



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

October 31, 2023

Rod Havens
McAtee Construction Company
6215 Clear Creek Parkway
Cheyenne, WY 82007

RE: Division's Financial Warranty Cost Estimate for Timnath Pit (M1989-056)

Dear Mr. Havens,

On August 24, 2023 the Division performed an inspection as part of the Succession of Operators Application (SO-1) at the Timnath Pit. As part of the inspection the financial warranty for the mine was calculated. The Division used observations made during the inspection, and permit file information during the cost estimate calculations.

A copy of the mine's reclamation cost estimate is attached for your review. The Division will allow 14 days or until **November 14, 2023** to review and comment on the reclamation cost estimate prior to issuing a surety increase notice for the Timnath Pit. Once the surety increase is issued by the Division, the Operator will have 60 days to provide the additional financial warranty.

If you need additional information or have any questions, please contact me by telephone at **303-866-3567 x8114**, or by email at patrick.lennberg@state.co.us.

Sincerely,

Patrick Lennberg
Environmental Protection Specialist

Attachment: Reclamation Cost Estimate

cc: Jared Ebert, DRMS

ec: Rodney Havens, McAtee Const. Co., rhavens@simonteam.com
Joshua Kruchten, McAtee Const. Co., jkruchten@simonteam.com



Attachments

COST SUMMARY WORK

Task description: Cost Summary

Site: Timnath Pit

Permit Action: SO-1

Permit/Job#: M1989056

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/30/2023

County: Larimer

Filename: 000

User: JPL

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demolition of Facilities	DEMOLISH	1	860.50	\$75,142
002	Rip facilities area and primary haul road	RIPPER	2	11.31	\$10,113
003	Backfill and Grade Highwalls in Phase II and III area	DOZER	2	7.38	\$6,511
004	Pump water from de-watering pit to remove embankment	PUMPING	1	38.31	\$2,683
005	Remove dewatering pond embankment	DOZER	2	38.60	\$33,984
006	Spread Topsoil Over Affected Area	SCRAPER1	2	27.65	\$105,469
007	Revegetation of Dryland Area	REVEGE	1	15.00	\$35,914
008	Revegetation of Wet Meadow Area	REVEGE	1	40.00	\$98,823
009	Mobilization of Equipment	MOBILIZE	1	4.72	\$21,815
<u>SUBTOTALS:</u>				1043.47	\$390,454

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$7,887

Performance bond: 1.05

Total = \$4,100

Job superintendent: 500.00

Total = \$32,540

Profit: 10.00

Total = \$39,045

TOTAL O & P = \$83,572

CONTRACT AMOUNT (direct + O & P) = \$474,026

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 6.59

Total = \$31,238

Reclamation management and/or administration: 4.89

\$23,180

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$138,490

TOTAL BOND AMOUNT (direct + indirect) = \$528,944

DEMOLITION WORK

Task description: Demolition of Facilities

Site: Timnath Pit

Permit Action: SO-1

Permit/Job#: M1989056

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 10/30/2023

County: Larimer

Filename: 001

User: JPL

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 94.70 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Mine Office - Structure	42,960 CF	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	42,960.00	CF	\$0.24	\$10,203.00
Mine Office - Floor	3,580 SF	Floor, concrete, demolition only, average reinforcing - 4 in. thick	3,580.00	SF	\$0.80	\$2,859.70
Maintenance Shop - Structure	108000 CF	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	108,000.00	CF	\$0.24	\$25,650.00
Maintenance Shop - Floor	7200 SF	Floor, concrete, demolition only, average reinforcing - 4 in. thick	7,200.00	SF	\$0.80	\$5,751.36
Covered Storage	54075 CF	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	54,075.00	CF	\$0.22	\$11,701.83
Concrete Batch Plant	46080	Bldg. (MC) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	46,080.00	CF	\$0.42	\$19,501.06
Asphalt Batch Plant	2 Silos	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
Various Conveyors	1000 LF ' Long X 3' W X 2	Conveyor, demolition, on-site disposal, existing pit, 50 ft. push	6,000.00	CF	\$0.36	\$2,160.00

