COST SUMMARY WORK

Т	ask descrip	otion:	Cost Summary	for RN-05				
Site:	Bowie No	o. 2 Mine	Pe	ermit Action:	RN5	Permit/Job	o#: <u>C1996083</u>	
<u>P</u>]	ROJECT Task #:	IDENTIFIC	CATION State:	Colorado		Abbreviation:	None	
	Date: User:	11/23/2021 RDZ	County:	Delta		Filename:	C083-000	

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	Cast
	Description Pull back and Haul Portal Bench Fill Material to	Used	Size	Hours	Cost
001	Cut Slope	TRUCK1	1	609.56	\$520,741
002	Regrade D-Portal Bench	DOZER	4	158.03	\$238,849
005	Rip and Regrade Material Storage Area at Gob Pile	DOZER	4	1.73	\$2,616
006	Pull Back Material @ Old Truck Loadout Material Storage Area	EXCAVATE	2	21.27	\$15,283
007	Regrade Old Truck Loadout Material Storage Area	DOZER	4	8.21	\$12,407
008	Pull Back Material at Truck Loadout/Coal Stockpile	EXCAVATE	2	147.57	\$106,027
009	Regrade New Truck Loadout and Coal Stockpile	DOZER	4	32.38	\$48,940
010	Pull Material Back onto Train L/O Facil. and Railbed Benches	EXCAVATE	2	431.74	\$310,194
011	Regrade Train Loadout Facilities and Railbed Benches	DOZER	4	171.56	\$259,289
012	Backfill and Regrade Train L/O Overland Conveyor Corridor	DOZER	4	5.62	\$8,486
013	Haul Fill from Upper Mat'l Strge Area to B-Seam Portal Bench	SCRAPER1	1	60.63	\$47,237
014	Haul Fill fr Adj. Mat'l Storage Area to B-Seam Portal Bench	TRUCK1	1	89.33	\$65,814
015	Backfill and Regrade B-Seam Portal Bench	DOZER	4	38.70	\$64,521
019	Regrade Drill Pads from MRs and TRs	DOZER	4	8.01	\$12,108
020	Regrade Material Storage Area from TR-29	DOZER	4	0.48	\$725
021	Backfill and Regrade New Prep Plant Bench	DOZER	4	36.99	\$55,910
022	Replace Fill from Material Storage Area to Water Tank Bench	SCRAPER1	1	1.51	\$1,177
023	Regrade Borrow Area	DOZER	4	19.14	\$28,933
025	Regrade Upper Parking Lot Expansion Area	EXCAVATE	1	3.65	\$1,314
027	Haul Rock to Vent Shafts for Disposal	TRUCK1	1	18.81	\$7,233
036	Spread Uncompacted Refuse on Gob Pile #2	DOZER	4	89.54	\$135,325
037	Spread Uncompacted Refuse at Gob Pile #3	DOZER	4	100.73	\$152,241
038	Compact Material Hauled to Gob Pile #1	COMPACT	1	11.85	\$3,911
039	Compact Refuse on Gob Pile #2	COMPACT	1	135.94	\$44,861
040	Haul refuse out of Gob Pile #2/#3 drying areas for placement	TRUCK1	1	909.13	\$344,705
041	Compact Refuse at Gob Pile #3	COMPACT	1	147.84	\$48,787
042	Haul Topsoil from Stockpile Area to Gob Pile #1	SCRAPER1	1	2.18	\$1,702
043	Place 3.5' of Coverfill on Gob Pile #1	SCRAPER1	1	15.80	\$12,312
044	Place Coverfill from Stockpiles on Gob Pile #2	SCRAPER1	1	173.74	\$135,358

045	Haul Cover Material from Gob Pile #3 to Gob Pile #2	TRUCK1	1	235.64	\$90,596
045A	Distribute Gob Pile #2 cover hauled by T/L	DOZER	1	375.26	\$141,791
045B	Haul Cover Material from Borrow Area #1 to Gob Pile #2	TRUCK1	1	50.03	\$9,156
045C	Haul Cover Material from Borrow Area #2 to Gob Pile #2	TRUCK1	1	228.88	\$41,887
045D	Haul Cover Material from Borrow Area #3 to Gob Pile #2	TRUCK1	1	41.55	\$7,604
045E	Haul Cover Material from B Portal Storage to Gob Pile #2	TRUCK1	1	108.83	\$41,841
046	Place 2.5' of Coverfill on Gob Pile #3, from stockpile	SCRAPER1	1	196.56	\$153,130
047	Push temp coverfill mat. to face of Gob pile #3	DOZER	1	16.77	\$5,179
050	Compact Backfilled D-Portal Bench,Roads, & Utility Corridor	COMPACT	1	511.43	\$168,767
051	Compact Backfilled Material at Truck Loadout/Coal Stockpile	COMPACT	1	56.10	\$18,515
052	Compact Backfilled Train Loadout	COMPACT	1	191.23	\$63,104
053	Compact B-Seam Portal Bench	COMPACT	1	113.99	\$37,618
060	Rip Utility Bench	RIPPER	4	0.30	\$516
061	Rip D-Portal Bench	RIPPER	4	3.71	\$6,192
062	Rip Truck Loadout/Coal Stockpile Area	RIPPER	4	2.06	\$3,440
063	Rip Regraded Mine Area Prior to Topsoil Replacement	RIPPER	4	59.09	\$98,515
064	Rip Train Loadout Facilities and Railbed Benches	RIPPER	4	7.69	\$12,824
065	Rip B-Seam Portal Bench	RIPPER	4	3.71	\$6,192
066	Rip Rock Laydown Pad Topsoil	RIPPER	1	0.43	\$180
070	Rip Haul Roads (Portion Being Reclaimed) & Old Truck Loadout	RIPPER	4	116.47	\$195,928
071	Remove Haul Road Subbase and Place on Gob Pile #1	SCRAPER1	1	30.02	\$23,385
072	Rip Truck Loadout Road	RIPPER	4	2.14	\$3,610
073	Haul Truck Loadout Subbase to Gob Pile #1	SCRAPER1	1	12.75	\$9,930
074	Rip Upper Haul Road Asphalt Prior to Road Narrowing	RIPPER	4	2.95	\$4,964
075	Pull Back/Haul Fill Mat'l from Upper Haul Rd Narrowing	TRUCK1	1	141.47	\$120,858
076	Regrade Narrowed Section of Haul Road	DOZER	4	26.11	\$39,461
077	Rip Gob Pile #1 Road	RIPPER	4	2.35	\$3,969
078	Regrade Gob Pile #1 Road	DOZER	4	5.17	\$8,612
079	Rip Access Road	RIPPER	4	0.73	\$1,240
080	Haul Access Road Surface to Gob Pile #1	SCRAPER1	1	4.86	\$3,785
081	Regrade Access Road	DOZER	4	1.79	\$2,711
083	Backfill and Regrade Haul Road to Gob Pile #2	DOZER	4	0.44	\$730
084	Rip Lower Haul Road	RIPPER	4	0.95	\$1,591
085	Regrade Lower Haul Road	DOZER	4	36.46	\$60,775
086	Regrade Light Use Roads from MRs and TRs	DOZER	4	60.96	\$101,631
090	Finish Grade Disturbed Mine Area	GRADER	1	129.92	\$23,423
091	Finish Grade Train Loadout	GRADER	1	16.91	\$3,049
092	Finish Grade B-Seam Portal Bench	GRADER	1	6.91	\$1,247
093	Finish Grade Gob Piles #1, #2, #3, and #4	GRADER	1	50.64	\$9,131
095	Backfill and Regrade Pond B	DOZER	1	7.63	\$3,178
096	Backfill and Regrade Pond C	DOZER	1	11.61	\$4,680
097	Backfill and Regrade Gob Pile Pond D	DOZER	1	8.18	\$3,298

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				-		
	098	Backfill and Regrade Pond F	DOZER	1	10.87	\$4,381
	l.					
Portals POSTMINT 43.66 \$7,361 102 Instal Riprag, Gavel, and Geotextile in B-Seam POSTMINT 43.66 \$7,361 106ap Ping and seal AW-15 BOREHOLE 1 6.00 \$1,443 106ah Ping and seal AW-17 BOREHOLE 1 6.00 \$1,443 106ai Ping and seal BD-101 BOREHOLE 1 6.00 \$1,443 106ai Ping and seal BD-105 BOREHOLE 1 6.00 \$1,443 106ai Ping and seal BD-105 BOREHOLE 1 6.00 \$1,392 106aa Ping and seal BL-102 BOREHOLE 1 6.00 \$1,392 106ap Ping and seal BL-102 BOREHOLE 1 6.00 \$1,392 106ap Ping and seal MR133 Uility Hole #1 BOREHOLE 1 6.00 \$1,392 106ap Ping and seal MR133 Uility Hole #1 BOREHOLE 1 10.00 \$7,193 106ap Ping and seal MR133 Uility Hole #1 BOREHOLE 1 10.00 \$7,193 <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td>	8					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	101		EXCAVATE	2	0.63	\$453
106ag Plug and seal AW-15 BOREHOLE 1 6.00 \$1,433 106ah Plug and seal AW-17 BOREHOLE 1 6.00 \$1,443 106ag Plug and seal BD-101 BOREHOLE 1 6.00 \$1,443 106ak Plug and seal BD-103 BOREHOLE 1 6.00 \$1,413 106ak Plug and seal BD-105 BOREHOLE 1 7.00 \$1,644 106a Plug and seal BD-102 BOREHOLE 1 6.00 \$1,392 106a0 Plug and seal BL-102 BOREHOLE 1 6.00 \$1,392 106a0 Plug and seal BL-102 BOREHOLE 1 6.00 \$1,392 106a0 Plug and seal GVB-6A BOREHOLE 1 10.00 \$7,193 106a0 Plug and seal MR133 Uility Hole #1 BOREHOLE 1 10.00 \$7,193 106a0 Plug and seal MR133 Uility Hole #2 BOREHOLE 1 10.00 \$7,193 106a0 Plug and seal GVB-5A (aka GVB-5A) BOREHOLE 1	102			1	43.66	\$7,361
$ 106ai Plug and seal AW16 BOREHOLE 1 6.00 $1,443 \\ 106ai Plug and seal AW-17 BOREHOLE 1 6.00 $1,432 \\ 106ai Plug and seal BD-101 BOREHOLE 1 6.00 $1,431 \\ 106ai Plug and seal BD-103 BOREHOLE 1 6.00 $1,401 \\ 106ai Plug and seal BD-105 BOREHOLE 1 6.00 $1,401 \\ 106ai Plug and seal BD-105 BOREHOLE 1 6.00 $1,392 \\ 106an Plug and seal BD-102 BOREHOLE 1 6.00 $1,392 \\ 106an Plug and seal BL-102 BOREHOLE 1 6.00 $1,392 \\ 106an Plug and seal BL-102 BOREHOLE 1 6.00 $1,392 \\ 106an Plug and seal BL-102 BOREHOLE 1 6.00 $1,392 \\ 106an Plug and seal BL-102 BOREHOLE 1 6.00 $1,392 \\ 106an Plug and seal BL-102 BOREHOLE 1 6.00 $1,394 \\ 106an Plug and seal BL-102 BOREHOLE 1 6.00 $1,394 \\ 106an Plug and seal BL-102 BOREHOLE 1 10.00 $7,193 \\ 106an Plug and seal WR133 Utility Hole #1 BOREHOLE 1 10.00 $7,193 \\ 106cn Plug and seal WR133 Utility Hole #1 BOREHOLE 1 10.00 $7,193 \\ 106cn Plug and seal MR133 Utility Hole #2 BOREHOLE 1 10.00 $7,193 \\ 106cn Plug and seal MR133 Utility Hole #4 BOREHOLE 1 10.00 $7,193 \\ 106cq Plug and seal MR133 Utility Hole #4 BOREHOLE 1 10.00 $7,193 \\ 106cq Plug and seal GVB-D-3A (aka GVB-D3-A) BOREHOLE 1 10.00 $7,193 \\ 106cq Plug and seal GVB-D-3A (aka GVB-D3-A) BOREHOLE 1 10.00 $3,638 \\ 106dd Plug and seal GVB-D-5A (aka GVB-D6-B) BOREHOLE 1 10.00 $3,638 \\ 106dd Plug and seal GVB-D-5A (aka GVB-D6-B) BOREHOLE 1 10.00 $3,637 \\ 106dp Plug and seal GVB-D-5A (aka GVB-D6-B) BOREHOLE 1 10.00 $3,567 \\ 106dp Plug and seal GVB-D-5A (aka GVB-D6-B) BOREHOLE 1 10.00 $3,567 \\ 106dp Plug and seal GVB-D-5A (aka GVB-D6-B) BOREHOLE 1 10.00 $3,567 \\ 106dp Plug and seal GVB-D-7A (aka GVB-D7-A) BOREHOLE 1 10.00 $3,567 \\ 106dp Plug and seal GVB-D-7A (aka GVB-D7-B) BOREHOLE 1 10.00 $3,577 \\ 106da Plug and seal GVB-D-7A (aka GVB-D7-B) BOREHOLE 1 10.00 $3,577 \\ 106da Plug and seal GVB-D-7A (aka GVB-D7-B) BOREHOLE 1 10.00 $3,578 \\ 106db Plug and seal GVB-D-7A (aka GVB-B17C) BOREHOLE$	106ag			1	6.00	\$1,452
106ai Plug and seal AW-17 BOREHOLE 1 6.00 \$	-			1		
$ 106_{44} \begin{array}{ c c c c c c c c c c c c c c c c c c c$	l.			1		
106at Plug and seal BD-103 BOREHOLE 1 6.00 \$1,644 106at Plug and seal BD-105 BOREHOLE 1 7.00 \$1,644 106a Plug and seal BD-102 BOREHOLE 1 6.00 \$1,392 106an Plug and seal BL-101A BOREHOLE 1 6.00 \$1,392 106ap Plug and seal BL-102A BOREHOLE 1 6.00 \$1,392 106ap Plug and seal BL-102A BOREHOLE 1 6.00 \$1,392 106be Plug and seal MR133 Utility Hole #1 BOREHOLE 1 11.00 \$5,342 106co Plug and seal MR133 Utility Hole #2 BOREHOLE 1 10.00 \$7,193 106co Plug and seal MR133 Utility Hole #3 BOREHOLE 1 10.00 \$7,193 106cy Plug and seal GVB-D-3A (aka GVB-D-3A) BOREHOLE 1 10.00 \$7,193 106cy Plug and seal GVB-D-5A (aka GVB-D-5B) BOREHOLE 1 10.00 \$3,633 106do Plug and seal GVB-D-5B (aka GVB-D		U		-		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				-		
IO6a Plug and seal BD-105A BOREHOLE 1 6.00 \$1,395 m Plug and seal BL-102 BOREHOLE 1 6.00 \$1,392 IO6an Plug and seal BL-101A BOREHOLE 1 6.00 \$1,392 IO6ap Plug and seal BL-102A BOREHOLE 1 6.00 \$1,392 IO6ap Plug and seal MR133 Utility Hole #1 BOREHOLE 1 1.00 \$5,132 IO6cn Plug and seal MR133 Utility Hole #1 BOREHOLE 1 10.00 \$7,193 IO6cq Plug and seal MR133 Utility Hole #2 BOREHOLE 1 10.00 \$7,193 IO6cq Plug and seal GVB-D-7A (aka GVB-D-7A) BOREHOLE 1 10.00 \$7,193 IO6de Plug and seal GVB-D-7A (aka GVB-D-7A) BOREHOLE 1 10.00 \$3,643 IO6de Plug and seal GVB-D-7B (aka GVB-D-7B) BOREHOLE 1 10.00 \$3,643 IO6de Plug and seal GVB-D-BG (aka GVB-D-7B) BOREHOLE 1 10.00 \$3,578 IO6de Pl				-		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	106a			-		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	l.	Plug and seal BD-102	BOREHOLE	1	6.00	\$1.392
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	l.			-		
		· ·		-		
	-			-		
106cnPlug and seal MR133 Utility Hole #1BOREHOLE110.00\$7,193106cpPlug and seal MR133 Utility Hole #2BOREHOLE110.00\$7,193106cpPlug and seal MR133 Utility Hole #2BOREHOLE110.00\$7,193106cyPlug and seal MR133 Utility Hole #4BOREHOLE110.00\$7,193106cyPlug and seal GVB-D-3A (aka GVB-D3-A)BOREHOLE110.00\$5,477106dbPlug and seal GVB-D-5A (aka GVB-D6-A)BOREHOLE110.00\$3,638106ddPlug and seal GVB-D-6A (aka GVB-D6-A)BOREHOLE110.00\$3,638106ddPlug and seal GVB-D-6A (aka GVB-D6-B)BOREHOLE110.00\$3,627106dpPlug and seal GVB-D-6B (aka GVB-D7-B)BOREHOLE111.00\$4,573106duPlug and seal GVB-D-8C (aka GVB-D8-C)BOREHOLE111.00\$4,266106dePlug and seal GVB-D7C (aka GVB-B17C)BOREHOLE110.00\$4,266106gePlug and seal GVB-17C (aka GVB-B17C)BOREHOLE112.00\$15,975106giPlug and seal GVB-17C (aka GVB-B17E)BOREHOLE112.00\$15,975106giPlug and seal AW-1BOREHOLE112.00\$16,299106goPlug and seal AW-3BOREHOLE112.00\$16,299106giPlug and seal AW-3BOREHOLE16.00\$1,471106grPlug and seal AW-3BOREHOLE16.00\$1,471 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	8					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	<u>l</u>					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	<u>l</u>	· ·		-		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-			-		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				-		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	<u>l</u>	U		-		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1			-		
106duPlug and seal GVB-D-8C (aka GVB-D8-C)BOREHOLE112.00\$5,578106edPlug and seal P-TC-03-01 (aka TC-03-01)BOREHOLE110.00\$4,266106eePlug and seal P-TC-03-02 (aka TC-03-02)BOREHOLE110.00\$4,266106gbPlug and seal GVB-17C (aka GVB-B17C)BOREHOLE112.00\$11,631106gcPlug and seal GVB-17D (aka GVB-B17D)BOREHOLE112.00\$15,975106giPlug and seal GVB-17F (aka GVB-B17E)BOREHOLE112.00\$15,975106giPlug and seal AW-1BOREHOLE17.00\$1,784106goPlug and seal AW-2BOREHOLE16.00\$1,471106gpPlug and seal AW-3BOREHOLE16.00\$1,471106grPlug and seal AW-4BOREHOLE16.00\$1,471106grPlug and seal AW-5BOREHOLE16.00\$1,471106grPlug and seal AW-6BOREHOLE16.00\$1,471106grPlug and seal AW-7BOREHOLE16.00\$1,471106grPlug and seal AW-7BOREHOLE16.00\$1,471106grPlug and seal AW-7BOREHOLE16.00\$1,471106grPlug and seal AW-7BOREHOLE16.00\$1,471106grPlug and seal AW-7BOREHOLE16.00\$1,416106gvPlug and seal AW-9BOREHOLE16.00\$1,411106grP	-					
106edPlug and seal P-TC-03-01 (aka TC-03-01)BOREHOLE110.00\$4,266106eePlug and seal P-TC-03-02 (aka TC-03-02)BOREHOLE110.00\$4,266106gbPlug and seal GVB-17C (aka GVB-B17C)BOREHOLE112.00\$11,631106gcPlug and seal GVB-17D (aka GVB-B17D)BOREHOLE112.00\$13,381106gdPlug and seal GVB-17E (aka GVB-B17E)BOREHOLE112.00\$15,975106giPlug and seal GVB-17E (aka GVB-B17F)BOREHOLE112.00\$16,299106gnPlug and seal AW-1BOREHOLE17.00\$1,784106goPlug and seal AW-2BOREHOLE16.00\$1,471106gpPlug and seal AW-3BOREHOLE16.00\$1,471106grPlug and seal AW-3BOREHOLE16.00\$1,471106grPlug and seal AW-5BOREHOLE17.00\$1,784106gsPlug and seal AW-6BOREHOLE16.00\$1,471106grPlug and seal AW-7BOREHOLE16.00\$1,471106gtPlug and seal AW-7BOREHOLE16.00\$1,441106gvPlug and seal AW-8BOREHOLE16.00\$1,416106gvPlug and seal AW-12BOREHOLE16.00\$1,411wwwwwww106gyPlug and seal AW-13BOREHOLE16.00\$1,411wwww <td< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td></td<>	-					
106eePlug and seal P-TC-03-02 (aka TC-03-02)BOREHOLE110.00\$4,266106gbPlug and seal GVB-17C (aka GVB-B17C)BOREHOLE112.00\$11,631106gcPlug and seal GVB-17D (aka GVB-B17D)BOREHOLE112.00\$13,381106gdPlug and seal GVB-17F (aka GVB-B17E)BOREHOLE112.00\$15,975106giPlug and seal GVB-17F (aka GVB-B17F)BOREHOLE112.00\$16,299106gnPlug and seal AW-1BOREHOLE17.00\$1,784106goPlug and seal AW-2BOREHOLE17.00\$1,471106grPlug and seal AW-3BOREHOLE16.00\$1,471106grPlug and seal AW-3BOREHOLE16.00\$1,471106grPlug and seal AW-4BOREHOLE16.00\$1,471106grPlug and seal AW-5BOREHOLE16.00\$1,471106gtPlug and seal AW-6BOREHOLE17.00\$1,772106gtPlug and seal AW-7BOREHOLE16.00\$1,416106gvPlug and seal AW-8BOREHOLE16.00\$1,416106gvPlug and seal AW-12BOREHOLE16.00\$1,411WWIntervention16.00\$1,411WInterventionBOREHOLE16.00\$1,411WInterventionBOREHOLE16.00\$1,411WInterventionBOREHOLE16.00\$1				-		
106gbPlug and seal GVB-17C (aka GVB-B17C)BOREHOLE1 12.00 \$11,631 $106gc$ Plug and seal GVB-17D (aka GVB-B17D)BOREHOLE1 12.00 \$13,381 $106gd$ Plug and seal GVB-17E (aka GVB-B17E)BOREHOLE1 12.00 \$15,975 $106gi$ Plug and seal GVB-17F (aka GVB-B17F)BOREHOLE1 12.00 \$16,299 $106gn$ Plug and seal AW-1BOREHOLE1 7.00 \$1,784 $106go$ Plug and seal AW-2BOREHOLE1 6.00 \$1,471 $106gp$ Plug and seal AW-3BOREHOLE1 6.00 \$1,471 $106gp$ Plug and seal AW-3BOREHOLE1 6.00 \$1,471 $106gp$ Plug and seal AW-4BOREHOLE1 6.00 \$1,471 $106gp$ Plug and seal AW-5BOREHOLE1 6.00 \$1,471 $106gp$ Plug and seal AW-6BOREHOLE1 6.00 \$1,471 $106gt$ Plug and seal AW-7BOREHOLE1 6.00 \$1,471 $106gt$ Plug and seal AW-7BOREHOLE1 6.00 \$1,427 $106gt$ Plug and seal AW-8BOREHOLE1 6.00 \$1,411 $106gt$ Plug and seal AW-12BOREHOLE1 6.00 \$1,411 $106gt$ Plug and seal AW-12BOREHOLE1 6.00 \$1,411 $106gt$ Plug and seal AW-13BOREHOLE1 6.00 \$1,411 $106gt$ Plug and seal AW-14BOREHOLE1 6.00 \$1,411<	1	<u> </u>				
106gc Plug and seal GVB-17D (aka GVB-B17D) BOREHOLE 1 12.00 \$13,381 106gd Plug and seal GVB-17E (aka GVB-B17E) BOREHOLE 1 12.00 \$15,975 106gi Plug and seal GVB-17F (aka GVB-B17F) BOREHOLE 1 12.00 \$16,299 106gn Plug and seal AW-1 BOREHOLE 1 7.00 \$1,784 106go Plug and seal AW-2 BOREHOLE 1 6.00 \$1,471 106gp Plug and seal AW-3 BOREHOLE 1 7.00 \$1,828 106gq Plug and seal AW-4 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-5 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-6 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-6 BOREHOLE 1 7.00 \$1,772 106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,440 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,411 06g Plug and seal AW-12 BOREHOLE	8	<u> </u>		-		
106gd Plug and seal GVB-17E (aka GVB-B17E) BOREHOLE 1 12.00 \$15,975 106gi Plug and seal GVB-17F (aka GVB-B17F) BOREHOLE 1 12.00 \$16,299 106gn Plug and seal AW-1 BOREHOLE 1 7.00 \$1,784 106go Plug and seal AW-2 BOREHOLE 1 6.00 \$1,471 106gp Plug and seal AW-3 BOREHOLE 1 6.00 \$1,471 106gq Plug and seal AW-3 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-3 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-5 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-6 BOREHOLE 1 7.00 \$1,772 106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,940 106gu Plug and seal AW-9 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-12 BOREHOLE 1	-			-		
106gi Plug and seal GVB-17F (aka GVB-B17F) BOREHOLE 1 12.00 \$16,299 106gn Plug and seal AW-1 BOREHOLE 1 7.00 \$1,784 106go Plug and seal AW-2 BOREHOLE 1 6.00 \$1,471 106gp Plug and seal AW-3 BOREHOLE 1 7.00 \$1,828 106gq Plug and seal AW-4 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-4 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-4 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-5 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-6 BOREHOLE 1 7.00 \$1,772 106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,416 106gv Plug and seal AW-8 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 </td <td>-</td> <td></td> <td>BOREHOLE</td> <td>1</td> <td></td> <td></td>	-		BOREHOLE	1		
100gnPlug and seal AW-1BOREHOLE1 7.00 $$1,784$ $106go$ Plug and seal AW-2BOREHOLE1 6.00 $$1,471$ $106gp$ Plug and seal AW-3BOREHOLE1 7.00 $$1,828$ $106gq$ Plug and seal AW-4BOREHOLE1 6.00 $$1,471$ $106gr$ Plug and seal AW-5BOREHOLE1 6.00 $$1,471$ $106gr$ Plug and seal AW-6BOREHOLE1 6.00 $$1,531$ $106gs$ Plug and seal AW-7BOREHOLE1 7.00 $$1,772$ $106gt$ Plug and seal AW-8BOREHOLE1 8.00 $$1,416$ $106gv$ Plug and seal AW-9BOREHOLE1 6.00 $$1,427$ $106gv$ Plug and seal AW-11BOREHOLE1 6.00 $$1,411$ w				1		
106go Plug and seal AW-2 BOREHOLE 1 6.00 \$1,471 106gp Plug and seal AW-3 BOREHOLE 1 7.00 \$1,828 106gq Plug and seal AW-4 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-4 BOREHOLE 1 6.00 \$1,471 106gr Plug and seal AW-5 BOREHOLE 1 6.00 \$1,531 106gs Plug and seal AW-6 BOREHOLE 1 7.00 \$1,772 106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,940 106gu Plug and seal AW-7 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w				1		
106gpPlug and seal AW-3BOREHOLE1 7.00 $$1,828$ $106gq$ Plug and seal AW-4BOREHOLE1 6.00 $$1,471$ $106gr$ Plug and seal AW-5BOREHOLE1 6.00 $$1,531$ $106gs$ Plug and seal AW-6BOREHOLE1 7.00 $$1,772$ $106gt$ Plug and seal AW-7BOREHOLE1 8.00 $$1,940$ $106gu$ Plug and seal AW-8BOREHOLE1 6.00 $$1,416$ $106gv$ Plug and seal AW-9BOREHOLE1 6.00 $$1,427$ $106gv$ Plug and seal AW-9BOREHOLE1 6.00 $$1,411$ w w w w w w $106gx$ Plug and seal AW-12BOREHOLE1 6.00 $$1,411$ w w w w w w $106gy$ Plug and seal AW-13BOREHOLE1 6.00 $$1,411$ $106gz$ Plug and seal AW-14BOREHOLE1 6.00 $$1,411$ $106gz$ Plug and seal AW-14BOREHOLE1 6.00 $$1,392$ $106hd$ Plug and seal DH-13BOREHOLE1 12.00 $$4,234$ $106he$ Plug and seal DH-15BOREHOLE1 8.00 $$2,149$		· · ·		1		
106gqPlug and seal AW-4BOREHOLE1 6.00 $$1,471$ $106gr$ Plug and seal AW-5BOREHOLE1 6.00 $$1,531$ $106gs$ Plug and seal AW-6BOREHOLE1 7.00 $$1,772$ $106gt$ Plug and seal AW-7BOREHOLE1 8.00 $$1,940$ $106gu$ Plug and seal AW-8BOREHOLE1 6.00 $$1,416$ $106gv$ Plug and seal AW-9BOREHOLE1 6.00 $$1,427$ $106g$ Plug and seal AW-11BOREHOLE1 6.00 $$1,411$ w	li li			1		
106gr Plug and seal AW-5 BOREHOLE 1 6.00 \$1,531 106gs Plug and seal AW-6 BOREHOLE 1 7.00 \$1,772 106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,940 106gu Plug and seal AW-8 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-9 BOREHOLE 1 6.00 \$1,417 106gv Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w				1		
106gs Plug and seal AW-6 BOREHOLE 1 7.00 \$1,772 106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,940 106gu Plug and seal AW-8 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w	106gq	<u> </u>	BOREHOLE	1		\$1,471
106gt Plug and seal AW-7 BOREHOLE 1 8.00 \$1,940 106gu Plug and seal AW-8 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w	106gr	Plug and seal AW-5	BOREHOLE	1	6.00	\$1,531
106gu Plug and seal AW-8 BOREHOLE 1 6.00 \$1,416 106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w	106gs	Plug and seal AW-6	BOREHOLE	1	7.00	\$1,772
106gv Plug and seal AW-9 BOREHOLE 1 6.00 \$1,427 106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w 1 1 6.00 \$1,411 106gx Plug and seal AW-12 BOREHOLE 1 6.00 \$1,403 106gy Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-14 BOREHOLE 1 6.00 \$1,427 106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	106gt		BOREHOLE	1	8.00	\$1,940
106g Plug and seal AW-11 BOREHOLE 1 6.00 \$1,411 w 106gx Plug and seal AW-12 BOREHOLE 1 6.00 \$1,403 106gy Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-14 BOREHOLE 1 6.00 \$1,392 106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	106gu	Plug and seal AW-8	BOREHOLE	1	6.00	\$1,416
w Plug and seal AW-12 BOREHOLE 1 6.00 \$1,403 106gy Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-14 BOREHOLE 1 6.00 \$1,392 106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	106gv	Plug and seal AW-9	BOREHOLE	1	6.00	\$1,427
106gx Plug and seal AW-12 BOREHOLE 1 6.00 \$1,403 106gy Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-14 BOREHOLE 1 6.00 \$1,392 106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	-	Plug and seal AW-11	BOREHOLE	1	6.00	\$1,411
106gy Plug and seal AW-13 BOREHOLE 1 6.00 \$1,411 106gz Plug and seal AW-14 BOREHOLE 1 6.00 \$1,392 106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	Į.	Dive and seel AW 12		1	6.00	¢1 402
106gz Plug and seal AW-14 BOREHOLE 1 6.00 \$1,392 106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	-	· · ·				
106hd Plug and seal DH-13 BOREHOLE 1 12.00 \$4,234 106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149						
106he Plug and seal DH-15 BOREHOLE 1 8.00 \$2,149	-					
				-		-
106htPlug and seal DH-15BOREHOLE19.00\$2,671						
	106hf	Plug and seal DH-15	BOREHOLE] 1	9.00	\$2,671

106hg	Plug and seal DH-25	BOREHOLE	1	9.00	\$2,579
106hq	Plug and seal DH-34C	BOREHOLE	1	7.00	\$1,824
106hr	Plug and seal DH-38	BOREHOLE	1	10.00	\$2,948
106hs	Plug and seal DH-39	BOREHOLE	1	8.00	\$2,096
106hv	Plug and seal CWI-DH-47	BOREHOLE	1	12.00	\$5,381
106h	Plug and seal CWI-DH-48	BOREHOLE	1	12.00	\$5,971
W					
106hx	Plug and seal DH-49	BOREHOLE	1	9.00	\$2,531
106if	Plug and seal DH-57B (aka 98-57B)	BOREHOLE	1	12.00	\$4,012
106ii	Plug and seal DH-58B (aka DH-58A)	BOREHOLE	1	12.00	\$4,113
106ij	Plug and seal CWI-DH-60 (aka Mon Well)	BOREHOLE	1	12.00	\$3,119
106ip	Plug and seal DH-67B	BOREHOLE	1	10.00	\$2,690
106iq	Plug and seal DH-67-D	BOREHOLE	1	9.00	\$2,279
106ir	Plug and seal DH-67-Abv	BOREHOLE	1	8.00	\$1,963
106is	Plug and seal DH-67-Blw	BOREHOLE	1	9.00	\$2,260
106it	Plug and seal CWI-DH-69 (aka B-1 Mon Well)	BOREHOLE	1	12.00	\$3,443
106iu	Plug and seal CWI-DH-70 (aka B-1 Mon Well)	BOREHOLE	1	11.00	\$3,527
106iy	Plug and seal 2010-1B	BOREHOLE	1	12.00	\$4,525
106iz	Plug and seal 2010-1SS	BOREHOLE	1	12.00	\$4,407
110	Replace Topsoil from Stockpile A to Portal/Utility Bench	SCRAPER1	1	652.39	\$508,253
111	Replace Topsoil from Stockpile A to Truck Loadout/Coal Stkpl	SCRAPER1	1	45.95	\$35,795
112	Replace Topsoil from Stockpile F to Train Loadout	SCRAPER1	1	39.98	\$31,146
113	Replace Topsoil from Stockpile A to B-Seam Portal Bench	SCRAPER1	1	87.66	\$68,292
115	Replace Topsoil fm Stockpiles C/D to Pond C and Gob Pond D	SCRAPER1	1	13.12	\$10,218
116	Replace topsoil from Stockpile to Pond F	DOZER	1	3.95	\$1,648
117	Replace topsoil from Stockpile F to Pond J	SCRAPER1	1	2.85	\$2,222
118	Replace topsoil from Stockpile F to Pond K	SCRAPER1	1	1.92	\$1,494
119	Replace topsoil fm stockpile to MR/TR Light-Use	DOZER	4	25.96	\$43,274
	Roads	DOLLIN	•		¢.c,_/.
120	Replace topsoil from stockpiles to MR/TR drill pads	DOZER	4	27.04	\$43,599
121	Replace topsoil from Stockpile A to Prep Plant Bench	SCRAPER1	1	22.41	\$17,459
122	Replace topsoil from stockpile to Material Storage Area	DOZER	4	0.18	\$305
123	Replace topsoil from Stockpile E to Gob Pile #2	SCRAPER1	1	83.69	\$65,203
124	Replace Topsoil from Stockpile D to Gob Pile #4	SCRAPER1	1	7.01	\$5,463
125	Replace topsoil from stockpile to Gob Pile #3	SCRAPER1	1	85.33	\$66,479
126	Replace topsoil from stockpile to Haul Road	DOZER	4	0.17	\$279
127	Replace topsoil from stockpile to Water Tank	SCRAPER1	1	1.71	\$1,333
	Bench				
128	Replace topsoil from Stockpile G to TR35 road/pad	SCRAPER1	1	5.01	\$3,906
		DOZER	4	5.44	\$9,072
129	Replace topsoil from stockpile to Borrow Area	DOLLIN			- .
	Replace topsoil from stockpile to Borrow Area Replace topsoil fm stockpile to Upper Parking Lot Expansion	DOZER	1	0.46	\$175
129	Replace topsoil fm stockpile to Upper Parking Lot		1	0.46	\$175 \$258,450
129 130	Replace topsoil fm stockpile to Upper Parking Lot Expansion	DOZER	_		
129 130 140	Replace topsoil fm stockpile to Upper Parking Lot Expansion Seal Portals and Shafts	DOZER MINESEAL	1	40.00	\$258,450

154	Broadcast Seed Mix 3 on Gob Pile #3	REVEGE	1	60.63	\$113,867
155	Drill seed Hubbard Creek Vent Shaft Pad	REVEGE	1	1.20	\$2,111
156	Drill Seed Rock Laydown Area	REVEGE	1	0.50	\$352
157	Weed Control Over 10-Year Liability Period	REVEGE	1	400.00	\$52,559
165	Demolish and Remove all Structures	DEMOLISH	1	160.00	\$1,666,392
170	Proctor Testing of Backfill (5 tests)	SITEMAINT	1	0.00	\$702
		ENANCE			
171	Nuclear Density Testing of Backfill	SITEMAINT	1	0.00	\$133,901
		ENANCE			
172	Water Truck for Moisture Augmentation of Backfill Material	MISCTRUK	1	1,437.02	\$138,716
173	Site Maintenance - Ten Years	SITEMAINT	1	292.00	\$255,198
		ENANCE			
174	Support Equipment for Scraper Hauling	SITEMAINT	1	449.16	\$124,405
		ENANCE			
180	Mobilize/Demobilize Equipment for First	MOBILIZE	1	12.00	\$57,969
	Construction Season				
181	Mobilize/Demobilize Equipment for Second Construction Season	MOBILIZE	1	12.00	\$57,969
182	Mobilize/Demoblize Equipment for Pond Removal	MOBILIZE	1	6.50	\$5,312
183	Mobilize/Demobilize Equipment for Yearly Site	MOBILIZE	1	14.00	\$30,637
105	Maintenance	WIODILIZL	1	14.00	ψ50,057
241	Regrade Terror Creek Light-Use Road	DOZER	1	29.73	\$9,178
242	Replace Topsoil from Stockpile to Terror Creek Lt-Use Road	DOZER	1	22.45	\$6,931
261	Concrete Plug and Backfill Terror Creek Vent Shaft	MINESEAL	1	40.00	\$177,043
301	Reseed Add'l Disturbance from Utility Boreholes at Fan Bench	REVEGE	1	1.00	\$686
302	Regrade Fan Bench - Utility Borehole Mudpit Add'l Dist.	DOZER	1	4.06	\$1,252
352	Re-topsoil Pitkin Mesa Pipeline corridor	DOZER	1	10.60	\$3,273
353	Reseed Pitkin Mesa Pipeline Corridor	REVEGE	1	2.00	\$3,518
369	Seal Well DH-67blw	BOREHOLE	1	12.00	\$6,782
374	Seal CWI-DH-58A	BOREHOLE	1	12.00	\$7,949
379	Regrade Section 5 Road	DOZER	1	12.88	\$3,975
380	Re-topsoil Section 5 Road	DOZER	1	5.46	\$1,687
381	Reseed Section 5 road	REVEGE	1	2.00	\$2,146
390	Remove Culvert C27 (from TR-119)	DEMOLISH	1	0.25	\$302
		<u>SUBTO</u>	<u>TALS:</u>	11487.34	\$9,374,283

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$189,361
Performance bond:	1.05	Total =	\$98,430
Job superintendent:	5,743.67	Total =	\$413,717
Profit:	10.00	Total =	\$937,428
		TOTAL O & P =	\$1,638,935
		CONTRACT AMOUNT (direct + O & P) = $($	\$11,013,218

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Cost Summary Worksheet Cont'd	Task # 000			Page 6 of 6
Financial warranty processing (legal/related cos	ts): \$50	0	Total =	\$500
Engineering work and/or contract/bid preparati	on: 4.00)	Total =	\$440,529
Reclamation management and/or administrati	on: 3.13		-	\$344,714
CONTINGENO	CY: 0.00)	Total =	\$0
		TOTAL IN	DIRECT COST =	\$2,424,678
ΤΟΤΑΙ	BOND A	MOUNT (d	irect + indirect) =	\$11,798,961

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Mine		Permit Acti	on: <u>RN5</u>		Permit/Job#: C1	1996083
PROJECT IDEN	<u>TIFICATION</u>					
Task #: 001 Date: $11/19/2$	<u> </u>	State: Color	ado	Ab	breviation: Not Filename: 001	
User: RDZ	2021 C	ounty: Delta			Filename: 001	l
Agency or o	organization name	e: DRMS				
HOURLY EQUIP	MENT COST			Shift bas	is: <u>1 per day</u>	
			Equipment Descri	ption		
Tr	uck Loader Team		773F			
Suppo	rt Equipment -Lo		365C L 13'-7" S	tick		
Suppo		np Area: NA				
Road Ma	intenance – Motor	Grader: NA	L.			
	-Wate	er Truck: NA				
Cost Breakdown:	Truck/Load	er Team	Support 1	Equipment	Maintenan	ce Equipment
		Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$122.05	\$173.79	NA	NA	NA	NA
Operating cost/hour:	\$92.14	\$148.12	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$33.34	\$37.32	NA	NA	NA	NA
Unit Subtotals:	\$247.53	\$359.23	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	(
Group Subtotals:	Work:	\$854.29	Support:	\$0.00	Maint:	\$0.00
Total work team cost	/hour: <u>\$854.29</u>					
MATERIAL QUA	<u>NTITIES</u>					
Initial volume:	260,953	CCY		factor: 1.165		
Loose volume:	304,010	LCY	·			
	rce of estimated v		rator Estimate			
Source of	of estimated swell Material Purchas		Handbook			
		al Cost: \$0.00				
			-			
HOURLY PROI	DUCTION					
Truck Capacity:						
Truck Payload (weig						
Material we			Pounds/LCY			
Descrip	· · · · · ·		Rock, 50% Earth	l		
Rated Pay	load: 122,520		Pounds			

Heaped Volume:		LCY				
ricaped volume.	46.50	LCY				
Average Volume:	40.75	LCY				
Adjusted Volume:	42.25	LCY				
Final	Truck Volume	Based on Number of Loade	r Passes:	42.26	LCY	
Loading Tool Capacity			-			
Louding Tool Cupacity			Buck	et Size Class: L	arge	
Rated Capacity:	6.900	LCY (heaped)	Duck		uige	
Bucket Fill Factor:	0.875	Loose material - 1" and	l over (85	- 90%) 0.875		-
Adjusted Capacity:	6.038	LCY		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_
Job Condition Corrections:	-	Site Altit	ude (ft.): <u>6</u>	<u>900</u> 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 Re	quired to F	fill Truck:	<u>7</u> F	asses
Excavators and Front Shovel	<u>s:</u>					
Machine Cycle Time vs	Lob Condition	n Rating: SEVERE				
Selected Value v						
Track Loaders –	Material Descri	<u> </u>				
Track Loaders – 2 Cycle Time Elements (min.):	Material Descri	<u> </u>				
Cycle Time Elements (min.):		ption:				
		<u> </u>		Dump: 0.100)	
Cycle Time Elements (min.):	M	aneuver: NA	l, dump, m) NA minu	Ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders -	M	aneuver: NA	d, dump, m	aneuver):	NA minu	Ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors	 Unadjusted Ba	aneuver: NA	l, dump, m	aneuver):] Factor (min.)	NA minu Source	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	M Unadjusted Ba NA	aneuver: NA	d, dump, m	aneuver): Factor (min.) NA	NA minu Source (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	 Unadjusted Ba NA NA	aneuver: NA	d, dump, m	aneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	 Unadjusted Ba NA NA NA	aneuver: NA	l, dump, m	aneuver): Factor (min.) NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	 Unadjusted Ba NA NA	aneuver: NA	l, dump, m	aneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	M Unadjusted Ba NA NA NA NA	aneuver: NA		aneuver):] Factor (min.) NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	M Unadjusted Ba NA NA NA NA	iption: laneuver:NA sic Loader Cycle Time (load	stment:	aneuver): Factor (min.) NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	M Unadjusted Ba NA NA NA NA	aption: laneuver:NA sic Loader Cycle Time (load	stment:	aneuver):] Factor (min.) NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	M Unadjusted Ba NA NA NA NA	iption: laneuver:NA sic Loader Cycle Time (load Net Cycle Time Adju Adjusted Loader Cycle	stment:	aneuver): Factor (min.) NA NA NA NA NA NA NA O.570	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	M Unadjusted Ba NA NA NA NA NA	iption: laneuver:NA sic Loader Cycle Time (load Net Cycle Time Adju Adjusted Loader Cycle Net Load Time per	stment: e Time: Truck:	Image: anneuver): Image: Ima	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	Unadjusted Ba NA NA NA NA NA NA O.70	iption: Ianeuver:NA sic Loader Cycle Time (load Net Cycle Time Adju Adjusted Loader Cycle Net Load Time per Minutes	stment: e Time: • Truck:	aneuver): Factor (min.) NA NA NA NA NA O.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700	
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	$\frac{M}{M}$ Unadjusted Ba $\frac{NA}{NA}$ $\frac{NA}{NA}$ $\frac{NA}{NA}$ $\frac{0.70}{3.520}$	iption: Ianeuver:NA sic Loader Cycle Time (load Net Cycle Time Adju Adjusted Loader Cycle Net Load Time per Minutes Minutes	stment: e Time: Truck: Adjusted f	aneuver): Factor (min.) NA NA NA NA NA O.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700 3.520	 Minute
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	$\frac{M}{M}$ Unadjusted Ba $\frac{NA}{NA}$ $\frac{NA}{NA}$ $\frac{NA}{NA}$ $\frac{0.70}{3.520}$	iption: Ianeuver:NA sic Loader Cycle Time (load Net Cycle Time Adju Adjusted Loader Cycle Net Load Time per Minutes	stment: e Time: Truck: Adjusted f	aneuver): Factor (min.) NA NA NA NA NA O.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700	ntes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	M Unadjusted Ba NA NA NA NA NA NA O.70 3.520 1.10	iption: Ianeuver:NA sic Loader Cycle Time (load Net Cycle Time Adju Adjusted Loader Cycle Net Load Time per Minutes Minutes	stment: e Time: Truck: Adjusted f Adjusted f	aneuver): Factor (min.) NA NA NA NA NA O.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700 3.520 1.100	 Minute

Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	600.00)	17.00	3.00	20.00	379	1.588	
					Haul Time:	1.588	minutes	
Return Ro	oute:				_			
Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	600.00)	-17.00	3.00	-14.00	1377	0.566	
					Return Time:	0.566	minutes	
				Total Tru	ck Cycle Time:	7.474	minutes	
Loading Too	l unit							
Produ	-	600.89	LCY/Hour		Adjusted for j	ob efficiency:	498.74	LCY/Hour
ıck Unit Produ	iction	339.28	LCY/Hour		Adjusted for j	ob efficiency:	281.60	_ LCY/Hour
imal No. of Tr	ucks:	2	Truck(s)		Selected Num	per of Trucks:	2	Truck(s)
			Adjuste	d hourly true	k team production	on: 563.	.20 LCY/I	Hour
					er team production		.74 LCY/I	Hour
			Adjusted multip	le truck/loade	er team production	on: 498 .	.74 LCY/I	Hour
JOB TI	ME AN	D COST						
Fleet	size:	1	Team(s)]	Fotal job time:	609.5	6 Hou	rs

Task description:	Regrade D-Portal	Bench			
Bowie No. 2 Mine	Perm	it Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 002		Colorado		Abbreviation:	None
Date: $11/19/2021$		Delta		Filename:	C083-002
User: RDZ					
Agency or organ	nization name: DRM	мS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574	1				
	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CH	RG)				
Cost Breakdown:		1			
		¢1.c0.c0	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:		\$169.60 \$166.94	<u>NA</u> 100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
			0		
11 1		\$41.30	NΔ		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$377.84 \$1,511.37	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour:	\$1,511.37 <u>TITIES</u>	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 260, Swell factor: 1.16	\$1,511.37 <u>TITIES</u> 593 5	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303,	\$1,511.37 <u>TTIES</u> 593 5 591 LCY		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum	\$1,511.37 <u>TTIES</u> 593 5 591 LCY me:Operator E	- - stimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303,	\$1,511.37 <u>TTIES</u> 593 5 591 LCY me:Operator E	- - stimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated swell	\$1,511.37 <u>TTIES</u> 593 5 591 LCY me: <u>Operator E</u> 1 factor: <u>Cat Handbo</u>	- - stimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,511.37 <u>TITIES</u> 593 5 591 LCY me: <u>Operator E</u> 1 factor: <u>Cat Handbe</u> <u>FION</u>	- - stimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated swell	\$1,511.37 CITIES 593 5 591 LCY me: Operator E l factor: Cat Handbo FION 100 feet	- - - stimate pok	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,511.37 CITIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbo FION ction: 100 feet 1,718.9 LCY	- - stimate pok	 		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 STTIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbo FION ction: 100 feet 1,718.9 LCY scription: Compact 10 %	- - stimate pok			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volu Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude:	\$1,511.37 CITIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbe FION ction: 100 feet ction: 1,718.9 LCY. scription: Compact 10 % 6,900 feet	- - stimate pok			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volut Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	\$1,511.37 CTTIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbo FION ction: 100 feet 1,718.9 LCY scription: Compact 10 % 6,900 feet 2,900 lbs/LCY	- - - stimate pok /hr :ed fill or er	 mbankment 0.9		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volut Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$1,511.37 CITIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbe FION ction: 100 feet 1,718.9 LCY, scription: Compact 10 % 6,900 feet 2,900 lbs/LCY Decomposed rock -	- - - stimate pok /hr :ed fill or er	 mbankment 0.9 		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,511.37 CITIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbo FION ction: 100 feet 1,718.9 LCY scription: Compact 10 % 6,900 feet 2,900 lbs/LCY Decomposed rock - Factor	- stimate pok /hr :ed fill or er 50% Rock,			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volut Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator 3	\$1,511.37 CITIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbox FION ction: 100 feet 1,718.9 LCY scription: Compact 10 % 6,900 feet 2,900 lbs/LCY Decomposed rock - Factor Skill: 0.7:	- stimate pok /hr .ed fill or er 50% Rock,			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 260, Swell factor: 1.16 Loose volume: 303, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,511.37 TTIES 593 5 591 LCY me: Operator E 1 factor: Cat Handbo FION ction: 100 feet 1,718.9 LCY scription: Compact 10 % 6,900 feet 2,900 lbs/LCY Decomposed rock - Factor Skill: 0.7: ency: 0.90				

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.2794	
Adjusted unit production: 4	80.26 LCY/hr	
Adjusted fleet production: 1	921.04 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.787/LCY

Total job time:	158.03 Hours
Total job cost:	\$238,849

Bowie No. 2 Mine	Per	rmit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 005	State:	Colorado		Abbreviation:	None
		Delta		Filename:	C083-005
Date: <u>11/19/2021</u> User: RDZ	County:	Dena		Filename:	0083-005
Agency or organ	ization name: D	RMS			
HOURLY EQUIPME	NT COST				
	D10T - 10SU				
Horsepower: 574			<u> </u>		
• • • • • • • • • • • • • • • • • • • •	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CR	(G)				
Cost Breakdown:		1			
0 1. 0		64 50 55	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total Fleet Cost/Hour:	\$377.84 \$1,511.37				
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 3,630	\$1,511.37 ITIES				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>3,630</u> Swell factor: <u>1.165</u>	\$1,511.37 ITIES) 5				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>3,630</u> Swell factor: <u>1.165</u>	\$1,511.37 ITIES				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229	\$1,511.37 <u>ITIES</u>) 5 9 LCY				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum	\$1,511.37 ITIES) 5 9 LCY ne: Map 15-				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>3,630</u> Swell factor: <u>1.165</u>	\$1,511.37 ITIES) 5 9 LCY ne: Map 15-				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum	\$1,511.37 ITIES) 5 9 LCY ne: <u>Map 15-</u> factor: Cat Hand				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,511.37 ITIES) 5 9 LCY ne: <u>Map 15-</u> factor: Cat Hand				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated swell	\$1,511.37 ITIES D D D LCY ne: <u>Map 15-</u> factor: <u>Cat Hanc</u> <u>CION</u> 100 feet	dbook			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,511.37 ITIES) 5 9 LCY ne: <u>Map 15-</u> factor: <u>Cat Hand</u> CION tion: <u>100 feet</u> 1,718.9 LC	dbook CY/hr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc	\$1,511.37 ITIES D D D D D D D D D D D D D	dbook CY/hr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency dese Average push gradient:	\$1,511.37 ITIES D D D D D CY me: <u>Map 15-</u> Cat Hand Cat Hand CION 100 feet 1,718.9 LC cription: <u>Compa</u> 0 %	dbook CY/hr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc	\$1,511.37 ITIES D D D D D D D D D D D D D	dbook CY/hr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency dese Average push gradient:	\$1,511.37 ITIES D D D D D CY me: <u>Map 15-</u> Cat Hand Cat Hand CION 100 feet 1,718.9 LC cription: <u>Compa</u> 0 %	dbook CY/hr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency dese Average push gradient: Average site altitude: Material weight:	\$1,511.37 ITIES D D D D D D D D D D D D D	dbook CY/hr acted fill or en			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude:	\$1,511.37 ITIES 0 5 9 LCY ne: Map 15- factor: Cat Hand YION ttion: 100 feet 1,718.9 LC cription: Compa 0 % 6,000 feet 2,900 lbs/LCY Decomposed rock	dbook CY/hr acted fill or en			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$1,511.37 ITIES 0 5 9 LCY ne: Map 15- factor: Cat Hand CION ttion: 100 feet 1,718.9 LC cription: Compa 0 % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0	dbook CY/hr acted fill or en	50% Earth		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum 3000000000000000000000000000000000000	\$1,511.37 ITIES 0 5 9 LCY ne: Map 15- Cat Hand 7 factor: Cat Hand CION tion: 100 feet 1,718.9 LC cription: Compa 0 % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0 Skill: 0 0	dbook CY/hr acted fill or en 	50% Earth Source (AVG.) (CAT HB))		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,630 Swell factor: 1.165 Loose volume: 4,229 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$1,511.37 ITIES D TION 100 feet TON CION TION TON feet Compare O % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0 hod: 1	dbook CY/hr acted fill or en	50% Earth Source (AVG.)	-	

Job efficience	y:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradier	nt:	1.000	(CAT HB)
Altitud	le:	1.000	(CAT HB)
Material Weigl	nt:	0.793	(CAT HB)
Blade typ	e:	1.000	(PAT)
Net correction	on: 0.35	54	
Adjusted unit production:	610.90 I	LCY/hr	
Adjusted fleet production:	2443.6 I	LCY/hr	

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.619/LCY
Total job time:	1.73 Hours

Total job cost: **\$2,616**

HYDRAULIC EXCAVATOR WORK

Task description:	Pull Back Mater	ial @ Old Ti	uck Loadout Mat	erial Storage Ar	ea
Bowie No. 2 Mine	Per	mit Action:	RN5	Permi	t/Job#: <u>C1996083</u>
PROJECT IDENTIF	ICATION				
Task #: 006 Date: 11/20/2021 User: RDZ	State: County:	Colorado Delta		Abbrevia Filen	
Agency or orga	nization name: <u>DI</u>	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Attachment 1:	Cat 365C L 13'-7" ROPS Cab	Stick	We	orsepower: eight (MT): Shift Basis: ata Source:	404 70.51 1 per day (CRG)
Cost Breakdown:		I	Utilization %		
Ownership Cost/ Operating Cost/ Operator Cost/ Total Unit Cost/	Hour: \$148. Hour: \$37.	.12 32	NA 100 NA		
Total Fleet Cost					
Loose volume: 1 Source of	,790 1,405 of estimated volume: timated swell factor:			1.165	_
HOURLY PRODUC					
Excavator Cycle Time (lo		aded, dump b	icket, swing empty):	
	<u></u>	-	ondition Description		
Land Dualact Connector	Secondary Job Co		n Basic Description Cycle Time Value	n: SEVERE	minutes
Load Bucket Capacity]	Bucket Size Class	: Small
Rated Capacity Bucket Fill Facto Adjusted Capacity	r: 0.850	LCY (hea Hard, toug LCY	ped) gh clay (80% - 90%) 0.850	
Job Condition Correction			Site A	ltitude: <u>6500</u> feet	
Altitude Adj: Job Efficiency: Net Correction:	1.00 0.83 0.83	Source (CAT HB (1 shift/da multiplier			
Una	adjusted Hourly Unit Adjusted Hourly Unit		323.00 268.09	LCY/Hour LCY/Hour	
			536.18	LCY/Hour	
А	djusted Hourly Fleet		536.18	LCY/Hour	
A JOB TIME AND CO	djusted Hourly Fleet	Production:	536.18 tal job time:	LCY/Hour 21.27	Hours

Task description:		ach Loudou	t Material Storage Area		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFI	ICATION				
Task #: 007 Date: 11/20/2021 User: RDZ	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-007
Agency or organ	nization name: DF	RMS			
HOURLY EQUIPME	ENT COST				
	D10T - 10SU				
Horsepower: 574 Blade Type: Sen	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CF					
	(0)				
Cost Breakdown:					
		¢1.00.00	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:		\$169.60 \$166.94	<u>NA</u> 100		
Ripper own. Cost/Hour:		\$100.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
operator cost flour.		φ11.50	INA		
Total Fleet Cost/Hour:	\$1,511.37				
MATERIAL QUANT					
MATERIAL QUANT Initial Volume: 9,79	<u>TTIES</u>				
MATERIAL QUANT Initial Volume: 9,79 Swell factor: 1.16	TTIES 0 5				
MATERIAL QUANT Initial Volume: 9,79 Swell factor: 1.16	<u>TTIES</u>				
MATERIAL QUANTInitial Volume:9,790Swell factor:1.160Loose volume:11,40	TTIES 0 5 05 LCY	 2.2			
MATERIAL QUANTInitial Volume:9,790Swell factor:1.163Loose volume:11,40Source of estimated volume	TTIES 0 5 05 LCY me: Page 3.02				
MATERIAL QUANTInitial Volume:9,790Swell factor:1.160Loose volume:11,40	TTIES 0 5 05 LCY me: Page 3.02				
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.163 Loose volume: 11,40 Source of estimated volur Source of estimated swell	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand				
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.160 Loose volume: 11,40 Source of estimated volur swell Source of estimated swell swell HOURLY PRODUCT 11,40	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand FION				
MATERIAL QUANT Initial Volume: 9,79 Swell factor: 1.16 Loose volume: 11,44 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance:	Page 3.02 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand CION 150 feet	lbook			
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.160 Loose volume: 11,40 Source of estimated volur swell Source of estimated swell swell HOURLY PRODUCT 11,40	Page 3.02 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand CION 150 feet	lbook			
MATERIAL QUANT Initial Volume: 9,79 Swell factor: 1.16 Loose volume: 11,44 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance:	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand Cat Hand Construction: 150 feet 1,243.2 LC	lbook Y/hr	 mbank ment 0.9		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.160 Loose volume: 11,40 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand CION ction: 150 feet 1,243.2 LC scription: Compa	lbook Y/hr	 mbank ment 0.9		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.16 Loose volume: 11,40 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand FION ction: 150 feet 1,243.2 LC ccription: Compa 10 %	lbook Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.160 Loose volume: 11,40 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand CION ction: 150 feet 1,243.2 LC scription: Compa	lbook Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.16 Loose volume: 11,40 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand FION ction: 150 feet 1,243.2 LC ccription: Compa 10 %	lbook Y/hr			
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,40 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand FION ction: 150 feet 1,243.2 LC scription: Compa 10 % 6,500 feet	lbook Y/hr 			
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.16: Loose volume: 11,40 Source of estimated volur Source of estimated volur Source of estimated volur Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand TION ction: 150 feet 1,243.2 LC scription: Compa 10 % 6,500 feet 2,900 lbs/LCY Decomposed rock Factor Factor	lbook Y/hr icted fill or en - 50% Rock,	50% Earth		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,40 Source of estimated volur Source of estimated volur Source of estimated volur Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand TION ction: 150 feet 1,243.2 LC scription: Compa 10 % 6,500 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0.	lbook Y/hr icted fill or ei - 50% Rock, .750	50% Earth		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.16 Loose volume: 11,40 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consist	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand CION ction: 150 feet 1,243.2 LC scription: Compa 10 % 6,500 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0. ency: 0.	Ibook Y/hr icted fill or er - 50% Rock, .750 .900	50% Earth <u>Source</u> (AVG.) (CAT HB))		
MATERIAL QUANT Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,40 Source of estimated volur Source of estimated volur Source of estimated volur Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	TTIES 0 5 05 LCY me: Page 3.02 1 factor: Cat Hand Cat Hand Constant 150 feet ction: 1,243.2 LC acription: Compa 10 % 6,500 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0.0 chod: 1.1	lbook Y/hr icted fill or ei - 50% Rock, .750	50% Earth		

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradier	it: 0.786	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	it: 0.793	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.2794	
Adjusted unit production:	347.35 LCY/hr	
Adjusted fleet production:	1389.4 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.088/LCY
Total job time:	8.21 Hours
Total job cost:	\$12,407

HYDRAULIC EXCAVATOR WORK

Task description:	Pull B	ack Mater	ial at Truck	Loadout/Coal S	Stockpile	
Bowie No. 2 Mine		Per	mit Action:	RN5	Permit/Jo	b#: <u>C1996083</u>
PROJECT IDENT	IFICATIO	<u>N</u>				
Task #: 008 Date: 11/20/20 User: RDZ	021	State: County:	Colorado Delta		Abbreviation	
Agency or or	ganization n	ame: DF	RMS			
HOURLY EQUIPM	AENT CO	<u>ST</u>				
Basic Machine: Attachment 1:	-	CL 13'-7" ab	Stick		Horsepower: Weight (MT): Shift Basis: Data Source:	404 70.51 1 per day (CRG)
Cost Breakdown:						
Ownership Co Operating Co Operator Co	st/Hour:	\$173. \$148. \$37.3	12 32	Utilization % NA 100 NA		
Total Unit Co		\$359.				
Total Fleet Co		\$718	.46			
MATERIAL QUAI Initial volume: Loose volume:	<u>67,920</u> 79,127		_ CCY _ LCY	Swell fac	tor: <u>1.165</u>	
	te of estimat estimated s		Operator Cat Hand	Estimate lbook		
HOURLY PRODU						
Excavator Cycle Time		t swing log	ded dump k	ucket swinger	ntv).	
	(load bucke	-	-	. .		
	Secon			Condition Descrip		
		•		Cycle Time V		minutes
Load Bucket Capacity					Deviler (Class	C
Rated Capac	vity	3.61	LCY (he	aned)	Bucket Size Class:	Small
Bucket Fill Fac		0.850		apeu) 1gh clay (80% - 9	0%) 0.850	
Adjusted Capac		3.07	LCY		,	
Job Condition Correct	on Factors			Site	e Altitude: <u>6000</u> feet	
			Source			
Altitude Adj:			(CAT H			
Job Efficiency:			(1 shift/da			
Net Correction:	0.8	33	multiplier	ſ		
τ	Adjusted F	Iourly Unit	Production: Production: Production:	268.09	LCY/Hour LCY/Hour LCY/Hour	
	Adjusted H	outry rieet	1 1000000000000000000000000000000000000			
JOB TIME AND C	U U	ourry Fleet				
JOB TIME AND C	U U	Excavate		otal job time:	147.58	Hours

Bowie No. 2 Mi						
	ne	Peri	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDE	NTIFICAT	ION				
Task #: 009		State:	Colorado		Abbreviation:	None
	0/2021	County:	Delta		Filename:	C083-009
User: RDZ		County.	Delta			0005-007
	or organization	n nomo: DE	RMS			
Agency	or organization					
HOURLY EQU	IPMENT C	<u>COST</u>				
Basic Machine:		- 10SU				
Horsepower:	574	1				
Blade Type:	Semi-Uni	versal				
Attachment:	NA					
Shift Basis:						
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/	Hour:		\$169.60	NA		
Operating Cost/			\$166.94	100		
Ripper own. Cost/			\$0.00	NA		
Ripper op. Cost/			\$0.00	0		
Operator Cost/			\$41.30	NA		
MATERIAL O	UANTITIE	2				
MATERIAL Q		<u>8</u>				
Initial Volume:	67,920	<u>S</u>				
Initial Volume: Swell factor:	67,920 1.165					
Initial Volume:	67,920					
Initial Volume: Swell factor: Loose volume: Source of estimate	67,920 1.165 79,127 LC d volume:	Y Operator				
Initial Volume: Swell factor: Loose volume:	67,920 1.165 79,127 LC d volume:	Y Operator				
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	67,920 1.165 79,127 LC d volume: d swell factor	Y Operator				
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	67,920 1.165 79,127 LC d volume: d swell factor DUCTION	Y Operator : Cat Hand				
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance:	Y Operator Cat Hand	book			
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance:	Y Operator : Cat Hand	book			
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production:	Y <u>Operator</u> : <u>Cat Hand</u> <u>100 feet</u> <u>1,718.9 LC</u>	book Y/hr	 mbank ment 0.9		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy descriptio	Y <u>Operator</u> : <u>Cat Hand</u> <u>100 feet</u> <u>1,718.9 LC</u>	book Y/hr	 mbankment 0.9		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy description ient: 0 %	Y <u>Operator</u> <u>Cat Hand</u> <u>100 feet</u> <u>1,718.9 LC</u> n: <u>Compa</u>	book Y/hr	 mbankment 0.9		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy description ient: 0 %	Y <u>Operator</u> : <u>Cat Hand</u> <u>100 feet</u> <u>1,718.9 LC</u>	book Y/hr	 mbankment 0.9		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy description ient: 0 % de: 6,00	Y <u>Operator</u> <u>Cat Hand</u> <u>100 feet</u> <u>1,718.9 LC</u> n: <u>Compa</u>	book Y/hr	 mbankment 0.9		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu	$ \begin{array}{r} 67,920 \\ \hline 1.165 \\ 79,127 LC \\ d volume: \\ d swell factor \\ DUCTION \\ ance: production: ncy descriptio \\ de: 0 % \\ \underline{6,00} \\ \underline{2,90} \\ \end{array} $	Y Cat Hand 100 feet 1,718.9 LC n: Compa 0 feet	book Y/hr 			
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight description	$\begin{array}{c} 67,920\\ \hline 1.165\\ \hline 79,127 \ \text{LC} \\ \hline \end{array}$ d volume: d swell factor $\begin{array}{c} \text{DUCTION} \\ \text{ance:} \\ \text{production:} \\ \text{ncy description} \\ \text{de:} \\ \hline \end{array} \begin{array}{c} 0 \ \% \\ 6,00 \\ \hline \end{array}$ arc $\begin{array}{c} 2,90 \\ \text{ance} \\ \hline \end{array}$	Y <u>Operator</u> Cat Hand <u>100 feet</u> <u>1,718.9 LC</u> n: <u>Compa</u> 0 feet 0 lbs/LCY pmposed rock	book Y/hr 	50% Earth		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight descriptior Job Condition Cor	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy descriptio de: 0 % de: 2,90 n: Decorr	Y Cat Hand Cat Hand Cat Hand I00 feet I,718.9 LC n: Compa Compared Composed rock Cat Hand Composed rock Cat Hand Compared Cat Hand Cat Han	book Y/hr 	50% Earth		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight description Job Condition Cor	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy descriptio de: 0 % de: 2,90 n: Decomposition rection Factor erator Skill:	Y Cat Hand 100 feet 1,718.9 LC n: Compa 0 feet 0 lbs/LCY pmposed rock 0.	book Y/hr 	50% Earth		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight description Job Condition Cor Op	67,920 1.165 79,127 LC d volume: d swell factor DUCTION ance: production: ncy descriptio de: 0 % de: 2,90 n: Decorr	Y <u>Operator</u> <u>Cat Hand</u> <u>100 feet</u> <u>1,718.9 LC</u> n: <u>Compa</u> 0 feet <u>0 lbs/LCY</u> <u>omposed rock</u> <u>0</u> . <u>0</u> . <u>0</u> .	book Y/hr cted fill or ef	50% Earth		

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradie	nt:	1.000	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.3554	
Adjusted unit production:	61	0.90 LCY/hr	
Adjusted fleet production:	24	43.6 LCY/hr	

