May 17, 2017

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

1313 Sherman Street, Room 215
Denver, CO 80203

Jason Burkey
Oldcastle SW Group, Inc.
2273 River Road
Grand Junction, CO 81502

RE: Sievers Pit, Permit No. M-1977-098, Reclamation Costs Update and Notice of Surety Increase (SI-5)

Dear Mr. Burkey:

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 *$432,580* rounded down from *$432,581.40*. This is an increase of ***$137,408*** over the *$295,172.00* currently held by the Division. This estimate is based on conditions observed during the April 13, 2017 inspection. ***Therefore, pursuant to Section 34–32.5–117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Monday, July 17, 2017**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria.

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

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

Ec: Russ Means, Senior EPS, Grand Junction DRMS
Enc: Financial Warranty Cost Estimate

COST SUMMARY WORK

Task description: **Bond recalc post inspection 04-2017**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: ACY State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-ACY
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo onsite structures	DEMOLISH	1	40.00	$67,593.29
02a	Rip asphalt road and cement parking areas	RIPPER	2	3.53	$1,750.00
02b	Removal/haulage of asphalt/cement to excavated pit	LOADER	2	9.36	$2,460.00
03a	Highwall reduction	DOZER	2	7.30	$3,355.00
04a	Rip pit floor	RIPPER	2	46.75	$23,135.00
05a	Transport topsoil from stockpiles	SCRAPER1	2	127.58	$113,853.00
05b	Distribute topsoil/finish grading	DOZER	2	13.53	$6,214.00
06a	Reveg. slopes-Phase B only site observations	REVEGE	1	16.00	$13,092.00
06b	Reveg. pit floor (65ac. in stages A & B), staff estimates	REVEGE	1	80.00	$100,415.00
07a	Mobilize reclamation crew/equipment	MOBILIZE	1	2.68	$6,714.00
			SUBTOTALS:	**346.73**	**$338,581**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$6,839.34
Performance bond:	1.05	Total =	$3,555.10
Job superintendent:	173.37	Total =	$12,664.31
Profit:	10.00	Total =	$33,858.10
		TOTAL O & P =	$56,916.85
		CONTRACT AMOUNT (direct + O & P) =	$395,497.85

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	4.25	Total =	$16,808.66
Reclamation management and/or administration:	5.00		$19,774.89
CONTINGENCY:	0.00	Total =	$0.00

TOTAL INDIRECT COST = $94,000.40

TOTAL BOND AMOUNT (direct + indirect) = $432,581.40

DEMOLITION WORK

Task description: **Demo onsite structures**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 01A
Date: 5/17/2017
User: ACY

State: Colorado
County: Garfield

Abbreviation: None
Filename: M098-01a

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
Shop building	200'Lx50'Wx20'H	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 50 ft. push	200,000.00	CF	$0.19	$37,800.00
Office building-1	80'Lx40'Wx15'H	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 50 ft. push	48,000.00	CF	$0.19	$9,072.00
Shop Pad	200'Lx50'W	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 50 ft. push	10,000.00	SF	$0.85	$8,500.00
Office building-2	55'Wx75'Lx15'H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	61,875.00	CF	$0.17	$10,766.25

Job Hours: **40.00** **Subtotal (unadjusted)**: **$66,138.25** **Total Cost (adjusted for location)**: **$67,593.29**

BULLDOZER RIPPING WORK

Task description: **Rip asphalt road and cement parking areas**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #:	02A	State:	Colorado	Abbreviation:	None
Date:	5/17/2017	County:	Garfield	Filename:	M098-02a
User:	ACY				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D9T - 9SU	Horsepower:	405
Ripper Attachment:	3-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$100.59	NA
Operating Cost/Hour:	$87.23	100
Ripper Ownership Cost/Hour:	$10.94	NA
Ripper Operating Cost/Hour:	$6.82	100
Operator Cost/Hour:	$41.85	NA
Total Unit Cost/Hour:	$247.43	
Total Fleet Cost/Hour:	**$494.85**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	3.79	acres	Rip Depth (ft):	0.50	Volume:	3,057	BCY or CCY

Source of estimated quantity: 3.39ac asphalt roads, 0.4 ac cement parking lot

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	NA	feet/second

Area:

