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

July 2, 2019

Jay Wagner
Wagner Construction, Inc.
1850 E. 1st Street
Craig, CO 81625

RE: Wagner Rock Pit, Permit No. M-1999-018, Notice of Surety Increase (SI-3)

Dear Mr. Wagner:

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 *$73,827*. This is an increase of ***$25,520*** over the *$48,307* currently held by the Division. This estimate is based on conditions observed during the June 12, 2018 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, September 02, 2019**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Gabriel Benvenuti 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 Gabriel Benvenuti.

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 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell

Amy Yeldell
Environmental Protection Specialist

Ec: Travis Marshall, Senior EPS, Grand Junction DRMS

COST SUMMARY WORK

Task description: **Post inspection update 6-12-2019**

Site: **Wagner Rock** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: ACY State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-ACY
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demolition of scale house	DEMOLISH	1	8.00	$278
02a	Grade highwalls to 2H:1V	DOZER	2	65.71	$31,799
03a	Transport topsoil	LOADER	1	17.20	$2,460
03b	Spread topsoil	DOZER	2	4.54	$2,065
04a	Rip compacted areas	RIPPER	2	3.40	$1,678
05a	Reveg disturbed areas	REVEGE	1	16.00	$9,677
06a	Hay storage- grade graveled areas	DOZER	2	8.23	$3,741
07a	Equipment storage- grade graveled areas	DOZER	2	3.08	$1,403
08a	Initial Mobilization	MOBILIZE	1	2.57	$3,904
08b	Secondary Mobilization	MOBILIZE	1	2.57	$729
		SUBTOTALS:		**131.3**	**$57,734**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$1,166
Performance bond:	1.05	Total =	$606
Job superintendent:	65.65	Total =	$4,555
Profit:	10.00	Total =	$5,773
		TOTAL O & P =	$12,101
		CONTRACT AMOUNT (direct + O & P) =	$69,835

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	0.00	Total =	$0
Reclamation management and/or administration:	5.00		$3,492
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$16,093
		TOTAL BOND AMOUNT (direct + indirect) =	**$73,827**

DEMOLITION WORK

Task description: **Demolition of scale house**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 01A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-01a
User: ACY

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 95.50 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Scale house	8' x 10' x 20'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	1,600.00	CF	$0.18	$291.20

Job Hours: **8.00** **Subtotal (unadjusted)**: **$291.20** **Total Cost (adjusted for location)**: **$278.10**

BULLDOZER WORK

Task description: **Grade highwalls to 2H:1V**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-02a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper own. Cost/Hour:	$10.43	NA
Ripper op. Cost/Hour:	$4.19	50
Operator Cost/Hour:	$41.24	NA

Total unit Cost/Hour: $241.98
Total Fleet Cost/Hour: **$483.95**

MATERIAL QUANTITIES

Initial Volume: 12,667
Swell factor: 1.490
Loose volume: **18,874** LCY

Source of estimated volume: 400'L 60'H near vertical to 2H:1V slope
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 135 feet
Unadjusted hourly production: 689.5 LCY/hr

Materials consistency description: Rock, poorly ripped or blasted 0.6

Average push gradient: 0 %
Average site altitude: 6,490 feet

Material weight: 3,300 lbs/LCY

Weight description: Basalt

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(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:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2083

Adjusted unit production: 143.62 LCY/hr
Adjusted fleet production: **287.24** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $1.685/LCY

Total job time: **65.71** Hours
Total job cost: **$31,799**

WHEEL LOADER – LOAD AND CARRY WORK

Task description: **Transport topsoil**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-03a
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:	$46.54	NA
Operating Cost/Hour:	$55.81	100
Operator Cost/Hour:	$40.65	NA
Total Unit Cost/Hour:	$143.00	

Total Fleet Cost/Hour: $143.00

MATERIAL QUANTITIES

Initial volume: 3,710 CCY Swell factor: 1.125
Loose volume: **4,174** LCY

Source of estimated volume: 6" topsoil over 4.6 ac
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:	Mixed material 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:	-0.050	minutes
	Adjusted Basic Cycle Time:	0.475	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:	450	0.00	5.00	5.00	0.4150	(Cat HB)
Return Route:	450	0.00	5.00	5.00	0.3744	(Cat HB)

Total Travel Time:	0.7894	minutes
Total Cycle Time:	**1.2644**	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**6.16**	LCY

Job Condition Correction Factors
Site Altitude: 6490 feet

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

Unadjusted Hourly Unit Production:	292.32	LCY/Hour
Adjusted Hourly Unit Production:	242.62	LCY/Hour
Adjusted Hourly Fleet Production:	**242.62**	LCY/Hour

