

COST SUMMARY WORK

Task description: Cresson Project - Reclamation Cost Estimate 2023

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 12/1/2023 County: Teller Filename: M244-000
User: ERR

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Task Hours	Cost
A0001	Ironclad Mine Area - Pile Leveling - Mass Grading	DOZER	1.50	\$1,138
A0002	Ironclad Mine Area - Pile Leveling - Fine Grading	DOZER	2.74	\$680
A0003	Ironclad Mine Area - 40 ft Lift - Mass Grading	DOZER	8.30	\$6,310
A0004	Ironclad Mine Area - 40 ft Lift - Fine Grading	DOZER	7.74	\$1,920
A0005	Ironclad Mine Area - Topsoil - Transport	TRUCK1	20.54	\$50,509
A0006	Ironclad Mine Area - Topsoil - Ripping	RIPPER	42.85	\$11,233
A0007	Ironclad Mine Area - Topsoil - Dozer Spreading	DOZER	30.39	\$7,537
A0100	SGOSA Mine Area - Pile Leveling - Mass Grading	DOZER	1.05	\$801
A0101	SGOSA Mine Area - Pile Leveling - Fine Grading	DOZER	0.97	\$239
A0102	SGOSA Mine Area - 100 - 300 ft Lift - Mass Grading	DOZER	1,062.20	\$807,722
A0103	SGOSA Mine Area - 100 - 300 ft Lift - Fine Grading	DOZER	857.41	\$212,674
A0104	SGOSA Mine Area - Topsoil - Lift 1 - Transport	TRUCK1	16.97	\$41,738
A0105	SGOSA Mine Area - Topsoil - Lift 2 - Transport	TRUCK1	14.29	\$40,867
A0106	SGOSA Mine Area - Topsoil - Lift 3 - Transport	TRUCK1	22.20	\$63,467
A0107	SGOSA Mine Area - Topsoil - Lift 4 - Transport	TRUCK1	42.24	\$103,866
A0108	SGOSA Mine Area - Topsoil - Lift 5 - Transport	TRUCK1	43.82	\$90,223
A0109	SGOSA Mine Area - Topsoil - Lift 1 - 5 - Dozer Spreading	DOZER	630.01	\$156,268
A0110	SGOSA Mine Area - Topsoil - Lift 1 - 5 - Ripping	RIPPER	287.00	\$75,230
A0200	N. Cresson Mine Area - Pile Leveling - Mass Grading	DOZER	13.80	\$10,491
A0201	N. Cresson Mine Area - Pile Leveling - Fine Grading	DOZER	12.64	\$3,136
A0202	N. Cresson Mine Area - 200 - 250 ft Lift - Mass Grading	DOZER	2,012.21	\$1,530,132
A0203	N. Cresson Mine Area - 200 - 250 ft Lift - Fine Grading	DOZER	1,479.15	\$366,892
A0204	N. Cresson Mine Area - Topsoil - Transport	TRUCK1	40.79	\$132,955
A0205	N. Cresson Mine Area - Topsoil - Dozer Spreading	DOZER	64.52	\$16,004
A0206	N. Cresson Mine Area - Topsoil - Ripping	RIPPER	90.99	\$23,852
A0207	N. Cresson Mine Area - Topsoil - Lift 1 - Transport	TRUCK1	3.43	\$8,431
A0208	N. Cresson Mine Area - Topsoil - Lift 2 - Transport	TRUCK1	13.80	\$39,450
A0209	N. Cresson Mine Area - Topsoil - Lift 3 - Transport	TRUCK1	25.05	\$71,630
A0210	N. Cresson Mine Area - Topsoil - Lift 4 - Transport	TRUCK1	11.43	\$28,116
A0211	N. Cresson Mine Area - Topsoil - Lift 5 - Transport	TRUCK1	1.31	\$2,701
A0212	N. Cresson Mine Area - Topsoil - Lift 1 - 5 - Dozer Spreading	DOZER	300.71	\$74,590
A0213	N. Cresson Mine Area - Topsoil - Lift 1 - 5 - Ripping	RIPPER	122.12	\$32,011
A0214	N. Cresson Mine Area - Topsoil - GlobeHillHR - Transport	TRUCK1	29.55	\$84,505
A0215	N. Cresson Mine Area - Topsoil - GlobeHillHR - Dozer Spreading	DOZER	164.84	\$40,888
A0216	N. Cresson Mine Area - Topsoil - GlobeHillHR - Ripping	RIPPER	65.93	\$17,282
A0300	ECOSA Mine Area - 50 - 150 ft Lift - Mass Grading	DOZER	1,147.29	\$872,424
A0301	ECOSA Mine Area - 50 - 150 ft Lift - Fine Grading	DOZER	1,025.65	\$254,405
A0302	ECOSA Mine Area - Topsoil - Lift 1 - Transport	TRUCK1	54.48	\$133,971
A0303	ECOSA Mine Area - Topsoil - Lift 2 - Transport	TRUCK1	57.80	\$119,002
A0304	ECOSA Mine Area - Topsoil - Lift 3 - Transport	TRUCK1	52.28	\$128,577
A0305	ECOSA Mine Area - Topsoil - Lift 4 - Transport	TRUCK1	39.49	\$112,925

A0306	ECOSA Mine Area - Topsoil - Lift 5 - Transport	TRUCK1	49.18	\$160,318
A0307	ECOSA Mine Area - Topsoil - Lift 6 - Transport	TRUCK1	19.11	\$69,954
A0308	ECOSA Mine Area -Topsoil - Lift1 - 6 - Dozer Spreading	DOZER	938.23	\$232,720
A0309	ECOSA Mine Area - Topsoil - Ripping	RIPPER	560.07	\$146,807
A0400	E. Cresson Mine Area - Pile Leveling - Mass Grading	DOZER	0.24	\$181
A0401	E. Cresson Mine Area - Pile Leveling - Fine Grading	DOZER	0.22	\$55
A0402	E. Cresson Mine Area - 40 - 400 ft Lift - Mass Grading	DOZER	2,500.76	\$1,901,641
A0403	E. Cresson Mine Area - 40 - 400 ft Lift - Fine Grading	DOZER	2,437.07	\$604,497
A0404	E. Cresson Mine Area - Topsoil - Lift 2 - Transport	TRUCK1	9.11	\$22,406
A0405	E. Cresson Mine Area - Topsoil - Lift 3 - Transport	TRUCK1	7.64	\$18,784
A0406	E. Cresson Mine Area - Topsoil - Lift 4 - Transport	TRUCK1	46.30	\$113,868
A0407	E. Cresson Mine Area - Topsoil - Lift 5 - Transport	TRUCK1	93.94	\$231,007
A0408	E. Cresson Mine Area - Topsoil - Lift 6 - Transport	TRUCK1	85.18	\$243,581
A0409	E. Cresson Mine Area -Topsoil - Lift 2 - 6 - Dozer Spreading	DOZER	827.70	\$205,304
A0410	E. Cresson Mine Area - Topsoil - Ripping	RIPPER	492.67	\$129,139
A0411	E. Cresson Mine Area - Topsoil - WHEX - Transport	TRUCK1	146.89	\$361,221
A0412	E. Cresson Mine Area -Topsoil - WHEX - Dozer Spreading	DOZER	533.92	\$132,434
A0413	E. Cresson Mine Area - Topsoil - WHEX - Ripping	RIPPER	327.70	\$85,899
A0414	E. Cresson Mine Area - Topsoil - Ironclad - Transport	TRUCK1	11.74	\$28,880
A0415	E. Cresson Mine Area -Topsoil - Ironclad - Dozer Spreading	DOZER	39.92	\$9,903
A0416	E. Cresson Mine Area - Topsoil - Ironclad - Ripping	RIPPER	24.50	\$6,423
A0417	E. Cresson Mine Area - 100 ft Lift - Mass Grading	DOZER	288.48	\$219,367
A0418	E. Cresson Mine Area - 100 ft Lift - Fine Grading	DOZER	265.26	\$65,795
A0500	M. Cresson Mine Area - Pile Leveling - Mass Grading	DOZER	29.39	\$22,349
A0501	M. Cresson Mine Area - Pile Leveling - Fine Grading	DOZER	53.86	\$13,359
A0502	M. Cresson Mine Area - 50 - 650 ft Lift - Mass Grading	DOZER	3,561.56	\$2,708,298
A0503	M. Cresson Mine Area - 50 - 650 ft Lift - Fine Grading	DOZER	3,197.52	\$793,120
A0504	M. Cresson Mine Area - Topsoil -10185 - Transport	TRUCK1	61.21	\$150,525
A0505	M. Cresson Mine Area -Topsoil - 10185 - Dozer Spreading	DOZER	328.56	\$81,496
A0506	M. Cresson Mine Area - Topsoil - 10185 - Ripping	RIPPER	134.22	\$35,183
A0507	M. Cresson Mine Area - Topsoil - Ruby Rd - Transport	TRUCK1	74.31	\$182,745
A0508	M. Cresson Mine Area -Topsoil - Ruby Rd - Dozer Spreading	DOZER	270.11	\$67,000
A0509	M. Cresson Mine Area - Topsoil - Ruby Rd - Ripping	RIPPER	120.30	\$31,536
A0510	M. Cresson Mine Area - Topsoil - AJAX - Transport	TRUCK1	44.59	\$109,654
A0511	M. Cresson Mine Area -Topsoil - AJAX - Dozer Spreading	DOZER	53.97	\$13,387
A0512	M. Cresson Mine Area - Topsoil - AJAX - Ripping	RIPPER	62.14	\$16,289
A0513	M. Cresson Mine Area - Topsoil - Crusher - Transport	TRUCK1	46.64	\$96,033
A0514	M. Cresson Mine Area -Topsoil - Crusher - Dozer Spreading	DOZER	72.62	\$18,012
A0515	M. Cresson Mine Area - Topsoil - Crusher - Ripping	RIPPER	113.07	\$29,639
A0516	M. Cresson Mine Area - Topsoil - Pit Bottom - Transport	TRUCK1	53.23	\$237,449
A0517	M. Cresson Mine Area -Topsoil - Pit Bottom - Dozer Spreading	DOZER	104.87	\$26,012
A0518	M. Cresson Mine Area - Topsoil - Pit Bottom - Ripping	RIPPER	113.41	\$29,729
A0519	M. Cresson Mine Area - Topsoil - S. Cresson HR - Transport	TRUCK1	22.84	\$65,300
A0520	M. Cresson Mine Area -Topsoil - S. CressHR - Dozer Spreading	DOZER	32.97	\$8,177
A0521	M. Cresson Mine Area - Topsoil - S. Cresson HR - Ripping	RIPPER	49.40	\$12,950
A0522	M. Cresson Mine Area - Topsoil - Cresson HR - Transport	TRUCK1	22.13	\$89,855
A0523	M. Cresson Mine Area -Topsoil - Cresson HR - Dozer Spreading	DOZER	32.97	\$8,177
A0524	M. Cresson Mine Area - Topsoil - Cresson HR - Ripping	RIPPER	49.40	\$12,950
A0600	Crusher Mine Area - Pile Leveling - Mass Grading	DOZER	70.36	\$53,507
A0601	Crusher Mine Area - Pile Leveling - Fine Grading	DOZER	62.31	\$15,456
A0602	Crusher Mine Area - Topsoil - Transport	TRUCK1	32.80	\$93,782
A0603	Crusher Mine Area -Topsoil - Dozer Spreading	DOZER	38.37	\$9,518
A0604	Crusher Mine Area - Topsoil - Ripping	RIPPER	80.38	\$21,072
A0605	Crusher Mine Area - Delivery Rd - Mass Grading	DOZER	8.24	\$6,264
A0606	Crusher Mine Area - Delivery Rd - Fine Grading	DOZER	7.29	\$1,809
A0607	Crusher Mine Area - Topsoil - Delivery Rd - Transport	TRUCK1	7.52	\$15,480