Average Ripping Depth:	2.63	mph
Average Ripping Width:	7.67	degrees
Average Ripping Length:	50.00	feet
Average Dozer Speed:	88.00	feet
Average Maneuver Time:	0.25	feet
Production per unit area:	0.646	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.646	Acres/hr
Site Altitude:	6,020	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.54	Acres/hr
Adjusted Hourly Fleet Production:	**1.07**	Acres/hr

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**3.54**	Hours
Unit cost:	$461.738	Per acre	Total job cost:	**$1,750**	

WHEEL LOADER – LOAD AND CARRY WORK

Task description: **Removal/haulage of asphalt/cement to excavated pit**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 02B State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-02b
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 972H Horsepower: 287
Attachment 1: ROPS Cab Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$43.47	NA
Operating Cost/Hour:	$46.72	100
Operator Cost/Hour:	$41.20	NA
Total Unit Cost/Hour:	$131.39	

Total Fleet Cost/Hour: $262.78

MATERIAL QUANTITIES

Initial volume: 3,057 CCY Swell factor: 1.000
Loose volume: **3,057** LCY

Source of estimated volume: Ripped volume
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6” and over diameter 0.03	0.030	(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:	-0.040	minutes
	Adjusted Basic Cycle Time:	0.485	minutes

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 2” tire penetration 5.0
Return: Rutted dirt, little maintenance, no water, 2” tire penetration 5.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	600	0.00	5.00	5.00	0.5533	(Cat HB)
Return Route:	600	0.00	5.00	5.00	0.4992	(Cat HB)

Total Travel Time:	1.0525	minutes
Total Cycle Time:	**1.5375**	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)
Bucket Fill Factor:	0.900	Other - cemented materials (85 - 95%) 0.900
Adjusted Capacity:	**5.04**	LCY

Job Condition Correction Factors
Site Altitude: 6020 feet

		Source
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Unadjusted Hourly Unit Production:	196.68	LCY/Hour
Adjusted Hourly Unit Production:	163.25	LCY/Hour
Adjusted Hourly Fleet Production:	**326.49**	LCY/Hour

JOB TIME AND COST

Fleet size:	2	Loader(s)	Total job time:	**9.36**	Hours
Unit cost:	$0.805	/LCY	Total job cost:	**$2,460**	

BULLDOZER WORK

Task description: **Highwall reduction**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-03a
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:	$100.59	NA
Operating Cost/Hour:	$87.23	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.85	NA

Total unit Cost/Hour: $229.67
Total Fleet Cost/Hour: **$459.33**

MATERIAL QUANTITIES

Initial Volume: 12,963
Swell factor: 1.124
Loose volume: **14,565** LCY

Source of estimated volume: 2800 lft of near vertical highwall 20'D
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 2,110.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -15 %
Average site altitude: 6,020 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:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4724

Adjusted unit production: 997.00 LCY/hr
Adjusted fleet production: **1994** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.230/LCY

Total job time: **7.30** Hours
Total job cost: **$3,355**

BULLDOZER RIPPING WORK

Task description: **Rip pit floor**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #:	04A	State:	Colorado	Abbreviation:	None
Date:	5/17/2017	County:	Garfield	Filename:	M098-04a
User:	ACY				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D9T - 9SU	Horsepower:	405
Ripper Attachment:	3-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$100.59	NA
Operating Cost/Hour:	$87.23	100
Ripper Ownership Cost/Hour:	$10.94	NA
Ripper Operating Cost/Hour:	$6.82	100
Operator Cost/Hour:	$41.85	NA
Total Unit Cost/Hour:	$247.43	
Total Fleet Cost/Hour:	**$494.85**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	65.00	acres	Rip Depth (ft):	2.00	Volume:		209,733	BCY or CCY

Source of estimated quantity: Stage A+B flat, staff estimates

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	NA	feet/second

Area:

Average Ripping Depth:	2.63	mph
Average Ripping Width:	7.67	degrees
Average Ripping Length:	200.00	feet
Average Dozer Speed:	88.00	feet
Average Maneuver Time:	0.25	feet
Production per unit area:	0.838	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.838	Acres/hr
Site Altitude:	6,020	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.70	Acres/hr
Adjusted Hourly Fleet Production:	**1.39**	Acres/hr

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**46.75**	Hours
Unit cost:	$355.923	Per acre	Total job cost:	**$23,135**	

