November 25, 2015

Sean Mallow
Western Slope Aggregated, Inc.
P.O. Box 1319
Carbondale, CO 81623

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Blue Pit, Permit No. M-1981-207, Estimated Reclamation Costs Update

Dear Mr. Mallow:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be ***$3,355,657***. This is an increase of ***$2,466,051*** over the *$889,606* currently held by the Division. This estimate is based on conditions observed during the October 28, 2015 inspection and documents submitted during the 2014 amendment, AM-01. Staff used tasks and volumes provided by the operator and methods outlined in Exhibits E and L.

The Division acknowledges that this is a substantial increase and encourages exploring potential revisions to the mining and reclamation plans or on site work that may decrease overall liability. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

If no comments are received by **Monday, January 11, 2016** than it is the Divisions understanding that the operator has no objections to the bond calculated on November 25, 2015 for the amount of $3,335,657 according the current permit conditions. At that time a Notice for Surety Increase will be issued for the above amount as required by the Act and Rules.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell
Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
Phone: (970) 254-8511

Ec: Russ Means, Senior EPS / Field Office Supervisor, Grand Junction DRMS
Enc: Financial Warranty Cost Estimate

COST SUMMARY WORK

Task description: **2015 Recalc**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 11/13/2015 County: Garfield Filename: M207-000
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo on-site structures	DEMOLISH	1	80.00	$58,195.24
02a	Transport backfill material to mining area 1	TRUCK1	2	258.11	$557,287.00
02b	Transport backfill material to mining area 2	TRUCK1	2	98.94	$203,458.00
03a	Placement of backfill material in mining area 1	DOZER	4	630.62	$667,160.00
03b	Placement of backfill material in mining area 2	DOZER	4	443.66	$469,366.00
04a	Rip pit floor/compacted areas	RIPPER	1	30.28	$6,746.00
05a	install grouted channels	POSTMINING	1	159.96	$41,285.00
05b	Catchment benches	GRADER	1	4.44	$606.00
05c	Energy Dissipation Rocks	TRUCK1	2	0.07	$99.00
06a	Transport topsoil to pit floor	TRUCK1	2	116.50	$239,560.00
07a	Placement of topsoil on sloped areas	DOZER	4	218.12	$221,377.00
07b	Placement of topsoil on open pit areas	DOZER	4	36.54	$37,090.00
08a	Reveg Rangeland	REVEGE	1	100.00	$137,808.00
08b	Reveg Irrigated Pastureland	REVEGE	1	25.00	$31,347.00
09a	Initial mobilize reclamation crew/equipment	MOBILIZE	1	3.33	$11,869.00
09b	Secondary mobilize reclamation crew/equipment	MOBILIZE	1	0.66	$97.00
			SUBTOTALS:	**2206.23**	**$2,683,350**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$54,203.67
Performance bond:	1.05	Total =	$28,175.18
Job superintendent:	500.00	Total =	$37,580.00
Profit:	10.00	Total =	$268,335.00
		TOTAL O & P =	$388,293.85
		CONTRACT AMOUNT (direct + O & P) =	$3,071,643.85

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	5.23	Total =	$160,646.97
Reclamation management and/or administration:	4.00		$122,865.75
CONTINGENCY:	0.00	Total =	$0.00
		TOTAL INDIRECT COST =	$672,306.58
		TOTAL BOND AMOUNT (direct + indirect) =	**$3,355,656.58**

DEMOLITION WORK

Task description: **Demo on-site structures**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 01A State: Colorado Abbreviation: None
Date: 11/13/2015 County: Garfield Filename: M207-01a
User: ACY