JOB TIME AND COST

Fleet size: Unit cost:	4 Dozer(s) \$0.619/LCY	_
otal job time:	32.38 Hours	

Total job time:32.38 HoursTotal job cost:\$48,940

HYDRAULIC EXCAVATOR WORK

Task description:	Pull	Material Bac	k onto Tr	ain L/O Facil. an	d Railbed Be	nches	
Bowie No. 2 Min	e	Perm	it Action:	RN5		Permit/Job#	: C1996083
PROJECT IDEN	TIFICATI	<u>ON</u>					
Task #: 010 Date: 11/20 User: RDZ	/2021	State: _ County: _	Colorado Delta		Ab	breviation: Filename:	None C086-010
Agency or	organization	name: DRM	MS				
HOURLY EQUI	PMENT CO	<u>DST</u>					
Basic Machin Attachment		5C L 13'-7" S Cab	tick		Horsepower: Weight (MT): Shift Basis: Data Source:	1	404 70.51 per day CRG)
Cost Breakdown:			I	TT:11 (1 0/			
Ownership (Operating (Operator (Total Unit (Cost/Hour:	\$173.7 \$148.1 \$37.32 \$359.2	2	Utilization % NA 100 NA			
Total Fleet	– Cost/Hour:	\$718.4					
	231,495 231,495 urce of estimation			Swell fact r Estimate	or: <u>1.000</u>		
Source	of estimated	swell factor:	Cat Han	dbook			
HOURLY PROE	ne (load buck Seco	E	Basic Job (bucket, swing emp Condition Descript hin Basic Descript Cycle Time Va	tion: SEVE		minutes
Load Bucket Capaci	ity				Bucket Size		mall
Rated Caj Bucket Fill I Adjusted Caj	Factor:	3.61 0.850 3.07	LCY (he Hard, to LCY	eaped) ugh clay (80% - 9		<u> </u>	
Job Condition Corre	ection Factors			Site	e Altitude: <u>590</u>	<u>)0</u> feet	
Altitude A Job Efficienc Net Correctio	cy: 0. on: 0. Unadjusted Adjusted	.00 .83 .83 Hourly Unit P Hourly Unit P	roduction	B) lay) r : 323.00 : 268.09	LCY/Hou LCY/Hou	r	
	·	Hourly Fleet P	roduction	536.18	LCY/Hou	ır	
JOB TIME AND	COST						
Fleet size:	2	Excavator	: 1	Total job time:	431	.75	Hours
Unit cost:	\$1.340	/LCY		Total job cost:	\$310),194	_

		Joauout Fac	lities and Railbed Benc	nes	
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 011 Date: 11/20/2021 User: RDZ	State: County:	Colorado Delta		Abbreviation: Filename:	None C086-011
Agency or organ	ization name:	RMS			
HOURLY EQUIPME	NT COST				
	D10T - 10SU				
	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CR					
)				
Cost Breakdown:		1			
		¢1.c0.c0	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA 100		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$166.94 \$0.00	100 NA		
Ripper op. Cost/Hour:		\$0.00	0		
		\$0.00			
Operator Cost/Hour:		\$41.50	NA		
MATERIAL QUANT	<u>ITIES</u>				
L	105				
Initial Volume: 231,4 Swell factor: 1.000 Loose volume: 231,4)				
Swell factor:1.000Loose volume:231,4) 195 LCY				
Swell factor:1.000Loose volume:231,4Source of estimated volum) 195 LCY ne: Operator				
Swell factor:1.000Loose volume:231,4) 195 LCY ne: Operator				
Swell factor:1.000Loose volume:231,4Source of estimated volumSource of estimated swell) 195 LCY ne: Operator factor: Cat Hand				
Swell factor:1.000Loose volume:231,4Source of estimated volumSource of estimated swellHOURLY PRODUCT) 195 LCY ne: <u>Operator</u> factor: <u>Cat Hand</u> <u>'ION</u>				
Swell factor:1.000Loose volume:231,4Source of estimated volunSource of estimated swellHOURLY PRODUCTAverage push distance:) 195 LCY ne: <u>Operator</u> factor: <u>Cat Hand</u> <u>CION</u> 200 feet	book			
Swell factor: 1.000 Loose volume: 231,4 Source of estimated volun Source of estimated swell HOURLY PRODUCT) 195 LCY ne: <u>Operator</u> factor: <u>Cat Hand</u> <u>CION</u> 200 feet	book			
Swell factor:1.000Loose volume:231,4Source of estimated volunSource of estimated swellHOURLY PRODUCTAverage push distance:) 195 LCY he: <u>Operator</u> factor: Cat Hand TON tion: <u>200 feet</u> 946.0 LCY/	book	 		
Swell factor:1.000Loose volume:231,4Source of estimated volunSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly product) 195 LCY he: <u>Operator</u> factor: Cat Hand TON tion: <u>200 feet</u> 946.0 LCY/	book /hr	 Dile 1.0		
Swell factor: 1.000 Loose volume: 231,4 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Source of estimated states) 195 LCY factor: Operator Cat Hand <u>'ION</u> tion: 200 feet 946.0 LCY/ cription: Consol 5 %	book /hr			
Swell factor: 1.000 Loose volume: 231,4 Source of estimated volun Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude:) 195 LCY factor: Operator Cat Hand TON tion: 200 feet 946.0 LCY/ cription: Consol 5 % 5,900 feet	book /hr idated stockr			
Swell factor:1.000Loose volume:231,4Source of estimated volumSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly productMaterials consistency descAverage push gradient:Average site altitude:Material weight:Weight description:) 195 LCY ne: <u>Operator</u> factor: <u>Cat Hand</u> TON 200 feet 100 <u>200</u> feet 946.0 LCY/ cription: <u>Consol</u> 5 % 5,900 feet 2,900 lbs/LCY Decomposed rock	book /hr idated stockr	50% Earth		
Swell factor:1.000Loose volume:231,4Source of estimated volunSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly productMaterials consistency descAverage push gradient:Average site altitude:Material weight:Weight description:Job Condition Correction) 195 LCY ne: <u>Operator</u> factor: <u>Cat Hand</u> TON tion: <u>200 feet</u> <u>946.0 LCY</u> cription: <u>Consol</u> <u>5 %</u> <u>5,900 feet</u> <u>2,900 lbs/LCY</u> <u>Decomposed rock</u> <u>Factor</u>	book /hr idated stockr	50% Earth		
Swell factor:1.000Loose volume:231,4Source of estimated volumSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly productMaterials consistency descAverage push gradient:Average site altitude:Material weight:Weight description:) 195 LCY ne: <u>Operator</u> factor: <u>Cat Hand</u> TON tion: <u>946.0 LCY</u> / cription: <u>Consol</u> 5 % 5,900 feet 2,900 lbs/LCY Decomposed rock <u>Factor</u> Skill: 0.	book /hr idated stockp - 50% Rock,	50% Earth		
Swell factor: 1.000 Loose volume: 231,4 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	200 195 LCY ne: Operator factor: Cat Hand 200 feet tion: 946.0 LCY/ cription: Consol 5 % 5,900 feet 2,900 lbs/LCY Decomposed rock Factor 0. skill: 0. ency: 1.	book /hr idated stockr - 50% Rock, 750	50% Earth		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3566	
Adjusted unit production: 33	37.34 LCY/hr	
Adjusted fleet production: 1.	349.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.120/LCY
Total job time:	171 56 Hours

i otal job time:	1/1.50 Hours
Total job cost:	\$259,289

Task description:	Backfill and Re	egrade Train	L/O Overland Conveyo		
Bowie No. 2 Mine	Pe	ermit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 012	State:	: Colorado		Abbreviation:	None
Date: $11/20/2021$		-		Filename:	C083-012
User: RDZ	<u> </u>				0003 012
Agency or organ	nization name: [ORMS			
HOURLY EQUIPME					
Basic Machine: Cat Horsepower: 574	t D10T - 10SU 4				
	mi-Universal				
Attachment: NA					
	ber day				
	RG)				
Data Source: (CI	NU)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
		\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$377.84 \$1,511.37				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$1,511.37 <u>TITIES</u>				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume:9,25	\$1,511.37 FITIES 59				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16	\$1,511.37 <u>FITIES</u> 55				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16	\$1,511.37 FITIES 59				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7	\$1,511.37 <u>FITIES</u> 55 55 787 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16	\$1,511.37 FITIES 59 55 787 LCY me:Division	n Estimate			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum	\$1,511.37 <u>FITIES</u> 59 55 787 LCY me:Division	n Estimate			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell	\$1,511.37 <u>FITIES</u> 59 55 787 LCY me: <u>Division</u> 1 factor: <u>Cat Han</u>	n Estimate			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUC	\$1,511.37 FITIES 59 55 787 LCY me: Division 1 factor: Cat Han FION	n Estimate			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,511.37 FITIES 59 55 787 LCY me: Division 1 factor: Cat Han FION 100 feet	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUC	\$1,511.37 FITIES 59 55 787 LCY me: Division 1 factor: Cat Han FION 100 feet	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION 100 feet 1,718.9 L0	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency destribution	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUC? Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp 10 %	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency destribution	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUC? Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp 10 %	n Estimate ndbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 1,718.9 L0 scription: Comp 10 % 5,900 feet	n Estimate ndbook CY/hr pacted fill or en	 mbankment 0.9		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	\$1,511.37 FITIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp 10 % 5,900 feet 2,900 lbs/LCY Decomposed roc	n Estimate ndbook CY/hr pacted fill or en	 mbankment 0.9		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet ction: 1,718.9 L0 scription: Comp 10 % 5,900 feet 2,900 lbs/LCY Decomposed roc n Factor 1	n Estimate ndbook CY/hr pacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source Source of estimated volum Source HOURLY PRODUCT Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Operator	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp 10 % 5,900 feet 2,900 lbs/LCY Decomposed roc n Factor Skill:	n Estimate ndbook CY/hr pacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,511.37 FIFIES 59 55 787 LCY me: Division 1 factor: Cat Han FION ction: 100 feet 1,718.9 L0 scription: Comp 10 % 5,900 feet 2,900 lbs/LCY Decomposed roci n Factor Skill: 0	n Estimate ndbook CY/hr pacted fill or en 			

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradier	it: 0.786	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	it: 0.793	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.2794	
Adjusted unit production:	480.26 LCY/hr	
Adjusted fleet production:	1921.04 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.787/LCY
Total job time:	5.62 Hours
Total job cost:	\$8,486

SCRAPER TEAM WORK

Site: Bowie No. 2 Min	ne	Permit Action:	RN5	Pern	nit/Job#: <u>C1990</u>	6083
PROJECT IDE	NTIFICATION					
Task #: 013	St	ate: Colorado		Abbrev	iation: None	
)/2021 Cour				cname: C083-(013
User: RDZ		·				
	organization name:	DRMS				
HOURLY EQU	<u>PMENT</u>			hift basis: <u>1 per da</u>	ıy	
	S.		ent Description G w/push-pull			
		raper: Cat 627 Dozer: NA	G w/pusn-pull			
Sup	ort Equipment -Load					
	-Dump					
Road M	laintenance – Motor G					
	-Water 7	Fruck: NA				
Cost Breakdown:	Scraper Work	Team	Support Equi	oment	Maintenance	Equipm
<u>cost breakdown</u> .	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine	100	NA	NA	NA	NA	
Ownership cost/hour	\$188.81	NA	NA	NA	NA	
Operating cost/hour	\$169.82	NA	NA	NA	NA	
%Utilization-ripper	NA	NA	NA	NA	NA	
Ripper own. cost/hour	NA	NA	NA	NA	NA	
Ripper op. cost/hour	NA	NA	NA	NA	NA	
Operator cost/hour	\$30.90	NA	NA	NA	NA	
Unit Subtotals	\$389.53	NA	NA	NA	NA	
Number of Units	2	0	0	0	0	
Group Subtotals	Work:	\$779.06	Support:	\$0.00	Maint:	\$
Total work team co	st/hour: <u>\$779.06</u>	i		i		
MATERIAL QU	JANTITIES					
Initial volume	: 39,000	CCY	Swell fact	or: 1.165		
Loose volume		LCY				
Se	ource of estimated volu	ume: Operator	Estimate, minus	14,000 cy TR79/T	R84 to Gob Pile	
	e of estimated swell fa	1		1,000 0 11(7) 1		
HOURLY PRO	DUCTION					
			Scraper Bo	owl (volume) Basis	<u>s:</u>	
Material weight	: 2,900 lbs/LCY		Struck	Volume: 15.70	L	CY
Material description		- 50% Rock,	Heaped			CY
Rated Payload	: 52,800 pounds		Average	Volume: 18.85	L	CY

<u>0.90</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2824	0.52

Haul Time: 0.52 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2874	0.40

Return Time:	0.40	minutes
Total Scraper team cycle time:	2.42	minutes
Adjusted for job conditions:	749.34	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	749.34	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	749.34	LCY/Hour
I be diverte d'unite and direction (house) 002.82 I CV/II.com		

Unadjusted unit production/hour: 902.82 LCY/Hour Optimal Number of Scrapers per push dozer:

Fleet size:	1	Team(s)	Total job time:	60.63	Hours
Unit cost:	\$1.040	/LCY	Total job cost:	\$47,237	_

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	e	Permit Acti	on: RN5		Permit/Job#: C	1996083
PROJECT IDEN	TIFICATION					
Task #: 014		State: Color	ado	Ah	breviation: No	ne
Date: $11/20/$		ounty: Delta	uuo			83-014
User: RDZ						
Agency or	organization name	: DRMS				
HOURLY EQUI	PMENT COST			Shift bas	sis: <u>1 per day</u>	
			Equipment Descri	ption		
T	ruck Loader Team	-Truck: Cat	773F	1		
			T 988H			
Suppo	ort Equipment -Loa Dun-	ad Area: NA np Area: NA				
Road Ma	aintenance – Motor	1				
	-Wate	r Truck: NA				
Cost Breakdown:	Truck/Load	er Team	Support	Equipment	Maintenan	ce Equipment
<u>cost Ditakuowii</u> .		Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$122.05	\$105.34	NA	NA	NA	NA
Operating cost/hour:	\$92.14	\$95.63	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	Nz
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	Nz
Operator cost/hour:	\$33.34	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$247.53	\$241.68	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	¢0.00
Group Subtotals:	Work:	\$736.74	Support:	\$0.00	Maint:	\$0.00
Total work team cos	t/hour: <u>\$736.74</u>					
MATERIAL QU	ANTITIES					
			, a 11	6		
Initial volume: Loose volume:	<u>53,000</u> 61,745	CCY LCY		factor: 1.165		
	urce of estimated v					
	of estimated swell		sion of Reclamatic Handbook	on, winning & Sale	ery	
	Material Purchas					
	Tota	al Cost: \$0.00	0			
	DUCTION					
HOURLY PRO	DUCTION					
Truck Capacity:	1.0. D.					
Truck Payload (weig Material w			Pounds/LCY			
		1 1 500/				
Descri	ption: Decompo	osed rock - 50%	Rock, 50% Earth	L		

TT 1 TT -		CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:	42.25 L	.CY				
Final	Tmale Malanes I	Daard on Number o	f I and an Danaan	40.25	LCV	
Loading Tool Capacity	Truck volume r	Based on Number of	of Loader Passes.	40.25	LCY	
Loading 1001 Capacity			Devi			
	0.000		Buc	ket Size Class: <u>N</u>	А	_
Rated Capacity:	<u>9.200</u> 0.875	LCY (heaped)	- 1" and over (85	5 00%) 0 875		-
Adjusted Capacity:	8.050	LOOSE Material	- 1 and over (o.	5 - 90%) 0.875		-
Job Condition Corrections:			Site Altitude (ft.): (
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	,		
Job Efficiency:	0.830	0.830	(CAT HB	5)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Number	of Loading Tool P	asses Required to	Fill Truck:	5 r	basses
Excavators and Front Shovel		or Louding 10011	usses required to		<u> </u>	
Machine Cycle Time vs	s. Job Condition	Rating: NA				
Selected Value v						
	within this Basic	Rating: NA				
Selected Value v	vithin this Basic Material Descrip	Rating: NA				
Selected Value v Track Loaders –	vithin this Basic Material Descrip	Rating: NA		 Dump: 0.100)	
Selected Value v Track Loaders – 2 Cycle Time Elements (min.): Load: <u>NA</u>	vithin this Basic Material Descrip Ma	Rating: NA otion:		·		
Selected Value v Track Loaders – 2 Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	vithin this Basic Material Descrip Ma	Rating: NA otion:	me (load, dump, r	maneuver): 0	.575 minu	ıtes
Selected Value v Track Loaders – 2 Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	vithin this Basic Material Descrip Ma Unadjusted Bas	Rating: NA otion: aneuver: NA dic Loader Cycle Ti	me (load, dump, r	naneuver): 0 Factor (min.)	.575 minu Source	Ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - <u>Cycle Time Factors</u> Material:	vithin this Basic Material Descrip Unadjusted Bas Mixed materia	Rating: NA otion: aneuver: NA ic Loader Cycle Ti 1 0.02		naneuver):0 Factor (min.) 0.020	.575 minu Source (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or do	Rating: NA otion: aneuver: NA ic Loader Cycle Ti 1 0.02 ozer piled 10 ft. hig	gh or less 0.01	naneuver): 0 Factor (min.) 0.020 0.010	.575 minu Source (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Basic Material Descrip — Ma Unadjusted Bas <u>Mixed materia</u> <u>Conveyor or de</u> Common owne	Rating: NA ption:	gh or less 0.01	naneuver): 0 Factor (min.) 0.020 0.010 -0.040	.575 minu Source (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owne Constant opera	Rating: NA ption:	gh or less 0.01	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Basic Material Descrip — Ma Unadjusted Bas <u>Mixed materia</u> <u>Conveyor or de</u> Common owne	Rating: NA ption:	gh or less 0.01 d loaders -0.04	maneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owne Constant opera	Rating: NA ption: aneuver: NA dic Loader Cycle Ti l 0.02 ozer piled 10 ft. hig ership of trucks and ation -0.04 t 0.00 Net Cycle Tim	gh or less 0.01 d loaders -0.04 me Adjustment:	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owne Constant opera	Rating: NA ption: aneuver: NA ic Loader Cycle Ti l 0.02 ozer piled 10 ft. hig ership of trucks and ation -0.04 t 0.00 Net Cycle Tin Adjusted Load	gh or less 0.01 d loaders -0.04	maneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	Ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owne Constant opera	Rating: NA ption: aneuver: NA ic Loader Cycle Ti l 0.02 ozer piled 10 ft. hig ership of trucks and ation -0.04 t 0.00 Net Cycle Tin Adjusted Load	gh or less 0.01 d loaders -0.04 me Adjustment: der Cycle Time:	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.525	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owne Constant opera	Rating: NA ption: aneuver: NA ic Loader Cycle Ti l 0.02 ozer piled 10 ft. hig ership of trucks and ation -0.04 t 0.00 Net Cycle Tin Adjusted Load	gh or less 0.01 d loaders -0.04 me Adjustment: der Cycle Time:	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.525	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or do Common owne Constant opera Nominal target	Rating: NA ption: aneuver: NA ic Loader Cycle Ti l 0.02 ozer piled 10 ft. hig ership of trucks and ation -0.04 t 0.00 Net Cycle Tin Adjusted Load	gh or less 0.01 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.525	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owne Constant opera Nominal target	Rating: NA ption:	gh or less 0.01 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.525 2.200	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or do Common owne Constant opera Nominal target	Rating: NA ption:	gh or less 0.01 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.525 2.200 for site altitude:	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700	ttes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or do Common owne Constant opera Nominal target : 0.70 : 2.200 : 1.10	Rating: NA ption:	gh or less 0.01 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted Adjusted	naneuver): 0 Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.525 2.200 for site altitude: for site altitude:	.575 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700 2.200 1.100	 Minute

Haul Rout Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	7
3cg #	(Ft)	Istance	Grade (70)	(%)	(%)	(fpm)	Time (min)	
1	600.00		0.00	3.00	3.00	2983	0.764	
					Haul Time:	0.764	minutes	5
Return Ro	ute:				_			
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	_
1	600.00		0.00	3.00	3.00	3569	0.381	
				Total Tru	Return Time: ck Cycle Time:	0.381 5.145	minut minut	
				100001110				
Loading Tool Produ	ction	832.76	LCY/Hour		Adjusted for j	ob efficiency:	691.19	LCY/Hour
Truck Unit Produ	ction _	469.39	LCY/Hour		Adjusted for j	ob efficiency:	389.59	LCY/Hour
Optimal No. of Tru	ucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			Adjuste	ed hourly truck	k team production	on: 779	.18 LC	Y/Hour
					er team production			Y/Hour
			Adjusted multip	le truck/loade	er team production	on: 691	.19 LC	Y/Hour
JOB TIN	/IE AN	D COST						
Fleet s	size:	1	Team(s)	J	Fotal job time:	89.3	3 H	lours
Unit c	cost:	\$1.066	/LCY	,	Total job cost:	\$65,8	14	

Task description:	Backf	in and Keg	Taue D-Seat	n Portal Bench		
Bowie No. 2 Min	e	Peri	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDEN	TIFICATIO	N				
Task #: 015		State:	Colorado		Abbreviation:	None
Date: $11/20$	/2021		Delta		Filename:	C083-015
User: RDZ	2021	County:	Dena		Filename:	0083-013
Agency or	organization n	ame: DR	RMS			
HOURLY EQUI	PMENT CO	<u>ST</u>				
Basic Machine:	Cat D10T -	10SU				
Horsepower:	574					
Blade Type:	Semi-Univer					
Attachment:	3-shank ripp	er				
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Breakdown:			1			
			¢1.50.50	<u>Utilization %</u>		
Ownership Cost/H			\$169.60	NA		
Operating Cost/H			\$166.94	100		
Ripper own. Cost/H			\$25.19	NA		
Ripper op. Cost/H			\$13.74	100		
	our.		\$41.30	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Ho	r: \$416.7 ur: \$1,667					
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU	r: \$416.7 ur: \$1,667 ANTITIES					
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor:	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165					
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume:	r: \$416.7 ur: \$1,667 ANTITIES 32,000					
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor: Loose volume:	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY	.09				
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor:	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume:		 Estimate			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume:	.09 Operator	 Estimate			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor:	.09 Operator	 Estimate			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: PUCTION	.09 Operator Cat Hand	 Estimate			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: DUCTION ace:	.09 Operator	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: PUCTION ace: production:	09 Operator Cat Hand 150 feet 1,243.2 LC	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE Average push distar Unadjusted hourly p	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: DUCTION ace: production: cy description:	09 Operator Cat Hand 150 feet 1,243.2 LC	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE Average push distar Unadjusted hourly p Materials consistence	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: PUCTION ace: production: cy description: ent: 20 %	.09 Operator Cat Hand 150 feet 1,243.2 LC Compa	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE Average push distar Unadjusted hourly p	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: PUCTION ace: production: cy description: ent: 20 %	.09 Operator Cat Hand 150 feet 1,243.2 LC Compa	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROE Average push distar Unadjusted hourly p Materials consistence Average push gradie Average site altitude	r: $$416.7$ ur: $$1,667$ ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: DUCTION ace: production: y description: ent: 20 % e: 6,750 f	.09 Operator Cat Hand 150 feet 1,243.2 LC Compa	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROE Average push distar Unadjusted hourly p Materials consistence Average push gradie Average site altitude	r: $$416.7$ ur: $$1,667$ ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: DUCTION ace: production: cy description: ext 20% ext $6,750 f$ 2,900 1	09 Operator Cat Hand 150 feet 1,243.2 LC Compa Seet bs/LCY	Estimate book			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight:	r: $\$416.7$ ur: $\$1,667$ ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: DUCTION ace: production: growth ext: 20 % ext: 6,750 ft 2,900 l Decome	09 Operator Cat Hand 150 feet 1,243.2 LC Compa Seet bs/LCY	 Estimate book Y/hr cted fill or en			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Average push distar Unadjusted hourly p Materials consistence Average push gradie Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper	r: $\frac{$416.7}{$1,667}$ ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: OUCTION ace: broduction: cy description: ent: 20 % e: 6,750 f 2,900 l Decome extion Factor rator Skill:	.09 Operator Cat Hand 150 feet 1,243.2 LC Compa Seet bs/LCY posed rock 0.	 Estimate book Y/hr cted fill or en - 50% Rock, 750			
Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE Average push distar Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper Material co	r: \$416.7 ur: \$1,667 ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: OUCTION ace: production: cy description: ent: 20 % e: 6,750 ff 2,900 l Decom ection Factor rator Skill: onsistency:	.09 Operator Cat Hand 150 feet 1,243.2 LC Compa Seet bs/LCY posed rock 0. 0.	 Estimate book Y/hr cted fill or en - 50% Rock, 750 900			
Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROE Average push distar Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper Material co	r: $\frac{$416.7}{$1,667}$ ANTITIES 32,000 1.165 37,280 LCY volume: swell factor: OUCTION ace: broduction: cy description: ent: 20 % e: 6,750 f 2,900 l Decome extion Factor rator Skill:	.09 Operator Cat Hand 150 feet 1,243.2 LC Compa Seet bs/LCY posed rock 0. 0. 1.	 Estimate book Y/hr cted fill or en - 50% Rock, 750			

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradien	it: 0.545	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	it: 0.793	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correction	n: 0.1937	
Adjusted unit production:	240.81 LCY/hr	
Adjusted fleet production:	963.24 LCY/hr	

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$1.731/LCY
Total job time:	38.70 Hours

Total job cost: **\$64,521**

Task description:	Regrade Drill Pa	as from MF	ks and TKs		
Bowie No. 2 Mine	Peri	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 019	State:	Colorado		Abbreviation:	None
Date: $\frac{01}{11/20/2021}$		Delta		Filename:	C083-019
User: RDZ	County.	Delta		-	0005 017
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	t D10T - 10SU				
Horsepower: 574					
7 1	mi-Universal				
Attachment: NA					
	er day				
Data Source: (Cl	RG)				
Cost Breakdown:					
<u></u>			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
		\$0.00	0		
Ripper op. Cost/nour.		\$41.30	NT A		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$377.84 \$1,511.37	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: _15,1	\$1,511.37 FITIES 73	\$ 1 1.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>15,1</u> Swell factor: 1.16	\$1,511.37 <u>FITIES</u> 73 55	\$ 1 1.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel	\$1,511.37 FITIES 73 55 577 LCY me: <u>6.27 acres</u> 1 factor: Cat Hand		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUC	\$1,511.37 FITIES 73 55 577 LCY me: <u>6.27 acres</u> 1 factor: <u>Cat Hand</u> TION				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,511.37 FITIES 73 55 577 LCY me: <u>6.27 acres</u> 1 factor: <u>Cat Hand</u> FION 100 feet	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUC	\$1,511.37 FITIES 73 55 577 LCY me: <u>6.27 acres</u> 1 factor: <u>Cat Hand</u> FION 100 feet	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,511.37 FIFIES .73 .55 .677 LCY me: 6.27 acres 1 factor: Cat Hand FION ction: 100 feet 1,718.9 LCY	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$1,511.37 FIFIES .73 .55 .77 LCY me: 6.27 acress 1 factor: Cat Hand TION ction: 100 feet 1,718.9 LCY scription: Compare	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 FIFIES 73 55 577 LCY me: 6.27 acress 1 factor: Cat Hand FION ction: 100 feet 1,718.9 LC scription: Compare 5 %	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$1,511.37 FIFIES .73 .55 .77 LCY me: 6.27 acress 1 factor: Cat Hand TION ction: 100 feet 1,718.9 LCY scription: Compare	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 FIFIES 73 55 577 LCY me: 6.27 acress 1 factor: Cat Hand FION ction: 100 feet 1,718.9 LC scription: Compare 5 %	s, 1.5' depth book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly production Materials consistency destinated site and the set of	\$1,511.37 FIFIES 73 55 577 LCY me: 6.27 acress 1 factor: Cat Hand FION ction: 1,718.9 LCY scription: Compare 5 % 7,500 feet	s, 1.5' depth book Y/hr cted fill or en	 mbankment 0.9		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUC: Average push distance: Unadjusted hourly product Materials consistency des Average site altitude: Material weight:	\$1,511.37 FIFIES 73 55 577 LCY me: 6.27 acres 1 factor: Cat Hand FION ction: 1,718.9 LCY scription: Compare 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock	s, 1.5' depth book Y/hr cted fill or en	 mbankment 0.9		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$1,511.37 FIFIES 73 55 577 LCY me: 6.27 acres 1 factor: Cat Hand FION ction: 100 feet 1,718.9 LCY scription: Compare 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock	s, 1.5' depth book Y/hr cted fill or en	 mbankment 0.9		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction	\$1,511.37 FIFIES 73 55 577 LCY me: 6.27 acres 1 factor: Cat Hand FION ction: 100 feet 1,718.9 LCY scription: Compare 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock n Factor Skill: 0.				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,1 Swell factor: 1.16 Loose volume: 17,6 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator	\$1,511.37 FIFIES .73 .55 .77 LCY me: 6.27 acres 1 factor: Cat Hand FION ction: 100 feet 1,718.9 LCY scription: Compare 5 %				

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3209	
Adjusted unit production: 55	51.60 LCY/hr	
Adjusted fleet production: 22	206.4 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.685/LCY
Total job time:	8.01 Hours

fottal joe time. 0.0	
Total job cost: \$12	2,108

Bowie No. 2 Mine	Peri	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 020	State:	Colorado		Abbreviation:	None
Date: $\frac{020}{11/20/2021}$		Delta		Filename:	C083-020
User: RDZ		Derita		-	0000 020
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
7 1	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CF	(U)				
Cost Breakdown:					
0 1. 0		64 - 50 - 5	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00 \$0.00	<u>NA</u> 0		
Operator Cost/Hour:		\$0.00	NA 0		
Total unit Cost/Hour:	\$377.84				
MATERIAL QUANT	TTIES				
Initial Volume: 500					
	-				
Swell factor: 1.16					
Swell factor: 1.16 Loose volume: 583 Source of estimated volume	LCY me: Division		on, Mining & Safety		
Swell factor:1.16Loose volume:583	LCY me: Division		on, Mining & Safety		
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell	LCY me: <u>Division</u> l factor: Cat Hand		on, Mining & Safety		
Swell factor: 1.16 Loose volume: 583 Source of estimated volume	LCY me: <u>Division</u> l factor: Cat Hand		on, Mining & Safety		
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	LCY me: <u>Division o</u> l factor: <u>Cat Hand</u> <u>FION 200 feet</u>	book	on, Mining & Safety		
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT	LCY me: <u>Division o</u> l factor: <u>Cat Hand</u> <u>FION 200 feet</u>	book	on, Mining & Safety		
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	LCY me: Division of l factor: Cat Hand FION 200 feet ction: 946.0 LCY/	book hr	on, Mining & Safety		
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency destribution	LCY me: <u>Division</u> l factor: <u>Cat Hand</u> <u>Cat Hand</u> <u>Cat Hand</u> <u>200 feet</u> ction: <u>946.0 LCY</u> scription: <u>Compa</u>	book hr			
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient:	LCY me: <u>Division of</u> l factor: <u>Cat Hand</u> <u>FION</u> ction: <u>200 feet</u> 946.0 LCY/ scription: <u>Compa</u> <u>5 %</u>	book hr			
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency destribution	LCY me: <u>Division</u> l factor: <u>Cat Hand</u> <u>Cat Hand</u> <u>Cat Hand</u> <u>200 feet</u> ction: <u>946.0 LCY</u> scription: <u>Compa</u>	book hr			
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient:	LCY me: <u>Division of</u> l factor: <u>Cat Hand</u> <u>FION</u> ction: <u>200 feet</u> 946.0 LCY/ scription: <u>Compa</u> <u>5 %</u>	book hr			
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	LCY me: Division of Cat Hand I factor: Cat Hand FION 200 feet ction: 946.0 LCY/ scription: Compare 5 % 6,000 feet	book hr 	mbankment 0.9		
Swell factor: 1.16 Loose volume: 583 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	LCY me: Division of l factor: Cat Hand FION ction: 946.0 LCY/ scription: Compa 5 % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor	book hr cted fill or en - 50% Rock,	mbankment 0.9		
Swell factor: 1.16 Loose volume: 583 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	LCY me: Division of l factor: Cat Hand FION 200 feet ction: 946.0 LCY/ scription: Compa 5 % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0.	book hr cted fill or en - 50% Rock, 750			
Swell factor: 1.16 Loose volume: 583 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consistency	LCY me: Division of Cat Hand I factor: Cat Hand ΓΙΟΝ 200 feet ction: 946.0 LCY/ scription: Compa 5 % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0. ency: 0.	book hr cted fill or en - 50% Rock, 750 900			
Swell factor: 1.16 Loose volume: 583 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator 3 Material consist Dozing me	LCY me: Division of Cat Hand I factor: Cat Hand FION 200 feet ction: 946.0 LCY/ scription: Compare 5 % 6,000 feet 2,900 lbs/LCY Decomposed rock Factor Skill: 0. ency: 0. 1.	book hr cted fill or en - 50% Rock, 750			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3209	
Adjusted unit production:	303.57 LCY/hr	
Adjusted fleet production:	1214.28 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.245/LCY
Total job time:	0.48 Hours
Total job cost:	\$725

	Ducin		1440110111	rep Plant Bench		
Bowie No. 2 Mine		Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENT	<u>IFICATIC</u>	<u>N</u>				
Task #: 021		State:	Colorado		Abbreviation:	None
Date: $\frac{021}{11/20/20}$	021	County:	Delta		Filename:	C083-021
User: RDZ	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	county.	Denu		-	0003 021
A			DMC			
Agency or or	ganization n	ame. Dr	RMS			
HOURLY EQUIPM	MENT CO	<u>ST</u>				
Basic Machine:	Cat D10T - 1	l0SU				
1	574					
	Semi-Univer	sal				
	NA					
	1 per day					
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/Hou	ir:		\$169.60	NA		
Operating Cost/Hou			\$166.94	100		
Ripper own. Cost/Hou			\$0.00	NA		
Ripper op. Cost/Hou	ır:		\$0.00	0		
Operator Cost/Hou	r:		\$41.30	NA		
MATERIAL QUA						
Initial Volume: 6	1,000					
	.165					
Swell factor: 1						
Swell factor: 1	1,065 LCY					
Swell factor:1Loose volume:7	1,065 LCY	Operator	Estimate			
Swell factor: 1	1,065 LCY	Operator Cat Hand				
Swell factor: 1 Loose volume: 7 Source of estimated vo	1,065 LCY					
Swell factor: 1 Loose volume: 7 Source of estimated vo	1,065 LCY blume: well factor:					
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU	1,065 LCY blume: well factor:	Cat Hand				
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance	1,065 LCY blume: well factor: CTION	Cat Hand	book			
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU	1,065 LCY blume: well factor: CTION	Cat Hand	book			
Swell factor: 1 Loose volume: 7 Source of estimated volume 7 Source of estimated sw 1 HOURLY PRODU 1 Average push distance 1	1,065 LCY blume: well factor: VCTION c: duction:	Cat Hand 100 feet 1,718.9 LC	book Y/hr	 mbankment 0.9		
Swell factor: 1 Loose volume: 7 Source of estimated volume: 7 Source of estimated sw 9 HOURLY PRODU 9 Average push distance 9 Materials consistency 9 Average push gradient 9	1,065 LCY blume: well factor: CTION c: duction: description: t: 10 %	Cat Hand 100 feet 1,718.9 LC Compa	book Y/hr	 mbankment 0.9		
Swell factor: 1 Loose volume: 7 Source of estimated volume: 7 Source of estimated sw 1 HOURLY PRODU 1 Average push distance 1 Unadjusted hourly pro 1 Materials consistency 1	1,065 LCY blume: vell factor: ICTION e: duction: description:	Cat Hand 100 feet 1,718.9 LC Compa	book Y/hr	mbankment 0.9		
Swell factor: 1 Loose volume: 7 Source of estimated volume: 7 Source of estimated sw 9 HOURLY PRODU 9 Average push distance 9 Materials consistency 9 Average push gradient 9	1,065 LCY blume: well factor: CTION :: duction: description: ::10 % 6,050 f	Cat Hand 100 feet 1,718.9 LC Compa	book Y/hr	mbankment 0.9		
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude:	1,065 LCY blume: well factor: ICTION :: duction: description: ::10 % 2,900 1	Cat Hand 100 feet 1,718.9 LC Compa eet bs/LCY	book Y/hr			
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight:	1,065 LCY blume: well factor: ICTION :: duction: description: ::10 % 0001 Decom	Cat Hand 100 feet 1,718.9 LC Compa eet bs/LCY	book Y/hr cted fill or en			
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct	1,065 LCY blume: well factor: ICTION :: duction: description: ::10 % 0001 Decom	Cat Hand 100 feet 1,718.9 LC Compa eet bs/LCY posed rock	book Y/hr cted fill or en	, 50% Earth		
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat Material cons	1,065 LCY blume: well factor: VCTION :: description: :: 10 % 6,050 f 2,900 l 2,900 l Decom ion Factor or Skill:	Cat Hand 100 feet 1,718.9 LC Compa eet bs/LCY posed rock 0. 0.	book Y/hr cted fill or ei - 50% Rock, 750 900	, 50% Earth <u>Source</u> (AVG.) (CAT HB))		
Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat Material cons Dozing	1,065 LCY blume: well factor: ICTION :: duction: description: ::10 % 6,050 f 000 1 Decom ion Factor or Skill:	Cat Hand 100 feet 1,718.9 LC Compa eet bs/LCY posed rock 0. 0. 1.	book Y/hr 	50% Earth		
Task # 021

Job efficiency	y: 0.830	(1 SHIFT/DAY)
Spoil pile	e: 0.800	(FND-RF)
Push gradien	t: 0.786	(CAT HB)
Altitude	e: 1.000	(CAT HB)
Material Weigh	t: 0.793	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n: 0.2794	
Adjusted unit production:	480.26 LCY/hr	
Adjusted fleet production:	1921.04 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.787/LCY
Total ioh time	36.99 Hours

iotal job time.	30.77 Hours	
Total job cost:	\$55,910	

Page 1 of 2

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	9	Permit	t Action:	RN5	Perr	mit/Job#:	C1996(083
PROJECT IDEN	FIFICATION							
Task #:022		ate: (Colorado		Abbrev		None	
Date: $\frac{11/20/2}{11/20/2}$	2021 Cour	nty:	Delta		Fil	ename: C	2083-02	22
User: RDZ		DRM	IC .					
HOURLY EQUIE	organization name:	DRW	15	COSTS	hift hasis, 1 mand			
<u>HOUKLI EQUI</u>			Eminar		hift basis: <u>1 per d</u>	<u>ay</u>		
	-Sci	raper:		ent Description G w/push-pull				
	-D	Dozer:	NA	rubii puii				
Suppo	rt Equipment -Load		NA					
DeciM	-Dump intenance –Motor G		NA NA					
Koad Ma	-Water T		NA NA					
Cost Breakdown:	Scraper Work			Support Equip		Mainte		
	Scraper	Do	zer	Load Area	Dump Area	Motor Gr	ader	Wate
%Utilization-machine:	100		NA	NA	NA		NA	
Ownership cost/hour:	\$188.81		NA	NA	NA		NA	
Operating cost/hour:	\$169.82		NA	NA	NA		NA	
%Utilization-ripper:	NA		NA	NA	NA		NA	
Ripper own. cost/hour:	NA		NA	NA	NA		NA	
Ripper op. cost/hour:	NA		NA	NA	NA		NA	
Operator cost/hour:	\$30.90		NA	NA	NA		NA	
Unit Subtotals:	\$389.53		NA	NA	NA		NA	
Number of Units:	2		0	0	0		0	
Group Subtotals:	Work:	\$779	9.06	Support:	\$0.00	Μ	aint:	\$
Total work team cost	/hour: <u>\$779.06</u>							
MATERIAL QUA	ANTITIES							
Initial volume:	700		CCY	Swell fact	or: 1.165			
Loose volume:	816		LCY					
	rce of estimated volu of estimated swell fac		Operator Cat Hand	Estimate lbook				
HOURLY PROD	UCTION							
				Scraper Bo	owl (volume) Basi	s:		
Material weight:	2,900 lbs/LCY			_	Volume: 15.70	-	LC	Y
Material description:	Decomposed rock	- 50% I	Rock,	Heaped			LC	
	JU/U Latti							
Rated Payload:	52,800 pounds			Average	Volume: 18.85		LC	CY

<u>0.90</u> Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-15.00	5.00	-10.00	1749	0.69

Haul Time: **0.69** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	15.00	5.00	20.00	868	1.17

Return Time:	1.17	minutes
Total Scraper team cycle time:	3.36	minutes
Adjusted for job conditions:	539.70	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	539.70	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	539.70	LCY/Hour
Unadjusted unit production/hour: 650.25 I CV/Hour		

Unadjusted unit production/hour: 650.25 LCY/Hour Optimal Number of Scrapers per push dozer:

Fleet size:	1	Team(s)	Total job time:	1.51	Hours
Unit cost:	\$1.443	/LCY	Total job cost:	\$1,177	

BULLDOZER WORK

Task descript	tion:	Reg	rade Borrow	Area			
Bowie No.	. 2 Mine		Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT	IDEN	FIFICATI	<u>ION</u>				
Task #:	023		State:	Colorado		Abbreviation:	None
Date:	11/20/2	2021	County:	Delta		Filename:	C083-023
User:	RDZ		j·				
Age	ency or o	organization	name: DF	RMS			
HOURLY]	<u>EQUIP</u>	MENT C	<u>OST</u>				
Basic Mac	chine:	Cat D10T	- 10SU				
Horsepo	ower:	574					
Blade	••	Semi-Univ	versal				
Attach		NA					
Shift I		1 per day					
Data Sc	ource:	(CRG)					
Cost Breakdo	own:						
					Utilization %		
Ownership				\$169.60	NA		
Operating Dimension				\$166.94	100 NA		
Ripper own. Ripper op.				\$0.00 \$0.00	<u>NA</u> 0		
Operator				\$0.00			
Total unit Co Total Fleet C MATERIA	ost/Hour: Cost/Hou	: \$377 r: \$1,5 1	11.37	\$41.30	NA		
Total unit Co Total Fleet C	ost/Hour: Cost/Hou LOUA ume:	: \$377 r: \$1,5 1 ANTITIES 25,600 1.250	11.37 2		NA		
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu	ost/Hour: Cost/Hou LOUA ume:	: \$377 r: \$1,5 1 ANTITIES 25,600	11.37 2		NA		
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu Swell fac	ost/Hour Cost/Hou L QUA ume: ctor: ume: imated v	: \$377 r: \$1,51 ANTITIES 25,600 1.250 32,000 LCY volume:	11.37 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Estimate			
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu Swell fao Loose volu Source of est	Dest/Hour: Cost/Hou LOUA ume: ctor: ume: imated s	: \$377 r: \$1,51 ANTITIES 25,600 1.250 32,000 LCY volume: swell factor:	11.37 2 7 Operator	Estimate			
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu Swell fac Loose volu Source of est Source of est	Dest/Hour: Cost/Hour L QUA ume: ctor: ume: imated v imated s PROD	: \$377 r: \$1,51 ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION	11.37 2 7 Operator	Estimate	NA		
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu Swell fac Loose volu Source of est Source of est	Dest/Hour: Cost/Hour L QUA ume: ctor: ume: imated w imated s PRODI h distance	: \$377 r: \$1,51 ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION ce:	11.37	Estimate book			
Total unit Co Total Fleet C MATERIA Initial Volu Swell fac Loose volu Source of est Source of est HOURLY	Dest/Hour: Cost/Hour L QUA ume: ctor: ume: imated v imated s PRODI h distance nourly pr	: \$377 r: \$1,51 ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION ce: oduction:	11.37 Operator Cat Hand 175 feet 1,074.3 LC	Estimate book			
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu Swell fac Loose volu Source of est Source of est <u>HOURLY</u> Average push Unadjusted h	Dest/Hour: Cost/Cost/Cost/Cost/Cost/Cost/Cost/Cost/	: \$377 r: \$1,51 ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION ce: oduction: y description nt: 0 %	11.37 Operator Cat Hand 175 feet 1,074.3 LC	Estimate book			
Total unit Co Total Fleet C <u>MATERIA</u> Initial Volu Swell fac Loose volu Source of est Source of est <u>HOURLY</u> Average push Unadjusted h Materials cor Average push	Dest/Hour: Cost/Cost/Cost/Cost/Cost/Cost/Cost/Cost/	$ \frac{\$377}{\$1,51} $ ANTITIES 25,600 1.250 32,000 LCY 32,000 LCY 34,000	11.37	Estimate book			
Total unit Co Total Fleet C MATERIA Initial Volu Swell fac Loose volu Source of est Source of est MOURLY Average push Unadjusted h Materials cor Average push Average push	bst/Hour: Cost/Cost/Cost/Cost/Cost/Cost/Cost/Cost/	$\frac{\$377}{\$1,51}$ ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION ce: voduction: y description $t: 0 \%$ $6,200$ 2,650	11.37	 Estimate book Y/hr cted fill or en	 mbankment 0.9		
Total unit Co Total Fleet C MATERIA Initial Volu Swell fac Loose volu Source of est Source of est Materials cor Average push Average push Average push Average site Material weig	Dest/Hour: Cost/Cost/Cost Cost/Hour: Cost/Cost/Cost Cost/Hour: Cost/Cost/Cost Cost/Cost/Cost Cost/Cost/Cost/Cost/Cost/Cost/Cost/Cost/	$\frac{\$377}{\$1,51}$ ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: $\frac{\text{UCTION}}{\text{voluction:}}$ we conclude the second secon	11.37 Operator Cat Hand 175 feet 1,074.3 LC n: Compa D feet D lbs/LCY omposed rock	 Estimate book Y/hr cted fill or en	 mbankment 0.9		
Total unit Co Total Fleet C MATERIA Initial Volu Swell fac Loose volu Source of est Source of est Source of est HOURLY I Average push Unadjusted h Materials cor Average push Average site Material weig Weight descr Job Condition	Dest/Hour: Cost/Cost/Cost/Cost/Cost/Cost/Cost/Cost/	$\frac{\$377}{\$1,51}$ ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION ce: voduction: v description nt: 0% 6,200 2,650 Deco ction Factor ator Skill:	11.37 1.37 Operator Cat Hand 175 feet 1,074.3 LC n: Compa 0 feet 0 lbs/LCY omposed rock 0.	 Estimate book Y/hr cted fill or en - 25% Rock, 750	 mbankment 0.9 .75% Earth (AVG.)		
Total unit Co Total Fleet C MATERIA Initial Volu Swell fac Loose volu Source of est Source of est Source of est HOURLY I Average push Unadjusted h Materials cor Average push Average site Material weig Weight descr Job Condition	bst/Hour: Cost/Cost/Cost/Cost/Cost/ Cost/Cost/Cost/Cost/ Cost/Cost/Cost/ Cost/Cost/Cost/ Cost/Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cos	$\frac{\$377}{\$1,51}$ ANTITIES $\frac{25,600}{1.250}$ 32,000 LCY volume: swell factor: $\frac{\text{UCTION}}{\text{voluction:}}$ well factor: $\frac{0\%}{6,200}$ $\frac{2,650}{2,650}$ $\frac{2,650}{2,650}$ $\frac{100}{2,650}$	11.37 2	 Estimate book Y/hr cted fill or en - 25% Rock, 750 900			
Total unit Co Total Fleet C MATERIA Initial Volu Swell fac Loose volu Source of est Source of est Source of est HOURLY I Average push Unadjusted h Materials cor Average push Average site Material weig Weight descr Job Condition	ost/Hour: Cost/Cost/Cost/Cost/ Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Cost/Cost/ Cost/Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Cost/Cost/ Co	$\frac{\$377}{\$1,51}$ ANTITIES 25,600 1.250 32,000 LCY volume: swell factor: UCTION ce: voduction: v description nt: 0% 6,200 2,650 Deco ction Factor ator Skill:	11.37 2	 Estimate book Y/hr cted fill or en - 25% Rock, 750	 mbankment 0.9 .75% Earth (AVG.)		

Task # 023

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	0.868	(CAT HB)
Blade type	1.000	(PAT)
Net correction	0.3890	
Adjusted unit production:	417.90 LCY/hr	
Adjusted fleet production:	1671.6 LCY/hr	
—		

Fleet size:	4 Dozer(s)
Unit cost:	\$0.904/LCY
Total job time:	10 1/ Hours

i otal job time:	19.14 Hours
Total job cost:	\$28,933

HYDRAULIC EXCAVATOR WORK

Task description:	Regrade Upper I	Parking Lot	Expansion Area			
Bowie No. 2 Mine	Peri	mit Action:	RN5	Pe	rmit/Job#:	C1996083
PROJECT IDENTIFI	CATION					
Task #: 025 Date: 11/20/2021 User: RDZ	State: County:	Colorado Delta			eviation: ilename:	None C083-025
Agency or organ	ization name: DR	RMS				
HOURLY EQUIPME	NT COST					
	Cat 365C L 13'-7" ROPS Cab	Stick	We	lorsepower: eight (MT): Shift Basis: Data Source:	7 1 p	404 70.51 per day CRG)
Cost Breakdown:						
Ownership Cost/H Operating Cost/H Operator Cost/H Total Unit Cost/H	Iour: \$148. Iour: \$37.3	12 32	Utilization % NA 100 NA			
Total Fleet Cost/I	· · · · · ·					
Loose volume: 1,	500 875	CCY LCY	Swell factor	1.250		
	f estimated volume: imated swell factor:	Opeator Cat Hand				
HOURLY PRODUCT	ad bucket, swing loa	-	oucket, swing empty		7.	
			in Basic Description	n: SEVERI		
Load Bucket Capacity			Cycle Time Valu	e: 0.570		minutes
]	Bucket Size C	lass: La	arge
Rated Capacity: Bucket Fill Factor Adjusted Capacity:	: 0.850	LCY (he Hard, tou LCY	aped) 1gh clay (80% - 90%	6) 0.850		
Job Condition Correction			Site A	ltitude: <u>6900</u>	feet	
		Source		<u></u>		
Altitude Adj: Job Efficiency: Net Correction:	1.00 0.83 0.83	(CAT HI (1 shift/da multiplier	B) ay)			
Unac Ac	djusted Hourly Unit djusted Hourly Unit ljusted Hourly Fleet	Production: Production:	<u>617.37</u> 512.42	LCY/Hour LCY/Hour LCY/Hour		
JOB TIME AND COS	<u>ST</u>					
Fleet size: 1	Excavato	or Te	otal job time:	3.66		Hours

TRUCK/LOADER TEAM WORK

Truck Loader Load Area Dump Area Motor C	n: Nor e: COS day	
Task #: 027 State: Colorado Abbreviation Date: 11/20/2021 County: Delta Filename User: RDZ Agency or organization name: DRMS Shift basis: 1 per d HOURLY EQUIPMENT COST Shift basis: 1 per d Equipment Description Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: NA -Dump Area: NA -Dump Area: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Ma	e: C08	-
Task #: 027 State: Colorado Abbreviation Date: 11/20/2021 County: Delta Filename User: RDZ Agency or organization name: DRMS Shift basis: 1 per d HOURLY EQUIPMENT COST Shift basis: 1 per d Equipment Description Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: NA -Dump Area: NA -Dump Area: NA -Water Truck: NA -Cost Breakdown: Truck/Loader Team Support Equipment Ma Cost Breakdown: Truck Loader Load Area Dump Area Motor C	e: C08	-
Date: 11/20/2021 County: Delta Filename User: RDZ Agency or organization name: DRMS Shift basis: 1 per delta HOURLY EQUIPMENT COST Shift basis: 1 per delta Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: NA -Dump Area: NA -Dump Area: NA -Water Truck: NA Cost Breakdown: Truck Loader Team Support Equipment Ma Cost Breakdown: Truck Loader Team Support Equipment Ma	e: C08	-
User: RDZ Agency or organization name: DRMS <u>HOURLY EQUIPMENT COST</u> Shift basis: <u>1 per d</u> Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: NA -Dump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA <u>Cost Breakdown:</u> Truck/Loader Team <u>Truck Loader Team</u> <u>Support Equipment</u> <u>Ma</u> <u>Agency or organization name</u> <u>Truck Loader Team</u> <u>Support Equipment</u> <u>Agency or organization name</u> <u>Agency or organization </u>	day	
HOURLY EQUIPMENT COST Shift basis: 1 per description Equipment Description Truck Loader Team - Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment - Load Area: NA -Dump Area: NA -Road Maintenance – Motor Grader: NA -Water Truck: NA <u>Cost Breakdown:</u> Truck/Loader Team Support Equipment Ma <u>Truck</u> Loader Load Area Dump Area Ma	aintenan	
Equipment Description Equipment Description Truck Loader Team - Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment - Load Area: NA -Dump Area: NA -Dump Area: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Ma Truck Load Area Dump Area Motor C	aintenan	
Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: -Loader: Support Equipment -Load Area: NA -Dump Area: NA -Dump Area: NA -Water Truck: NA		
-Loader: CAT 950H Support Equipment -Load Area: NA -Dump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Ma Truck Loader Load Area Dump Area Motor C		
Support Equipment -Load Area: -Dump Area: NA -Dump Area: NA Road Maintenance –Motor Grader: -Water Truck: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Ma Truck Load Area Dump Area Motor C		
Image: Problem and Proble		
Cost Breakdown: Truck/Loader Team Support Equipment Ma Truck Loader Load Area Dump Area Motor O		
Cost Breakdown: Truck/Loader Team Support Equipment Ma Truck Loader Load Area Dump Area Motor C		
Truck Loader Load Area Dump Area Motor C		
Truck Loader Load Area Dump Area Motor C		ce Equipment
%Utilization-machine: 100 100 NA	-	Water Truck
	NA	N
Ownership cost/hour:\$22.87\$38.59NANA	NA	N
Operating cost/hour: \$44.28 \$36.56 NA NA	NA	N
% Utilization-riper: NA 0 NA NA	NA	N
Ripper own. cost/hour:NA\$0.00NANA	NA	N
Ripper op. cost/hour:NA\$0.00NANA	NA	Ν
Operator cost/hour:\$0.00\$40.71NANA	NA	N
Unit Subtotals:\$67.15\$115.86NANA	NA	Ν
Number of Units:4100	0	
Group Subtotals: Work: \$384.46 Support: \$0.00	Maint:	\$0.00
Total work team cost/hour: \$384.46		
MATERIAL QUANTITIES		
Initial volume: 2,000 CCY Swell factor: 1.000		
Loose volume: LCY		
Source of estimated volume: Operator Estimate		
Source of estimated swell factor: Cat Handbook		
Material Purchase Cost: \$0.00 Total Cost: \$0.00		
HOURLY PRODUCTION		
Truck Capacity:		
Truck Payload (weight) Basis:		
Material weight: 2,950 Pounds/LCY		
Description:Traprock - brokenRated Payload:35,400Pounds		
Payload Capacity: 12.00 Pounds		

Struck Volume:		CY				
Heaped Volume:	12.00 LC	CY				
Average Volume:	11.00 LC	CY				
Adjusted Volume:	12.00 LO	CY				
Final	Truck Volumo P	ased on Number of	f Loodor Deces	11.61	LCY	
Loading Tool Capacity	Truck Volume D		LUadel Fasses.	11.01	LC1	
<u></u>			Buc	ket Size Class: N	٨	
Doted Consister	4.300	LCY (heaped)	Duc		Λ	_
Rated Capacity:	0.675		oorly blasted (60	75%) 0 675		-
Adjusted Capacity:	2.903	LCY		- 15/0) 0.015		-
Job Condition Corrections:		Si	te Altitude (ft.):	7100 feet		
<u>Job Condition Corrections.</u>	Truck	Loader	Source	<u>7100</u> Ieee		
Altitude Adj:	1.000	1.000	(CAT HB	3)		
Job Efficiency:	0.830	0.830	(CAT HB	/		
Net Correction:	0.830	0.830				
	I				4	
Loading Tool Cycle Time:		f Loading Tool Pa	sses Required to	Fill Truck:	I	basses
Excavators and Front Shovel	<u>s:</u>					
Machine Cycle Time vs Selected Value v	s. Job Condition I vithin this Basic I					
Track Loaders –		2				
Cycle Time Elements (min.):	•					
Load: NA	Mar	neuver: NA		Dump: 0.100	1	
Wheel and Track Loaders -	Unadjusted Basi	c Loader Cycle Tir	ne (load, dump, r	maneuver): 0.	500 minu	ites
Cycle Time Factors	·			Factor (min.)	Source	
Material:	Bank or broken	material 0.04		0.040	(Cat HB)	_
Stockpile:	Dumped by truc			0.020	(Cat HB)	_
Truck Ownership:		rship of trucks and	loaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant operat			-0.040	(Cat HB)	
Dump Target:	Fragile target 0.	.05		0.050	(Cat HB)	_
		Net Cycle Tin	ne Adjustment:	0.030	minutes	
		net ejene im		0.520	minutes	
		Adjusted Load	er Cycle Time:	0.530		
		Adjusted Load	er Cycle Time: ime per Truck:	1.690	minutes	
<u>Truck Cycle Time:</u>		Adjusted Load			-	
<u>Truck Cycle Time:</u> Truck Exchange Time:	: 0.50	Adjusted Load	ime per Truck:		-	Minute
		Adjusted Load Net Load T	ime per Truck: Adjusted	1.690	minutes	_
Truck Exchange Time:	: 1.690	Adjusted Load Net Load T Minutes	ime per Truck: Adjusted Adjusted	1.690 for site altitude:	minutes 0.500	Minutes Minutes

Haul Rout		Distance	C rada $(0/)$	Roll. Res	Total Res	Valoaity	Travel	
Seg #	(Ft)	Distance	Grade (%)	(%)	(%)	Velocity (fpm)	Time (min)	
1	5280.0	00	10.00	20.00	30.00	337	15.668	
					Haul Time:	15.668	minute	S
Return Ro	oute:				_			
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	_
1	5280.0	00	-10.00	20.00	10.00	1768	2.996	
				Total True	Return Time: ck Cycle Time:	2.996 21.754		
Loading Too	l unit							
Produ	iction	318.08	LCY/Hour		Adjusted for j	ob efficiency:	264.01	LCY/Hour
Truck Unit Produ	ction _	32.02	LCY/Hour		Adjusted for j	ob efficiency:	26.58	LCY/Hour
Optimal No. of Tr	ucks:	10	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
			Adjuste	ed hourly true	k team production	on: 106	.31 LC	CY/Hour
					er team production			CY/Hour
			Adjusted multip	le truck/loade	er team production	on: 106	LC	CY/Hour
JOB TIN	ME AN	D COST						
Fleets	size:	1	Team(s)]	Fotal job time:	18.8	<u>1</u> I	Hours
Unit c	cost:	\$3.616	/LCY	,	Total job cost:	\$7,23	33	

BULLDOZER WORK

Task description:	Spread Cheompa	icieu Keiuse	e on Gob Pile #2		
Bowie No. 2 Mine	Perr	nit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFI	ICATION				
Task #: 036	State:	Colorado		Abbreviation:	None
Date: $\frac{0.00}{11/20/2021}$		Delta		Filename:	C083-036
User: RDZ	County.	Denta		-	2003 030
Agency or organ	nization name: DR	MS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
VI	ni-Universal				
Attachment: NA					
Shift Basis: 1 pe	er day				
Data Source: (CR	RG)				
Cost Breakdown:					
COSt DIEaKUOWII.		I	Litilization 0/		
Ourmonshine Cont/II		¢160.60	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$377.84 \$1,511.37				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume:200,0	\$1,511.37 <u>TITIES</u> 000				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 200, Swell factor: 1.000	\$1,511.37 <u>TITIES</u> 000 0				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200, Swell factor: 1.000 Loose volume: 200,	\$1,511.37 <u>TITIES</u> 000 0 000 LCY	 bmittal Page			
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 200, Swell factor: 1.000	\$1,511.37 <u>TITIES</u> 000 0 000 LCY me:TR-44 Su	 bmittal Page	 2.4		
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 200, Swell factor: 1.000 Loose volume: 200, Source of estimated volur	\$1,511.37 <u>CITIES</u> 000 0 000 LCY me: <u>TR-44 Su</u> 1 factor: <u>Cat Hand</u>		24		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur swell HOURLY PRODUCT 1000	\$1,511.37 <u>TTIES</u> 000 0 000 LCY me: <u>TR-44 Su</u> l factor: <u>Cat Hand</u> <u>FION</u>		24		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,511.37 <u>CITIES</u> 000 0 000 LCY me: <u>TR-44 Su</u> l factor: <u>Cat Handl</u> <u>FION</u> _200 feet	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur 200,0 Source of estimated volur swell HOURLY PRODUCT Average push distance: Unadjusted hourly product 1000	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION 200 feet 946.0 LCY/	hr	2 4 stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur 200,0 Source of estimated volur swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet 946.0 LCY/ scription: Partly c	hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet 946.0 LCY/ scription: Partly c 0 %	hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur 200,0 Source of estimated volur swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet 946.0 LCY/ scription: Partly c	hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet 946.0 LCY/ scription: Partly c 0 %	hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet ction: 946.0 LCY/ scription: Partly c 0 % 6,100 feet	hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet ction: 946.0 LCY/ scription: Partly c 0 % 6,100 feet 2,667 lbs/LCY User Provided	hr	stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,511.37 CITIES 000 0 000 LCY me: TR-44 Su 1 factor: Cat Handl FION ction: 200 feet scription: Partly c 0 % 6,100 feet 2,667 lbs/LCY User Provided Factor	hr onsolidated	stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$1,511.37CITIES00000000 LCYme:TR-44 Sul factor:Cat HandleCat Ha	hr onsolidated	stockpile 1.1 <u>Source</u> (AVG.)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consistence	\$1,511.37 CITIES 000 000 LCY me: TR-44 Su 1 factor: Cat Handle filon ction: 200 feet 946.0 LCY/ scription: Partly c 0 % 6,100 feet 2,667 lbs/LCY User Provided Factor Skill: 0.7 scription: 1.	hr onsolidated 750 100	stockpile 1.1 <u>Source</u> (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 200,0 Swell factor: 1.000 Loose volume: 200,0 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consiste Dozing met	\$1,511.37 CITIES 000 000 LCY me: TR-44 Su 1 factor: Cat Handle FION ction: 200 feet 946.0 LCY/ scription: Partly c 0 % 6,100 feet 2,667 lbs/LCY User Provided Factor Skill: 0.200 feet Skill: 0.100 feet 0.200 feet	hr onsolidated	stockpile 1.1 <u>Source</u> (AVG.)		

Task # 036

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 1.000	(DOZ-OC)
Push gradier	nt: 1.000	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	nt: 0.862	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.5903	
Adjusted unit production:	558.42 LCY/hr	
Adjusted fleet production:	2233.68 LCY/hr	
-		

Fleet size:	4 Dozer(s)
Unit cost:	\$0.677/LCY
Total job time:	89.54 Hours
Total job cost:	\$135,325

BULLDOZER WORK

Task description:	Spread Uncompa	acted Refuse	e at Gob Pile #3		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 037	State:	Colorado		Abbreviation:	None
Date: $11/20/2021$		Delta		Filename:	C083-037
User: RDZ					
Agency or organ	nization name:	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	t D10T - 10SU				
Horsepower: 574					
• •	mi-Universal				
Attachment: NA					
	er day				
Data Source: (CI	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
MATERIAL QUANT					
Initial Volume: 225, Swell factor: 1.00					
	000 LCY				
Source of estimated volum		ibmittal Page	4		
Source of estimated swell	l factor: Cat Hand	book			
HOURLY PRODUC	<u>FION</u>				
Average push distance:	200 feet				
Unadjusted hourly produce		/hr			
Materials consistency des	scription: Partly	consolidated	stockpile 1.1		
·	·		*		
Average push gradient:	0 %				
Average site altitude:	6,100 feet				
Material weight:	2,667 lbs/LCY				
-	User Provided				
Weight description:			C		
Job Condition Correction Operator		750	<u>Source</u> (AVG.)		
Material consist		100	(CAT HB)		
Dozing me		000	(GEN.)	·	
		000	(AVG.)		
V ISIC	/inty. <u>1</u> .		(/1 • 0.)		