A0608	Crusher Mine Area -Topsoil - Delivery Road - Dozer Spreading	DOZER	9.10	\$2,257
A0609	Crusher Mine Area - Topsoil - Delivery Rd - Ripping	RIPPER	16.77	\$4,397
A0700	Chicago Mine Area - Topsoil - Transport	TRUCK1	2.94	\$6,061
A0701	Chicago Mine Area -Topsoil - Dozer Spreading	DOZER	3.56	\$884
A0702	Chicago Mine Area - Topsoil - Ripping	RIPPER	7.18	\$1,884
A0703	TR133 WHEX Clay Borrow Area - Topsoil - Transport	TRUCK1	6.08	\$10,745
A0704	TR133 WHEX Clay Borrow Area - Topsoil - Ripping	RIPPER	7.83	\$2,053
A0705	TR133 WHEX Clay Borrow Area - Topsoil - Dozer Spreading	DOZER	11.62	\$2,883
A0706	TR137 WHEX Clay Borrow Area Exp. - Fine Grading EMP18	DOZER	5.75	\$1,427
A0707	TR137 WHEX Clay Borrow Area Exp. - Topsoil - Transport	TRUCK1	10.50	\$18,558
A0708	TR137 WHEX Clay Borrow Area Expansion - Topsoil - Ripping	RIPPER	13.66	\$3,582
A0709	TR137 WHEX Clay Borrow Area Exp. - Topsoil - DZR Spread	DOZER	20.07	\$4,978
A1000	AGVLF - Pile Leveling - Mass Grading	DOZER	8.01	\$6,092
A1001	AGVLF - Pile Leveling - Fine Grading	DOZER	7.34	\$1,821
A1002	AGVLF - 20 - 200 ft face - Mass Grading	DOZER	1,335.48	\$1,015,535
A1003	AGVLF - 20 - 200 ft face - Fine Grading	DOZER	1,182.46	\$293,301
A1004	AGVLF - Topsoil - Transport	TRUCK1	28.92	\$59,534
A1005	AGVLF -Topsoil - Dozer Spreading	DOZER	105.41	\$26,145
A1006	AGVLF - Topsoil - Ripping	RIPPER	53.52	\$14,029
A1007	AGVLF - Topsoil - Lift 1 - Transport	TRUCK1	21.18	\$52,084
A1008	AGVLF - Topsoil - Lift 2 - Transport	TRUCK1	27.56	\$67,786
A1009	AGVLF - Topsoil - Lift 3 - Transport	TRUCK1	36.57	\$89,925
A1010	AGVLF - Topsoil - Lift 4 - Transport	TRUCK1	60.10	\$147,790
A1011	AGVLF - Topsoil - Lift 5 - Transport	TRUCK1	55.28	\$158,078
A1012	AGVLF - Topsoil - Lift 6 - Transport	TRUCK1	70.60	\$230,137
A1013	AGVLF - Topsoil - Lift 7 - Transport	TRUCK1	102.79	\$335,075
A1014	AGVLF - Topsoil - Lift 8 - Transport	TRUCK1	54.61	\$134,296
A1015	AGVLF - Topsoil - Lift 9 - Transport	TRUCK1	44.74	\$92,104
A1016	AGVLF -Topsoil - Lift 1 - 9 - Dozer Spreading	DOZER	1,581.35	\$392,242
A1017	AGVLF - Topsoil - Lift 1 - 9 - Ripping	RIPPER	989.92	\$259,480
A1100	SGVLF - 100 ft face - Mass Grading	DOZER	890.60	\$677,231
A1101	SGVLF - 100 ft face - Fine Grading	DOZER	799.89	\$198,407
A1102	SGVLF - Topsoil - Lift 1 - Transport	TRUCK1	12.74	\$41,513
A1103	SGVLF - Topsoil - Lift 2 - Transport	TRUCK1	11.57	\$33,083
A1104	SGVLF - Topsoil - Lift 3 - Transport	TRUCK1	16.00	\$39,353
A1105	SGVLF - Topsoil - Lift 4 - Transport	TRUCK1	23.49	\$57,756
A1106	SGVLF - Topsoil - Lift 5 - Transport	TRUCK1	45.86	\$94,421
A1107	SGVLF - Topsoil - Lift 6 - Transport	TRUCK1	64.57	\$158,789
A1108	SGVLF - Topsoil - Lift 7 - Transport	TRUCK1	50.18	\$123,405
A1109	SGVLF - Topsoil - Lift 8 - Transport	TRUCK1	48.68	\$119,711
A1110	SGVLF - Topsoil - Lift 9 - Transport	TRUCK1	39.49	\$112,912
A1111	SGVLF - Topsoil - Lift 10 - Transport	TRUCK1	39.03	\$111,615
A1112	SGVLF - Topsoil - Lift 11 - Transport	TRUCK1	35.14	\$114,553
A1113	SGVLF - Topsoil - Lift 12 - Transport	TRUCK1	26.23	\$85,519
A1114	SGVLF - Topsoil - Lift 13 - Transport	TRUCK1	16.29	\$59,613
A1115	SGVLF -Topsoil - Lift 1 - 13 - Dozer Spreading	DOZER	1,041.17	\$258,253
A1116	SGVLF - Topsoil - Lift 1 - 13 - Ripping	RIPPER	928.89	\$243,482
A1117	TR113 AGVLF - Leach Cell Footprint - Ripping	RIPPER	2.04	\$852
A2000	AGVLF - 9400	TRUCK1	140.33	\$675,406
A2001	AGVLF - 9500	TRUCK1	193.95	\$831,372
A2002	AGVLF - 9600	TRUCK1	338.75	\$1,273,771
A2003	AGVLF - 9700	TRUCK1	382.51	\$1,438,321
A2004	AGVLF - 9800	TRUCK1	210.88	\$903,968
A2005	AGVLF - 9900	TRUCK1	120.27	\$578,848
A2006	AGVLF - 10000	TRUCK1	37.67	\$181,308
A2007	AGVLF - 9920	TRUCK1	2,720.48	\$13,093,843

A2008	AGVLF - 10020	TRUCK1	1,665.81	\$7,140,720
A2009	AGVLF - 10100	TRUCK1	1,615.58	\$6,074,884
A2010	AGVLF - 10190	TRUCK1	2,022.51	\$7,605,040
A2011	AGVLF - 10280	TRUCK1	1,433.67	\$6,900,350
A2100	Remove ROM	TRUCK1	5.19	\$17,538
A2200	Remove DCF and Liner	TRUCK1	5.19	\$17,538
A2300	Cresson Underground Portal Backfill	TRUCK1	1.15	\$3,086
A3000	Foundations and Buildings - Ripping	RIPPER	16.93	\$4,438
A3001	Foundations and Buildings - B&G and Topsoil - 5.1k Haul	TRUCK1	69.75	\$174,308
A3002	Foundations and Buildings - B&G and Topsoil - 8.3k Haul	TRUCK1	5.75	\$18,495
A3003	Foundations and Buildings - B&G and Topsoil - 9.3k Haul	TRUCK1	16.47	\$56,970
A3004	Foundations and Buildings - B&G and Topsoil - 10.3k Haul	TRUCK1	95.67	\$330,955
A3005	Foundations and Buildings - B&G and Topsoil - 11.4k Haul	TRUCK1	0.86	\$2,769
A3006	Foundations and Buildings - B&G and Topsoil - 20k Haul	TRUCK1	3.12	\$4,798
A4000	EMP Ponds	TRUCK1	99.08	\$239,979
A4001	EMP Ponds - Topsoil	TRUCK1	6.90	\$16,722
A4002	Crusher Fuel Island Fresh Water Pond	TRUCK1	1.56	\$3,784
A4003	Crusher Fuel Island Fresh Water Pond - Topsoil	TRUCK1	0.28	\$680
A4004	Arequa External Ponds	TRUCK1	106.19	\$257,195
A4005	Arequa External Ponds - Topsoil	TRUCK1	7.00	\$16,960
A4006	TR124 Carlton Tunnel Pond Cleanout	TRUCK1	5.36	\$1,588
A5002	Ancillary Areas - Topsoil - Ripping	RIPPER	2,308.63	\$605,138
A5003	Growth Media Piles - Topsoil - Ripping	RIPPER	201.65	\$52,857
A5004	Monitoring Well Pads - Topsoil/Regrade - Dozer Spreading	DOZER	72.86	\$18,073
A6000	Monitoring Well Closure	BHOLE	167.88	\$88,821
A7000	Stormwater Construction	NA	1,000.00	\$19,485,641
B0001	Ironclad Mine Area - Revegetation	REVEGE	32.60	\$75,106
B0002	SGOSA Mine Area - Revegetation	REVEGE	215.30	\$495,394
B0003	N. Cresson Mine Area - Revegetation	REVEGE	160.90	\$370,266
B0004	N. Cresson Mine Area - Globe Hill HR - Revegetation	REVEGE	50.20	\$115,550
B0005	ECOSA Mine Area - Revegetation	REVEGE	438.60	\$1,009,227
B0006	E. Cresson Mine Area - Revegetation	REVEGE	386.90	\$890,340
B0007	E. Cresson Mine Area - WHEX - Revegetation	REVEGE	249.60	\$574,326
B0008	E. Cresson Mine Area - Ironclad - Revegetation	REVEGE	18.70	\$42,946
B0009	M. Cresson Mine Area - 10185 - Revegetation	REVEGE	104.00	\$239,326
B0010	M. Cresson Mine Area - Ruby Rd - Revegetation	REVEGE	91.60	\$210,849
B0011	M. Cresson Mine Area - AJAX - Revegetation	REVEGE	41.60	\$95,817
B0012	M. Cresson Mine Area - Crusher - Revegetation	REVEGE	75.80	\$174,346
B0013	M. Cresson Mine Area - Pit Bottom - Revegetation	REVEGE	86.40	\$198,768
B0014	M. Cresson Mine Area - S. Cresson HR - Revegetation	REVEGE	37.60	\$86,583
B0015	M. Cresson Mine Area - Cresson HR - Revegetation	REVEGE	37.60	\$86,583
B0016	Crusher Mine Area - Revegetation	REVEGE	53.90	\$123,949
B0017	Crusher Mine Area - Delivery Rd - Revegetation	REVEGE	12.80	\$29,398
B0018	Chicago Mine Area - Revegetation	REVEGE	5.10	\$11,794
B0019	TR133 WHEX Clay Borrow Area - Revegetation	REVEGE	5.90	\$13,520
B0020	TR 137 WHEX Clay Borrow Area Expansion	REVEGE	10.30	\$23,587
B1000	AGVLF - Revegetation	REVEGE	812.00	\$1,868,559
B1001	SGVLF - Revegetation	REVEGE	696.70	\$1,603,343
B2000	Foundations and Buildings - Revegetation	REVEGE	17.10	\$39,408
B3000	EMP Ponds - Revegetation	REVEGE	7.10	\$16,396
B3001	Crusher Fuel Island Fresh Water Pond - Revegetation	REVEGE	0.30	\$575
B3002	Arequa External Ponds - Revegetation	REVEGE	7.10	\$16,396
B4000	Ancillary Areas - Revegetation	REVEGE	1,789.00	\$4,116,300
B4001	Growth Media Piles - Revegetation	REVEGE	149.00	\$341,731
B4002	Monitoring Well Pads - Revegetation	REVEGE	20.00	\$46,887
B5000	E. Cresson Wildhorse - Tree Planting	REVEGE	111.25	\$40,606

