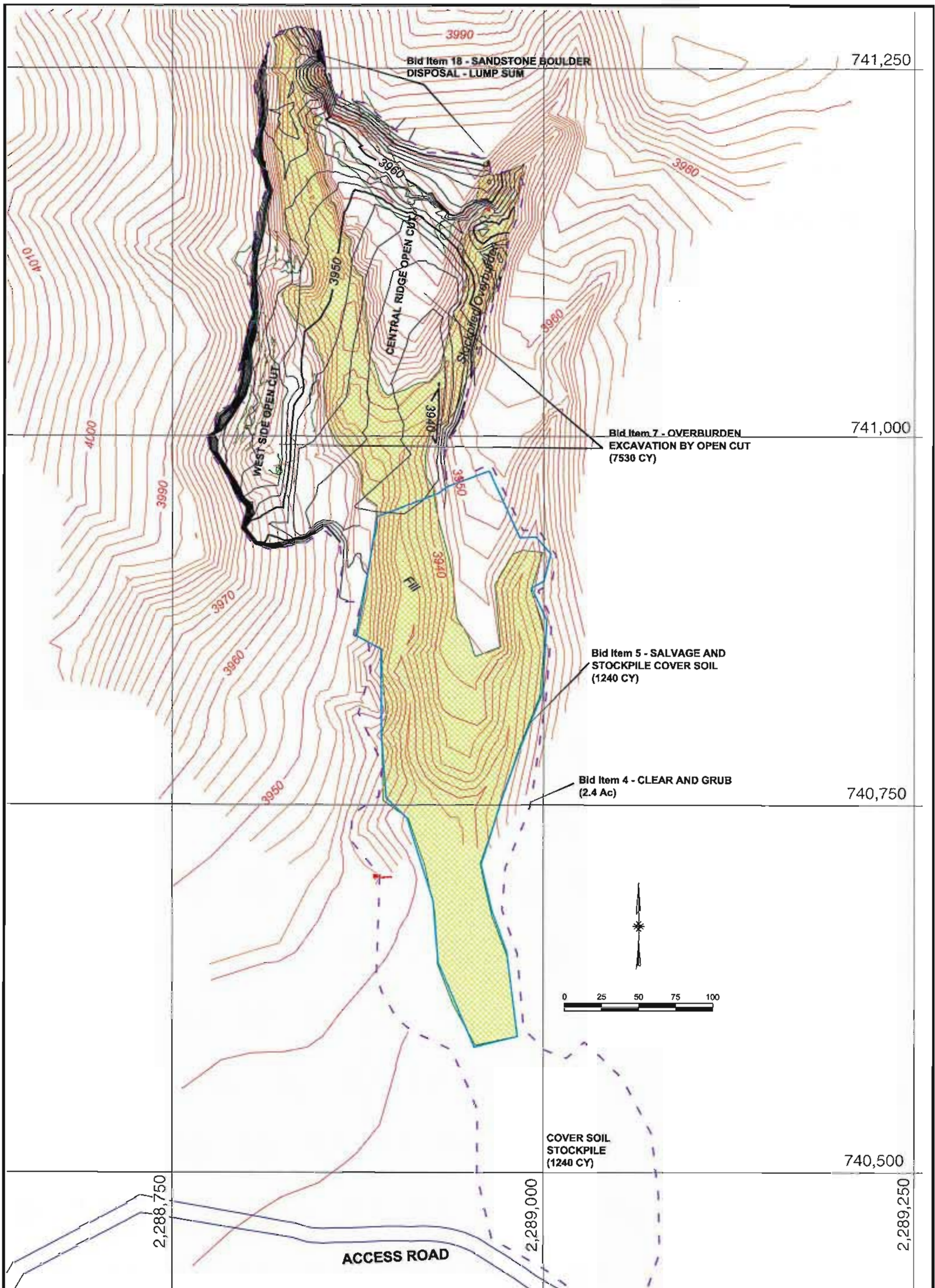
0 40 80 120 160

Coordinates; Montana State Plane, NAD 83

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 JUNE 2010	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE AS BUILT EXCAVATION QUANTITIES FILE NAME: ab-shep1-Excavation.dwg SHEET NO. ____ OF ____