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 1.000	(DOZ-OC)
Push gradier	nt: 1.000	(CAT HB)
Altituc	le: 1.000	(CAT HB)
Material Weight	ht: 0.862	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.5903	
Adjusted unit production:	558.42 LCY/hr	
Adjusted fleet production:	2233.68 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.677/LCY
Total job time:	100 73 Hours

i otal job time:	100./3 Hours
Total job cost:	\$152,241

COMPACTION WORK

Task description:	Compact Material Hau	uled to Gob Pile #	#1		
e: Bowie No. 2 Mine	Permit Ac	tion: RN5	P	ermit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 038 Date: 11/20/2021 User: RDZ	State: Cold County: Delt	orado :a		reviation: Filename:	None C083-038
Agency or organ	ization name: DRMS				
HOURLY EQUIPME	NT COST				
Basic Machine Compactor Type			Horsepower: Shift Basis: Data Source:	1 pe	54 er day RG)
Cost Breakdown:			Utilization %		
Opera Ope	rship Cost/Hour: ating Cost/Hour: rator Cost/Hour: Unit Cost/Hour:	\$201.17 \$102.80 \$26.02 \$329.99	NA 100 NA	-	
Total 1	Fleet Cost/Hour:	\$329.99			
MATERIAL QUANT	ITIES				
Loose volum	e: 14,349	LCY	Sh	rinkage facto	or: 0.875
Compacted volum	e: <u>12,555</u>	CCY			
	rce of estimated volume: timated shrinkage factor:	Total of all mate Cat Handbook	erial hauled to Gob P	ile	
HOURLY PRODUCT	'ION	Unadj	usted hourly product	$ion = (W \times S)$	S x L x C) / P
Ave Compacte Required num	pacted width per pass (W) rage Compactor Speed (S) d thickness of each lift (L) Conversion Constant (C) ober of machine passes (P) ed Hourly Unit Production	$\begin{array}{c} : & 4.00 \\ : & 8.00 \\ : & 16.3 \\ : & 3 \end{array}$	mph inches (5,280fr passes	t./12in./27cu	.ft.)
Job Condition Correction	2		ltitude: 6,400 feet	Jui	
Altitude Adj: Job Efficiency: Net Correction: A	S 1.00 (Cz 0.83 (1 s	Source AT HB) hift/day) tiplier ction:1,059	23 CCY/Hour		
		cuon. <u>1,039</u>			
JOB TIME AND COS Fleet size: 1			Total job time:	11.85	Hours
Unit cost: \$0.3			Total job cost:	\$3,911	

COMPACTION WORK

Task description:	Compact Refu	se on Gob Pile #2	2			
Bowie No. 2 Mine	P	Permit Action: <u>RN5</u> Permit/				C1996083
PROJECT IDENTI	FICATION					
Task #: 039	State	: Colorado		Abb	previation:	None
Date: 11/20/202	21 County	: Delta			Filename:	C083-039
User: RDZ						
Agency or org	ganization name:	ORMS				
HOURLY EQUIPM	IENT COST					
Basic Machi				Horsepower:		354
Compactor Ty	pe: Soil - tamping	foot		Shift Basis: Data Source:		er day
				Data Source:	((CRG)
Cost Breakdown:				Utilization %		
Own	nership Cost/Hour:	\$201.17	7	NA		
Op	erating Cost/Hour:	\$102.80		100	_	
	perator Cost/Hour:	\$26.02		NA	_	
Iot	al Unit Cost/Hour:	\$329.99)			
Tota	al Fleet Cost/Hour:	\$329.9)			
MATERIAL QUAN	JTITIFS					
Loose volu		0,000	LCY	Sh	rinkage fact	tor: 0.900
Compacted volu		80,000	CCY		inninge nue	
S	ource of estimated v	olume: Page 2.0	05-45			
Source of	estimated shrinkage					
HOURLY PRODUC	<u>CTION</u>		Unadjuste	d hourly product	tion = (W x)	SxLxC)/
С	ompacted width per	bass (W):	7.34	feet		
	verage Compactor S	• · · · ·	4.00	mph		
Compa	cted thickness of eac Conversion Con		10.00 16.3	inches	t./12in./27c	
Required n	umber of machine pa		3	(3,2801 passes	.t./12111./2/C	u.it. <i>)</i>
-	isted Hourly Unit Pr		1,595.23	CCY/h	our	
Job Condition Correction	on Factors		Site Altitu	ıde: <u>6,100</u> feet		
		Source				
Altitude Adj: Job Efficiency:	1.00	(CAT HB)				
Net Correction:	0.83	(1 shift/day) multiplier				
	Adjusted Hourly Un	-	1 324 04	CCY/Hour		
	Adjusted Hourly Fle		1,324.04 1,324.04	CCY/Hour		
			,			
JOB TIME AND CO Fleet size:	<u>OST</u> 1 Compac	tor(s)	Tot	al job time:	135.95	Hou
1 100t 5120.			10		155.75	
Unit cost: \$	0.249 per CC	V	То	tal job cost:	\$44,861	

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	e	Permit Action	on: RN5		Permit/Job#: Cl	996083
PROJECT IDEN	TIFICATION					
Task #: 040		State: Colora	ado	Ab	breviation: No	ne
Date: 11/20 User: RDZ	/2021 0	County: Delta			Filename: C0	83-040
	organization nam	e: DRMS				
HOURLY EQUI	0			Shift bas	sis: <u>1 per day</u>	
<u>mooner Eyer</u>			Equipment Descri		ns. <u>1 per auy</u>	
Г	ruck Loader Tear	n - Truck: Ger	neric 10-12 cy, 6x4	4		
Supp	ort Equipment -Lo		345D L 12'-10"	Stick		
	-Du	mp Area: NA				
Road M	aintenance –Moto -Wat	or Grader: NA er Truck: NA				
<u>Cost Breakdown</u> :	Truck/Loa Truck	der Team Excavator	Support Load Area	Equipment Dump Area	Maintenan Motor Grader	ce Equipment Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
White and the second	\$22.87	\$108.37	NA	NA	NA	NA NA
Operating cost/hour:	\$44.28	\$99.17	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour: Operator cost/hour:	NA \$0.00	\$0.00 \$37.32	NA NA	NA NA	NA NA	NA NA
Unit Subtotals:	\$67.15	\$244.86	NA	NA	NA	N/ N/
Number of Units:	2	1	0	0	0	(
Group Subtotals:	Work:	\$379.16	Support:	\$0.00	Maint:	\$0.00
Total work team cos	st/hour: <u>\$379.16</u>					
MATERIAL QU	ANTITIES					
Initial volume		CCY	Z Swall	factor: 1.000		
Loose volume:				<u>1.000</u>		
So	urce of estimated	volume: Vol 2	XI, p. 4a, Vol IX p	o 12-all 225k yds	@ #3, 100k yds @	2 #2
Source	of estimated swel		Handbook			
	Material Purcha	tal Cost: $\frac{$0.00}{$0.00}$				
HOURLY PRO	DUCTION					
Truck Capacity: Truck Payload (wei	abt) Decisi					
Material v			Pounds/LCY			
	iption: Coal - H	Bituminous, Raw				
Kated Pa	yload: 35,400		Pounds			

Truck Bed (volume) Basis: Struck Volume:						
	10.00	LCY				
Heaped Volume:	12.00	LCY				
Average Volume:	11.00	LCY				
Adjusted Volume:	12.00	LCY				
Final	Truck Volume	Based on Number of I	Loader Passes:	9.18	LCY	
Loading Tool Capacity						
			Buck	et Size Class: <u>N</u>	Iedium	_
Rated Capacity:	3.140	LCY (heaped)				_
Bucket Fill Factor:	0.975		mixed moist agg	regates (95-100%)	0.975	-
Adjusted Capacity:	3.062	LCY				
Job Condition Corrections:	-	Site	e Altitude (ft.): <u>6</u>	<u>900</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	0.960	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB)		
Net Correction:	0.830	0.797				
	0.050	0.777				
Loading Tool Cycle Time:	Number	of Loading Tool Pass	ses Required to I	Fill Truck:	<u> </u>	asses
Excavators and Front Shovel	<u>s:</u>					
Machine Cycle Time vs Selected Value w			AVERAGE GE			
Track Loaders – I	Material Descri	ption:				
Cycle Time Elements (min.):						
Load: NA	М	aneuver: NA		Dump: 0.100)	
	_					
Wheel and Track Loaders -	Unadjusted Ba	sic Loader Cycle Time	e (load, dump, n	naneuver):	NA minu	ites
Cycle Time Factors				Factor (min.)	Source	_
Material:	NA			NA	(Cat HB)	_
Stockpile:	NA			NA	(Cat HB)	_
Truck Ownership:	NA			NA	(Cat HB)	_
Operation:	NA			NA	(Cat HB)	_
	NA			NA	(Cat HB)	_
Dump Target:			Adjustment	NA	minutes	
Dump Larget:		Net Cycle Time			•	
Dump Target:		Adjusted Loader	Cycle Time:	0.273	minutes	
Dump Target:		Adjusted Loader		0.273 0.646	minutes	
Truck Cycle Time:		Adjusted Loader	Cycle Time:		_	
	0.50	Adjusted Loader	Cycle Time:		_	Minute
Truck Cycle Time:		Adjusted Loader Net Load Tir	Cycle Time:	0.646	minutes	_
<u>Truck Cycle Time:</u> Truck Exchange Time: Truck Load Time:	0.646	Adjusted Loader Net Load Tir Minutes	Cycle Time: ne per Truck: Adjusted Adjusted	0.646 for site altitude:	minutes	Minute
Truck Cycle Time: Truck Exchange Time:	0.646	Adjusted Loader Net Load Tir Minutes Minutes	Cycle Time: ne per Truck: Adjusted Adjusted	0.646 for site altitude:	0.500 0.673	Minute Minute Minute

Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
C	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	500.00)	0.00	4.00	4.00	2665	0.285	
					Haul Time:	0.285	minutes	
Return F	Route:				_			
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	500.0)	0.00	4.00	4.00	2849	0.201	
					Return Time:	0.201	minutes	
				Total Tru	ck Cycle Time:	2.559	minutes	
Loading To	ol unit							
	duction	469.83	LCY/Hour		Adjusted for j	ob efficiency:	389.96	LCY/Hou
ck Unit Proc	luction _	215.35	LCY/Hour		Adjusted for j	ob efficiency:	178.74	_ LCY/Hou
mal No. of T	Frucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			Adjuste	ed hourly true	k team production	on: 357	.49 LCY/	Hour
					er team production		.49 LCY/	Hour
			Adjusted multip	le truck/loade	er team production	on: 357	.49 LCY/	Hour
IOR TI	IME AN	D COST						
JOD II			\mathbf{T}_{1}	-	Fotal job time:	909.1	3 Hou	irs
	t size:	1	Team(s)	-	iotal job tille.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

COMPACTION WORK

Task description:	Compact Refuse	e at Gob Pile #3				
Bowie No. 2 Mine	Per	mit Action: <u>R</u>	N5	P	ermit/Job#:	C199608
PROJECT IDENTIF	<u>ICATION</u>					
Task #: 041	State:	Colorado		Abb	reviation:	None
Date: 11/20/202	1 County:	Delta]	Filename:	C083-041
User: RDZ						
Agency or orga	nization name: D	RMS				
HOURLY EQUIPM	ENT COST					
Basic Machin	e: CAT 825H			Horsepower:		354
Compactor Type	e: Soil - tamping f	oot		Shift Basis:		ber day
				Data Source:	(0	CRG)
Cost Breakdown:						
0		¢201 1	7	Utilization %		
	ership Cost/Hour:	\$201.17 \$102.80		NA 100	-	
	erator Cost/Hour:	\$26.02		NA	-	
-	l Unit Cost/Hour:	\$329.99			-	
Total	Fleet Cost/Hour:	\$329.9	9			
MATERIAL QUANT						
Loose volur		,000	LCY CCY	Sh	rinkage fac	tor: 0.870
Compacted volur		,750	_			
	urce of estimated vol		e XI, Page 1			
Source of e	stimated shrinkage fa	actor: Cat Ha	IUDOOK			
HOURLY PRODUC	TION		Unadjusted	d hourly product	ion = (W x)	S x L x C) /
Con	mpacted width per pa	uss (W):	7.34	feet		
	erage Compactor Spe		4.00	mph		
Compact	ed thickness of each		10.00	inches	(10: /07	C)
Required nu	Conversion Const unber of machine pas		<u>16.3</u> 3	(5,280ft passes	./12in./27c	u.ft.)
-	sted Hourly Unit Proc		1,595.23	passes CCY/ho	our	
Job Condition Correction	•			de: <u>5,900</u> feet		
		Source				
Altitude Adj:	1.00	(CAT HB)				
Job Efficiency:	0.83	(1 shift/day)				
Net Correction:	0.8300	multiplier				
	Adjusted Hourly Unit		1,324.04	CCY/Hour		
А	djusted Hourly Fleet	Production:	1,324.04	CCY/Hour		
JOB TIME AND CO	<u>ST</u>					
Fleet size:	1 Compacto	or(s)	Tota	al job time:	147.84	Hou
Unit cost: \$0.	249 per CCY		Tot	al job cost:	\$48,787	,
φ0.			100		Ψ.0,707	

Page 1 of 2

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	Pe	rmit Action:	RN5	Perm	it/Job#: <u>C199</u>	6083
PROJECT IDENT	TIFICATION					
Task #: 042	State:	Colorado		Abbrevi	ation: None	
Date: 11/20/2	021 County:	Delta		File	name: C083-	042
User: RDZ						
Agency or of	rganization name: D	RMS				
HOURLY EQUIP	MENT		COSTSI	nift basis: <u>1 per da</u>	У	
	~		ent Description			
	-Scrape -Doze		/G w/push-pull			
Suppor	t Equipment -Load Are					
	-Dump Are	a: NA				
Road Mai	ntenance – Motor Grade					
	-Water Truc	k: NA				
Cost Breakdown:	Scraper Work Tea	am	Support Equip	oment	Maintenance	e Equipment
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truc
%Utilization-machine:	100	NA	NA	NA	NA	N
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	N
Operating cost/hour:	\$169.82	NA	NA	NA	NA	N
%Utilization-ripper:	NA	NA	NA	NA	NA	Ν
Ripper own. cost/hour:	NA	NA	NA	NA	NA	N
Ripper op. cost/hour:	NA	NA	NA	NA	NA	N
Operator cost/hour:	\$30.90	NA	NA	NA	NA	N
Unit Subtotals:	\$389.53	NA	NA	NA	NA	1
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0.00
Total work team cost/	hour: <u>\$779.06</u>					
MATERIAL QUA	NTITIES					
Initial volume:		CCV	Swall fast	om 1.000		
Loose volume:	966 966	CCY LCY	Swell fact	or: <u>1.000</u>		
	ce of estimated volume		IV Annandir A			
	f estimated swell factor		IX, Appendix A dbook			
HOURLY PRODU	UCTION					
			Scraper Bo	wl (volume) Basis	<u>:</u>	
Material weight:	2,900 lbs/LCY		Struck V	Volume: 15.70	Ι	LCY
Material description:	User Provided		Heaped V	Volume: 22.00	I	LCY
Rated Payload:	52,800 pounds		Average V			LCY

0.90 Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3200.00	0.00	3.00	3.00	2824	1.37

Haul Time: **1.37** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3200.00	0.00	3.00	3.00	2874	1.23
				Return Time:	1.23	minutes
			Total Scra	per team cycle time:	4.10	minutes
			Adjuste	d for job conditions:	442.29	LCY/Hour
			Selected I	Number of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit) hourly production:	442.29	LCY/Hour
	Adjusted n	ultiple scrap	ber team (fleet) hourly production:	442.29	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)		Total job time:	2.18	Hours
Uni	t cost: \$1.761	/LCY		Total job cost:	\$1,702	

Page 1 of 2

SCRAPER TEAM WORK

HOURLY EQUIPM	State: <u>)21</u> County: ganization name:	: Cat 627 : NA : NA : NA : NA : NA		Abbrev File	ename: C083	
Date: 11/20/20 User: RDZ Agency or org HOURLY EQUIPM	D21 County: ganization name: DF MENT -Scraper -Dozer t Equipment -Load Area -Dump Area ntenance –Motor Grader	Delta Equipma : Cat 627 : NA : NA : NA : NA	COSTSI ent Description	File	ename: C083	
User: RDZ Agency or orş HOURLY EQUIPM Support	rganization name: <u>MENT</u> -Scraper -Dozer t Equipment -Load Area -Dump Area ntenance –Motor Grader	Equipme : Cat 627 : NA : NA : NA : NA	ent Description			-043
Agency or org HOURLY EQUIPM	MENT -Scraper -Dozer t Equipment -Load Area -Dump Area ntenance –Motor Grader	Equipme Cat 627 NA NA NA NA NA	ent Description	nift basis: <u>1 per da</u>	ι <u>γ</u>	
HOURLY EQUIPM	MENT -Scraper -Dozer t Equipment -Load Area -Dump Area ntenance –Motor Grader	Equipme Cat 627 NA NA NA NA NA	ent Description	nift basis: <u>1 per da</u>	<u>Ny</u>	
Support	-Scraper -Dozer Equipment -Load Area -Dump Area ntenance –Motor Grader	: Cat 627 : NA : NA : NA : NA : NA	ent Description	nift basis: <u>1 per da</u>		
**	-Dozer Equipment -Load Area -Dump Area ntenance –Motor Grader	: Cat 627 : NA : NA : NA : NA : NA				
**	-Dozer Equipment -Load Area -Dump Area ntenance –Motor Grader	: NA : NA : NA : NA	7G w/push-pull			
	t Equipment -Load Area -Dump Area ntenance –Motor Grader	: NA : NA : NA				
	-Dump Area	: NA : NA				
Road Main	ntenance – Motor Grader	: NA				
	-Water Truck	: NA				
Cost Breakdown:	m	Support Equip	oment	Maintenanc	e Equir	
	Scraper Work Tea Scraper	Dozer	Load Area	Dump Area	Motor Grader	
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work: \$	779.06	Support:	\$0.00	Maint:	
Total work team cost/h						
Initial volume:	6,324	CCY	Swell fact	or: 1.165		
Loose volume:	7,367	- LCY	Swell lact	01. 1.105		
_	ce of estimated volume:	_	IX, Appendix A			
	estimated swell factor:	Cat Hand				
HOURLY PRODU	CTION					
	<u> </u>		Scraper Bo	owl (volume) Basis	s:	
Material weight:	2,900 lbs/LCY		-	Volume: 15.70		LCY
Material description:	Decomposed rock - 509 50% Earth	% Rock,	Heaped V			LCY
Rated Payload:	52,800 pounds 18.21 LCY		Average V Adjusted C			LCY LCY

<u>0.90</u> Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	10.00	3.00	13.00	834	1.82

Haul Time: **1.82** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	-10.00	3.00	-7.00	2938	0.57

Return Time:	0.57	minutes
Total Scraper team cycle time:	3.89	minutes
Adjusted for job conditions:	466.17	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	466.17	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	466.17	LCY/Hour
Unadjusted unit production/hour: 561.65 LCY/Hour		

Optimal Number of Scrapers per push dozer:

Fleet size:	1	Team(s)	Total job time:	15.80	Hours
Unit cost:	\$1.671	/LCY	Total job cost:	\$12,312	-

Page 1 of 2

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	Perm	nit Action:	RN5	Peri	mit/Job#: C199	6083
PROJECT IDENI	TIFICATION					
Task #: 044	State:	Colorado		Abbrey	viation: None	
Date: $11/20/2$		Delta			ename: C083-	044
User: RDZ	· _					
Agency or o	rganization name: DR	MS				
HOURLY EQUIP	MENT		COSTS	hift basis: <u>1 per d</u>	ay	
			ent Description			
	-Scraper:		G w/push-pull			
Suppor	-Dozer: t Equipment -Load Area:	NA NA				<u> </u>
Suppor	-Dump Area:	NA				
Road Mai	ntenance – Motor Grader:	NA				
	-Water Truck:	NA				
Cost Breakdown:	Scraper Work Tean	1	Support Equi	pment	Maintenance	e Equipm
	*	ozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work: \$7	79.06	Support:	\$0.00	Maint:	\$0
Total work team cost/	'hour: <u>\$779.06</u>					
MATERIAL QUA	<u>NTITIES</u>					
Initial volume:	92,937	CCY	Swell fac	tor: 1.165		
Loose volume:	108,272	LCY				
	rce of estimated volume: f estimated swell factor:	Volume Cat Hand	IX, Appendix A			
Source 0	i estimateu swen factor.					
HOURLY PRODU	<u>JCTION</u>					
			Scraper B	owl (volume) Basi		
Material weight:	2,900 lbs/LCY	<u> </u>		Volume: 15.70		CY
Material description:	Decomposed rock - 50% 50% Earth	Rock,	Heaped	Volume: 22.00	I	CY
Rated Payload:	52,800 pounds		Average	Volume: 18.85	I	CY
	,				-	

<u>0.90</u> Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	5.00	5.00	10.00	1068	0.97

Haul Time: **0.97** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	5.00	0.00	2921	0.44

Return Time:	0.44	minutes
Total Scraper team cycle time:	2.91	minutes
Adjusted for job conditions:	623.16	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	623.16	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	623.16	LCY/Hour
Unadicated unit and duction (hours 750.90 LCV/Usur		

Unadjusted unit production/hour: 750.80 LCY/Hour Optimal Number of Scrapers per push dozer:

Fleet size:	1	Team(s)	Total job time:	173.74	Hours
Unit cost:	\$1.250	/LCY	Total job cost:	\$135,358	_

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Mir	ne	Permit Action	on: RN5		Permit/Job#: <u>C</u>	1996083
	THEICATION	r				
PROJECT IDEN Task #: 045	NIFICATION	-	. d .	A 1-	breviation: No	
	/2021	State: Colora County: Delta	ado	AD		ne 83-045
User: RDZ	72021	county. <u>Donu</u>				00 010
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			Equipment Descri			
	Fruck Loader Tea		neric 10-12 cy, 6x4 T 950H	4		
Supp	ort Equipment -L					
		ump Area: NA				
Road M	aintenance – Mot	or Grader: NA ter Truck: NA				
	- vv a	uer Iruck: NA				
Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$22.87	\$38.59	NA	NA	NA	NA
Operating cost/hour:	\$44.28	\$36.56	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$67.15	\$115.86	NA	NA	NA	NA
Number of Units:	4	1	0	0	0	0
Group Subtotals:	Work:	\$384.46	Support:	\$0.00	Maint:	\$0.00
Total work team co	st/hour: <u>\$384.46</u>	<u>.</u>				
MATERIAL QU	ANTITIES					
Initial volume	: 58,943	CCY	Swell	factor: 1.165		
Loose volume	: 68,66	9 LCY				
So	urce of estimated	volume: Volu	me IX, Appendix	А		
Source	of estimated swe		Handbook			
	Material Purch					
	10	otal Cost: \$0.00)			
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (wei	ght) Basis:					
Material v	weight: 2,900		Pounds/LCY			
Doser	iption: Decom	posed rock - 50%	Rock, 50% Earth	n		
Rated Pa	1	*	Pounds	•		

Heaped Volume:	10.00	LCY				
Lieupeu , oranie.	12.00	LCY				
Average Volume:	11.00	LCY				
Adjusted Volume:	12.00	LCY				
Final	Truck Volume	Based on Number o	f Loader Passes:	10.64	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: N	JA	_
Rated Capacity:	4.300	LCY (heaped)		000() 0.025		
Bucket Fill Factor:	0.825 3.548	LCY	avg. blasted (75	- 90%) 0.825		
Ich Condition Connections			ita Altituda (ft.).	6200 fact		
Job Condition Corrections:	-		ite Altitude (ft.):			
Altitudo Adia	Truck 1.000	Loader 1.000	Source			
Altitude Adj: Job Efficiency:	0.830	0.830	(CAT HE (CAT HE			
Job Emelency.	0.050	0.050)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Number	r of Loading Tool Pa	sses Required to	Fill Truck:	3 p	asses
Excavators and Front Shovels	<u>s:</u>					
Machine Cycle Time vs	Iob Conditio	n Rating: NA				
Selected Value w						
Track Loaders – I	Material Descr	intion:				
Cycle Time Elements (min.):	N	-		Dump: 0.10	<u> </u>	
	N	faneuver: NA		Dump: 0.100	0	
Cycle Time Elements (min.):	_	Ianeuver: NA	me (load, dump, r	I	0 0.500 minu	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders -	_	Ianeuver: NA	me (load, dump, r	maneuver): 0	0.500 minu	tes
Cycle Time Elements (min.): Load: NA	– Unadjusted Ba	Ianeuver: NA		I		tes -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	Unadjusted Ba Material 3/4" Conveyor or	Ianeuver: NA nsic Loader Cycle Ti ' to 6'' diameter 0.00 dozer piled 10 ft. hig	th or less 0.01	maneuver): 0 Factor (min.)	0.500 minu Source	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Unadjusted Ba Material 3/4" Conveyor or Common own	Ianeuver: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and	th or less 0.01	maneuver): 0 Factor (min.) 0.000 0.010 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB)	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope	Ianeuver: NA nsic Loader Cycle Ti c to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04	th or less 0.01	maneuver):0 Factor (min.) 0.000 0.010 -0.040 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Unadjusted Ba Material 3/4" Conveyor or Common own	faneuver: NA nsic Loader Cycle Ti 2 to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00	gh or less 0.01 1 loaders -0.04	maneuver):0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000	Source(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope	Ianeuver: NA nsic Loader Cycle Ti 2 to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tir	gh or less 0.01 1 loaders -0.04 ne Adjustment:	maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope	Ianeuver: NA nsic Loader Cycle Ti ' to 6'' diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tir Adjusted Load	gh or less 0.01 I loaders -0.04 ne Adjustment: ler Cycle Time:	maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope	Ianeuver: NA nsic Loader Cycle Ti ' to 6'' diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tir Adjusted Load	gh or less 0.01 1 loaders -0.04 ne Adjustment:	maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope	Ianeuver: NA nsic Loader Cycle Ti ' to 6'' diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tir Adjusted Load	gh or less 0.01 I loaders -0.04 ne Adjustment: ler Cycle Time:	maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	tes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope Nominal targ	Ianeuver: NA nsic Loader Cycle Ti ' to 6'' diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tir Adjusted Load	gh or less 0.01 1 loaders -0.04 ne Adjustment: ler Cycle Time: Time per Truck:	maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope Nominal targ 0.50	Ianeuver: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tir Adjusted Load Net Load T	h or less 0.01 l loaders -0.04 ne Adjustment: ler Cycle Time: Time per Truck: Adjusted	maneuver):0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430 0.960	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes minutes minutes	- - - - Minute
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time:	Unadjusted Ba Material 3/4" Conveyor or Common own Constant ope Nominal targ 0.50 0.960	Ianeuver: NA asic Loader Cycle Tit c to 6" diameter 0.00 dozer piled 10 ft. hig mership of trucks and ration -0.04 et 0.00 Net Cycle Tir Adjusted Load Net Load T Minutes	th or less 0.01 l loaders -0.04 me Adjustment: ler Cycle Time: Time per Truck: Adjusted Adjusted	maneuver):0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430 0.960	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.500	tes

Haul Route:

	Seg #	Haul Distance (Ft)		Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
-	1	2000.00		0.00	3.00	3.00	2824	0.810	
-	2	4000.00		0.00	3.00	3.00	2824	1.416	
-	3	1000.0	00	10.00	3.00	13.00	834	0.191	
-	Return R	oute:				Haul Time:	2.417	minutes	
ſ	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	~~~~	(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	1000.0	00	-10.00	3.00	-7.00	2938	0.410	
	2	4000.0	00	0.00	3.00	3.00	2874	1.392	
-	3	2000.0	00	0.00	3.00	3.00	2874	0.696	
					Total Tru	Return Time: ck Cycle Time:	2.498 7.275	minutes	
	oading To Prod Unit Prod	uction	437.36	LCY/Hour		Adjusted for j	ob efficiency:	363.01	LCY/Hour
much	cint 110a	-	87.77	LCY/Hour		Adjusted for job efficient		72.85	LCY/Hour
Optima	al No. of T	rucks:	5	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
				Adjusted sing	le truck/loade	k team productio er team productio er team productio	on: 291	.41 LCY	/Hour /Hour /Hour
	JOB TI	ME AN	D COST						
	Fleet	size:	1	Team(s)	r	Fotal job time:	235.6	6 <b>4</b> Ho	ours

Unit cost: \$1.319 /LCY

Total job cost: \$90,596

### BULLDOZER WORK

Task description:	Distribute Gob Pile #2 cover	nauleu by 1/L		
Bowie No. 2 Mine	Permit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION			
Task #: 045A	State: Colorado		Abbreviation:	None
Date: $11/20/2021$			Filename:	C083-045A
User: RDZ				
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	<u>ENT COST</u>			
Basic Machine: Cat	D10T - 10SU			
Horsepower: 574	L.			
	ni-Universal			
Attachment: NA				
	er day			
Data Source: (CF				
	- /			
Cost Breakdown:		I tiligotion 0/		
Oumonshin Cost/II	\$169.60	<u>Utilization %</u> NA		
Ownership Cost/Hour:	\$166.94	100		
Operating Cost/Hour:				
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
Total unit Cost/Hour	\$377.81			
Total unit Cost/Hour: Total Elect Cost/Hour:	\$377.84 \$377.84			
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$377.84 <b>\$377.84</b>			
Total Fleet Cost/Hour:	\$377.84			
Total Fleet Cost/Hour: MATERIAL QUANT	\$377.84 <u>`ITIES</u>			
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 134,	\$377.84 TITIES 142			
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>134</u> , Swell factor: <u>100</u>	\$377.84 <u>TTIES</u> 142 0			
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>134</u> , Swell factor: <u>100</u>	\$377.84 TITIES 142			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 1.000 Loose volume: 134,	\$377.84 TTIES 142 0 142 LCY			
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>134</u> , Swell factor: <u>1.00</u>	\$377.84 TTIES 142 0 142 LCY me:Volume IX, Appendix	 X A		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 1.000 Loose volume: 134, Source of estimated volum	\$377.84 TTIES 142 0 142 LCY me: Volume IX, Appendix	 		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 134, Loose volume: 134, Source of estimated volum Source of estimated swell	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         I factor:       Cat Handbook			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volur       134,         Source of estimated swell       HOURLY PRODUCT	\$377.84 TTIES 142 0 142 LCY me: Volume IX, Appendix I factor: Cat Handbook FION	 x A		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 1.000 Loose volume: 134, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         I factor:       Cat Handbook <b>EION</b> 250 feet	 		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volur       134,         Source of estimated swell       HOURLY PRODUCT	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         I factor:       Cat Handbook <b>EION</b> 250 feet	 X A		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 134, Loose volume: 134, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         t factor:       Cat Handbook         TION         250 feet         ction:       754.3 LCY/hr	<u> </u>		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 1.00 Loose volume: 134, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         Elon         ction:       250 feet         754.3 LCY/hr         scription:       Loose stockpile 1.2			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volu       134,         Source of estimated volu       Source of estimated swell         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Source destinated readient:	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         Elon         250 feet         ction:       250 feet         ction:       250 feet         ction:       250 feet         0 %       Loose stockpile 1.2         0 %       0 %			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 1.00 Loose volume: 134, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         Elon         ction:       250 feet         754.3 LCY/hr         scription:       Loose stockpile 1.2	<u> </u>		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volu       134,         Source of estimated volu       Source of estimated swell         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Source destinated readient:	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         Elon         250 feet         ction:       250 feet         ction:       250 feet         ction:       250 feet         0 %       Loose stockpile 1.2         0 %       0 %	<u> </u>		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volur         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         FION         ction:       250 feet         ction:       754.3 LCY/hr         scription:       Loose stockpile 1.2         0 %       6,300 feet			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volur         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         TION         ction:       250 feet         ction:       754.3 LCY/hr         scription:       Loose stockpile 1.2         0 %       6,300 feet         2,900 lbs/LCY       Decomposed rock - 50% Rock,			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volur         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         TION         ction:       250 feet         ction:       754.3 LCY/hr         scription:       Loose stockpile 1.2         0 %       6,300 feet         2,900 lbs/LCY       Decomposed rock - 50% Rock,         Factor       Factor			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       134,         Swell factor:       1.00         Loose volume:       134,         Source of estimated volum       134,         Source of estimated volum       Source         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Average site altitude:         Material weight:       Weight description:         Job Condition Correction       Operator S	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook         Elion         ction:       250 feet         ction:       754.3 LCY/hr         scription:       Loose stockpile 1.2         0 %       6,300 feet         2,900 lbs/LCY       Decomposed rock - 50% Rock,         Factor       Skill:       0.750	. 50% Earth		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 134, Swell factor: 1.000 Loose volume: 134, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$377.84         TTIES         142         0         142 LCY         me:       Volume IX, Appendix         1 factor:       Cat Handbook <b>EION</b> ction: $\frac{250 \text{ feet}}{754.3 \text{ LCY/hr}}$ scription:       Loose stockpile 1.2         0 % $6,300 \text{ feet}$ 2,900 lbs/LCY       Decomposed rock - 50% Rock,         Factor $0.750$ ency:       1.200			

Task # 045A

Job efficienc	y:	0.830	(1 SHIFT/DAY)
Spoil pil	le:	0.800	(FND-RF)
Push gradien	nt:	1.000	(CAT HB)
Altitud	le:	1.000	(CAT HB)
Material Weigh	nt:	0.793	(CAT HB)
Blade type	e:	1.000	(PAT)
Net correction	on: 0	).4739	
Adjusted unit production:	357.4	46 LCY/hr	
Adjusted fleet production:	357.4	16 LCY/hr	

	1 Dozer(s) \$1.057/LCY
Total job time:	375.26 Hours

i otal job time.	<b>373.20</b> Hours	
Total job cost:	\$141,791	

# TRUCK/LOADER TEAM WORK

Bowie No. 2 Mi	ne	Permit	t Actio	n: RN5		Permit/Job#:	C1996	5083
PROJECT IDE	NTIFICATION	[						
				do	Ab		None	
		County: 1	Delta			Filename:	C083-0	)45B
User: <u>RDZ</u>								
Agency o	r organization nai	me: DRM	IS					
HOURLY EQU	IPMENT COS	<u>Γ</u>				sis: <u>1 per day</u>		
	Truck Loader Tes	m Truck						
	THER LOADET TEA	-Loader:			<del>†</del>			
Sup			NA					
Deed								
Koad N								
Cost Breakdown:				11	1 1	1		
	Truck	Loader		Load Area	Dump Area	Motor Grad	ler W	ater Truck
ization-machine:	100		100	NA	NA	N	NA	NA
ership cost/hour:	\$22.87	\$38	8.59	NA	NA	N	NA	NA
rating cost/hour:	\$44.28	\$30	6.56	NA	NA	N	NA	NA
Utilization-riper:	NA		0	NA	NA	N	NA	NA
	NA			NA	NA	NA		NA
-								NA
								NA
	\$67.15	\$11:	5.86			N		NA
	1		1	-				0
Group Subtotals:	Work:	\$183.01		Support:	\$0.00	Mai	nt: \$0	0.00
Fotal work team co	ost/hour: <u>\$183.0</u> 2	<u> </u>						
MATERIAL QU	J <b>ANTITIES</b>							
Initial volume			CCY	Swell	factor: 1.165			
Loose volume	e: 8,38	8	LCY					
Se	ource of estimated	volume:			А			
Source				andbook				
			-					
	10		φ0.00					
HOURLY PRO	DUCTION							
	<u> </u>							
	ight) Basis:							
Material				Pounds/LCY				
	ription: Decon	1	- 50%	Rock, 50% Earth Pounds				
	PROJECT IDE Task #: 045E Date: 11/20 User: RDZ Agency o HOURLY EQU Road M Cost Breakdown: ization-machine: ership cost/hour: Utilization-riper: r own. cost/hour: Der op. cost/hour: Der op. cost/hour: Der of Units: Group Subtotals: Number of Units: Group Subtotals: Number of Units: Group Subtotals: Total work team co MATERIAL QU Initial volume Loose volume Source HOURLY PRO Fruck Capacity:	Task #:       045B         Date:       11/20/2021         User:       RDZ         Agency or organization nar         HOURLY EQUIPMENT COST         Truck Loader Tea         Support Equipment -I         -Du         Road Maintenance – Mot         -Wa         Cost Breakdown:         Truck         ization-machine:       100         ership cost/hour:       \$22.87         erating cost/hour:       \$44.28         Utilization-riper:       NA         rown. cost/hour:       \$44.28         Utilization-riper:       NA         rown. cost/hour:       \$0.00         Unit Subtotals:       \$67.15         Number of Units:       1         Group Subtotals:       Work:         Total work team cost/hour:       \$183.01         MATERIAL QUANTITIES       Source of estimated sweet Material Purch         Source of estimated sweet Material Purch         Total Work team cost/hour:       \$1,38         Source of estimated sweet Material Purch         Total Work team cost/hour:       \$1,38         Source of estimated sweet Material Purch         Total Work team cost/houre <td>PROJECT IDENTIFICATION Task #: 045B State: 0 Date: 11/20/2021 County: 1 User: RDZ Agency or organization name: DRM HOURLY EQUIPMENT COST Truck Loader Team -Truck:</td> <td>PROJECT IDENTIFICATION         Task #:       045B       State:       Coloration Coloration Date:         Date:       11/20/2021       County:       Delta         User:       RDZ       County:       Delta         Agency or organization name:       DRMS         HOURLY EQUIPMENT COST         HOURLY EQUIPMENT COST         Support Equipment -Load Area:       NA         -Dump Area:       NA         Road Maintenance -Motor Grader:       NA         Road Maintenance -Motor Grader:       NA         Cost Breakdown:       Truck Loader       Intiverse         ization-machine:       100       100         ership cost/hour:       \$22.87       \$38.59         rating cost/hour:       \$44.28       \$36.56         Utilization-riper:       NA       0         rown. cost/hour:       NA       \$0.00         erator cost/hour:       \$0.00       \$40.71         Unit Subtotals:       \$67.15       \$115.86         Number of Units:       1       1         Group Subtotals:       Work:       \$183.01         Fotal work team cost/hour:       \$388       LCY         Source of estimated volume:       Yolur</td> <td>PROJECT IDENTIFICATION         Task #:       045B       State:       Colorado         Date:       11/20/2021       County:       Delta         User:       RDZ       Date:       DRMS         Agency or organization name:       DRMS         HOURLY EOUIPMENT COST         Equipment Descri         Truck Loader Team -Truck:       Generic 10-12 cy, 6xe         -Loader:       CAT 950H         Support Equipment -Load Area:       NA         -Dump Area:       NA         -Dump Area:       NA         -Water Truck:       NA         Cost Breakdown:       Truck/Loader Team       Support I         ization-machine:       100       100       NA         ership cost/hour:       \$22.87       \$38.59       NA         rating cost/hour:       \$44.28       \$36.56       NA         tribuitzation-riper:       NA       0       NA         rown. cost/hour:       NA       \$0.00       NA         reator cost/hour:       NA       \$0.00       NA         vamber of Units:       1       1       0         Group Subtotals:       Work:       \$183.01       Support:         &lt;</td> <td>PROJECT IDENTIFICATION         Task #:       045B         Date:       11/20/2021         User:       RDZ         Agency or organization name:       DRMS         HOURLY EQUIPMENT COST         Shift bas         Flourer Loader:         Truck Loader Team -Truck:       Generic 10-12 cy, 6x4         -Loader:       CAT 950H         Support Equipment -Load Area:       NA         -Dump Area:       NA         -Dump Area:       NA         -Ourne -Motor Grader:       NA         -Water Truck:       NA         Cost Breakdown:       Truck/Loader Team       Support Equipment         -Water Truck:       NA       NA         Road Maintenance -Motor Grader:       NA       NA         -Water Truck:       Loader       Load Area       Dump Area         ization-machine:       100       100       NA       NA         rating cost/hour:       \$22.87       \$38.59       NA       NA         reator cost/hour:       NA       0       NA       NA         weator cost/hour:       NA       \$0.00       NA       NA         weator cost/hour:       \$0.00       \$40.7</td> <td>PROJECT IDENTIFICATION         Task #       045B       State:       Colorado       Abbreviation:         Date:       II/20/2021       County:       Delta       Filename:         User:       RDZ      </td> <td>PROJECT IDENTIFICATION         Task #:       045B       State:       Colorado       Abbreviation:       None         Date:       11/20/2021       County:       Delta       Filename:       C083-6         User:       RDZ      </td>	PROJECT IDENTIFICATION Task #: 045B State: 0 Date: 11/20/2021 County: 1 User: RDZ Agency or organization name: DRM HOURLY EQUIPMENT COST Truck Loader Team -Truck:	PROJECT IDENTIFICATION         Task #:       045B       State:       Coloration Coloration Date:         Date:       11/20/2021       County:       Delta         User:       RDZ       County:       Delta         Agency or organization name:       DRMS         HOURLY EQUIPMENT COST         HOURLY EQUIPMENT COST         Support Equipment -Load Area:       NA         -Dump Area:       NA         Road Maintenance -Motor Grader:       NA         Road Maintenance -Motor Grader:       NA         Cost Breakdown:       Truck Loader       Intiverse         ization-machine:       100       100         ership cost/hour:       \$22.87       \$38.59         rating cost/hour:       \$44.28       \$36.56         Utilization-riper:       NA       0         rown. cost/hour:       NA       \$0.00         erator cost/hour:       \$0.00       \$40.71         Unit Subtotals:       \$67.15       \$115.86         Number of Units:       1       1         Group Subtotals:       Work:       \$183.01         Fotal work team cost/hour:       \$388       LCY         Source of estimated volume:       Yolur	PROJECT IDENTIFICATION         Task #:       045B       State:       Colorado         Date:       11/20/2021       County:       Delta         User:       RDZ       Date:       DRMS         Agency or organization name:       DRMS         HOURLY EOUIPMENT COST         Equipment Descri         Truck Loader Team -Truck:       Generic 10-12 cy, 6xe         -Loader:       CAT 950H         Support Equipment -Load Area:       NA         -Dump Area:       NA         -Dump Area:       NA         -Water Truck:       NA         Cost Breakdown:       Truck/Loader Team       Support I         ization-machine:       100       100       NA         ership cost/hour:       \$22.87       \$38.59       NA         rating cost/hour:       \$44.28       \$36.56       NA         tribuitzation-riper:       NA       0       NA         rown. cost/hour:       NA       \$0.00       NA         reator cost/hour:       NA       \$0.00       NA         vamber of Units:       1       1       0         Group Subtotals:       Work:       \$183.01       Support:         <	PROJECT IDENTIFICATION         Task #:       045B         Date:       11/20/2021         User:       RDZ         Agency or organization name:       DRMS         HOURLY EQUIPMENT COST         Shift bas         Flourer Loader:         Truck Loader Team -Truck:       Generic 10-12 cy, 6x4         -Loader:       CAT 950H         Support Equipment -Load Area:       NA         -Dump Area:       NA         -Dump Area:       NA         -Ourne -Motor Grader:       NA         -Water Truck:       NA         Cost Breakdown:       Truck/Loader Team       Support Equipment         -Water Truck:       NA       NA         Road Maintenance -Motor Grader:       NA       NA         -Water Truck:       Loader       Load Area       Dump Area         ization-machine:       100       100       NA       NA         rating cost/hour:       \$22.87       \$38.59       NA       NA         reator cost/hour:       NA       0       NA       NA         weator cost/hour:       NA       \$0.00       NA       NA         weator cost/hour:       \$0.00       \$40.7	PROJECT IDENTIFICATION         Task #       045B       State:       Colorado       Abbreviation:         Date:       II/20/2021       County:       Delta       Filename:         User:       RDZ	PROJECT IDENTIFICATION         Task #:       045B       State:       Colorado       Abbreviation:       None         Date:       11/20/2021       County:       Delta       Filename:       C083-6         User:       RDZ

0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Tin cen material 0.04 nt - factor not applica nership of trucks and operation 0.04 get 0.00 Net Cycle Tin Adjusted Loader	(CAT HB (CAT HB (CAT HB) sses Required to me (load, dump, r ble 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted Adjusted	3)           3)           Fill Truck:		passes utes — — — — — — — — — — — — — — — — — — —
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Tin ken material 0.04 nt - factor not applica mership of trucks and operation 0.04 get 0.00 Net Cycle Tin Adjusted Load Net Load T Minutes Minutes Minutes	(CAT HB (CAT HB (CAT HB) sses Required to me (load, dump, r ble 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted Adjusted	3)         3)         Fill Truck:	00 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.500 1.180	utes 
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: Maneuver: NA asic Loader Cycle Tin cen material 0.04 nt - factor not applica mership of trucks and operation 0.04 get 0.00 Net Cycle Tin Adjusted Load Net Load T Minutes	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	3)         3)         Fill Truck:	00 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.500	utes 
0.830         0.830         er of Loading Tool Pa         on Rating:       NA         ic Rating:       NA         ription:	(CAT HB (CAT HB (CAT HB) sses Required to me (load, dump, r ble 0.00 loaders -0.04 ine Adjustment: er Cycle Time: ime per Truck:	3)         3)         Fill Truck:	00min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes 
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Tin cen material 0.04 nt - factor not applica nership of trucks and operation 0.04 get 0.00 Net Cycle Tin Adjusted Loader	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	3)         3)         B)         B)	00min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Tin cen material 0.04 nt - factor not applica nership of trucks and operation 0.04 get 0.00 Net Cycle Tin Adjusted Loader	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	3)         3)         B)         B)	00min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin cen material 0.04 nt - factor not applica mership of trucks and operation 0.04 get 0.00 Net Cycle Tin	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00 loaders -0.04 me Adjustment:	3)         B)         B)         B)         B)         Fill Truck:         Dump:       0.10         maneuver):       0.10         Factor (min.)         0.040         0.040         0.040         0.040         0.040         0.040         0.040         0.040	00min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: Maneuver: NA asic Loader Cycle Tin ken material 0.04 nt - factor not applica mership of trucks and operation 0.04 get 0.00	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00 loaders -0.04	3)         B)         B)         B)         B)         Fill Truck:	00 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: Maneuver: NA asic Loader Cycle Tin cen material 0.04 nt - factor not applica mership of trucks and operation 0.04	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00	3)         B)         B)         B)         Fill Truck:         Dump:       0.10         maneuver):       0.10         Factor (min.)       0.040         0.040       0.000         -0.040       0.040         0.040       0.040	00 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
0.830         0.830         er of Loading Tool Pa         on Rating:       NA         ic Rating:       NA         ription:	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00	3)         3)         B)         B)	00 0.500 min Source (Cat HB) (Cat HB) (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin ken material 0.04 nt - factor not applica	(CAT HB (CAT HB sses Required to me (load, dump, r ble 0.00	3)         3)         B)         B)	00 0.500 min Source (Cat HB) (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin cen material 0.04	(CAT HB (CAT HB sses Required to me (load, dump, r	3)         3)         B)         B)	00 0.500 min Source (Cat HB)	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin	(CAT HB (CAT HB	3)         3)         Fill Truck:	00 min Source	
0.830 0.830 er of Loading Tool Pa on Rating: NA ic Rating: NA ription: NA Maneuver: NA	(CAT HB (CAT HB	3)         3)         Fill Truck:	00 min	
0.830 0.830 er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u> ription:	(CAT HB (CAT HB	3) Fill Truck:		passes
0.830 0.830 er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u> ription:	(CAT HB (CAT HB	3) Fill Truck:		passes
0.830 0.830 er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u>	(CAT HB (CAT HB	3) 3)		passes
0.830 0.830 er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u>	(CAT HB (CAT HB	3) 3)		passes
0.830 0.830 er of Loading Tool Pa on Rating: <u>NA</u>	(CAT HB (CAT HB	3) 3)	3	passes
0.830 <b>0.830</b> er of Loading Tool Pa	(CAT HB (CAT HB	3) 3)	3	passes
0.830 0.830	(CAT HB (CAT HB	3) 3)	3	passes
0.830 0.830	(CAT HB (CAT HB	3) 3)	3	passes
0.830	(CAT HB	3)		
0.830	(CAT HB	3)		
	(CAT HB	3)		
1.000				
1.000				
Loader	Source			
Si	ite Altitude (ft.):	<u>6300</u> feet		
LCY	y (00%) - 90%) 0.	.050		-
	(800/ 000/ ) 0	950		_
i	Buch	ket Size Class: <u>N</u>	NA	_
Based on Number of	f Loader Passes:	10.97		
		10.0=		
LUI				
	LCY (heaped) Hard, tough cla	LCY LCY e Based on Number of Loader Passes: Buc LCY (heaped) Hard, tough clay (80% - 90%) 0.	LCY LCY e Based on Number of Loader Passes: 10.97 Bucket Size Class: <u>N</u> LCY (heaped) Hard, tough clay (80% - 90%) 0.850	LCY LCY e Based on Number of Loader Passes: <u>10.97</u> LCY Bucket Size Class: <u>NA</u> LCY (heaped) Hard, tough clay (80% - 90%) 0.850

	Haul Rou	ite:							
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	500.0	00	5.00	5.00	10.00	1068	0.482	
						Haul Time:	0.482	minutes	
	Return R	oute:				_			
	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	500.0	00	-5.00	5.00	0.00	2938	0.195	
						Return Time:	0.195	minute	s
					Total True	ck Cycle Time:	3.257	minute	s
L	oading Too	ol unit							
	-	uction	391.61	LCY/Hour		Adjusted for j	ob efficiency:	325.03	LCY/Hour
Truck	Unit Prod	uction							
			202.00	LCY/Hour		Adjusted for j	ob efficiency:	167.66	LCY/Hour
Optim	al No. of T	rucks:	2	Truck(s)		Selected Num	ber of Trucks:	1	Truck(s)
				Adjuste	ed hourly true	k team production	on: 167	.66 LCY	/Hour
						r team production		.66 LCY	/Hour
				Adjusted multip	le truck/loade	er team production	on: 167	.66 LCY	/Hour
	JOB TI	ME AI	ND COST						
	Fleet	size:	1	Team(s)	7	Total job time:	50.0	<b>3</b> Ho	ours
	Unit	cost:	\$1.092	/LCY	r	Total job cost:	\$9,15	56	

# TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	Permit A	Action	: <u>RN5</u>		Permit/Job#: <u>C</u>	1996083	
PROJECT IDEN	TIFICATION						
Task #: 045C			olorad	0	Ab	breviation: No	
	/2021	County: D	elta			Filename: C0	83-045C
User: RDZ							
Agency or	organization nan	ne: DRMS	5				
HOURLY EQUI	PMENT COST	<u>r</u>			Shift bas	sis: <u>1 per day</u>	
				quipment Descri			
]	Fruck Loader Tea			ric 10-12 cy, 6x4	4		
Supp	ort Equipment -L	-Loader:	CAT NA	950H			<u> </u>
~~PP		imp Area:	NA				
Road M	laintenance – Mot		NA				
	-Wa	ter Truck:	NA				
Cost Breakdown:	Truck/Loa	der Team		Support l	Equipment	Maintenar	nce Equipment
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	1	00	NA	NA	NA	NA
Ownership cost/hour:	\$22.87	\$38.	.59	NA	NA	NA	NA
Operating cost/hour:	\$44.28	\$36.	.56	NA	NA	NA	NA
%Utilization-riper:	NA		0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.		NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.		NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$40.		NA	NA	NA	NA
Unit Subtotals:	\$67.15	\$115.		NA	NA	NA	NA
Number of Units:	1	¢100.01	1	0	0	0	(
Group Subtotals:	Work:	\$183.01		Support:	\$0.00	Maint:	\$0.00
Total work team cos	st/hour: <u><b>\$183.01</b></u>						
<u>MATERIAL QU</u>	ANTITIES						
Initial volume			CCY	Swell	factor: 1.165		
Loose volume	/		LCY				
	urce of estimated			e IX, Appendix	A		
Source	of estimated swe Material Purcha		Sat Ha	ndbook			
			\$0.00				
HOURLY PRO	DUCTION						
Truck Capacity:							
Truck Payload (wei				<b>_</b>			
Material v		nosed rock	5004 E	Pounds/LCY Rock, 50% Earth			
Rated Pa		1	JU70 F	Pounds	1		
Payload Ca				LCY			

Ctma al- Val-						
Struck Volume:	10.00	LCY				
Heaped Volume:	12.00	LCY				
Average Volume:	11.00	LCY				
Adjusted Volume:	12.00	LCY				
Final	Truck Volume	Based on Number of	of Loader Passes:	10.97	LCY	
Loading Tool Capacity			Buc	ket Size Class: N	JA	
Rated Capacity:	4.300	LCY (heaped)				
Bucket Fill Factor:	0.850		ay (80% - 90%) 0.	850		_
Adjusted Capacity:	3.655	LCY	<b>,</b> (,,,,,,,			
Job Condition Corrections:	<u>:</u>	S	Site Altitude (ft.): (	6300 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	;)		
Job Efficiency:	0.830	0.830	(CAT HB	,		
	0.020	0.000				
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		r of Loading Tool Pa	asses Required to I	Fill Truck:	3	passes
Excavators and Front Shove	<u>ls:</u>					
Machine Cycle Time v Selected Value v						
	within this Basi	c Rating: NA				
Selected Value	within this Basi Material Descr	c Rating: NA				
Selected Value v Track Loaders – Cycle Time Elements (min.):	within this Basi Material Descr	c Rating: NA		 	0	
Selected Value v Track Loaders –	within this Basi Material Descr	c Rating: NA		 Dump:0.100	0	
Selected Value v Track Loaders – Cycle Time Elements (min.):	within this Basi Material Descr 	c Rating: NA iption: Ianeuver: NA	ime (load, dump, r	1	0 0.500 min	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders – Cycle Time Factors	within this Basi Material Descr M Unadjusted Ba	c Rating: <u>NA</u> iption: Ianeuver: <u>NA</u> usic Loader Cycle Ti	ime (load, dump, r	naneuver): Factor (min.)	0.500 min Source	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material:	within this Basi Material Descr M Unadjusted Ba Bank or brok	c Rating: NA iption: Ianeuver: NA usic Loader Cycle Ti en material 0.04		naneuver):0 Factor (min.) 0.040	0.500 min Source (Cat HB)	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer	c Rating: NA iption: Ianeuver: NA usic Loader Cycle Ti en material 0.04 nt - factor not applic	cable 0.00	naneuver):0 Factor (min.) 0.040 0.000	0.500 min Source (Cat HB) (Cat HB)	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi	c Rating: NA iption: Ianeuver: NA usic Loader Cycle Ti en material 0.04 nt - factor not applic mership of trucks and	cable 0.00	maneuver):0 Factor (min.) 0.040 0.000 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB)	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi Inconsistent o	c Rating: NA iption: Ianeuver: NA usic Loader Cycle Ti en material 0.04 nt - factor not applic mership of trucks and operation 0.04	cable 0.00	maneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic mership of trucks and operation 0.04 et 0.00	cable 0.00 d loaders -0.04	maneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.000	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi Inconsistent o	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic mership of trucks and operation 0.04 et 0.00 Net Cycle Ti	able 0.00 d loaders -0.04 me Adjustment:	naneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.000 0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi Inconsistent o	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic hership of trucks and operation 0.04 et 0.00 Net Cycle Ti Adjusted Load	me Adjustment: der Cycle Time:	naneuver): Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.040 0.540	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi Inconsistent o	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic hership of trucks and operation 0.04 et 0.00 Net Cycle Ti Adjusted Load	able 0.00 d loaders -0.04 me Adjustment:	naneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.000 0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes 
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owi Inconsistent o	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic hership of trucks and operation 0.04 et 0.00 Net Cycle Ti Adjusted Load Net Load T	able 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	naneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.540 1.180	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common own Inconsistent of Nominal targ	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic hership of trucks and operation 0.04 et 0.00 Net Cycle Ti Adjusted Load	able 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	naneuver): Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.040 0.540	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common owr Inconsistent of Nominal targ	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Ti en material 0.04 at - factor not applic hership of trucks and operation 0.04 et 0.00 Net Cycle Ti Adjusted Load Net Load T	able 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted	naneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.540 1.180	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	   
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common own Inconsistent of Nominal targ	c Rating: NA iption: Ianeuver: NA usic Loader Cycle Ti en material 0.04 nt - factor not applic nership of trucks and operation 0.04 et 0.00 Net Cycle Ti Adjusted Load Net Load 7 Minutes	able 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted	naneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.040 0.040 1.180	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.500	— — — — — Minute:
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time Truck Load Time	within this Basi Material Descr M Unadjusted Ba Bank or brok No adjustmer Common own Inconsistent of Nominal targ	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Tri en material 0.04 at - factor not applic mership of trucks and operation 0.04 et 0.00 Net Cycle Tri Adjusted Load Net Load T Minutes Minutes	able 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted	maneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.540 1.180 for site altitude: for site altitude:	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.500 1.180	utes — — — — — — — — — — — — —
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time Truck Load Time	<ul> <li>within this Basi</li> <li>Material Descr</li> <li>Material Descr</li></ul>	c Rating: NA iption: Ianeuver: NA asic Loader Cycle Tri en material 0.04 at - factor not applic mership of trucks and operation 0.04 et 0.00 Net Cycle Tri Adjusted Load Net Load T Minutes Minutes Minutes	able 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted Adjusted	maneuver):0 Factor (min.) 0.040 0.000 -0.040 0.040 0.040 0.040 0.540 1.180 for site altitude: for site altitude:	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.500 1.180 0.900	— — — — — Minute:

Haul Rou								
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	750.00		5.00	5.00	10.00	1068	0.716	
	1				Haul Time:	0.716	minutes	
Return Ro	oute:				_			
Seg #	Haul D	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	750.00		-5.00	5.00	0.00	2938	0.280	
					Return Time:	0.280	minutes	
				Total True	ck Cycle Time:	3.576	minutes	
Loading Too	ol unit							
Produ	uction	391.61	LCY/Hour		Adjusted for j	ob efficiency:	325.03	LCY/Hour
Truck Unit Produ	uction	102.00	LOV/II		A 1:	1	152 70	
	—	183.98	LCY/Hour		Adjusted for j	ob efficiency:	152.70	LCY/Hour
Optimal No. of Tr	ucks:	2	Truck(s)		Selected Num	per of Trucks:	1	Truck(s)
			Adjuste	d hourly truck	k team production	on: 152	.70 LCY/H	Iour
			Adjusted sing	le truck/loade	r team production	on: 152	.70 LCY/H	Iour
			Adjusted multip	le truck/loade	er team production	on: 152	.70 LCY/H	Iour
JOB TI	ME AN	D COST						
Fleet	size:	1	Team(s)	]	Fotal job time:	228.8	Beneficial Hour	'S
Unit	cost:	\$1.198	/LCY	,	Total job cost:	\$41,8	87	
## TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Mir	ne	Permit	Action	n: RN5		Permit/Job#:	C1996083	
	THELOATION	r						
PROJECT IDEN		-		1		1 · .·	N	
Task #: 045D Date: 11/20			Colorad Delta	10	Ab	breviation:	None C083-045D	
User: RDZ	// 2021	county. <u> </u>	Jena				C085-045L	
Agency or	organization nar	ne: DRM	S					_
HOURLY EQUI	PMENT COST	<u>r</u>			Shift bas	sis: <u>1 per day</u>		
				quipment Descri				_
, J	Fruck Loader Tea	m -Truck: -Loader:		ric 10-12 cy, 6x4 950H	1			_
Supp	ort Equipment -L		NA	95011				_
		ump Area:	NA					_
Road M	laintenance – Mot		NA					_
	-Wa	ter Truck:	NA					
Cost Breakdown:	Truck/Loa	ader Team		Support I	Equipment	Mainte	enance Equip	oment
	Truck	Loader		Load Area	Dump Area	Motor Grad		Truck
%Utilization-machine:	100		100	NA	NA	N	NA	NA
Ownership cost/hour:	\$22.87		3.59	NA	NA		NA	NA
Operating cost/hour:	\$44.28		5.56	NA	NA		NA	NA
%Utilization-riper:	NA		0	NA	NA		JA	NA
Ripper own. cost/hour:	NA	\$0	0.00	NA	NA	N	NA .	NA
Ripper op. cost/hour:	NA	\$0	0.00	NA	NA	N	NA 🛛	NA
Operator cost/hour:	\$0.00	\$40	).71	NA	NA	N	NA 🛛	NA
Unit Subtotals:	\$67.15	\$115	5.86	NA	NA	N	NA .	NA
Number of Units:	1		1	0	0		0	(
Group Subtotals:	Work:	\$183.01		Support:	\$0.00	Mai	nt: \$0.00	
Total work team co	st/hour: <u><b>\$183.01</b></u>							
MATERIAL QU	ANTITIES							
Initial volume	: 5,000		CCY	Swell	factor: 1.165			
Loose volume	: 5,82	5	LCY					
So	ource of estimated			ne IX, Appendix	А			
Source	of estimated swe			andbook				
	Material Purch		\$0.00 \$0.00					
	10		φ0.00					_
HOURLY PRO	<b>DUCTION</b>							
Truck Capacity:								
Truck Payload (wei								
Material v			E00/ 1	Pounds/LCY				
Descr Rated Pa		1	- 30%	Rock, 50% Earth Pounds	1			
raited 1 a	лугоша. 33, <del>т</del> 00			i Gunus				

Truck Bed (volume) Basis:						
Struck Volume:	10.00 L	CY				
Heaped Volume:	12.00 L	CY				
Average Volume:	11.00 L	CY				
Adjusted Volume:	12.00 L	CY				
Final	Truck Volumo F	Based on Number of	f Loador Dessos	10.97	LCY	
ГШа	Truck volume r	based on Number of	Loader Passes:	10.97		
Loading Tool Capacity						
			Buc	ket Size Class: N	A	
Rated Capacity:	4.300	LCY (heaped)				
Bucket Fill Factor:	0.850	Hard, tough cla	y (80% - 90%) 0.	850		-
Adjusted Capacity:	3.655	LCY				_
Job Condition Corrections:	-	Si	te Altitude (ft.):	<u>6300</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	5)		
Job Efficiency:	0.830	0.830	(CAT HB			
· · · · ·						
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		of Loading Tool Pa				
Track Loaders – 2 Cycle Time Elements (min.): Load: <u>NA</u>	-	neuver: NA		Dump:0.100	)	
Wheel and Track Loaders -	Unadjusted Bas	ic Loader Cycle Tir	ne (load, dump, r	·	.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Bank or broker			0.040	(Cat HB)	_
Stockpile:		- factor not applica		0.000	(Cat HB)	
Truck Ownership:		ership of trucks and	loaders -0.04	-0.040	(Cat HB)	
Operation:	Inconsistent op Nominal target			0.040	(Cat HB)	_
Dump Target:	Nominal target	Net Cycle Tin	a Adjustment:	0.000	(Cat HB) minutes	_
		Adjusted Load	•	0.040	minutes	
			ime per Truck:	1.180	minutes	
		The Loud T		1.100		
Truck Cycle Time:						
Truck Exchange Time:	0.50	Minutes	Adjusted	for site altitude:	0.500	Minute
Truck Load Time:		Minutes	Ū.	for site altitude:	1.180	Minute
ck Maneuver and Dump Time:	0.90	Minutes	Adjusted	for site altitude:	0.900	Minute
T.		-	J		-	_
Truck Travel (Haul & Return penetration 5.0	) Time:	Road Condition: <u>I</u>	Rutted dirt, little	maintenance, no wa	ter, <u>2" tire</u>	

Haul Rou	ite:							
Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	1000.0	00	5.00	5.00	10.00	1068	(min) 0.950	
					Haul Time:	0.950	minutes	
Return Re	oute:				_			
Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	1000.0	00	-5.00	5.00	0.00	2938	0.365	
				Total True	Return Time: ck Cycle Time:	0.365 3.895	minute	
Loading Too	ol unit							
	uction	391.61	LCY/Hour		Adjusted for j	ob efficiency:	325.03	LCY/Hour
Truck Unit Produ	uction –				5 5	•		
	-	168.91	LCY/Hour		Adjusted for j	ob efficiency:	140.19	LCY/Hour
Optimal No. of Tr	rucks:	2	Truck(s)		Selected Num	ber of Trucks:	1	Truck(s)
			Adjuste	ed hourly truck	k team production	on: 140	.19 LCY	//Hour
			Adjusted sing	le truck/loade	r team production	on: 140	.19 LCY	//Hour
			Adjusted multip	le truck/loade	er team production	on: 140	.19 LCY	/Hour
JOB TI	ME AN	D COST						
Fleet	size:	1	Team(s)	Т	Total job time:	41.5	5 He	ours
Unit	cost:	\$1.305	/LCY		Total job cost:	\$7,60	)4	

## TRUCK/LOADER TEAM WORK

Task description: Site: <b>Bowie No. 2 Mi</b>				n: RN5	age to Gob Pile #	Permit/Job#: C	1996083
Site: Bowle No. 2 Mil	ne	Permi	t Actio	II: <u>KIN5</u>			1990085
PROJECT IDE	NTIFICATION	I					
Task #: 045E	C	State:	Colora	do	Ab	breviation: No	ne
		County:	Delta			Filename: C0	83-045E
User: RDZ							
Agency of	r organization nai	me: DRM	IS				
HOURLY EQU	IPMENT COS	<u>Г</u>			Shift bas	sis: <u>1 per day</u>	
		_	E	quipment Descri	ption		
	Truck Loader Tea			eric 10-12 cy, 6x ²	4		
Sum	port Equipment -I	-Loader:	CA1 NA	950H			
Supj		ump Area:	NA				
Road N	Iaintenance – Mot		NA				
	-Wa	ater Truck:	NA				
Cost Breakdown:	Truck/Los	ader Team		Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		100	NA	NA	NA	NA
Ownership cost/hour:	\$22.87	\$3	8.59	NA	NA	NA	NA
Operating cost/hour:	\$44.28	\$3	6.56	NA	NA	NA	NA
%Utilization-riper:	NA		0	NA	NA	NA	NA
Ripper own. cost/hour:	NA		0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA		0.00	NA	NA	NA	NA
Operator cost/hour: Unit Subtotals:	\$0.00 \$67.15		0.71	NA NA	NA	NA	NA
Number of Units:	\$07.13	<u>٦١١.</u>	5.86	NA	NA 0	NA 0	NA 0
Group Subtotals:	4 Work:	\$384.46	1	Support:	\$0.00	Maint:	\$0.00
*				Support.	φ0.00	Want.	ψ0.00
Total work team co	ost/hour: <u>\$384.40</u>	)					
MATERIAL QU	J <b>ANTITIES</b>						
Initial volume			CCY	Swell	factor: 1.165		
Loose volume		10	LCY	Swell	<u>11105</u>		
Se	ource of estimated	volume:	Volur	ne XI, Appendix	А		
	e of estimated swe	_		andbook			
	Material Purch	_	\$0.00				
	Те	otal Cost: _	\$0.00				
HOURLY PRO	<b>DDUCTION</b>						
Truck Capacity:							
Truck Payload (we							
Material		mound month	500/	$\frac{\text{Pounds/LCY}}{\text{Rock} 50\% \text{ Forth}}$			
Rated P		1	- 30%	Rock, 50% Earth Pounds	1		
Payload Ca				$-\frac{1000000}{LCY}$			

Heaped Volume:		LCY LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
J						
Fina	Truck Volumo	Based on Number of	f Loador Dessor	10.64	LCY	
	I HUCK VOIUIIIE	Dased on Number of	i Loadel Fasses.	10.04	IC I	
Loading Tool Capacity						
			Buc	ket Size Class: N	IA	_
Rated Capacity:	4.300	LCY (heaped)				_
Bucket Fill Factor:	0.825		vg. blasted (75 ·	- 90%) 0.825		_
Adjusted Capacity:	3.548	LCY				
		0.		(200 6 )		
Job Condition Corrections	<u>:</u>	Si	te Altitude (ft.): <u>(</u>			
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB			
Job Efficiency:	0.830	0.830	(CAT HB	8)		
Net Correction:	0.830	0.830				
	0.030	0.030				
	Normalian	of Loading Tool Pa	ana Dagwinad to	Fill Truck:	3 г	asses
Loading Tool Cycle Time:	Number	OI LOAUING TOOLFA	sses Required to	I'III IIUCK.		
Loading Tool Cycle Time:		Of Loading 1001 Fa	sses Required to		I	
Loading Tool Cycle Time: Excavators and Front Shove		tor Loading 1001 Fa	sses Required to	1 m muck.	I	
Excavators and Front Shove Machine Cycle Time	e <u>ls:</u> vs. Job Condition	n Rating: <u>NA</u>	sses Required to		1	
Excavators and Front Shove Machine Cycle Time	ls:	n Rating: <u>NA</u>	sses Required to		I	
Excavators and Front Shove Machine Cycle Time	e <u>ls:</u> vs. Job Condition within this Basic	n Rating: <u>NA</u> c Rating: <u>NA</u>			I	
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders –	els: vs. Job Condition within this Basic Material Descri	n Rating: <u>NA</u> c Rating: <u>NA</u>				
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.)	els: vs. Job Condition within this Basic Material Descri	n Rating: <u>NA</u> c Rating: <u>NA</u> iption:				
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders –	els: vs. Job Condition within this Basic Material Descri	n Rating: <u>NA</u> c Rating: <u>NA</u>		Dump:0.100		
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA	els: ys. Job Condition within this Basion Material Descri	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: Ianeuver: <u>NA</u>		Dump: 0.100	)	tos
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders	els: ys. Job Condition within this Basion Material Descri	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: Ianeuver: <u>NA</u>		Dump:0.100	) .500 minu	ıtes
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors	els: vs. Job Condition within this Basic Material Descri Material Descri Material Descri Unadjusted Ba	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: Ianeuver: <u>NA</u> sic Loader Cycle Tin		Dump: 0.100 naneuver): 0 Factor (min.)	) .500 minu Source	ıtes
Excavators and Front Show Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material:	Als: vs. Job Condition within this Basic Material Descri Material Descri Material 3/4"	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: Ianeuver: <u>NA</u> Isic Loader Cycle Tin to 6" diameter 0.00	ne (load, dump, r	Dump: 0.100 maneuver): 0 Factor (min.) 0.000	) .500 minu Source (Cat HB)	ites 
Excavators and Front Show Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:	<ul> <li><u>els:</u></li> <li>vs. Job Condition</li> <li>within this Basic</li> <li>Material Descrit</li> <li></li> <li>Material 3/4"</li> <li>Conveyor or descrit</li> </ul>	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> laneuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig	ne (load, dump, r	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010	) .500 minu Source (Cat HB) (Cat HB)	ites 
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Condition within this Basic Material Descri - - Unadjusted Ba Material 3/4" Conveyor or Common owr	n Rating: NA c Rating: NA iption: Ianeuver: NA isic Loader Cycle Tin to 6'' diameter 0.00 dozer piled 10 ft. hig nership of trucks and	ne (load, dump, r	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040	) .500 minu Source (Cat HB) (Cat HB) (Cat HB)	ites 
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	<ul> <li><u>els:</u></li> <li>ys. Job Condition</li> <li>within this Basic</li> <li>Material Descrit</li> <li>Material Descrit</li> <li>Unadjusted Ba</li> <li>Material 3/4"</li> <li>Conveyor or or</li> <li>Common owr</li> <li>Constant oper</li> </ul>	n Rating: NA c Rating: NA iption: laneuver: NA sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig pership of trucks and ration -0.04	ne (load, dump, r	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040	) .500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites   
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Condition within this Basic Material Descri - - Unadjusted Ba Material 3/4" Conveyor or Common owr	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> laneuver: <u>NA</u> usic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00	ne (load, dump, r h or less 0.01 loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000	) 500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites   
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	<ul> <li><u>els:</u></li> <li>ys. Job Condition</li> <li>within this Basic</li> <li>Material Descrit</li> <li>Material Descrit</li> <li>Unadjusted Ba</li> <li>Material 3/4"</li> <li>Conveyor or or</li> <li>Common owr</li> <li>Constant oper</li> </ul>	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> laneuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig hership of trucks and ration -0.04 et 0.00 Net Cycle Tin	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment:	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070	) .500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites    
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	<ul> <li><u>els:</u></li> <li>ys. Job Condition</li> <li>within this Basic</li> <li>Material Descrit</li> <li>Material Descrit</li> <li>Unadjusted Ba</li> <li>Material 3/4"</li> <li>Conveyor or or</li> <li>Common owr</li> <li>Constant oper</li> </ul>	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> Ianeuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig hership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment:	Dump: 0.100 naneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000	) 500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	Ites    
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	<ul> <li><u>els:</u></li> <li>ys. Job Condition</li> <li>within this Basic</li> <li>Material Descrit</li> <li>Material Descrit</li> <li>Unadjusted Ba</li> <li>Material 3/4"</li> <li>Conveyor or or</li> <li>Common owr</li> <li>Constant oper</li> </ul>	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> Ianeuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig hership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time:	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430	) .500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites   
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	<ul> <li><u>els:</u></li> <li>ys. Job Condition</li> <li>within this Basic</li> <li>Material Descrit</li> <li>Material Descrit</li> <li>Unadjusted Ba</li> <li>Material 3/4"</li> <li>Conveyor or or</li> <li>Common owr</li> <li>Constant oper</li> </ul>	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> Ianeuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig hership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time:	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430	) .500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites   
Excavators and Front Show Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	els: vs. Job Condition within this Basic Material Descri - - - - - - - - - - - - -	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> Ianeuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig hership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430 0.960	) .500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time	e:0.50	n Rating: NA c Rating: NA iption: laneuver: NA usic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load Net Load T	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 naneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430 0.960 for site altitude:	0.500       minu         0.500       minu         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       minutes         minutes       minutes         0.500       0.500	    Minute
Excavators and Front Show Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time Truck Load Time	e: 0.50	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> Ianeuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load Net Load T Minutes <u>Minutes</u> Minutes	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck: Adjusted Adjusted	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 0.000 -0.070 0.430 0.960 for site altitude: for site altitude:	0.500       minu         Source       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         0.500       minutes         0.500       0.960	    Minute
Excavators and Front Show Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	els: vs. Job Condition within this Basic Material Descri - - - - - - - - - - - - -	n Rating: <u>NA</u> c Rating: <u>NA</u> iption: <u></u> Ianeuver: <u>NA</u> sic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig pership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load Net Load T	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430 0.960	) Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	Ites 
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time	e: 0.50	n Rating: NA c Rating: NA iption: Ianeuver: NA usic Loader Cycle Tin to 6" diameter 0.00 dozer piled 10 ft. hig nership of trucks and ration -0.04 et 0.00 Net Cycle Tin Adjusted Load Net Load T	ne (load, dump, r h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck: Adjusted Adjusted	Dump: 0.100 naneuver): 0 Factor (min.) 0.000 0.010 -0.040 -0.040 0.000 -0.070 0.430 0.960 for site altitude:	0.500       minu         0.500       minu         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       (Cat HB)         (Cat HB)       minutes         minutes       minutes         0.500       0.500	