B5001	N. Cresson - Tree Planting	REVEGE	28.75	\$10,494
B5002	M. Cresson - Tree Planting	REVEGE	73.75	\$26,919
B5003	E. Cresson - Tree Planting	REVEGE	286.25	\$104,481
B5004	Squaw OSA - Tree Planting	REVEGE	52.50	\$19,162
B5005	Arequa - Tree Planting	REVEGE	143.75	\$52,469
B5006	Squaw - Tree Planting	REVEGE	106.25	\$38,781
B5007	Mill Platform - Tree Planting	REVEGE	43.75	\$15,969
B5008	Victor & Ironclad - Tree Planting	REVEGE	52.50	\$19,162
B5009	Building Footprint - Tree Planting	REVEGE	108.75	\$39,694
B5010	Ancillary - Tree Planting	REVEGE	1,062.50	\$387,812
B5011	N. Cresson Viewshed	NA	1,000.00	\$1,494,461
C0001	VLF1 Rinse 1	NA	6,749.00	\$24,956,515
C0002	VLF1 Rinse 2	NA	6,749.00	\$26,002,884
C0003	VLF1 Rinse 3	NA	6,749.00	\$25,438,813
C1001	VLF2 Rinse 1	NA	3,879.00	\$11,643,483
C1002	VLF2 Rinse 2	NA	3,879.00	\$12,009,621
C1003	VLF2 Rinse 3	NA	3,879.00	\$12,125,245
D0001	Foundations and Building Area	DEMO	7,726.00	\$7,812,206
D1000	Conveyors and LOB, Septic System, Tire Demo	DEMO	200.00	\$706,851
D2000	Waste and Tank Disposal	DEMO	160.00	\$3,203,830
D3000	Fence and Culvert Demo	DEMO	60.00	\$38,781
D4000	Fence Installation (RS Means 32 31 13.20 0920)	DEMO	320.00	\$1,951,133
D5000	Pipe Demo	DEMO	80.00	\$545,062
D6000	Power Line Demo	DEMO	80.00	\$453,431
E0001	Erosion Maintenance	DOZER	649.21	\$161,031
E0002	Vegetation Survey	SITEMAINT	760.00	\$114,231
E0003	Site-wide Weed Control	REVEGE	160.00	\$606,466
E1000	Water Quality Monitoring (14 years)	NA	1,680.00	\$1,735,134
E2000	Perforate VLF Liner (6,000 LF)	DRILL	690.00	\$601,266
E2001	Perforate VLF Liner (casing)	NA	0.00	\$90,483
E3000	Chicago Tunnel	NA	40.00	\$113,770
F0001	Initial Mobilization	MOB	6.62	\$236,068
F0002	Site Maintenance Yr 1	MOB	2.31	\$2,853
F0003	Site Maintenance Yr 2	MOB	6.62	\$8,589
F0004	Site Maintenance Yr 3	MOB	2.31	\$2,853
F0005	Site Maintenance Yr 4	MOB	2.31	\$2,853
F0006	Site Maintenance Yr 5	MOB	6.62	\$8,864
F0007	Site Maintenance Yr 6	MOB	2.31	\$2,853
F0008	Site Maintenance Yr 7	MOB	2.31	\$2,853
F0009	Site Maintenance Yr 8	MOB	2.31	\$2,853
F0010	Site Maintenance Yr 9	MOB	2.31	\$2,853
F0011	Site Maintenance Yr 10	MOB	2.31	\$2,853
F0012	Site Maintenance Yr 11	MOB	2.31	\$2,296
F0013	Site Maintenance Yr 12	MOB	2.31	\$2,296
F0014	Site Maintenance Yr 13	MOB	2.31	\$2,296
F0015	Site Maintenance Yr 14	MOB	2.31	\$2,296
F0016	TR124 Carlton Tunnel Pond Cleanout - Mob	MOB	10.13	\$9,135
G0001	Prorated VLF2 Rinses: 59% Built at End of 2024 (Tasks C1001-C1003)	NA	0.00	(\$14,669,123)
G0002	Prorated ECOSA Civil & Reveg: 88% Built at End of 2024 (Tasks A0300 - A0309, B0005)	NA	0.00	(\$388,840)
			106923.13	\$220,639,100

INDIRECT COSTS**OVERHEAD AND PROFIT:**

Liability insurance:	2.02	Total =	<u>\$4,456,910</u>
Performance bond:	1.05	Total =	<u>\$2,316,711</u>
Job superintendent:	55,963.53	Total =	<u>\$3,642,107</u>
Profit:	10.00	Total =	<u>\$22,063,910</u>
		TOTAL O & P =	<u>\$32,479,637</u>
		CONTRACT AMOUNT (direct + O & P) =	<u>\$253,118,737</u>

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>\$500</u>	Total =	<u>\$500</u>
Engineering work and/or contract/bid preparation:	<u>7.39</u>	Total =	<u>\$18,705,475</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$12,655,937</u>
CONTINGENCY: 3.00		Total =	<u>\$6,619,173</u>

TOTAL INDIRECT COST = \$70,460,721

TOTAL AMOUNT (direct + indirect) = \$291,099,821

TOTAL BOND AMOUNT (rounded) = \$291,100,000

BULLDOZER WORKTask description: **Ironclad Mine Area - Pile Leveling - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0001**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **A0001****9:17:29 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **5,933**Swell factor: **1.000**Loose volume: **5,933 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,748.7 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7212

Adjusted unit production: 1,982.36 LCY/hr

Adjusted fleet production: **3964.72** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.192/LCY

Total job time: **1.50** Hours

Total job cost: **\$1,138**

BULLDOZER WORKTask description: **Ironclad Mine Area - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0002**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0002****9:21:35 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **659**Swell factor: **1.000**Loose volume: **659 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3005

Adjusted unit production: 240.40 LCY/hr

Adjusted fleet production: **240.4** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.032/LCY

Total job time: **2.74** Hours

Total job cost: **\$680**

BULLDOZER WORKTask description: **Ironclad Mine Area - 40 ft Lift - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0003**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0003****9:22:51 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **21,753**Swell factor: **1.000**Loose volume: **21,753 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **90 feet**Unadjusted hourly production: **1,873.5 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-20 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6996

Adjusted unit production: 1,310.70 LCY/hr

Adjusted fleet production: **2621.4 LCY/hr**

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.290/LCY

Total job time: **8.30 Hours**

Total job cost: **\$6,310**

BULLDOZER WORKTask description: **Ironclad Mine Area - 40 ft Lift - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0004**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0004****9:23:51 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **2,417**Swell factor: **1.000**Loose volume: **2,417 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **90 feet**Unadjusted hourly production: **535.7 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-20 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5830

Adjusted unit production: 312.31 LCY/hr

Adjusted fleet production: **312.31** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.794/LCY

Total job time: **7.74** Hours

Total job cost: **\$1,920**

TRUCK/LOADER TEAM WORKTask description: **Ironclad Mine Area - Topsoil - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0005State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A00052:22:47 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 21,062

CCY

Swell factor: 1.215Loose volume: **25,590**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3892.00	-7.70	3.00	-4.70	1870	2.233

Haul Time: 2.233 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3892.00	7.70	3.00	10.70	1734	2.377

Return Time: 2.377 minutesTotal Truck Cycle Time: 8.442 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 500.38 LCY/Hour Adjusted for job efficiency: 415.31 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,245.94 LCY/Hour
Adjusted single truck/loader team production: 1,245.94 LCY/Hour
Adjusted multiple truck/loader team production: 1,245.94 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 20.54 HoursUnit cost: \$1.974 /LCY Total job cost: \$50,509

BULLDOZER RIPPING WORK

Task description: Ironclad Mine Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0006

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0006

1:48:01 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 26.11 acres Rip Depth (ft): 2.50 Volume: 105,310 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 300.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.734 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.734 Acres/hr
Site Altitude: 9,500 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

Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 42.86 Hours

Unit cost: \$430.227 Per acre Total job cost: \$11,233

BULLDOZER WORKTask description: **Ironclad Mine Area -Topsoil - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0007State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A00079:25:15 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 21,062Swell factor: 1.215Loose volume: **25,590 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0527