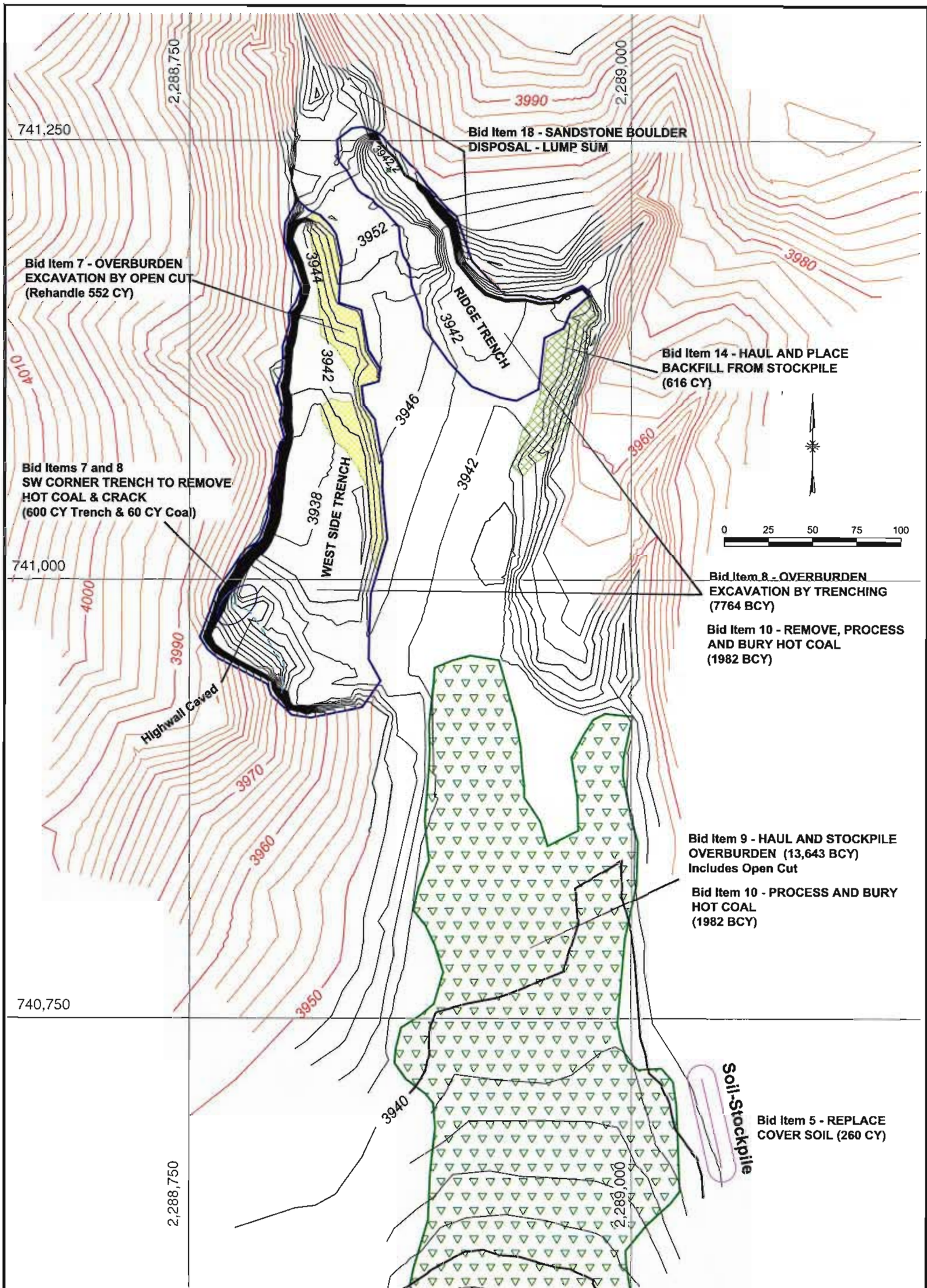


SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 JUNE 2010	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NE¼ NW¼ and NW¼NE¼ Sec 19, T6N, R28E of Yellowstone County, Montana SHEPHERD #1 FIRE AS-BUILT RECLAMATION QUANTITIES FILE NAME: ab-SHEP1_CONTS_Seed_grading.dwg SHEET NO. ____ OF ____