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Fuel containment	40'W x 30'L x 6'H	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	2,040.00	SF	$2.33	$4,753.20
Retaining wall	110'L x 8'H	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 50 ft. push	880.00	SF	$3.74	$3,292.96
Power line and poles	800'	Powerline or telephone line, overhead, wood - Single pole	800.00	LF	$2.67	$2,136.00
Mechanic Shop building	40'W x 60'L x 20'H	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	48,000.00	CF	$0.21	$10,272.00
Office/scale house	30'W x 100'L x 10'H	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 200 ft. push	30,000.00	CF	$0.19	$5,670.00
Shop/office/apron slab(s)	9140 sq. ft.	Demo. and on-site disposal in excavated pit, 10 in. thick - Max. 200 ft. push	9,140.00	SF	$2.91	$26,597.40
Misc. shed/outbuildings	1600 sf x 8' H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	12,800.00	CF	$0.17	$2,227.20
Scale	12'W x 70'L	Loading and 5 mile haul, salvage allowed - Steel frame structures	15.50	CY	$9.48	$146.94
Scale foundation	12'W x 90'L	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	1,080.00	SF	$1.71	$1,846.80

Job Hours: **80.00** **Subtotal (unadjusted):** **$56,942.50** **Total Cost (adjusted for location):** **$58,195.24**

TRUCK/LOADER TEAM WORK

Task description: **Transport backfill material to mining area 1**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None
Date: 11/13/2015 County: Garfield Filename: M207-02a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 773F
-Loader:	CAT 990H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$65.23	$129.39	$62.67	$62.67	$42.03	$32.60
Operating cost/hour:	$124.51	$166.71	$108.22	$108.22	$34.94	$42.80
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$27.80	$37.13	$38.01	$38.01	$24.47	$27.88
Unit Subtotals:	$217.54	$333.22	$208.90	$208.90	$101.43	$103.29
Number of Units:	4	2	1	1	1	1
Group Subtotals:	Work:	$1,536.60	Support:	$417.80	Maint:	$204.72

Total work team cost/hour: **$2,159.12**

MATERIAL QUANTITIES

Initial volume: 359,647 CCY Swell factor: 1.060
Loose volume: **381,226** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Exhibit E & L
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,900 Pounds/LCY
Description: Sand and gravel - Dry
Rated Payload: 122,520 Pounds
Payload Capacity: 42.25 LCY

Truck Bed (volume) Basis:

Struck Volume:	35.00	LCY
Heaped Volume:	46.50	LCY
Average Volume:	40.75	LCY
Adjusted Volume:	42.25	LCY

Final Truck Volume Based on Number of Loader Passes: **32.91** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	11.250	LCY (heaped)
Bucket Fill Factor:	0.975	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	**10.969**	LCY

Job Condition Corrections: Site Altitude (ft.): 7000 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.600 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.520**	minutes
	Net Load Time per Truck:	**1.140**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.140	Minutes	Adjusted for site altitude:	1.140	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	3.00	5.00	8.00	1023	1.034

Haul Time: **1.034** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-3.00	5.00	2.00	3569	0.464

Return Time: **0.464** minutes
Total Truck Cycle Time: **4.438** minutes

Loading Tool unit Production 1,073.03 LCY/Hour Adjusted for job efficiency: 890.61 LCY/Hour

Truck Unit Production 444.88 LCY/Hour Adjusted for job efficiency: 369.25 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 738.50 LCY/Hour
Adjusted single truck/loader team production: 738.50 LCY/Hour
Adjusted multiple truck/loader team production: **1,477.00** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **258.11** Hours

Unit cost: $1.462 /LCY Total job cost: **$557,287**

TRUCK/LOADER TEAM WORK

Task description: **Transport backfill material to mining area 2**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 02B State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-02b
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 773F
-Loader:	CAT 990H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	5	50	50
Ownership cost/hour:	$65.23	$129.39	$62.67	$62.67	$42.03	$32.60
Operating cost/hour:	$124.51	$166.71	$108.22	$5.41	$34.94	$42.80
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$27.80	$37.13	$38.01	$38.01	$24.47	$27.88
Unit Subtotals:	$217.54	$333.22	$208.90	$106.09	$101.43	$103.29
Number of Units:	4	2	1	1	1	1
Group Subtotals:	Work:	$1,536.60	Support:	$314.99	Maint:	$204.72