Adjusted unit production: 842.16 LCY/hr

Adjusted fleet production: **842.16** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.295/LCY

Total job time: **30.39** Hours

Total job cost: **\$7,537**

BULLDOZER WORKTask description: **SGOSA Mine Area - Pile Leveling - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0100**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0100****9:26:24 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **2,088**Swell factor: **1.000**Loose volume: **2,088 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,748.7 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3606

Adjusted unit production: 991.18 LCY/hr

Adjusted fleet production: **1982.36** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
 Unit cost: \$0.384/LCY

Total job time: **1.05** Hours
 Total job cost: **\$801**

BULLDOZER WORKTask description: **SGOSA Mine Area - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0101**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0101**

9:27:32 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **232**Swell factor: **1.000**Loose volume: **232 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3005

Adjusted unit production: 240.40 LCY/hr

Adjusted fleet production: **240.4** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.032/LCY

Total job time: **0.97** Hours

Total job cost: **\$239**

BULLDOZER WORKTask description: **SGOSA Mine Area - 100 - 300 ft Lift - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0102**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0102****9:39:24 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **874,912**Swell factor: **1.000**Loose volume: **874,912 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **375 feet**Unadjusted hourly production: **524.3 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7855

Adjusted unit production: 411.84 LCY/hr

Adjusted fleet production: **823.68** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.923/LCY

Total job time: **1,062.20** Hours

Total job cost: **\$807,722**

BULLDOZER WORKTask description: SGOSA Mine Area - 100 - 300 ft Lift - Fine GradingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0103State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A01039:40:23 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 97,213Swell factor: 1.000Loose volume: **97,213 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 375 feetUnadjusted hourly production: 173.2 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 113.38 LCY/hr

Adjusted fleet production: **113.38** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$2.188/LCY

Total job time: **857.41** Hours
 Total job cost: **\$212,674**

TRUCK/LOADER TEAM WORKTask description: **SGOSA Mine Area - Topsoil - Lift 1 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0104State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A01042:26:20 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 18,610

CCY

Swell factor: 1.215Loose volume: **22,611**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4897.00	-6.10	3.00	-3.10	3450	1.494

Haul Time: **1.494** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4897.00	6.10	3.00	9.10	2134	2.515

Return Time: **2.515** minutesTotal Truck Cycle Time: **7.841** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 538.73 LCY/Hour Adjusted for job efficiency: 447.15 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,341.44 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **16.97** Hours

Unit cost: \$1.846 /LCY Total job cost: **\$41,738**

TRUCK/LOADER TEAM WORKTask description: SGOSA Mine Area - Topsoil - Lift 2 - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: A0105State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A01052:27:49 PMUser: ZTTAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: \$2,859.46MATERIAL QUANTITIESInitial volume: 14,415

CCY

Swell factor: 1.215Loose volume: 17,514

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4250.00	8.70	3.00	11.70	675	6.342

Haul Time: **6.342** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4250.00	-8.70	3.00	-5.70	3450	1.270

Return Time: **1.270** minutesTotal Truck Cycle Time: **11.444** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 369.11 LCY/Hour Adjusted for job efficiency: 306.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,225.46 LCY/Hour
Adjusted single truck/loader team production: 1,225.46 LCY/Hour
Adjusted multiple truck/loader team production: **1,225.46** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **14.29** HoursUnit cost: \$2.333 /LCY Total job cost: **\$40,867**

TRUCK/LOADER TEAM WORKTask description: SGOSA Mine Area - Topsoil - Lift 3 - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: A0106State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A01062:29:03 PMUser: ZTTAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: \$2,859.46MATERIAL QUANTITIESInitial volume: 24,337

CCY

Swell factor: 1.215Loose volume: 29,569

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3125.00	8.60	3.00	11.60	675	4.674

Haul Time: **4.674** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3125.00	-8.60	3.00	-5.60	3450	0.942

Return Time: **0.942** minutesTotal Truck Cycle Time: **9.448** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 447.10 LCY/Hour Adjusted for job efficiency: 371.09 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,484.36 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **22.20** Hours

Unit cost: \$2.146 /LCY Total job cost: **\$63,467**

TRUCK/LOADER TEAM WORKTask description: **SGOSA Mine Area - Topsoil - Lift 4 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0107State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A01072:30:15 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 46,311

CCY

Swell factor: 1.215Loose volume: **56,268**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	8.50	3.00	11.50	675	3.006

Haul Time: **3.006** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-8.50	3.00	-5.50	3450	0.623

Return Time: **0.623** minutesTotal Truck Cycle Time: **7.461** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 566.17 LCY/Hour Adjusted for job efficiency: 469.92 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,409.77 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **42.24** HoursUnit cost: \$1.846 /LCY Total job cost: **\$103,866**

TRUCK/LOADER TEAM WORKTask description: **SGOSA Mine Area - Topsoil - Lift 5 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0108State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A01082:31:24 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: 47,964

CCY

Swell factor: 1.215Loose volume: **58,276**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	9.30	3.00	12.30	675	1.169

Haul Time: **1.169** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	-9.30	3.00	-6.30	3450	0.272

Return Time: **0.272** minutesTotal Truck Cycle Time: **5.273** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 801.12 LCY/Hour Adjusted for job efficiency: 664.93 LCY/Hour

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

Adjusted hourly truck team production: 1,329.86 LCY/Hour
Adjusted single truck/loader team production: 1,329.86 LCY/Hour
Adjusted multiple truck/loader team production: **1,329.86** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **43.82** HoursUnit cost: \$1.548 /LCY Total job cost: **\$90,223**

BULLDOZER WORKTask description: **SGOSA Mine Area -Topsoil - Lift1 - 5 - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0109**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0109**

9:41:23 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **151,637**Swell factor: **1.215**Loose volume: **184,239 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **210 feet**Unadjusted hourly production: **277.8 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0527

Adjusted unit production: 292.44 LCY/hr

Adjusted fleet production: **292.44** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.848/LCY

Total job time: **630.01** Hours
 Total job cost: **\$156,268**

BULLDOZER RIPPING WORK

Task description: SGOSA Mine Area - Topsoil - Lift 1 - 5 - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0110

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0110

1:49:04 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 172.22 acres Rip Depth (ft): 2.50 Volume: 694,621 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 245.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.723 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.723 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.60 Acres/hr

Adjusted Hourly Fleet Production: 0.60 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 287.01 Hours

Unit cost: \$436.825 Per acre Total job cost: \$75,230

BULLDOZER WORKTask description: **N. Cresson Mine Area - Pile Leveling - Mass Grading**Site: **Cresson Project** Permit Action: 2023 Permit/Job#: M1980244**PROJECT IDENTIFICATION**

Task #: A0200 State: Colorado Abbreviation: None
 Date: 11/20/2023 County: Teller Filename: M244-A0200
9:42:56 PM
 User: ZTT

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D10T - 10SU
 Horsepower: 574
 Blade Type: Semi-Universal
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$178.69</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$160.22</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$380.21
 Total Fleet Cost/Hour: **\$760.42**

MATERIAL QUANTITIES

Initial Volume: 27,350
 Swell factor: 1.000
 Loose volume: **27,350 LCY**

Source of estimated volume: 2022 CC&V Provided Estimate
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 2,748.7 LCY/hr

Materials consistency description: Rock, poorly ripped or blasted 0.6

Average push gradient: -10 %
 Average site altitude: 9,500 feet

Material weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.600</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.200</u>	<u>(S-BY-S)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3606

Adjusted unit production: 991.18 LCY/hr

Adjusted fleet production: **1982.36** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.384/LCY

Total job time: **13.80** Hours

Total job cost: **\$10,491**

BULLDOZER WORKTask description: **N. Cresson Mine Area - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0201State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A02019:43:52 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 3,039Swell factor: 1.000Loose volume: **3,039 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Rock, poorly ripped or blasted 0.6Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3005

Adjusted unit production: 240.40 LCY/hr

Adjusted fleet production: **240.4** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.032/LCY

Total job time: **12.64** Hours

Total job cost: **\$3,136**

BULLDOZER WORKTask description: **N. Cresson Mine Area - 200 - 250 ft Lift - Mass Grading**Site: **Cresson Project** Permit Action: 2023 Permit/Job#: M1980244**PROJECT IDENTIFICATION**

Task #: A0202 State: Colorado Abbreviation: None
 Date: 11/20/2023 County: Teller Filename: M244-A0202
9:44:55 PM
 User: ZTT

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D10T - 10SU
 Horsepower: 574
 Blade Type: Semi-Universal
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$178.69</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$160.22</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$380.21
 Total Fleet Cost/Hour: **\$760.42**

MATERIAL QUANTITIES

Initial Volume: 1,572,058
 Swell factor: 1.000
 Loose volume: **1,572,058 LCY**

Source of estimated volume: 2022 CC&V Provided Estimate
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 400 feet
 Unadjusted hourly production: 497.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -30 %
 Average site altitude: 9,500 feet

Material weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.200</u>	<u>(S-BY-S)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7855

Adjusted unit production: 390.63 LCY/hr

Adjusted fleet production: **781.26 LCY/hr**

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.973/LCY

Total job time: **2,012.21 Hours**

Total job cost: **\$1,530,132**

BULLDOZER WORKTask description: **N. Cresson Mine Area - 200 - 250 ft Lift - Fine Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0203State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A02039:46:15 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 174,673Swell factor: 1.000Loose volume: **174,673 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 400 feetUnadjusted hourly production: 180.4 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 118.09 LCY/hr

Adjusted fleet production: **118.09** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$2.100/LCY

Total job time: **1,479.15** Hours

Total job cost: **\$366,892**

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0204State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A02042:32:55 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: 44,722

CCY

Swell factor: 1.215Loose volume: **54,337**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5000.00	8.40	3.00	11.40	724	6.968

Haul Time: **6.968** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5000.00	-8.40	3.00	-5.40	3450	1.494

Return Time: **1.494** minutesTotal Truck Cycle Time: **12.294** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 343.59 LCY/Hour Adjusted for job efficiency: 285.18 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,425.91 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **40.79** Hours

Unit cost: \$2.447 /LCY Total job cost: **\$132,955**

BULLDOZER WORKTask description: **N. Cresson Mine Area -Topsoil - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0205State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A02059:47:12 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 44,722Swell factor: 1.215Loose volume: **54,337 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0527

Adjusted unit production: 842.16 LCY/hr

Adjusted fleet production: **842.16 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.295/LCY

Total job time: **64.52 Hours**
 Total job cost: **\$16,004**

BULLDOZER RIPPING WORK

Task description: N. Cresson Mine Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0206