Job Hours: <u>860.50</u>	Subtotal (unadjusted): <u>\$79,346.95</u>	Total Cost (adjusted for location): <u>\$75,141.56</u>
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BULLDOZER RIPPING WORK

Task description: Rip facilities area and primary haul road

Site: Timnath Pit

Permit Action: SO-1

Permit/Job#: M1989056

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 10/30/2023

County: Larimer

Filename: 002

User: JPL

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:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper Ownership Cost/Hour:	\$14.11	NA
Ripper Operating Cost/Hour:	\$7.45	100
Operator Cost/Hour:	\$40.04	NA
Total Unit Cost/Hour:	\$446.90	
Total Fleet Cost/Hour:	\$893.79	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 15.44 acres

Rip Depth (ft): 1.00

Volume: 24,910

BCY or CCY

Source of estimated quantity: DRMS

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:	500.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.822	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.822 Acres/hr

Site Altitude: 4,800 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.68 Acres/hr

Adjusted Hourly Fleet Production: **1.36** Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: **11.32** Hours

Unit cost: \$655.018 Per acre Total job cost: **\$10,113**

BULLDOZER WORKTask description: **Backfill and Grade Highwalls in Phase II and III area**Site: **Timnath Pit**Permit Action: **SO-1**Permit/Job#: **M1989056****PROJECT IDENTIFICATION**Task #: **003**State: **Colorado**Abbreviation: **None**Date: **10/30/2023**County: **Larimer**Filename: **003**User: **JPL**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:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own.		
Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$1.86	25
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: **\$441.31**Total Fleet Cost/Hour: **\$882.62****MATERIAL QUANTITIES**Initial Volume: **13,611**Swell factor: **1.115**Loose volume: **15,176 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**

Source of estimated swell

factor:

Cat Handbook**HOURLY PRODUCTION**Average push distance: **60 feet**

Unadjusted hourly

production:

1,246.9 LCY/hrMaterials consistency description: **Compacted fill or embankment 0.9**

Average push

gradient:

Average site altitude: **4,800 feet**Material weight: **2,100 lbs/LCY**Weight description: **Earth - Loam****Job Condition Correction Factor**Operator Skill: **0.750****Source****(AVG.)**

Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8250

Adjusted unit
production: 1,028.69 LCY/hr

Adjusted fleet
production: **2057.38** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.429/LCY

Total job time: **7.38** Hours

Total job cost: **\$6,511**

PUMPING WORK

Task description: Pump water from de-watering pit to remove embankment

Site: Timnath Pit

Permit Action: SO-1

Permit/Job#: M1989056

PROJECT IDENTIFICATION

Task #: 004

State: Colorado

Abbreviation: None

Date: 10/30/2023

County: Larimer

Filename: 004

User: JPL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Centrifugal pump - 200M, 10 in.	1
Attachment 1:	Suction hose - 6 in. diam., 25 ft.	2
Attachment 2:	Discharge hose - 6 in. D., 25 ft.	2
Labor Unit 1:	Pump operator	1
Horsepower:	70	
Shift Basis:	1 per day	
Weight:	1.95	
	(US Tons)	

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$19.91	NA
Operating Cost/Hour:	\$21.88	100
Operator Cost/Hour:	\$28.23	NA
Total Unit Cost/Hour:	\$70.02	

Total Fleet Cost/Hour: \$70.02

PUMPING QUANTITIES

Initial Pond Volume:	25.00		Conversion factor:	325850.5800
Final Pond Volume:	8,146,264.50	gallons		
Total Pond Inflow Surface Area:	72,310	Sq. ft.	Unit inflow rate in gph/sq. ft.:	0.1758
Total Pond Inflow Volume per Hour:	12,712.10	gallons		