Total work team cost/hour: **$2,056.31**

MATERIAL QUANTITIES

Initial volume: 137,867 CCY Swell factor: 1.060
Loose volume: **146,139** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Exhibit E & L
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,900 Pounds/LCY
Description: Sand and gravel - Dry
Rated Payload: 122,520 Pounds
Payload Capacity: 42.25 LCY

Truck Bed (volume) Basis:

Struck Volume:	35.00	LCY
Heaped Volume:	46.50	LCY
Average Volume:	40.75	LCY
Adjusted Volume:	42.25	LCY

Final Truck Volume Based on Number of Loader Passes: **32.91** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	11.250	LCY (heaped)
Bucket Fill Factor:	0.975	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	**10.969**	LCY

Job Condition Corrections: Site Altitude (ft.): 7000 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.600 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.520**	minutes
	Net Load Time per Truck:	**1.140**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.140	Minutes	Adjusted for site altitude:	1.140	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	3.00	5.00	8.00	1023	1.034

Haul Time: **1.034** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-3.00	5.00	2.00	3569	0.464

Return Time: **0.464** minutes
Total Truck Cycle Time: **4.438** minutes

Loading Tool unit Production 1,073.03 LCY/Hour Adjusted for job efficiency: 890.61 LCY/Hour

Truck Unit Production 444.88 LCY/Hour Adjusted for job efficiency: 369.25 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 738.50 LCY/Hour
Adjusted single truck/loader team production: 738.50 LCY/Hour
Adjusted multiple truck/loader team production: **1,477.00** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **98.94** Hours

Unit cost: $1.392 /LCY Total job cost: **$203,458**

BULLDOZER WORK

Task description: **Placement of backfill material in mining area 1**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #:	03A	State:	Colorado	Abbreviation:	None
Date:	11/16/2015	County:	Garfield	Filename:	M207-03a
User:	ACY				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D9T - 9SU
Horsepower:	405
Blade Type:	Semi-Universal
Attachment:	3-shank ripper
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$81.10	NA
Operating Cost/Hour:	$143.16	100
Ripper op. Cost/Hour:	$2.23	25
Operator Cost/Hour:	$38.01	NA

Total unit Cost/Hour: $264.49
Total Fleet Cost/Hour: **$1,057.95**

MATERIAL QUANTITIES

Initial Volume:	359,647
Swell factor:	1.124
Loose volume:	**404,099** LCY

Source of estimated volume: Exhibit E & L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 375 feet
Unadjusted hourly production: 327.8 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %
Average site altitude: 7,000 feet

Material weight: 2,900 lbs/LCY

Weight description: Sand and gravel - Dry

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4887

Adjusted unit production: 160.20 LCY/hr
Adjusted fleet production: **640.8** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $1.651/LCY

Total job time: **630.62** Hours
Total job cost: **$667,160**

BULLDOZER WORK

Task description: **Placement of backfill material in mining area 2**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #:	03B	State:	Colorado	Abbreviation:	None
Date:	11/16/2015	County:	Garfield	Filename:	M207-03b
User:	ACY				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D9T - 9SU
Horsepower:	405
Blade Type:	Semi-Universal
Attachment:	3-shank ripper
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$81.10	NA
Operating Cost/Hour:	$143.16	100
Ripper op. Cost/Hour:	$2.23	25
Operator Cost/Hour:	$38.01	NA

Total unit Cost/Hour: $264.49
Total Fleet Cost/Hour: **$1,057.95**

MATERIAL QUANTITIES

Initial Volume:	137,867
Swell factor:	1.124
Loose volume:	**154,907** LCY

Source of estimated volume: Exhibit E & L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 375 feet
Unadjusted hourly production: 327.8 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 20 %
Average site altitude: 7,000 feet

Material weight: 2,900 lbs/LCY

Weight description: Sand and gravel - Dry

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2663

Adjusted unit production: 87.29 LCY/hr
Adjusted fleet production: **349.16** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $3.030/LCY