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0206

1:49:56 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 55.44 acres Rip Depth (ft): 2.50 Volume: 223,608 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 300.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.734 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.734 Acres/hr
Site Altitude: 9,500 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

Adjusted Hourly Fleet Production: **0.61** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **91.00** Hours

Unit cost: \$430.227 Per acre Total job cost: **\$23,852**

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - Lift 1 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0207State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A02072:34:10 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 3,759

CCY

Swell factor: 1.215Loose volume: **4,567**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4897.00	-6.10	3.00	-3.10	3450	1.494

Haul Time: **1.494** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4897.00	6.10	3.00	9.10	2134	2.515

Return Time: **2.515** minutesTotal Truck Cycle Time: **7.841** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 538.73 LCY/Hour Adjusted for job efficiency: 447.15 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,341.44 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **3.43** Hours

Unit cost: \$1.846 /LCY Total job cost: **\$8,431**

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - Lift 2 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0208State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A02082:35:58 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: 13,915

CCY

Swell factor: 1.215Loose volume: **16,907**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4250.00	8.70	3.00	11.70	675	6.342

Haul Time: **6.342** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4250.00	-8.70	3.00	-5.70	3450	1.270

Return Time: **1.270** minutesTotal Truck Cycle Time: **11.444** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 369.11 LCY/Hour Adjusted for job efficiency: 306.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,225.46 LCY/Hour
Adjusted single truck/loader team production: 1,225.46 LCY/Hour
Adjusted multiple truck/loader team production: **1,225.46** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **13.80** HoursUnit cost: \$2.333 /LCY Total job cost: **\$39,450**

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - Lift 3 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0209State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-A02092:37:20 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: 27,467

CCY

Swell factor: 1.215Loose volume: **33,372**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3125.00	8.60	3.00	11.60	675	4.674

Haul Time: **4.674** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3125.00	-8.60	3.00	-5.60	3450	0.942

Return Time: **0.942** minutesTotal Truck Cycle Time: **9.448** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 447.10 LCY/Hour Adjusted for job efficiency: 371.09 LCY/HourOptimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)Adjusted hourly truck team production: 1,484.36 LCY/HourAdjusted single truck/loader team production: 1,332.22 LCY/HourAdjusted multiple truck/loader team production: **1,332.22** LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: **25.05** HoursUnit cost: \$2.146 /LCY Total job cost: **\$71,630**

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - Lift 4 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0210State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A02101:46:29 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 12,536

CCY

Swell factor: 1.215Loose volume: **15,231**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	8.50	3.00	11.50	675	3.006

Haul Time: **3.006** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-8.50	3.00	-5.50	3450	0.623

Return Time: **0.623** minutesTotal Truck Cycle Time: **7.461** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 566.17 LCY/Hour Adjusted for job efficiency: 469.92 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,409.77 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **11.43** HoursUnit cost: \$1.846 /LCY Total job cost: **\$28,116**

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - Lift 5 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0211State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A02111:47:13 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: 1,436

CCY

Swell factor: 1.215Loose volume: **1,745**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	9.30	3.00	12.30	675	1.169

Haul Time: **1.169** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	-9.30	3.00	-6.30	3450	0.272

Return Time: **0.272** minutesTotal Truck Cycle Time: **5.273** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 801.12 LCY/Hour Adjusted for job efficiency: 664.93 LCY/Hour

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

Adjusted hourly truck team production: 1,329.86 LCY/Hour
Adjusted single truck/loader team production: 1,329.86 LCY/Hour
Adjusted multiple truck/loader team production: **1,329.86** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **1.31** HoursUnit cost: \$1.548 /LCY Total job cost: **\$2,701**

BULLDOZER WORKTask description: N. Cresson Mine Area -Topsoil - Lift1 - 5 - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0212State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A02129:48:13 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 59,113Swell factor: 1.215Loose volume: **71,822 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 370 feetUnadjusted hourly production: 173.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 238.84 LCY/hr

Adjusted fleet production: **238.84** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.039/LCY

Total job time: **300.71** Hours

Total job cost: **\$74,590**

BULLDOZER RIPPING WORK

Task description: N. Cresson Mine Area - Topsoi - Lift 1-5 - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0213

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0213

1:51:01 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 73.28 acres Rip Depth (ft): 2.50 Volume: 295,563 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 245.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.723 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.723 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.60 Acres/hr

Adjusted Hourly Fleet Production: 0.60 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 122.12 Hours

Unit cost: \$436.825 Per acre Total job cost: \$32,011

TRUCK/LOADER TEAM WORKTask description: **N. Cresson Mine Area - Topsoil - GlobeHillHR - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0214State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A02141:47:58 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: 32,404

CCY

Swell factor: 1.215Loose volume: **39,371**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9380.00	-2.00	3.00	1.00	3503	3.207

Haul Time: **3.207** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9380.00	2.00	3.00	5.00	3296	3.216

Return Time: **3.216** minutesTotal Truck Cycle Time: **10.255** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 411.91 LCY/Hour Adjusted for job efficiency: 341.89 LCY/HourOptimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,367.55 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **29.55** HoursUnit cost: \$2.146 /LCY Total job cost: **\$84,505**

BULLDOZER WORKTask description: N. Cresson Mine Area -Topsoil - GlobeHillHR -Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0215State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A02159:49:24 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 32,404Swell factor: 1.215Loose volume: **39,371 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 370 feetUnadjusted hourly production: 173.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 238.84 LCY/hr

Adjusted fleet production: **238.84** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$1.039/LCY

Total job time: **164.84** Hours
 Total job cost: **\$40,888**

BULLDOZER RIPPING WORK

Task description: N. Cresson Mine Area - Topsoil - GlobeHillHR - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0216 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0216
1:51:51 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.06</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.02</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$262.12</u>	
Total Fleet Cost/Hour:	<u>\$262.12</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 40.17 acres Rip Depth (ft): 2.50 Volume: 162,019 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	<u>feet/pass</u>
Average Ripping Width:	<u>6.50</u>	<u>feet/pass</u>
Average Ripping Length:	<u>300.00</u>	<u>feet/pass</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet/minute</u>
Average Maneuver Time:	<u>0.25</u>	<u>minutes/pass</u>
Production per unit area:	<u>0.734</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.734</u>	<u>Acres/hr</u>
Site Altitude:	<u>9,500</u>	<u>feet</u>
Altitude Adj:	<u>1.00</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.83</u>	<u>multiplier</u>

Adjusted Hourly Unit Production: 0.61 Acres/hr
Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 65.93 Hours

Unit cost: \$430.227 Per acre Total job cost: \$17,282

BULLDOZER WORKTask description: **ECOSA Mine Area - 50 - 150 ft Lift - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0300**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0300****9:50:37 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **1,304,578**Swell factor: **1.000**Loose volume: **1,304,578 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **200 feet**Unadjusted hourly production: **946.0 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6010

Adjusted unit production: 568.55 LCY/hr

Adjusted fleet production: **1137.1** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.669/LCY

Total job time: **1,147.29** Hours

Total job cost: **\$872,424**

BULLDOZER WORKTask description: **ECOSA Mine Area - 50 - 150 ft Lift - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0301**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0301****9:51:30 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **256,064**Swell factor: **1.000**Loose volume: **256,064 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **145 feet**Unadjusted hourly production: **381.4 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 249.66 LCY/hr

Adjusted fleet production: **249.66** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.994/LCY

Total job time: **1,025.65** Hours

Total job cost: **\$254,405**

TRUCK/LOADER TEAM WORKTask description: **ECOSA Mine Area - Topsoil - Lift 1 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0302State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A03021:48:37 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 59,734

CCY

Swell factor: 1.215Loose volume: **72,577**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3214.00	0.00	3.00	3.00	2409	1.770

Haul Time: **1.770** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3214.00	0.00	3.00	3.00	3503	1.189

Return Time: **1.189** minutesTotal Truck Cycle Time: **6.791** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 622.03 LCY/Hour Adjusted for job efficiency: 516.29 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,548.86 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **54.48** HoursUnit cost: \$1.846 /LCY Total job cost: **\$133,971**

TRUCK/LOADER TEAM WORKTask description: ECOSA Mine Area - Topsoil - Lift 2 - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: A0303State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A0303

1:49:14 PM

User: ZTTAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: \$2,058.88MATERIAL QUANTITIESInitial volume: 51,030

CCY

Swell factor: 1.215Loose volume: 62,001

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3294.00	-5.20	3.00	-2.20	3450	1.042

Haul Time: **1.042** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3294.00	5.20	3.00	8.20	2327	1.663

Return Time: **1.663** minutesTotal Truck Cycle Time: **6.537** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 646.20 LCY/Hour Adjusted for job efficiency: 536.35 LCY/Hour

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

Adjusted hourly truck team production: 1,072.70 LCY/Hour
Adjusted single truck/loader team production: 1,072.70 LCY/Hour
Adjusted multiple truck/loader team production: **1,072.70** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **57.80** Hours

Unit cost: \$1.919 /LCY Total job cost: **\$119,002**

TRUCK/LOADER TEAM WORKTask description: **ECOSA Mine Area - Topsoil - Lift 3 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0304State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A03041:50:04 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 54,071

CCY

Swell factor: 1.215Loose volume: **65,696**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3698.00	-8.90	3.00	-5.90	1870	2.136

Haul Time: 2.136 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3698.00	8.90	3.00	11.90	1628	2.403

Return Time: 2.403 minutesTotal Truck Cycle Time: 8.371 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 504.62 LCY/Hour Adjusted for job efficiency: 418.84 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,256.51 LCY/Hour
Adjusted single truck/loader team production: 1,256.51 LCY/Hour
Adjusted multiple truck/loader team production: 1,256.51 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 52.28 HoursUnit cost: \$1.957 /LCY Total job cost: \$128,577

TRUCK/LOADER TEAM WORKTask description: **ECOSA Mine Area - Topsoil - Lift 4 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0305State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A03051:50:55 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: 43,302

CCY

Swell factor: 1.215Loose volume: **52,612**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4912.00	-9.20	3.00	-6.20	1870	2.765

Haul Time: **2.765** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4912.00	9.20	3.00	12.20	1628	3.160

Return Time: **3.160** minutesTotal Truck Cycle Time: **9.757** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 432.94 LCY/Hour Adjusted for job efficiency: 359.34 LCY/HourOptimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,437.35 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **39.49** HoursUnit cost: \$2.146 /LCY Total job cost: **\$112,925**

TRUCK/LOADER TEAM WORKTask description: **ECOSA Mine Area - Topsoil - Lift 5 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0306State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A03061:51:38 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: 53,926