Haul Route:

	Seg #	Haul E (Ft)	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
	1	6500.0	00	-10.70	3.00	-7.70	1749	3.831	
	2	3100.00		0.00	3.00	3.00	2824	1.128	
	3	1000.0	00	10.00	3.00	13.00	834	0.191	
Ĭ	Return R	oute:				Haul Time:	5.150	minutes	
[	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	~ - 8	(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	1000.0	00	-10.00	3.00	-7.00	2938	0.410	
	2	3100.0	00	0.00	3.00	3.00	2874	1.079	
	3	6500.0	00	10.70	3.00	13.70	1274	5.147	
					Total True	Return Time: ck Cycle Time:	6.636 14.146	minutes minutes	
	oading To Prod Unit Prod	uction	437.36	LCY/Hour		Adjusted for j	ob efficiency:	363.01	LCY/Hour
TTUCK		-	45.14	LCY/Hour		Adjusted for j	ob efficiency:	37.47	LCY/Hour
Optim	al No. of T	rucks:	10	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
					le truck/loade	k team producti er team producti er team producti	on: 149	.86 LCY/I	Hour
	JOB TI	ME AN	D COST						
	Fleet	size:	1	Team(s)	]	Fotal job time:	108.8	Hou	rs

Unit cost:	\$2.565	/LCY
Unit cost.	\$2.303	/LC I

Total job cost: ______\$41,841

Page 1 of 2

## SCRAPER TEAM WORK

Site: Bowie No. 2 Min	ne	Permi	t Action:	RN5	Peri	mit/Job#: <u>C19</u>	96083
PROJECT IDE	NTIFICATION						
Task #: 046		State:	Colorado		Abbrev	viation: None	e
		unty:	Delta		Fil	ename: C083	3-046
User: <u>RDZ</u>		עמת	re				
	r organization name:	DRM	15				
HOURLY EQU	<u>IPMENT</u>				hift basis: <u>1 per d</u>	ay	
	-9	craper:		ent Description 7G w/push-pull			
		-Dozer:	NA	/O w/pusii-puii			
Supp	port Equipment -Loa		NA				
		p Area:	NA				
Road M	Iaintenance – Motor		NA				
	-water	Truck:	NA				
Cost Breakdown:	Scraper Wo	rk Team		Support Equi	pment	Maintenano	ce Equipmen
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water 7
%Utilization-machine:	100		NA	NA	NA	NA	4
Ownership cost/hour:	\$188.81		NA	NA	NA	NA	4
Operating cost/hour:	\$169.82		NA	NA	NA	NA	A
%Utilization-ripper:	: NA		NA	NA	NA	NA	4
Ripper own. cost/hour	: NA		NA	NA	NA	NA	A
Ripper op. cost/hour	: NA		NA	NA	NA	NA	A
Operator cost/hour:	\$30.90		NA	NA	NA	NA	A
Unit Subtotals	\$389.53		NA	NA	NA	NA	A
Number of Units:	: 2		0	0	0	(	)
Group Subtotals	: Work:	\$779	9.06	Support:	\$0.00	Maint	: \$0.0
Total work team co	ost/hour: <u><b>\$779.06</b></u>						
MATERIAL QU	JANTITIES						
Initial volume			CCY	Swell fact	tor: 1.165		
Loose volume	90,928		LCY				
	ource of estimated vo e of estimated swell f		Volume Cat Han	XI, Appendix A dbook			
HOURLY PRO	DUCTION						
	<u> </u>			Scraper Bo	owl (volume) Basi	s:	
Material weight	: 2,900 lbs/LCY			-	Volume: 15.70		LCY
Material description		k - 50% ]	Rock,	Heaped			LCY
Rated Payload	: 52,800 pounds			Average			LCY
Payload Capacity	: 18.21 LCY			Adjusted C	Capacity: <b>18.21</b>		LCY

<u>0.90</u> Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6100 feet

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

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2600.00	0.00	5.00	5.00	2218	1.35

Haul Time: **1.35** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2600.00	0.00	5.00	5.00	2814	1.07

Return Time:	1.07	minutes
Total Scraper team cycle time:	3.92	minutes
Adjusted for job conditions:	462.60	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	462.60	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	462.60	LCY/Hour
Unadjusted unit production /hours 557.25 I CV/I Jour		

Unadjusted unit production/hour: 557.35 LCY/Hour Optimal Number of Scrapers per push dozer:

#### JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	196.56	Hours
Unit cost:	\$1.684	/LCY	Total job cost:	\$153,130	

### BULLDOZER WORK

Task description:	Push temp cove	rfill mat. to f	ace of Gob pile #3		
Bowie No. 2 Mine	Pe	rmit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	<b>ICATION</b>				
Task #: 047	State:	Colorado		Abbreviation:	None
Date: $11/20/2021$		Delta		Filename:	C083-047
User: RDZ	County.	Denta		-	0003 047
Agency or orga	nization name: D	RMS			
HOURLY EQUIPME	ENT COST				
	t D9T - 9SU				
Horsepower: 405					
• • • • • • • • • • • • • • • • • • • •	mi-Universal				
Attachment: NA	ł				
	ber day				
Data Source: (Cl	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$126.01	NA		
Operating Cost/Hour:		\$141.41	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
	· · · · · · · · · · · · · · · · · · ·	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$308.72 \$308.72	φ <del>1</del> 1.30			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANI</u> Initial Volume: _ 5,50	\$308.72 FITIES 00				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00	\$308.72 FITIES 00				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50	\$308.72 FITIES 00 00 00 LCY				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu	\$308.72 FITIES 00 00 00 00 LCY me:MR199	  app.			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50	\$308.72 FITIES 00 00 00 00 LCY me:MR199	  app.			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel	\$308.72 <b>EITIES</b> 00 00 00 LCY me: <u>MR199</u> 11 factor: Cat Han	  app.			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel HOURLY PRODUCC	\$308.72 <u>FITIES</u> 00 00 00 LCY me: <u>MR199</u> 11 factor: <u>Cat Han</u> <u>TION</u>	  app.			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$308.72 <b>FITIES</b> 00 00 00 LCY me: MR199 11 factor: Cat Han <b>TION</b> 200 feet	app. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel HOURLY PRODUCC	\$308.72 <b>FITIES</b> 00 00 00 LCY me: MR199 11 factor: Cat Han <b>TION</b> 200 feet	app. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$308.72 <b>FITIES</b> 00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <td>app. dbook</td> <td></td> <td></td> <td></td>	app. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency destinated set	\$308.72         FITIES         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	app. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient:	\$308.72 <u>FITIES</u> 00 00 00 LCY me: <u>MR199</u> 11 factor: <u>Cat Han</u> <u>TION</u> action: <u>200 feet</u> 5 %	app. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency des	\$308.72         FITIES         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	app. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient:	\$308.72 <u>FITIES</u> 00 00 00 LCY me: <u>MR199</u> 11 factor: <u>Cat Han</u> <u>TION</u> action: <u>200 feet</u> 5 %	app. dbook			
Operator Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude:	\$308.72         FITIES         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         11         factor:         200         feet         200         feet         5 %         5,900         5,900	app. dbook			
Operator Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$308.72         FITIES         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         Decomposed rock	app. dbook			
Operator Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight:	\$308.72         FITIES         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         Decomposed roch         n Factor	app. dbook			
Operator Cost/Hour:         Operator Cost/Hour:         Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       5,50         Swell factor:       1.00         Loose volume:       5,50         Source of estimated volu         Source of estimated swel         HOURLY PRODUC'         Average push distance:         Unadjusted hourly produ         Materials consistency des         Average site altitude:         Material weight:         Weight description:         Iob Condition Correction	\$308.72 <b>EITTIES</b> $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ <td>app. dbook //hr stockpile 1.2</td> <td></td> <td></td> <td></td>	app. dbook //hr stockpile 1.2			
Operator Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 5,50 Swell factor: 1.00 Loose volume: 5,50 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator	\$308.72         FITTIES $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$ $00$	 app. dbook //hr stockpile 1.2  c - 25% Rock,			

Task # 047

Job efficienc	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	1.000	(DOZ-OC)
Push gradier	nt:	0.903	(CAT HB)
Altitud	le:	1.000	(CAT HB)
Material Weigh	ht:	0.868	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correctio	on:	0.4684	
Adjusted unit production:	32	7.88 LCY/hr	
Adjusted fleet production:	32	7.88 LCY/hr	

### JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.942/LCY
otal job time:	16.77 Hours

Total job time:16.77 HoursTotal job cost:\$5,179

	Compact Dackinica D-1 of tal D	encn, Koaus,	& Utility Corric	10Г	
Bowie No. 2 Mine	Permit Action: R	N5	Pe	rmit/Job#: <u>C1</u>	996083
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 050	State: Colorado		Abbro	eviation: Non	ie
Date: 11/20/2021	County: Delta		F	ilename: C08	3-050
User: RDZ					
Agency or organi	ization name: DRMS				
HOURLY EQUIPME	NT COST				
Basic Machine:	CAT 825H		Horsepower:	354	
Compactor Type:	Soil - tamping foot		Shift Basis:	1 per day	/
			Data Source:	(CRG)	
Cost Breakdown:		l	TT:1: /: 0/		
Owner	ship Cost/Hour: \$201.1	7	Utilization % NA		
	ting Cost/Hour: \$102.8		100		
Öper	ator Cost/Hour: \$26.02	2	NA		
Total	Unit Cost/Hour: \$329.9	9			
Total F	Fleet Cost/Hour: \$329.9	9			
MATERIAL QUANTI	TIES				
Loose volume		LCY	Shri	nkage factor:	0.875
Compacted volume		- CCY	5111		0.075
-		– f All Backfilli	ng Tasks		
	imated shrinkage factor: Cat Har		ing Tasks		
Source of est		ndoook			
	<u> </u>		hourly production	$on = (W \times S \times L)$	$(\mathbf{x} \mathbf{C}) / \mathbf{P}$
HOURLY PRODUCT	<u>ION</u>	Unadjusted	hourly production	$pn = (W \ge S \ge L)$	<u>x C) / P</u>
HOURLY PRODUCT	<b>ION</b> pacted width per pass (W):		feet	$pn = (W \times S \times L)$	<u>x C) / P</u>
HOURLY PRODUCT Com Aver	<u>ION</u>	Unadjusted 7.34	• •	$pon = (W \times S \times L)$	<u>x C) / P</u>
HOURLY PRODUCT Comj Aver Compacted	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         Conversion Constant (C):	Unadjusted 7.34 4.00 8.00 16.3	feet mph inches (5,280ft.	on = (W x S x L /12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         Conversion Constant (C):         uber of machine passes (P):	Unadjusted 7.34 4.00 8.00 16.3 3	feet mph inches (5,280ft. passes	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num Unadjuste	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         Conversion Constant (C):         ber of machine passes (P):         ed Hourly Unit Production:	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18	feet mph inches (5,280ft. passes CCY/hou	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         Conversion Constant (C):         aber of machine passes (P):         ad Hourly Unit Production:         Factors	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18	feet mph inches (5,280ft. passes	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num Unadjuste	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         Conversion Constant (C):         ber of machine passes (P):         ed Hourly Unit Production:	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18	feet mph inches (5,280ft. passes CCY/hou	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction 1 Altitude Adj: Job Efficiency:	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         d thickness of each lift (L):         Conversion Constant (C):         ber of machine passes (P):         Conversion Constant (C):         Ber of machine passes (P):         Ber of machine passes (P):	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18	feet mph inches (5,280ft. passes CCY/hou	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction I Altitude Adj:	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         d thickness of each lift (L):         Conversion Constant (C):         ber of machine passes (P):         ber of machine passes (P):         cd Hourly Unit Production:         Factors         Source         1.00       (CAT HB)	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18	feet mph inches (5,280ft. passes CCY/hou	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num Unadjuste Job Condition Correction I Altitude Adj: Job Efficiency: Net Correction:	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         d thickness of each lift (L):         Conversion Constant (C):         ber of machine passes (P):         Conversion Constant (C):         Ber of machine passes (P):         Ber of machine passes (P):	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18	feet mph inches (5,280ft. passes CCY/hour	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num Unadjuste Job Condition Correction I Altitude Adj: Job Efficiency: Net Correction: Add	ION         pacted width per pass (W):         rage Compactor Speed (S):         d thickness of each lift (L):         Conversion Constant (C):         d thourly Unit Production:         ber of machine passes (P):         ed Hourly Unit Production:         Factors         Source         1.00       (CAT HB)         0.83       (1 shift/day)         0.8300       multiplier	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18 Site Altitud	feet mph inches (5,280ft. passes CCY/hor de: <u>6,500</u> feet	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Comp Aver Compacted Required num Unadjuste Job Condition Correction I Altitude Adj: Job Efficiency: Net Correction: Add	ION         pacted width per pass (W):	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18 Site Altitud 	feet mph inches (5,280ft. passes CCY/hour	/12in./27cu.ft.)	<u>x C) / P</u>
HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction I Altitude Adj: Job Efficiency: Net Correction: Add	ION         pacted width per pass (W):	Unadjusted 7.34 4.00 8.00 16.3 3 1,276.18 Site Altitud 1,059.23 1,059.23	feet mph inches (5,280ft. passes CCY/hour	/12in./27cu.ft.)	<u>x C) / P</u>

Task description:	Compact Back	xfilled Material a	t Truck Loa	dout/Coal Stock	pile	
Bowie No. 2 Mine	F	Permit Action: <u>R</u>	N5	Pe	ermit/Job#:	C1996083
PROJECT IDENTI	FICATION					
Task #:         051           Date:         11/20/202           User:         RDZ	State 21 County				eviation: Filename:	None C083-051
Agency or org	anization name:	DRMS				
HOURLY EQUIPM	IENT COST					
Basic Machi Compactor Ty		g foot		Horsepower: Shift Basis: Data Source:	1 p	354 er day CRG)
Cost Breakdown:				Utilization %		
Op O	nership Cost/Hour: erating Cost/Hour: perator Cost/Hour: al Unit Cost/Hour:	\$201.11 \$102.80 \$26.02 \$329.99	)	NA 100 NA		
Tota	al Fleet Cost/Hour:	\$329.9	9			
MATERIAL QUAN	TITIES					
Loose volu Compacted volu		67,920 <b>69,430</b>	LCY CCY	Shr	inkage fact	or: 0.875
	ource of estimated v estimated shrinkage	1	or Estimate ndbook			
HOURLY PRODUC	CTION		Unadjuste	d hourly producti	on = (W x)	<u>S x L x C) / P</u>
A Compac	ompacted width per verage Compactor S cted thickness of eac Conversion Cor umber of machine p	Speed (S):	7.34 4.00 8.00 16.3 3	feet mph inches (5,280ft passes	./12in./27cu	u.ft.)
	isted Hourly Unit Pr		1,276.18	CCY/ho	our	
Job Condition Correction	on Factors		Site Altitu	de: <u>6,000</u> feet		
Altitude Adj: Job Efficiency: Net Correction:	Adjusted Hourly Ur		1,059.23 1,059.23	CCY/Hour CCY/Hour		
	5 <b>•</b>		1,007.40			
JOB TIME AND CO	<u>DST</u> 1	ctor(s)	Tot	al job time:	56.11	Hours
Unit cost:\$0	0.312 per CC	Y	Tot	al job cost:	\$18,515	

Task description:	Compact Backfilled Train	n Loadout			
Bowie No. 2 Mine	Permit Action	n: RN5	Pe	ermit/Job#:	: <u>C1996083</u>
PROJECT IDENTIF	CATION				
Task #: 052	State: Colorad	lo	Abbi	eviation:	None
Date: 11/20/2021	County: Delta		I	Filename:	C083-052
User: RDZ					
Agency or organ	ization name: DRMS				
HOURLY EQUIPME	NT COST				
Basic Machine	: CAT 825H		Horsepower:		354
Compactor Type	: Soil - tamping foot		Shift Basis:		per day
			Data Source:	()	CRG)
Cost Breakdown:		1			
Owne	rship Cost/Hour: \$	201.17	Utilization % NA		
	1	102.80	100		
		\$26.02	NA		
Total	Unit Cost/Hour: \$	329.99			
Total	Fleet Cost/Hour: \$	329.99			
MATERIAL QUANT	TTIFS				
Loose volum		LCY	Shi	inkage fac	tor: 0.875
Compacted volum		CCY			
Sou	arce of estimated volume: C	Operator Estimate			
		at Handbook			
HOURLY PRODUCT	TION	Unadjust	ed hourly producti	on = (W x)	<u>S x L x C) / P</u>
Con	pacted width per pass (W):	7.34	feet		
	erage Compactor Speed (S):	4.00	mph		
Compacte	ed thickness of each lift (L):	8.00	inches		
	Conversion Constant (C):	16.3		./12in./27c	u.ft.)
-	nber of machine passes (P):	3	passes		
Job Condition Correction	ed Hourly Unit Production:	1,276.18 Site Altit	CCY/ho ude: 5,900 feet	bur	
500 Condition Concetion			uue. <u>5,700</u> leet		
Altitude Adj:	1.00   Sou				
Job Efficiency:	0.83 (1 shift				
Net Correction:	0.8300 multipl				
—	djusted Hourly Unit Production		CCY/Hour		
	ijusted Hourly Fleet Production				
	-	i			
JOB TIME AND COS		_			
Fleet size: 1	Compactor(s)	То	tal job time:	191.23	Hours
Unit cost: \$0.3	per CCY	Та	otal job cost:	\$63,104	Ļ
φοι.	r 001	10		+	

Task description:	Compact B-Seam Portal Bench	1			
Bowie No. 2 Mine	Permit Action: R	RN5	Pe	ermit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 053 Date: 11/20/2021 User: RDZ	State:ColoradoCounty:Delta			reviation: Filename:	None C083-053
Agency or organ	ization name: DRMS				
HOURLY EQUIPME	NT COST				
Basic Machine Compactor Type			Horsepower: Shift Basis: Data Source:	1 p	354 er day CRG)
Cost Breakdown:		T	Utilization %		
Opera Ope	rship Cost/Hour:         \$201.1           ating Cost/Hour:         \$102.8           rator Cost/Hour:         \$26.02           Unit Cost/Hour:         \$329.9	7 0 2	NA 100 NA		
Total 1	Fleet Cost/Hour: \$329.9	9			
MATERIAL QUANT	ITIES				
Loose volum Compacted volum	e: 138,000	LCY CCY	Shi	rinkage fact	or: 0.875
		or Estimate ndbook			
HOURLY PRODUCT	<u> ION</u>	Unadjusted	hourly producti	on = (W x)	S x L x C) / P
Ave Compacte	pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C):	7.34 4.00 8.00 16.3		./12in./27cu	u.ft.)
-	nber of machine passes (P): ed Hourly Unit Production:	3 1,276.18	passes CCY/ho	our	
Job Condition Correction	•		e: <u>6,750</u> feet		
Altitude Adj: Job Efficiency: Net Correction:	Source1.00(CAT HB)0.83(1 shift/day)0.8300multiplierdjusted Hourly Unit Production:	1,059.23	CCY/Hour		
	ljusted Hourly Fleet Production:	1,059.23	CCY/Hour		
JOB TIME AND COS	<u>ST</u>				
Fleet size: 1	Compactor(s)	Total	job time:	114.00	Hours
Unit cost: \$0.3	per CCY	Total	l job cost:	\$37,618	

	Task description:	Rip U	tility Bench							
Site	Bowie No. 2 N	ſine	Permit Action:	RN5	Permit/J	ob#: <u>C1996</u>	083			
	PROJECT ID	ENTIFICATIO	N							
	Task #:         060           Date:         11/           User:         RD	20/2021	State:ColoradoCounty:Delta		Abbreviation Filenan		50			
	Agency	or organization na	ame: DRMS							
		UIPMENT CO								
		Machine: Cat I	D10T - 10SU ank Ripper	_	Horsepower: Shift Basis: Data Source:	574 1 per day (CRG)				
	Cost Breakdown:									
		Ownership Cos Operating Cos er Ownership Cos per Operating Cos Operator Cos Total Unit Cos	t/Hour: t/Hour: t/Hour: t/Hour:	\$169.60 \$166.94 \$25.19 \$13.74 \$41.30 \$416.77	Utilization % NA 100 NA 100 NA					
		Total Fleet Cos	t/Hour: \$1,66	7.09						
	MATERIAL (				mothod. Anos					
	Alternate Method		Sele	cted estimating	method: Area					
Seismic:	NA	<u>13.</u>	Bank Volume:	NA	BCY	NA				
Area:	0.75	acres	Rip Depth (ft):	2.63	Volume: 3,182	INA	BCY or CCY			
	Source of estimated quantity: Map 15-2									
	HOURLY PR	ODUCTION								
	Seismic:									
		Se	ismic Velocity:	NA	feet/second					
	Area:									
			Ripping Depth: Ripping Width:	2.88 8.67	feet/pass feet/pass					
			Ripping Length:	50.00	feet/pass					
		0	e Dozer Speed:	88.00	feet/minute					
		Ų	Ianeuver Time:	0.25	minutes/pass					
		Productio	on per unit area:	0.730	acres/hour					
	Job Condition Co	prrection Factors								
	Un	adjusted Hourly U	Init Production:	0.730	Acres/hr					
			Site Altitude:	6,800	feet					
			Altitude Adj:	1.00	(CAT HB)					
			Job Efficiency:	0.83	(1 shift/day)					
			Net Correction:	0.83	multiplier					
			ourly Unit Production:	0.61	Acres/hr					
		Adjusted He	ourly Fleet Production:	2.42	Acres/hr					
	JOB TIME AN	ND COST								
	Fleet size:	4	Grader(s)	Total job time		H	ours			
	Unit cost:	\$688.043	Per acre	Total job cost	t: \$516					

	Task description:	<b>Rip D-Portal Bench</b>						
Site	Bowie No. 2 Mine	Permit Acti	on: RN5	Permit/Job#	: <u>C1996083</u>			
	PROJECT IDENT	<b>IFICATION</b>						
	Task #: 061 Date: 11/20/20 User: RDZ	State:ColorD21County:Delta		Abbreviation: Filename:	None C083-061			
	Agency or or	ganization name: DRMS						
	HOURLY EQUIPM	-						
	Basic Mach Ripper Attachm	ine: Cat D10T - 10SU			574 per day CRG)			
	Cost Breakdown:							
	Ow	vnership Cost/Hour:	\$169.60	Utilization % NA				
		perating Cost/Hour:	\$166.94 \$25.19	<u>100</u> NA				
		perating Cost/Hour:	\$13.74	<u>100</u>				
	(	Operator Cost/Hour:	\$41.30	NA				
	Тс	otal Unit Cost/Hour:	\$416.77					
	То	tal Fleet Cost/Hour:	\$1,667.09					
	MATERIAL QUA	NTITIES	Selected estimating n	nethod: Area				
	Alternate Methods:							
Seismic: Area:	<u>NA</u> 9.00	acres Bank Volum		BCY Volume: 38,188	NA BCY or CCY			
	Sou	rce of estimated quantity: M	ap 15-2					
	HOURLY PRODU		*					
	Seismic:							
	<u>Seisille.</u>	Seismic Velocity:	NA	feet/second				
	Area:	_						
		Average Ripping Depth:	2.88	feet/pass				
		Average Ripping Width:	<u>8.67</u> 50.00	feet/pass				
		Average Ripping Length:	88.00	feet/pass feet/minute				
		Average Maneuver Time:	0.25	minutes/pass				
		Production per unit area:	0.730	acres/hour				
	Job Condition Correct	ion Factors						
	Unadjus	ted Hourly Unit Production:	0.730	Acres/hr				
		Site Altitude:	6,800	feet				
		Altitude Adj:	1.00	(CAT HB)				
		Job Efficiency:	0.83	(1 shift/day)				
		Net Correction:	0.83	multiplier				
		Adjusted Hourly Unit Product		Acres/hr				
	Adjusted Hourly Fleet Production: 2.42 Acres/hr							
	JOB TIME AND C		$T_{n+1}$ : 1.4	2 81	Hang			
	Fleet size:	4 Grader(s)	Total job time:	3.71	Hours			
	Unit cost: \$6	Per acre	Total job cost:	\$6,192				

	Task description:	Rip	Truck Loadout/Coal Sto	ckpile Area						
Site	Bowie No. 2 N	line	Permit Action:	RN5	Permit/Jo	b#: <u>C19960</u>	)83			
	PROJECT ID	ENTIFICATI	<u>ON</u>							
	Task #: 062	2	State: Colorado		Abbreviation	n: None				
		20/2021	County: Delta		Filename		52			
	User: RD		J							
	Agency	or organization	name: DRMS							
	HOURLY EQ	UIPMENT CO	<u>OST</u>							
	Basic		t D10T - 10SU		Horsepower:	574				
	Ripper Att	achment: <u>3-S</u>	hank Ripper			1 per day				
					Data Source:	(CRG)				
	Cost Breakdown:									
					Utilization %					
		Ownership C		\$169.60	NA					
		Operating C		\$166.94	100					
		er Ownership Co		\$25.19 \$13.74	<u>NA</u>					
	Кірі	oer Operating Co Operator Co		\$13.74 \$41.30	100 NA					
		Total Unit C		\$416.77						
				φ+10.77						
		Total Fleet C	ost/Hour: \$1,66	7.09						
	MATERIAL (	<b>UANTITIES</b>	Sele	cted estimating	method: Area					
	Alternate Method	ls:								
Seismic:	NA		Bank Volume:	NA	BCY	NA				
Area:	5.00	acres	Rip Depth (ft):	2.63	Volume: 21,215		BCY or CC			
		Source of estin	mated quantity: Map 15	5-1						
	HOURLY PRO	ODUCTION								
	Seismic:		Seismic Velocity:	NA	feet/second					
				INA						
	Area:			• • • •	<b>a</b> (					
			e Ripping Depth:	2.88 8.67	feet/pass					
			e Ripping Width: Ripping Length:	50.00	feet/pass feet/pass					
			age Dozer Speed:	88.00	feet/minute					
			Maneuver Time:	0.25	minutes/pass					
			tion per unit area:	0.730	acres/hour					
	Job Condition Co	prrection Factors	<u> </u>							
	Un	adjusted Hourly	Unit Production:	0.730	Acres/hr					
			Site Altitude:	6,000	feet					
			Altitude Adj:	1.00	(CAT HB)					
	Job Efficiency:			0.83	(1 shift/day)					
			Net Correction:	0.83	multiplier					
		Adjusted	Hourly Unit Production:	0.61	Acres/hr					
			Hourly Fleet Production:	2.42	Acres/hr					
	JOB TIME AND COST									
	Fleet size:	4	Grader(s)	Total job time	2.06	Ho	ours			
	Unit cost:	\$688.043	Per acre	Total job cost	t: <b>\$3,440</b>					

	Task description	: Rip	Regraded Mine Area	Prior to Topsoil	Replacement			
Site	Bowie No. 2	Mine	Permit Actio	n: RN5	P	ermit/Job#:	: <u>C1996</u>	)83
	PROJECT ID	<b>ENTIFICATI</b>	<u>ON</u>					
		3 /20/2021 DZ	State: Colora County: Delta	do		reviation: Filename:	None C083-06	53
		y or organization	name: DRMS					
		UIPMENT CO						
			D10T - 10SU		Horsepower:		574	
	Ripper At		hank Ripper		Shift Basis: Data Source:	1 p	per day CRG)	
	Cost Breakdown	<u>ı:</u>						
		Ownership Co	ost/Hour:	\$169.60	Utilization % NA			
		Operating Co	ost/Hour:	\$166.94	100	-		
		per Ownership Copper Operating Co		\$25.19 \$13.74	NA 100	_		
	Кір	Operating Co Operator Co		\$13.74	100 NA	-		
		Total Unit Co		\$416.77	· · · ·	_		
		Total Fleet Co	ost/Hour: \$1	1,667.09				
	MATERIAL	QUANTITIES	:	Selected estimating	g method: Area	a		
	Alternate Metho	<u>ds:</u>						
Seismic:	NA		Bank Volume		BCY		NA	
Area:	169.00	acres	Rip Depth (ft)			717,078		BCY or CCY
		Source of estin	mated quantity: <u>Tot</u>	al Regraded Area	(Ripping per Page	2.05-48)		
	HOURLY PR	<b>ODUCTION</b>						
	Seismic:		<b></b> .		C /	1		
			Seismic Velocity:	NA	feet/sec	ond		
	Area:	Averag	e Ripping Depth:	2.88	feet/pas	c		
			e Ripping Width:	8.67	feet/pas			
			Ripping Length:	100.00	feet/pas			
			age Dozer Speed:	88.00	feet/mir			
		-	Maneuver Time:	0.25	minutes	-		
	Job Condition C		tion per unit area:	0.861	acres/ho	Jur		
		orrection Factors	-	0.961	Acres/h			
	U	naujusteu nourry	Unit Production:	0.861		1		
			Site Altitude:	<u>6,500</u> 1.00	feet (CAT H	IB)		
			Job Efficiency:	0.83	(1 shift/			
			Net Correction:	0.83	multipli	-		
		Adjusted	Hourly Unit Production	on: 0.71	Acres/hr			
		•	Hourly Fleet Production		Acres/hr			
	JOB TIME A	ND COST						
	Fleet size:	4	Grader(s)	Total job tin	ne:	59.09	He	ours
	Unit cost:	\$582.925	Per acre	Total job co	ost: \$9	98,515		

	Task description:	Rip 7	Frain Loadout Facilities	and Railbed B	enches			
Site	Bowie No. 2 N	ſine	Permit Action:	RN5	P	ermit/Job#:	C19960	83
	PROJECT ID	ENTIFICATI	<u>ON</u>					
	Task #: 064	1	State: Colorado		Abb	reviation:	None	
		/20/2021	County: Delta			Filename:	C083-06	54
	User: RD		J					
	Agency	or organization	name: DRMS					
	HOURLY EQ	UIPMENT CO	) <u>ST</u>					
	Basic	Machine: Cat	D10T - 10SU		Horsepower:		574	
	Ripper Att		hank Ripper		Shift Basis:		ber day	
			**		Data Source:	((	CRG)	
	Cost Breakdown:							
		-			Utilization %			
		Ownership Co	st/Hour:	\$169.60	NA			
		Operating Co		\$166.94	100	_		
		er Ownership Co		\$25.19	NA	-		
	Ripp	per Operating Co		\$13.74	100	-		
		Operator Co		\$41.30	NA	-		
		Total Unit Co	ost/Hour:	\$416.77				
		Total Fleet Co	st/Hour: \$1,66	7.09				
	MATERIAL (	MANTITIES	Cala		mathad. Ana			
			Sele	cted estimating	method: Area	1		
	Alternate Method	<u>ls:</u>						
Seismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	22.00	acres	Rip Depth (ft):	2.63	Volume:	93,347		BCY or CCY
		Source of estin	nated quantity: Divisio	n Estimate				
			1 7					
	HOURLY PRO	<u>JUCTION</u>						
	Seismic:							
			Seismic Velocity:	NA	feet/sec	ond		
	Area:							
		Average	e Ripping Depth:	2.88	feet/pas	S		
			e Ripping Width:	8.67	feet/pas			
		U	Ripping Length:	100.00	feet/pas			
			ige Dozer Speed:	88.00	feet/mir			
			Maneuver Time:	0.25 0.861	minutes acres/ho			
		FIOUUCI	ion per unit area:	0.801		Jui		
	Job Condition Co	prrection Factors						
	Un	adjusted Hourly	Unit Production:	0.861	Acres/h	r		
			Site Altitude:	5,900	feet			
			Altitude Adj:	1.00	(CAT H	IB)		
			Job Efficiency:	0.83	(1 shift/	'day)		
			Net Correction:	0.83	multipli	er		
		Adjusted	Hourly Unit Production:	0.71	Acres/hr			
			Hourly Fleet Production:	2.86	Acres/hr			
	JOB TIME AN	•						
			Cradar(a)	Total interior		7 (0	TT	
	Fleet size:	4	Grader(s)	Total job time	e:	7.69	Ho	ours
	Unit cost:	\$582.925	Per acre	Total job cos	st:\$1	12,824		

	Task description:	Ri	p B-Seam Portal Bench				
Site:	Bowie No. 2 N	ſine	Permit Action:	RN5	Permit/Job	o#: <u>C199608</u>	3
	PROJECT ID	ENTIFICAT	TION				
	Task #:         065           Date:         11/           User:         RD	20/2021	State:ColoradoCounty:Delta		Abbreviation Filename		
	Agency	or organizatio	on name: DRMS				
	HOURLY EQ	•					
					Homenowan	571	
	Ripper Att		at D10T - 10SU -Shank Ripper		Horsepower:	574 1 per day	
	II ·		III III		Data Source:	(CRG)	
	Cost Breakdown:	_					
					Utilization %		
		Ownership		\$169.60	<u>NA</u> 100		
	Rinn	Operating of the operation of the operat		\$166.94 \$25.19	<u> </u>		
		per Operating		\$13.74	100		
	r i		Cost/Hour:	\$41.30	NA		
		Total Unit	Cost/Hour:	\$416.77			
		Total Fleet	Cost/Hour: \$1,66	57 09			
	MATERIAL (	JUANTITIE	<u>S</u> Sele	ected estimating 1	method: Area		
	Alternate Method	ls:					
mic:	NA		Bank Volume:	NA	BCY	NA	
rea:	9.00	acres	Rip Depth (ft):	2.63	Volume: 38,188		BCY or
		Source of es	timated quantity: Operat	or Estimate			
	HOURLY PR	ODUCTION	ſ				
			•				
	Seismic:		Seismic Velocity:	NA	feet/second		
				1 11 1			
	Area:	Avor	age Ripping Depth:	2.88	feet/pass		
			age Ripping Width:	8.67	feet/pass		
			ge Ripping Length:	50.00	feet/pass		
			erage Dozer Speed:	88.00	feet/minute		
			ge Maneuver Time:	0.25	minutes/pass		
		Produ	ction per unit area:	0.730	acres/hour		
	Job Condition Co	prrection Facto	ors				
	Un	adjusted Hour	ly Unit Production:	0.730	Acres/hr		
		0	Site Altitude:	6,750	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1  shift/day)		
			Net Correction:	0.83	multiplier		
		Adiuste	d Hourly Unit Production:	0.61	Acres/hr		
			d Hourly Fleet Production:	2.42	Acres/hr		
	JOB TIME AN	ND COST					
	Fleet size:	4	Grader(s)	Total job time	: 3.71	Hou	rs
				-			
	Unit cost:	\$688.043	Per acre	Total job cost	: \$6,192		

Site	Bowie No. 2 M	line	Permit Action:	RN5	Permi	t/Job#: C19	96083
				KI10		(JOOH. <u>C1</u> )	70005
		ENTIFICATIO					
	Task #: 066		State: Colorado		Abbrevia		e 3-066
	Date: <u>11</u> / User: RD	20/2021	County: Delta		Filer		5-000
	Agency	or organization n	ame: DRMS				
	HOURLY EQ	UIPMENT CO	<u>ST</u>				
	Basic 1	Machine: Cat I	D10T - 10SU		Horsepower:	574	
	Ripper Att	achment: 3-Sh	ank Ripper		Shift Basis:	1 per day	
					Data Source:	(CRG)	
	Cost Breakdown:	<u>-</u>					
					Utilization %		
		Ownership Cos		\$169.60	<u>NA</u>		
	Dinn	Operating Cos er Ownership Cos		\$166.94 \$25.19	100 NA		
		per Operating Cos		\$23.19	<u>100</u>		
		Operator Cos		\$41.30	NA		
		Total Unit Cos		\$416.77			
		Total Elast Cos	st/Hour: \$416	77			
		Total Fleet Cos	μπουι. <b>Φ410</b>	.//			
	MATERIAL C	<u>)UANTITIES</u>	Selec	cted estimating i	method: Area		
	Alternate Method	<u>ls:</u>					
smic:	NA		Bank Volume:	NA	BCY	NA	
Area:	0.20	acres	Rip Depth (ft):	2.00	Volume: 645		BCY of
		Source of estimation:	ated quantity: Operato	or Estimate			
	HOURLY PRO	ODUCTION	· · · <u>· · · · · · · · · · · · · · · · </u>				
		JUCTION					
	Seismic:						
		C.	Venie Wales item	NT A	for the second		
		Se	eismic Velocity:	NA	feet/second		
	Area:		·				
	Area:	Average	Ripping Depth:	2.88	feet/pass		
	<u>Area:</u>	Average Average	Ripping Depth: Ripping Width:	2.88 8.67	feet/pass feet/pass		
	<u>Area:</u>	Average Average Average F	Ripping Depth: Ripping Width: Ripping Length:	2.88 8.67 25.00	feet/pass feet/pass feet/pass		
	<u>Area:</u>	Average Average Average F Averag	Ripping Depth: Ripping Width: Ripping Length: ge Dozer Speed:	2.88 8.67 25.00 88.00	feet/pass feet/pass feet/pass feet/minute	s	
	<u>Area:</u>	Average Average Average F Averag Average N	Ripping Depth: Ripping Width: Ripping Length:	2.88 8.67 25.00	feet/pass feet/pass feet/pass	s	
		Average Average Average F Averag Average M Productio	Ripping Depth: Ripping Width: Ripping Length: ge Dozer Speed: Maneuver Time:	2.88 8.67 25.00 88.00 0.25	feet/pass feet/pass feet/pass feet/minute minutes/pas	s	
	Job Condition Co	Average Average Average F Averag Average N Production Diffection Factors	Ripping Depth: Ripping Width: Ripping Length: ge Dozer Speed: Maneuver Time: on per unit area:	2.88 8.67 25.00 88.00 0.25 0.559	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour	s	
	Job Condition Co	Average Average Average F Averag Average M Productio	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:	2.88 8.67 25.00 88.00 0.25 0.559 0.559	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr	s	
	Job Condition Co	Average Average Average F Averag Average N Production Diffection Factors	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet	S	
	Job Condition Co	Average Average Average F Averag Average N Production Diffection Factors	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100 1.00	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB)		
	Job Condition Co	Average Average F Average M Average M Production <u>prrection Factors</u> adjusted Hourly U	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:         Job Efficiency:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100 1.00 0.83	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB) (1 shift/day)		
	Job Condition Co	Average Average F Average M Average M Production <u>prrection Factors</u> adjusted Hourly U	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:         Job Efficiency:         Net Correction:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100 1.00 0.83 0.83	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier		
	Job Condition Co	Average Average F Average N Average N Production <u>prrection Factors</u> adjusted Hourly U Adjusted H	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:         Job Efficiency:         Net Correction:         Hourly Unit Production:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100 1.00 0.83 0.83 0.83	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier Acres/hr		
	Job Condition Co Un	Average Average F Average M Average M Production <u>prrection Factors</u> adjusted Hourly U Adjusted H	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:         Job Efficiency:         Net Correction:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100 1.00 0.83 0.83	feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier		
	Job Condition Co Un JOB TIME AN	Average Average F Average M Average M Production <u>prrection Factors</u> adjusted Hourly U Adjusted H	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:         Job Efficiency:         Net Correction:         Hourly Unit Production:	2.88 8.67 25.00 88.00 0.25 0.559 7,100 1.00 0.83 0.83 0.83 0.46 <b>0.46</b>	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier Acres/hr Acres/hr		
	Job Condition Co Un	Average Average F Average M Average M Production <u>prrection Factors</u> adjusted Hourly U Adjusted H	Ripping Depth:         Ripping Width:         Ripping Length:         ge Dozer Speed:         Maneuver Time:         on per unit area:         Unit Production:         Site Altitude:         Altitude Adj:         Job Efficiency:         Net Correction:         Hourly Unit Production:	2.88 8.67 25.00 88.00 0.25 0.559 0.559 7,100 1.00 0.83 0.83 0.83	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pas acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier Acres/hr Acres/hr		Hours

	Task description	: Rip	Haul Roads (	Portion Be	ing Reclaimed)	& Old Truck Loa	adout		
Site	: Bowie No. 2 N	line	Perm	nit Action:	RN5	Per	mit/Job#	: <u>C199</u>	96083
	PROJECT ID	ENTIFICAT	ION						
	Task #:       07         Date:       11         User:       RI	/20/2021	State: County:	Colorado Delta			viation: ename:	None C083	-070
	Agency	or organization	n name: DR	MS					
	HOURLY EQ	•							
		Machine: Ca	at D10T - 10SU Shank Ripper	J		Horsepower:		574 per day CRG)	
	Cost Breakdown	:						0110)	
		Ownership (			\$169.60	Utilization % NA			
	Dinn	Operating C er Ownership C			\$166.94 \$28.00	100 NA			
		per Ownership C			\$28.00	<u> </u>			
	1	Operator C	Cost/Hour:		\$41.30	NA			
		Total Unit C	Cost/Hour:		\$420.53				
		Total Fleet C	Cost/Hour:	\$1,68	32.13				
	MATERIAL ( Alternate Method		<u>S</u>	Sele	ected estimating	method: Seismi	c		
eismic:	260,481	BCY	Bank	Volume:	260,481	BCY	A	dverse	
Area:	NA	acres	Rip D	Depth (ft):	NA	Volume: NA	A		BCY or C
		Source of est	imated quantity	: Operat	or Estimate				
	HOURLY PR	<b>ODUCTION</b>							
	Seismic:								
			Seismic Veloc	ity:	5,000	feet/secon	d		
	Area:								
			ge Ripping De		NA	feet/pass			
			ge Ripping Wig ge Ripping Leng		NA NA	feet/pass feet/pass			
			rage Dozer Spe		NA	feet/minut	te		
			e Maneuver Ti		NA	minutes/p			
		Produ	ction per unit a	rea:	NA	acres/hour	r		
	Job Condition C	orrection Factor	<u>rs</u>						
	Ur	adjusted Hourl	y Unit Product	ion:	673.60	Cu. yds./h	ır		
			Site Altitu		6,500	feet			
			Altitude A		<u>1.00</u> 0.83	(CAT HB	·		
			Job Efficier Net Correcti	· ·	0.83	(1 shift/da multiplier	•		
			d Hourly Unit F Hourly Fleet F	Production:	<u>559.09</u> 2,236.35	Cu. yds./hr Cu. yds./hr			
		•							
	<b>JOB TIME A</b> Fleet size:	4	Grader(s)		Total job time	e: <u>116</u>	5.48		Hours
	Unit cost:	\$0.752	Per cu. yd.		Total job cos	t: <b>\$195</b>	5,928		

Page 1 of 2

## SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action:	RN5	Peri	mit/Job#: <u>C199</u>	6083
PROJECT IDENT	TIFICATION					
Task #: 071		tate: Colorado			viation: None	
Date: 11/20/2 User: RDZ	<u>.021</u> Cou	nty: Delta		Fil	ename: C083-	071
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	MENT_		COSTS	hift basis: <u>1 per d</u>	<u>ay</u>	
		Equipme	nt Description			
		craper: Cat 627	G w/push-pull			
Suppor	-I t Equipment -Load	Dozer:NAArea:NA				
	-Dump	Area: NA				
Road Mai	ntenance – Motor G					
	-Water	Fruck: NA				<u> </u>
Cost Breakdown:	Scraper Worl	k Team	Support Equi	oment	Maintenance	e Equipm
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0
Total work team cost/	hour: <u><b>\$779.06</b></u>					
MATERIAL QUA	NTITIES					
Initial volume: Loose volume:	7,484 <b>7,484</b>	CCY LCY	Swell fact	or: <u>1.000</u>		
	rce of estimated vol f estimated swell fa		of Reclamation, I lbook	Mining & Safety		
HOURLY PRODU	JCTION					
			Scraper Bo	owl (volume) Basi	i <u>s:</u>	
Material weight:	2,800 lbs/LCY		Struck	Volume: 15.70	Ι	CY
Material description:	Clay - Natural bed	[	Heaped '			CY
Rated Payload:	52,800 pounds 18.86 LCY		Average '	Volume: 18.85	I	CY

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6850.00	-6.00	3.00	-3.00	2938	2.40

Haul Time: **2.40** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6850.00	6.00	3.00	9.00	1930	3.63
				Return Time:	3.63	minutes
			Total Scra	per team cycle time:	7.53	minutes
		249.33	LCY/Hour			
		2	Scraper(s)			
	Adjuste	249.33	LCY/Hour			
	Adjusted n	ultiple scrap	per team (fleet	) hourly production:	249.33	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)		Total job time:	30.02	Hours
Uni	t cost: \$3.125	/LCY		Total job cost:	\$23,385	

	Task description:	Rip Tru	ck Loadout Road				
Site	Bowie No. 2 M	line	Permit Action:	RN5	Permit/J	lob#: <u>C19960</u>	183
	PROJECT IDE	ENTIFICATION					
	Task #:         072           Date:         11/2           User:         RD2	20/2021	State:ColoradoCounty:Delta		Abbreviation Filenar		2
	Agency	or organization nan	ne: DRMS				
		JIPMENT COST					
	Basic M Ripper Atta		- 0T - 10SU k Ripper		Horsepower: Shift Basis: Data Source:	574 1 per day (CRG)	
	Cost Breakdown:						
		Ownership Cost/H Operating Cost/H		\$169.60 \$166.94	Utilization % NA 100		
		r Ownership Cost/H	Hour:	\$28.00	NA		
	Ripp	er Operating Cost/H Operator Cost/H		\$14.69 \$41.30	100 NA		
		Total Unit Cost/I		\$420.53			
		Total Fleet Cost/I	Hour: \$1,68	2.13			
	MATERIAL Q	UANTITIES	Sele	cted estimating	method: Seismic		
	Alternate Methods		bere				
Seismic:	4,800	BCY	Bank Volume:	4,800	BCY	Adverse	
Area:	NA	acres	Rip Depth (ft):	NA	Volume: NA		BCY or CC
		Source of estimate	d quantity: <u>Divisio</u>	n Estimate			
	HOURLY PRO	DUCTION					
	Seismic:						
		Seis	mic Velocity:	5,000	feet/second		
	Area:						
			pping Depth: pping Width:	NA NA	feet/pass feet/pass		
			pping Length:	NA	feet/pass		
			Dozer Speed:	NA	feet/minute		
			neuver Time:	NA	minutes/pass		
			per unit area:	NA	acres/hour		
	Job Condition Con						
	Una	djusted Hourly Uni	it Production:	673.60	Cu. yds./hr		
			Site Altitude:	6,000	feet		
			Altitude Adj:	<u>1.00</u> 0.83	(CAT HB) (1 shift/day)		
			et Correction:	0.83	(1 shift/day) multiplier		
			Irly Unit Production: rly Fleet Production:	559.09 <b>2,236.35</b>	Cu. yds./hr Cu. yds./hr		
	JOB TIME AN	D COST					
	Fleet size:	G	rader(s)	Total job time	2.15	Ho	ours
	Unit cost:	\$0.752 P	er cu. yd.	Total job cost	t: \$3,610		

Page 1 of 2

## SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	Per	mit Action:	RN5	Perr	mit/Job#: <u>C1996</u>	5083
PROJECT IDEN	<b>TIFICATION</b>					
Task #: 073	State:	Colorado		Abbrey	viation: None	
Date: 11/20/2		Delta			ename: C083-0	)73
User: RDZ						
Agency or o	organization name: DI	RMS				
HOURLY EQUIP	MENT		COSTS	hift basis: <u>1 per d</u>	ay	
			ent Description			
	-Scraper		7G w/push-pull			
Suppo	Dozer- The Equipment -Load Area					
Suppo	-Dump Area					
Road Ma	intenance – Motor Grader					
	-Water Truck	: NA				
Cost Breakdown:	Scraper Work Tea	m	Support Equi	nment	Maintenance	Fauinmen
<u>Cost Dicardown</u> .	1	Dozer	Load Area	Dump Area	Motor Grader	Water 7
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work: \$	779.06	Support:	\$0.00	Maint:	\$0.0
Total work team cost	/hour: <u><b>\$779.06</b></u>					
MATERIAL QUA	NTITIES					
Initial volume:	6,000	CCY	Swell fact	tor: <u>1.000</u>		
Loose volume:	6,000	LCY				
	rce of estimated volume: of estimated swell factor:	0				
HOURLY PROD	UCTION					
			Scraper B	owl (volume) Basi	s:	
Material weight:	2,850 lbs/LCY		_	Volume: 15.70		CY
Material description:	Gravel - Dry (1/4""-2"	"diam.)	Heaped			CY
Rated Payload:	52,800 pounds 18.53 LCY		Average Adjusted C	Volume: 18.85	L	CY
Payload Capacity:				Capacity: <b>18.53</b>		CY

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2600.00	0.00	5.00	5.00	2218	1.35

Haul Time: **1.35** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2600.00	0.00	5.00	5.00	2814	1.07
				Return Time:	1.07	minutes
			Total Scrap	er team cycle time:	3.92	minutes
			Adjusted	for job conditions:	470.72	LCY/Hour
			Selected N	umber of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	470.72	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)	hourly production:	470.72	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			_ LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)		Total job time:	12.75	Hours
Uni	t cost: \$1.655	/LCY		Total job cost:	\$9,930	

	Task descript	ion:	Rip Upper Haul Road Asphalt Prior to Road Narrowing						
Site: Bowie No. 2 Mine		2 Mine	Per	mit Action:	RN5	Permit/J	06083		
	PROJECT	<b>IDENTIFIC</b>	CATION						
	Task #: _ Date: _ User: _	074 11/20/2021 RDZ	State: County:	Colorado Delta		Abbreviation Filenar		074	
	Age	ncy or organiz	zation name: DI	RMS					
	•	EQUIPMEN							
		sic Machine:	Cat D10T - 10S	II		Horsepower:	574		
		Attachment:	1-Shank Ripper			Shift Basis:	1 per day		
						Data Source:	(CRG)		
	Cost Breakdo	own:				Utilization %			
		Owners	hip Cost/Hour:		\$169.60	NA			
			ing Cost/Hour:		\$166.94	100			
			hip Cost/Hour:		\$28.00 \$14.69	<u>NA</u> 100			
			tor Cost/Hour:		\$41.30	NA			
		-	Unit Cost/Hour:		\$420.53				
		Total Fl	leet Cost/Hour:	\$1,68	2.13				
	MATERIA	L QUANTI	TIES –	Sele	ected estimating	method: Seismic			
	Alternate Me	-		Sere		inctriod. <u>Seisinic</u>			
Seismic:	6,600	BCY	Z Ban	k Volume:	6,600	ВСҮ	Adverse		
Area:	NA	BC I		Depth (ft):	NA	Volume: NA	Auverse	BCY or CC	
		Source of	of estimated quanti		n Estimate				
	HOURIV	PRODUCTI	-						
	Seismic:		Seismic Velocity:		5,000	feet/second			
	Aroos								
	Area:	Δ	Average Ripping D	enth:	NA	feet/pass			
			verage Ripping W	·	NA	feet/pass			
		A	verage Ripping Le		NA	feet/pass			
			Average Dozer S		NA	feet/minute			
			verage Maneuver T roduction per unit		NA NA	minutes/pass acres/hour			
	L.L. C P.C.		-	aica.	INA				
	Job Condition	n Correction F			<b>(50</b> (0)				
		Unadjusted F	Hourly Unit Produc		673.60	Cu. yds./hr			
			Site Alti		6,800	feet			
			Altitude Job Efficio		<u>1.00</u> 0.83	(CAT HB) (1 shift/day)			
			Net Correc	· ·	0.83	(1 shift/day) multiplier			
		Adi	justed Hourly Unit	Production:	559.09	Cu. yds./hr			
			usted Hourly Fleet		2,236.35	Cu. yds./hr			
	JOB TIME	AND COST	<u>r</u>						
	Fleet size	:4	Grader(s)		Total job time	2.95		Hours	
	Unit cost	: \$0.752	2 Per cu. yd		Total job cost	t: <b>\$4,964</b>			

## TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	e	Permit Action	on: <u>RN5</u>		Permit/Job#: <u>C</u>	1996083
PROJECT IDEN Task #: 075	TIFICATION	State: Colora	do	۸h	breviation: No	20
Date: $\frac{1075}{11/20}$	/2021	County: Delta	ado	A0		ne 83-075
User: RDZ						
Agency or	organization nam	e: DRMS				
HOURLY EQUI	PMENT COST	<u>.</u>		Shift bas	sis: <u>1 per day</u>	
			Equipment Descri	ption		
Т	ruck Loader Tear		773F			
Supp	ort Equipment -L		365C L 13'-7" S	tick		
	-Du	mp Area: NA				
Road M	aintenance – Moto					
	-Wai	er Truck: NA				
Cost Breakdown:	Truck/Loa	der Team	Support 1	Equipment	Maintenan	ce Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$122.05	\$173.79	NA	NA	NA	NA
Operating cost/hour:	\$92.14	\$148.12	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$33.34	\$37.32	NA	NA	NA	NA
Unit Subtotals:	\$247.53	\$359.23	NA	NA	NA	NA
Number of Units:	2 Work:	1 \$854.29	0 Support:	\$0.00	0 Maint:	\$0.00
Group Subtotals:		\$854.29	Support:	\$0.00	Maint:	\$0.00
Total work team cos MATERIAL QU	ANTITIES					
Initial volume: Loose volume:		CCY LCY		factor: 1.165		
	· · · · · · · · · · · · · · · · · · ·					
	urce of estimated of estimated swe	1	ator Estimate Handbook			
boulee	Material Purcha					<u> </u>
	То	tal Cost: \$0.00	)			
	DUCTION					
HOURLY PRO	DUCTION					
Truck Capacity:	abt) Design					
Truck Payload (weig Material w			Pounds/LCY	-		
		1 1 5000				
Descr Rated Pa			Rock, 50% Earth Pounds	1		

Struck Volume:						
		LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	42.25 I	LCY				
Einel	Truch Volumo I	Deced on Number of I	ander Dessage	42.26	LCV	
Loading Tool Capacity	Truck volume i	Based on Number of I	Loader Fasses.	42.26	LCY	
Loading Tool Capacity			Decal	et Cine Classe I		
	< 000		Buck	et Size Class:	arge	-
Rated Capacity:	<u>6.900</u> 0.875	LCY (heaped) Loose material - 1	1" and arran (95	000/) 0 975		-
Adjusted Capacity:	<u> </u>	LOOSE Material - J	i and over (85	- 90%) 0.873		-
Aujusicu Capacity.	0.030					
Job Condition Corrections:	-	Site	e Altitude (ft.): <u>6</u>	<u>900</u> 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 Pass	as Required to I	fill Truck	7 r	196696
Excavators and Front Shovel		or Loading 1001 Fass		III IIUCK.	ŀ	asses
Machine Cycle Time vs		Rating: SEVERE				
Selected Value w	vithin this Basic	Rating: SEVERE				
Selected Value v Track Loaders – J		<u> </u>				
	Material Descrip	<u> </u>				
Track Loaders –	Material Descrip	<u> </u>		Dump: 0.100	)	
Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u>	Material Descrip Ma	ption:		I		ites
Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	Material Descrip Ma	ption:		naneuver):	NA minu	ıtes
Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	Material Descrip  Unadjusted Bas	ption:		naneuver): Factor (min.)	NA minu Source	ites
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	Material Descrip  Unadjusted Bas 	ption:		naneuver): Factor (min.) NA	NA minu Source (Cat HB)	ites 
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	Material Descrip  Unadjusted Bas  NA 	ption:		naneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	ites 
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Descrip  Unadjusted Bas  NA  NA	ption:		naneuver): Factor (min.) NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB)	ites 
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Bas NA NA NA NA	ption:		naneuver): Factor (min.) NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites 
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Descrip  Unadjusted Bas  NA  NA	ption: aneuver:NA sic Loader Cycle Time	e (load, dump, m	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	Ites    
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Bas NA NA NA NA	ption: aneuver:NA sic Loader Cycle Time  Net Cycle Time	e (load, dump, m	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	Ites    
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Bas NA NA NA NA	ption: aneuver:NA sic Loader Cycle Time	e (load, dump, m Adjustment: _ Cycle Time:	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites  
Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Descrip Ma Unadjusted Bas NA NA NA NA	ption: aneuver:NA sic Loader Cycle Time Net Cycle Time Adjusted Loader	e (load, dump, m Adjustment: _ Cycle Time:	naneuver): Factor (min.) NA NA NA NA NA NA NA 0.570	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites    
Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: <b>Truck Cycle Time:</b>	Material Descrip Ma Unadjusted Bas NA NA NA NA NA NA	ption: aneuver:NA sic Loader Cycle Time Net Cycle Time Adjusted Loader Net Load Tin	e (load, dump, m e djustment: Cycle Time: ne per Truck:	naneuver): Factor (min.) NA NA NA NA NA O.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Stockpile: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time:	Material Descrip Ma Unadjusted Bas NA NA NA NA NA NA NA	ption: aneuver:NA sic Loader Cycle Time Sic Loader Cycle Time Adjusted Loader Net Load Tin Minutes	e (load, dump, m dijustment: Cycle Time: ne per Truck:	haneuver): Factor (min.) NA NA NA NA NA NA 0.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700	
Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	Material Descrip Ma Unadjusted Bas NA NA NA NA NA NA NA SA O.70 3.520	ption: aneuver:NA sic Loader Cycle Time Sic Loader Cycle Time Minutes Minutes Minutes	e (load, dump, m e (load, dump, m djustment: Cycle Time: ne per Truck: Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA 0.570 3.520 for site altitude: for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes 0.700 3.520	    Minute
Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Stockpile: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time:	Material Descrip Ma Unadjusted Bas NA NA NA NA NA NA NA SA O.70 3.520	ption: aneuver:NA sic Loader Cycle Time Sic Loader Cycle Time Adjusted Loader Net Load Tin Minutes	e (load, dump, m e (load, dump, m djustment: Cycle Time: ne per Truck: Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA NA 0.570 3.520	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.700	ntes 
Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	Material Descrip Ma Unadjusted Bas NA NA NA NA NA NA SA O.70 :3.520 :1.10	ption: aneuver:NA sic Loader Cycle Time Sic Loader Cycle Time Minutes Minutes Minutes	e (load, dump, n e (load, dump, n distribution Adjustment: Cycle Time: ne per Truck: Adjusted Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA 0.570 3.520 for site altitude: for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes 0.700 3.520 1.100	    Minute

	Haul Rou	te:							
	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	-	(Ft)			(%)	(%)	(fpm)	Time	
_				10.00	2.00	12.00		(min)	
	1	750.0	0	10.00	3.00	13.00	678	1.135	
						Haul Time:	1.135	minutes	
	Return Re								
	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	750.0	0	-10.00	3.00	-7.00	3512	0.267	
						Return Time:	0.267	minutes	
					Total Tru	ck Cycle Time:	6.722	minutes	
Lo	oading Too								
		uction	600.89	LCY/Hour		Adjusted for j	ob efficiency:	498.74	LCY/Hour
Truck	Unit Produ	uction							
		-	377.23	LCY/Hour		Adjusted for j	ob efficiency:	313.10	LCY/Hour
Optimal	l No. of Ti	ucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
				Adjuste	ed hourly true	k team production	on: 626	.20 LCY/H	lour
						er team production		.74 LCY/H	lour
				Adjusted multip				.74 LCY/H	lour
						1			
	JOB TI	ME AN	JD COST						
	Fleet	size:	1	Team(s)	<b>r</b>	Fotal job time:	141.4	Hour	S
	Unit	cost:	\$1.713	/LCY		Total job cost:	\$120,8	358	

### BULLDOZER WORK

Task description:	Regrade Narro	wed Section of	of Haul Road		
Bowie No. 2 Mine	Pe	ermit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	<b>ICATION</b>				
Task #: 076	State:	Colorado		Abbreviation:	None
Date: $11/21/2021$				Filename:	C083-076
User: RDZ					
Agency or organ	nization name: <u> </u>	ORMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	t D10T - 10SU				
Horsepower: 574					
• • •	mi-Universal				
Attachment: NA	۱				
	ber day				
Data Source: (CI	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
		\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL OUANT	\$377.84 \$1,511.37	¢ 11.50			
Total unit Cost/Hour:	\$1,511.37 <u>FITIES</u>	¢11130			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>60,5</u> Swell factor: <u>1.16</u>	\$1,511.37 FITIES 564 55				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 60,5 Swell factor: 1.16 Loose volume: 70,5	\$1,511.37 FITIES 564 55 557 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 60,5 Swell factor: 1.16 Loose volume: 70,5 Source of estimated volum	\$1,511.37 <b>FITIES</b> 564 55 557 LCY me:Operato	  or Estimate			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 60,5 Swell factor: 1.16 Loose volume: 70,5	\$1,511.37 <b>FITIES</b> 564 55 557 LCY me:Operato	  or Estimate			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum         Source of estimated swell	\$1,511.37 <b>FITIES</b> 564 55 557 LCY me: <u>Operato</u> 1 factor: Cat Han	  or Estimate			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT	\$1,511.37 <b>FITIES</b> 564 555 557 LCY me: Operato 1 factor: Cat Han <b>TION</b>	  or Estimate			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:	\$1,511.37 <b>TITIES</b> 564 55 557 LCY me: Operato 1 factor: Cat Han <b>TION</b> 75 feet	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT	\$1,511.37 <b>TITIES</b> 564 55 557 LCY me: Operato 1 factor: Cat Han <b>TION</b> 75 feet	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volu         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency destance:	\$1,511.37         FIFIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0         scription:       Comp	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volu         Source of estimated swell         HOURLY PRODUC?         Average push distance:         Unadjusted hourly produc         Materials consistency des         Average push gradient:	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0         scription:       Comp         5 %	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volu         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency destance:	\$1,511.37         FIFIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0         scription:       Comp	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volu         Source of estimated swell         HOURLY PRODUC?         Average push distance:         Unadjusted hourly produc         Materials consistency des         Average push gradient:	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0         scription:       Comp         5 %	or Estimate adbook			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       2,105.3 L0         scription:       Comp         5 %         6,500 feet	or Estimate adbook	  mbankment 0.9		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average site altitude:         Material weight:         Weight description:         Iob Condition Correction	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         ction:       2,105.3 L0         scription:       Comp         5 %       6,500 feet         2,900 lbs/LCY       Decomposed rocion         n Factor       Factor	or Estimate adbook	  mbankment 0.9		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum       5000000000000000000000000000000000000	\$1,511.37         ITTIES $564$ $55$ $557$ LCY         me:       Operato         1 factor:       Cat Han         TION         ction: $75$ feet         2,105.3 L0         scription:       Comp $\frac{5 \%}{6,500 \text{ feet}}$ 2,900 lbs/LCY         Decomposed roc         n Factor         Skill:	r Estimate adbook CY/hr pacted fill or en k - 50% Rock,			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volum       5000000000000000000000000000000000000	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0         scription:       Comp         5 %       6,500 feet         2,900 lbs/LCY       Decomposed roci         n Factor       Skill:       0	r Estimate adbook CY/hr bacted fill or en k - 50% Rock, 0.750 0.900			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       60,5         Swell factor:       1.16         Loose volume:       70,5         Source of estimated volu         Source of estimated swell         HOURLY PRODUC?         Average push distance:         Unadjusted hourly product         Materials consistency destance:         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Iob Condition Correction         Operator         Material consist         Dozing me	\$1,511.37         FITIES         564         55         557 LCY         me:       Operato         1 factor:       Cat Han         TION         ction:       75 feet         2,105.3 L0         scription:       Comp         5 %         6,500 feet         2,900 lbs/LCY         Decomposed roc         n Factor         Skill:       0         tency:       0	r Estimate adbook CY/hr pacted fill or en k - 50% Rock,			

Task # 076

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3209	
Adjusted unit production: 67	75.59 LCY/hr	
Adjusted fleet production: 27	702.36 LCY/hr	

### JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.559/LCY
Total job time:	<b>26.11</b> Hours

Job unic.		
Total job cost:	\$39,461	_

	Task description:	<b>Rip</b> G	ob Pile #1 Road				
Site:	Bowie No. 2 M	ine	Permit Action:	RN5	Permi	t/Job#: <u>C19</u>	96083
	PROJECT IDE	ENTIFICATIO	<u>DN</u>				
	Task #: 077		State: Colorado		Abbrevia	tion: None	;
		21/2021	County: Delta		Filen	ame: C083	6-077
	User: RD2	Z					
	Agency	or organization r	ame: DRMS				
	HOURLY EQU	JIPMENT CO	<u>ST</u>				
	Basic N	Aachine: Cat	D10T - 10SU		Horsepower:	574	
	Ripper Atta	achment: 1-Sh	ank Ripper		Shift Basis:	1 per day	
					Data Source:	(CRG)	
	Cost Breakdown:						
			. / T T		Utilization %		
		Ownership Cos Operating Cos		\$169.60 \$166.94	NA 100		
	Rippe	r Ownership Cos		\$100.94	NA		
		er Operating Cos		\$14.69	100		
	11	Operator Cos		\$41.30	NA		
		Total Unit Cos	st/Hour:	\$420.53			
		Total Fleet Cos	st/Hour: \$1.6	82.13			
	MATERIAL O						
	MATERIAL O	UANIIIES	Sel	ected estimating 1	method: Seismic		
	Alternate Methods	<u>s:</u>					
Seismic:	5,277	BCY	Bank Volume:	5,277	BCY	Adverse	
Area:	NA	acres	Rip Depth (ft):	NA	Volume: NA		BCY or CCY
		Source of estim	ated quantity: Page 3	5.02-2			
	HOURLY PRO	DUCTION					
	<u>Seismic:</u>	S	aiamia Valaaituu	5 000	feet/second		
		3	eismic Velocity:	5,000			
	Area:				<b>a</b> 1		
			Ripping Depth: Ripping Width:	NA NA	feet/pass feet/pass		
			Ripping Length:	NA	feet/pass		
			ge Dozer Speed:	NA	feet/minute		
		Average l	Maneuver Time:	NA	minutes/pas	5	
		Producti	on per unit area:	NA	acres/hour		
	Job Condition Con	rrection Factors					
	Una	djusted Hourly	Unit Production:	673.60	Cu. yds./hr		
			Site Altitude:	6,000	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
		Adjusted I	Hourly Unit Production:	559.09	Cu. yds./hr		
			ourly Fleet Production:	2,236.35	Cu. yds./hr		
	JOB TIME AN	D COST					
	Fleet size:						
		4	Grader(s)	Total job time:	: 2.36		Hours

### BULLDOZER WORK

Task description:	Regrade (	Gob Pile #	1 Road				
Bowie No. 2 Mine		Permit	Action:	RN5		Permit/Job#:	C1996083
PROJECT IDENTI	FICATION						
Task #:     078       Date:     11/21/202       User:     RDZ			Colorado Delta			Abbreviation: Filename:	None C083-078
Agency or org	anization name	: DRM	S				
HOURLY EQUIPM	ENT COST						
	at D10T - 10SU	J					
· ·	74						
	emi-Universal						
	-shank ripper						
	per day						
Data Source: (C	CRG)						
Cost Breakdown:							
Cost Dieakuowii.			1	т	Itilization %		
Ownership Cost/Hour:			\$169.60	<u> </u>	NA		
Operating Cost/Hours			\$166.94		100		
			\$25.19		 NA		
Ripper own. Cost/Hour							
Ripper op. Cost/Hour			\$13.74		100		
			\$41.30		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL OUAN	\$416.77 <b>\$1,667.09</b>		ψ-1.50				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:5,9	\$416.77 <b>\$1,667.09</b> TITIES 163		φ+1.50				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1	\$416.77 <b>\$1,667.09</b> TITIES 163						
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9 Source of estimated vol	\$416.77 <b>\$1,667.09</b> TITIES 063 65 047 LCY ume: Pa	age 3.02-2					
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9	\$416.77 <b>\$1,667.09</b> TITIES 063 65 047 LCY ume: Pa	age 3.02-2 at Handboo					
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9 Source of estimated vol	\$416.77 <b>\$1,667.09</b> <b>TITIES</b> 63 65 <b>47</b> LCY ume: Pa ell factor: Ca						
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance:	\$416.77         \$1,667.09         TITIES         63         65         947 LCY         ume:       Pa         ell factor:       Ca         CTION       200	at Handboo					
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$416.77         \$1,667.09         TITIES         963         65         947 LCY         ume:       Pa         ell factor:       Ca         CTION         uction:       946.	feet 0 LCY/hr	ok				
Total unit Cost/Hour:         Total Fleet Cost/Hour: <b>MATERIAL QUAN</b> Initial Volume:       5,9         Swell factor:       1.1         Loose volume:       6,9         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency destination	\$416.77         \$1,667.09         TITIES         163         65         147 LCY         ume:       Pa         ell factor:       Ca         CTION         uction:       946.         escription:	at Handboo	ok	  nbank me			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$416.77         \$1,667.09         TITIES         963         65         947 LCY         ume:       Pa         ell factor:       Ca         CTION         uction:       946.	feet 0 LCY/hr	ok	  mbank me			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 5,9 Swell factor: 1.1 Loose volume: 6,9 Source of estimated vol Source of estimated vol Source of estimated swee HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient:	\$416.77 \$1,667.09 TITIES 163 165 147 LCY ume: Pa ell factor: Ca CTION uction: 946. escription: 0 %	feet 0 LCY/hr Compacte	ok	  mbank me			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,9         Swell factor:       1.1         Loose volume:       6,9         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:		feet 0 LCY/hr Compacte .CY	ok d fill or en		ent 0.9		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,9         Swell factor:       1.1         Loose volume:       6,9         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average site altitude:         Material weight:		feet 0 LCY/hr Compacte .CY	ok d fill or en		ent 0.9		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,9         Swell factor:       1.1         Loose volume:       6,9         Source of estimated vol         Source of estimated vol         Source of estimated swell         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average site altitude:         Material weight:         Weight description:		feet 0 LCY/hr Compacte .CY	ok d fill or en 		ent 0.9 rth		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,9         Swell factor:       1.1         Loose volume:       6,9         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction		feet 0 LCY/hr Compacte .CY ed rock - 5	ok d fill or en - - 0% Rock, 0		ent 0.9 rth Source		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,9         Swell factor:       1.1         Loose volume:       6,9         Source of estimated vol         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operato		feet 0 LCY/hr Compacte .CY ed rock - 5 0.750	ok d fill or en - - 0% Rock, 0 0		ent 0.9 rth <u>Source</u> (AVG.)		