Source of estimated volume: Pond 1.66 Acres in size and about 15 feet deep

PUMPING TIME

Maximum Pump Capacity:	200,000	gph/pump
Estimated Suction Head:	10	feet
Estimated Discharge Head:	0	feet
Total Head:	10	feet
CPB Pump Capacity:	201,000	gph/pump
Site Altitude:	4,800	feet
Adjusted Pumping Capacity:	201,000	gph
Initial Unadjusted Pumping Time:	40.53	hours
Inflow during Initial Pumping:	515,205	gallons
Net Unadjusted Pumping Time:	43.09	Hours
Altitude Adjustment Factor:	0.9700	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	38.32	hours

JOB TIME AND COST

Total job time: 38.32 Hours

Unit cost: \$0.000310 /Gallon

Total job cost: \$2,683

BULLDOZER WORKTask description: **Remove dewatering pond embankment**Site: **Timnath Pit**Permit Action: SO-1Permit/Job#: M1989056**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 10/30/2023County: LarimerFilename: 005User: JPLAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own.		
Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.75</u>	<u>10</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$440.19</u>	
Total Fleet Cost/Hour:	<u>\$880.38</u>	

MATERIAL QUANTITIESInitial Volume: 36,296Swell factor: 1.000Loose volume: **36,296 LCY**Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell

factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feet

Unadjusted hourly

production: 634.3 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1

Average push

gradient: 0 %Average site altitude: 4,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**Operator Skill: 0.750**Source****(AVG.)**

Material consistency:	1.100	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7412

Adjusted unit
production: 470.14 LCY/hr

Adjusted fleet
production: **940.28** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.936/LCY

Total job time: **38.60** Hours

Total job cost: **\$33,984**

SCRAPER TEAM WORKTask description: Spread Topsoil Over Affected AreaSite: Timnath PitPermit Action: SO-1Permit/Job#: M1989056**PROJECT IDENTIFICATION**Task #: 006State: ColoradoAbbreviation: NoneDate: 10/30/2023County: LarimerFilename: 006User: JPLAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 657G w/push-pull
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 5,000 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	25	50	25
Ownership cost/hour:	\$379.25	NA	NA	\$241.38	\$149.33	\$57.13
Operating cost/hour:	\$358.77	NA	NA	\$35.98	\$46.40	\$16.62
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	NA	NA	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$47.28	NA	NA	\$40.04	\$46.87	\$38.91
Unit Subtotals:	\$785.30	NA	NA	\$317.40	\$242.60	\$112.66
Number of Units:	4	0	0	1	1	1
Group Subtotals:	Work:	\$3,141.20	Support:	\$317.40	Maint:	\$355.26

Total work team cost/hour: \$3,813.86**MATERIAL QUANTITIES**Initial volume: 69,777

CCY

Swell factor: 1.000Loose volume: 69,777

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Scraper Bowl (volume) Basis:

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>32.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>44.00</u>	LCY
Rated Payload:	<u>104,000 pounds</u>	Average Volume:	<u>38.00</u>	LCY
Payload Capacity:	<u>65.00 LCY</u>	Adjusted Capacity:	<u>38.00</u>	LCY

Cycle Time:

Scraper Loading Time: 1.10 Minutes
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 4800 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1284.00	0.00	3.00	3.00	2883	0.70

Haul Time: 0.70 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1284.00	0.00	3.00	3.00	2958	0.60

Return Time: 0.60 minutes

Total Scraper team cycle time: 3.00 minutes
 Adjusted for job conditions: 1,261.60 LCY/Hour
 Selected Number of Scrapers: 2 Scraper(s)
 Adjusted single scraper team (unit) hourly production: 1,261.60 LCY/Hour
 Adjusted multiple scraper team (fleet) hourly production: 2,523.20 LCY/Hour

Unadjusted unit production/hour: 1,520.00 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 2 Team(s) Total job time: 27.65 HoursUnit cost: \$1.512 /LCY Total job cost: \$105,469