Total job time: **443.66** Hours
Total job cost: **$469,366**

BULLDOZER RIPPING WORK

Task description: **Rip pit floor/compacted areas**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 04A State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-04a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$69.05	NA
Operating Cost/Hour:	$108.22	100
Ripper Operating Cost/Hour:	$7.46	100
Operator Cost/Hour:	$38.01	NA
Total Unit Cost/Hour:	$222.73	
Total Fleet Cost/Hour:	**$222.73**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 20.10 acres Rip Depth (ft): 2.50 Volume: 81,070 BCY or CCY

Source of estimated quantity: Exhibit E & L

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.56	mph
Average Ripping Width:	7.08	degrees
Average Ripping Length:	300.00	feet
Average Dozer Speed:	88.00	feet
Average Maneuver Time:	0.25	feet
Production per unit area:	0.800	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.800 Acres/hr

Site Altitude:	7,000	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.66 Acres/hr
Adjusted Hourly Fleet Production: **0.66** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **30.29** Hours

Unit cost: $335.626 Per acre Total job cost: **$6,746**

Post-Mining Drainage Channel Construction (Ditches)

Task description: **Install grouted channels**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-05a
User: ACY

Agency or organization name: DRMS

Channel	L (ft)	D (ft)	W (bot) (ft)	Slopes (X:1)	W (top) (ft)	V/LF (CY)	V tot (CY)
Grouted Channel	3,417	1.50	2.00	2.00	8.00	0.2778	949
BCPD-S:	CBCSLf	CBCSD	CBCSW	CBCSSx	CBCSTO	CBCSVL	CBCSVT
Totals:	3,417						949

Riprap	Slope L (ft)	Surface Area (ft)	Riprap V (ft)
BCPD-M:	36,028.86	36,029	667
BCPD-S:	CBCSLS	CBCSSA	CBCSRV
Totals:		36,029	667

Materials Needed:

Geotextile (SY):	4,003
Riprap (CY):	667
Excavation (CY):	949

Material Costs:

Geotextile (SY): Means Reference 02340 300 1500	$2.25
Riprap (CY): Means Reference 02370 450 0100	$43.10
Excavation (CY): Means Reference 02315 610 0062	$3.71

Totals:

Geotextile (SY):	$9,007.22
Riprap (CY):	$28,756.37
Excavation (CY):	$3,521.41

Hours:

Geotextile (SY): 87.5 SY/HR	45.75
Riprap (CY): 7.75 CY/HR	86.09
Excavation (CY): 33.75 CY/HR	28.12

Total Post-Mining Channel Reconstruction hours: **159.96** Hours
Total Post-Mining Channel Reconstruction Cost: **$41,285**

MOTOR GRADER WORK

Task description: **Catchment benches**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 05B State: Colorado Abbreviation: None
Date: 11/19/2015 County: Garfield Filename: M207-05b
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 14M Horsepower: 259
Ripper Attachment: Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$42.03	NA
Operating Cost/Hour:	$69.88	100
Ripper Operating Cost/Hour:	$0.00	
Operator Cost/Hour:	$24.47	NA
Total Unit Cost/Hour:	$136.37	
Total Fleet Cost/Hour:	**$136.37**	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 6.70 acres

Source of estimated acreage: 8.25' W x 35,399' L

HOURLY PRODUCTION

Average Grader Speed: 1.75 mph
Selected Application: Ditch building/cleaning (0-3 mph) - 1.75
Selected Blade Angle: 45 degrees
Effective Blade Length: 9.90 feet
Width of blade overlap per pass: 2.00 feet
Net grading or ripping width per pass: 7.90 feet
Unadjusted Hourly Unit Production: 1.6758 acres/hour

Job Condition Correction Factors

Site Altitude: 7000 feet

		Source
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.90	(1sh/d, fav.)
Net Correction:	0.9000	multiplier

Adjusted Hourly Unit Production: 1.5082 acres/Hour
Adjusted Hourly Fleet Production: **1.5082** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.44** Hours