JOB TIME AND COST

Fleet size:	1	Loader(s)	Total job time:	**17.20**	Hours
Unit cost:	$0.589	/LCY	Total job cost:	**$2,460**	

BULLDOZER WORK

Task description: **Spread topsoil**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #:	03B	State:	Colorado	Abbreviation:	None
Date:	6/19/2019	County:	Moffat	Filename:	M018-03b
User:	ACY				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D8T - 8SU
Horsepower:	310
Blade Type:	Semi-Universal
Attachment:	NA
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.24	NA

Total unit Cost/Hour: $227.36
Total Fleet Cost/Hour: **$454.72**

MATERIAL QUANTITIES

Initial Volume:	4,174
Swell factor:	1.000
Loose volume:	**4,174** LCY

Source of estimated volume: Transported volume, 6" over 4.6 ac
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 852.6 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
Average site altitude: 6,490 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

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:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5390

Adjusted unit production: 459.55 LCY/hr
Adjusted fleet production: **919.1** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.495/LCY

Total job time: **4.54** Hours
Total job cost: **$2,065**

BULLDOZER RIPPING WORK

Task description: **Rip compacted areas**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 04A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-04a
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:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper Ownership Cost/Hour:	$10.43	NA
Ripper Operating Cost/Hour:	$8.38	100
Operator Cost/Hour:	$41.24	NA
Total Unit Cost/Hour:	$246.17	

Total Fleet Cost/Hour: **$492.33**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 3.98 acres Rip Depth (ft): 2.00 Volume: 12,842 BCY or CCY

Source of estimated quantity: Rec Plan

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.56	feet/pass
Average Ripping Width:	7.08	feet/pass
Average Ripping Length:	100.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.703	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.703 Acres/hr

Site Altitude:	6,490	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.58 Acres/hr
Adjusted Hourly Fleet Production: **1.17** Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: **3.41** Hours

Unit cost: $421.636 Per acre Total job cost: **$1,678**

REVEGETATION WORK

Task description: **Reveg disturbed areas**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-05a
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	$0.34	$68.00
			Total Fertilizer Materials Cost/Acre	**$68.00**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$36.15
Total Fertilizer Application Cost/Acre	**$36.15**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$101.93
Total Tilling Cost/Acre	**$101.93**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	0.19	0.62	$1.69
Prairie Clover, Purple - Kaneb	0.06	0.41	$3.39
Sandberg Bluegrass - VNS	0.20	4.25	$1.68
Lupine, Silver	0.56	0.33	$39.19
Thickspike Wheatgrass - Critana	0.57	2.02	$3.92
Muttongrass	0.03	0.62	$1.03
Western Wheatgrass - Arriba	2.40	6.06	$15.60
Rabbitbrush, Rubber	0.03	0.45	$1.93
Sweetvetch, Utah or Northern	0.22	0.10	$16.50
Needle and Thread	0.27	0.71	$11.30
Sagebrush, Mountain or Big	0.10	5.28	$1.98

Prairie Junegrass	0.04	2.13	$1.04
Flax, Lewis Blue	0.06	0.40	$0.99
Serviceberry, Utah	0.02	0.04	$1.35
Penstemon, Palmer	0.03	0.66	$1.64
Totals Seed Mix	4.78	24.06	**$103.21**

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 - 2,4D @ 1.0 pt/ac	1.00	ACRE	$2.74	$2.74
Herbicide - Escort @ 1.0 pt/ac	1.00	ACRE	$179.00	$179.00
Herbicide - Plateau @ 1.0 pt/ac	1.00	ACRE	$10.11	$10.11
Herbicide - Tordon 22K @ 1.0 pt/ac	1.00	ACRE	$12.15	$12.15
Herbicide - Transline @ 1.0 pt/ac	2.00	ACRE	$9.34	$18.68
Total Mulch Materials Cost/Acre				**$222.68**

Application

Description	**Cost /Acre**
Weed spray, truck, non-aquatic area, nox. [DMG]	$71.50
Total Mulch Application Cost/Acre	**$71.50**

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: 8.58 Cost /Acre: $835.47

Estimated Failure Rate: 35% Cost /Acre*: $835.47

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MULCHING

Initial Job Cost: **$7,168.33**

Reseeding Job Cost: **$2,508.92**

Total Job Cost: **$9,677**

Job Hours: **16.00**

BULLDOZER WORK

Task description: **Hay storage- grade graveled areas**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 06A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-06a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.24	NA

Total unit Cost/Hour: $227.36
Total Fleet Cost/Hour: **$454.72**

MATERIAL QUANTITIES

Initial Volume: 4,302
Swell factor: 1.245
Loose volume: **5,356** LCY

Source of estimated volume: 8 ac @ 4" depth
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 852.6 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %
Average site altitude: 6,490 feet