CCY

Swell factor: 1.215Loose volume: **65,520**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6407.00	-9.60	3.00	-6.60	1411	4.780

Haul Time: **4.780** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6407.00	9.60	3.00	12.60	1467	4.463

Return Time: **4.463** minutesTotal Truck Cycle Time: **13.075** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 323.07 LCY/Hour Adjusted for job efficiency: 268.15 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,340.73 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **49.18** HoursUnit cost: \$2.447 /LCY Total job cost: **\$160,318**

TRUCK/LOADER TEAM WORKTask description: **ECOSA Mine Area - Topsoil - Lift 6 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0307State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A03071:52:31 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	6	1	1	0	1	1
Group Subtotals:	Work: \$2,871.98		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,660.04****MATERIAL QUANTITIES**Initial volume: 20,957

CCY

Swell factor: 1.215Loose volume: **25,463**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9080.00	-8.90	3.00	-5.90	1870	5.111

Haul Time: 5.111 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9080.00	8.90	3.00	11.90	1628	5.709

Return Time: 5.709 minutesTotal Truck Cycle Time: 14.652 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 288.30 LCY/Hour Adjusted for job efficiency: 239.29 LCY/Hour

Optimal No. of Trucks: 6 Truck(s) Selected Number of Trucks: 6 Truck(s)

Adjusted hourly truck team production: 1,435.71 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: 1,332.22 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 19.11 HoursUnit cost: \$2.747 /LCY Total job cost: \$69,954

BULLDOZER WORKTask description: **ECOSA Mine Area -Topsoil - Lift1 - 6 - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0308**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0308**

9:52:41 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **283,020**Swell factor: **1.215**Loose volume: **343,869 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **220 feet**Unadjusted hourly production: **266.4 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 366.51 LCY/hr

Adjusted fleet production: **366.51 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.677/LCY

Total job time: **938.23 Hours**
 Total job cost: **\$232,720**

BULLDOZER RIPPING WORK

Task description: ECOSA Mine Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0309

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0309

1:53:19 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 350.85 acres Rip Depth (ft): 2.50 Volume: 1,415,095 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>501.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.755</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.755</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.63 Acres/hr

Adjusted Hourly Fleet Production: **0.63** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **560.08** Hours

Unit cost: \$418.434 Per acre Total job cost: **\$146,807**

BULLDOZER WORKTask description: **E. Cresson Mine Area - Pile Leveling - Mass Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0400State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A04009:54:16 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D10T - 10SUHorsepower: 574Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: \$380.21Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: 473Swell factor: 1.000Loose volume: **473 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,748.7 LCY/hrMaterials consistency description: Rock, poorly ripped or blasted 0.6Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3606

Adjusted unit production: 991.18 LCY/hr

Adjusted fleet production: **1982.36** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.384/LCY

Total job time: **0.24** Hours

Total job cost: **\$181**

BULLDOZER WORKTask description: **E. Cresson Mine Area - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0401State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A04019:55:38 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 53Swell factor: 1.000Loose volume: **53 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Rock, poorly ripped or blasted 0.6Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3005

Adjusted unit production: 240.40 LCY/hr

Adjusted fleet production: **240.4** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.032/LCY

Total job time: **0.22** Hours

Total job cost: **\$55**

BULLDOZER WORKTask description: **E. Cresson Mine Area - 40 - 400 ft Lift - Mass Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0402State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A04029:59:01 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D10T - 10SUHorsepower: 574Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: \$380.21Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: 3,262,245Swell factor: 1.000Loose volume: **3,262,245 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 210 feetUnadjusted hourly production: 904.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7212

Adjusted unit production: 652.25 LCY/hr

Adjusted fleet production: **1304.5** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.583/LCY

Total job time: **2,500.76** Hours

Total job cost: **\$1,901,641**

BULLDOZER WORKTask description: **E. Cresson Mine Area - 40 - 400 ft Lift - Fine Grading**Site: **Cresson Project** Permit Action: 2023 Permit/Job#: M1980244**PROJECT IDENTIFICATION**

Task #: A0403 State: Colorado Abbreviation: None
 Date: 11/20/2023 County: Teller Filename: M244-A0403
10:00:14 PM
 User: ZTT

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D7R DS Series II LGP
 Horsepower: 240
 Blade Type: Straight
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$248.04
 Total Fleet Cost/Hour: **\$248.04**

MATERIAL QUANTITIES

Initial Volume: 287,794
 Swell factor: 1.000
 Loose volume: **287,794 LCY**

Source of estimated volume: 2022 CC&V Provided Estimate
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 400 feet
 Unadjusted hourly production: 180.4 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -30 %
 Average site altitude: 9,500 feet

Material weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 118.09 LCY/hr

Adjusted fleet production: **118.09** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$2.100/LCY

Total job time: **2,437.07** Hours

Total job cost: **\$604,497**

TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - Lift 2 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0404State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04041:53:12 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 10,228

CCY

Swell factor: 1.215Loose volume: **12,427**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.080</u>	minutes
Adjusted Loader Cycle Time:		<u>0.545</u>	minutes
Net Load Time per Truck:		<u>1.735</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.735 Minutes Adjusted for site altitude: 1.770 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3294.00	-0.10	3.00	2.90	2409	1.782

Haul Time: **1.782** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3294.00	0.10	3.00	3.10	3503	1.218

Return Time: **1.218** minutesTotal Truck Cycle Time: **6.770** minutes

Loading Tool unit

Production	<u>1,643.32</u>	LCY/Hour	Adjusted for job efficiency:	<u>1,363.95</u>	LCY/Hour
Truck Unit Production	<u>623.89</u>	LCY/Hour	Adjusted for job efficiency:	<u>517.83</u>	LCY/Hour

Optimal No. of Trucks:	<u>3</u>	Truck(s)	Selected Number of Trucks:	<u>3</u>	Truck(s)
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Adjusted hourly truck team production:	<u>1,553.49</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>1,363.95</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>1,363.95</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>9.11</u>	Hours
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Unit cost:	<u>\$1.803</u>	/LCY	Total job cost:	<u>\$22,406</u>
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TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - Lift 3 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0405State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04051:53:51 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 8,575

CCY

Swell factor: 1.215Loose volume: **10,419**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.080</u>	minutes
Adjusted Loader Cycle Time:		<u>0.545</u>	minutes
Net Load Time per Truck:		<u>1.735</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.735</u>	Minutes	Adjusted for site altitude:	<u>1.770</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3698.00	-0.10	3.00	2.90	2409	1.950

Haul Time: **1.950** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3698.00	0.10	3.00	3.10	3503	1.333

Return Time: **1.333** minutesTotal Truck Cycle Time: **7.053** minutes

Loading Tool unit

Production 1,643.32 LCY/Hour Adjusted for job efficiency: 1,363.95 LCY/HourTruck Unit Production 598.86 LCY/Hour Adjusted for job efficiency: 497.05 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,491.16 LCY/Hour
Adjusted single truck/loader team production: 1,363.95 LCY/Hour
Adjusted multiple truck/loader team production: **1,363.95** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **7.64** HoursUnit cost: \$1.803 /LCY Total job cost: **\$18,784**

TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - Lift 4 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0406State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04061:54:51 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 50,320

CCY

Swell factor: 1.215Loose volume: **61,139**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4912.00	-0.10	3.00	2.90	2409	2.454

Haul Time: **2.454** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4912.00	0.10	3.00	3.10	3503	1.680

Return Time: **1.680** minutesTotal Truck Cycle Time: **7.966** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 530.28 LCY/Hour Adjusted for job efficiency: 440.13 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)Adjusted hourly truck team production: 1,320.39 LCY/HourAdjusted single truck/loader team production: 1,320.39 LCY/HourAdjusted multiple truck/loader team production: **1,320.39** LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: **46.30** HoursUnit cost: \$1.862 /LCY Total job cost: **\$113,868**

TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - Lift 5 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0407State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04071:55:30 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 90,226

CCY

Swell factor: 1.215Loose volume: **109,625**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6407.00	-0.10	3.00	2.90	2409	3.075

Haul Time: **3.075** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6407.00	0.10	3.00	3.10	3503	2.106

Return Time: **2.106** minutesTotal Truck Cycle Time: **9.013** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 468.68 LCY/Hour Adjusted for job efficiency: 389.00 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,167.00 LCY/Hour
Adjusted single truck/loader team production: 1,167.00 LCY/Hour
Adjusted multiple truck/loader team production: **1,167.00** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **93.94** HoursUnit cost: \$2.107 /LCY Total job cost: **\$231,007**

TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - Lift 6 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0408State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04081:56:15 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: 90,330

CCY

Swell factor: 1.215Loose volume: **109,751**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9080.00	-0.10	3.00	2.90	2409	4.184

Haul Time: **4.184** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9080.00	0.10	3.00	3.10	3503	2.869

Return Time: **2.869** minutesTotal Truck Cycle Time: **10.885** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 388.07 LCY/Hour Adjusted for job efficiency: 322.10 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,288.39 LCY/Hour
Adjusted single truck/loader team production: 1,288.39 LCY/Hour
Adjusted multiple truck/loader team production: **1,288.39** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **85.18** HoursUnit cost: \$2.219 /LCY Total job cost: **\$243,581**

BULLDOZER WORKTask description: **E. Cresson Mine Area -Topsoil - Lift 2 - 6 - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0409State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A040910:01:12 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 249,679Swell factor: 1.215Loose volume: **303,360 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 220 feetUnadjusted hourly production: 266.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 366.51 LCY/hr

Adjusted fleet production: **366.51** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.677/LCY

Total job time: **827.70** Hours
 Total job cost: **\$205,304**

BULLDOZER RIPPING WORK

Task description: E. Cresson Mine Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0410

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0410

1:59:51 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 309.52 acres Rip Depth (ft): 2.50 Volume: 1,248,397 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 538.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.757 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.757 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.63 Acres/hr

Adjusted Hourly Fleet Production: 0.63 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 492.67 Hours

Unit cost: \$417.223 Per acre Total job cost: \$129,139

TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - WHEX - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0411State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04111:56:52 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 161,059

CCY

Swell factor: 1.215Loose volume: **195,687**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1506.00	-8.60	3.00	-5.60	1870	0.959

Haul Time: **0.959** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1506.00	8.60	3.00	11.60	1628	1.048

Return Time: **1.048** minutesTotal Truck Cycle Time: **5.839** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 723.46 LCY/Hour Adjusted for job efficiency: 600.47 LCY/HourOptimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,801.41 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **146.89** HoursUnit cost: \$1.846 /LCY Total job cost: **\$361,221**