Unit cost: $90.42 per acre Total job cost: **$606**

TRUCK/LOADER TEAM WORK

Task description: **Energy Dissapation Rocks**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 05C State: Colorado Abbreviation: None
Date: 11/19/2015 County: Garfield Filename: M207-05c
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 773F
-Loader:	CAT 990H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	0	0	0	0
Ownership cost/hour:	$65.23	$129.39	$62.67	$62.67	$42.03	$32.60
Operating cost/hour:	$124.51	$166.71	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$27.80	$37.13	$38.01	$38.01	$24.47	$27.88
Unit Subtotals:	$217.54	$333.22	$100.68	$100.68	$66.49	$60.48
Number of Units:	2	2	1	1	1	1
Group Subtotals:	Work:	$1,101.52	Support:	$201.36	Maint:	$126.97

Total work team cost/hour: **$1,429.85**

MATERIAL QUANTITIES

Initial volume: 40 CCY Swell factor: 1.000
Loose volume: **40** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Exhibit E & L
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:
Truck Payload (weight) Basis:

Material weight: 3,000 Pounds/LCY
Description: User Provided
Rated Payload: 122,520 Pounds
Payload Capacity: 40.84 LCY

Truck Bed (volume) Basis:

Struck Volume:	35.00	LCY
Heaped Volume:	46.50	LCY
Average Volume:	40.75	LCY
Adjusted Volume:	40.84	LCY

Final Truck Volume Based on Number of Loader Passes: **40.50** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	11.250	LCY (heaped)
Bucket Fill Factor:	0.450	Rock - Poorly blasted (40% - 50%) 0.450
Adjusted Capacity:	**5.063**	LCY

Job Condition Corrections: Site Altitude (ft.): 7000 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 8 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.600 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.090	minutes
	Adjusted Loader Cycle Time:	**0.510**	minutes
	Net Load Time per Truck:	**3.670**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	3.670	Minutes	Adjusted for site altitude:	3.670	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	3.00	5.00	8.00	1023	1.034

Haul Time: **1.034** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-3.00	5.00	2.00	3569	0.464

Return Time: **0.464** minutes
Total Truck Cycle Time: **6.968** minutes

Loading Tool unit Production 556.06 LCY/Hour Adjusted for job efficiency: 461.53 LCY/Hour

Truck Unit Production 348.74 LCY/Hour Adjusted for job efficiency: 289.45 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 1 Truck(s)

Adjusted hourly truck team production: 289.45 LCY/Hour
Adjusted single truck/loader team production: 289.45 LCY/Hour
Adjusted multiple truck/loader team production: **578.90** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **0.07** Hours

Unit cost: $2.470 /LCY Total job cost: **$99**

TRUCK/LOADER TEAM WORK

Task description: **Transport topsoil to pit floor**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 06A State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-06a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 773F
-Loader:	CAT 990H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	5	50	50
Ownership cost/hour:	$65.23	$129.39	$62.67	$62.67	$42.03	$32.60
Operating cost/hour:	$124.51	$166.71	$108.22	$5.41	$34.94	$42.80
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$27.80	$37.13	$38.01	$38.01	$24.47	$27.88
Unit Subtotals:	$217.54	$333.22	$208.90	$106.09	$101.43	$103.29
Number of Units:	4	2	1	1	1	1
Group Subtotals:	Work:	$1,536.60	Support:	$314.99	Maint:	$204.72

Total work team cost/hour: **$2,056.31**

MATERIAL QUANTITIES

Initial volume: 161,333 CCY Swell factor: 1.215
Loose volume: **196,020** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Exhibit E & L
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil
Rated Payload: 122,520 Pounds
Payload Capacity: 76.58 LCY

Truck Bed (volume) Basis:

Struck Volume:	35.00	LCY
Heaped Volume:	46.50	LCY
Average Volume:	40.75	LCY
Adjusted Volume:	46.50	LCY

Final Truck Volume Based on Number of Loader Passes: **41.63** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	11.250	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**10.406**	LCY

Job Condition Corrections: Site Altitude (ft.): 7000 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 4 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.600 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.090	minutes
	Adjusted Loader Cycle Time:	**0.510**	minutes
	Net Load Time per Truck:	**1.630**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.630	Minutes	Adjusted for site altitude:	1.630	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	3.00	5.00	8.00	1023	1.034

Haul Time: **1.034** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-3.00	5.00	2.00	3569	0.464