Material weight: 3,300 lbs/LCY

Weight description: Basalt

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:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3818

Adjusted unit production: 325.52 LCY/hr
Adjusted fleet production: **651.04** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.698/LCY

Total job time: **8.23** Hours
Total job cost: **$3,741**

BULLDOZER WORK

Task description: **Equipment storage- grade graveled areas**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 07A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-07a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.24	NA

Total unit Cost/Hour: $227.36
Total Fleet Cost/Hour: **$454.72**

MATERIAL QUANTITIES

Initial Volume: 1,613
Swell factor: 1.245
Loose volume: **2,008** LCY

Source of estimated volume: 3 ac @ 4" depth
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 852.6 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %
Average site altitude: 6,490 feet

Material weight: 3,300 lbs/LCY

Weight description: Basalt

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:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3818

Adjusted unit production: 325.52 LCY/hr
Adjusted fleet production: **651.04** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.698/LCY

Total job time: **3.08** Hours
Total job cost: **$1,403**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Initial Mobilization**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 08A State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-08a
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:	$17.20	$29.63	$38.69
Operating Cost/Hour:	$26.56	$47.02	$55.69
Operator Cost/Hour:	$23.63	$23.63	$23.63
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$67.39	$123.81	$141.54

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 D8T - 8SU	53.08	$114.29	$141.54	2	$511.66	$283.08	$500.00
CAT 972H	28.00	$46.54	$123.81	1	$170.35	$123.81	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$18.15	$67.39	1	$85.54	$67.39	$250.00
Subtotals:					**$767.55**	**$474.28**	**$1,000.00**

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	$48.58	1	$48.58	$48.58
Subtotals:			**$48.58**	**$48.58**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG, CO	
Total one-way travel distance:	5.00	miles
Average Travel Speed:	35.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$3,889.91
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$13.88

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time:	**2.57**	Hours
Total job cost:	**$3,904**	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Secondary Mobilization**

Site: **Wagner Rock Pit** Permit Action: 2019-06 Permit/Job#: M1999018

PROJECT IDENTIFICATION

Task #: 08B State: Colorado Abbreviation: None
Date: 6/19/2019 County: Moffat Filename: M018-08b
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:	$17.20	$29.63	$38.69
Operating Cost/Hour:	$26.56	$47.02	$55.69
Operator Cost/Hour:	$23.63	$23.63	$23.63
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$67.39	$123.81	$141.54

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
Drill/Broadcast Seeder with Tractor	25.00	$18.15	$67.39	1	$85.54	$67.39	$250.00
Subtotals:					**$85.54**	**$67.39**	**$250.00**

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	$48.58	1	$48.58	$48.58
Subtotals:			**$48.58**	**$48.58**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG, CO	
Total one-way travel distance:	5.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$714.77	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$13.88	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time:	**2.57**	Hours
Total job cost:	**$729**	

Wagner Rock Pit M-1999-018

Task: 2016-06 -Post inspection 6-12-19 update

Updates from CN-1 calculation **Changes**

Elevation: 6,490 ft.

CIRCES program was last updated on 7/1/2019

-	01a	Demo Scale & Scale house, push into pit **Corrected volumes and demo selection**
+	02a	Highwall Reduction 400' long slope max 60'D, vertical->2:1, cut and fill 12,667 CCY, **slopes will be approx. 135', poorly blasted mostly consolidated material.** If use of excavator w/o blasting add ~20k.
-	03a	Transport 6" of topsoil for 4.6 ac, 3,710 CCY, **Loader only** avg of approx. 450', mostly flat no slope, not existing road
+	03b	Grade topsoil 4.6 ac @ 6" deep, 4,174 LCY, **100' push**
	04a	Rip compacted stockpile 24" deep areas 3.98 ac
+	05a	Reveg 8.58 ac, 35% failure Disk harrow Fetilizer 18-46-0 @ 200 lbs Drill seed USDA mix provided-all seeds no nursery No mulching at this time Weed treatments, **increase application types (Transline x2 for Scotch Thistle, Tordon for Dalmatian Toadflax, Escort + 2,4-D for Black Henbane, Plateau for White top)**
	06a	Grade existing graveled surface 8 ac @ 4", 100' push no slope 4,302 cy
	07a	Grade existing graveled surface 3 ac @ 4", 100' push no slope 1,613 cy
-	08a	Initial Mobilization **2** x **D-8** w ripper, **1x 972 wheel loader**, 1x drill seeder/tractor, crew truck
	09a	Secondary Mobilization 1x drill seeder/tractor, crew truck