Task # 078

cy: 0.830	(1 SHIFT/DAY)			
le: 0.800	(FND-RF)			
nt: 1.000	(CAT HB)			
le: 1.000	(CAT HB)			
ht: 0.793	(CAT HB)			
be: 1.000	(PAT)			
on: 0.3554				
336.21 LCY/hr				
djusted unit production:336.21 LCY/hrdjusted fleet production:1344.84 LCY/hr				
	le:       0.800         nt:       1.000         le:       1.000         nt:       0.793         pe:       1.000         nt:       0.3554         336.21 LCY/hr			

## JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$1.240/LCY
Total job time:	<b>5.17</b> Hours
Total job cost:	\$8,612
# BULLDOZER RIPPING WORK

	Task description:	Rip Access	Road				
Site	Bowie No. 2 Mine	2	Permit Action:	RN5	Permi	t/Job#: <u>C19</u>	996083
	PROJECT IDEN	<b><u><b>FIFICATION</b></u></b>					
	Task #:         079           Date:         11/21/2           User:         RDZ		State: Colorado unty: Delta		Abbrevia Filen		e 3-079
	Agency or o	organization name:	DRMS				
	HOURLY EQUIE	PMENT COST					
	Basic Mac Ripper Attach	chine: Cat D10T		_	Horsepower: Shift Basis: Data Source:	574 1 per day (CRG)	
	Cost Breakdown:						
	Ripper C	Ownership Cost/Ho Operating Cost/Ho Ownership Cost/Ho Operating Cost/Ho	ur:	\$169.60 \$166.94 \$28.00 \$14.69	Utilization % <u>NA</u> 100 <u>NA</u> 100		
	Ripper	Operator Cost/Ho		\$14.09	NA		
	]	Total Unit Cost/Ho	ur:	\$420.53			
	Т	otal Fleet Cost/Ho	ur: <b>\$1,68</b>	2.13			
	MATERIAL QUA	ANTITIES	Sele	cted estimating	method: Seismic		
	Alternate Methods:			C			
Seismic:	1,648	BCY	Bank Volume:	1,648	BCY	Adverse	
Area:	NA	acres	Rip Depth (ft):	NA	Volume: NA		BCY or CCY
	Se	ource of estimated	quantity: Divisio	n Estimate			
	HOURLY PROD	UCTION					
	Seismic:	Seismi	c Velocity:	5,000	feet/second		
	Area:			274	C		
		Average Ripp Average Ripp		NA NA	feet/pass feet/pass		
		Average Rippi	ng Length:	NA	feet/pass		
		Average Do		NA	feet/minute	~	
		Average Mane Production pe		NA NA	minutes/pass acres/hour	\$	
	Job Condition Correc	-					
		sted Hourly Unit I	Production:	673.60	Cu. yds./hr		
		Si	te Altitude:	6,500	feet		
			titude Adj:	1.00	(CAT HB)		
			Efficiency:	0.83	(1 shift/day)		
		Net	Correction:	0.83	multiplier		
		•	y Unit Production: Fleet Production:	559.09 2,236.35	Cu. yds./hr Cu. yds./hr		
	JOB TIME AND	<u>COST</u>					
	Fleet size:	4 Grae	der(s)	Total job time	: <b>0.74</b>		Hours
	Unit cost:	\$0.752 Per	cu. yd.	Total job cost	: \$1,24	0	

Page 1 of 2

# SCRAPER TEAM WORK

Site: Bowie No. 2 Min	e	Permi	t Action:	RN5	Peri	mit/Job#: <u>C199</u>	6083
PROJECT IDEN	TIFICATION						
Task #: 080	St	tate:	Colorado		Abbrev	viation: None	
Date: 11/21/	2021 Cou	nty:	Delta		Fil	ename: C083-	080
User: RDZ			10				
	organization name:	DRM	15				
HOURLY EQUI	<u>PMENT</u>				hift basis: <u>1 per d</u>	<u>ay</u>	
				ent Description			
		raper: Dozer:	Cat 627 NA	7G w/push-pull			
Supp	ort Equipment -Load		NA				
~ ~pp	-Dump		NA				
Road Ma	aintenance – Motor G		NA				
	-Water	Fruck:	NA				
Cost Breakdown:	Scraper Worl	c Team		Support Equi	nment	Maintenance	- Fauipr
<u>Cost Ditakuowii</u> .	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Wat
%Utilization-machine:	100		NA	NA	NA	NA	
Ownership cost/hour:	\$188.81		NA	NA	NA	NA	
Operating cost/hour:	\$169.82		NA	NA	NA	NA	
%Utilization-ripper:	NA		NA	NA	NA	NA	
Ripper own. cost/hour:	NA		NA	NA	NA	NA	
Ripper op. cost/hour:	NA		NA	NA	NA	NA	
Operator cost/hour:	\$30.90		NA	NA	NA	NA	
Unit Subtotals:	\$389.53		NA	NA	NA	NA	
Number of Units:	2		0	0	0	0	
Group Subtotals:	Work:	\$779	9.06	Support:	\$0.00	Maint:	9
Total work team cos	t/hour: <u>\$779.06</u>						
MATERIAL QU	ANTITIES						
Initial volume:	1,928		CCY	Swell fact	tor: 1.000		
Loose volume:	1,928		LCY				
	arce of estimated vol of estimated swell fa		Division Cat Hand	of Reclamation, 1 dbook	Mining & Safety		
HOURLY PROD	UCTION	_					_
<u>HOURITINOD</u>				Scraper B	owl (volume) Basi	is:	
Material weight:	2,900 lbs/LCY			-	Volume: 15.70		CY
Material description:	Decomposed rock 50% Earth	- 50% ]	Rock,	Heaped			CY
Rated Payload:	52,800 pounds			Average			LCY
Payload Capacity:	18.21 LCY			Adjusted C	Capacity: 18.21		CY

<u>0.90</u> Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3900.00	-2.50	3.00	0.50	2921	1.50

Haul Time: **1.50** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3900.00	2.50	3.00	5.50	2736	1.57

Return Time:	1.57	minutes
Total Scraper team cycle time:	4.57	minutes
Adjusted for job conditions:	396.81	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	396.81	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	396.81	LCY/Hour
Unadjusted unit meduation hours 479.09 I CV/Hours		

Unadjusted unit production/hour: 478.08 LCY/Hour Optimal Number of Scrapers per push dozer:

Fleet size:	1	Team(s)	Total job time:	4.86	Hours
Unit cost:	\$1.963	/LCY	Total job cost:	\$3,785	_

Task description:	Regrade Access	Road			
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 081	State:	Colorado		Abbreviation:	None
Date: $11/21/202$		Delta		Filename:	C083-081
User: $RDZ$	County:	Dena		Filename.	0003-001
	anization name: D	RMS			
HOURLY EQUIPM					
	at D10T - 10SU				
	74				
	emi-Universal				
Attachment: N					
	per day				
	CRG)				
Cost Breakdown:		1	TL'1' · · · · · ·		
		¢1.coco	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
		\$0.00	0		
Ripper op. Cost/Hour:		¢ 11 20	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$377.84 <b>\$1,511.37</b>	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:3,2	\$377.84 <b>\$1,511.37</b> <b>TITIES</b> 96		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,2</u> Swell factor: <u>1.3</u>	\$377.84 <b>\$1,511.37</b> <b>TITIES</b> 96		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated swee HOURLY PRODUC Average push distance:	\$377.84 \$1,511.37 TITIES 96 30 84 LCY ume: Division Cat Hance CTION 100 feet	of Reclamati Ibook	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated swee HOURLY PRODUC	\$377.84 \$1,511.37 TITIES 96 30 84 LCY ume: Division 81 factor: Cat Hance CTION 100 feet 1,718.9 LC	of Reclamati lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volu Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly produced	\$377.84 \$1,511.37 TITIES 96 30 84 LCY ume: Division 81 factor: Cat Hance CTION 100 feet 1,718.9 LC	of Reclamati lbook	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated swee HOURLY PRODUC Average push distance: Unadjusted hourly produced Materials consistency de Average push gradient:	\$377.84 \$1,511.37 TITIES 96 30 84 LCY ume: Division 84 LCY ume: Division Cat Hand CTION 2TION 400 feet 1,718.9 LC escription: Compa 0 %	of Reclamati lbook	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated swet HOURLY PRODUC Average push distance: Unadjusted hourly produced Materials consistency de Average push gradient: Average site altitude:	\$377.84 \$1,511.37 TITIES 96 30 84 LCY ame: Division 84 LCY ame: Division Cat Hance CTION action: 1,718.9 LC escription: Compa 0 % 6,500 feet	of Reclamati book	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency de Average push gradient: Average site altitude: Material weight:	\$377.84 \$1,511.37 TITIES 96 30 84 LCY ume: Division 84 LCY ume: Division Cat Hance CTION uction: 1,718.9 LC escription: Compa 0 % 6,500 feet 2,900 lbs/LCY Decomposed rock	of Reclamati book	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	$\begin{array}{r} \$377.84 \\ \$1,511.37 \\ \hline \\ \hline \\ \$1,511.37 \\ \hline \\ \hline \\ \hline \\ \hline \\ \$1,511.37 \\ \hline \\ \hline \\ \hline \\ 96 \\ 30 \\ \hline \\ \hline \\ 84 \\ LCY \\ \hline \\ \hline \\ \hline \\ 84 \\ LCY \\ \hline \\ $	of Reclamati book	on, Mining & Safety   mbankment 0.9		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency do Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	$\begin{array}{c} \$377.84 \\ \$1,511.37 \\ \hline \\ \hline \\ \$1,511.37 \\ \hline \\ \hline \\ \hline \\ \$1,511.37 \\ \hline \\ \hline \\ \hline \\ 96 \\ 30 \\ \hline \\ 84 \\ LCY \\ \hline \\ \hline \\ 100 \\ feet \\ \hline \\ Ction \\ \hline \\ $	of Reclamati lbook Y/hr acted fill or en	on, Mining & Safety on, Mining & Safety mbankment 0.9 50% Earth Source		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,2 Swell factor: 1.3 Loose volume: 4,3 Source of estimated volt Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	$\begin{array}{c c} \$377.84 \\ \hline \$1,511.37 \\ \hline \\ \hline \\ \hline \\ \$1,511.37 \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ 96 \\ 30 \\ \hline \\ \hline \\ 84 \\ LCY \\ \hline \\ \hline \\ \hline \\ 84 \\ LCY \\ \hline \\ $	of Reclamati book Y/hr acted fill or en	on, Mining & Safety on, Mining & Safety mbankment 0.9 50% Earth Source (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	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3554	
Adjusted unit production:	610.90 LCY/hr	
Adjusted fleet production:	2443.6 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.619/LCY
Total job time:	1.79 Hours
Total job cost:	\$2,711

			Road to Gob Pile #2		
Bowie No. 2 Mine	Peri	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFI	<b>CATION</b>				
Task #:         083           Date:         11/21/2021           User:         RDZ	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-083
Agency or organi	ization name: DR	RMS			
HOURLY EQUIPME	NT COST				
	D10T - 10SU				
Horsepower: 574					
<b>91</b>	i-Universal				
	ank ripper				
	r day				
Data Source: (CR	G)				
Cost Breakdown:					
<u></u> ,			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$13.74	100		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour:	\$416.77				
Total Fleet Cost/Hour:	\$1,667.09				
MATERIAL QUANTI	,				
=	,				
MATERIAL QUANTI	<u>ITIES</u>				
MATERIAL QUANTI Initial Volume: _ 600	ITIES				
MATERIAL QUANTIInitial Volume:600Swell factor:1.165Loose volume:699 L	ITIES CY				
MATERIAL QUANTIInitial Volume:600Swell factor:1.165Loose volume:699 LSource of estimated volume	ITIES CY ne: _Division (		on, Mining & Safety		
MATERIAL QUANTIInitial Volume:600Swell factor:1.165Loose volume:699 L	ITIES CY ne: _Division (		on, Mining & Safety		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated swell	ITIES CCY ne: Division of factor: Cat Hand		on, Mining & Safety		
MATERIAL QUANTIInitial Volume:600Swell factor:1.165Loose volume:699 LSource of estimated volume	ITIES CCY ne: Division of factor: Cat Hand		on, Mining & Safety		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT	ITIES CCY ne: Division of factor: Cat Hand		on, Mining & Safety		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 I         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:	ITIES CCY he: Division of factor: Cat Hand ION 150 feet	book	on, Mining & Safety		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT	ITIES CCY he: Division of factor: Cat Hand ION 150 feet	book	 on, Mining & Safety 		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 I         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION       150 feet         tion:       1,243.2 LC	book Y/hr	 on, Mining & Safety    mbankment 0.9		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency desc	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION         tion:       150 feet         1,243.2 LC*         cription:       Comparison	book Y/hr			
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average push gradient:	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION         tion:       150 feet         tion:       1,243.2 LC         cription:       Compa         5 %	book Y/hr			
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency desc	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION         tion:       150 feet         1,243.2 LC*         cription:       Comparison	book Y/hr			
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average push gradient:	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION         tion:       150 feet         tion:       1,243.2 LC         cription:       Compa         5 %	book Y/hr			
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average push gradient:         Average site altitude:	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION         tion:       150 feet         tion:       1,243.2 LC         cription:       Compa         5 %       6,100 feet	book Y/hr 	mbankment 0.9		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated volum         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average site altitude:         Material weight:	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         ION         tion:       1,243.2 LC         cription:       Compa         5 %         6,100 feet         2,900 lbs/LCY         Decomposed rock	book Y/hr 	mbankment 0.9		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated volum         Source of estimated volum         Materials consistency desc         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average site altitude:         Material weight:         Weight description:         Job Condition Correction	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         'ION         tion:       150 feet         1,243.2 LC'         cription:       Compa         5 %         6,100 feet         2,900 lbs/LCY         Decomposed rock         Factor	book Y/hr 	mbankment 0.9		
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated volum         Source of estimated volum         Materials consistency desc         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average site altitude:         Material weight:         Weight description:         Job Condition Correction I         Operator S	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         'ION         tion:       150 feet         1,243.2 LC'         cription:       Compare         5 %         6,100 feet         2,900 lbs/LCY         Decomposed rock         Factor         kill:       0.	book Y/hr cted fill or en  - 50% Rock.			
MATERIAL QUANTI         Initial Volume:       600         Swell factor:       1.165         Loose volume:       699 L         Source of estimated volum         Source of estimated volum         Source of estimated volum         Materials consistency desc         Average push distance:         Unadjusted hourly product         Materials consistency desc         Average site altitude:         Material weight:         Weight description:         Job Condition Correction	ITIES         CY         ne:       Division of Cat Hand         factor:       Cat Hand         'ION         tion:       150 feet         1,243.2 LC'         cription:       Compa         5 %         6,100 feet         2,900 lbs/LCY         Decomposed rock         Factor         kill:       0.         ncy:       0.	book Y/hr cted fill or ei - 50% Rock, 750	mbankment 0.9		

Job efficiency	y: 0.830	(1 SHIFT/DAY)
Spoil pile	e: 0.800	(FND-RF)
Push gradien	t: 0.903	(CAT HB)
Altitude	e: 1.000	(CAT HB)
Material Weigh	t: 0.793	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n: 0.3209	
Adjusted unit production:	398.94 LCY/hr	
Adjusted fleet production:	1595.76 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.045/LCY
Total job time:	<b>0.44</b> Hours
Total job cost:	\$730

# BULLDOZER RIPPING WORK

	Task description:	Ri	p Lower Haul Road					
Site	Bowie No. 2 M	line	Permit Action	n: RN5	I	Permit/Job#	: <u>C1996</u>	083
	PROJECT ID	ENTIFICAT	TION					
	Task #: 084 Date: 11/ User: RD	21/2021	State: Colorad County: Delta	do		breviation: Filename:	None C083-08	84
	Agency	or organizatio	on name: DRMS					
	HOURLY EQ	UIPMENT (	COST					
		Machine: <u>C</u>	Cat D10T - 10SU -Shank Ripper		Horsepower: Shift Basis: Data Source:	1 1	574 per day CRG)	
	Cost Breakdown:							
		Ownership Operating er Ownership per Operating	Cost/Hour:	\$169.60 \$166.94 \$25.19 \$13.74 \$41.30	Utilization % NA 100 NA 100 NA			
		Total Unit		\$416.77	INA	_		
		Total Fleet	Cost/Hour: \$1	1,667.09				
	MATERIAL C			Selected estimatin	g method: Are	29		
	Alternate Method		<u></u>			2d		
Seismic:	NA		Bank Volume	: NA	BCY		NA	
Area:	3.00	acres	Rip Depth (ft)		Volume:	9,680		BCY or CCY
		Source of es	timated quantity: <u>Div</u>	ision Estimate				
	HOURLY PRO	DUCTION	Ī					
	Seismic:		Seismic Velocity:	NA	feet/see	cond		
	Area:	<b>A</b>	Dissis Dest	2.00	<b>C</b> ent land			
			age Ripping Depth: age Ripping Width:	2.88 8.67	feet/pa feet/pa			
		Avera	ge Ripping Length:	200.00	feet/pa			
			erage Dozer Speed: ge Maneuver Time:	<u>88.00</u> 0.25	feet/mi minute			
			action per unit area:	0.947	acres/h	-		
	Job Condition Co	prrection Facto	<u>Drs</u>					
	Un	adjusted Hour	ly Unit Production:	0.947	Acres/I	hr		
			Site Altitude:	6,500	feet			
			Altitude Adj:	1.00	(CAT )	· ·		
			Job Efficiency:	0.83	(1 shift multipl	-		
			ed Hourly Unit Production d Hourly Fleet Production	on: 0.79	Acres/hr Acres/hr			
	JOB TIME AN	<b>D</b> COST						
	Fleet size:	4	Grader(s)	Total job tir	ne:	0.95	Н	ours
	Unit cost:	\$530.367	Per acre	Total job co	ost: 9	\$1,591		

Task description:	<b>Regrade Lower H</b>	laul Road			
Bowie No. 2 Mine	Perr	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 085	State:	Colorado		Abbreviation:	None
Date: $11/21/202$		Delta		Filename:	C083-085
User: RDZ	<u> </u>				
Agency or org	anization name: DR	RMS			
HOURLY EQUIPM					
	at D10T - 10SU				
Horsepower: 57					
~ I	emi-Universal				
	shank ripper				
	per day				
Data Source: (C	CRG)				
Cost Breakdown:		1	<b>.</b>		
		¢1.co.co	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA 100		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$166.94 \$25.19	100 NA		
Ripper op. Cost/Hour:		\$13.74	100		
Ripper op. Cost/Hour.		\$41.30			
Operator Cost/Hour					
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$416.77 <b>\$1,667.09</b>	φ <b>1</b> .50	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$416.77 <b>\$1,667.09</b> TITIES	Q <b>H</b> 1.30			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:37,	\$416.77 <b>\$1,667.09</b> TITIES 998				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1	\$416.77 <b>\$1,667.09</b> TITIES 998 65				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1 Loose volume: 44,	\$416.77 <b>\$1,667.09</b> TITIES 998 65 268 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1 Loose volume: 44, Source of estimated volu	\$416.77 <b>\$1,667.09</b> TITIES 998 65 268 LCY ume: Division of		on, Mining & Safety		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1 Loose volume: 44,	\$416.77 <b>\$1,667.09</b> TITIES 998 65 268 LCY ume:Division of				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1 Loose volume: 44, Source of estimated volt Source of estimated swe	\$416.77 \$1,667.09 TITIES 998 65 268 LCY ume: Division of cat Handle				
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated sweet         HOURLY PRODUCE	\$416.77 \$1,667.09 TITIES 998 65 268 LCY ume: Division of cll factor: Cat Handle CTION				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1 Loose volume: 44, Source of estimated volt Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance:	\$416.77 \$1,667.09 TITIES 998 65 268 LCY ume: Division of cat Handle CTION 200 feet	of Reclamati			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated sweet         HOURLY PRODUCE	\$416.77 \$1,667.09 TITIES 998 65 268 LCY ume: Division of cat Handle CTION 200 feet	of Reclamati			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37, Swell factor: 1.1 Loose volume: 44, Source of estimated volt Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance:	\$416.77         \$1,667.09         TITIES         998         65         268 LCY         ume:       Division of Cat Handle         ell factor:       Cat Handle         CTION       200 feet         uction:       946.0 LCY/1	of Reclamati book			
Total unit Cost/Hour:         Total Fleet Cost/Hour: <b>MATERIAL QUAN</b> Initial Volume:         37,         Swell factor:         1.1         Loose volume:         44,         Source of estimated volt         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:	\$416.77         \$1,667.09         TITIES         998         65         268 LCY         ume:       Division of Cat Handle         coll factor:       Cat Handle         CTION       200 feet         uction:       946.0 LCY/1         escription:       Compace         5 %	of Reclamati book	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated swell         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:	\$416.77         \$1,667.09         TITIES         998         65         268 LCY         ume:       Division of Cat Handle         200 feet         uction:       200 feet         scription:       Compace         5 %       6,500 feet	of Reclamati book	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour: <b>MATERIAL QUAN</b> Initial Volume:         37,         Swell factor:         1.1         Loose volume:         44,         Source of estimated volt         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:	\$416.77         \$1,667.09         TITIES         998         65         268 LCY         ume:       Division of Cat Handle         coll factor:       Cat Handle         CTION       200 feet         uction:       946.0 LCY/1         escription:       Compace         5 %	of Reclamati book	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated swell         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:	\$416.77         \$1,667.09         TITIES         998         65         268 LCY         ume:       Division of Cat Handle         200 feet         uction:       200 feet         scription:       Compace         5 %       6,500 feet	book	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated volt         Source of estimated volt         Materials consistency de         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average site altitude:         Material weight:         Weight description:         Job Condition Correction	\$416.77         \$1,667.09         TITIES         998         65         268 LCY         ume:       Division of Cat Handle         200 feet         uction:       200 feet         946.0 LCY//         escription:       Compace         5 %       6,500 feet         2,900 lbs/LCY       Decomposed rock -         on Factor       0	book hr cted fill or en	on, Mining & Safety on, Mining & Safety mbankment 0.9 50% Earth Source		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37, 1.1         Swell factor:       1.1         Loose volume:       44,         Source of estimated volto         Source of estimated volto         Source of estimated volto         Source of estimated volto         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator	$ \begin{array}{c c}  & \$416.77 \\ \hline \$1,667.09 \\ \hline \hline \\  & \$1,667.09 \\ \hline \\ \hline \\  & \$1,667.09 \\ \hline \\ \hline \\  & \$1,667.09 \\ \hline \\  & 998 \\ \hline \\  & 65 \\ \hline \\  & 268 LCY \\ \hline \\  & 0 ivision o \\ \hline \\  & 200 feet \\ \hline \\  & 200 feet \\ \hline \\  & 946.0 LCY \\ \hline \\  & escription: Compace \\ \hline \\  & 5\% \\ \hline \\  & 6,500 feet \\ \hline \\  & 2,900 lbs/LCY \\ \hline \\  & Decomposed rock \\ \hline \\  & n Factor \\ \hline \\  & skill: 0.7 \\ \hline \end{array} $	book hr cted fill or en 	on, Mining & Safety on, Mining & Safety mbankment 0.9 50% Earth Source (AVG.)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated volt         Source of estimated volt         Source of estimated volt         Materials consistency de         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator         Material consist	$ \begin{array}{c c}  & \$416.77 \\ \hline \$1,667.09 \\ \hline \hline \\  & \$1,667.09 \\ \hline \\ \hline \\  & \$1,667.09 \\ \hline \\ \hline \\  & \$1,667.09 \\ \hline \\  & 998 \\ \hline \\  & 65 \\ \hline \\  & 268 LCY \\ \hline \\  & une: Division of content of the test of the test of t$	hr 	on, Mining & Safety on, Mining & Safety mbankment 0.9 , 50% Earth Source (AVG.) (CAT HB))		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       37,         Swell factor:       1.1         Loose volume:       44,         Source of estimated volt         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Material consistency         Material consistency         Dozing m	$ \begin{array}{c c} \$416.77 \\ \hline \$1,667.09 \\ \hline TITIES \\ 998 \\ \hline 65 \\ 268 LCY \\ \hline ume: Division of Cat Handle \\ \hline 200 feet \\ \hline uction: 946.0 LCY/ \\ \hline escription: Compace \\ \hline 5 \% \\ \hline 6,500 feet \\ \hline 2,900 lbs/LCY \\ \hline Decomposed rock \\ \hline on Factor \\ r Skill: 0.7 \\ \hline stency: 0.9 \\ \hline ethod: 1.0 \\ \hline \end{array} $		on, Mining & Safety on, Mining & Safety mbankment 0.9 50% Earth Source (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude	1.000	(CAT HB)
Material Weight	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3209	
Adjusted unit production:	303.57 LCY/hr	
Adjusted fleet production:	1214.28 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.373/LCY
Total job time:	26 46 Harris

i otal job time:	<b>30.40</b> Hours
Total job cost:	\$60,775

Task description:	Regrade Light U	se Roads Iro	JIII WIKS allu TKS		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 086	State:	Colorado		Abbreviation:	None
Date: $11/21/2021$		Delta	<u> </u>	Filename:	C083-086
User: $RDZ$	County.	Dena		Thename.	0003-000
Agency or organ	nization name: DI	RMS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
<b>7</b> 1	ni-Universal				
	hank ripper				
	er day				
Data Source: (CF	RG)				
Cost Breakdown:		1			
		<b>.</b>	<u>Utilization %</u>		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$13.74	100		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$416.77 <b>\$1,667.09</b>				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u>	\$1,667.09				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume:115,	\$1,667.09 <u>TITIES</u> 458				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16	\$1,667.09 <u>TTIES</u> 458 5				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16	\$1,667.09 <u>TITIES</u> 458				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>115,</u> Swell factor: <u>1.16</u>	\$1,667.09 <u>TTIES</u> 458 5 509 LCY	  es, 1.5' depth	 		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16 Loose volume: 134,	\$1,667.09 TTIES 458 5 509 LCY me:46.71 acr		1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16, Loose volume: 134, Source of estimated volum Source of estimated swell	\$1,667.09 <u>TTIES</u> 458 5 509 LCY me: <u>46.71 acr</u> 1 factor: <u>Cat Hand</u>		1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16, Loose volume: 134, Source of estimated volum	\$1,667.09 <u>TTIES</u> 458 5 509 LCY me: <u>46.71 acr</u> 1 factor: <u>Cat Hand</u>		 1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16, Loose volume: 134, Source of estimated volum Source of estimated swell	\$1,667.09 <u>TTIES</u> 458 5 509 LCY me: <u>46.71 acr</u> 1 factor: <u>Cat Hand</u>		 1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16 Loose volume: 134, Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,667.09         YTTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         100 feet	lbook	1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16, Loose volume: 134, Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,667.09         TTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         100 feet         ction:       1,718.9 LC	lbook Y/hr	n n n n bankment 0.9		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16,         Loose volume:       134,         Source of estimated volu       Source of estimated swell         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency dest	\$1,667.09         TTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         1,718.9 LC         scription:       Compa	lbook Y/hr			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16         Loose volume:       134,         Source of estimated volur       Source of estimated swell         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Source of estimate	\$1,667.09         TTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         1,718.9 LC         scription:       Compa         5 %	lbook Y/hr			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16,         Loose volume:       134,         Source of estimated volu       Source of estimated swell         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency dest	\$1,667.09         TTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         1,718.9 LC         scription:       Compa	lbook Y/hr			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16         Loose volume:       134,         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:	\$1,667.09         TTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         1,718.9 LC         scription:       Compa         5 %	lbook Y/hr			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16         Loose volume:       134,         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:	\$1,667.09         YTTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         ction:       1,718.9 LC         scription:       Compa         5 %       7,500 feet	lbook Y/hr heted fill or en	mbankment 0.9		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16,         Loose volume:       134,         Source of estimated volur         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:	\$1,667.09         YTTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         1,718.9 LC         scription:       Compa         5 %         7,500 feet         2,900 lbs/LCY         Decomposed rock	lbook Y/hr heted fill or en	mbankment 0.9		
Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume:       115,         Swell factor:       1.16         Loose volume:       134,         Source of estimated volur         Source of estimated volur         Source of estimated swell <b>HOURLY PRODUCT</b> Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:	\$1,667.09         YTTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         FION         ction:       100 feet         ction:       1,718.9 LC         scription:       Compa         5 %       7,500 feet         2,900 lbs/LCY       Decomposed rock         Factor       Factor	lbook Y/hr heted fill or en			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       115,         Swell factor:       1.16         Loose volume:       134,         Source of estimated volur         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction	\$1,667.09         TTIES         458         5         509 LCY         me:       46.71 acr         1 factor:       Cat Hand         TION         ction:       100 feet         1,718.9 LC         scription:       Compa         5 %         7,500 feet         2,900 lbs/LCY         Decomposed rock         Factor         Skill:       0	Y/hr hered fill or en - 50% Rock,	mbankment 0.9 50% Earth		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 115, Swell factor: 1.16 Loose volume: 134, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consistency des	\$1,667.09TTIES $458$ $5$ $509 LCY$ me: $46.71 \text{ acr}$ 1 factor: $Cat Hand$ Cat HandCat HandCat HandCat HandCat HandCat HandCat HandCat HandComparisonComparison $5\%$ 7,500 feet2,900 lbs/LCYDecomposed rockFactorSkill:0ency:0thod:1	Y/hr hered fill or en - 50% Rock, .750			

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradien	it: 0.903	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	it: 0.793	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.3209	
Adjusted unit production:	551.60 LCY/hr	
Adjusted fleet production:	2206.4 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.756/LCY
<b>T (1)</b>	
Total job time	

Total job time:	60.96 Hours
Total job cost:	\$101,631

Task description:	Finish Grade D	isturbed Min	ie Area			
Bowie No. 2 Mine	Pe	rmit Action:	RN5	·	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION					
Task #:         090           Date:         11/21/202           User:         RDZ	State: County:	Colorado Delta		Ab	breviation: Filename:	None C083-090
Agency or orga	anization name:	RMS				
HOURLY EQUIPM	ENT COST					
Basic Machir Ripper Attachmer		ipper		Horsepower: Shift Basis: Data Source:	1 p	259 er day CRG)
Cost Breakdown:						
Ope Ripper Own Ripper Ope Op	ership Cost/Hour: erating Cost/Hour: ership Cost/Hour: erating Cost/Hour: perator Cost/Hour:		\$85.80 \$60.40 \$5.52 \$0.00 \$28.56	Utilization % NA 100 NA 0 NA		
Tota	al Unit Cost/Hour:		\$180.28			
Tota	l Fleet Cost/Hour:	\$18	0.28			
	a to be graded or ripp ce of estimated acrea CTION	-	of all disturbed a	areas		
	Average Grader S		1.25	mph		
	Selected Applic Selected Blade A		Proc 30	duction Deration degree		
Net grading	Effective Blade Le of blade overlap per or ripping width per of Hourly Unit Produ	pass:	12.10 2.00 10.10 1.5303	feet feet feet feet acres/l		
Job Condition Correction	•			ite Altitude: 650		
		Source				
	1.00       0.85       0.8500   Adjusted Hourly United Hourly Electronic Hou	(CAT HI (1sh/d, mo multiplier t Production:	<u>3)</u> <u>d.)</u> <u>1.3008</u>	acres/Hou		
Ĩ	Adjusted Hourly Flee	r riouuction:	1.3008	acres/Hou	11	
JOB TIME AND CO	<u>DST</u>					
Fleet size:	1 Grader(s	)	Total job time	. 129	.92	Hours
Unit cost: \$13	38.60 per acre		Total job cos	t: \$23,	,423	

Task description:	Finish Grade Ti	ain Loadout	;			
Bowie No. 2 Mine	Per	mit Action:	RN5	]	Permit/Job#:	C1996083
PROJECT IDENI	<b>IFICATION</b>					
Task #: 091	State:	Colorado		Ab	breviation:	None
Date: $\frac{001}{11/21/2}$		Delta			Filename:	C083-091
User: RDZ	<u></u>	Delta			i incliante.	0005-071
Agency or of	rganization name: D	RMS				
HOURLY EQUIP	MENT COST					
Basic Mach	nine: CAT 14M			Horsepower:		259
Ripper Attachn		pper		Shift Basis:		ber day
<b>II</b>		II.		Data Source:		CRG)
						/
Cost Breakdown:			1			
			<b>*••••</b>	Utilization %		
	vnership Cost/Hour:		\$85.80	NA	_	
	perating Cost/Hour:		\$60.40	100		
	vnership Cost/Hour:		\$5.52 \$0.00	NA		
	perating Cost/Hour:		\$0.00	0		
	Operator Cost/Hour:		\$28.56	NA		
Те	otal Unit Cost/Hour:		\$180.28			
Тс	tal Fleet Cost/Hour:	\$180	) 28			
	rea to be graded or rippource of estimated acrea	-	or estimate			-
HOURLY PRODU	CTION					
	Average Grader S	peed:	1.25	mph		
	Selected Applica			luction Deration	n - 1.25	
	Selected Blade A		30	degree		
	Effective Blade Le	-	12.10	feet		
Wie	th of blade overlap per	pass:	2.00	feet		
Net gradi	ng or ripping width per	pass:	10.10	feet		
Unadjus	sted Hourly Unit Produc	ction:	1.5303	acres/h	nour	
Job Condition Correct	ion Factors		Si	te Altitude: 590	<u>0</u> feet	
		Source				
Altitude Adj	: 1.00	(CAT HE	3)			
Job Efficiency		(1sh/d, mo				
Net Correction		multiplier	<u>,</u>			
		•				
	Adjusted Hourly Unit		1.3008	acres/Hou		
	Adjusted Hourly Fleet	Production:	1.3008	acres/Hou	r	
JOB TIME AND (	COST					
Fleet size:	1 Grader(s)		Total job time	:16.	91	Hours
Unit cost:	b138.60 per acre		Total job cost	: \$3,(	140	
	per acre		10001 JUD COSI	\$3,1	777	

Task description:	Finish Grade B	-Seam Portal	Bench			
Bowie No. 2 Mine	Pe	ermit Action:	RN5	I	Permit/Job#:	C1996083
PROJECT IDENTI	<b>FICATION</b>					
Task #: 092	State:	Colorado		Abl	previation:	None
Date: $\frac{0.02}{11/21/20}$					Filename:	C083-092
User: RDZ	<u>21</u> county.	Denu			i incliditio.	0003 072
	ganization name: D	RMS				
HOURLY EQUIPM	IENT COST					
Basic Machi	ine: CAT 14M			Horsepower:		259
Ripper Attachme		ipper		Shift Basis:		ber day
1.177.01.1.100001110		-pp•-		Data Source:		CRG)
Cost Breakdown:						)
COSt Dieakdowii.				Utilization %		
Ow	nership Cost/Hour:		\$85.80	NA		
	berating Cost/Hour:		\$60.40	100	_	
	nership Cost/Hour:		\$5.52	NA	_	
Ripper Op	perating Cost/Hour:		\$0.00	0	_	
	perator Cost/Hour:		\$28.56	NA		
To	tal Unit Cost/Hour:		\$180.28			
Tat	al Fleet Cost/Hour:	\$180	n <b>7</b> 0			
101		\$100	0.20			
MATERIAL QUAN	NTITIES					
Total Are	ea to be graded or ripp	ed: 9.00				acres
Sor	arce of estimated acrea	ige: Operat	or Estimate			
		.gei <u>opeiai</u>				
HOURLY PRODU	<u>CTION</u>					
	Average Grader S	need	1.25	mph		
	Selected Applic			luction Deration	- 1.25	
	Selected Blade A		30	degree		
	Effective Blade Le		12.10	feet		
Widt	h of blade overlap per	· · · · · · · · · · · · · · · · · · ·	2.00	feet		
	g or ripping width per		10.10	feet		
Unadjust	ted Hourly Unit Produ	ction:	1.5303	acres/h	our	
Job Condition Correcti	on Factors		Si	te Altitude: <u>675</u>	0 feet	
		Source				
Altitude Adj:	1.00	(CAT HE				
Job Efficiency:	0.85	(1sh/d, mo				
Net Correction:	0.8500	multiplier				
	Adjusted Hourly Uni	t Production:	1.3008	acres/Hour	r	
	Adjusted Hourly Flee		1.3008	acres/Hour		
	,					
JOB TIME AND C	<u>OST</u>					
Fleet size:	1 Grader(s	)	Total job time	: 6.9	2	Hours
Unit cost: \$1	138.60 per acre		Total job cost	.: \$1,2	47	-

Task description:	Finish Grade	Gob Piles #1, #	#2, #3, and #4			
Bowie No. 2 Mine	]	Permit Action:	RN5	P	ermit/Job#:	C1996083
PROJECT IDENTI	FICATION					
Task #: 093	Stat	e: Colorado		Abb	reviation:	None
Date: $\frac{000}{11/21/200}$					Filename:	C083-093
User: RDZ	<u></u>	j. <u></u>				0000 070
		DDMC				
Agency or org	ganization name:	DRMS				
HOURLY EQUIPM	<u>IENT COST</u>					
Basic Machi	ine: CAT 14M			Horsepower:		259
Ripper Attachme	ent: Multi-Shank	Ripper		Shift Basis:	1 p	er day
				Data Source:	(0	CRG)
Cost Breakdown:						
<u>Jost Dicardo min</u>			1	Utilization %		
Ow	nership Cost/Hour:		\$85.80	NA		
	berating Cost/Hour:		\$60.40	100	-	
	nership Cost/Hour:		\$5.52	NA	_	
	berating Cost/Hour:		\$0.00	0	_	
	perator Cost/Hour:		\$28.56	NA	_	
Tot	tal Unit Cost/Hour:		\$180.28			
Tot	al Fleet Cost/Hour:	\$18	0.28			
	ea to be graded or rij		Volume IX			acres
HOURLY PRODU	CTION	-				
<u>IIOUKLI IKODU</u>		C l.	1.25			
	Average Grader Selected Appl		1.25	mph uction Deration	1 25	
	Selected Blade		30	degrees		
	Effective Blade		12.10	feet		
Widt	h of blade overlap p	U	2.00	feet		
	g or ripping width p		10.10	feet		
-	ed Hourly Unit Prod	-	1.5303	acres/ho	our	
Job Condition Correction	on Factors		Sit	e Altitude: 6100	eet	
		Source				
Altitude Adj:	1.00	(CAT HE				
Job Efficiency:	0.85	(1sh/d, mo				
Net Correction:	0.8500	multiplier				
	Adjusted Hourly U	nit Production:	1.3008	acres/Hour		
	Adjusted Hourly Fl		1.3008	acres/Hour		
JOB TIME AND C						
	1 Grader	(-)	T-(-1:1.1.	50.6	-	11
Fleet size:	L Lingder		10191 10h fime	50.6	5	Hours
		(8)	Total job time:			Hours

Task description:	Backfill and Reg	grade Pond H	3		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIE	<b>TICATION</b>				
Task #: 095	State:	Colorado		Abbreviation:	None
Date: $\frac{093}{11/21/202}$		Delta		Filename:	C083-095
User: $RDZ$	County.	Dena		Thename.	0003-095
Agency or orga	inization name: DI	RMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU				
Horsepower: 57					
• 1	mi-Universal				
	shank ripper				
	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	. <u></u>	\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA 100		
Ripper op. Cost/Hour:	. <u> </u>	\$13.74	100		
Operator Cost/Hour:		\$41.30	NA		
MATERIAL QUAN Initial Volume: 4,29					
Swell factor: $1.33$					
	06 LCY				
Source of estimated volu Source of estimated swel		; Operator Es	stimate		
Source of estimated swe	Il lactor. Cat Hall	IDOOK			
	TION				
HOURLY PRODUC					
HOURLY PRODUC	75 feet				
HOURLY PRODUC	75 feet				
HOURLY PRODUC	75 feet 2,105.3 LC	Y/hr	mbankment 0.9		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	75 feet           2,105.3 LC           escription:         Compa           0 %	Y/hr	mbank ment 0.9		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	75 feet           2,105.3 LC           escription:         Compa           0 %         6,000 feet	Y/hr	mbankment 0.9		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	75 feet           2,105.3 LC           escription:         Compa           0 %         6,000 feet           2,900 lbs/LCY	Y/hr Leted fill or en			
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	75 feet           2,105.3 LC           escription:         Compa           0 %         6,000 feet           2,900 lbs/LCY         Decomposed rock	Y/hr Leted fill or en	, 50% Earth		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	75 feet         2,105.3 LC         escription:       Compa         0 %         6,000 feet         2,900 lbs/LCY         Decomposed rock         n Factor	Y/hr eted fill or en 	50% Earth		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	$\begin{array}{r} \hline 75 \text{ feet} \\ \hline 2,105.3 \text{ LC} \\ \hline \text{escription:} & Compa \\ \hline 0 \% \\ \hline 6,000 \text{ feet} \\ \hline 2,900 \text{ lbs/LCY} \\ \hline \text{Decomposed rock} \\ \hline n \text{ Factor} \\ \hline \text{Skill:} & 0 \end{array}$	Y/hr Leted fill or en 	, 50% Earth Source (AVG.)		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis	75 feet         2,105.3 LC         escription:       Compa         0 %         6,000 feet         2,900 lbs/LCY         Decomposed rock         n Factor         Skill:       0         0       0         0 %       0         0 %       0         6,000 feet       0         0       0         0       0         0       0         0       0	Y/hr cted fill or en 	, 50% Earth <u>Source</u> (AVG.) (CAT HB))		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing ma	$ \begin{array}{r} 75 \text{ feet} \\ \hline 2,105.3 \text{ LC} \\ \hline 3 \text{scription: Compa} \\ \hline 0 \% \\ \hline 6,000 \text{ feet} \\ \hline 2,900 \text{ lbs/LCY} \\ \hline Decomposed rock \\ \hline n Factor \\ Skill: 0 \\ \hline tency: 0 \\ \hline ethod: 1 \end{array} $	Y/hr Leted fill or en 	, 50% Earth Source (AVG.)		

Job efficiency	y: 0.830	(1 SHIFT/DAY)
Spoil pile	e: 0.800	(FND-RF)
Push gradient	t: 1.000	(CAT HB)
Altitude	e: 1.000	(CAT HB)
Material Weight	t: 0.793	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n: 0.3554	
Adjusted unit production:	748.22 LCY/hr	
Adjusted fleet production:	748.22 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.557/LCY
Total job time:	7.63 Hours
Total job cost:	\$3,178

Task description:	Backfill an	nd Regrade Pond (	<i>.</i>		
Bowie No. 2 Mine		Permit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENT	<b>IFICATION</b>				
Task #: 096 Date: 11/21/20 User: RDZ		State: Colorado ounty: Delta		Abbreviation: Filename:	None C083-096
Agency or or	ganization name	: DRMS			
HOURLY EQUIPM	MENT COST				
	Cat D10T - 10SU	J			
	574 Semi-Universal				
V I	3-shank ripper				
	1 per day				
	(CRG)				
	()				
Cost Breakdown:					
Ownership Cost/Hou		\$169.60	<u>Utilization %</u> NA		
Operating Cost/Hou		\$166.94	100 INA		
Ripper own. Cost/Hou		\$100.94	NA		
Ripper op. Cost/Hou		\$0.00	0		
Ripper op. Cost/Hou		\$41.30			
	1 <b>r</b> •				
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour	\$403.03	φ+1.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA	\$403.03 \$403.03 NTITIES	φ+1.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1	\$403.03 \$403.03 NTITIES ,334 .330	φ+1.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7	\$403.03 \$403.03 NTITIES ,334 .330 ,094 LCY				
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo	\$403.03 <b>\$403.03</b> <b>NTITIES</b> ,334 .330 ,094 LCY blume:M	ap 22C; Operator E			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7	\$403.03 <b>\$403.03</b> <b>NTITIES</b> ,334 .330 ,094 LCY blume:M				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw	: \$403.03 \$403.03 <b>NTITIES</b> ,334 .330 ,094 LCY blume: <u>May</u> well factor: <u>Ca</u>	ap 22C; Operator E			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU	: <u>\$403.03</u> <b>NTITIES</b> ,334 .330 ,094 LCY blume: <u>Main</u> well factor: <u>Ca</u>	ap 22C; Operator Es at Handbook			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU	$ \frac{$403.03}{$403.03} $ $ \frac{NTITIES}{,334} $ $ \frac{,334}{,094 LCY} $ blume: Maximum Max	ap 22C; Operator E tt Handbook			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU	$ \frac{$403.03}{$403.03} $ $ \frac{NTITIES}{,334} $ $ \frac{,334}{,094 LCY} $ blume: Maximum Max	ap 22C; Operator Es at Handbook			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro	$ \frac{$403.03}{$403.03} $ $ \frac{NTITIES}{,334} $ $ \frac{,334}{,094} LCY $ blume: Maximum Max	ap 22C; Operator E tt Handbook			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro	$ \frac{$403.03}{$403.03} $ : $ \frac{$403.03}{$403.03} $ : $ \frac{$334}{.330} $ : $ \frac{$094 LCY}{.0016} $ : $ \frac{$0016}{Ca} $ : $ \frac{$10016}{.1,715} $	ap 22C; Operator Es at Handbook feet 8.9 LCY/hr			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude:	$ \frac{\$403.03}{\$403.03} $ : $ \frac{\text{NTITIES}}{,334} $ .330 .094 LCY blume: M. well factor: Ca induction: 1,713 description: 1,713 description: 1	ap 22C; Operator Es ap 22C; Operator Es at Handbook feet 8.9 LCY/hr Compacted fill or es			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient	$\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$	ap 22C; Operator Es ap 22C; Operator Es at Handbook feet 8.9 LCY/hr Compacted fill or es	stimate		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight:	$ \frac{$403.03}{$403.03} $ $ \frac{$403.03}{$403.03} $ $ \frac{$1003}{$1001} $	ap 22C; Operator Es at Handbook feet 8.9 LCY/hr Compacted fill or en 	stimate		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated vo Source of estimated sv HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat	$\frac{$403.03}{$403.03}$ $\frac{$403.03}{$403.03}$ $\frac{$403.03}{$403.03}$ $\frac{$403.03}{$500}$ $\frac{$500}{$500}$	ap 22C; Operator E: ap 22C; Operator E: tt Handbook feet 8.9 LCY/hr Compacted fill or en CY cY cd rock - 50% Rock, 0.750	stimate 		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat Material cons	$\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$ $\frac{\$403.03}{\$403.03}$	ap 22C; Operator E: ap 22C; Operator E: at Handbook feet 8.9 LCY/hr Compacted fill or en CY cY d rock - 50% Rock, 0.750 0.900	stimate 		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated vo Source of estimat	$\frac{$403.03}{$403.03}$ $\frac{$403.03}{$403.03}$ $\frac{$403.03}{$403.03}$ $\frac{$403.03}{$500}$ $\frac{$500}{$500}$	ap 22C; Operator E: ap 22C; Operator E: tt Handbook feet 8.9 LCY/hr Compacted fill or en CY cY cd rock - 50% Rock, 0.750	stimate 		

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pil	le:	0.800	(FND-RF)
Push gradier	nt:	1.000	(CAT HB)
Altitud	le:	1.000	(CAT HB)
Material Weigh	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correctio	on:	0.3554	
Adjusted unit production:	610	).90 LCY/hr	
Adjusted fleet production:	610	<b>).9</b> LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.660/LCY
Total job time:	<b>11.61</b> Hours
Total job cost:	\$4,680

Task description:	Backfill	and Keg	rade Gob Pi	ile Pond D			
Bowie No. 2 Mine		Perr	mit Action:	RN5		Permit/Job#:	C1996083
PROJECT IDENTI	FICATION						
Task #: 097		State:	Colorado			Abbreviation:	None
Date: $11/21/20$ User: RDZ	21 0	County:	Delta			Filename:	C083-097
Agency or org	ganization nan	ne: DR	RMS				
HOURLY EQUIPM	1ENT COST	<u>[</u>					
	Cat D10T - 108	SU					
	574	-					
<b>7</b> 1	Semi-Universa	1					
	-shank ripper						
	per day						
Data Source: (	CRG)						
Cost Breakdown:							
				<u>Utilizati</u>			
Ownership Cost/Hour			\$169.60	NA			
Operating Cost/Hour			\$166.94	100			
Ripper own. Cost/Hour			\$25.19	NA	1		
	-		\$0.00	0			
Ripper op. Cost/Hour			¢11 20	NT A	۱.		
Ripper op. Cost/Hour Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour:	\$403.03 <b>\$403.03</b>		\$41.30	NA	-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$403.03 <b>\$403.03</b> <b>NTITIES</b>		\$41.30	NA^	-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,</u> Swell factor: <u>1.</u>	\$403.03 \$403.03 NTITIES 759 330			NA ^A	-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,</u> Swell factor: <u>1.</u>	\$403.03 <b>\$403.03</b> <b>NTITIES</b> 759			NA ^A	-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,</u> Swell factor: <u>1.</u> Loose volume: <u>4,</u> Source of estimated vol	\$403.03 \$403.03 <b>NTITIES</b> 759 330 <b>999</b> LCY lume:			  tor Estimate	-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated sw	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: 1 rell factor: 0	Map 9526 Cat Handl			-		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,</u> Swell factor: <u>1.</u> Loose volume: <u>4,</u> Source of estimated vol	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: 1 rell factor: 0				-		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: 1 rell factor: 0 <b>CTION</b> 100	Cat Hand			-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: 1 rell factor: 0 <b>CTION</b> function: 1,7	Cat Hand 0 feet 718.9 LCY		tor Estimate	-		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>3,</u> Swell factor: <u>1.3</u> Loose volume: <u>4,</u> Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: 1 rell factor: 0 <b>CTION</b> luction: 1,7 lescription:	Cat Hand 0 feet 718.9 LCY			- 		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: 1 rell factor: 0 <b>CTION</b> luction: 1,7 lescription:	Cat Handl 0 feet /18.9 LCY Compac		tor Estimate	- 		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>3,</u> Swell factor: <u>1.</u> Loose volume: <u>4,</u> Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient:	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: ell factor: <b>CTION</b> fuction:10 luction:17 lescription: 0 %	Cat Handl 0 feet /18.9 LCY _Compac t		tor Estimate	- 		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude:		Cat Handl 0 feet /18.9 LCY Compac t		tor Estimate	- 		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight:	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: rell factor: <b>CTION</b> duction:17 description: 0% 2,900 lbs, Decompo	Cat Handl 0 feet /18.9 LCY Compac t	 56-04; Opera book Y/hr cted fill or en	tor Estimate	ource		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>3</u> , Swell factor: <u>1.3</u> Loose volume: <u>4</u> , Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency c Average push gradient: Average site altitude: Material weight: Weight description:	\$403.03 <b>\$403.03</b> <b>\$403.03</b> <b>NTITIES</b> 759 330 <b>999</b> LCY lume: rell factor: <b>CTION</b> duction:17 lescription: 0% 000 feet 2,900 lbs, Decompo on Factor	Cat Handl 0 feet /18.9 LCY Compac t /LCY sed rock	 56-04; Opera book Y/hr cted fill or en	tor Estimate  mbankment 0.9			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1.3 Loose volume: 4, Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	$ \begin{array}{r} & \$403.03 \\ \hline \hline \hline $100 \\ \hline \hline $100 \\ \hline \hline $100 \\ \hline \hline \hline $100 \\ \hline \hline$	Cat Handl 0 feet (18.9 LC) Compac t (LCY sed rock 0.		 tor Estimate  mbankment 0.9  50% Earth	ource		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3, Swell factor: 1. Loose volume: 4, Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator		Cat Handl 0 feet 18.9 LC Compac t /LCY sed rock 0. 0.		tor Estimate 	ource AVG.)		

Job efficience		0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradier	nt:	1.000	(CAT HB)
Altitud	le:	1.000	(CAT HB)
Material Weigl	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.3554	
Adjusted unit production:	610	.90 LCY/hr	
Adjusted fleet production:	610	.9 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.660/LCY
Total job time:	8.18 Hours
Total job cost:	\$3,298

Task description:	Backfill and Regrade Pon	d F		
Bowie No. 2 Mine	Permit Action	n:RN5	Permit/Job#:	C1996083
PROJECT IDENTIE	FICATION			
Task #: 098	State: Colorad	lo	Abbreviation:	None
Date: $\frac{0.00}{11/21/202}$			Filename:	C083-098
User: RDZ	<u> </u>			
Agency or orga	anization name: DRMS			
HOURLY EQUIPM				
	at D10T - 10SU			
Horsepower: 57				
	emi-Universal			
	shank ripper			
	per day			
Data Source: (C	(RG)			
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$169.6			
Operating Cost/Hour:	\$166.9			
Ripper own. Cost/Hour:				
Ripper op. Cost/Hour:				
Operator Cost/Hour:	\$41.3	0 NA		
MATERIAL QUAN	<u>FITIES</u>			
Initial Volume: 5,70				
Swell factor: 1.10				
Loose volume: <b>6,6</b> 4	41 LCY			
Source of estimated volu		ision Estimate		
Source of estimated swe	ll factor: Cat Handbook			
	(TIAN)			
HOURLY PRODUC				
Average push distance:	100 feet			
Unadjusted hourly produ	action: 1,718.9 LCY/hr			
Materials consistency de	escription: Compacted fill o	r embankment 0.9		
Average push gradient:	0%			
Average site altitude:	6,100 feet			
Material weight:	2,900 lbs/LCY			
Weight description:	Decomposed rock - 50% Ro	ck, 50% Earth		
Job Condition Correction		Source		
Operator		(AVG.)		
Material consis		(CAT HB))		
Dozing m	ethod: <u>1.000</u> ibility: <u>1.000</u>	(GEN.) (AVG.)		
V 181	1.000 IIIII IIII IIIII IIII IIIII IIII I	(AVG.)		

Job efficient	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradie	nt:	1.000	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.3554	
Adjusted unit production:	61	0.90 LCY/hr	
Adjusted fleet production:	61	<b>0.9</b> LCY/hr	

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.660/LCY	
otal ich time:	10 97 Hours	

Total job time:	10.87 Hours
Total job cost:	\$4,381

Task description:	Backfill and Reg	rade Pond J			
Bowie No. 2 Mine	Perr	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	<b>ICATION</b>				
Task #: 099	State:	Colorado		Abbreviation:	None
Date: $11/21/2021$		Delta		Filename:	C083-099
User: RDZ	<u> </u>				
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	t D10T - 10SU				
Horsepower: 574					
• • • • • • • • • • • • • • • • • • • •	mi-Universal				
	hank ripper				
Shift Basis: 1 p	er day				
Data Source: (Cl	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
<b>D</b> 1 <b>A F</b>		\$0.00	0		
Ripper op. Cost/Hour:		¢ 41 20	3.7.4		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$403.03 <b>\$403.03</b>	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour:	\$403.03	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANI Initial Volume:11,3	\$403.03 FITIES 520	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33	\$403.03 FIFIES 220 20	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33	\$403.03 FITIES 520	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu	\$403.03 <b>FITIES</b> 220 20 256 LCY me: Map 22J;	Operator Es			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0	\$403.03 <b>FITIES</b> 220 30 <b>56</b> LCY me:Map 22J;	Operator Es			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu	\$403.03         CITIES         320         30         56 LCY         me:       Map 22J;         1 factor:       Cat Handle	Operator Es			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated swel HOURLY PRODUCT	\$403.03         CITIES         320         30         56 LCY         me:       Map 22J;         1 factor:       Cat Handle	Operator Es			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated swel	\$403.03 <b>FITIES</b> 520 56 LCY me: <u>Map 22J;</u> 1 factor: <u>Cat Handl</u> <b>FION</b> 100 feet	Operator Es			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance:	\$403.03         CITIES         220         30         56 LCY         me:       Map 22J;         1 factor:       Cat Handle         TION         ction:       100 feet         1,718.9 LCY	Operator Est book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly product	\$403.03         CITIES         220         30         56 LCY         me:       Map 22J;         1 factor:       Cat Handle         TION         ction:       100 feet         1,718.9 LCY	Operator Est book	timate		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude:	\$403.03         CITIES         320         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300         300	Operator Est book	timate		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude:	\$403.03         FITIES         320         300         56 LCY         me:       Map 22J;         1 factor:       Cat Handle         FION         ction:       1,718.9 LCY         scription:       Compace         0 %       5,900 feet	 Operator Est book Y/hr cted fill or en	timate		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	\$403.03         FITIES         320         30         356 LCY         me:       Map 22J;         1 factor:       Cat Handle         FION         ction:       100 feet         scription:       Compace         0 %       5,900 feet         2,900 lbs/LCY         Decomposed rock	 Operator Est book Y/hr cted fill or en	timate		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUC: Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$403.03         FITIES         320         30         356 LCY         me:       Map 22J;         1 factor:       Cat Handle         FION         ction:       100 feet         ction:       1,718.9 LCY         scription:       Compace         0 %       5,900 feet         2,900 lbs/LCY       Decomposed rock -         n Factor       1	 Operator Est book Y/hr cted fill or en	timate 		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUC: Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$403.03         FITIES         320         30         56 LCY         me:       Map 22J;         1 factor:       Cat Handle         FION         ction:       100 feet         1,718.9 LCY         scription:       Compace         0 %       5,900 feet         2,900 lbs/LCY       Decomposed rock         Factor       Skill:       0.7	 Operator Es book Y/hr cted fill or en  - 50% Rock,	timate 		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 11,3 Swell factor: 1.33 Loose volume: 15,0 Source of estimated volu: Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$403.03         CITIES         320         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         31         32         32         33         34         35         35         36         37         36         37         36         37         37         36         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37	 Operator Est book Y/hr cted fill or en  - 50% Rock, 750	timate 		

Job efficient	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradie	nt:	1.000	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.3554	
Adjusted unit production:	61	0.90 LCY/hr	
Adjusted fleet production:	61	<b>0.9</b> LCY/hr	
	-		

Fleet size:	1 Dozer(s)
Unit cost:	\$0.660/LCY
otal ioh time	<b>24 64</b> Hours

Total job time:	24.64 Hours
Total job cost:	\$9,933

		rade Pond F	. <b>L</b>		
Bowie No. 2 Mine	Perr	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 100	State:	Colorado		Abbreviation:	None
Date: $\frac{100}{11/21/202}$		Delta		Filename:	C083-100
User: RDZ	<u> </u>	Denu		- inclusion	0005 100
		MC			
Agency or orga	anization name: DR	MS			
HOURLY EQUIPM	ENT COST				
Basic Machine: Ca	at D10T - 10SU				
Horsepower: 57					
• 1	emi-Universal				
	shank ripper				
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Fotal Fleet Cost/Hour: MATERIAL QUAN	TITIES				
MATERIAL QUAN Initial Volume: _ 700	)	_			
MATERIAL QUAN Initial Volume: 700 Swell factor: 1.3	)				
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       Source of estimated sweet         HOURLY PRODUCT       100	) 30 LLCY ume: <u>Map 22K;</u> ell factor: <u>Cat Handl</u>	  Operator Es pook	stimate		
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       Source of estimated swell	) 30 LLCY ume: <u>Map 22K;</u> ell factor: <u>Cat Handl</u> <u>CTION</u> 100 feet	book	stimate		
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       5000000000000000000000000000000000000	) 30 1 LCY ume: <u>Map 22K;</u> 21 factor: <u>Cat Handl</u> <u>CTION</u> uction: <u>100 feet</u> 1,718.9 LCY	book Y/hr	stimate		
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated swell       900         HOURLY PRODUC       Average push distance:         Unadjusted hourly produce       Materials consistency de         Average push gradient:       100	) 30 1 LCY ume: <u>Map 22K;</u> 21 factor: <u>Cat Handle</u> 2 <b>TION</b> uction: <u>100 feet</u> 1,718.9 LCY escription: <u>Compace</u> 0 %	book Y/hr			
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated volu       Source of estimated sweet         HOURLY PRODUC       Average push distance:         Unadjusted hourly product       Materials consistency de         Average push gradient:       Average site altitude:	$\frac{100}{30}$ $\frac{1 \text{ LCY}}{1 \text{ LCY}}$ $\frac{100 \text{ feet}}{1,718.9 \text{ LCY}}$ $\frac{100 \text{ feet}}{1,718.9 \text{ LCY}}$ $\frac{0 \%}{5,900 \text{ feet}}$	book Y/hr			
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated swell       900         HOURLY PRODUC       Average push distance:         Unadjusted hourly produce       Materials consistency de         Average push gradient:       100	) 30 1 LCY ume: <u>Map 22K;</u> 21 factor: <u>Cat Handle</u> 2 <b>TION</b> uction: <u>100 feet</u> 1,718.9 LCY escription: <u>Compace</u> 0 %	book Y/hr			
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated volu       Source of estimated sweether         HOURLY PRODUC       Average push distance:         Unadjusted hourly product       Materials consistency de         Average push gradient:       Average site altitude:         Material weight:       Weight description:	) 30 1 LCY ume: <u>Map 22K;</u> 21 factor: <u>Cat Handl</u> 2 <b>TION</b> uction: <u>100 feet</u> 1,718.9 LCY escription: <u>Compac</u> <u>0 %</u> 5,900 feet 2,900 lbs/LCY <u>Decomposed rock</u>	v/hr cted fill or en	 mbankment 0.9		
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Average push distance:       931         Unadjusted hourly produce       931         Average push distance:       931         Unadjusted hourly produce       931         Average push distance:       931         Unadjusted hourly produce       931         Materials consistency de       931         Average site altitude:       931         Material weight:       931         Weight description:       931         Iob Condition Correction       931	) 30 1 LCY ume: <u>Map 22K;</u> 21 factor: <u>Cat Handl</u> 2 <b>TION</b> uction: <u>100 feet</u> 1,718.9 LCY escription: <u>Compac</u> <u>0 %</u> <u>5,900 feet</u> <u>2,900 lbs/LCY</u> <u>Decomposed rock</u> on Factor	Y/hr cted fill or en 	 mbankment 0.9 , 50% Earth Source		
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated volu       Source of estimated volu         Source of estimated volu       931         Source of estimated volu       931         Source of estimated volu       931         Average push distance:       931         Unadjusted hourly product       931         Average push distance:       931         Materials consistency de       931         Average push gradient:       931         Average site altitude:       931         Material weight:       931         Weight description:       100         100       100         100       100         100       100	) 30 1 LCY ume: <u>Map 22K;</u> 21 factor: <u>Cat Handl</u> 2 <b>TION</b> uction: <u>100 feet</u> uction: <u>1,718.9 LCY</u> escription: <u>Compac</u> <u>0 %</u> <u>5,900 feet</u> <u>2,900 lbs/LCY</u> <u>Decomposed rock</u> on Factor r Skill: 0.7	2000k Y/hr 			
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated sweet       931         HOURLY PRODUC       Average push distance:         Unadjusted hourly product       Materials consistency defined         Average push gradient:       Average site altitude:         Material weight:       Weight description:         Iob Condition Correction       Operator         Material consist       Operator	$\begin{array}{c c} 30 \\ \hline 30 \\ \hline 1 \text{ LCY} \\ \hline \\ \text{ume:} & \underline{\text{Map 22K;}} \\ \text{cat Handle} \\ \hline \\ \text{cat Handle} \\ \hline \\ \text{cat Handle} \\ \hline \\ \hline \\ \text{cat Handle} \\ \hline \\ \hline \\ \text{cat Handle} \\ \hline \\ \hline \\ \hline \\ \text{cat Handle} \\ \hline \\ \hline \\ \hline \\ \hline \\ \text{cat Handle} \\ \hline \\ $	2000k Y/hr 			
MATERIAL QUAN         Initial Volume:       700         Swell factor:       1.3         Loose volume:       931         Source of estimated volu       931         Source of estimated swell       931         Source of estimated swell       931         Materials consistence:       931         Materials consistency de       931         Average push distance:       931         Materials consistency de       931         Average push gradient:       931         Average site altitude:       931         Material weight:       931         Weight description:       931         Iob Condition Correction       0         Material consistency de       931	$\begin{array}{c c} \hline & & \\ \hline 30 \\ \hline 30 \\ \hline 1 \ LCY \\ \hline \\ ume: & Map 22K; \\ \hline \\ cat Handle \\ \hline cat Handle \\ \hline \\ cat Handle \\ \hline \\ cat Handle \\ \hline cat Handle \\ \hline \\ cat Handl$	2000k Y/hr 			

Job efficient	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradie	nt:	1.000	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.3554	
Adjusted unit production:	61	0.90 LCY/hr	
Adjusted fleet production:	61	<b>0.9</b> LCY/hr	
	-		

Fleet size:	1 Dozer(s)
Unit cost:	\$0.660/LCY
Total job time:	<b>1.52</b> Hours
Total job cost:	\$614