SCRAPER TEAM WORK

Task description: **Transport topsoil from stockpiles**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-05a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 657G
-Dozer:	NA
Support Equipment -Load Area:	Cat D9T - 9SU
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	10	NA	NA	NA
Ownership cost/hour:	$154.79	NA	$100.59	NA	NA	NA
Operating cost/hour:	$184.57	NA	$8.72	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	$0.00	NA	NA	NA
Ripper op. cost/hour:	NA	NA	$0.00	NA	NA	NA
Operator cost/hour:	$31.26	NA	$41.85	NA	NA	NA
Unit Subtotals:	$370.62	NA	$151.16	NA	NA	NA
Number of Units:	2	0	1	0	0	0
Group Subtotals:	Work:	$741.24	Support:	$151.16	Maint:	$0.00

Total work team cost/hour: **$892.40**

MATERIAL QUANTITIES

Initial volume: 98,144 CCY Swell factor: 1.000
Loose volume: **98,144** LCY

Source of estimated volume: 73 ac. at 10" depth (stage A+B), staff estimates
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 104,000 pounds
Payload Capacity: 65.00 LCY

Struck Volume: 32.00 LCY
Heaped Volume: 44.00 LCY
Average Volume: 38.00 LCY
Adjusted Capacity: **38.00** LCY

Cycle Time:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 6020 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:
Road Condition: Very soft, muddy, rutted, not maintained, 12" tire penetration 20

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	20.00	20.00	582	2.07

Haul Time: **2.07** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	20.00	20.00	1002	1.25

Return Time: **1.25** minutes

Total Scraper team cycle time: **4.92** minutes
Adjusted for job conditions: 384.63 LCY/Hour
Selected Number of Scrapers: 1 Scraper(s)
Adjusted single scraper team (unit) hourly production: 384.63 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **769.27** LCY/Hour

Unadjusted unit production/hour: 463.41 LCY/Hour
Optimal Number of Scrapers per push dozer: ____

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **127.58** Hours

Unit cost: $1.160 /LCY Total job cost: **$113,853**

BULLDOZER WORK

Task description: **Distribute topsoil/finish grading**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 05B State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-05b
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:	$100.59	NA
Operating Cost/Hour:	$87.23	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.85	NA

Total unit Cost/Hour: $229.67
Total Fleet Cost/Hour: **$459.33**

MATERIAL QUANTITIES

Initial Volume: 49,072
Swell factor: 1.000
Loose volume: **49,072** LCY

Source of estimated volume: Half of transported volume (97,144 cy)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 2,110.5 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
Average site altitude: 6,020 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:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 1,813.55 LCY/hr
Adjusted fleet production: **3627.1** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.127/LCY

Total job time: **13.53** Hours
Total job cost: **$6,214**

REVEGETATION WORK

Task description: **Reveg. slopes-Phase B only site observations**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 06A State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-06a
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	200.00	pound	$0.27	$54.00
			Total Fertilizer Materials Cost/Acre	**$54.00**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$144.62
Total Fertilizer Application Cost/Acre	**$144.62**

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	$90.60
Total Tilling Cost/Acre	**$90.60**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Sand Dropseed	0.10	11.94	$1.08
Smooth Brome - Manchar	2.00	6.66	$8.50
Pubescent Wheatgrass - Luna	11.00	22.73	$44.77
Streambank Wheatgrass - Sodar	11.00	35.86	$66.99
Totals Seed Mix	24.10	77.18	**$121.34**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00

Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	$7.16	$7.16
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$261.00	$522.00
Total Mulch Materials Cost/Acre				**$529.16**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$66.02
Weed spray, truck, non-aquatic area, nox. [DMG]	$71.50
Total Mulch Application Cost/Acre	**$137.52**

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: 8 Cost /Acre: $1,309.24
Estimated Failure Rate: 25% Cost /Acre*: $1,309.24
*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MULCHING

Initial Job Cost: **$10,473.92**
Reseeding Job Cost: **$2,618.48**
Total Job Cost: **$13,092**
Job Hours: **16.00**

REVEGETATION WORK

Task description: **Reveg. pit floor (65ac. in stages A & B), staff estimates**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 06B State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-06b
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	200.00	pound	$0.27	$54.00
			Total Fertilizer Materials Cost/Acre	**$54.00**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$144.62
Total Fertilizer Application Cost/Acre	**$144.62**