Return Time: **0.464** minutes
Total Truck Cycle Time: **4.928** minutes

Loading Tool unit Production 1,071.89 LCY/Hour — Adjusted for job efficiency: 889.67 LCY/Hour

Truck Unit Production 506.80 LCY/Hour — Adjusted for job efficiency: 420.64 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 841.28 LCY/Hour
Adjusted single truck/loader team production: 841.28 LCY/Hour
Adjusted multiple truck/loader team production: **1,682.57** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **116.50** Hours

Unit cost: $1.222 /LCY — Total job cost: **$239,560**

BULLDOZER WORK

Task description: **Placement of topsoil on sloped areas**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 07A State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-07a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$72.57	NA
Operating Cost/Hour:	$143.16	100
Ripper op. Cost/Hour:	$0.00	25
Operator Cost/Hour:	$38.01	NA

Total unit Cost/Hour: $253.73
Total Fleet Cost/Hour: **$1,014.94**

MATERIAL QUANTITIES

Initial Volume: 128,905
Swell factor: 1.429
Loose volume: **184,154** LCY

Source of estimated volume: Exhibit E & L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 375 feet
Unadjusted hourly production: 327.8 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 15 %
Average site altitude: 7,000 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6439

Adjusted unit production: 211.07 LCY/hr
Adjusted fleet production: **844.28** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $1.202/LCY

Total job time: **218.12** Hours
Total job cost: **$221,377**

BULLDOZER WORK

Task description: **Placement of topsoil on open pit areas**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 07B State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-07b
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$72.57	NA
Operating Cost/Hour:	$143.16	100
Ripper op. Cost/Hour:	$0.00	25
Operator Cost/Hour:	$38.01	NA

Total unit Cost/Hour: $253.73
Total Fleet Cost/Hour: **$1,014.94**

MATERIAL QUANTITIES

Initial Volume: 32,428
Swell factor: 1.429
Loose volume: **46,327** LCY

Source of estimated volume: Exhibit E & L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 375 feet
Unadjusted hourly production: 327.8 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
Average site altitude: 7,000 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9668

Adjusted unit production: 316.92 LCY/hr
Adjusted fleet production: **1267.68** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $0.801/LCY

Total job time: **36.54** Hours
Total job cost: **$37,090**

REVEGETATION WORK

Task description: **Reveg Rangeland**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 08A State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-08a
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

Description	Cost /Acre
	$
Total Fertilizer Application Cost/Acre	**$0.00**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$98.01
Total Tilling Cost/Acre	**$98.01**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	2.50	8.09	$16.85
Mountain Brome - Bromar	3.75	6.03	$12.75
Slender Wheatgrass - Pryor	5.00	18.25	$15.45
Thickspike Wheatgrass - Critana	5.00	17.68	$25.85
Rabbitbrush, Rubber	2.00	29.80	$73.20
Western Wheatgrass - Barton	5.00	12.63	$18.40
Needlegrass, Green - Lodorm	3.75	15.58	$20.21
Saltbush, Four Wing	2.00	2.75	$21.46
		110.81	**$204.17**

Totals Seed Mix	29.00		

Application

Description	Cost /Acre
Drill seeding (MEANS 32 92 19.13 0020)	$404.00
Total Seed Application Cost/Acre	**$404.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	$16.24	$16.24
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$265.00	$530.00
Total Mulch Materials Cost/Acre				**$546.24**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$65.89
Weed spray, truck, non-aquatic area, nox. [DMG]	$61.49
Total Mulch Application Cost/Acre	**$127.38**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 79.9 Cost /Acre: $1,379.80
Estimated Failure Rate: 25% Cost /Acre*: $1,379.80
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **$110,246.02**
Reseeding Job Cost: **$27,561.51**
Total Job Cost: **$137,808**
Job Hours: **100.00**

REVEGETATION WORK

Task description: **Reveg Irrigated Pastureland**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 08B State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-08b
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