## HYDRAULIC EXCAVATOR WORK

Task description:	Excavate	for Post	-mining Cl	nannel at B-Sea	m Portals		
Bowie No. 2 Mine		Perm	it Action:	RN5		Permit/Job#	: C1996083
PROJECT IDENTIE	FICATION						
Task #:         101           Date:         11/21/202           User:         RDZ		State: ounty:	Colorado Delta		A	bbreviation: Filename:	None C083-101
Agency or orga	anization name	DRI	MS				
HOURLY EQUIPM	ENT COST						
Basic Machine: Attachment 1:	Cat 365C L ROPS Cab	13'-7" S	stick		Horsepower Weight (MT) Shift Basis Data Source	): 5: 1	404 70.51 per day CRG)
Cost Breakdown:			1	Utilization %			
Ownership Cost/ Operating Cost/ Operator Cost/	Hour:	\$173.7 \$148.1 \$37.32	2	NA           100           NA			
Total Unit Cost		\$359.2					
Total Fleet Cost	t/Hour:	\$718.4	16				
Loose volume:	290 338 of estimated ve	Jume	CCY LCY Division	Swell fac		fety	
	stimated swell		Cat Hand		Willing & Sa	lety	
HOURLY PRODUC	TION						
Excavator Cycle Time (l	oad bucket, sw	ving load	led, dump b	oucket, swing en	<u>npty):</u>		
	Secondary			ondition Descrip in Basic Descrip	otion: SEV	ERE	
Load Bucket Capacity				Cycle Time V	alue: 0.570	)	minutes
<u> </u>					Bucket Siz	e Class: Si	mall
Rated Capacit Bucket Fill Facto Adjusted Capacit	or: 0.85	50	LCY (hea Hard, tou LCY	aped) igh clay (80% - 9	90%) 0.850		
Job Condition Correction	·	<u> </u>		Si	te Altitude: 66	50 feet	
			Source				
Altitude Adj:	1.00		(CAT HI				
Job Efficiency: Net Correction:	0.83		(1 shift/da multiplier	<u> </u>			
-	adjusted Hourl	v Unit D	-	323.00	LCY/Ho	ur	
1	Adjusted Hourl	y Unit P	Production:	268.09 536.18	LCY/Ho LCY/Ho	ur	
JOB TIME AND CO	<u>ST</u>						
Fleet size:	2 E	xcavatoi	r To	otal job time:	0	.63	Hours
Unit cost: \$1.	.340 /LC	CY		Total job cost	:\$4	453	_

# Post-Mining Drainage Channel Construction (Ditches)

	o. 2 Mine		Permit Action	: <u>RN5</u>		Permit/Jo	ob#: <u>C1996083</u>
PROJEC ⁷	<u> IDENTIFI</u>	CATION					
Task #:	102		ate: Colorad	0		Abbreviation	
Date:	11/21/2021	Cour	nty: Delta			Filenam	e: C083-102
User:	RDZ						
Ag	gency or organi	zation name:	DRMS				
Channel			Width	Side	Width	Excavated	Excavated
	Length	Depth	(bottom)	Slopes	(top)	Vol./LF	Vol.
	(ft)	(ft)	(ft)	(XH:1V)	(ft)	(CY)	(total)
							(CY)
C/F	150	6.00	5.00	5.00	65.00	7.7778	1,167
Totals:	150						1,167
D'	1			D.	<b>T</b> 7 1		
Riprap	Diama	Perimeter, P	Area for Geotextile	Ripraj			
	Riprap Thickness	(ft)	(excl.	(C	Y)		
	(2xD50)	(11)	anchor				
	(2xD50) (ft)		trenches)				
	(11)		(sf)				
	0.00	66.19	9,928	(	)		
Totals:			9,928	(			
Materials N		wastage):	1,269		,	_	
Materials N	(SY incl. 15% Rip	wastage): orap (CY): ion (CY):			,	_	
Materials N	(SY incl. 15% Rip	orap (CY):	1,269 0		,	_	
<u>Materials N</u> Geotextile <u>Costs:</u> Ma	(SY incl. 15% Rip Excavat tterial Costs:	orap (CY):	<u>1,269</u> 0 1,167 Y): \$1.75	Riprap	(CY): \$3		
<u>Materials N</u> Geotextile <u>Costs:</u> Ma	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost:	orap (CY): ion (CY):	$     \begin{array}{r}         1,269 \\         0 \\         1,167 \\         Y): \underline{\$1.75} \\         \$0.30         \end{array} $		(CY): <u>\$3</u> \$1	3.65	\$2.6
<u>Materials N</u> Geotextile <u>Costs:</u> Ma Equi	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: pment Cost:	rap (CY): ion (CY): Geotextile (S	$   \begin{array}{r}     1,269 \\     0 \\     1,167 \\   \end{array} $ Y): $   \begin{array}{r}     \$1.75 \\     \$0.30 \\     \$0.00 \\   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
<u>Materials N</u> Geotextile <u>Costs:</u> Ma Equi	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost:	orap (CY): ion (CY):	$   \begin{array}{r}     1,269 \\     0 \\     1,167 \\   \end{array} $ Y): $   \begin{array}{r}     \$1.75 \\     \$0.30 \\     \$0.00 \\   \end{array} $		(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6
<u>Materials N</u> Geotextile <u>Costs:</u> Ma Equi	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: pment Cost:	rap (CY): ion (CY): Geotextile (S	$   \begin{array}{r}     1,269 \\     0 \\     1,167 \\   \end{array} $ Y): $   \begin{array}{r}     \$1.75 \\     \$0.30 \\     \$0.00 \\   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
<u>Materials N</u> Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u>	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: pment Cost: as Reference	orap (CY): ion (CY): Geotextile (S 31 32 1916 1:	$   \begin{array}{r}     1,269 \\     0 \\     1,167 \\     Y):  \$1.75 \\     \$0.30 \\     \$0.00 \\     510   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
<u>Materials N</u> Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u>	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: apment Cost: as Reference eotextile (SY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6	$   \begin{array}{r}     1,269 \\     0 \\     1,167 \\     Y):  \$1.75 \\     \$0.30 \\     \$0.00 \\     510   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
<u>Materials M</u> Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u> Ge	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u> Ge	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: apment Cost: as Reference eotextile (SY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mean <u>Totals:</u> Ge Exc Hours:	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY): cavation (CY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mean <u>Totals:</u> Ge Exc Hours:	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: as Reference eotextile (SY): Riprap (CY): cavation (CY): eotextile (SY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mean <u>Totals:</u> Ge Exc Hours:	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: apment Cost: as Reference eotextile (SY): Riprap (CY): cavation (CY): eotextile (SY): 87.50 SY/HR	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mean <u>Totals:</u> Ge Exc Hours:	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY): cavation (CY): 87.50 SY/HR Riprap (CY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0 14.50 0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u> Ge <u>Hours:</u> Ge	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY): cavation (CY): 87.50 SY/HR Riprap (CY): 7.75 CY/HR	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0 14.50 0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u> Ge <u>Hours:</u> Ge	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY): cavation (CY): 87.50 SY/HR Riprap (CY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0 14.50 0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u> Ge <u>Hours:</u> Ge	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY): cavation (CY): 87.50 SY/HR Riprap (CY): 7.75 CY/HR cavation (CY):	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0 14.50 0.00	$   \begin{array}{r}     1,269 \\     0 \\     1,167   \end{array} $ $   \begin{array}{r}     Y):  \$1.75 \\     \$0.30 \\     \$0.00   \end{array} $ $   \begin{array}{r}     55   \end{array} $	Riprap	(CY): <u>\$33</u> <u>\$1</u> 	3.65 4.15	\$2.6 \$1.4
Materials N Geotextile <u>Costs:</u> Ma Equi Mear <u>Totals:</u> Ge <u>Hours:</u> Ge	(SY incl. 15% Rip Excavat aterial Costs: Labor Cost: ipment Cost: is Reference eotextile (SY): Riprap (CY): cavation (CY): 87.50 SY/HR Riprap (CY): 7.75 CY/HR cavation (CY): 40.00 CY/HR	rap (CY): ion (CY): Geotextile (S 31 32 1916 1: \$2,600.6 \$0.00 \$4,760.0 14.50 0.00	1,269         0         1,167         Y):       \$1.75         \$0.30         \$0.00         510	Riprap	(CY): <u>\$3</u> <u>\$1</u> 00100	3.65 4.15	\$2.6 \$1.4

,	Task description:	Plug and seal AW-15			
Site:	Bowie No. 2 Mine	Permit Action	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	<u>N</u>			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106ag
	Agency or organiza	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	3	86	3.58	bag	\$19.95	\$71.42
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	3	NA	0.30	LF	\$3.26	\$0.98
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,452.00

,	Task description:	Plug and seal AW16			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106ah
0.501.	Agency or organizat	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	3	75	3.12	bag	\$19.95	\$62.24
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	3	NA	0.30	LF	\$3.26	\$0.98
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,443.00

r	Task description:	Plug and seal AW-17			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106ai
	Agency or organiza	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	3	62	2.58	bag	\$19.95	\$51.47
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	3	NA	0.30	LF	\$3.26	\$0.98
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,432.00

r	Task description:	Plug and seal BD-101			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106aj
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	16.5	0.31	bag	\$19.95	\$6.18
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.20	LF	\$3.26	\$0.65
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	4.00	EA	\$156.22	\$624.88
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	4.00	EA	\$67.47	\$269.88

Job Hours: 4.00

Total Cost: \$939.00

,	Task description:	Plug and seal BD-103			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106ak
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	53	0.98	bag	\$19.95	\$19.55
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,401.00
,	Task description:	Plug and seal	BD-105				
Site:	Bowie No. 2 Mine	Pe	ermit Action:	RN5	Permit/.	Job#:	C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N					
Task #:	106AL	State:	Colorado		Abbreviation:	None	;
Date:	11/21/2021	County:	Delta		Filename:	C083	-106al
User:	RDZ						
	Agency or organiza	tion name: DF	RMS				

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	107	1.98	bag	\$19.95	\$39.50
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	7.00	EA	\$156.22	\$1,093.54
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	7.00	EA	\$67.47	\$472.29

Job Hours: 7.00

Total Cost: \$1,644.00

,	Task description:	Plug and seal BD-105A			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106am
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	38.5	0.71	bag	\$19.95	\$14.16
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,395.00

,	Task description:	Plug and seal BD-102			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106an
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	30	0.55	bag	\$19.95	\$10.97
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,392.00

,	Task description:	Plug and seal BL-101A			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106ao
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	29	0.54	bag	\$19.95	\$10.77
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,392.00

r	Task description:	Plug and seal BL-102			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106ap
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	34	0.63	bag	\$19.95	\$12.57
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,394.00

r	Task description:	Plug and seal BL-102A			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-RN5
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	29	0.54	bag	\$19.95	\$10.77
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,392.00

,	Task description:	Plug and se	al GVB-6A			
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #:	106BB	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106bb
User:	RDZ					
	Agency or organizat	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 8 in. diameter borehole	7.625	NA	1.00	EA	\$84.15	\$84.15
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	7.625	700	188.11	bag	\$19.95	\$3,752.79
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	7.625	NA	2.00	LF	\$3.26	\$6.52
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	11.00	EA	\$156.22	\$1,718.42
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	11.00	EA	\$67.47	\$742.17

Job Hours: 11.00

Total Cost: \$6,342.00

1	Task description:	Plug and se	al MR133 Utilit	y Hole #1		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>				
Task #:	106CN	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106cn
User:	RDZ					
	Agency or organizat	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	10	520	240.35	bag	\$19.95	\$4,794.98
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	10	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

r	Task description:	Plug and se	al MR133 Utilit	y Hole #2		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #:	106CO	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106co
User:	RDZ	-				
	Agency or organizat	ion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	10	520	240.35	bag	\$19.95	\$4,794.98
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	10	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

r	Task description:	Plug and se	al MR133 Utilit	y Hole #3		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #:	106CP	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	С083-106ср
User:	RDZ	-			_	
	Agency or organizat	ion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	10	540	240.35	bag	\$19.95	\$4,794.98
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	10	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

r	Task description:	Plug and se	al MR133 Utilit	y Hole #4		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:	106CQ	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106cq
User:	RDZ	-			_	
	Agency or organizat	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	10	520	240.35	bag	\$19.95	\$4,794.98
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	10	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

1	Task description:	Plug and se	al GVB-D-3A (a	aka GVB-D3-A)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #: Date: User:	11/21/2021	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-106cy
User:		5	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 8 in. diameter borehole	7.625	NA	1.00	EA	\$84.15	\$84.15
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	7.625	870	133.56	bag	\$19.95	\$2,664.52
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	7.625	NA	2.00	LF	\$3.26	\$6.52
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$5,477.00

Т	Task description:	Plug and sea	al GVB-D-7A (a	aka GVB-D7-A)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJE(</u>	CT IDENTIFICATION	<u>N</u>				
Task #:	106DB	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106db
User:	RDZ					
	Agency or organizat	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.5	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	5.5	465	65.02	bag	\$19.95	\$1,297.15
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	5.5	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

Total Cost: \$3,638.00

,	Task description:	Plug and seal GVB-D-5A			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106dd
	Agency or organizat	ion name: DRMS			

### **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.5	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	5.5	332	46.42	bag	\$19.95	\$926.08
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	5.5	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	9.00	EA	\$156.22	\$1,405.98
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	9.00	EA	\$67.47	\$607.23

 Job Hours:
 9.00
 Total Cost:
 \$3,043.00

Т	ask description:	Plug and sea	al GVB-D-6A (a	aka GVB-D6-A)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: <u>C1996083</u>
<u>PROJEC</u>	CT IDENTIFICATION	N				
Task #:	106DO	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106do
User:	RDZ	-				
	Agency or organizat	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.5	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	5.5	461	64.46	bag	\$19.95	\$1,285.98
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	5.5	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

Total Cost: \$3,627.00

r	Task description:	Plug and se	al GVB-D-6B (a	aka GVB-D6-B)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:	106DP	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106dp
User:	RDZ					
	Agency or organiza	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.5	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	5.5	900	125.84	bag	\$19.95	\$2,510.51
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	5.5	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

 Job Hours:
 6.00
 Total Cost:
 \$5,299.00

Т	ask description:	Plug and sea	al GVB-D-7B (a	aka GVB-D7-B)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: <u>C1996083</u>
<u>PROJEC</u>	CT IDENTIFICATION	N				
Task #:	106DQ	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106dq
User:	RDZ	-				
	Agency or organizat	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.5	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	5.5	720	100.67	bag	\$19.95	\$2,008.37
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	5.5	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	11.00	EA	\$156.22	\$1,718.42
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	11.00	EA	\$67.47	\$742.17

Job Hours: 11.00

Total Cost: \$4,573.00

]	Task description:	Plug and se	al GVB-D-8C (a	aka GVB-D8-C)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:	106DU	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106du
User:	RDZ	-				
	Agency or organiza	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.5	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	5.5	1000	139.82	bag	\$19.95	\$2,789.41
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	5.5	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$5,578.00

r	Task description:	Plug and sea	al P-TC-03-01 (	aka TC-03-01)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: C1996083
PROJE	CT IDENTIFICATIO	N				
Task #:	106ED	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106ed
User:	RDZ					
	Agency or organiza	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	6	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	6	580	96.51	bag	\$19.95	\$1,925.37
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	6	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

Total Cost: \$4,266.00

r	Task description:	Plug and sea	al P-TC-03-02 (	aka TC-03-02)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:	106EE	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106ee
User:	RDZ					
	Agency or organiza	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	6	NA	1.00	EA	\$61.43	\$61.43
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	6	580	96.51	bag	\$19.95	\$1,925.37
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	6	NA	1.50	LF	\$3.26	\$4.89
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

Total Cost: \$4,266.00

Т	ask description:	Plug and sea	al GVB-17C (al	ka GVB-B17C)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJEC</u>	T IDENTIFICATION	N				
Task #: Date:	106GB 11/21/2021	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-106gb
User:	RDZ	County.	Denta		i nenane.	2005 100g0
	Agency or organizat	ion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	9.375	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	9.375	1090	442.81	bag	\$19.95	\$8,834.06
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	9.375	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	GENERIC 3.0 in 1, 700 ft. capy.	NA	NA	12.00	EA	\$152.21	\$1,826.52
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

 Job Hours:
 12.00

Total Cost: \$11,631.00

Т	ask description:	Plug and sea	al GVB-17D (al	xa GVB-B17D)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: <u>C1996083</u>
<u>PROJEC</u>	CT IDENTIFICATION	N				
Task #: Date: User:	106GC 11/21/2021 RDZ	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-106gc
	Agency or organizat	ion name:	DRMS			

### **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	9.375	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	9.375	1300	528.12	bag	\$19.95	\$10,535.99
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	9.375	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

 Job Hours:
 12.00

Total Cost: \$13,381.00

r	Task description:	Plug and se	al GVB-17E (al	ka GVB-B17E)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:	106GD	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106gd
User:	RDZ	-				
	Agency or organiza	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	9.375	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	9.375	1620	658.12	bag	\$19.95	\$13,129.49
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	9.375	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$15,975.00

_

r	Task description:	Plug and se	al GVB-17F (ak	a GVB-B17F)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:	106GI	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106gi
User:	RDZ					
	Agency or organiza	tion name:	DRMS			

### **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	9.375	NA	1.00	EA	\$115.29	\$115.29
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	9.375	1660	674.37	bag	\$19.95	\$13,453.68
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	9.375	NA	2.50	LF	\$3.26	\$8.15
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

 Job Hours:
 12.00

Total Cost: \$16,299.00

r	Task description:	Plug and seal AW-1			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATION	Ň			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106gn
	Agency or organizat	ion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	120	8.87	bag	\$19.95	\$176.96
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	7.00	EA	\$156.22	\$1,093.54
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	7.00	EA	\$67.47	\$472.29

Job Hours: 7.00

Total Cost: \$1,784.00

,	Task description:	Plug and seal AW-2			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106go
	Agency or organiza	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	60	4.43	bag	\$19.95	\$88.38
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,471.00

r	Task description:	Plug and seal AW-3			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gp
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	150	11.09	bag	\$19.95	\$221.25
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	7.00	EA	\$156.22	\$1,093.54
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	7.00	EA	\$67.47	\$472.29

Job Hours: 7.00

Total Cost: \$1,828.00

r	Task description:	Plug and seal AW-4			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gq
	Agency or organizat	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	60	4.44	bag	\$19.95	\$88.58
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,471.00

r	Task description:	Plug and seal AW-5			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gr
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	100	7.40	bag	\$19.95	\$147.63
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,531.00

,	Task description:	Plug and seal AW-6			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gs
	Agency or organizat	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	112	8.28	bag	\$19.95	\$165.19
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	7.00	EA	\$156.22	\$1,093.54
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	7.00	EA	\$67.47	\$472.29

Job Hours: 7.00

Total Cost: \$1,772.00

r	Task description:	Plug and seal AW-7			
Site:	Bowie No. 2 Mine	Permit Action	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	Ň			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gt
	Agency or organizat	ion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.5	193	5.58	bag	\$19.95	\$111.32
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.5	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	8.00	EA	\$156.22	\$1,249.76
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	8.00	EA	\$67.47	\$539.76

Job Hours: 8.00

Total Cost: \$1,940.00

,	Task description:	Plug and seal AW-8			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gu
	Agency or organization	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.5	60	1.73	bag	\$19.95	\$34.51
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.5	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,416.00

,	Task description:	Plug and seal AW-9			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106gv
	Agency or organization	tion name: DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.5	80	2.31	bag	\$19.95	\$46.08
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.5	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,427.00

- -	Task description:	Plug and seal AW-1	1				
Site:	Bowie No. 2 Mine	Permit A	Action:	RN5	Permit/J	lob#:	C1996083
<u>PROJE</u>	CT IDENTIFICATION	Ň					
Task #: Date: User:	11/21/2021	State: Colora County: Delta	ado		Abbreviation: Filename:	Non C08	e 3-106gw
	Agency or organizat	ion name: DRMS					

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	80	1.48	bag	\$19.95	\$29.53
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,411.00

,	Task description:	Plug and seal AW-	12				
Site:	Bowie No. 2 Mine	Permit	Action:	RN5	Permit/.	Job#:	C1996083
<u>PROJE</u>	CT IDENTIFICATIO	<u>N</u>					
Task #: Date: User:	11/21/2021	State: Color County: Delta			Abbreviation: Filename:	Non C08	e 3-106gx
	Agency or organiza	tion name: DRMS					

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	60	1.11	bag	\$19.95	\$22.14
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,403.00

r	Task description:	Plug and seal A	W-13				-
Site:	Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/.	lob#: C1996083	
<u>PROJE</u>	CT IDENTIFICATIO	N					
Task #: Date: User:	11/21/2021		olorado elta		Abbreviation: Filename:	None C083-106gy	
	Agency or organiza	tion name:DRM	MS				

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	80	1.48	bag	\$19.95	\$29.53
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,411.00
,	Task description:	Plug and seal AW-14			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106gz
	Agency or organization	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	30	0.55	bag	\$19.95	\$10.97
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	6.00	EA	\$156.22	\$937.32
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	6.00	EA	\$67.47	\$404.82

Job Hours: 6.00

Total Cost: \$1,392.00

,	Task description:	Plug and seal DH	-13		
Site:	Bowie No. 2 Mine	Perm	t Action: RN	15 Permit/.	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #:	106HD	State: Col	orado	Abbreviation:	None
Date:	11/21/2021	County: Del	ta	Filename:	C083-106hd
User:	RDZ				
	Agency or organization	ion name: DRM	8		

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 4 in. diameter borehole	4	NA	1.00	EA	\$33.98	\$33.98
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	1000	73.95	bag	\$19.95	\$1,475.30
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$4,234.00

r	Task description:	Plug and seal DH-15			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	Ň			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None 083-106he
	Agency or organizat	ion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	216	15.97	bag	\$19.95	\$318.60
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	8.00	EA	\$156.22	\$1,249.76
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	8.00	EA	\$67.47	\$539.76

Job Hours: 8.00

Total Cost: \$2,149.00

,	Task description:	Plug and seal DH-15			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106hf
	Agency or organizat	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 4 in. diameter borehole	4	NA	1.00	EA	\$33.98	\$33.98
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	395	29.21	bag	\$19.95	\$582.74
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	9.00	EA	\$156.22	\$1,405.98
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	9.00	EA	\$67.47	\$607.23

 Job Hours:
 9.00
 Total Cost:
 \$2,671.00

,	Task description:	Plug and seal DH	[-25			
Site:	Bowie No. 2 Mine	Perm	it Action: _ ]	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>				
Task #:	106HG	State: Col	orado		Abbreviation:	None
Date:	11/21/2021	County: Del	ta		Filename:	C083-106hg
User:	RDZ				-	
	Agency or organization	ion name: DRM	S			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 4 in. diameter borehole	4	NA	1.00	EA	\$33.98	\$33.98
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	333	24.63	bag	\$19.95	\$491.37
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	9.00	EA	\$156.22	\$1,405.98
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	9.00	EA	\$67.47	\$607.23

 Job Hours:
 9.00
 Total Cost:
 \$2,579.00

,	Task description:	Plug and sea	al DH-34C			
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #:	106HQ	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106hq
User:	RDZ				_	
	Agency or organizat	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 4 in. diameter borehole	4	NA	1.00	EA	\$33.98	\$33.98
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	124	9.17	bag	\$19.95	\$182.94
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	7.00	EA	\$156.22	\$1,093.54
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	7.00	EA	\$67.47	\$472.29

 Job Hours:
 7.00
 Total Cost:
 \$1,824.00

r	Task description:	Plug and seal DH-38			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106hr
	Agency or organizat	ion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	454	33.58	bag	\$19.95	\$669.92
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

Total Cost: \$2,948.00

r	Task description:	Plug and seal DH-39			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106hs
	Agency or organizat	ion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	180	13.31	bag	\$19.95	\$265.53
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	8.00	EA	\$156.22	\$1,249.76
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	8.00	EA	\$67.47	\$539.76

Job Hours: 8.00

Total Cost: \$2,096.00

,	Task description:	Plug and seal CWI-DH-47			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106hv
	Agency or organiza	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	1800	133.12	bag	\$19.95	\$2,655.74
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$5,381.00

,	Task description:	Plug and seal CWI-DH-48			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106hw
	Agency or organiza	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	2200	162.70	bag	\$19.95	\$3,245.87
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$5,971.00

r	Task description:	Plug and seal DH-49			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106hx
	Agency or organizat	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	323	23.89	bag	\$19.95	\$476.61
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	9.00	EA	\$156.22	\$1,405.98
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	9.00	EA	\$67.47	\$607.23

Job Hours: 9.00

Total Cost: \$2,531.00

r	Task description:	Plug and sea	al DH-57B (aka	98-57B)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJE</u>	<u>CT IDENTIFICATIO</u>	<u>N</u>				
Task #:	106IF	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106if
User:	RDZ	-				
	Agency or organiza	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 4 in. diameter borehole	3	NA	1.00	EA	\$33.98	\$33.98
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	3	1512	62.90	bag	\$19.95	\$1,254.86
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	3	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

 Job Hours:
 12.00

Total Cost: \$4,012.00

,	Task description:	Plug and se	al DH-58B (aka	DH-58A)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #: Date:		State: County:	Colorado Delta		Abbreviation: 	None C083-106ii
User:	RDZ				_	
	Agency or organiza	tion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 4 in. diameter borehole	3	NA	1.00	EA	\$33.98	\$33.98
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	3	1634	67.97	bag	\$19.95	\$1,356.00
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	3	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$4,113.00

,	Task description:	Plug and se	al CWI-DH-60	(aka Mon Well)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #: Date:	11/21/2021	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-106ij
User:	<u>RDZ</u> Agency or organizat	ion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	1073	19.84	bag	\$19.95	\$395.81
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$3,119.00

,	Task description:	Plug and seal DH-	67B				
Site:	Bowie No. 2 Mine	Permit	Action:	RN5	Permit/.	Job#:	C1996083
<u>PROJE</u>	CT IDENTIFICATION	N					
Task #: Date: User:	11/21/2021	State: Color County: Delta			Abbreviation: Filename:	Non C08	e 3-106ip
	Agency or organizat	ion name: DRMS					

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.75	594	20.76	bag	\$19.95	\$414.16
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.75	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	10.00	EA	\$156.22	\$1,562.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$67.47	\$674.70

Job Hours: 10.00

Total Cost: \$2,690.00

,	Task description:	Plug and seal DH-67-D			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State: Colorado County: Delta		Abbreviation: Filename:	None C083-106iq
	Agency or organizat	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.75	325	11.36	bag	\$19.95	\$226.63
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.75	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	9.00	EA	\$156.22	\$1,405.98
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	9.00	EA	\$67.47	\$607.23

Job Hours: 9.00

Total Cost: \$2,279.00

r	Task description:	Plug and seal DH-67-Al	)V		
Site:	Bowie No. 2 Mine	Permit Actio	on: RN5	Permit/J	ob#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/21/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-106ir
	Agency or organizat	ion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.75	193	6.75	bag	\$19.95	\$134.66
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.75	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	8.00	EA	\$156.22	\$1,249.76
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	8.00	EA	\$67.47	\$539.76

Job Hours: 8.00

Total Cost: \$1,963.00

,	Task description:	Plug and sea	al DH-67-Blw				
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	lob#: <u>C1996083</u>	
<u>PROJE</u>	CT IDENTIFICATION	N					
Task #: Date: User:	11/21/2021	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-106is	
	Agency or organizat	ion name:	DRMS				

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2.5	360	10.40	bag	\$19.95	\$207.48
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2.5	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	9.00	EA	\$156.22	\$1,405.98
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	9.00	EA	\$67.47	\$607.23

Job Hours: 9.00

Total Cost: \$2,260.00

r	Task description:	Plug and se	al CWI-DH-69	(aka B-1 Mon Well)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:		State:	Colorado		Abbreviation:	None
Date: User:		County:	Delta		Filename:	C083-106it
	Agency or organiza	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	2	1950	36.05	bag	\$19.95	\$719.20
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	2	NA	0.50	LF	\$3.26	\$1.63
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$3,443.00

,	Task description:	Plug and se	al CWI-DH-70	(aka B-1 Mon Well)		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: C1996083
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #:	106IU	State:	Colorado		Abbreviation:	None
Date:	11/21/2021	County:	Delta		Filename:	C083-106iu
User:	RDZ					
	Agency or organizat	ion name:	DRMS			

## **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	695	51.40	bag	\$19.95	\$1,025.43
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	11.00	EA	\$156.22	\$1,718.42
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	11.00	EA	\$67.47	\$742.17

Job Hours: 11.00

Total Cost: \$3,527.00

r	Task description:	Plug and sea	al 2010-1B			
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N				
Task #:		State:	Colorado		Abbreviation:	None
Date: User:		County:	Delta		Filename:	C083-106iy
	Agency or organiza	tion name:	DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	1220	90.22	bag	\$19.95	\$1,799.89
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$4,525.00

,	Task description:	Plug and sea	al 2010-1SS				
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#:	C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N					
Task #: Date:		State: County:	Colorado Delta		Abbreviation: Filename:	Non C08	e 3-106iz
User:		j:					
	Agency or organiza	tion name:	DRMS				

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only94 lb. bag)	4	1140	84.31	bag	\$19.95	\$1,681.98
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.26	\$3.26
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig time	Truck Mounted - 3.0 in 1,700 ft. capy.	NA	NA	12.00	EA	\$156.22	\$1,874.64
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$4,407.00

# SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action:	RN5	Perr	mit/Job#: <u>C1996</u>	5083	
PROJECT IDEN	<b>TIFICATION</b>						
Task #: 110	Sta	ate: Colorado		Abbrev	viation: None		
Date: 11/21/2	2021 Coun	nty: Delta		File	ename: C083-1	110	
User: RDZ							
Agency or o	organization name:	DRMS					
HOURLY EQUIP	MENT_		COSTS	hift basis: <u>1 per da</u>	ay		
			nt Description				
		-	G w/push-pull				
Suppo	rt Equipment -Load						
~~pp*	-Dump						
Road Ma	intenance – Motor Gr						
	-Water T	ruck: NA					
Cost Breakdown:	Scraper Work	Team	Support Equi	oment	Maintenance	Eauipm	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate	
%Utilization-machine:	100	NA	NA	NA	NA		
Ownership cost/hour:	\$188.81	NA	NA	NA	NA		
Operating cost/hour:	\$169.82	NA	NA	NA	NA		
%Utilization-ripper:	NA	NA	NA	NA	NA		
Ripper own. cost/hour:	NA	NA	NA	NA	NA		
Ripper op. cost/hour:	NA	NA	NA	NA	NA		
Operator cost/hour:	\$30.90	NA	NA	NA	NA		
Unit Subtotals:	\$389.53	NA	NA	NA	NA		
Number of Units:	2	0	0	0	0		
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0	
Total work team cost						1	
Initial volume:	91,800	CCY	Swell fact	tor: <u>1.125</u>			
Loose volume:	103,275	LCY					
	rce of estimated volu of estimated swell fac	<u> </u>					
HOURLY PROD	UCTION						
			Scraper Bo	owl (volume) Basi			
Material weight:	2,550 lbs/LCY			Volume: 15.70		CY	
	· · · ·			Heaped Volume:22.00LCYAverage Volume:18.85LCY			
Material description: Rated Payload:	Earth - Dry packed 52,800 pounds	<u> </u>	-				

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	8000.00	5.00	5.00	10.00	1068	7.53

Haul Time: **7.53** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8000.00	-5.00	5.00	0.00	2921	2.83
				Return Time:	2.83	minutes
			1	ber team cycle time:	11.86	minutes
				l for job conditions:	158.30	LCY/Hour Scraper(s)
				Number of Scrapers:	2	
	5	0	1	hourly production:	158.30	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)	hourly production:	158.30	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)		Total job time:	652.39	Hours
Uni	t cost: \$4.921	/LCY		Total job cost:	\$508,253	

# SCRAPER TEAM WORK

Site: Bowie No. 2	Mine		Permit	t Action:	RN5	Peri	mit/Job#:	C199608	3
PROJECT II	DENTI	FICATION							
Task #:1			tate: 0	Colorado				None	
	1/21/202 DZ	Cou	inty:	Delta		Fil	ename: (	2083-111	
Agenc	y or orga	anization name:	DRM	IS					
HOURLY E	)UIPM	<u>ENT</u>			COSTS	hift basis: <u>1 per d</u>	<u>ay</u>		
					nt Description				
			craper: Dozer:	Cat 627 NA	G w/push-pull				
S	upport I	Equipment -Load	Area:	NA					
	d Maint	-Dump enance –Motor C		NA NA					
KOa	a manne	-Water		NA					
Cost Breakdov		Scraper Wor	k Taam		Support Equi	nmont	Mointo	enance Eq	uinm
COSt DTeakuov	<u>/II</u> .	Scraper	Doz	zer	Load Area	Dump Area	Motor Gr		Water
%Utilization-mach	ine:	100		NA	NA	NA		NA	
Ownership cost/h	our:	\$188.81		NA	NA	NA		NA	
Operating cost/h	our:	\$169.82		NA	NA	NA		NA	
%Utilization-rip	per:	NA		NA	NA	NA		NA	
Ripper own. cost/h	our:	NA		NA	NA	NA		NA	
Ripper op. cost/h	our:	NA		NA	NA	NA		NA	
Operator cost/he	our:	\$30.90		NA	NA	NA		NA	
Unit Subto	als:	\$389.53		NA	NA	NA		NA	
Number of Ur	nits:	2		0	0	0		0	
Group Subtor	als:	Work:	\$779	9.06	Support:	\$0.00	Μ	laint:	\$0
Total work tean	QUAN	TITIES							
Initial volu Loose volu		21,722 <b>24,437</b>		CCY LCY	Swell fact	tor: <u>1.125</u>			
20000 101		of estimated vol	ume:		5-35, plus 800 vd	s MR151, 710 yds	MR153		
So		stimated swell fa		Cat Hand		5 10110 1, 7 10 Jac			
HOURLY PR	RODUC	TION							
					Scraper Be	owl (volume) Basi	is:		
Material wei Material descript		,550 lbs/LCY arth - Dry packe	1		Struck Heaped	Volume: 15.70 Volume: 22.00		$-\frac{LCY}{LCY}$	
								1111	

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	2000.00	-5.00	5.00	0.00	2921	0.83

Haul Time: **0.83** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	5.00	5.00	10.00	1768	1.20
				Return Time:	1.20	minutes
			1	ber team cycle time: l for job conditions:	<b>3.53</b> 531.86	minutes LCY/Hour
				Sumber of Scrapers:	2	Scraper(s)
	Adjuste	531.86	LCY/Hour			
	5	0	1	hourly production:	531.86	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)		Total job time:	45.95	Hours
Uni	t cost: \$1.465	/LCY		Total job cost:	\$35,795	

Page 1 of 2

# SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action:	RN5	Perm	nit/Job#: <u>C1996</u>	5083
PROJECT IDENT	<b>IFICATION</b>					
Task #: 112	Sta	te: Colorado		Abbrev	viation: None	
Date: 11/22/20	021 Coun	ty: Delta		File	ename: C083-1	12
User: RDZ						
Agency or or	ganization name: _	DRMS				
HOURLY EQUIPM	<u>IENT</u>		COSTSh	ft basis: <u>1 per da</u>	ay	
			nt Description			
		aper: Cat 627 ozer: NA	G w/push-pull			
Support	Equipment -Load A					
	-Dump A	Area: NA				
Road Main	itenance – Motor Gr					
	-Water Tr	ruck: NA				
Cost Breakdown:	Scraper Work	Team	Support Equip	ment	Maintenance	Equipm
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0
Total work team cost/h	nour: <u>\$779.06</u>					
MATERIAL QUA	NTITIES					
Initial volume:	24,000	CCY	Swell facto	r: 1.125		
Loose volume:	27,000	LCY				
Source	e of estimated volu	me: Page 2.05	5-36; Page 2.05-48	; Map 32		
Source of	estimated swell fac	tor: Cat Hand	lbook			
HOURLY PRODU	<u>CTION</u>					
			Scraper Boy	wl (volume) Basi	<u>s:</u>	
Material weight:	2,550 lbs/LCY		Struck V	olume: 15.70	L	CY
	Earth - Dry packed		Heaped V			CY
	52,800 pounds		Average V			CY

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	1200.00	0.00	5.00	5.00	2218	0.71

Haul Time: 0.71 minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	5.00	5.00	2814	0.57
				Return Time:	0.57	minutes
			Total Scraper	team cycle time:	2.78	minutes
			Adjusted f	or job conditions:	675.35	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	i single scrap	per team (unit) h	ourly production:	675.35	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	ourly production:	675.35	LCY/Hour
Optima	Unadjusted unit pro- al Number of Scrapers pe			LCY/Hour		
JOB T	ME AND COST					
Flee	t size: 1	Team(s)	То	otal job time:	39.98	Hours
Uni	t cost: \$1.154	/LCY	Т	otal job cost:	\$31,146	

# SCRAPER TEAM WORK

Site:	Bowie No. 2 Mine	Per	mit Action:	RN5	Peri	mit/Job#: <u>C199</u>	6083
<u>P</u>	ROJECT IDENT	<b>IFICATION</b>					
	Task #: 113	State:	Colorado		Abbrev	viation: None	
	Date: 11/22/2 User: RDZ	021 County:	Delta		Fil	ename: C083-	113
	Agency or or	rganization name: D	RMS				
H	OURLY EQUIP	<u>MENT</u>		COSTS	hift basis: <u>1 per d</u>	ay	
		Sarana		ent Description G w/push-pull			
		-Scrape -Doze	r: NA	0 w/pusii-puii			
	Suppor	t Equipment -Load Area Dump Area-					
	Road Mai	ntenance – Motor Grade					
		-Water Truck					
C	ost Breakdown:	Scraper Work Tea	ım	Support Equi	oment	Maintenance	Equipment
	ost Dicuktovii	*	Dozer	Load Area	Dump Area	Motor Grader	Water Tru
%Uti	ilization-machine:	100	NA	NA	NA	NA	
Owr	nership cost/hour:	\$188.81	NA	NA	NA	NA	
Op	perating cost/hour:	\$169.82	NA	NA	NA	NA	-
	Utilization-ripper:	NA	NA	NA	NA	NA	
	er own. cost/hour:	NA	NA	NA	NA	NA	
-	oper op. cost/hour:	NA	NA	NA	NA	NA	
0	perator cost/hour:	\$30.90	NA	NA	NA	NA	
	Unit Subtotals:	\$389.53	NA	NA	NA	NA	
	Number of Units:	2 Warls	0	0 Summarti	0	0 Mainti	00.00
	Group Subtotals:		779.06	Support:	\$0.00	Maint:	\$0.00
To	otal work team cost/	hour: <u><b>\$779.06</b></u>					
$\mathbf{N}$	IATERIAL QUA	NTITIES					
10	Initial volume:	20,489	CCY	Swell fact	or: 1.125		
	Loose volume:	23,050	LCY	Swell lact	.01. 1.123		
	Sour	ce of estimated volume:		Estimate			
		f estimated swell factor:	1				
H	IOURLY PRODU	<u>CTION</u>					
				Scraper Bo	owl (volume) Basi	<u>s:</u>	
	Material weight:	2,550 lbs/LCY			Volume: 15.70		CY
Ma	aterial description: Rated Payload:	Earth - Dry packed 52,800 pounds		Heaped Y Average			.CY .CY
	Payload Capacity:	20.71 LCY		Adjusted C			CY

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3900.00	9.00	3.00	12.00	918	4.27

Haul Time: **4.27** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3900.00	-9.00	3.00	-6.00	2938	1.37
				Return Time:	1.37	minutes
			Total Scrape	r team cycle time:	7.14	minutes
			Adjusted f	for job conditions:	262.95	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjuste	d single scrap	per team (unit) h	ourly production:	262.95	LCY/Hour
	Adjusted n	ultiple scrap	er team (fleet) h	nourly production:	262.95	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	T	otal job time:	87.66	Hours
Uni	t cost: \$2.963	/LCY	Т	otal job cost:	\$68,292	

Page 1 of 2

# SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	Pe	ermit Action:	RN5	Peri	mit/Job#: <u>C1996</u>	5083
PROJECT IDENT	<b>IFICATION</b>					
Task #: 115	State:	Colorado		Abbrev	viation: None	
Date: <u>11/22/2</u> User: RDZ	021 County:	Delta		Fil	ename: C083-1	15
		DMC				
Agency or of	rganization name:	ORMS				
HOURLY EQUIP	MENT		COSTSI	nift basis: <u>1 per d</u>	ay	
		Equipme	ent Description			
	-Scrape		G w/push-pull			
Suppor	-Doze t Equipment -Load Are					
	-Dump Are	ea: NA				
Road Mai	ntenance – Motor Grade					
	-Water Truc	k: NA				
Cost Breakdown:	Scraper Work Te	am	Support Equip		Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$
Total work team cost/	hour: <u>\$779.06</u>					
MATERIAL QUA	NTITIES					
Initial volume:	5,300	CCY	Swell fact	or: 1.125		
Loose volume:	5,963	LCY				
Sour	ce of estimated volume	e: Page 2.0	5-35			
Source of	f estimated swell factor	:: Cat Hand	dbook			
HOURLY PRODU	UCTION					
<u>HOUMET HODE</u>			Scraper Ro	owl (volume) Basi	ie.	
Matarial	2 550 lb ~ /I CV		•			$\mathbf{c}\mathbf{v}$
Material weight: Material description:	2,550 lbs/LCY Earth - Dry packed		Heaped V	Volume: 15.70 Volume: 22.00		CY CY
			i napou '	-22.00		<u> </u>

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	1500.00	10.00	5.00	15.00	734	2.06

Haul Time: 2.06 minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	-10.00	5.00	-5.00	2938	0.57
				Return Time:	0.57	minutes
			Total Scra	per team cycle time:	4.13	minutes
			Adjuste	d for job conditions:	454.59	LCY/Hour
			Selected N	Number of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit	) hourly production:	454.59	LCY/Hour
	Adjusted n	nultiple scrap	ber team (fleet	) hourly production:	454.59	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)		Total job time:	13.12	Hours
Uni	t cost:\$1.714	/LCY		Total job cost:	\$10,218	

## BULLDOZER WORK

Task description:		soil from Stockp			
Bowie No. 2 Mine		Permit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENT	IFICATION				
Task #: 116		ate: Colorado		Abbreviation:	None
Date: $11/22/20$				Filename:	C083-116
User: RDZ		inty. Denta		i nename.	0005 110
Agency or or	ganization name:	DRMS			
HOURLY EQUIPM	MENT COST				
	Cat D10T - 10SU				
	574				
	Semi-Universal				
•••	3-shank ripper				
	1 per day				
	(CRG)				
Cost Breakdown:					
Cost Dicardowii			Utilization %		
Ownership Cost/Hou	ır:	\$169.60	NA		
Operating Cost/Hou		\$166.94	100		
Ripper own. Cost/Hou		\$25.19	NA		
Ripper op. Cost/Hou		\$13.74	100		
Operator Cost/Hou		\$41.30	NA		
Total Fleet Cost/Hour:					
Total Fleet Cost/Hour: MATERIAL QUA	: \$416.77 NTITIES				
	: <b>\$416.77</b> NTITIES ,000				
Total Fleet Cost/Hour: <u>MATERIAL QUA</u> Initial Volume: <u>1</u> , Swell factor: <u>1</u> .	<b>\$416.77 NTITIES</b> ,000 .125				
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,	* \$416.77 NTITIES ,000 .125 ,125 LCY				
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,         Source of estimated volume       1,	: \$416.77 NTITIES ,000 .125 ,125 LCY blume:Divi		on, Mining & Safety		
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>1</u> , Swell factor: <u>1</u> .	: \$416.77 NTITIES ,000 .125 ,125 LCY blume:Divi	sion of Reclamati Handbook	on, Mining & Safety		
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,         Source of estimated volume:       1,         Source of estimated sw       1,	: \$416.77 NTITIES ,000 .125 ,125 LCY blume: Divi vell factor: Cat		on, Mining & Safety		
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1.         Loose volume:       1,         Source of estimated vo       Source of estimated sw         HOURLY PRODU       1000000000000000000000000000000000000	: \$416.77 <u>NTITIES</u> ,000 .125 ,125 LCY blume: Divi vell factor: Cat	Handbook	on, Mining & Safety		
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1.         Loose volume:       1,         Source of estimated vo       50         Source of estimated sw       4000000000000000000000000000000000000	: \$416.77 <u>NTITIES</u> ,000 .125 ,125 LCY plume: <u>Divi</u> well factor: <u>Cat</u> <u>VCTION</u> p: <u>300 fea</u>	Handbook et	on, Mining & Safety		
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,         Source of estimated volume       1,	: \$416.77 <u>NTITIES</u> ,000 .125 ,125 LCY plume: <u>Divi</u> well factor: <u>Cat</u> <u>VCTION</u> p: <u>300 fea</u>	Handbook	on, Mining & Safety		
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1.         Loose volume:       1,         Source of estimated vo       Source of estimated sw         HOURLY PRODU       Average push distance	\$416.77         NTITIES         ,000         .125         ,125 LCY         olume:       Divi         well factor:       Cat         VCTION         e:       300 feat         oduction:       633.3	Handbook et			
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,         Source of estimated volume:       1,         Source of estimated sw       1,         HOURLY PRODU       Average push distance         Unadjusted hourly pro       Materials consistency	\$416.77         NTITIES         ,000         .125         ,125 LCY         olume:       Divi         well factor:       Cat         ICTION         e:       300 feat         oduction:       633.3         description:       Co	Handbook et LCY/hr			
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1.         Swell factor:       1.         Loose volume:       1.         Source of estimated volume:       1.         Source of estimated sw       1.         HOURLY PRODU       Average push distance         Unadjusted hourly pro       Materials consistency         Average push gradient       1.	\$416.77         NTITIES         ,000         .125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,126         ,127         ,128         ,129         ,120         ,120         ,121         ,125         ,125         ,126         ,127         ,128         ,129         ,120         ,120         ,121         ,125         ,125	Handbook et LCY/hr			
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,         Source of estimated volume:       1,         Source of estimated sw       1,         HOURLY PRODU       Average push distance         Unadjusted hourly pro       Materials consistency         Average push gradient       1,	\$416.77         NTITIES         ,000         .125         ,125 LCY         olume:       Divi         well factor:       Cat         ICTION         e:       300 feat         oduction:       633.3         description:       Co	Handbook et LCY/hr			
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1.         Loose volume:       1,         Source of estimated volume:       1,         Source of estimated volume:       1,         Source of estimated sw       1,         HOURLY PRODU       1,         Average push distance       1,         Materials consistency       1,         Average push gradient       1,         Average push gradient       1,         Average push gradient       1,	\$416.77         NTITIES         ,000         .125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,126         ,127         ,128         ,129         ,120         ,120         ,121         ,125         ,125         ,126         ,127         ,128         ,129         ,120         ,120         ,121         ,125         ,125	Handbook et LCY/hr onsolidated stockp			
Total Fleet Cost/Hour: <u>MATERIAL QUAI</u> Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>1</u> , Source of estimated vo Source of estimated vo Source of estimated sw <u>HOURLY PRODU</u> Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight:	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	Handbook et LCY/hr onsolidated stockj			
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1.         Loose volume:       1,         Source of estimated volume:       1,         Source of estimated volume:       1,         Source of estimated volume:       1,         Materials consistency       1,         Average push distance       1,         Materials consistency       1,         Average push gradient       1,         Average site altitude:       1,         Material weight:       1,         Weight description:       1,	$\begin{array}{c} & $$416.77 \\ \hline $$MTITIES \\ ,000 \\ .125 \\ .125 \\ .125 \\ LCY \\ \hline \\ plume: Diving \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 $	Handbook et LCY/hr onsolidated stockj			
Total Fleet Cost/Hour:         MATERIAL QUAI         Initial Volume:       1,         Swell factor:       1,         Loose volume:       1,         Source of estimated volume:       1,         Average push distance       1,         Unadjusted hourly pro       1,         Materials consistency       1,         Average push gradient       1,         Average site altitude:       1,         Material weight:       1,         Weight description:       1,         Job Condition Correct       1,	$\begin{array}{c} & $$416.77 \\ \hline $$MTITIES \\ ,000 \\ .125 \\ .125 \\ .125 \\ LCY \\ \hline \\ plume: Diving \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 \\ .125 $	Handbook et LCY/hr onsolidated stockj			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 1, Swell factor: 1, Loose volume: 1, Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correcti Operate Material cons	\$416.77         NTITIES         ,000         .125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,126         ,127         ,128         ,129         description:	Handbook et LCY/hr onsolidated stockp Y acked 0.750 1.000			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 1, Swell factor: 1, Loose volume: 1, Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency of Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correction Operate Material consistency of Material consistency o	\$416.77         NTITIES         ,000         .125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,125         ,126         ,127         ,128         ,129         description:	Handbook et LCY/hr onsolidated stockp y acked 0.750			

Job efficienc	y: (	0.830	(1 SHIFT/DAY)
Spoil pil	e: (	0.800	(FND-RF)
Push gradien	t:	1.000	(CAT HB)
Altitud	2:	1.000	(CAT HB)
Material Weigh	t: (	0.902	(CAT HB)
Blade typ	2:	1.000	(PAT)
Net correction	n: 0.4492		
Adjusted unit production:	284.48 LCY/hi	r	
Adjusted fleet production:	284.48 LCY/h	r	

## JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$1.465/LCY
Total job time:	<b>3.95</b> Hours
Total job cost:	\$1,648

# SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	;	Permit A	Action:	RN5	Perr	nit/Job#: C19	96083
PROJECT IDEN	<b>FIFICATION</b>						
Task #: 117	Sta	ate: Co	olorado		Abbrev	viation: None	e
Date: 11/22/2	2021 Coun	ity: D	elta		File	ename: C08.	3-117
User: RDZ							
Agency or o	organization name:	DRMS	5				
HOURLY EQUIP	MENT			COSTS	nift basis: <u>1 per da</u>	ay	
		I	Equipme	nt Description			
		-		G w/push-pull			
Sunno	-D rt Equipment -Load A		NA NA				
Suppo	Dump -Dump		NA				
Road Ma	intenance – Motor Gr		NA				
	-Water T	ruck:	NA				
Cost Breakdown:	Scraper Work	Team		Support Equip	oment	Maintenan	ce Equipr
	Scraper	Doze	er	Load Area	Dump Area	Motor Grade	
%Utilization-machine:	100		NA	NA	NA	NA	A
Ownership cost/hour:	\$188.81		NA	NA	NA	NA	A
Operating cost/hour:	\$169.82		NA	NA	NA	NA	A
%Utilization-ripper:	NA		NA	NA	NA	NA	A
Ripper own. cost/hour:	NA		NA	NA	NA	NA	4
Ripper op. cost/hour:	NA		NA	NA	NA	NA	4
Operator cost/hour:	\$30.90		NA	NA	NA	NA	A
Unit Subtotals:	\$389.53		NA	NA	NA	NA	4
Number of Units:	2		0	0	0		0
Group Subtotals:	Work:	\$779.	06	Support:	\$0.00	Maint	t: \$
Total work team cost							
MATERIAL QUA Initial volume:	1,190	ſ	VOC	Swell fact	om 1125		
Loose volume:	1,190		CCY LCY	Swell lact	or: <u>1.125</u>		
	rce of estimated volu			5-36; Page 2.05-4	e and Man 22		
	of estimated swell fac		Cat Hand				
HOURLY PROD	UCTION						
				Scraper Bo	owl (volume) Basi	<u>s:</u>	
Material weight:	2,550 lbs/LCY			Struck '	Volume: 15.70		LCY
Material description:	Earth - Dry packed			Heaped '			LCY
Rated Payload:	<u>Dartin</u> Dij pucketa			··r · ··	Volume: 18.85		LCY

0.90 Minutes

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	2700.00	0.00	5.00	5.00	2218	1.39

Haul Time: **1.39** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)			
1	2700.00	0.00	5.00	5.00	2814	1.11			
				Return Time:	<b>1.11</b> 1	minutes			
			Total Scraper	team cycle time:	4.00	minutes			
			Adjusted for	or job conditions:	469.37	LCY/Hour			
			Selected Nur	mber of Scrapers:	2	Scraper(s)			
	Adjuste	d single scrap	oer team (unit) h	ourly production:	469.37	LCY/Hour			
	Adjusted n	ultiple scrap	er team (fleet) he	ourly production:	469.37	LCY/Hour			
Optima	Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer:								
JOB TIME AND COST									
Flee	t size: 1	Team(s)	To	tal job time:	2.85	Hours			
Unit	t cost: \$1.660	/LCY	Te	otal job cost:	\$2,222				
Site: Bowie No. 2 Mine	P	ermit Action:	RN5	Permit	Job#: <u>C19960</u>	)83			
-------------------------------------------------------------	------------------------------------------------------	---------------	-----------------------	------------------------------	---------------------	----------			
PROJECT IDENT	<b>TIFICATION</b>								
Task #: 118	State	: Colorado		Abbreviat	ion: None				
Date: 11/22/2	2021 County	: Delta		Filena	ame: C083-11	8			
User: RDZ									
Agency or o	organization name: <u>I</u>	ORMS							
HOURLY EQUIP	MENT_		COSTSI	hift basis: <u>1 per day</u>					
	a		nt Description						
	-Scrap -Doz		G w/push-pull						
Suppor	rt Equipment -Load Ar								
o «PPo	-Dump Ar								
Road Mai	intenance – Motor Grad								
	-Water True	ck: NA							
Cost Breakdown:	Scraper Work Te	eam	Support Equip	oment	Maintenance E	Eauipmen			
	Scraper	Dozer	Load Area		Aotor Grader	Water 7			
%Utilization-machine:	100	NA	NA	NA	NA				
Ownership cost/hour:	\$188.81	NA	NA	NA	NA				
Operating cost/hour:	\$169.82	NA	NA	NA	NA				
%Utilization-ripper:	NA	NA	NA	NA	NA				
Ripper own. cost/hour:	NA	NA	NA	NA	NA				
Ripper op. cost/hour:	NA	NA	NA	NA	NA				
Operator cost/hour:	\$30.90	NA	NA	NA	NA				
Unit Subtotals:	\$389.53	NA	NA	NA	NA				
Number of Units:	2	0	0	0	0				
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0.0			
Total work team cost	/hour: <u>\$779.06</u>								
MATERIAL QUA	NTITIES								
Initial volume:	800	CCY	Swell fact	or: 1.125					
Loose volume:	900	LCY			_				
	rce of estimated volum	0	5-36; Page 2.05-4	8; Map 32					
Source									
HOURLY PRODU	UCTION								
			Scraper Bo	owl (volume) Basis:					
			C ( 1 1	Volume: 15.70	LC	V			
Material weight:	2,550 lbs/LCY		Struck V						
Material weight: Material description: Rated Payload:	2,550 lbs/LCY Earth - Dry packed 52,800 pounds		Heaped V Average V	Volume: 22.00		Y			

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2700.00	0.00	5.00	5.00	2218	1.39

Haul Time: **1.39** minutes

### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2700.00	0.00	5.00	5.00	2814	1.11
				Return Time:	1.11	minutes
			Total Scraper	team cycle time:	4.00	minutes
			Adjusted f	or job conditions:	469.37	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjuste	d single scrap	per team (unit) h	ourly production:	469.37	LCY/Hour
	Adjusted n	ultiple scrap	er team (fleet) h	ourly production:	469.37	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)	То	otal job time:	1.92	Hours
Uni	t cost: \$1.660	/LCY	Т	otal job cost:	\$1,494	

### BULLDOZER WORK

Task description:	Replace topsoil f	place topsoil fm stockpile to MR/TR Light-Use Roads				
Bowie No. 2 Mine	Per	Permit Action: RN5		Permit/Job#:	C1996083	
PROJECT IDENTIFI	CATION					
Task #: 119	State:	Colorado		Abbreviation:	None	
Date: $11/22/2021$	County:	Delta		Filename:	C083-119	
User: RDZ				=		
Agency or organ	ization name: DF	RMS				
HOURLY EQUIPME	<u>NT COST</u>					
	D10T - 10SU					
Horsepower: 574						
• 1	ni-Universal					
	ank ripper					
Shift Basis: 1 pe	er day					
Data Source: (CR	.G)					
Cost Breakdown:						
			<u>Utilization %</u>			
Ownership Cost/Hour:		\$169.60	NA			
Operating Cost/Hour:		\$166.94	100			
Ripper own. Cost/Hour:		\$25.19	NA			
		\$13.74	100			
Ripper op. Cost/Hour:						
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$416.77 <b>\$1,667.09</b> ITIES	\$41.30	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume:64,34	<b>\$1,667.09</b> <u>ITIES</u> ^{‡7}	\$41.30	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125	<b>\$1,667.09</b> <u>ITIES</u> ^{‡7}	\$41.30	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39	\$1,667.09 <u>ITIES</u> 47 5 90 LCY ne:53.18 acr	  res, 0.75' dep				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr factor: Cat Hand	  res, 0.75' dep				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,667.09 <u>ITIES</u> 47 5 90 LCY ne: <u>53.18 acr</u> factor: <u>Cat Hand</u> <u>'ION</u> 100 feet	res, 0.75' dep lbook				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,667.09 <u>ITIES</u> 47 5 90 LCY ne: 53.18 acr Cat Hand <u>`ION</u> 100 feet	res, 0.75' dep lbook				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr factor: Cat Hand YION tion: 100 feet 1,718.9 LC	res, 0.75' dep lbook	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc	\$1,667.09 ITIES 47 5 20 LCY ne: 53.18 acr factor: Cat Hand CION 100 feet tion: 100 feet 1,718.9 LC cription: Consol	res, 0.75' dep lbook Y/hr	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient:	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr factor: Cat Hand TON tion: 100 feet 1,718.9 LC cription: Consol 5 %	res, 0.75' dep lbook Y/hr	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$1,667.09 ITIES 47 5 20 LCY ne: 53.18 acr factor: Cat Hand CION 100 feet tion: 100 feet 1,718.9 LC cription: Consol	res, 0.75' dep lbook Y/hr	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient:	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr factor: Cat Hand TON tion: 100 feet 1,718.9 LC cription: Consol 5 %	res, 0.75' dep lbook Y/hr	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight:	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr factor: Cat Hand YION tion: 100 feet tion: 1,718.9 LC cription: Consol 5 % 7,500 feet	res, 0.75' dep lbook Y/hr lidated stockp	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description:	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr factor: Cat Hand YION tion: 100 feet 1,718.9 LC cription: Consol 5 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed	res, 0.75' dep lbook Y/hr lidated stockp				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight:	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr Cat Hand YON tion: 100 feet 1,718.9 LC cription: Consol 5 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed Factor	res, 0.75' dep lbook Y/hr lidated stockp	 th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,667.09 ITIES 47 5 90 LCY ne: 53.18 acr Cat Hand Cat Hand	res, 0.75' dep lbook Y/hr lidated stockp	th			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 64,34 Swell factor: 1.125 Loose volume: 72,39 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$1,667.09         ITIES         47         5         20 LCY         ne:       53.18 acr         factor:       Cat Hand         CION         tion:       100 feet         1,718.9 LC         cription:       Consol         5 %         7,500 feet         2,550 lbs/LCY         Earth - Dry packed         Factor         Skill:       0.         ency:       1.	res, 0.75' dep lbook Y/hr lidated stockp d	th th bile 1.0 Source (AVG.)			

Job efficience	ey: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradier	nt: 0.903	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weigl	nt: 0.902	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	n: 0.4056	
Adjusted unit production:	697.19 LCY/hr	
Adjusted fleet production:	2788.76 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.598/LCY
Total job time:	25 06 Hours

rotar job time:	25.90 Hours
Total job cost:	\$43,274

## BULLDOZER WORK

Fask description:					
Bowie No. 2 Mine	Peri	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 120	State:	Colorado		Abbreviation:	None
Date: $11/22/2021$		Delta		Filename:	C083-120
User: RDZ	County.	Denta		- I mename.	0003 120
Agency or organ	nization name: DR	RMS			
Agency of organ	mzation name. Dr				
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
• I	ni-Universal				
	hank ripper				
	er day				
Data Source: (CI	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$403.03 <b>\$1,612.13</b>				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT	\$1,612.13 <u>TITIES</u>				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: _58,6	\$1,612.13 <u> TITIES</u> 50				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>58,6</u> Swell factor: 1.12	\$1,612.13 <u>TITIES</u> 50 5				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>58,6</u> Swell factor: 1.12	\$1,612.13 <u> TITIES</u> 50				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 58,6 Swell factor: 1.12 Loose volume: 65,9 Source of estimated volum	\$1,612.13 <u>STTIES</u> 50 5 81 LCY me:DRMS Estimation of the second seco				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 58,6 Swell factor: 1.12 Loose volume: 65,9	\$1,612.13 <u>STTIES</u> 50 5 81 LCY me:DRMS Estimation of the second seco				
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volum         Source of estimated swell	\$1,612.13         CITIES         50         5         81 LCY         me:       DRMS Ex         1 factor:       Cat Hand				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 58,6 Swell factor: 1.12 Loose volume: 65,9 Source of estimated volum Source of estimated swell HOURLY PRODUC	\$1,612.13 <u>STTIES</u> 50 5 81 LCY me: <u>DRMS Ea</u> 1 factor: <u>Cat Hand</u> <u>FION</u>				
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:	\$1,612.13 <b>TITIES</b> 50 5 <b>81</b> LCY me: DRMS Ex 1 factor: Cat Hand <b>FION</b> 120 feet	book			
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 58,6 Swell factor: 1.12 Loose volume: 65,9 Source of estimated volum Source of estimated swell HOURLY PRODUC	\$1,612.13 <u>CITIES</u> 50 5 81 LCY me: DRMS Ex 1 factor: Cat Hand <u>FION</u> 120 feet	book			
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:	\$1,612.13         CITIES         50         5         81 LCY         me:       DRMS Es         1 factor:       Cat Hand         FION         ction:       120 feet         1,503.8 LC	book	  pile 1.0		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volume         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Materials consistency destance:	\$1,612.13         STTIES         50         5         81 LCY         me:       DRMS Ex         1 factor:       Cat Hand         FION         ction:       120 feet         1,503.8 LC         scription:       Consol	book Y/hr	  bile 1.0		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volution         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Materials consistency destance:         Average push gradient:	\$1,612.13         STTIES         50         50         5         81 LCY         me:       DRMS Est         1 factor:       Cat Hand         FION         ction:       120 feet         1,503.8 LC         scription:       Consol:         5 %	book Y/hr	  pile 1.0		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volume         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Materials consistency destance:	\$1,612.13         STTIES         50         5         81 LCY         me:       DRMS Ex         1 factor:       Cat Hand         FION         ction:       120 feet         1,503.8 LC         scription:       Consol	book Y/hr	  bile 1.0		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volution         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Materials consistency destance:         Average push gradient:	\$1,612.13         STTIES         50         50         5         81 LCY         me:       DRMS Est         1 factor:       Cat Hand         FION         ction:       120 feet         1,503.8 LC         scription:       Consol:         5 %	book Y/hr	  pile 1.0		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Initial Fleet Cost/Hour:         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volume         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:	\$1,612.13         STTIES         50         5         81 LCY         me:       DRMS Est         1 factor:       Cat Hand         FION         ction:       1,20 feet         ction:       1,503.8 LC         scription:       Console         5 %       7,500 feet	book Y/hr idated stockp	  bile 1.0		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Average push gradient:         Average site altitude:         Material weight:         Weight description:	\$1,612.13         STTIES         50         5         81 LCY         me:       DRMS Ea         1 factor:       Cat Hand         FION         ction:       120 feet         ction:       1,503.8 LCY         scription:       Consolid         5 %       7,500 feet         2,550 lbs/LCY       Earth - Dry packed	book Y/hr idated stockp			
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volut         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Materials consistency des         Average site altitude:         Material weight:         Weight description:         ob Condition Correction	\$1,612.13         STTIES         50         5         81 LCY         me:       DRMS Est         1 factor:       Cat Hand         TION         ction:       120 feet         ction:       1,503.8 LCY         scription:       Consolition:         5 %       7,500 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Factor	book Y/hr idated stockp	Source		
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Average push gradient:         Average site altitude:         Material weight:         Weight description:	\$1,612.13         STTIES         50         5         81 LCY         me:       DRMS Est         1 factor:       Cat Hand         FION         ction:       120 feet         ction:       1,503.8 LCY         scription:       Consolid         5 %       7,500 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Skill:       0.	book Y/hr idated stockp			
Fotal unit Cost/Hour:         Fotal Fleet Cost/Hour:         Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       58,6         Swell factor:       1.12         Loose volume:       65,9         Source of estimated volut         Source of estimated volut         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly product         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Ob Condition Correction         Operator	\$1,612.13         STTIES         50         50         5         81 LCY         me:       DRMS Est         1 factor:       Cat Hand         FION         ction:       120 feet         1,503.8 LC         scription:       Consoli         5 %       7,500 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Skill:       0.         ency:       1.	book Y/hr idated stockp	Source (AVG.)		