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	$90.60
Total Tilling Cost/Acre	**$90.60**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Crested Wheatgrass - Fairway	1.00	4.59	$3.34
Kentucky Bluegrass - Lato	0.10	4.94	$0.29
Red Clover - Medium	0.20	1.24	$2.67
Smooth Brome - Manchar	1.50	4.99	$6.38
Western Wheatgrass - Native	5.00	12.63	$35.00
Timothy - Climax	0.20	5.74	$0.31
Totals Seed Mix	8.00	34.13	**$47.98**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	$7.16	$7.16
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$261.00	$522.00
Total Mulch Materials Cost/Acre				**$529.16**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$66.02
Weed spray, truck, non-aquatic area, nox. [DMG]	$71.50
Total Mulch Application Cost/Acre	**$137.52**

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:	65	Cost /Acre:	$1,235.88
Estimated Failure Rate:	25%	Cost /Acre*:	$1,235.88
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MULCHING		

Initial Job Cost:	**$80,332.20**
Reseeding Job Cost:	**$20,083.05**
Total Job Cost:	**$100,415**
Job Hours:	**80.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize reclamation crew/equipment**

Site: **Sievers Pit** Permit Action: 04-2017 Permit/Job#: M1977098

PROJECT IDENTIFICATION

Task #: 07A State: Colorado Abbreviation: None
Date: 5/17/2017 County: Garfield Filename: M098-07a
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	$111.53	$125.45	2	$473.96	$250.90	$500.00
CAT 972H	28.00	$43.47	$117.55	2	$322.04	$235.10	$250.00
Cat 657G	78.88	$154.79	$125.45	2	$560.48	$250.90	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$12.22	$88.67	1	$100.89	$88.67	$250.00
				Subtotals:	**$1,457.37**	**$825.57**	**$1,500.00**

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	$47.41	1	$47.41	$47.41
		Subtotals:	**$47.41**	**$47.41**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GLENWOOD SPRINGS	
Total one-way travel distance:	6.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$6,697.46	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$16.25	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.17	0.17
Return Time (Hours):	0.17	0.17
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.34	0.34

JOB TIME AND COST

Total job time:	**2.69**	Hours
Total job cost:	**$6,714**	

March 15, 2017

Jason Burkey
Oldcastle SW Group, Inc.
2273 River Road
Grand Junction, CO 81502

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

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Sievers Pit, Permit No. M-1977-098, Reclamation Cost Estimate SI-5

Dear Mr. Burkey:

This reclamation cost update was in response to the site inspection conducted on April 13, 2017. There have been no surety increases since the permit issuance in 2011. It is Division policy to periodically update its costs to ensure that the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan.

Below is a table summarizing input values that have been updated based on site conditions. This table does not account for price changes resulting from inflation or other RS Means cost changes. Bond calculations are based on a combination of field observations and worst case scenario based on the approved reclamation permit.

Task	Form Used	Change	Justification
01a	Demo	+	Added the second office building (55'Wx75'Lx15'H)
02a	Ripper	+	Updated hard surfaces needing to be removed 2 ac->3.79 ac (3.39 ac asphalt roads + 0.4 ac cement parking lot). Larger dozer, 2 fleet-less job hrs.
02b	Loaders	+	Updated volume needing to be move into pit 710->3057 cy, decreased haul distances to closest part of pit 2000 ft.->600 ft.
03a	Dozer	+	Updated highwall length exposed 1800 lft.->2,800 lft. (8,333 cy -> 12,963 cy). Larger dozer, 2 fleet-less job hrs.
04a	Ripper	-	Updated active pit floor size 72 ac->65 ac. Larger dozer, 2 fleet-less job hrs.
05a	Scrapper	+	Updated volume of topsoil needing to be applied 72.35 ac ->73ac (97,271 cy->98,144 cy). Larger scrapper, 2 fleet-less job hrs.

05b	Dozer	-	Updated volume of topsoil needing to be worked, not half of transported volume 97,271 cy->49,072 cy. Larger dozer, 2 fleet-less job hrs.
06a	Reveg	-	Decreased total job hours
06b	Reveg	-	Updated ac to be seeded 72.35 ac->65 ac. Increased total job hours
	Project management	+	Added engineering work and/or contract/bid prep

Please feel free to contact me with any further questions. 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

Amy Yeldell
Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
Phone: (970) 254-8511
Fax: (970) 241-1516

Ec:
Russ Means, Senior EPS, Grand Junction DRMS