Description	Cost /Acre
	$
Total Fertilizer Application Cost/Acre	**$0.00**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$98.01
Total Tilling Cost/Acre	**$98.01**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Meadow Brome - Fleet	7.00	6.43	$18.41
Orchardgrass - Potomac	8.00	99.17	$16.16
Alfalfa - Ladak (inoculated)	12.00	57.85	$37.44
Totals Seed Mix	27.00	163.45	**$72.01**

Application

Description	Cost /Acre
Drill seeding (MEANS 32 92 19.13 0020)	$404.00

Total Seed Application Cost/Acre	**$404.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	$16.24	$16.24
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$265.00	$530.00
Total Mulch Materials Cost/Acre				**$546.24**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$65.89
Weed spray, truck, non-aquatic area, nox. [DMG]	$61.49
Total Mulch Application Cost/Acre	**$127.38**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
				Totals Nursery Stock Cost / Acre	**$0.00**

JOB TIME AND COST

No. of Acres: 20.1 Cost /Acre: $1,247.64
Estimated Failure Rate: 25% Cost /Acre*: $1,247.64
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **$25,077.56**
Reseeding Job Cost: **$6,269.39**
Total Job Cost: **$31,347**
Job Hours: **25.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Initial mobilize reclamation crew/equipment**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 09A State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-09a
User: ACY

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$16.63	$18.37	$22.33
Operating Cost/Hour:	$44.38	$46.13	$50.07
Operator Cost/Hour:	$27.66	$27.66	$27.66
Helper Cost/Hour:	$0.00	$25.39	$25.39
Total Unit Cost/Hour:	$88.67	$117.55	$125.45

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D9T - 9SU	66.13	$81.10	$125.45	4	$826.18	$501.80	$500.00
Cat 773F	49.74	$65.23	$117.55	4	$731.12	$470.20	$500.00
CAT 990H	83.34	$129.39	$125.45	2	$509.67	$250.90	$250.00
CAT 14M	23.57	$42.03	$88.67	1	$130.70	$88.67	$250.00
Water Tanker, 7,000 Gal.	29.65	$32.60	$117.55	1	$150.15	$117.55	$250.00
Cat D8T - 8SU	47.71	$62.67	$117.55	1	$180.22	$117.55	$250.00
Subtotals:					**$2,528.04**	**$1,546.67**	**$2,000.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	$20.91	1	$20.91	$20.91
Drill/Broadcast Seeder with Tractor	$75.35	1	$75.35	$75.35
Power Mulcher (Reinco M90)	$48.76	1	$48.76	$48.76
Subtotals:			**$145.02**	**$145.02**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GLENWOOD SPRINGS	
Total one-way travel distance:	15.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost *	$11,772.55	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	$96.68	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.33	0.33
Return Time (Hours):	0.33	0.33
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.67	0.67

JOB TIME AND COST

Total job time:	**3.33**	Hours
Total job cost:	**$11,869**	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Secondary mobilize reclamation crew/equipment**

Site: **Blue Pit** Permit Action: 2015-10 Inspection Permit/Job#: M1981207

PROJECT IDENTIFICATION

Task #: 09B State: Colorado Abbreviation: None
Date: 11/16/2015 County: Garfield Filename: M207-09b
User: ACY

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$16.63	$18.37	$22.33
Operating Cost/Hour:	$44.38	$46.13	$50.07
Operator Cost/Hour:	$27.66	$27.66	$27.66
Helper Cost/Hour:	$0.00	$25.39	$25.39
Total Unit Cost/Hour:	$88.67	$117.55	$125.45

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Subtotals:					**$0.00**	**$0.00**	**$0.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	$20.91	1	$20.91	$20.91
Drill/Broadcast Seeder with Tractor	$75.35	1	$75.35	$75.35
Power Mulcher (Reinco M90)	$48.76	1	$48.76	$48.76
Subtotals:			**$145.02**	**$145.02**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GLENWOOD SPRINGS	
Total one-way travel distance:	15.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$0.00	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$96.68	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.33	0.33
Return Time (Hours):	0.33	0.33
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.67	0.67

JOB TIME AND COST

Total job time:	**0.67**	Hours
Total job cost:	**$97**	