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 0.903	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.902	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.4056	
Adjusted unit production:	609.94 LCY/hr	
Adjusted fleet production:	2439.76 LCY/hr	

	4 Dozer(s) \$0.661/LCY
Total job time:	<b>27.04</b> Hours

i otal job time.	27.04 Hours	
Total job cost:	\$43,599	

Site: Bowie No. 2 Mine	:	Permit A	Action:	RN5	Perr	mit/Job#: <u>C19</u>	96083
PROJECT IDEN	<b>TIFICATION</b>						
Task #: 121	St	tate: Co	olorado		Abbrev	viation: None	:
Date: 11/22/2	2021 Cour	nty: De	elta		Fil	ename: C083	-121
User: RDZ							
Agency or o	organization name:	DRMS					
HOURLY EQUIP	MENT			COSTS	hift basis: <u>1 per d</u>	av	
<u></u>		Г	Zauinmo	nt Description	<u>- por d</u>	<u></u>	
	-Sc			G w/push-pull			
			NA	• •			
Suppo	rt Equipment -Load -Dump		NA NA				
Road Ma	intenance – Motor G		NA				
	-Water 7		NA				
		T		Comment Free		Malatana	E.
Cost Breakdown:	Scraper Work	C Team Doze	r	Support Equi	pment Dump Area	Maintenance Motor Grader	1 1
					_		
%Utilization-machine:	100 \$199.91		NA	NA	NA NA	NA NA	
Ownership cost/hour: Operating cost/hour:	\$188.81 \$169.82		NA NA	NA NA	NA NA	NA NA	
%Utilization-ripper:	NA		NA	NA	NA	NA	
Ripper own. cost/hour:	NA		NA	NA	NA	NA	
Ripper op. cost/hour:	NA		NA	NA	NA	NA	
Operator cost/hour:	\$30.90		NA	NA	NA	NA	
Unit Subtotals:	\$389.53		NA	NA	NA	NA	
Number of Units:	2		0	0	0	C	
Group Subtotals:	Work:	\$779.0	)6	Support:	\$0.00	Maint	: \$0
Total work team cost							
MATERIAL QUA Initial volume: Loose volume:	<u>11,000</u> 12,375		CCY CY	Swell fact	tor: <u>1.125</u>		
	rce of estimated volu			Estimate			
	of estimated swell fa		Cat Hand	Estimate book			
HOURLY PROD	UCTION						
				Scraper Be	owl (volume) Basi	<u>s:</u>	
Material weight:	2,550 lbs/LCY	-			Volume: 15.70		LCY
Material description: Rated Payload:	Earth - Dry packed	d		Heaped			LCY
Rated Payload.	52,800 pounds			Average	Volume: 18.85		LCY

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	800.00	-20.00	5.00	-15.00	1295	0.77

Haul Time: 0.77 minutes

### **Return Route:**

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	20.00	5.00	25.00	712	1.13
				Return Time:	1.13	minutes
			Total Scrape	er team cycle time:	3.40	minutes
			Adjusted	for job conditions:	552.19	LCY/Hour
			Selected Nu	umber of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	552.19	LCY/Hour
	Adjusted n	ultiple scrap	ber team (fleet)	hourly production:	552.19	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	ME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	22.41	Hours
Uni	t cost: \$1.411	/LCY	1	Fotal job cost:	\$17,459	

### BULLDOZER WORK

			· · · · · · · · · · · · · · · · · · ·		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 122	State:	Colorado		Abbreviation:	None
Date: $122/2021$		Delta		Filename:	C083-122
User: $RDZ$	County.	Della		Filename.	0083-122
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPMI	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
• • • • • • • • • • • • • • • • • • • •	mi-Universal				
	hank ripper				
	er day				
Data Source: (C)	RG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$13.74	100		
Operator Cost/Hour:		\$41.30	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$416.77 \$1,667.09				
Fotal Fleet Cost/Hour: MATERIAL QUANT	\$1,667.09 <u>FITIES</u>				
Fotal Fleet Cost/Hour: MATERIAL QUANI Initial Volume: _ 250	\$1,667.09				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 250 Swell factor: 1.12	\$1,667.09 <u>FITIES</u> 25				
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281	\$1,667.09 <u>FITIES</u> 25 LCY				
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu	\$1,667.09 <u>FITIES</u> 25 LCY me:Division		on, Mining & Safety		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281	\$1,667.09 <u>FITIES</u> 25 LCY me:Division		on, Mining & Safety		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       Source of estimated swel	\$1,667.09 EITIES 25 LCY me: Division 1 factor: Cat Hand		on, Mining & Safety		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT	\$1,667.09 FITIES 25 LCY me: Division 1 factor: Cat Hand FION		on, Mining & Safety		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT       Average push distance:	\$1,667.09         ETTIES         25         LCY         me:       Division         1 factor:       Cat Hand         TION         200 feet	book	on, Mining & Safety		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT	\$1,667.09         ETTIES         25         LCY         me:       Division         1 factor:       Cat Hand         TION         200 feet	book	on, Mining & Safety		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT       Average push distance:	\$1,667.09         CITIES         25         LCY         me:       Division         1 factor:       Cat Hand         TION         ction:       200 feet         946.0 LCY/	book			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUC       Average push distance:         Jnadjusted hourly produ       Materials consistency destance:	\$1,667.09         ETTIES         25         LCY         me:       Division         1 factor:       Cat Hand         TION         ction:       200 feet         946.0 LCY/         scription:       Consol	book /hr			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu         Source of estimated swel         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly produ         Materials consistency destance:         Average push gradient:	\$1,667.09         FITIES         25         LCY         me:       Division         1 factor:       Cat Hand         FION         ction:       200 feet         946.0 LCY/         scription:       Consol         5 %	book /hr			
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUC'         Average push distance:         Jnadjusted hourly produ         Materials consistency des         Average push gradient:         Average site altitude:	\$1,667.09         FITIES         25         LCY         me:       Division         1 factor:       Cat Hand         FION         ction:       200 feet         ction:       946.0 LCY/         scription:       Consol         5 %       6,000 feet	book /hr			
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu         Source of estimated swel         HOURLY PRODUCT         Average push distance:         Jnadjusted hourly produ         Materials consistency dest         Average site altitude:         Material weight:	\$1,667.09         EITIES         25         LCY         me:       Division         1 factor:       Cat Hand         ETION         ction:       946.0 LCY/         scription:       Consol         5 %         6,000 feet         2,550 lbs/LCY	/hr idated stock <u>r</u>			
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu         Source of estimated volu         Source of estimated swel         HOURLY PRODUC'         Average push distance:         Jnadjusted hourly produ         Materials consistency des         Average site altitude:         Material weight:         Weight description:	\$1,667.09         FITIES         25         LCY         me:       Division         1 factor:       Cat Hand         FION         ction:       200 feet         ction:       946.0 LCY/         scription:       Consol         5 %       6,000 feet         2,550 lbs/LCY       Earth - Dry packed	/hr idated stock <u>r</u>	bile 1.0		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       200         Source of estimated volu       200         Source of estimated volu       200         Source of estimated swell       400         HOURLY PRODUC       400         Average push distance:       100         Jnadjusted hourly produ       400         Materials consistency des       400         Average push gradient:       400         Average site altitude:       400         Material weight:       400         Weight description:       100         Condition Correction       100	\$1,667.09         FITIES         25         LCY         me:       Division         1 factor:       Cat Hand         FION         ction:       200 feet         ction:       946.0 LCY/         scription:       Consol         5 %       6,000 feet         2,550 lbs/LCY       Earth - Dry packed         n Factor       Factor	/hr idated stock 	bile 1.0		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       200         Source of estimated volu       200         Source of estimated volu       200         Source of estimated swell       400         HOURLY PRODUCT       400         Average push distance:       100         Jnadjusted hourly produ       400         Materials consistency destance:       400         Average push gradient:       400         Average site altitude:       400         Material weight:       400         Weight description:       100         Condition Correction       100         Operator       100	\$1,667.09         ETTIES         25         LCY         me:       Division         1 factor:       Cat Hand         ETION         ction:       200 feet         ction:       946.0 LCY/         scription:       Consol         5 %       6,000 feet         2,550 lbs/LCY       Earth - Dry packed         1 Factor       Skill:       0.	/hr idated stockp  1 .750	bile 1.0		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu       281         Source of estimated volu       Source of estimated swel         HOURLY PRODUC       Average push distance:         Jnadjusted hourly produ       Materials consistency des         Average push gradient:       Average site altitude:         Material weight:       Weight description:         Iob Condition Correction       Operator         Material consist       Operator	\$1,667.09         CITIES         2:5         LCY         me:       Division         1 factor:       Cat Hand         TION         ction:       200 feet         946.0 LCY/         scription:       Consol         5 %       6,000 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Skill:       0.         tency:       1.	book /hr idated stockp  1  1  750 000	bile 1.0 <u>Source</u> (AVG.) (CAT HB)		
Fotal Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       250         Swell factor:       1.12         Loose volume:       281         Source of estimated volu         Source of estimated volu         Source of estimated swel         HOURLY PRODUC         Average push distance:         Jnadjusted hourly produ         Materials consistency des         Average site altitude:         Material weight:         Weight description:         Iob Condition Correction         Operator         Material consist         Dozing me	\$1,667.09         ETTIES         25         LCY         me:       Division         1 factor:       Cat Hand         TION         ction:       200 feet         946.0 LCY/         scription:       Consol         5 %       6,000 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Skill:       0.         stincy:       1.	/hr idated stockp  1 .750	bile 1.0		

Job efficiency	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradien	t: 0.903	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	t: 0.902	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n: 0.4056	
Adjusted unit production:	383.70 LCY/hr	
Adjusted fleet production:	1534.8 LCY/hr	

## JOB TIME AND COST

	4 Dozer(s) \$1.086/LCY
Total job time:	0.18 Hours

Total job cost: \$305

Site: Bowie No. 2 Mine	Perr	mit Action:	RN5	Pern	nit/Job#: <u>C1996</u>	5083
PROJECT IDEN	<b>TIFICATION</b>					
Task #:       123         Date:       11/22/2         User:       RDZ	2021 State: County:	Colorado Delta		Abbrev	iation: <u>None</u> ename: <u>C083-1</u>	23
Agency or o	rganization name: DR	MS				
HOURLY EQUIP	MENT_		COSTSI	hift basis: <u>1 per da</u>	<u>iy</u>	
			ent Description			
	-Scraper		G w/push-pull			
Suppo	-Dozer rt Equipment -Load Area					
Suppo	-Dump Area					
Road Ma	intenance – Motor Grader					
	-Water Truck	: NA				
Cost Breakdown:	Scraper Work Tear	m	Support Equip	oment	Maintenance	Equip
	Scraper D	Dozer	Load Area	Dump Area	Motor Grader	Wat
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work: \$7	79.06	Support:	\$0.00	Maint:	
Total work team cost <u>MATERIAL QUA</u> Initial volume: Loose volume:	<u>NTITIES</u> 40,368 <b>45,414</b>	_ CCY _ LCY	Swell fact	or: <u>1.125</u>		
Source of	rce of estimated volume: of estimated swell factor:	Appendi Cat Hand				
HOURLY PRODU	UCTION					
			Scraper Bo	owl (volume) Basi	<u>s:</u>	
Material weight:	2,550 lbs/LCY			Volume: 15.70		CY
Material description: Rated Payload:	Earth - Dry packed 52,800 pounds		Heaped Average			CY CY

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6100 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: 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	12.00	5.00	17.00	650	1.55

Haul Time: **1.55** minutes

### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-12.00	5.00	-7.00	2938	0.41
				Return Time:	0.41	minutes
			Total Scrape	er team cycle time:	3.46	minutes
			Adjusted	for job conditions:	542.62	LCY/Hour
			Selected N	umber of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	542.62	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)	hourly production:	542.62	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			_ LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)	7	Total job time:	83.69	Hours

Unit cost: \$1.436 /LCY

Total job cost: \$65,203

Site: Bowie No. 2 Mine	е Р	ermit Action:	RN5	Perr	mit/Job#: <u>C1996</u>	5083
PROJECT IDEN	<b>FIFICATION</b>					
Task #: 124	State	: Colorado		Abbrev	viation: None	
Date: 11/22/2	2021 County	: Delta		File	ename: C083-1	24
User: RDZ						
Agency or o	organization name:	DRMS				
μουρι ν εουπ	MENT		COSTSI	:ft has is 1 man d		
HOURLY EQUIP			COSTSh	ift basis: <u>1 per da</u>	ay	
			nt Description			
	-Scrap -Doz		G w/push-pull			
Suppo	rt Equipment -Load Ar					
	-Dump Ar	rea: NA				
Road Ma	intenance – Motor Grad					
	-Water Tru	ck: NA				
Cost Breakdown:	Scraper Work To	eam	Support Equip	oment	Maintenance	Equipme
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0
Total work team cost	/hour: <u>\$779.06</u>					
MATERIAL QUA	<b>NTITIES</b>					
Initial volume:	4,524	CCY	Swell facto	or: 1.000		
Loose volume:	4,524	LCY				
Sou	rce of estimated volum	e: Volume l	X, Appendix A			
Source of	of estimated swell facto	or: Cat Hand	lbook			
HOURLY PROD	UCTION					
HOURLY I KOD			Scraper Po	wl (volume) Basi	c.	
<b>32</b>			-			<b>OV</b>
Material weight: Material description:	2,550 lbs/LCY Earth - Dry packed		Struck V Heaped V			CY CY
Rated Payload:	52,800 pounds		Average V			CY
Payload Capacity:	20.71 LCY		Adjusted C			CY

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	5.00	5.00	10.00	1068	0.97

Haul Time: **0.97** minutes

### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	5.00	0.00	2921	0.44
				Return Time:	0.44	minutes
			Total Scrape	r team cycle time:	2.91	minutes
			Adjusted f	for job conditions:	645.18	LCY/Hour
			Selected Nu	umber of Scrapers:	2	Scraper(s)
	Adjuste	d single scrap	per team (unit) h	nourly production:	645.18	LCY/Hour
	Adjusted n	nultiple scrap	er team (fleet) ł	nourly production:	645.18	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	7.01	Hours

Unit cost: \$1.208 /LCY

Total job cost: \$5,463

Site: Bowie No. 2 Mine	;	Permit Action:	RN5	Peri	mit/Job#: <u>C1996</u>	083
PROJECT IDEN	<b>FIFICATION</b>					
Task #: 125	Sta				viation: None	
Date: 11/22/2 User: RDZ	2021 Coun	ty: Delta		Fil	ename: C083-1	25
Agency or o	organization name:	DRMS				
HOURLY EQUIP	MENT_		COSTS	hift basis: <u>1 per d</u>	ay	
			nt Description			
		aper: Cat 627 ozer: NA	G w/push-pull			
Suppo	rt Equipment -Load					
	-Dump /					
Road Ma	intenance –Motor Gr -Water Tr					
	-water 1	luck. INA				
Cost Breakdown:	Scraper Work	Team	Support Equip	oment	Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	\$0
Total work team cost	/hour: <u><b>\$779.06</b></u>					
MATERIAL QUA	<b>NTITIES</b>					
Initial volume: Loose volume:	46,708 46,708	CCY LCY	Swell fact	or: <u>1.000</u>		
	rce of estimated volu of estimated swell fac	1				
HOURLY PROD	UCTION					-
			Scraper Bo	owl (volume) Basi	<u>s:</u>	
Material weight:	2,550 lbs/LCY		Struck '	Volume: 15.70	LC	CY
Material description:	Earth - Dry packed		Heaped '			CY
Rated Payload: Payload Capacity:	52,800 pounds 20.71 LCY		Average Adjusted C		LC	CY

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	2000.00	0.00	5.00	5.00	2218	1.07

Haul Time: **1.07** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	0.00	5.00	5.00	2814	0.86
				Return Time:	0.86	minutes
			Total Scrape	r team cycle time:	3.43	minutes
			1	or job conditions:	547.36	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjuste	d single scrap	per team (unit) h	ourly production:	547.36	LCY/Hour
	Adjusted n	ultiple scrap	er team (fleet) h	ourly production:	547.36	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	ME AND COST					
Flee	t size: 1	Team(s)	То	otal job time:	85.33	Hours
Uni	t cost: \$1.423	/LCY	Т	otal job cost:	\$66,479	

### BULLDOZER WORK

Task description:	Replace topsoil f	10m Stockpi	le to Haul Koau		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 126	State:	Colorado		Abbreviation:	None
Date: $11/22/2021$	County:	Delta		Filename:	C083-126
User: RDZ	County.	Della		i incliante.	0005-120
Agency or organ	nization name: DF	RMS			
HOURLY EQUIPME	<u>ENT COST</u>				
Basic Machine: Cat	D10T - 10SU				
Horsepower: 574					
	ni-Universal				
•••	hank ripper				
	er day				
Data Source: (CF					
	- /		_		
Cost Breakdown:		1			
			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$13.74	100		
		\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$416.77 <b>\$1,667.09</b>	+ 1100			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 300	\$1,667.09 <u>TTIES</u>				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$1,667.09 <u>TITIES</u> 5				
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 300 Swell factor: 1.12 Loose volume: 338 Source of estimated volum	\$1,667.09 TTIES 5 LCY ne:	 of Reclamation	on, Mining & Safety		
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 300 Swell factor: 1.12: Loose volume: 338	\$1,667.09 TTIES 5 LCY ne:	 of Reclamation			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 300 Swell factor: 1.12: Loose volume: 338 Source of estimated volum	\$1,667.09 TTIES 5 LCY ne: <u>Division</u> factor: <u>Cat Hand</u>	 of Reclamation			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT	\$1,667.09 TTIES 5 LCY ne: Division factor: Cat Hand FION	 of Reclamation			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated swell	\$1,667.09 TTIES 5 LCY ne: Division factor: Cat Hand <u>CION</u> 150 feet	of Reclamation			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 300 Swell factor: 1.12: Loose volume: 338 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,667.09         TTIES         5         LCY         ne:       Division         factor:       Cat Hand         TION         2150 feet         2tion:       1,243.2 LC	of Reclamation	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product	\$1,667.09         TTIES         5         LCY         ne:       Division         factor:       Cat Hand         TION         2150 feet         2tion:       1,243.2 LC	of Reclamation book	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:	\$1,667.09         ITIES         5         LCY         ne:       Division         factor:       Cat Hand         FION         ction:       150 feet         1,243.2 LC         cription:       Consol         5 %	of Reclamation book	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:	\$1,667.09         TTIES         5         LCY         ne:       Division         factor:       Cat Hand         FION         cription:       1,243.2 LC         cription:       Consol         5 %         6,100 feet	 of Reclamation book Y/hr idated stockp	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated volur         Source of estimated volur         Materials consistency des         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction	\$1,667.09         TTIES         5         LCY         ne:       Division         factor:       Cat Hand         TION         etion:       150 feet         cription:       Consol         5 %         6,100 feet         2,550 lbs/LCY         Earth - Dry packed         Factor	 of Reclamation book Y/hr idated stockp	on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated volur         Source of estimated volur         Materials consistency des         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator S	\$1,667.09         TTIES         5         LCY         ne:       Division         factor:       Cat Hand         TION         etion:       150 feet         cription:       Consol         5 %         6,100 feet         2,550 lbs/LCY         Earth - Dry packed         Factor         Skill:       0.		on, Mining & Safety		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated volur         Source of estimated volur         Materials consistency des         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator S         Material consistence	\$1,667.09         ITIES         5         LCY         ne:       Division         factor:       Cat Hand         TION         cription:       150 feet         1,243.2 LC         cription:       Consol         5 %       6,100 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Skill:       0.         ency:       1.		on, Mining & Safety 		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       300         Swell factor:       1.12:         Loose volume:       338         Source of estimated volur         Source of estimated volur         Source of estimated volur         Materials consistency des         Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator S	\$1,667.09         ITIES         5         LCY         ne:       Division         factor:       Cat Hand         TION         cription:       150 feet         1,243.2 LC         cription:       Consol         5 %       6,100 feet         2,550 lbs/LCY       Earth - Dry packed         Factor       Skill:       0.         ency:       1.		on, Mining & Safety		

Task # 126

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradier	nt: 0.903	(CAT HB)
Altituc	le: 1.000	(CAT HB)
Material Weight	ht: 0.902	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.4056	
Adjusted unit production:	504.24 LCY/hr	
Adjusted fleet production:	2016.96 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.827/LCY
Total job time:	<b>0.17</b> Hours
Total job cost:	\$279

PROJECT IDENTTask #:127Date:11/22/20User:RDZAgency or or	State:					
Date: 11/22/20 User: RDZ		<b>a</b> 1 1				
User: RDZ	021 County:	Colorado			viation: None	
Agency or or		Delta		Fil	ename: C083-1	27
6,	ganization name: D	RMS				
HOURLY EQUIPM	MENT_		COSTSI	nift basis: <u>1 per d</u>	ay	
			ent Description			
	-Scrape -Doze		G w/push-pull			
Suppor	t Equipment -Load Are					
	-Dump Are	a: NA				
Road Main	ntenance – Motor Grade					
	-Water Truc	k: NA				
Cost Breakdown:	Scraper Work Tea	am	Support Equip	oment	Maintenance	Equipn
		Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	5779.06	Support:	\$0.00	Maint:	\$
Total work team cost/l						
Initial volume: Loose volume:	850 956	CCY LCY	Swell fact	or: <u>1.125</u>		
	ce of estimated volume estimated swell factor	1	Estimate lbook			
HOURLY PRODU	<b>CTION</b>					
			Scraper Bo	owl (volume) Basi		
<u> </u>	2,550 lbs/LCY			Volume: 15.70		CY
	Earth - Dry packed 52,800 pounds		Heaped V Average V			CY CY

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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: 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	-15.00	5.00	-10.00	1749	0.69

Haul Time: **0.69** minutes

### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	15.00	5.00	20.00	868	1.17
				Return Time:	1.17	minutes
			Total Scra	per team cycle time:	3.36	minutes
			Adjuste	d for job conditions:	558.77	LCY/Hour
			Selected N	Number of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit	) hourly production:	558.77	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet	) hourly production:	558.77	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)		Total job time:	1.71	Hours
Uni	t cost: \$1.394	/LCY		Total job cost:	\$1,333	

Site: Bowie No. 2 Mine		Permit Action:	RN5	Peri	mit/Job#: <u>C1996</u>	5083
PROJECT IDENI	TIFICATION					
Task #: 128	S	tate: Colorado	)	Abbrev	viation: None	
Date: 11/22/2	.021 Cou	nty: Delta		Fil	ename: C083-1	28
User: RDZ						
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	<u>MENT</u>			hift basis: <u>1 per d</u>	ay	
	S		ent Description 7G w/push-pull			
		Dozer: NA	/G w/pusii-puii			
Suppor	rt Equipment -Load	Area: NA				
D1M_	-Dump					
Road Mai	ntenance – Motor C -Water					
Cost Breakdown:	Scraper Wor		Support Equi		Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wat
%Utilization-machine:	100	NA	NA	NA	NA	
Ownership cost/hour:	\$188.81	NA	NA	NA	NA	
Operating cost/hour:	\$169.82	NA	NA	NA	NA	
% Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Unit Subtotals:	\$389.53	NA	NA	NA	NA	
Number of Units:	2	0	0	0	0	
Group Subtotals:	Work:	\$779.06	Support:	\$0.00	Maint:	5
Total work team cost/	hour: <b>\$779.06</b>					
MATERIAL QUA	<u>NTITIES</u>					
Initial volume:	1,000	CCY	Swell fact	tor: <u>1.250</u>		
Loose volume:	1,250	LCY				
	ce of estimated vol	1	or Estimate			
Source o	f estimated swell fa	ctor: Cat Har	idbook			
HOURLY PRODU	ICTION					
<u>moorali i kob</u> (			Saranar D	owl (volume) Dee		
			-	owl (volume) Basi		<b></b>
			Channel all	Volume: 15.70	Ť (	' <b>v</b>
Material weight: Material description:	2,550 lbs/LCY Earth - Dry packe		Struck Heaped			CY CY

<u>0.60</u> Minutes

#### Cycle Time:

Scraper Loading Time:

Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 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 3.0

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4500.00	8.00	3.00	11.00	1018	4.45

Haul Time: **4.45** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4500.00	-8.00	3.00	-5.00	2938	1.58
				Return Time:	1.58	minutes
			Total Scrap	ber team cycle time:	7.53	minutes
			Adjusted	l for job conditions:	249.33	LCY/Hour
			Selected N	Number of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	249.33	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)	hourly production:	249.33	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	et size: 1	Team(s)		Total job time:	5.01	Hours
Uni	t cost: \$3.125	/LCY		Total job cost:	\$3,906	

## BULLDOZER WORK

Task description:	Replace topsoil f	I III			
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: <u>129</u> Date: <u>11/22/2021</u>	State:	Colorado Delta		Abbreviation: Filename:	None C083-129
User: <u>RDZ</u>					
Agency or organ	nization name: Di	RMS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
• •	ni-Universal				
	hank ripper				
	er day				
Data Source: (CI	RG)				
Cost Breakdown:					
_			Utilization %		
Ownership Cost/Hour:		\$169.60	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$25.19	NA		
Ripper op. Cost/Hour:		\$13.74	100		
		\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$416.77 \$1,667.09		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume: 7,40	\$1,667.09 <u>CITIES</u> 0		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25	\$1,667.09 <u>TITIES</u> 0 0				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25	\$1,667.09 <u>TTIES</u> 0 0 0 LCY me:Operator	Estimate			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume: 7,40 Swell factor: 7,40 Loose volume: 9,25 Source of estimated volum	\$1,667.09           CITIES           0           0           0           0 LCY           me:         Operator           1 factor:         Cat Hand	Estimate			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,667.09  TITIES 0 0 0 0 LCY me: Operator 1 factor: Cat Hand FION	Estimate			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,667.09         CITIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0      <	Estimate Ibook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,667.09         CITIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0      <	Estimate Ibook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1,25 Loose volume: 9,25 Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$1,667.09         CITIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0      <	Estimate lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$1,667.09           CTTIES           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           1           factor:	Estimate lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volut Source of estimated volut Source of estimated swell <b>HOURLY PRODUC</b> Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude:	\$1,667.09         CITIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         200 feet         ction:         200 feet         ction:         946.0 LCY         scription:         0 %         6,200 feet	Estimate Ibook /hr lidated stockp			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volut Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	\$1,667.09         CITIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         factor:         200 feet         ction:         946.0 LCY         scription:         Consol         0 %         6,200 feet         2,550 lbs/LCY         Earth - Dry packed	Estimate Ibook /hr lidated stockp			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated volum Source of estimated swell <b>HOURLY PRODUC</b> Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$1,667.09         CITIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         factor:         200         feet         Cat Hand         FION         200 feet         scription:         200 feet         0 %         6,200 feet         2,550 lbs/LCY         Earth - Dry packed         Factor	Estimate Ibook /hr lidated stockp	  bile 1.0		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated volum Source of estimated swelf <b>HOURLY PRODUC</b> Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,667.09         STTIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         factor:         200 feet         Cat Hand         Filon         200 feet         946.0 LCY         scription:       Consol         0 %         6,200 feet         2,550 lbs/LCY         Earth - Dry packed         Factor         Skill:       0	Estimate lbook /hr lidated stockp	  bile 1.0  Source		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.25 Loose volume: 9,25 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$1,667.09         TTIES         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         factor:         200 feet         50         6,200 feet         2,550 lbs/LCY         Earth - Dry packed         Factor         Skill:       0         ency:       1	Estimate Ibook /hr lidated stockp  d			

Job efficiency	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradien	t: 1.000	(CAT HB)
Altitude	e: 1.000	(CAT HB)
Material Weigh	t: 0.902	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n: 0.4492	
Adjusted unit production:	424.94 LCY/hr	
Adjusted fleet production:	1699.76 LCY/hr	

## JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.981/LCY
otal job time:	<b>5.44</b> Hours

Total job time:5.44 HoursTotal job cost:\$9,072

## BULLDOZER WORK

Bowie No. 2 Mine		Permit Action:	RN5	Permit/Job#:	C1996083	
PROJECT IDENT	IFICATION					
Task #: 130		State: Colorado		Abbreviation:	None	
Date: $\frac{130}{11/22/20}$		ounty: Delta		Filename:	C083-130	
User: RDZ		Juilty. Delta	,	Filename.	0003-130	
	ganization name	: DRMS				
Agency of or	gamzation name					
HOURLY EQUIPN	MENT COST					
	Cat D10T - 10SU	J				
	574					
• • • • •	Semi-Universal					
	NA					
	1 per day					
Data Source:(	(CRG)					
Cost Breakdown:						
			<u>Utilization %</u>			
Ownership Cost/Hou		\$169.60	NA			
Operating Cost/Hou		\$166.94	100			
Ripper own. Cost/Hou		\$0.00	NA			
Ripper op. Cost/Hou		\$0.00	0			
Operator Cost/Hou	r:	\$41.30	NA			
Total Fleet Cost/Hour:						
MATERIAL QUAN	NTITIES					
MATERIAL QUAN Initial Volume: _ 25	<b>NTITIES</b> 50					
MATERIAL QUAN Initial Volume: <u>25</u> Swell factor: <u>1</u> .	NTITIES 50 .125					
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28	NTITIES 50 .125 81 LCY					
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo	NTITIES           50           .125           81 LCY           olume:		on, Mining & Safety			
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28	NTITIES           50           .125           81 LCY           olume:	vision of Reclamati at Handbook	on, Mining & Safety			
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo       Source of estimated sw	NTITIES 50 .125 81 LCY blume: Di vell factor: Ca		on, Mining & Safety			
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       30	NTITIES 50 .125 81 LCY blume: Di vell factor: Ca	at Handbook	on, Mining & Safety			
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       4         Average push distance       3	$     \begin{array}{c}         NTITIES \\             50 \\             .125 \\             81 LCY \\             blume: Di \\             vell factor: Called and a constant of the second secon$	at Handbook	on, Mining & Safety			
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       30	$     \begin{array}{c}         NTITIES \\             50 \\             .125 \\             81 LCY \\             blume: Di \\             vell factor: Called and a constant of the second secon$	at Handbook	on, Mining & Safety			
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       4         Average push distance       3	NTITIES         50         .125         81 LCY         blume:       Di         vell factor:       Ca         CTION         ::       100         duction:       1,71	at Handbook				
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       Average push distance         Unadjusted hourly proof       30         Materials consistency of       30	NTITIES           50           .125           81 LCY           blume:         Di           vell factor:         Ca           CTION           ::         100           duction:         1,71           description:	tt Handbook feet 8.9 LCY/hr				
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       4         Average push distance       9         Materials consistency of       4         Average push gradient       1	NTITIES           50           .125           81 LCY           blume:         Divell factor:           vell factor:         Ca           CTION           ::         100           duction:         1,71           description:	tt Handbook feet 8.9 LCY/hr				
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       Average push distance         Unadjusted hourly proof       30         Materials consistency of       30	NTITIES           50           .125           81 LCY           blume:         Di           vell factor:         Ca           CTION           ::         100           duction:         1,71           description:	tt Handbook feet 8.9 LCY/hr				
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       30         HOURLY PRODU       4         Average push distance       9         Materials consistency of       4         Average push gradient       1	NTITIES           50           .125           81 LCY           blume:         Divell factor:           vell factor:         Ca           CTION           ::         100           duction:         1,71           description:	tt Handbook feet 8.9 LCY/hr Consolidated stock				
MATERIAL QUAN         Initial Volume:       25         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated vo       30         Source of estimated sw       40         HOURLY PRODU       40         Average push distance       90         Materials consistency of       40         Average push gradient       40         Average site altitude:       10	NTITIES         50         .125         81 LCY         blume:       Di         vell factor:       Ca         CTION         ::       100         duction:       1,71         description:	tt Handbook feet 8.9 LCY/hr Consolidated stockj				
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated sw       40         HOURLY PRODU       40         Average push distance       9         Materials consistency of       40         Average push gradient       40         Average site altitude:       9         Material weight:       10	NTITIES50.12581 LCYblume:Divell factor:CTION $ccrion$ duction:1,71description:::10 %6,900 feet2,550 lbs/LEarth - Dry	tt Handbook feet 8.9 LCY/hr Consolidated stockj				
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo         Source of estimated vo         Source of estimated sw         HOURLY PRODU         Average push distance         Unadjusted hourly prod         Materials consistency of         Average site altitude:         Material weight:         Weight description:         Iob Condition Correcti	NTITIES50.12581 LCYblume:Divell factor:CTION $ccrion$ duction:1,71description:::10 %6,900 feet2,550 lbs/LEarth - Dry	tt Handbook feet 8.9 LCY/hr Consolidated stockj	 pile 1.0			
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo         Source of estimated vo         Source of estimated sw         HOURLY PRODU         Average push distance         Unadjusted hourly prod         Materials consistency of         Average site altitude:         Material weight:         Weight description:         Iob Condition Correcti	NTITIES         50         .125         81 LCY         blume:       Di         vell factor:       Ca         CTION $ccrion$ duction:       1,71         description:	tt Handbook feet 8.9 LCY/hr Consolidated stockj CY packed	pile 1.0			
MATERIAL QUAN         Initial Volume:       23         Swell factor:       1.         Loose volume:       28         Source of estimated vo       28         Source of estimated vo       30         Source of estimated sw       40         HOURLY PRODU       40         Average push distance       40         Materials consistency of       40         Average push gradient       40         Average site altitude:       40         Material weight:       40         Weight description:       40         Condition Correction       40	NTITIES           50           .125           81 LCY           slume:         Di           vell factor:         Ca           CTION           c:         100           duction:         1,71           description:	tt Handbook feet 8.9 LCY/hr Consolidated stock CY packed 0.750				

Job efficienc	cy:	0.830	(1 SHIFT/DAY)
Spoil pil	le:	0.800	(FND-RF)
Push gradier	Push gradient:		(CAT HB)
Altitude: Material Weight: Blade type:		1.000	(CAT HB)
		0.902	(CAT HB)
		1.000	(PAT)
Net correctio	on:	0.3531	
Adjusted unit production:	60	6.94 LCY/hr	
Adjusted fleet production:	60	6.94 LCY/hr	
-			

1 Dozer(s)	
\$0.623/LCY	
<b>0.46</b> Hours	
\$175	
	\$0.623/LCY <b>0.46</b> Hours

## SAFEGUARDING UNDERGROUND OPENINGS

Т	Task description:	Seal Portals	and Shafts			
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/J	ob#: C1996083
<u>PROJE(</u>	CT IDENTIFICATION	N				
Task #:	140	State:	Colorado		Abbreviation:	None
Date:	11/22/2021	County:	Delta		Filename:	C083-140
User:	RDZ					
	Agency or organizat	tion name:	DRMS			

## UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
D Portal Intake, Beltline & Return bulkhead	200 SF x 3	Adit closure - bulkhead seal, >= 36 sq. ft. (per sq. ft.)	600.00	SF	\$192.07	\$115,242.00
- backfill	185 CY x 3	Adit closure - backfilling (per opening)	3.00	EA	\$2,723.90	\$8,171.70
- drainpipe	165 LFx 3	PVC drain pipe, 6 in. diameter (per ln. ft. incl. mat. & labor)	495.00	LF	\$11.74	\$5,811.30
B Portal Intake, Beltline & Return bulkhead	200 SF x 3	Adit closure - bulkhead seal, >= 36 sq. ft. (per sq. ft.)	600.00	SF	\$192.07	\$115,242.00
- backfill	185 CY x 3	Adit closure - backfilling (per opening)	3.00	EA	\$2,723.90	\$8,171.70
- drainpipe	165 LF x 3	PVC drain pipe, 6 in. diameter (per ln. ft. incl. mat. & labor)	495.00	LF	\$11.74	\$5,811.30

Job Hours: 40.00

Total Cost: \$258,450.00

# **REVEGETATION WORK**

Т	ask descrip	otion:	Drill Seed Mix 3 on Disturb	ed Area		
Site:	Bowie No	o. 2 Mine	Permit Action:	RN5	Permit/Job	o#: <u>C1996083</u>
<u>PI</u>	ROJECT Task #:	IDENTIFIC	CATION State: Colorado		Abbreviation:	None
	Date: User:	130 11/22/2021 RDZ	County: Delta		Filename:	C083-150
	User:					

## **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
Chisel plowing {DMG}	\$96.50
Total Tilling Cost/Acre	\$96.50

## **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	1.30	4.24	\$15.24
Bitterbrush, Antelope	8.30	2.55	\$161.85
Aster, Smooth	0.30	5.22	\$43.95
Great Basin Wildrye - Magnar	1.20	4.88	\$13.86
Kentucky Bluegrass - Ginger	0.10	4.94	\$0.32
Ryegrass, Perennial - Belramo	0.70	3.97	\$1.26
Intermediate Wheatgrass - Oahe	1.80	3.84	\$5.04
Smooth Brome - Manchar	1.20	3.99	\$3.99
Alfalfa - Ranger (inoculated)	0.70	3.37	\$1.79
Burnett, Small (or Little) - Delar	2.80	3.54	\$7.00

Sheep Fescue - Covar	0.20	3.12	\$1.22
Milk Vetch, Cicer - Lutana	1.10	3.66	\$9.02
Tall Wheatgrass - Jose	2.00	3.63	\$6.75
Western Wheatgrass - Arriba	1.40	3.54	\$9.10
Rose, Wood's	2.70	0.00	\$55.35
Flax, Lewis Blue	0.50	3.32	\$8.25
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	2.40	3.31	\$30.00
Serviceberry	4.80	8.82	\$295.20
Siberian Wheatgrass	0.90	2.27	\$5.15
Totals Seed Mix	34.50	74.14	\$677.44

### 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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

### **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre         \$0					

	No. of Acres:	225.02	Cost /Acre:	\$1,797.84
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$1,701.34
*Selected Replanti	ng Work Items:	SEEDING, MULCH	IING	
Initial Job Cost:	\$404,549.96			
Reseeding Job Cost:	\$191,417.76			
Total Job Cost:	\$595,968			
Job Hours:	225.02			

# **REVEGETATION WORK**

Т	ask descrip	otion:	Drill Seed Drill Pa	ads			
ite:	Bowie No	o. 2 Mine	Perm	nit Action:	RN5	Permit/Jol	o#: <u>C1996083</u>
<u>P</u> ]	ROJECT Task #:	IDENTIFIC		Colorado		Abbreviation:	None
	Date:	11/22/2021		Delta		Filename:	C083-151
	User:	RDZ	2				

## **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
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

# 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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	<b>Total Mulch Application Cost/Acre</b>	\$177.86

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

No. of Acres:	82.97	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$119,203.00
Reseeding Job Cost:	\$26,749.53
Total Job Cost:	\$145,953
Job Hours:	82.97

# **REVEGETATION WORK**

Task descrij	otion:	Drill Seed Lt-Use Roads to Drill Pads and Terror Creek				
Site: Bowie No. 2 Mine Po		Perm	it Action:	RN5	Permit/Jol	b#: <u>C1996083</u>
<b>PROJECT</b>	<u>IDENTIFIC</u>	CATION				
Task #:	152	State: 0	Colorado		Abbreviation:	None
Date:	11/22/2021	County: I	Delta		Filename:	C083-152
User:	RDZ					
Age	ency or organiz	zation name: DRM	IS			

## **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
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

### Application

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$232.00
	<b>Total Seed Application Cost/Acre</b>	\$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	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	<b>Total Mulch Application Cost/Acre</b>	\$177.86

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

No. of Acres:	62.01	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$89,089.77
Reseeding Job Cost:	\$19,992.02
Total Job Cost:	\$109,082
Job Hours:	62.01

# **REVEGETATION WORK**

Task description: Broad		Broadcast Seed	Mix 3 on Go	b Pile #3			
ite: <b>B</b>	te: Bowie No. 2 Mine		Pe	Permit Action: RN:		Permit/Jol	o#: C1996083
		IDENTIFIC		Calanada		Abbrasisticus	Neue
	Fask #:	154	State:	Colorado		Abbreviation:	None
1							
1	Date:	11/22/2021	County:	Delta		Filename:	C083-154

## **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
Chisel plowing {DMG}	\$96.50
Total Tilling Cost/Acre	\$96.50

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.60	8.48	\$30.49
Bitterbrush, Antelope	16.60	5.11	\$323.70
Aster, Smooth	0.60	10.44	\$87.90
Great Basin Wildrye - Magnar	2.40	9.75	\$27.72
Kentucky Bluegrass - Ginger	0.20	9.87	\$0.64
Ryegrass, Perennial - Belramo	1.40	7.94	\$2.52
Intermediate Wheatgrass - Oahe	3.60	7.69	\$10.08
Smooth Brome - Manchar	2.40	7.99	\$7.98
Alfalfa - Ranger (inoculated)	1.40	6.75	\$3.57
Burnett, Small (or Little) - Delar	5.60	7.07	\$14.00

Sheep Fescue - Covar	0.40	6.24	\$2.44
Milk Vetch, Cicer - Lutana	2.20	7.32	\$18.04
Tall Wheatgrass - Jose	4.00	7.25	\$13.50
Western Wheatgrass - Arriba	2.80	7.07	\$18.20
Rose, Wood's	5.40	0.00	\$110.70
Flax, Lewis Blue	1.00	6.63	\$16.50
Sagebrush, Silver	0.20	3.88	\$6.20
Saltbush, Four Wing	4.80	6.61	\$60.00
Serviceberry	9.60	17.63	\$590.40
Siberian Wheatgrass	1.80	4.55	\$10.31
Totals Seed Mix	69.00	148.28	\$1,354.88

### Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
Total Seed Application Cost/Acre	\$267.22

### **MULCHING and MISCELLANEOUS**

### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
Т	otal Mulch Application Cost/Acre	\$177.86

### **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
	\$0.00				

	No. of Acres:	30.63		Cost /Acre:	\$2,510.50	
Estimated Failure Rate:		50%		Cost /Acre*:	\$2,414.00	
*Selected Replanting Work Items:		SEEDING,MULO	CHING			
Initial Job Cost:	\$76,896.62					
Reseeding Job Cost:	\$36,970.41					
Total Job Cost:	\$113,867					
Job Hours:	60.63					
# **REVEGETATION WORK**

Task description:		Drill seed Hubba	Drill seed Hubbard Creek Vent Shaft Pad				
Site:	Site: Bowie No. 2 Mine		Per	mit Action:	RN5	Permit/Jo	b#: <u>C1996083</u>
<u>PI</u>	<u>ROJECT</u>	<u>IDENTIFIC</u>	CATION				
	Task #:	155	State:	Colorado		Abbreviation:	None
	Date:	11/22/2021	County:	Delta		Filename:	C083-155
	User:	RDZ	· -			_	
			zation name: DR	MS			

## **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
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

# 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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

#### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

### **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

#### JOB TIME AND COST

No. of Acres:	1.2	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$1,724.04
Reseeding Job Cost:	\$386.88
Total Job Cost:	\$2,111
Job Hours:	1.20

# **REVEGETATION WORK**

Task description: _]   Site: Bowie No. 2 Mine		Drill Seed Rock	Laydown Ai	rea			
		Per	Permit Action:		Permit/Jol	o#: <u>C1996083</u>	
<u>P</u> ]		IDENTIFIC		Colomdo		Abbrasisticus	Neue
	Task #:	156	State:	Colorado		Abbreviation:	None
	Date:	11/22/2021	County:	Delta		Filename:	C083-156

### **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
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

# 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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

#### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

### **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

#### JOB TIME AND COST

No. of Acres:	0.2	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$287.34
Reseeding Job Cost:	\$64.48
Total Job Cost:	\$352
Job Hours:	0.50

# **REVEGETATION WORK**

Permit Action:	RN5	D	
	KNJ	Permit/Jol	o#: C1996083
<u>'ION</u>			
State: Colorado		Abbreviation:	None
County: Delta		Filename:	C083-157
		State: Colorado County: Delta	State:ColoradoAbbreviation:County:DeltaFilename:

### **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
	\$
Total Tilling Cost/Acre	\$0.00

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	0.00	\$0.00

### Application

Description	Cost /Acre
	\$

### Total Seed Application Cost/Acre\$0.00

#### **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
	1.00		\$0.00	\$0.00
	1.00		\$0.00	\$0.00
Total Mulch Materials Cost/Acre				\$0.00

#### Application

Description	Cost /Acre
Weed spray, truck, aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$62.72

# **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

#### JOB TIME AND COST

No. of Acres:	838	Cost /Acre:	\$62.72
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		

Initial Job Cost:	\$52,559.36
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$52,559
Job Hours:	400.00

### DEMOLITION WORK

Т	Task description:	Demolish ar	nd Remove all S	tructures		
Site:	Bowie No. 2 Mine		Permit Action:	RN5	Permit/.	Job#: <u>C1996083</u>
PROJE(	CT IDENTIFICATIO	N				
Task #:	165	State:	Colorado		Abbreviation:	None
Date:	11/22/2021	County:	Delta		Filename:	C083-165
User:	RDZ				_	
	Agency or organiza	tion name:	DRMS			

### UNIT COSTS

## Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Office and Bath House Superstructure	120'x50'x24'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	144,000.00	CF	\$0.24	\$33,984.00
floor	120'x50'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	6,000.00	SF	\$1.05	\$6,318.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	340.00	LF	\$6.32	\$2,148.80
Shop Superstructure	100'x60'x24'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	144,000.00	CF	\$0.24	\$33,984.00
floor	100'x50'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,000.00	SF	\$1.05	\$5,265.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	300.00	LF	\$6.32	\$1,896.00
Warehouse Superstructure	50'x60'x24'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	72,000.00	CF	\$0.24	\$16,992.00
floor	50'x60'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,000.00	SF	\$1.05	\$3,159.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	220.00	LF	\$6.32	\$1,390.40
Wash Bay Superstructure	50'x25'x24'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	30,000.00	CF	\$0.24	\$7,080.00
floor	50'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,250.00	SF	\$1.05	\$1,316.25

footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max.	150.00	LF	\$6.32	\$948.00
MCC Building Superstructure D- Seam Portal	18'x42'x11'	200 ft. push Bldg. (SC) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	8,316.00	CF	\$0.27	\$2,253.64
floor	18'x42'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	756.00	SF	\$1.05	\$796.07
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	120.00	LF	\$6.32	\$758.40
MCC Building Superstructure Hubbard Creek	15'x25'x12'	Bldg. (SC) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	4,500.00	CF	\$0.27	\$1,219.50
floor	15'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	375.00	SF	\$1.05	\$394.88
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$6.32	\$505.60
Covered Storage Superstructure - D Seam Portal	30'x80'x20'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	48,000.00	CF	\$0.24	\$11,328.00
floor	30'x80'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	2,400.00	SF	\$1.05	\$2,527.20
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	220.00	LF	\$6.32	\$1,390.40
Covered Storage Superstructure B Seam	27'x55'x15'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	22,275.00	CF	\$0.24	\$5,256.90
floor	40'x15'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.05	\$631.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	110.00	LF	\$6.32	\$695.20
Covered Storage Superstructure B Seam	50'x25'x20'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	25,000.00	CF	\$0.24	\$5,900.00
floor	50'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max.	1,250.00	SF	\$1.05	\$1,316.25

<u> </u>	1.51.01	200 ft. push	150.00	LE	¢c 22	¢0.40.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	150.00	LF	\$6.32	\$948.00
Covered Storage Superstructure Stockpile Level	30'x110'x15'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	49,500.00	CF	\$0.24	\$11,682.00
floor	30'x110'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,300.00	SF	\$1.05	\$3,474.90
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	280.00	LF	\$6.32	\$1,769.60
Covered Storage Superstructure Stockpile Level	40'x15'x15'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	9,000.00	CF	\$0.24	\$2,124.00
floor	40'x15'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push Demo. and on-site	600.00	SF	\$1.05	\$631.80 \$695.20
footing		disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push				
Water Treatment Building Superstructure	40'x21'x12'	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	3,360.00	CF	\$0.22	\$722.40
floor	14'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	840.00	SF	\$1.05	\$884.52
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	122.00	LF	\$6.32	\$771.04
Fueling Station Superstructure	20'x30'x20'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	12,000.00	CF	\$0.24	\$2,832.00
Fueling Station Containment Structure	20'x30'x4'	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	280.00	SF	\$1.84	\$515.20
-floor	20'x30'x8"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.05	\$631.80
10k gal diesel tank remove/haul	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000	1.00	EA	\$397.00	\$397.00

sludge disposal	NA	gal. Dispose of tank sludge	150.00	GAL	\$6.80	\$1,020.00
		off-site - Average				
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$1.71	\$256.50
500 gal DOTdiesel tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$238.00	\$238.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	50.00	GAL	\$6.80	\$340.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	7.50	LB	\$1.71	\$12.83
2k gal oil tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$238.00	\$238.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	200.00	GAL	\$6.80	\$1,360.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	30.00	LB	\$1.71	\$51.30
2.5k gal gas tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$238.00	\$238.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	250.00	GAL	\$6.80	\$1,700.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	37.00	LB	\$1.71	\$63.27
1k gal motor oil tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$238.00	\$238.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	100.00	GAL	\$6.80	\$680.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	15.00	LB	\$1.71	\$25.65

Sewage Treatment	20'x30'x10'	Bldg. (SC) demo./on-	6,000.00	CF	\$0.27	\$1,626.00
Plant Superstructure	20,30,10	site disposal in excavated pit - Max.	0,000.00	CI	ψ0.27	\$1,020.00
		10,000 ft. haul				
floor	20'x30'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.05	\$631.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	100.00	LF	\$6.32	\$632.00
Substation Superstructure	50'x100'x20'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	50,000.00	CF	\$0.24	\$11,800.00
floor	50'x100'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,000.00	SF	\$1.05	\$5,265.00
transformers	3 each	NON-PCB Transformer Removal	3.00	EA	\$2,238.20	\$6,714.60
Mine Ventilation Fan Superstructure	20'x20'x8'	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	3,200.00	CF	\$0.22	\$688.00
floor	20'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.05	\$421.20
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$6.32	\$505.60
Non-Coal Waste Storage Structures (3)	20'x30'x6'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	10,800.00	CF	\$0.24	\$2,570.40
Rock Dust Storage Area Superstructure	30'x20'x8'	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	4,800.00	CF	\$0.22	\$1,032.00
floor	30'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.05	\$631.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	100.00	LF	\$6.32	\$632.00
silo	50'hx8'd	Bldg. (MC) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	2,513.00	CF	\$0.31	\$768.98
silo pad	25'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.05	\$105.30
Pump House	18'x12'x8	Bldg. (SN) demo./on-	1,728.00	CF	\$0.22	\$371.52

Superstructure		site disposal in				
		excavated pit - Max. 10.000 ft. haul				
floor	18'x12'x6"	Demo. and on-site	216.00	SF	\$1.05	\$227.45
		disposal in excavated				
		pit, 6 in. thick - Max.				
		200 ft. push				
footing	1.5'x2'	Demo. and on-site	60.00	LF	\$6.32	\$379.20
		disposal in excavated				
		pit, 1.5 ft. x 2 ft Max.				
Portal Conveyor	20'x24'x45'	200 ft. push Bldg. (MN) demo./on-	21,600.00	CF	\$0.24	\$5,097.60
Transfer Building	20 12 + 14 3	site disposal in	21,000.00	CI	φ <b>0.2</b> 4	\$5,097.00
Superstructure		excavated pit - Max.				
- · F		10,000 ft. haul				
floor	20'x24'x6"	Demo. and on-site	480.00	SF	\$1.05	\$505.44
		disposal in excavated				
		pit, 6 in. thick - Max.				
<u> </u>		200 ft. push		1.5	фс 22	<b></b>
footing	1.5'x2'	Demo. and on-site	88.00	LF	\$6.32	\$556.16
		disposal in excavated				
		pit, 1.5 ft. x 2 ft Max. 200 ft. push				
Screening and	40'x21'x52'	Bldg. (MN) demo./on-	43,680.00	CF	\$0.24	\$10,308.48
Crushing Building	10 121 102	site disposal in	13,000.00	01	<i>Ф</i> 0.21	\$10,500.10
6 6 6		excavated pit - Max.				
		10,000 ft. haul				
floor	40'x21'x6"	Demo. and on-site	840.00	SF	\$1.05	\$884.52
		disposal in excavated				
		pit, 6 in. thick - Max.				
facting	1.5'x2'	200 ft. push Demo. and on-site	122.00	LF	\$6.32	\$771.04
footing	1.3 X2	disposal in excavated	122.00	LF	<i>ф</i> 0.52	\$771.04
		pit, 1.5 ft. x 2 ft Max.				
		200 ft. push				
Clean Gob Pile	NA	Loading and 5 mile	968.00	CY	\$18.95	\$18,343.60
Material Storage		haul, salvage allowed -				
Area		Wood frame structures				
Clean Haul Road	NA	Loading and 5 mile	484.00	CY	\$18.95	\$9,171.80
Storage Piles (2)		haul, salvage allowed - Wood frame structures				
Clean Topsoil	NA	Loading and 5 mile	1,839.00	CY	\$18.95	\$34,849.05
Stockpile A Storage		haul, salvage allowed -	1,039.00		ψ10.75	ψυ+,0+7.00
Pile		Wood frame structures				
Clean Portal	NA	Loading and 5 mile	1,670.00	CY	\$18.95	\$31,646.50
Bench/Light Use Rd		haul, salvage allowed -	,			
Piles (2)		Wood frame structures				
Portal Conveyor (D	140'x72"	OBSOLETE-Conveyor,	140.00	LF	\$53.42	\$7,478.80
and B Seams)		elevated, including				
		supports - 8 ft. W x 10				
footing	2'x3'	ft. H housingDemo. and on-site	5.00	LF	\$12.64	\$63.20
roouing	2 13	disposal in excavated	5.00	Lſ	φ12.0 <del>4</del>	φ03.20
		pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
Gob Belt Conveyor	81'x48"	OBSOLETE-Conveyor,	81.00	LF	\$44.51	\$3,605.23
•		elevated, including				
		supports - 5 ft. W x 6				
		ft. H housing				

footing	2'x3'	Demo. and on-site	2.00	LF	\$12.64	\$25.28
0		disposal in excavated pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
Stockpile Conveyor	393'x72"	OBSOLETE-Conveyor,	393.00	LF	\$53.42	\$20,994.06
		elevated, including supports - 8 ft. W x 10				
		ft. H housing				
footing	2'x3'	Demo. and on-site	16.00	LF	\$12.64	\$202.24
0		disposal in excavated				
		pit, 2.0 ft. x 3 ft Max.				
Reclaim Conveyor	402'x48"	200 ft. push OBSOLETE-Conveyor,	402.00	LF	\$44.51	\$17,892.62
Keelalin Conveyor	402 140	elevated, including	402.00	LI	φ++.51	\$17,092.02
		supports - 5 ft. W x 6				
		ft. H housing				
footing	2'x3'	Demo. and on-site	18.00	LF	\$12.64	\$227.52
		disposal in excavated pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
Off-Spec Coal	111'x72"	OBSOLETE-Conveyor,	111.00	LF	\$53.42	\$5,929.62
Conveyor		elevated, including				
		supports - 8 ft. W x 10 ft. H housing				
footing	2'x3'	Demo. and on-site	4.00	LF	\$12.64	\$50.56
8		disposal in excavated			+	40.000
		pit, 2.0 ft. x 3 ft Max.				
Radial Stacker #1	150'x36"	200 ft. push OBSOLETE-Conveyor,	150.00	LF	\$44.51	\$6,676.35
Conveyor	130 x 30	elevated, including	130.00	LF	\$44.31	\$0,070.55
conveyor		supports - 5 ft. W x $^{\circ}$ 6				
		ft. H housing				
footing	2'x3'	Demo. and on-site	6.00	LF	\$12.64	\$75.84
		disposal in excavated pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
Radial Stacker #2	80' x 36"	OBSOLETE-Conveyor,	80.00	LF	\$44.51	\$3,560.72
Conveyor		elevated, including				
		supports - 5 ft. W x 6 ft. H housing				
footing	2'x3'	Demo. and on-site	1.00	LF	\$12.64	\$12.64
6		disposal in excavated				·
		pit, 2.0 ft. x 3 ft Max.				
Stoker Collecting	29' x 36"	200 ft. push OBSOLETE-Conveyor,	29.00	LF	\$44.51	\$1,290.76
Conveyor	29 X 30	elevated, including	29.00	LI	\$ <del>44.3</del> 1	\$1,290.70
		supports - 5 ft. W x 6				
		ft. H housing				
concrete runway	29' x 48"	Demo. and on-site	116.00	SF	\$0.70	\$81.43
		disposal in excavated pit, 4 in. thick - Max.				
		200  ft. push				
Stacking Tube	12' diam x 100'	Demo. and on-site	3,770.00	SF	\$2.21	\$8,331.70
		disposal in excavated				
		pit, 12 in. thick - Max. 200 ft. push				
foundation	2'x3'	Demo. and on-site	38.00	LF	\$12.64	\$480.32
		disposal in excavated				
		pit, 2.0 ft. x 3 ft Max.				

$\Omega(z,z) = \frac{1}{2} \sum_{i=1}^{n} \frac{1}{2} \sum_{i=1}$	101.1	200 ft. push	4.504.00	CT.	¢2.21	¢0,000,04
Stacking Tube	12' diam x 120'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	4,524.00	SF	\$2.21	\$9,998.04
foundation	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	38.00	LF	\$12.64	\$480.32
Stacking Tube	12' diam x 130'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	4,901.00	SF	\$2.21	\$10,831.21
Reclaim Tunnel Part 1	13' diam x 350'	USER PROVIDED ITEM	9,065.00	SF	\$7.77	\$70,435.05
Reclaim Tunnel Part 2	13' diam x 200'	USER PROVIDED ITEM	1,481.00	SF	\$7.77	\$11,507.37
Escape Tube	42" x 160'&150'	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	3,797.00	CF	\$0.22	\$816.36
Concrete Fan Housing	6'x6'x8'	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	288.00	CF	\$0.22	\$61.92
10k gal hydraulic oil tank	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
remove sludge	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$397.00	\$397.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	1,000.00	GAL	\$6.80	\$6,800.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$1.71	\$256.50
500 gal antifreeze tank	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$238.00	\$238.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	50.00	GAL	\$6.80	\$340.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	7.50	LB	\$1.71	\$12.83
Power line removal	6350' lin.ft.	Disposal of utility pole and hardware surplus material	6,350.00	LF	\$0.02	\$127.00
Portal Bench to Transfer Tower on grade conveyor	36" x 800'	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	800.00	LF	\$17.60	\$14,080.00
Portal Bench to	36" x 120'	OBSOLETE-Conveyor,	120.00	LF	\$44.51	\$5,341.08

Transfer Tower		elevated, including				
elevated conveyor		supports - 5 ft. W x $6$				
		ft. H housing				
footing	2'x3'	Demo. and on-site	38.00	LF	\$12.64	\$480.32
		disposal in excavated				
		pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
tunnel structure	100 lin.ft.	USER PROVIDED	100.00	LF	\$58.19	\$5,819.00
		ITEM				
Transfer Tower to	36" x 2280'	OBSOLETE-Conveyor,	2,280.00	LF	\$17.60	\$40,128.00
Stockpile overland		overland, including				
		supports - 5 ft. W x 6				
		ft. H housing				
Transfer Tower to	36" x 475'	OBSOLETE-Conveyor,	475.00	LF	\$44.51	\$21,141.78
Stockpile elevated		elevated, including				
1		supports - 5 ft. W x 6				
		ft. H housing				
footing	2'x3'	Demo. and on-site	112.00	LF	\$12.64	\$1,415.68
-		disposal in excavated				
		pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
tunnel	80 lin.ft.	USER PROVIDED	80.00	LF	\$58.19	\$4,655.20
		ITEM				. ,
Downhill Conveyor	16'x16'x25'	Bldg. (MN) demo./on-	6,400.00	CF	\$0.24	\$1,523.20
Transfer Tower		site disposal in	,			
Structure		excavated pit - Max.				
		200 ft. push				
concrete pad	16'x16'	Demo. and on-site	256.00	SF	\$1.05	\$269.57
1		disposal in excavated				
		pit, 6 in. thick - Max.				
		200 ft. push				
footing	2'x3'	Demo. and on-site	65.00	LF	\$12.64	\$821.60
		disposal in excavated				
		pit, 2.0 ft. x 3 ft Max.				
		200 ft. push				
Wildlife Structures	300 lin.ft.	USER PROVIDED	300.00	LF	\$58.19	\$17,457.00
		ITEM				
Reclaim Conveyor	36" x 395'	OBSOLETE-Conveyor,	395.00	LF	\$17.60	\$6,952.00
overland		overland, including				
		supports - 5 ft. W x 6				
		ft. H housing				
Reclaim Conveyor	36" x 180'	OBSOLETE-Conveyor,	180.00	LF	\$44.51	\$8,011.62
elevated		elevated, including				
		supports - 5 ft. W x 6				
		ft. H housing				
Coal Loadout Bin	NA	Bldg. (MN) demo./on-	46,875.00	CF	\$0.24	\$11,156.25
		site disposal in				
		excavated pit - Max.				
		200 ft. push				
footing	2'x3'	Demo. and on-site	100.00	LF	\$12.10	\$1,210.00
		disposal in existing pit,				
		2.0 ft. x 3 ft Max. 200				
		ft. push				
Coal Reclaim Tunnel	42" x 160'	USER PROVIDED	160.00	LF	\$58.19	\$9,310.40
		ITEM				
escapeway	42" x 160'	USER PROVIDED	160.00	LF	\$17.70	\$2,832.00
		ITEM				
for housing	NA	Bldg. (MN) demo./on-	288.00	CF	\$0.24	\$68.54
fan housing	1111	Diag. (init) defilo./on	-00.00		φ0.Ξ.	<i>400.0</i> .

excavated pit - Max. 200 ft. pushexcavated pit - Max. 200 ft. pushSecond pit - Max. 4,000.00Second pit - Max. 200 ft. pushSecond pit - Max. 200 ft. pit - Max. 200 ft. pushSecond pit - Max. 200 ft. p	
site disposal in     excavated pit - Max.       200 ft. push     200 ft. push       floor     20'x20'       Demo. and on-site     400.00       disposal in excavated       pit, 6 in. thick - Max.       200 ft. push	
floor 20'x20' Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push SF \$1.05 \$421.20	
transformer NA NON-PCB Transformer 1.00 EA \$2,238.20 \$2,238.20	
Removal	
fencing100 lin.ft.Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high100.00LF\$3.08\$308.00	
Structure at Vent Shaft - Lap Slab576 sq.ft.Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push576.00SF\$1.05\$606.53	
wing and stem walls 1408 sq.ft. Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	
wing wall footing100 lin. ft.Demo. and on-site disposal in excavated pit, 1.5 ft. x 3 ft Max. 200 ft. push100.00LF\$9.48\$948.00	
fan and evaseNABldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push22,032.00CF\$0.24\$5,243.62	
shaft houseNABldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push10,788.00CF\$0.24\$2,567.54	
Haul road pavement removalNAPavement, bituminous, demolition only - 3 in. thick33,367.00SY\$4.66\$155,490.22	
disposal NA Loading and 2 mile 5,578.00 CY \$18.25 \$101,798.50 haul, no salvage - Machine loading	
guardrail removalNARailing, roadside guiderail and posts (posts on 20 ft. centers)7,545.00LF\$2.85\$21,503.25	
Storage Shed at Topsoil StockpileNABldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push76,500.00CF\$0.24\$18,207.00	
floorNADemo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push5,100.00SF\$1.05\$5,370.30	
Wood fencing from TR-11NAFencing, wood, all types - 4 ft. to 6 ft. high140.00LF\$1.64\$229.60	
12" PVC Pipe from TR-11NAPipe, corrugated metal (CMP) - 8 in. diameter pipe42.00LF\$3.12\$131.17	
Misc Steel Pipe from NA Pipe, steel, welded 18.00 LF \$1.82 \$32.76	

TR-11		connections - 4 in. diameter pipe				
Reclaim Conveyor Transfer Building	20'x20'x45'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	18,000.00	CF	\$0.24	\$4,284.00
floor	20'x20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.05	\$421.20
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$6.32	\$505.60
Railroad Track	NA	Railroad track - Ties and track	7,630.00	LF	\$9.98	\$76,147.40
Storage Track	NA	Railroad track - Ties and track	3,880.00	LF	\$9.98	\$38,722.40
Bypass Track	NA	Railroad track - Ties and track	615.00	LF	\$9.98	\$6,137.70
ballast	NA	Railroad track - Ballast	1,347.00	CY	\$4.90	\$6,600.30
Reclaim Conveyor Transfer Building	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	340.00	LF	\$17.60	\$5,984.00
elevated portion	NA	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	265.00	LF	\$44.51	\$11,794.89
elevated to batch weigh	NA	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	1,200.00	LF	\$44.51	\$53,410.80
footing	NA	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	7.00	LF	\$12.64	\$88.48
Hazardous Waste Removal	NA	Hazardous waste removal - Drum solids/liquids, per drum, (7+ drum job)	20.00	DRUM	\$572.93	\$11,458.60
test	NA	Hazardous waste sampling and analysis, per sample	20.00	EA	\$224.61	\$4,492.20
transport to dump	NA	Solid transport, large truck (max. 80 drums, 25 cy, or 18 tons) - Maximum	150.00	MI	\$7.25	\$1,087.50
dump charges	NA	Dumpsite disposal charge - Average	6.00	TON	\$277.50	\$1,665.00
TR24 Fan Structure	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	12,923.00	CF	\$0.24	\$3,075.67
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	20.00	SF	\$1.05	\$21.06
footing	NA	Demo. and on-site	12.00	LF	\$6.32	\$75.84

		disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push				
Conveyor Overpass Retaining Wall	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	3,400.00	CF	\$0.24	\$809.20
concrete halfwall	NA	Demo. and on-site disposal in existing pit, 8 in. thick - Max. 200 ft. push	480.00	SF	\$1.42	\$681.60
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	120.00	SF	\$1.05	\$126.36
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	360.00	LF	\$6.32	\$2,275.20
multiplate structure	5.5' dia x 4'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	64.00	CF	\$0.20	\$12.86
140k gal water tank	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	19,300.00	CF	\$0.24	\$4,593.40
Transfer Building	20'x24'x45'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	21,600.00	CF	\$0.24	\$5,140.80
floor	20'x35'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	700.00	SF	\$1.05	\$737.10
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	106.00	LF	\$6.32	\$669.92
MCC Building	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	1,000.00	CF	\$0.24	\$238.00
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.05	\$105.30
Substation	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	25,000.00	CF	\$0.24	\$5,950.00
transformer	NA	NON-PCB Transformer Removal	2.00	EA	\$2,238.20	\$4,476.40
Water tank 50k gal	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	6,720.00	CF	\$0.24	\$1,599.36
Mine vent fan	NA	Bldg. (MN) demo./on- site disposal in	3,200.00	CF	\$0.24	\$761.60

		excavated pit - Max. 200 ft. push				
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	40.00	SF	\$1.05	\$42.12
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	116.00	LF	\$6.32	\$733.12
Powerlines	NA	Disposal of utility pole and hardware surplus material	200.00	LF	\$0.02	\$4.00
Rock Dust Tank	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	2,513.00	CF	\$0.24	\$598.09
compressor house	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	4,800.00	CF	\$0.24	\$1,142.40
Portal Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	148.00	LF	\$17.60	\$2,604.80
Gob Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	100.00	LF	\$17.60	\$1,760.00
Radial Stacker Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	42.00	LF	\$17.60	\$739.20
Wash Plant	55'x70'x80'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	308,000.00	CF	\$0.24	\$73,304.00
floor	55'x70'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,850.00	SF	\$1.05	\$4,054.05
footing	55'x70'	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 200 ft. push	250.00	LF	\$6.05	\$1,512.50
MCC Room	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	5,760.00	CF	\$0.24	\$1,370.88
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	480.00	SF	\$1.05	\$505.44
Transfer Bldg - Reclaim to Plant	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	10,240.00	CF	\$0.24	\$2,437.12
Reclaim Tunnel Multiplate	5.5' dia x 4'	Bldg. (SN) demo./on- site disposal in existing	64.00	CF	\$0.20	\$12.86

		pit or cut - Max. 200 ft. push				
Stacking Tube	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	4,900.00	CF	\$0.24	\$1,166.20
structure	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	8,000.00	SF	\$1.11	\$8,880.00
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	38.00	LF	\$6.32	\$240.16
Clarifier Tank/Thickener	70'd x 10'h x 10" th	Demo. and on-site disposal in excavated pit, 10 in. thick - Max. 200 ft. push	2,199.00	SF	\$1.76	\$3,859.25
base	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,848.00	SF	\$1.05	\$4,051.94
sludge removal	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	10.00	EA	\$397.00	\$3,970.00
Transfer Building - Plant Feed	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	8,192.00	CF	\$0.24	\$1,949.70
Transfer Building - Clean Coal	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	4,096.00	CF	\$0.24	\$974.85
Reclaim Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	250.00	LF	\$26.71	\$6,677.50
Plant Feed Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	300.00	LF	\$26.71	\$8,013.00
Stoker Stockpile Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	125.00	LF	\$26.71	\$3,338.75
Clean Coal Transfer Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	25.00	LF	\$26.71	\$667.75
Clean Coal Stockpile Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	550.00	LF	\$26.71	\$14,690.50
Synfuel Plant	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max.	84,000.00	CF	\$0.24	\$19,992.00
		200 ft. push				

		disposal in excavated pit, 6 in. thick - Max. 200 ft. push				
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	220.00	LF	\$6.32	\$1,390.40
Feed Belt Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	50.00	LF	\$17.60	\$880.00
Product Belt Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	85.00	LF	\$17.60	\$1,496.00
Return Belt Conveyor	NA	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	80.00	LF	\$17.60	\$1,408.00
Fan and Duct Work TR62	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	31,752.00	CF	\$0.24	\$7,556.98
footings	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	108.00	LF	\$6.32	\$682.56
MCC Building TR62	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	4,500.00	CF	\$0.24	\$1,071.00
motor foundation	NA	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.01	\$100.80
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	375.00	SF	\$1.05	\$394.88
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$6.32	\$505.60
Water Line TR53	NA	Pipe, sewer/water - 12 in. diameter pipe	400.00	LF	\$4.57	\$1,828.00
Upper Parking Area Retaining Wall TR50	NA	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	1,305.00	SF	\$2.21	\$2,884.05
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	150.00	LF	\$6.32	\$948.00
10k gal fuel tank TR47	NA	Excavate and load tank onto trailer, non-leaking - 9,000 gal. to 12,000 gal.	1.00	EA	\$1,050.00	\$1,050.00
remove sludge	NA	Remove sludge, water, and rem. product from	1.00	EA	\$397.00	\$397.00

		tank - 9,000 to 12,000 gal.				
dispose of sludge	NA	Dispose of tank sludge off-site - Average	1,000.00	GAL	\$6.80	\$6,800.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$1.71	\$256.50
haul tank to certified dump	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Trailers (3)	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	3,000.00	CF	\$0.24	\$714.00
Quonset Hut MR108	25'x60'x12.5'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	18,750.00	CF	\$0.24	\$4,462.50
floor	25'x60'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,500.00	SF	\$1.05	\$1,579.50
Hoist Structure MR97	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	1,440.00	CF	\$0.24	\$342.72
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	9.00	LF	\$6.32	\$56.88
piers	NA	USER PROVIDED ITEM	2.00	CY	\$89.00	\$178.00
head frame	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	5,886.00	CF	\$0.24	\$1,400.87
Collecting Conveyor	NA	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	76.00	LF	\$44.51	\$3,382.68
footing	NA	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	2.00	LF	\$12.64	\$25.28
Batch Weigh @ Loadout	30' x 40' x 120'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	144,000.00	CF	\$0.24	\$34,272.00
Fuel Station floor	20' x 30'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.05	\$631.80
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	100.00	LF	\$6.32	\$632.00
Loadout Storage Stacker	NA	Bldg. (MN) demo./on- site disposal in	8,000.00	CF	\$0.24	\$1,904.00

		excavated pit - Max. 200 ft. push				
tube	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,678.00	SF	\$1.05	\$3,872.93
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	44.00	LF	\$6.32	\$278.08
Filter Building MR 125	40'x16'x8'	Bldg. (SC) demo./on- site disposal in excavated pit - Max. 200 ft. push	5,120.00	CF	\$0.27	\$1,402.88
floor	40'x16'x4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	640.00	SF	\$0.70	\$449.28
footing	112 LF	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	112.00	LF	\$6.32	\$707.84
Shower Facility Expansion MR 126	16' x 50' x 12'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	9,600.00	CF	\$0.24	\$2,284.80
floor	16'x50'x4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	800.00	SF	\$0.70	\$561.60
footing	82 LF	Demo. and on-site disposal in excavated pit, 1.0 ft. x 2 ft Max. 200 ft. push	82.00	LF	\$4.21	\$345.22
Terror Creek Vent Shaft Collar	30'x30'x12"	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	900.00	SF	\$1.11	\$995.40
Terror Creek Vent Shaft Quonset Hut	NA	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	14,720.00	CF	\$0.22	\$3,164.80
pad	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,500.00	SF	\$1.05	\$1,579.50
Temporary Culvert T-F1	24" x 300'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	300.00	LF	\$7.25	\$2,176.20
Temporary Culvert T-F2	12" x 20'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	20.00	LF	\$4.10	\$81.94
Half Culvert C-J11	30" x 500'	USER PROVIDED ITEM	500.00	LF	\$3.42	\$1,710.00
Culvert C-G5	36" x 95'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	95.00	LF	\$11.32	\$1,075.21
Culvert C-G6	12" x 87'	Pipe, corrugated metal (CMP) - 12 in.	87.00	LF	\$4.10	\$356.44

		diameter pipe				
Culvert C-G2	12" x 40'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	40.00	LF	\$4.10	\$163.88
Concrete Box Structure at Pond D	4' x 4'	Wall, concrete, demolition only, average reinforcing - 4 in. thick	80.00	SF	\$0.74	\$59.20
Temporary Culvert T-F3	24" x 20'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	20.00	LF	\$7.25	\$145.08
Temporary Culvert T-F4	30" x 40'	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	40.00	LF	\$9.35	\$374.00
Temporary Culvert T-F5	30" x 80'	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	80.00	LF	\$9.35	\$748.00
Temporary Culvert C-J10	24" x 30'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	30.00	LF	\$7.25	\$217.62
Culvert C22 drop inlet structure	44 - 16" x 8" x 6" blocks	Wall, block, demolition only, 6 in. thick - Vertical reinforcing	39.06	SF	\$0.61	\$23.83
Trailer Mounted Filter Press	8' x 8' x 40'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	2,560.00	CF	\$0.20	\$514.56
West Terror Creek Flume Anchors	1' x 1.5' x 4'	Footing, concrete, 1.0 ft. x 2 ft Average reinforcing	8.00	LF	\$3.61	\$28.88
W Ter Crk Flume walls - 2 walls/2 flumes	2' x 4' x 4" (2)	Footing, concrete, 1.5 ft. x 2 ft Average reinforcing	16.00	LF	\$4.32	\$69.12
Flume rubble disposal	NA	Loading and 5 mile haul, salvage allowed - Concrete frame structures	2.80	СҮ	\$12.80	\$35.84
Rock Bin on D Portal Bench - side walls	7' x 15' (2)	Wall, concrete, demolition only, average reinforcing - 12 in. thick	210.00	SF	\$2.23	\$468.30
Rock Bin on D Portal Bench - back wall	8' x 23'	Wall, concrete, demolition only, average reinforcing - 18 in. thick	184.00	SF	\$3.34	\$614.56
Rock Bin on D Portal Bench - floor	16.5' x 23' x 12"	Floor, concrete, demolition only, average reinforcing - 12 in. thick	379.50	SF	\$1.92	\$728.64
Rock Bin on D Bench rubble disposal	NA	Push demolished materials/rubble/debris into pit - Max. 200 ft. push	32.00	СҮ	\$1.92	\$61.47
Concrete patch @haul road intersection	50' x 18' x 8"	Pavement, concrete, demolition only, 7 in. to 24 in. thick - Reinforced	7.40	CY	\$133.50	\$987.90
Culverts B1(50), B3(100), B7(220)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	370.00	LF	\$4.10	\$1,515.89

$C_{\rm relevante}$ D $9(110)$	12"	Dine commented motol	250.00	LF	\$4.10	¢1.024.25
Culverts B8(110), B9(140)	12	Pipe, corrugated metal (CMP) - 12 in.	250.00	LF	\$4.10	\$1,024.25
		diameter pipe				
Culverts B13(110),	12"	Pipe, corrugated metal	280.00	LF	\$4.10	\$1,147.16
B18(110), B24(60)		(CMP) - 12 in.				
		diameter pipe				
Culverts B25(160),	12"	Pipe, corrugated metal	230.00	LF	\$4.10	\$942.31
B26(70)		(CMP) - 12 in.				
		diameter pipe				
Culverst B11(60) and	18"	Pipe, corrugated metal	100.00	LF	\$5.57	\$557.40
B29 (40)		(CMP) - 18 in.			40.00	+
		diameter pipe				
Culverts B12(170),	18"	Pipe, corrugated metal	280.00	LF	\$5.57	\$1,560.72
B14(70), B22(40)	10	(CMP) - 18 in.	200100		<i><b>4010</b></i>	¢1,000172
<i>D</i> 11( <i>/</i> 0), <i>D</i> 22(10)		diameter pipe				
Culvert B23(40)	18"	Pipe, corrugated metal	40.00	LF	\$5.57	\$222.96
Curvent D25(40)	10	(CMP) - 18  in.	+0.00	LI	ψ5.57	ψ222.70
		diameter pipe				
Culverts B15(80),	24"	Pipe, corrugated metal	230.00	LF	\$7.25	\$1,668.42
	24		230.00	LF	\$1.23	\$1,000.42
B16(60), B17(90)		(CMP) - 24 in.				
$O_{1} + D_{1} + D_{2} + D_{3} + D_{3$	2.4"	diameter pipe	1 (0,00	LE	¢7.05	¢1.1.c0.c.4
Culverts B19(60),	24"	Pipe, corrugated metal	160.00	LF	\$7.25	\$1,160.64
B27(100)		(CMP) - 24 in.				
<u> </u>		diameter pipe	1.0.0.0		<b>*</b> 2. <b>27</b>	
Culvert B28(120)	30"	Pipe, corrugated metal	120.00	LF	\$9.35	\$1,122.00
		(CMP) - 30 in.				
		diameter pipe				
Culvert B21(40)	36"	Pipe, corrugated metal	40.00	LF	\$11.32	\$452.72
		(CMP) - 36 in.				
		diameter pipe				
Culverts C1(110),	12"	Pipe, corrugated metal	210.00	LF	\$4.10	\$860.37
C2(30), C3(40),		(CMP) - 12 in.				
C8(30)		diameter pipe				
Culverts C10(100)	12"	Pipe, corrugated metal	200.00	LF	\$4.10	\$819.40
and C17(100)		(CMP) - 12 in.				
		diameter pipe				
Culverts C19(60),	12"	Pipe, corrugated metal	380.00	LF	\$4.10	\$1,556.86
C21(170), C22(150)		(CMP) - 12 in.				
		diameter pipe				
Culverts C23(30),	12"	Pipe, corrugated metal	90.00	LF	\$4.10	\$368.73
C24(30), C25(30)		(CMP) - 12 in.				
		diameter pipe				
Culverts C4(300) and	24"	Pipe, corrugated metal	390.00	LF	\$7.25	\$2,829.06
C11(90)		(CMP) - 24 in.				
		diameter pipe				
Culverts C12(65),	24"	Pipe, corrugated metal	355.00	LF	\$7.25	\$2,575.17
C13(120), C14(170)		(CMP) - 24 in.				·
		diameter pipe				
Culverts C15(25),	24"	Pipe, corrugated metal	145.00	LF	\$7.25	\$1,051.83
C16(90), C18(30)		(CMP) - 24 in.				
		diameter pipe				
Culvert C5(260)	30"	Pipe, corrugated metal	260.00	LF	\$9.35	\$2,431.00
	20	(CMP) - 30 in.	_00100		42.00	<i>4</i> <b>-</b> , .01100
		diameter pipe				
Culverts C7(400),	36"	Pipe, corrugated metal	465.00	LF	\$11.32	\$5,262.87
C20(25), C26(40)	50	(CMP) - 36 in.	+05.00		ψ11.32	ψυ,202.07
$C_{20}(23), C_{20}(70)$		diameter pipe				
Culverts D1(40),	24"	Pipe, corrugated metal	70.00	LF	\$7.25	\$507.78
D2(30)	24	(CMP) - 24 in.	/0.00	LI	ψ1.23	φ301.10
$D_{2}(30)$	L	(UNIF) = 24 III.				