BULLDOZER WORKTask description: **E. Cresson Mine Area -Topsoil - WHEX - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0412State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A041210:02:06 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 161,059Swell factor: 1.215Loose volume: **195,687 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 220 feetUnadjusted hourly production: 266.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 366.51 LCY/hr

Adjusted fleet production: **366.51** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.677/LCY

Total job time: **533.92** Hours
 Total job cost: **\$132,434**

BULLDOZER RIPPING WORK

Task description: E. Cresson Mine Area - Topsoil - WHEX - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0413 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0413
2:01:20 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 199.66 acres Rip Depth (ft): 2.50 Volume: 805,295 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 300.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.734 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.734 Acres/hr
Site Altitude: 9,500 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
Adjusted Hourly Fleet Production: **0.61** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **327.71** Hours

Unit cost: \$430.227 Per acre Total job cost: **\$85,899**

TRUCK/LOADER TEAM WORKTask description: **E. Cresson Mine Area - Topsoil - Ironclad - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0414State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A04141:58:14 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 12,043

CCY

Swell factor: 1.215Loose volume: **14,632**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3892.00	-7.70	3.00	-4.70	1870	2.233

Haul Time: **2.233** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3892.00	7.70	3.00	10.70	1734	2.377

Return Time: **2.377** minutesTotal Truck Cycle Time: **8.442** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 500.38 LCY/Hour Adjusted for job efficiency: 415.31 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,245.94 LCY/Hour
Adjusted single truck/loader team production: 1,245.94 LCY/Hour
Adjusted multiple truck/loader team production: **1,245.94** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **11.74** HoursUnit cost: \$1.974 /LCY Total job cost: **\$28,880**

BULLDOZER WORKTask description: **E. Cresson Mine Area -Topsoil - Ironclad - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0415State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A041510:02:54 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 12,043Swell factor: 1.215Loose volume: **14,632 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 220 feetUnadjusted hourly production: 266.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 366.51 LCY/hr

Adjusted fleet production: **366.51** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.677/LCY

Total job time: **39.92** Hours

Total job cost: **\$9,903**

BULLDOZER RIPPING WORK

Task description: E. Cresson Mine Area - Topsoil - Ironclad - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0416

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0416

2:02:00 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 14.93 acres Rip Depth (ft): 2.50 Volume: 60,218 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 300.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.734 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.734 Acres/hr
Site Altitude: 9,500 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

Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 24.51 Hours

Unit cost: \$430.227 Per acre Total job cost: \$6,423

BULLDOZER WORKTask description: **E. Cresson Mine Area - 100 ft Lift - Mass Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**

Task #: A0417 State: Colorado Abbreviation: None
 Date: 11/20/2023 County: Teller Filename: M244-A0417
10:03:55 PM
 User: ACY

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D10T - 10SU
 Horsepower: 574
 Blade Type: Semi-Universal
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: \$380.21
 Total Fleet Cost/Hour: **\$760.42**

MATERIAL QUANTITIES

Initial Volume: 672,099
 Swell factor: 1.000
 Loose volume: **672,099 LCY**

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**

Average push distance: 105 feet
 Unadjusted hourly production: 1,665.1 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -20 %
 Average site altitude: 9,500 feet

Material weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6996

Adjusted unit production: 1,164.90 LCY/hr

Adjusted fleet production: **2329.8** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.326/LCY

Total job time: **288.48** Hours

Total job cost: **\$219,367**

BULLDOZER WORKTask description: **E. Cresson Mine Area - 100 ft Lift - Fine Grading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0418State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A041810:04:59 PMUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 74,678Swell factor: 1.000Loose volume: **74,678 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 105 feetUnadjusted hourly production: 482.9 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -20 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5830

Adjusted unit production: 281.53 LCY/hr

Adjusted fleet production: **281.53** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.881/LCY

Total job time: **265.26** Hours

Total job cost: **\$65,795**

BULLDOZER WORKTask description: **M. Cresson Mine Area - Pile Leveling - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0500**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0500****10:06:02 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **116,523**Swell factor: **1.000**Loose volume: **116,523 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,748.7 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7212

Adjusted unit production: 1,982.36 LCY/hr

Adjusted fleet production: **3964.72** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.192/LCY

Total job time: **29.39** Hours

Total job cost: **\$22,349**

BULLDOZER WORKTask description: **M. Cresson Mine Area - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0501**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0501****10:07:03 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **12,947**Swell factor: **1.000**Loose volume: **12,947 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3005

Adjusted unit production: 240.40 LCY/hr

Adjusted fleet production: **240.4** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.032/LCY

Total job time: **53.86** Hours

Total job cost: **\$13,359**

BULLDOZER WORKTask description: **M. Cresson Mine Area - 50 - 650 ft Lift - Mass Grading**Site: **Cresson Project** Permit Action: **2023** Permit/Job#: **M1980244****PROJECT IDENTIFICATION**

Task #: A0502 State: Colorado Abbreviation: None
 Date: 11/20/2023 County: Teller Filename: M244-A0502
10:08:02 PM
 User: ZTT

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D10T - 10SU
 Horsepower: 574
 Blade Type: Semi-Universal
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: \$380.21
 Total Fleet Cost/Hour: **\$760.42**

MATERIAL QUANTITIES

Initial Volume: 1,958,360
 Swell factor: 1.000
 Loose volume: **1,958,360 LCY**

Source of estimated volume: 2022 CC&V Provided Estimate
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 650 feet
 Unadjusted hourly production: 350.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -30 %
 Average site altitude: 9,500 feet

Material weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7855

Adjusted unit production: 274.93 LCY/hr

Adjusted fleet production: **549.86 LCY/hr**

JOB TIME AND COST

Fleet size: 2 Dozer(s)
 Unit cost: \$1.383/LCY

Total job time: **3,561.56 Hours**
 Total job cost: **\$2,708,298**

BULLDOZER WORKTask description: M. Cresson Mine Area - 50 - 650 ft Lift - Fine GradingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0503State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A050310:08:56 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: \$248.04Total Fleet Cost/Hour: \$248.04**MATERIAL QUANTITIES**Initial Volume: 377,595Swell factor: 1.000Loose volume: 377,595 LCYSource of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 400 feetUnadjusted hourly production: 180.4 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 118.09 LCY/hr

Adjusted fleet production: **118.09** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$2.100/LCY

Total job time: **3,197.52** Hours

Total job cost: **\$793,120**

TRUCK/LOADER TEAM WORKTask description: **M. Cresson Mine Area - Topsoil -10185 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**

Task #: **A0504** State: **Colorado** Abbreviation: **None**
 Date: **11/22/2023** County: **Teller** Filename: **M244-A0504**
 1:58:55 PM
 User: **ZTT**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**

Initial volume: **67,115** CCY Swell factor: **1.215**
 Loose volume: **81,545** LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600** Pounds/LCYDescription: **Top Soil**Rated Payload: **200,000** Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2595.00	1.80	3.00	4.80	1550	1.865

Haul Time: **1.865** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2595.00	-1.80	3.00	1.20	3503	0.939

Return Time: **0.939** minutesTotal Truck Cycle Time: **6.636** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 636.56 LCY/Hour Adjusted for job efficiency: 528.35 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,585.04 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **61.21** HoursUnit cost: \$1.846 /LCY Total job cost: **\$150,525**

BULLDOZER WORKTask description: M. Cresson Mine Area -Topsoil - 10185 - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0505State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A050510:10:46 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 67,115Swell factor: 1.215Loose volume: **81,545 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 400 feetUnadjusted hourly production: 180.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 248.19 LCY/hr

Adjusted fleet production: **248.19** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.999/LCY

Total job time: **328.56** Hours
 Total job cost: **\$81,496**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - 10185 - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0506

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0506

2:02:36 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 83.20 acres Rip Depth (ft): 2.50 Volume: 335,573 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 400.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.747 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.747 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.62 Acres/hr

Adjusted Hourly Fleet Production: 0.62 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 134.23 Hours

Unit cost: \$422.878 Per acre Total job cost: \$35,183

TRUCK/LOADER TEAM WORKTask description: **M. Cresson Mine Area - Topsoil - Ruby Rd - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0507State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A05072:01:57 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 81,481

CCY

Swell factor: 1.215Loose volume: **98,999**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5001.00	-3.00	3.00	0.00	3503	1.806

Haul Time: **1.806** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5001.00	3.00	3.00	6.00	2853	2.048

Return Time: **2.048** minutesTotal Truck Cycle Time: **7.686** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 549.60 LCY/Hour Adjusted for job efficiency: 456.17 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,368.50 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **74.31** Hours

Unit cost: \$1.846 /LCY Total job cost: **\$182,745**

BULLDOZER WORKTask description: **M. Cresson Mine Area -Topsoil - Ruby Rd - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0508State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A050810:12:06 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 81,481Swell factor: 1.215Loose volume: **98,999 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 220 feetUnadjusted hourly production: 266.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 366.51 LCY/hr

Adjusted fleet production: **366.51** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.677/LCY

Total job time: **270.11** Hours

Total job cost: **\$67,000**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - Ruby Rd - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0509 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0509
2:03:18 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 73.30 acres Rip Depth (ft): 2.50 Volume: 295,643 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.45	feet/pass
Average Ripping Width:	6.50	feet/pass
Average Ripping Length:	300.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.734	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.734	Acres/hr
Site Altitude:	9,500	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
Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 120.31 Hours

Unit cost: \$430.227 Per acre Total job cost: \$31,536

TRUCK/LOADER TEAM WORKTask description: **M. Cresson Mine Area - Topsoil - AJAX - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0510**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A0510**

2:08:50 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **48,892**

CCY

Swell factor: **1.215**Loose volume: **59,404**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2525.00	5.00	3.00	8.00	985	2.654

Haul Time: **2.654** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2525.00	-5.00	3.00	-2.00	3503	0.759

Return Time: **0.759** minutesTotal Truck Cycle Time: **7.245** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 583.05 LCY/Hour Adjusted for job efficiency: 483.93 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,451.80 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **44.59** Hours

Unit cost: \$1.846 /LCY Total job cost: **\$109,654**

BULLDOZER WORKTask description: M. Cresson Mine Area -Topsoil - AJAX - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0511State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A051110:13:08 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 48,892Swell factor: 1.215Loose volume: **59,404 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 1,100.64 LCY/hr

Adjusted fleet production: **1100.64** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.225/LCY