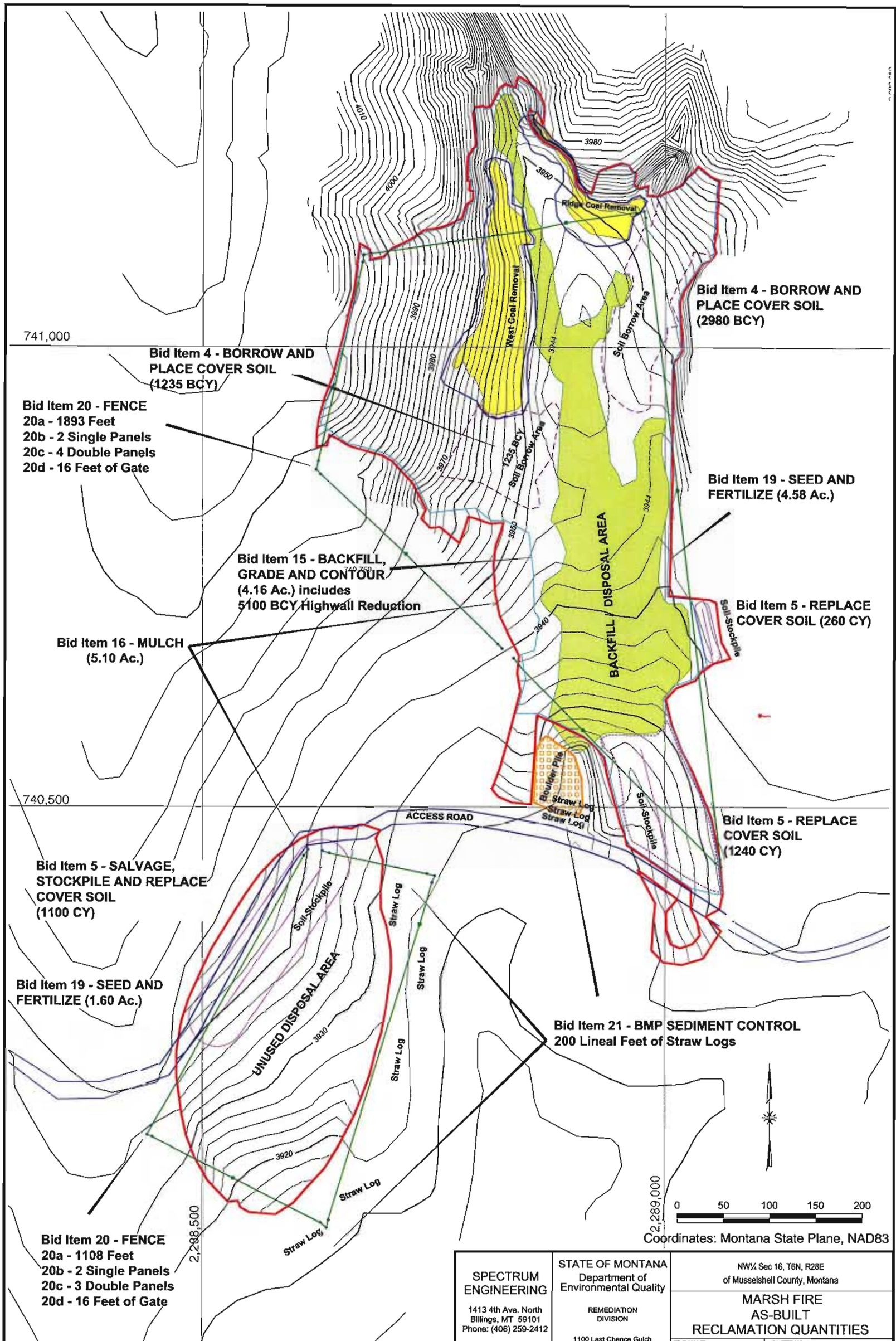
Coordinates: Montana State Plane, NAD 83

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 JUNE 2010	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R28E of Musselshell County, Montana MARSH FIRE AS BUILT OPEN CUT WORK FILE NAME: ABmarsh-site_OC.dwg SHEET NO. ____ OF ____



Coordinates: Montana State Plane, NAD 83

SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 JUNE 2010	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R28E of Musselshell County, Montana MARSH FIRE AS BUILT TRENCH WORK FILE NAME: ASmarsh_TRENCH.dwg SHEET NO. ____ OF ____



SPECTRUM ENGINEERING 1413 4th Ave. North Billings, MT 59101 Phone: (406) 259-2412 JUNE 2010	STATE OF MONTANA Department of Environmental Quality REMEDIATION DIVISION 1100 Last Chance Gulch Helena, MT 59620	NW¼ Sec 16, T6N, R28E of Musselshell County, Montana MARSH FIRE AS-BUILT RECLAMATION QUANTITIES FILE NAME: ABmarsh-final-contours.dwg SHEET NO. ____ OF ____