$C_{1} = 1_{1} + \Gamma(40)$	10"	diameter pipe	40.00	LE	¢4.10	¢1.C2.00
Culvert E1(40)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	40.00	LF	\$4.10	\$163.88
Culvert F2(40) and F4(60)	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	100.00	LF	\$9.35	\$935.00
Culverts G2(40) and G4(25)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	65.00	LF	\$4.10	\$266.31
Culvert G3(50)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	50.00	LF	\$7.25	\$362.70
Culvert H1(175)	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	175.00	LF	\$11.32	\$1,980.65
Culverts J3(60), J5(50), J6(60)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	170.00	LF	\$4.10	\$696.49
Culverts J7(60), J12(50), J13(50)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	160.00	LF	\$4.10	\$655.52
Culvert J14(175)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	175.00	LF	\$4.10	\$716.98
Culverts J1(65), J2(100), J4(50)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	215.00	LF	\$7.25	\$1,559.61
Culverts J8(50), J9(90-2), J10(40)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	270.00	LF	\$7.25	\$1,958.58
Culverts K1(40), K2(130)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	170.00	LF	\$4.10	\$696.49
Culvert K3(75)	24	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	75.00	LF	\$7.25	\$544.05
Refuse Bin	20' x 20' x 60'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	24,000.00	CF	\$0.24	\$5,712.00
- slab	20' x 20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.05	\$421.20
- footing	20' x 20'	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$6.05	\$484.00
Refuse Bin Fender Walls	4' x 40' x 12" (2)	Wall, concrete, demolition only, average reinforcing - 12 in. thick	320.00	SF	\$2.23	\$713.60
- footing (10' either side of bin)	20' (2)	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft Max. 10,000 ft. haul	40.00	LF	\$9.01	\$360.40
Refuse Bin Bollards (2)	12"diam	USER PROVIDED ITEM	2.00	EA	\$23.50	\$47.00

- footing	1'x 2'	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	2.00	LF	\$4.00	\$8.00
Mine Entrance Security Gate	6' x 40'	USER PROVIDED ITEM	40.00	LF	\$16.62	\$664.80
- motor assembly	NA	USER PROVIDED ITEM	1.00	EA	\$755.00	\$755.00
- actuator	NA	USER PROVIDED ITEM	1.00	EA	\$50.50	\$50.50
Culvert G5	36" x 150'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	150.00	LF	\$11.32	\$1,697.70
Culvert G6	12" x 100'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	100.00	LF	\$4.10	\$409.70
Fire Mountain Canal Storage Bldg	100' x 20' x 20'	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	40,000.00	CF	\$0.22	\$8,760.00
- slab	100' x 20'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	2,000.00	SF	\$1.00	\$2,002.00
- footing	100' x 20'	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	240.00	LF	\$4.00	\$960.00
Culvert C9 (replaced by Ditch D-C14)	36" x 500'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	500.00	LF	\$11.32	\$5,659.00
Smart Ditch T-F6	24"X 50'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	50.00	LF	\$7.25	\$362.70
Bowie Rd Intersection Asphalt Removal	620 SY	Pavement, bituminous, demolition only - 3 in. thick	620.00	SY	\$4.66	\$2,889.20
Temporary Culvert T6	36"X40'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	40.00	LF	\$11.32	\$452.72
Methane Flare Stack (MR200)	6' dia x 50'	USER PROVIDED ITEM	1,414.00	CF	\$0.22	\$311.08
- Skid	17' x 10' x 6'	USER PROVIDED ITEM	1,020.00	CF	\$0.22	\$224.40
- Interconnecting Piping	40'	USER PROVIDED ITEM	40.00	LF	\$2.30	\$92.00
- Remove Fence	350'	Fencing, chain link, including posts and fabric - to 6 ft. high	350.00	LF	\$2.68	\$938.00
- Concrete Foundation for Oxidizer	8' dia	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	50.00	SF	\$1.01	\$50.40
- Footing	25'	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft Max. 200 ft. push	25.00	LF	\$12.10	\$302.50

Subtotal

\$1,630,520.06

(unadjusted):

(adjusted for location):

7	Task description:	Proctor Testing of Backfill	(5 tests)		
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: <u>C1996083</u>
<b>PROJE</b>	<u>CT IDENTIFICATI(</u>	<u>DN</u>			
Task #: Date: User:	170 11/22/2021 RDZ	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-170
	Agency or organiz	zation name: DRMS			
<u>UNIT CC</u>	<u>DSTS</u>				

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Supervision/Quality Control	0.00	USER PROVIDED ITEM	5.00	1	\$140.45	\$702.25

Job Hours: 0.00

Total Cost: \$702.25

	Task description:	Nuclear Density Testing of	Backfill		
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #: Date: User:	: 11/23/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-171
	Agency or organiza	tion name: DRMS			
<u>UNIT C</u>	<u>OSTS</u>				

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Testing of Backfill	0.00	USER PROVIDED ITEM	1,760.00	EA	\$76.08	\$133,900.80

Job Hours: 0.00

Total Cost: \$133,900.80

# MISCELLANEOUS TRUCK WORK

Bowie No. 2 Mine		Permit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENT	IFICATI	<u>ON</u>			
Task #: 172		State: Colorado		Abbreviation:	None
Date: <u>11/22/20</u> User: RDZ	021	County: Delta		Filename:	C083-172
Agency or or	ganization	name: DRMS			
HOURLY EQUIPM	MENT CO	<u>DST</u>			
Make and Mode		Tanker, 5,000 Gal.		Horsepow	
Attachment				Shift Bas	
Attachment 2				Weig	
Labor Unit	1: Tanke	r Driver - 1 rear axle		Weig	
	1: Tanke	r Driver - 1 rear axle		Weig	
Labor Unit	1: Tanke	r Driver - 1 rear axle		Weig	(US Tons
Labor Unit 2 Labor Unit 2	1: Tanke	r Driver - 1 rear axle	Utilization %	Weig	
Labor Unit Labor Unit 2 Cost Breakdown:	1: Tanke 2:		Utilization % NA	Weig	
Labor Unit 2 Labor Unit 2	1: Tanke 2:st/Hour:	\$33.45 \$41.96		Weig	
Labor Unit 2 Labor Unit 2 <u>Cost Breakdown:</u> Ownership Co	1: Tanke 2:	\$33.45	NA	Weig	
Labor Unit Labor Unit 2 <u>Cost Breakdown:</u> Ownership Co Operating Co	1: Tanke 2: st/Hour: st/Hour: st/Hour:	\$33.45 \$41.96	NA 100	Weig	
Labor Unit 2 Labor Unit 2 <u>Cost Breakdown:</u> Ownership Co Operating Co Operator Co	1: Tanke 2: st/Hour: st/Hour: st/Hour: st/Hour:	\$33.45 \$41.96 \$21.12	NA 100	Weig	
Labor Unit 2 Labor Unit 2 Cost Breakdown: Ownership Co Operating Co Operator Co Total Unit Co Total Fleet Co	1: Tanke 2:	\$33.45 \$41.96 \$21.12 \$96.53	NA 100	Weig	
Labor Unit Labor Unit 2 <u>Cost Breakdown:</u> Ownership Co Operating Co Operator Co Total Unit Co	1: Tanke 2:	\$33.45 \$41.96 \$21.12 \$96.53	NA 100	Weig  	(US Tons

Т	Task description:	Site Maintenance - Ten Ye	ars			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/Job#: C1996083		
<u>PROJEC</u>	CT IDENTIFICATION	<u>N</u>				
Task #: Date: User:	173 11/22/2021 RDZ	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-173	
	Agency or organizat	ion name: DRMS				
<u>UNIT CO</u>	<u>DSTS</u>					

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Dozer for Rills and Gullies	24.00	Cat D3K LGP - 3P	240.00	EA	\$108.10	\$25,944.00
Grader for Roads and Ditches	4.00	CAT 12M	40.00	EA	\$113.24	\$4,529.60
Pond Dredging	12.00	USER PROVIDED ITEM	12.00	EA	\$18,727.00	\$224,724.00

Job Hours: 292.00

Total Cost: \$255,197.60

r	Task description:	Support Equip	ment for Sci	aper Hauling		
Site:	Bowie No. 2 Mine	vie No. 2 Mine   Permit Action:   RN5   Permit/Job#:   C				Job#: C1996083
PROJE	CT IDENTIFICAT	<u>ION</u>				
Task #:	174	State: C	olorado		Abbreviation:	None
Date:	11/22/2021	County: D	elta		Filename:	C083-174
User:	RDZ					
	Agency or organ	ization name: DR	MS			
<u>UNIT CO</u>	<u>DSTS</u>					

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Water Truck	458.57	Water Tanker, 5,000	458.57	EA	\$96.53	\$44,265.76
		Gal.				
Grader	458.57	CAT 14M	458.57	EA	\$174.76	\$80,139.69

Job Hours: 449.16

Total Cost: \$124,405.45

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Мо	bilize/Demobilize	e Equipment fo	r First Co	onstruction Se	ason	
e: Bowie No. 2 Mi	ine	Permit	Action: RN5			Permit/Job#: C	1996083
PROJECT IDEN	TIFICATI	ON					
Task #:     180       Date:     11/2       User:     RDZ	2/2021 Z		olorado elta			eviation: None ilename: C083	-180
Agency of	r organization	n name: DRMS					
EQUIPMENT T	RANSPOR	T RIG COST					
			DIC ON HIGH		Shift ba Cost Data Sou	rce: CRG Da	ta
TTUCK	Tractor Desc	npuoli: GENE			OCK TRACTO P (2ND HALF,	OR, 6X4, DIESEI 2006)	L POWERED,
Truck	Trailer Desc	ription: G		ING GOO		ROP DECK EQU	IPMENT
Cost Breakdown:							
Available Rig Ca	pacities	0-25 Tons	26-50 Tons	51	+ Tons		
Ownership	Cost/Hour:	\$21.28	\$37.94	\$	47.67		
Operating	Cost/Hour:	\$26.55	\$50.48	\$	\$56.21		
	Cost/Hour:	\$20.54	\$20.54	\$	20.54		
	Cost/Hour:	\$0.00	\$23.53 \$23.53				
Total Unit		\$68.37	\$132.49		147.95		
NON ROADABI	LE EQUIPN	MENT:					
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit (TONS)	Cost/hr/ unit	Cost/hr/uni t	Size	Cost/hr/ fleet	Cost/hr/ fleet	Cost/ fleet
Cat D10T - 10SU	84.53	\$169.60	\$147.95	4	\$1,270.20	\$591.80	\$1,000.00
Cat 365C L 13'-7" Stick	77.56	\$173.79	\$147.95	2	\$643.48	\$295.90	\$500.00
CAT 815F	22.88	\$91.25	\$68.37	1	\$159.62	\$68.37	\$250.00
CAT 14M	23.57	\$85.80	\$68.37	1	\$154.17	\$68.37	\$250.00
CAT 988H	54.46	\$105.34	\$147.95	1	\$253.29	\$147.95	\$250.00
Cat 773F	49.74	\$122.05	\$132.49	3	\$763.62	\$397.47	\$750.00
Cat 627G w/push- pull	43.48	\$188.81	\$132.49	4	\$1,285.20	\$529.96	\$1,000.00
Water Tanker, 5,000 Gal.	15.00	\$33.45	\$68.37	1	\$101.82	\$68.37	\$250.00
ATLAS COPCO ROC D7-11,4.0 in.	1.25	\$109.75	\$68.37	1	\$178.12	\$68.37	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$7.98	\$68.37	1	\$76.35	\$68.37	\$250.00

Subtotals: \$4,971.39 \$2

\$85.52

\$2,373.30 \$5,000.00

\$250.00

\$68.37

6.00

Fuel Tanker, 6x4,

210 HP

\$17.15

\$68.37

1

Machine Description	Total Cost/hr/	Fleet Size	Haul Trip	Return Trip
	unit		Cost/hr/ fleet	Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$67.47	1	\$67.47	\$67.47
Lube Truck, 6x4, 250 HP	\$67.47	1	\$67.47	\$67.47
Flatbed Truck, 6x4, 45K GVW	\$77.44	1	\$77.44	\$77.44
Light Duty Pickup, 4x4, 1 T.	\$48.19	1	\$48.19	\$48.19
Crew				
		Subtotals:	\$260.57	\$260.57
# **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	GRAND JUNCTION	_
Total one-way travel distance:	100.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$56,666.23	_
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$1,302.85	_

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	2.50	2.50
Return Time (Hours):	2.50	2.50
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	6.00	5.00

## JOB TIME AND COST

Total job time: **12.00** Hours

Total job cost: \$57,969

## EQUIPMENT MOBILIZATION/DEMOBILIZATION

: Bowie No. 2 Mi	<b>n</b> 0	Permit	Action: RN5			Permit/Job#: C	1006083
. <b>Dowie 140, 2 1411</b>							1770085
PROJECT IDEN	TIFICATI	ON					
Task #: 181		State: Co	olorado		Abbro	eviation: None	
Date: 11/22	2/2021	County: De	elta		F	ilename: C083	-181
User: RDZ							
Agency or	organizatior	n name: DRMS					
EQUIPMENT TH	RANSPOR	T RIG COST					
					Shift ba	usis: 1 per da	V
					Cost Data Sou		
Truck	Fractor Doca	rintion: CENE					DOWEDED
TTUCK	Fractor Desc	inpuoli: GENE			P (2ND HALF,	OR, 6X4, DIESEI	L POWERED,
Truck	Trailar Daga	rintion:				ROP DECK EQU	DMENT
TTUCK	Trailer Desc	inpuoli. G			(25T, 50T, A)	•	IF IVIEIN I
				INAILUN	(231, 301, Al	1001)	
Cost Breakdown:							
Available Rig Ca	pacifies	0-25 Tons	26-50 Tons	51	+ Tons		
Ownership (		\$21.28	\$37.94		647.67		
Operating C		\$26.55	\$50.48		56.21		
Operator C		\$20.54	\$20.54		320.54		
	Cost/Hour:	\$0.00	\$23.53		23.53		
Total Unit C		\$68.37	\$132.49		147.95		
Total Ollit C	20054 Hour.	<i><b>400.0</b>1</i>	Q102.19	Ψ			
NON ROADABL	E EQUIDA	IENT.					
NUN KUADADL	E EQUIEN						
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Cat D10T - 10SU	84.53	\$169.60	\$147.95	4	\$1,270.20	\$591.80	\$1,000.00
Cat 365C L 13'-7"	77.56	\$173.79	\$147.95	2	\$643.48	\$295.90	\$500.00
Stick							
CAT 815F	22.88	\$91.25	\$68.37	1	\$159.62	\$68.37	\$250.00
CAT 14M	23.57	\$85.80	\$68.37	1	\$154.17	\$68.37	\$250.00
CAT 988H	54.46	\$105.34	\$147.95	1	\$253.29	\$147.95	\$250.00
Cat 773F	49.74	\$122.05 \$188.81	\$132.49 \$132.40	3	\$763.62	\$397.47	\$750.00
Cat 627G w/push- pull	43.48	\$188.81	\$132.49	4	\$1,285.20	\$529.96	\$1,000.00
Water Tanker,	15.00	\$33.45	\$68.37	1	\$101.82	\$68.37	\$250.00
5,000 Gal.	15.00	φ.σ.+σ	φ00.57	1	φ101.02	φ00.37	φ230.00
ATLAS COPCO	1.25	\$109.75	\$68.37	1	\$178.12	\$68.37	\$250.00
ROC D7-11,4.0 in.	1.20	ψ10 <i>2.10</i>	<i>400.01</i>	· ·	φ170.12	\$00.57	φ <u>2</u> 00.00
Drill/Broadcast	25.00	\$7.98	\$68.37	1	\$76.35	\$68.37	\$250.00
Seeder with	-						
Tractor							
	6.00	\$17.15	\$68.37	1	\$85.52	\$68.37	\$250.00

Subtotals: **\$4,971.39** 

\$2,373.30 \$5,000.00

210 HP

Machine Description	Total Cost/hr/	Fleet Size	Haul Trip	Return Trip
	unit		Cost/hr/ fleet	Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$67.47	1	\$67.47	\$67.47
Lube Truck, 6x4, 250 HP	\$67.47	1	\$67.47	\$67.47
Flatbed Truck, 6x4, 45K GVW	\$77.44	1	\$77.44	\$77.44
Light Duty Pickup, 4x4, 1 T.	\$48.19	1	\$48.19	\$48.19
Crew				
		Subtotals:	\$260.57	\$260.57

# **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	GRAND JUNCTION	
Total one-way travel distance:	100.00	miles
Average Travel Speed:	40.00	mph
-		
Total Non-Roadable Mob/Demob Cost *	\$56,666.23	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$1,302.85	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	2.50	2.50
Return Time (Hours):	2.50	2.50
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	6.00	5.00

## JOB TIME AND COST

Total job time: **12.00** Hours

Total job cost: \$57,969

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Мо	bilize/Demoblize	Equipment for	Pond Re	emoval			
e: Bowie No. 2 M	ine	Permit	Action: RN5			Permit/Job#	t: <u>C19</u>	996083
PROJECT IDEN	NTIFICATI	<u>ON</u>						
Task #: 182		State: Co	olorado		Abbre	eviation:	None	
Date: 11/2	22/2021	County: De	elta		Fi	ilename:	C083-1	.82
User: RDZ	Z	•						
Agency of	r organizatior	n name: DRMS						
EQUIPMENT T	RANSPOR	T RIG COST						
		<u>1 MU COD1</u>			նեներ	aiot 1.		
					Shift ba Cost Data Sou		per day RG Data	<u> </u>
					Cost Data Sou		CO Data	L
Truck	Tractor Desc	ription: GENE	RIC ON-HIGH				IESEL	POWERED,
					(2ND HALF,			
Truck	Trailer Desc	ription: G	ENERIC FOLD	ING GOO	DSENECK, DF	ROP DECK	EQUIF	PMENT
			]	<b>FRAILER</b>	(25T, 50T, AN	ND 100T)		
Cast Duesladorum.								
Cost Breakdown:								
Available Rig Ca		0-25 Tons	26-50 Tons		+ Tons			
Ownership		\$21.28	\$37.94		47.67			
Operating	Cost/Hour:	\$26.55	\$50.48	\$	56.21			
Operator	Cost/Hour:	\$20.54	\$20.54	\$	20.54			
Helper	Cost/Hour:	\$0.00	\$23.53	\$	23.53			
Total Unit	Cost/Hour:	\$68.37	\$132.49	\$1	147.95			
	1	4						
NON ROADABI	LE EOUIPN	AENT:						
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return T	rip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/f	leet	Cost/ fleet
	(TONS)		t		fleet			
Cat D9T - 9SU	60.01	\$126.01	\$147.95	1	\$273.96	\$147.95		\$250.00
Cat 627G w/push- pull	43.48	\$188.81	\$132.49	1	\$321.30	\$132.49		\$250.00
Drill/Broadcast	25.00	\$7.98	\$68.37	1	\$76.35	\$68.37		\$250.00
Seeder with	-0.00	2	+ 50.07	-	÷, 0.00	200101		+
Tractor								

Subtotals: \$671.61 \$348.81 \$750.00

### **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$76.83	1	\$76.83	\$76.83
		Subtotals:	\$76.83	\$76.83

# **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	DELTA	
Total one-way travel distance:	45.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost *	\$5,139.17	
* two round trips with haul rig:		_
Total Roadable Mob/Demob Cost **	\$172.87	
** one round trip, no haul rig:		_

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.13	1.13
Return Time (Hours):	1.13	1.13
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.25	2.25

## JOB TIME AND COST

Total job time: **6.50** Hours

Total job cost: \$5,312

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

		bilize/Demobilize	1.1.	i i cui i j b				<u> </u>
Bowie No. 2 Mi	ne	Permit	Action: RN5		]	Permit/Job	o#: <u>C1</u>	996083
PROJECT IDEN	TIFICATI	<u>ON</u>						
Task #: 183		State: Co	olorado		Abbre	eviation:	None	
	2/2021	County: De	lta		Fi	ilename:	C083-	183
User: RDZ								
Agency or	organization	n name: DRMS						
EQUIPMENT TI	RANSPOR	<u>T RIG COST</u>						
					Shift ba		per day	
				(	Cost Data Sou	rce: C	CRG Dat	a
	Fractor Desc		RIC ON-HIGH	400 HP	(2ND HALF,	2006)		
Truck	Trailer Desc	ciption: Gl	ENERIC FOLD				K EQUI	PMENT
				KAILEK	(25T, 50T, AN	ND 1001)		
Cost Breakdown:								
Available Rig Ca	pacities	0-25 Tons	26-50 Tons	51+	- Tons			
Ownership (		*****						
Onemating	Josu Hour.	\$21.28	\$37.94	\$4	7.67			
Operating C	Cost/Hour:	\$21.28 \$26.55	\$37.94 \$50.48		7.67 6.21			
Operator (	Cost/Hour: Cost/Hour:			\$5				
Operator ( Helper (	Cost/Hour: Cost/Hour: Cost/Hour:	\$26.55	\$50.48 \$20.54 \$23.53	\$5 \$2	6.21			
Operator (	Cost/Hour: Cost/Hour: Cost/Hour:	\$26.55 \$20.54	\$50.48 \$20.54	\$5 \$2 \$2	6.21 20.54			
Operator ( Helper ( Total Unit (	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	\$26.55 \$20.54 \$0.00 \$68.37	\$50.48 \$20.54 \$23.53	\$5 \$2 \$2	66.21 20.54 23.53			
Operator ( Helper (	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	\$26.55 \$20.54 \$0.00 \$68.37	\$50.48 \$20.54 \$23.53	\$5 \$2 \$2	66.21 20.54 23.53			
Operator ( Helper ( Total Unit (	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: <b>E EQUIPN</b>	\$26.55 \$20.54 \$0.00 \$68.37 <b>//ENT:</b>	\$50.48 \$20.54 \$23.53 \$132.49	\$5 \$2 \$2 \$2 \$1	6.21 20.54 23.53 47.95	Return	Trip	DOT Permit
Operator ( Helper ( Total Unit ( NON ROADABL Machine	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	\$26.55 \$20.54 \$0.00 \$68.37	\$50.48 \$20.54 \$23.53	\$5 \$2 \$2 \$1 \$1 Fleet	66.21 20.54 23.53	Return Cost/hr/	Trip ′ fleet	DOT Permit Cost/ fleet
Operator ( Helper ( Total Unit (	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: E EQUIPN Weight/ Unit	\$26.55 \$20.54 \$0.00 \$68.37 <b>MENT:</b> Owner ship	\$50.48 \$20.54 \$23.53 \$132.49 Haul Rig	\$5 \$2 \$2 \$2 \$1	6.21 20.54 23.53 47.95 Haul Trip	Return Cost/hr/	Trip ′ fleet	
Operator ( Helper ( Total Unit ( NON ROADABL Machine	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: E EQUIPN Weight/	\$26.55 \$20.54 \$0.00 \$68.37 <b>MENT:</b> Owner ship	\$50.48 \$20.54 \$23.53 \$132.49 Haul Rig Cost/hr/uni	\$5 \$2 \$2 \$1 \$1 Fleet	6.21 20.54 23.53 47.95 Haul Trip Cost/hr/	Return Cost/hr/ \$683.70	Trip ′ fleet	
Operator ( Helper ( Total Unit ( NON ROADABL Machine Description	Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: <b>E EQUIPN</b> Weight/ Unit (TONS)	\$26.55 \$20.54 \$0.00 \$68.37 <b>/IENT:</b> Owner ship Cost/hr/ unit	\$50.48 \$20.54 \$23.53 \$132.49 Haul Rig Cost/hr/uni t	Size	6.21 20.54 23.53 47.95 Haul Trip Cost/hr/ fleet	Cost/hr/	Trip ′ fleet	Cost/ fleet

# **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
		Subtotals:	\$0.00	\$0.00

## **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: Total one-way travel distance:	DELTA 45.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost *	\$30,636.90	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$0.00	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.00	1.00
Return Time (Hours):	1.00	1.00
Loading Time (Hours):	2.50	NA
Unloading Time (Hours):	2.50	NA
Subtotals:	7.00	2.00

# JOB TIME AND COST

Total job time: **14.00** Hours

Total job cost: \$30,637

Task description:	Regrade Terror	Creek Light	-Use Koad		
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 241	State:	Colorado		Abbreviation:	None
Date: $11/22/2021$		Delta		Filename:	C083-241
User: RDZ	County.	Denu		i nonune.	0005 211
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME					
	: D9T - 9SU				
Horsepower: 405					
	ni-Universal				
Attachment: NA					
Shift Basis: 1 p	er day				
Data Source: (CF					
Cost Breakdown:					
COST DIEAKUOWII			Utilization %		
Ownership Cost/Hour:		\$126.01	NA		
Operating Cost/Hour:		\$120.01	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUANT</b>	\$308.72 \$308.72 TTIES				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume:9,80	<b>\$308.72</b> <b>TITIES</b> 0				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12	\$308.72 TTIES 0 5				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12	<b>\$308.72</b> <b>TITIES</b> 0				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum	\$308.72 TTIES 0 5 25 LCY me: Division (		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0	\$308.72 TTIES 0 5 25 LCY me: Division (		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum	\$308.72           TTIES           0           5           25 LCY           me:         Division of Cat Hand		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$308.72           TTIES           0           5           25 LCY           me:         Division of Cat Hand		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$308.72 TTIES 0 5 25 LCY me: Division 0 Cat Hand TION 125 feet	book	on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand <b>EION</b> ction:       1,055.6 LCY	book Y/hr	 on, Mining & Safety   mbankment 0.9		
Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume:       9,80         Swell factor:       1.12         Loose volume:       11,0         Source of estimated volu         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency dest	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand <b>EION</b> ction:       125 feet         1,055.6 LC         scription:       Comparison	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand         FION         ction:       125 feet         1,055.6 LCY         scription:       Comparison         5 %	book Y/hr			
Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume:       9,80         Swell factor:       1.12         Loose volume:       11,0         Source of estimated volu         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly product         Materials consistency dest	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand <b>EION</b> ction:       125 feet         1,055.6 LC         scription:       Comparison	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand         FION         ction:       125 feet         1,055.6 LCY         scription:       Comparison         5 %	book Y/hr			
Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume:       9,80         Swell factor:       1.12         Loose volume:       11,0         Source of estimated volur         Source of estimated swell <b>HOURLY PRODUCT</b> Average push distance:         Unadjusted hourly product         Materials consistency des         Average push gradient:         Average site altitude:	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand         FION         ction:       1,055.6 LC         scription:       Compa         5 %         7,800 feet	book Y/hr 	mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand         TION         ction:       125 feet         ction:       1,055.6 LCY         scription:       Compa         5 %       7,800 feet         2,650 lbs/LCY       Decomposed rock         Factor       Factor	book Y/hr   - 25% Rock,	mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated volum Source of estimated volum Source of estimated volum Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$308.72TTIES0525 LCYme:Division of1 factor:Cat HandCat HandCompany100ction:125 feet1,055.6 LCYscription:Company5 %7,800 feet2,650 lbs/LCYDecomposed rockFactorSkill:0.	book Y/hr cted fill or en  - 25% Rock, 750			
Total Fleet Cost/Hour: <b>MATERIAL QUANT</b> Initial Volume:       9,80         Swell factor:       1.12         Loose volume:       11,0         Source of estimated volu         Source of estimated volu         Source of estimated swell <b>HOURLY PRODUC1</b> Average push distance:         Unadjusted hourly product         Materials consistency des         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator S         Material consist	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand         TION         ction: $\frac{125 \text{ feet}}{1,055.6 \text{ LCY}}$ scription:       Compa $\frac{5 \%}{7,800 \text{ feet}}$ 2,650 lbs/LCY         Decomposed rock         Factor         Skill:       0.         ency:       0.	book Y/hr cted fill or ei - 25% Rock, 750 900			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,80 Swell factor: 1.12 Loose volume: 11,0 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator 3 Material consist Dozing me	\$308.72         TTIES         0         5         25 LCY         me:       Division of Cat Hand         I factor:       Cat Hand         Company         feet         cription:       Company         5 %         7,800 feet         2,650 lbs/LCY         Decomposed rock         Factor         Skill:       0.         ency:       0.         thod:       1.	book Y/hr cted fill or en  - 25% Rock, 750			

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pi	ile:	0.800	(FND-RF)
Push gradie	nt:	0.903	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.868	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.3513	
Adjusted unit production:	37	0.83 LCY/hr	
Adjusted fleet production:	37	<b>0.83</b> LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.833/LCY
Total job time: Total job cost:	<b>29.73</b> Hours <b>\$9,178</b>

Bowie No. 2 Mine	Permit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFICA	ΓΙΟΝ			
			Abbassisticas	None
Task #: 242 Date: 11/22/2021	State: Colorado		Abbreviation:	None
Date: <u>11/22/2021</u> User: RDZ	County: Delta		Filename:	C083-242
User. KDZ	_			
Agency or organizati	on name: DRMS			
HOURLY EQUIPMENT	<u>COST</u>			
Basic Machine: Cat D97	- 9SU	_		
Horsepower: 405		_		
Blade Type: Semi-Un	niversal	_		
Attachment: NA		_		
Shift Basis: 1 per da	У	_		
Data Source: (CRG)		-		
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$126.01	NA		
Operating Cost/Hour:	\$141.41	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
MATERIAL QUANTITI				
initial volume. 7,100				
Swell factor: 1.125	Y			
Swell factor:         1.125           Loose volume:         8,325 LC		Mining & Safaty		
Swell factor: 1.125 Loose volume: 8,325 LC Source of estimated volume:	Division of Reclamation	n, Mining & Safety		
Swell factor:         1.125           Loose volume:         8,325 LC	Division of Reclamation	n, Mining & Safety		
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor	Division of Reclamation Division of Reclamation Division of Reclamation	n, Mining & Safety		
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION	Division of Reclamation Division of Reclamation Division of Reclamation Division of Reclamation	n, Mining & Safety		
Swell factor: 1.125 Loose volume: 8,325 LC Source of estimated volume: Source of estimated swell factor HOURLY PRODUCTION Average push distance:	Division of Reclamatio Division of Reclamatio Cat Handbook	n, Mining & Safety		
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION	Division of Reclamatio Division of Reclamatio Cat Handbook	n, Mining & Safety 		
Swell factor: 1.125 Loose volume: 8,325 LC Source of estimated volume: Source of estimated swell factor HOURLY PRODUCTION Average push distance:	Division of Reclamatio Cat Handbook			
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION         Average push distance:         Unadjusted hourly production:         Materials consistency descript	Division of Reclamatio Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion:Compacted fill or em			
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         Source of estimated swell factor       HOURLY PRODUCTION         Average push distance:       Unadjusted hourly production:         Materials consistency descript         Average push gradient:       5 9	Division of Reclamatio or: Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion: Compacted fill or em			
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         Source of estimated swell factor       HOURLY PRODUCTION         Average push distance:       Unadjusted hourly production:         Materials consistency descript         Average push gradient:       5 9	Division of Reclamatio Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion:Compacted fill or em			
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION         Average push distance:         Unadjusted hourly production:         Materials consistency descript         Average push gradient:       5 9         Average site altitude:       7,8	Division of Reclamatio or: Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion: Compacted fill or em			
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated swell factor         Source of estimated swell factor       HOURLY PRODUCTION         Average push distance:       Unadjusted hourly production:         Materials consistency descript       5 %         Average site altitude:       7,8         Material weight:       2,6	Division of Reclamatio Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion: Compacted fill or em <u>6</u> <u>6</u> <u>6</u> <u>6</u> <u>6</u> <u>6</u>	bankment 0.9		
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor       HOURLY PRODUCTION         Average push distance:       Unadjusted hourly production:         Materials consistency descript         Average site altitude:       5 9         Average site altitude:       7,8         Material weight:       2,6	Division of Reclamatio Cat Handbook 125 feet 1,055.6 LCY/hr ion: Compacted fill or em 6 300 feet 550 lbs/LCY composed rock - 25% Rock, 7 Compacted fill	bankment 0.9		
Swell factor:       1.125         Loose volume:       8,325 LC         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor       HOURLY PRODUCTION         Average push distance:       Unadjusted hourly production:         Materials consistency descript         Average push gradient:       5 %         Average site altitude:       7,8         Material weight:       2,6         Weight description:       De	Division of Reclamatio Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion: Compacted fill or em 6 600 feet 550 lbs/LCY composed rock - 25% Rock, 7 or	bankment 0.9		
Swell factor: $1.125$ Loose volume: $8,325$ LCSource of estimated volume:Source of estimated swell factorHOURLY PRODUCTIONAverage push distance:Unadjusted hourly production:Materials consistency descriptAverage push gradient: $5 \ 9 \ 7,8$ Average site altitude: $7,8$ Material weight: $2,6$ Weight description:DeJob Condition Correction Fact	Division of Reclamatio Cat Handbook <u>125 feet</u> 1,055.6 LCY/hr ion: Compacted fill or em <u>6</u> <u>300 feet</u> <u>50 lbs/LCY</u> composed rock - 25% Rock, 7 0.750	bankment 0.9 75% Earth Source		
Swell factor: $1.125$ Loose volume: $8,325$ LCSource of estimated volume:Source of estimated swell factorHOURLY PRODUCTIONAverage push distance:Unadjusted hourly production:Materials consistency descriptAverage push gradient: $5 \ 9$ Average site altitude: $7,8$ Material weight: $2,6$ Weight description:DeJob Condition Correction Fact Operator Skill:	Division of Reclamatio or: $Cat Handbook$ $\frac{N}{2}$ $\frac{125 \text{ feet}}{1,055.6 \text{ LCY/hr}}$ ion: Compacted fill or em $\frac{6}{300 \text{ feet}}$ $\frac{6}{350 \text{ lbs/LCY}}$ $\frac{0.750}{0.900}$ $\frac{0.750}{1.000}$			

cy: 0.830	(1 SHIFT/DAY)
ile: 0.800	(FND-RF)
nt: 0.903	(CAT HB)
de: 1.000	(CAT HB)
ht: 0.868	(CAT HB)
pe: 1.000	(PAT)
on: 0.3513	
370.83 LCY/hr	
370.83 LCY/hr	
	ile:       0.800         ont:       0.903         de:       1.000         oht:       0.868         pe:       1.000         on:       0.3513         370.83 LCY/hr

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.833/LCY	
Total job time	22 15 Hours	
Total job time:	22.45 Hours	

## SAFEGUARDING UNDERGROUND OPENINGS

Т	Task description:	Concrete Plug an	d Backfill Terror Cr	eek Vent Shaft	
Site:	Bowie No. 2 Mine	Permi	t Action: RN5	Permit/J	lob#: C1996083
PROJE(	CT IDENTIFICATIO	<u>ON</u>			
Task #:	261	State: Col	orado	Abbreviation:	None
Date:	11/22/2021	County: Del	ta	Filename:	C083-261
User:	RDZ				
	Agency or organiz	zation name: DRM	3		

## UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Concrete Cap	269.00 cf	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	269.00	CF	\$13.89	\$3,736.41
Backfill Shaft	6900 cy	Shaft closure - backfilling, by hand	6,900.00	CY	\$25.00	\$172,500.00
- Equipment to Backfill	1717 hr/cy	Cat D7R DS XR Series II	4.00	EA	\$201.65	\$806.60

Job Hours: 40.00

Total Cost: \$177,043.01

# **REVEGETATION WORK**

Bowie No. 2 Mine		Permit Action:	RN5	Permit/Jol	b#: <u>C1996083</u>
PROJECT	IDENTIFIC	CATION			
Task #:	301	State: Colorado		Abbreviation:	None
Date:	11/22/2021	County: Delta		Filename:	C083-301
	RDZ				

# **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
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

### 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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
	\$0.00				

No. of Acres:	0.39	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$560.31
Reseeding Job Cost:	\$125.74
Total Job Cost:	\$686
Job Hours:	1.00

			•	l Dist.	
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #:         302           Date:         11/22/2021           User:         RDZ	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-302
Agency or organ	ization name: DI	RMS			
HOURLY EQUIPME	NT COST				
	D9T - 9SU				
Horsepower: 405 Blade Type: Sem	ni-Universal				
Attachment: NA	II-UIIVersai				
	er day				
Data Source: (CR					
Cost Breakdown:			TT:111 .1 .0/		
		¢126.01	<u>Utilization %</u>		
Ownership Cost/Hour:		\$126.01 \$141.41	<u>NA</u> 100		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$141.41	 NA		
Ripper op. Cost/Hour:		\$0.00	0		
		\$0.00			
Operator Cost/Hour:		\$41.50	NA		
MATERIAL QUANT	<u>ITIES</u>				
Initial Volume: 782					
Initial Volume: 782 Swell factor: 1.165	5				
Initial Volume: 782	5				
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volum	5 CY ne: Division		on, Mining & Safety		
Initial Volume:782Swell factor:1.165Loose volume:911 I	5 CY ne: Division		on, Mining & Safety		
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell	5 LCY ne: Division factor: Cat Hand		on, Mining & Safety		
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volum	5 LCY ne: Division factor: Cat Hand		on, Mining & Safety		
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT	5 LCY ne: <u>Division</u> factor: <u>Cat Hand</u> YION		on, Mining & Safety		
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT Average push distance:	5 LCY ne: <u>Division</u> factor: <u>Cat Hand</u> CION _200 feet	lbook	on, Mining & Safety		
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT	5 LCY ne: Division factor: Cat Hand YION 200 feet tion: 700.0 LCY	lbook /hr	on, Mining & Safety		
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency desc	5 <u>CY</u> ne: <u>Division</u> factor: <u>Cat Hand</u> CION tion: <u>200 feet</u> 700.0 LCY cription: <u>Compa</u>	lbook /hr			
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency desc Average push gradient:	5 LCY ne: <u>Division</u> factor: <u>Cat Hand</u> CION tion: <u>200 feet</u> 700.0 LCY cription: <u>Compa</u> 5 %	lbook /hr			
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency desc	5 <u>CY</u> ne: <u>Division</u> factor: <u>Cat Hand</u> CION tion: <u>200 feet</u> 700.0 LCY cription: <u>Compa</u>	lbook /hr			
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volun Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency desc Average push gradient:	5 LCY ne: <u>Division</u> factor: <u>Cat Hand</u> CION tion: <u>200 feet</u> 700.0 LCY cription: <u>Compa</u> 5 %	lbook /hr			
Initial Volume:       782         Swell factor:       1.165         Loose volume:       911 I         Source of estimated volun         Source of estimated volun         Source of estimated swell         HOURLY PRODUCT         Average push distance:         Unadjusted hourly produc         Materials consistency desc         Average push gradient:         Average site altitude:	5 CCY ne: Division factor: Cat Hand CION 200 feet tion: 700.0 LCY cription: Compa 5 % 7,500 feet	lbook /hr 	mbankment 0.9		
Initial Volume:782Swell factor:1.165Loose volume:911 ISource of estimated volumSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly producMaterials consistency descAverage push gradient:Average site altitude:Material weight:Weight description:	5 CY ne: Division factor: Cat Hand TON tion: 200 feet tion: 700.0 LCY cription: Compa 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock	lbook /hr 			
Initial Volume:782Swell factor:1.165Loose volume:911 ISource of estimated volumSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly producMaterials consistency descAverage push gradient:Average site altitude:Material weight:Weight description:Job Condition Correction	5 CY ne: Division factor: Cat Hand TON tion: 200 feet tion: 700.0 LCY cription: Compa 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock Factor	lbook /hr 	mbankment 0.9		
Initial Volume:782Swell factor:1.165Loose volume:911 ISource of estimated volumSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly producMaterials consistency descAverage push gradient:Average site altitude:Material weight:Weight description:	5 <u>CY</u> ne: <u>Division</u> factor: <u>Cat Hand</u> <b>YON</b> tion: <u>200 feet</u> tion: <u>700.0 LCY</u> cription: <u>Compa</u> 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock <u>Factor</u> Skill: 0	/hr /hr incted fill or en 			
Initial Volume: 782 Swell factor: 1.165 Loose volume: 911 I Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	Division           factor:         Division           factor:         Cat Hand           YON         200 feet           tion:         700.0 LCY.           cription:         Compa           5 %         7,500 feet           2,900 lbs/LCY         Decomposed rock           Factor         Skill:         0           oncy:         0	/hr /hr incted fill or en - 50% Rock, .750			

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pile:		0.800	(FND-RF)
Push gradient:		0.903	(CAT HB)
Altituc	le:	1.000	(CAT HB)
Material Weight:		0.793	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.3209	
Adjusted unit production:	22	4.63 LCY/hr	
Adjusted fleet production:	22	4.63 LCY/hr	
	-		

Fleet size:	1 Dozer(s)
Unit cost:	\$1.374/LCY
Total job time:	<b>4.06</b> Hours
Total job cost:	\$1,252

Task description:	Re-topsoil Pitkin	wiesa i ipei			
Bowie No. 2 Mine	Per	mit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIE	<b>TICATION</b>				
Task #: 352	State:	Colorado		Abbreviation:	None
Date: 11/22/202		Delta		Filename:	C083-352
User: <u>RDZ</u>					
Agency or orga	inization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
	ut D9T - 9SU				
Horsepower: 40					
	mi-Universal				
Attachment: NA					
	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$126.01	NA		
Operating Cost/Hour:		\$141.41	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$308.72 <b>\$308.72</b>				
Total Fleet Cost/Hour:	\$308.72 <u>FITIES</u>				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,22</u>	\$308.72 FITIES 27				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,22 Swell factor: 1.00	\$308.72 FITIES 27 00				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,22 Swell factor: 1.00	\$308.72 FITIES 27				
Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22	\$308.72 FITIES 27 00 27 LCY	 			
Total Fleet Cost/Hour:         MATERIAL QUAN?         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu	\$308.72 FITIES 27 00 27 LCY Ime: BRL - 2 a	  hook			
Total Fleet Cost/Hour:         MATERIAL QUAN?         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22	\$308.72 FITIES 27 00 27 LCY Ime: BRL - 2 a				
Total Fleet Cost/Hour:         MATERIAL QUAN'         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22	\$308.72 FITIES 27 20 27 LCY Ime: BRL - 2 a Cat Hand				
Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Source of estimated volu       swell         HOURLY PRODUC       100	\$308.72 FITIES 27 00 27 LCY 100 27 LCY 100 11 factor: BRL - 2 a Cat Hand TION				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,22 Swell factor: 1.00 Loose volume: 3,22 Source of estimated volu Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance:	\$308.72 <b>FITIES</b> 27 27 27 27 27 27 27 27 27 27	book			
Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Source of estimated volu       swell         HOURLY PRODUC       100	\$308.72 <b>FITIES</b> 27 27 27 27 27 27 27 27 27 27	book			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,22 Swell factor: 1.00 Loose volume: 3,22 Source of estimated volu Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance:	\$308.72         FITIES         27         20         27 LCY         ume:       BRL - 2 a         11 factor:       Cat Hand         TION         action:       100 feet         1,243.2 LC	book	  pile 1.0		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 3,22 Swell factor: 1.00 Loose volume: 3,22 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ	\$308.72         FITIES         27         20         27 LCY         ume:       BRL - 2 a         11 factor:       Cat Hand         TION         action:       100 feet         1,243.2 LC	book Y/hr	  pile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume: 3,22 Swell factor: 1.00 Loose volume: 3,22 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$308.72         FITIES         27         20         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         20 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume: 3,22 Swell factor: 1.00 Loose volume: 3,22 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$308.72         FITIES         27         20         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         27         20 %         7,725 feet	book Y/hr idated stockr	  pile 1.0		
Total Fleet Cost/Hour:         MATERIAL QUANY         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22         Source of estimated swel       3,22         MOURLY PRODUCC       Average push distance:         Unadjusted hourly produ       Materials consistency de         Average push gradient:       Average site altitude:         Material weight:       Weight description:	\$308.72         FITIES         27         20         27 LCY         ame:       BRL - 2 a         11 factor:       Cat Hand         TION         action:       100 feet         action:       1,243.2 LC         escription:       Consol         20 %       7,725 feet         2,550 lbs/LCY       Earth - Dry packed	book Y/hr idated stockr			
Total Fleet Cost/Hour:         MATERIAL QUANY         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22         Source of estimated swel       4         HOURLY PRODUC       4         Average push distance:       9         Unadjusted hourly produce       4         Average push gradient:       4         Average site altitude:       4         Material weight:       4         Weight description:       1         Job Condition Correction       1	\$308.72         FITIES         27         20         27 LCY         ame:       BRL - 2 a         11 factor:       Cat Hand         TION         action:       100 feet         action:       1,243.2 LC         escription:       Consol         20 %       7,725 feet         2,550 lbs/LCY       Earth - Dry packed         n Factor       Factor	book Y/hr idated stockp	Source		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Material sconsistency       4         Average push distance:       1         Unadjusted hourly produ       1         Materials consistency de       1         Average push gradient:       1         Average site altitude:       1         Material weight:       1         Weight description:       1         Job Condition Correction       0         Operator       1	\$308.72 <b>FITIES</b> 27272027272727272727272727Cat HandTIONCat HandTION100 feetaction:100 feet1,243.2 LCescription:Consol20 %7,725 feet2,550 lbs/LCYEarth - Dry packedn FactorSkill:0.	book Y/hr idated stockg	Source (AVG.)		
Total Fleet Cost/Hour:         MATERIAL QUANY         Initial Volume:       3,22         Swell factor:       1.00         Loose volume:       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22         Source of estimated volu       3,22         Source of estimated swel       4         HOURLY PRODUC       4         Average push distance:       9         Unadjusted hourly produce       4         Average push gradient:       4         Average site altitude:       4         Material weight:       4         Weight description:       1         Job Condition Correction       1	\$308.72 <b>FITIES</b> 2727202727LCYume:BRL - 2 a Cat Hand11 factor:Cat Hand <b>TION</b> 100 feet 1,243.2 LCaction: $100$ feet 1,243.2 LCescription:Consol20 % 7,725 feet2,550 lbs/LCY Earth - Dry packed n Factor Skill:0.tency:1.	book Y/hr idated stockp	Source		

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 0.545	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.902	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.2448	
Adjusted unit production:	304.34 LCY/hr	
Adjusted fleet production:	<b>304.34</b> LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.014/LCY
Total job time:	<b>10.60</b> Hours

Total job cost: \$3,273

# **REVEGETATION WORK**

1	Task descrip	otion:	Reseed Pitkin Mesa Pipeline	e Corridor			
Site:	Bowie No	o. 2 Mine	Permit Action:	RN5	Permit/Job	#: <u>C1996083</u>	
<u>P</u> ]	ROJECT Task #:	IDENTIFIC 353	ATION State: Colorado		Abbreviation:	None	
	Date: User:	11/22/2021 RDZ	County: Delta		Filename:	C083-353	
		ency or organiz	zation 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
	\$
Total Tilling Cost/Acre	\$0.00

## **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

### 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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	<b>Total Mulch Application Cost/Acre</b>	\$177.86

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

No. of Acres:	2	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$2,873.40
Reseeding Job Cost:	\$644.80
Total Job Cost:	\$3,518
Job Hours:	2.00

### BOREHOLE SEALING WORK

,	Task description:	Seal Well DH-67blw			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	lob#: C1996083
<u>PROJE</u>	CT IDENTIFICATIO	N			
Task #:		State: Colorado		Abbreviation:	None
Date: User:		County: Delta		Filename:	C083-369
	Agency or organiza	tion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Cement seal	Portland cement grout ( Bag, material cost only94 lb. bag)	8.75	360	127.40	bag	\$19.95	\$2,541.63
Casing removal	Exposed casing removal - Calculate Circumference in Linear Feet	8.75	3	2.00	LF	\$3.26	\$6.52
Hole marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	12.00	EA	\$282.25	\$3,387.00
Water Truck Time	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$6,782.00

### BOREHOLE SEALING WORK

,	Task description:	Seal CWI-DH-58A			
Site:	Bowie No. 2 Mine	Permit Action:	RN5	Permit/J	ob#: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFICATION	N			
Task #: Date: User:	11/22/2021	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-374
	Agency or organizat	ion name: DRMS			

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal hole	Portland cement grout ( Bag, material cost only94 lb. bag)	8.75	550	194.37	bag	\$19.95	\$3,877.68
Remove casing	Exposed casing removal - Calculate Circumference in Linear Feet	8.75	3	2.00	LF	\$3.26	\$6.52
Hole marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50
Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	12.00	EA	\$268.10	\$3,217.20
Water Truck Time	Water Tanker, 3,500 Gal.	NA	NA	12.00	EA	\$67.47	\$809.64

Job Hours: 12.00

Total Cost: \$7,949.00

Task description:	Regrade S	ection 5 Road			
Bowie No. 2 Mine		Permit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 379 Date: 11/22/202 User: RDZ		State: Colorado unty: Delta		Abbreviation: Filename:	None C083-379
Agency or org	anization name:	DRMS			
HOURLY EQUIPM	ENT COST				
	at D9T - 9SU				
Horsepower: 40 Blade Type: 50	emi-Universal				
••	A				
	per day				
	CRG)				
	,				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour:		\$126.01	NA		
Operating Cost/Hours		\$141.41	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper op. Cost/Hours		\$0.00	0		
		* • • • • •			
Total Fleet Cost/Hour:	\$308.72 <b>\$308.72</b>	\$41.30	NA		
Total unit Cost/Hour:	\$308.72 <b>\$308.72</b> <b>TITIES</b> 57	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 2,9 Swell factor: 1.1	\$308.72 <b>\$308.72</b> <b>TITIES</b> 57	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated swe	\$308.72 <b>\$308.72</b> <b>TITIES</b> 57 65 <b>45</b> LCY ume: DR ell factor: Car				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated swe HOURLY PRODUC	\$308.72 <b>\$308.72</b> <b>TITIES</b> 57 65 <b>45</b> LCY ume: DR ell factor: Car <b>CTION</b>	RMS - assume 1.5' t Handbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated swe	\$308.72 \$308.72 TITIES 57 65 45 LCY ume: DR ell factor: Ca CTION 100 f	RMS - assume 1.5' t Handbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance:	\$308.72 \$308.72 TITIES 57 65 45 LCY ume: DR ell factor: Car CTION uction: 1,243	RMS - assume 1.5' t Handbook	 material over1.22 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$308.72 \$308.72 TITIES 57 65 45 LCY ume: DR ell factor: Car CTION uction: 1,243	AMS - assume 1.5' t Handbook	 material over1.22 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated vol Source of estimated swee HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient:	\$308.72 \$308.72 TITIES 57 65 45 LCY ume: DR bill factor: Car CTION uction: 1,243 escription: ( 20 %	2MS - assume 1.5' t Handbook eet 3.2 LCY/hr Consolidated stock	 material over1.22 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude:	$ \frac{\$308.72}{\$308.72} $ TITIES 57 65 45 LCY ume: DR ell factor: Car CTION uction: 100 f uction: 1,243 escription: C 20 % 7,725 feet 2,900 lbs/L0	2MS - assume 1.5' t Handbook eet 3.2 LCY/hr Consolidated stock	material over1.22 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight:	\$308.72 \$308.72 TITIES 57 65 45 LCY ume: DR ell factor: Car CTION uction: 1,243 escription: 0 20 % 7,725 feet 2,900 lbs/L0 Decomposed	2MS - assume 1.5' t Handbook eet 3.2 LCY/hr Consolidated stockj	material over1.22 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	$ \begin{array}{r} \$308.72 \\ \$308.72 \\ \hline \$308.72 \\ \hline \\ \$308.72 \\ \hline \\ \$308.72 \\ \hline \\ \hline \\ \hline \\ \$308.72 \\ \hline \\ $	2MS - assume 1.5' t Handbook eet 3.2 LCY/hr Consolidated stockj CY d rock - 50% Rock. 0.750	 material over1.22 ac  pile 1.0  , 50% Earth     , 50% Earth		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato Material consist	$\begin{array}{c} \$308.72 \\ \$308.72 \\ \hline \$308.72 \\ \hline \\ \$308.72 \\ \hline \\ \$308.72 \\ \hline \\ \hline \\ \hline \\ \$308.72 \\ \hline \\ $	RMS - assume 1.5'         t Handbook         Geet         3.2 LCY/hr         Consolidated stock	material over1.22 ac 		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,9 Swell factor: 1.1 Loose volume: 3,4 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Material consistency Material consistency	$\begin{array}{c} \$308.72 \\ \$308.72 \\ \hline \$308.72 \\ \hline \\ \$308.72 \\ \hline \\ \$308.72 \\ \hline \\ \hline \\ \hline \\ \$308.72 \\ \hline \\ $	2MS - assume 1.5' t Handbook eet 3.2 LCY/hr Consolidated stockj CY d rock - 50% Rock. 0.750	 material over1.22 ac  pile 1.0  , 50% Earth     , 50% Earth		

Job efficience	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradier	nt:	0.545	(CAT HB)
Altituc	de:	1.000	(CAT HB)
Material Weight	ht:	0.793	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.2152	
Adjusted unit production:	26	7.54 LCY/hr	
Adjusted fleet production:	26	7.54 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.154/LCY
Total job time:	<b>12.88</b> Hours
Total job cost:	\$3,975

Task description:	Re-topsoil Section	on 5 Road			
Bowie No. 2 Mine	Per	rmit Action:	RN5	Permit/Job#:	C1996083
PROJECT IDENTIE	<b>ICATION</b>				
Task #: 380	State:	Colorado		Abbreviation:	None
Date: $11/22/202$		Delta		Filename:	C083-380
User: RDZ	<u> </u>				
Agency or orga	nization name: D	RMS			
Agency of orga		KWI3			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	tt D9T - 9SU				
Horsepower: 40					
• 1	mi-Universal				
Attachment: NA					
	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$126.01	NA		
Operating Cost/Hour:		\$141.41	100		
Ripper own. Cost/Hour:		\$0.00	NA		
		\$0.00	0		
Ripper op. Cost/Hour:					
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$308.72 \$308.72	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47	\$308.72 FITIES 78	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,47 Swell factor: 1.12	\$308.72 FITIES 78	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1,17 Loose volume: 1,66 Source of estimated volu Source of estimated swel HOURLY PRODUC	\$308.72 <u>FITIES</u> 78 25 53 LCY 11 factor: <u>DRMS</u> Cat Hance <u>TION</u>	0.75' over 1.			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1.12 Loose volume: 1,60 Source of estimated volu Source of estimated swell	\$308.72 <b>FITIES</b> 78 25 53 LCY 100 feet 100 feet	0.75' over 1. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume: 1,47 Swell factor: 1.17 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance:	\$308.72         FITIES         78         25         63 LCY         ume:       DRMS -         Il factor:       Cat Hand         TION         action:       100 feet         1,243.2 LC	0.75' over 1. dbook	 22 acres		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,47 Swell factor: 1,12 Loose volume: 1,66 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ	\$308.72         FITIES         78         25         63 LCY         ume:       DRMS -         Il factor:       Cat Hand         TION         action:       100 feet         1,243.2 LC	0.75' over 1. dbook	 22 acres		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1.12 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$308.72         FITTIES         78         25         63 LCY         time:       DRMS -         11 factor:       Cat Hand         TION         action:       100 feet         1,243.2 LC         escription:       Conso         20 %	0.75' over 1. dbook	 22 acres		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1.12 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$308.72         FITTIES         78         25         53 LCY         ime:       DRMS -         11 factor:       Cat Hand         TION         action:       100 feet         inction:       1,243.2 LC         escription:       Conso         20 %       7,725 feet	0.75' over 1. dbook	 22 acres		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1,12 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	\$308.72         FITTIES         78         25         53 LCY         nme:       DRMS -         11 factor:       Cat Hand         TION         action:       100 feet         1,243.2 LC         escription:       Conso         20 %         7,725 feet         2,550 lbs/LCY         Earth - Dry packe	0.75' over 1. dbook	 22 acres		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1,12 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$308.72 <b>TITIES</b> 782553 LCY100 feet11 factor: $100$ feet100 feet1,243.2 LCscription: $20 \%$ 7,725 feet2,550 lbs/LCYEarth - Dry packen FactorSkill:0	0.75' over 1. dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1.12 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$308.72 <b>FITIES</b> 782563 LCY100 feet11 factor: $100$ feet1ction: $100$ feet1,243.2 LCscription: $20 \%$ 7,725 feet2,550 lbs/LCYEarth - Dry packen FactorSkill:0tency:1	 0.75' over 1. dbook CY/hr lidated stockj  d .0.750 .000	22 acres 22 acres pile 1.0 Source (AVG.) (CAT HB)		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,47 Swell factor: 1.12 Loose volume: 1,66 Source of estimated volu Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis: Dozing ma	\$308.72 <b>FITIES</b> 782563 LCYtime:DRMS - Cat HandIl factor: $Cat HandTIONaction:100 feet1,243.2 LCescription:Conso20 \%7,725 feet2,550 lbs/LCYEarth - Dry packeeskill:n FactorSkill:0tency:tency:11$	0.75' over 1. dbook	22 acres		

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pile:		0.800	(FND-RF)
Push gradient:		0.545	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weight:		0.902	(CAT HB)
Blade ty	pe:	1.000	(PAT)
Net correction	on:	0.2448	
Adjusted unit production:	30	4.34 LCY/hr	
Adjusted fleet production:	30	4.34 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.014/LCY
Total job time: Total job cost:	5.46 Hours \$1,687

# **REVEGETATION WORK**

Bowie No. 2 Mine		Permit Action	RN5	Permit/Job#: C1996083		
ROJEC	<u>r identific</u>	CATION				
Task #:	381	State: Colorado		Abbreviation:	None	
Date	11/22/2021	County: Delta		Filename:	C083-381	
	RDZ					

## **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
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$26.63
Bluebunch Wheatgrass - Secar	3.00	9.64	\$32.63
Mountain Brome - Bromar	3.00	4.82	\$11.40
Sandberg Bluegrass - VNS	3.00	63.71	\$25.20
Coreopsis, Lance Leafed	1.00	25.58	\$28.55
Western Wheatgrass - Arriba	4.00	10.10	\$26.00
Daisy, Englemann's	1.00	4.94	\$127.40
Prairie Junegrass	2.00	106.31	\$52.00
Golden Banner	1.00	2.00	\$83.00

Totals Seed Mix	21.00	236.80	\$412.80
-----------------	-------	--------	----------

### 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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

### Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

No. of Acres:	1.22	Cost /Acre:	\$1,436.70
Estimated Failure Rate:	50%	Cost /Acre*:	\$644.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$1,752.77
Reseeding Job Cost:	\$393.33
Total Job Cost:	\$2,146
Job Hours:	2.00

## DEMOLITION WORK

Task description: <b>Re</b>		n: <b>Remov</b>	re Culvert C27 (from TR-11	9)			
Site:	Bowie No. 2 N	No. 2 Mine Permit Action: RN5			Permit/Job#: C1996083		
PROJECT IDENTIFICATION         Task #:       390       State:       Colorado       Abbreviation:       None         Date:       11/22/2021       County:       Delta       Filename:       C083-390         User:       RDZ       Agency or organization name:       DRMS							
UNIT COSTS     Location adjustment: 92.10 %							
	ure or Item cription	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Culvert C	227	12''X80'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	80.00	LF	\$4.10	\$327.76

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	0.25	(unadjusted):	\$327.76	location):	\$301.87