REVEGETATION WORKTask description: Revegetation of Dryland AreaSite: Timnath PitPermit Action: SO-1Permit/Job#: M1989056PROJECT IDENTIFICATIONTask #: 007State: ColoradoAbbreviation: NoneDate: 10/30/2023County: LarimerFilename: 007User: JPLAgency or organization name: DRMSFERTILIZING**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)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	1.50	58.54	\$42.71
Blue Grama - Lovington	1.60	26.12	\$25.56
Buffalograss - Native/Plains	15.00	14.46	\$181.00
Foxtail Barley	1.00	3.44	\$215.00
Totals Seed Mix	19.10	102.56	\$464.27

Application

Description	Cost /Acre
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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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
Total Mulch Materials Cost/Acre				\$859.57

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$74.46
Power mulcher (MEANS 32 91 13.16 0350)	\$147.67
Total Mulch Application Cost/Acre	\$222.13

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:	18	Cost /Acre:	\$1,890.79
Estimated Failure Rate:	15%	Cost /Acre*:	\$696.27
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$34,034.22
Reseeding Job Cost:	\$1,879.93
Total Job Cost:	\$35,914
Job Hours:	15.00

REVEGETATION WORKTask description: Revegetation of Wet Meadow AreaSite: Timnath PitPermit Action: SO-1Permit/Job#: M1989056PROJECT IDENTIFICATIONTask #: 008State: ColoradoAbbreviation: NoneDate: 10/30/2023County: LarimerFilename: 008User: JPLAgency or organization name: DRMSFERTILIZING**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)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	1.20	46.83	\$34.17
Foxtail Barley	1.50	5.17	\$322.50
Streambank Wheatgrass - Sodar	4.00	13.04	\$22.80
Saltgrass, Inland	1.60	22.18	\$68.48
Totals Seed Mix	8.30	87.22	\$447.95

Application

Description	Cost /Acre
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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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
Total Mulch Materials Cost/Acre				\$859.57

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$74.46
Power mulcher (MEANS 32 91 13.16 0350)	\$147.67
Total Mulch Application Cost/Acre	\$222.13

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:	50	Cost /Acre:	\$1,874.47
Estimated Failure Rate:	15%	Cost /Acre*:	\$679.95
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$93,723.50
Reseeding Job Cost:	\$5,099.63
Total Job Cost:	\$98,823
Job Hours:	40.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization of Equipment**Site: **Timnath Pit**Permit Action: **SO-1**Permit/Job#: **M1989056****PROJECT IDENTIFICATION**Task #: **009**State: **Colorado**Abbreviation: **None**Date: **10/30/2023**County: **Larimer**Filename: **009**User: **JPL**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:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

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	\$255.49	\$175.95	2	\$862.88	\$351.90	\$500.00
Centrifugal pump - 200M, 10 in.	1.95	\$18.25	\$82.29	1	\$100.54	\$82.29	\$250.00
Cat 657G w/push- pull	80.25	\$379.25	\$175.95	4	\$2,220.80	\$703.80	\$1,000.00
CAT 14M	23.57	\$149.33	\$82.29	1	\$231.62	\$82.29	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	2	\$178.04	\$164.58	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00

Subtotals: **\$3,702.11** **\$1,467.15** **\$2,500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 5,000 Gal.	\$162.53	1	\$162.53	\$162.53
Fuel Tanker, 6x4, 210 HP	\$93.16	2	\$186.32	\$186.32

Subtotals: **\$348.85** **\$348.85**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>FORT COLLINS</u>	
Total one-way travel distance:	<u>10.00</u>	miles
Average Travel Speed:	<u>55.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$21,688.17</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$126.85</u>
'** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.18</u>	<u>0.18</u>
Return Time (Hours):	<u>0.18</u>	<u>0.18</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>2.36</u>	<u>0.36</u>

JOB TIME AND COST

Total job time: 4.73 Hours

Total job cost: \$21,815