Total job time: **53.97** Hours

Total job cost: **\$13,387**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - AJAX - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0512 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0512
2:03:56 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 33.31 acres Rip Depth (ft): 2.50 Volume: 134,350 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.45	feet/pass
Average Ripping Width:	6.50	feet/pass
Average Ripping Length:	100.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.646	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.646	Acres/hr
Site Altitude:	9,500	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.54 Acres/hr
Adjusted Hourly Fleet Production: 0.54 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 62.14 Hours

Unit cost: \$489.015 Per acre Total job cost: \$16,289

TRUCK/LOADER TEAM WORKTask description: M. Cresson Mine Area - Topsoil - Crusher - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATION

Task #: A0513 State: Colorado Abbreviation: None
 Date: 11/22/2023 County: Teller Filename: M244-A0513
2:09:30 PM
 User: ZTT

Agency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: \$2,058.88MATERIAL QUANTITIES

Initial volume: 48,892 CCY Swell factor: 1.215
 Loose volume: 59,404 LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600 Pounds/LCYDescription: Top SoilRated Payload: 200,000 Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1308.00	3.70	3.00	6.70	1160	1.246

Haul Time: **1.246** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1308.00	-3.70	3.00	-0.70	3503	0.428

Return Time: **0.428** minutesTotal Truck Cycle Time: **5.506** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 767.21 LCY/Hour Adjusted for job efficiency: 636.79 LCY/Hour

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

Adjusted hourly truck team production: 1,273.58 LCY/Hour
Adjusted single truck/loader team production: 1,273.58 LCY/Hour
Adjusted multiple truck/loader team production: **1,273.58** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **46.64** Hours

Unit cost: \$1.617 /LCY Total job cost: **\$96,033**

BULLDOZER WORKTask description: **M. Cresson Mine Area -Topsoil - Crusher - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0514State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A051410:14:11 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 48,892Swell factor: 1.215Loose volume: **59,404 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 594.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 818.05 LCY/hr

Adjusted fleet production: **818.05** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.303/LCY

Total job time: **72.62** Hours
 Total job cost: **\$18,012**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - Crusher - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0515 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0515
2:04:32 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.06</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.02</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$262.12</u>	
Total Fleet Cost/Hour:	<u>\$262.12</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 60.61 acres Rip Depth (ft): 2.50 Volume: 244,460 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>100.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.646</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.646</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.54 Acres/hr
Adjusted Hourly Fleet Production: 0.54 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 113.08 Hours

Unit cost: \$489.015 Per acre Total job cost: \$29,639

TRUCK/LOADER TEAM WORKTask description: **M. Cresson Mine Area - Topsoil - Pit Bottom - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**

Task #: A0516 State: Colorado Abbreviation: None
 Date: 11/22/2023 County: Teller Filename: M244-A0516
 2:10:10 PM
 User: ZTT

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	8	1	1	0	1	1
Group Subtotals:	Work: \$3,672.56		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$4,460.62****MATERIAL QUANTITIES**

Initial volume: 55,725 CCY Swell factor: 1.215
 Loose volume: 67,706 LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600 Pounds/LCYDescription: Top SoilRated Payload: 200,000 Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	11669.00	6.60	3.00	9.60	795	14.733

Haul Time: **14.733** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	11669.00	-6.60	3.00	-3.60	3450	3.487

Return Time: **3.487** minutesTotal Truck Cycle Time: **22.052** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 191.55 LCY/Hour Adjusted for job efficiency: 158.99 LCY/Hour

Optimal No. of Trucks: 8 Truck(s) Selected Number of Trucks: 8 Truck(s)

Adjusted hourly truck team production: 1,271.89 LCY/Hour
Adjusted single truck/loader team production: 1,271.89 LCY/Hour
Adjusted multiple truck/loader team production: **1,271.89** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **53.23** HoursUnit cost: \$3.507 /LCY Total job cost: **\$237,449**

BULLDOZER WORKTask description: M. Cresson Mine Area -Topsoil - Pit Bottom - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0517State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A051710:15:17 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 55,725Swell factor: 1.215Loose volume: **67,706 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 70 feetUnadjusted hourly production: 613.3 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -10 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0527

Adjusted unit production: 645.62 LCY/hr

Adjusted fleet production: **645.62** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.384/LCY

Total job time: **104.87** Hours
 Total job cost: **\$26,012**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - Pit Bottom - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0518 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0518
2:05:18 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.06</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.02</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$262.12</u>	
Total Fleet Cost/Hour:	<u>\$262.12</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 69.10 acres Rip Depth (ft): 2.50 Volume: 278,703 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>300.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.734</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.734</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.61 Acres/hr
Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 113.42 Hours

Unit cost: \$430.227 Per acre Total job cost: \$29,729

TRUCK/LOADER TEAM WORKTask description: **M. Cresson Mine Area - Topsoil - S. Cresson HR - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0519**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A0519**

2:11:01 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: **24,265**

CCY

Swell factor: **1.215**Loose volume: **29,482**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3917.00	9.30	3.00	12.30	675	5.861

Haul Time: **5.861** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3917.00	-9.30	3.00	-6.30	3450	1.170

Return Time: **1.170** minutesTotal Truck Cycle Time: **10.863** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 388.86 LCY/Hour Adjusted for job efficiency: 322.75 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,291.00 LCY/Hour
Adjusted single truck/loader team production: 1,291.00 LCY/Hour
Adjusted multiple truck/loader team production: **1,291.00** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **22.84** HoursUnit cost: \$2.215 /LCY Total job cost: **\$65,300**

BULLDOZER WORKTask description: M. Cresson Mine Area -Topsoil - S. CressHR - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0520State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A052010:16:23 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 24,265Swell factor: 1.215Loose volume: **29,482 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 65 feetUnadjusted hourly production: 650.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 894.27 LCY/hr

Adjusted fleet production: **894.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.277/LCY

Total job time: **32.97** Hours

Total job cost: **\$8,177**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - S. Cresson HR - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0521 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0521
2:06:07 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 30.10 acres Rip Depth (ft): 2.50 Volume: 121,403 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.45	feet/pass
Average Ripping Width:	6.50	feet/pass
Average Ripping Length:	300.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.734	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.734	Acres/hr
Site Altitude:	9,500	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
Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 49.40 Hours

Unit cost: \$430.227 Per acre Total job cost: \$12,950

TRUCK/LOADER TEAM WORKTask description: **M. Cresson Mine Area - Topsoil - Cresson HR - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0522**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A0522**

2:11:42 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	7	1	1	0	1	1
Group Subtotals:	Work: \$3,272.27		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$4,060.33****MATERIAL QUANTITIES**Initial volume: **24,265**

CCY

Swell factor: **1.215**Loose volume: **29,482**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9024.00	7.40	3.00	10.40	795	11.424

Haul Time: **11.424** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9024.00	-7.40	3.00	-4.40	3450	2.697

Return Time: **2.697** minutesTotal Truck Cycle Time: **17.953** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 235.29 LCY/Hour Adjusted for job efficiency: 195.29 LCY/HourOptimal No. of Trucks: 7 Truck(s) Selected Number of Trucks: 7 Truck(s)

Adjusted hourly truck team production: 1,367.01 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **22.13** HoursUnit cost: \$3.048 /LCY Total job cost: **\$89,855**

BULLDOZER WORKTask description: M. Cresson Mine Area -Topsoil - Cresson HR - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0523State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A052310:17:32 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 24,265Swell factor: 1.215Loose volume: **29,482 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 65 feetUnadjusted hourly production: 650.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 894.27 LCY/hr

Adjusted fleet production: **894.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.277/LCY

Total job time: **32.97** Hours

Total job cost: **\$8,177**

BULLDOZER RIPPING WORK

Task description: M. Cresson Mine Area - Topsoil - Cresson HR - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0524 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0524
2:07:25 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.06</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.02</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$262.12</u>	
Total Fleet Cost/Hour:	<u>\$262.12</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 30.10 acres Rip Depth (ft): 2.50 Volume: 121,403 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>300.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.734</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.734</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.61 Acres/hr
Adjusted Hourly Fleet Production: 0.61 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 49.40 Hours

Unit cost: \$430.227 Per acre Total job cost: \$12,950

BULLDOZER WORKTask description: **Crusher Mine Area - Pile Leveling - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0600**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0600****10:18:35 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **75,737**Swell factor: **1.000**Loose volume: **75,737 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **165 feet**Unadjusted hourly production: **1,141.9 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4713

Adjusted unit production: 538.18 LCY/hr

Adjusted fleet production: **1076.36** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.706/LCY

Total job time: **70.36** Hours

Total job cost: **\$53,507**

BULLDOZER WORKTask description: **Crusher Mine Area - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0601**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0601****10:20:53 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **8,415**Swell factor: **1.000**Loose volume: **8,415 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **165 feet**Unadjusted hourly production: **343.9 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3927

Adjusted unit production: 135.05 LCY/hr

Adjusted fleet production: **135.05** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.837/LCY

Total job time: **62.31** Hours

Total job cost: **\$15,456**

TRUCK/LOADER TEAM WORKTask description: Crusher Mine Area - Topsoil - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: A0602State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A06022:12:26 PMUser: ZTTAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: \$2,859.46MATERIAL QUANTITIESInitial volume: 34,759

CCY

Swell factor: 1.215Loose volume: 42,232

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5332.00	4.50	3.00	7.50	985	5.490

Haul Time: **5.490** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5332.00	-4.50	3.00	-1.50	3503	1.569

Return Time: **1.569** minutesTotal Truck Cycle Time: **10.891** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 387.86 LCY/Hour Adjusted for job efficiency: 321.92 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,287.68 LCY/Hour
Adjusted single truck/loader team production: 1,287.68 LCY/Hour
Adjusted multiple truck/loader team production: **1,287.68** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **32.80** Hours

Unit cost: \$2.221 /LCY Total job cost: **\$93,782**

BULLDOZER WORKTask description: **Crusher Mine Area -Topsoil - Dozer Spreading**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0603State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A060310:21:58 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 34,759Swell factor: 1.215Loose volume: **42,232 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 1,100.64 LCY/hr

Adjusted fleet production: **1100.64** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.225/LCY

Total job time: **38.37** Hours

Total job cost: **\$9,518**

BULLDOZER RIPPING WORK

Task description: Crusher Mine Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0604

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0604

2:08:34 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 43.09 acres Rip Depth (ft): 2.50 Volume: 173,796 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 100.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.646 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.646 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.54 Acres/hr

Adjusted Hourly Fleet Production: 0.54 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 80.39 Hours

Unit cost: \$489.015 Per acre Total job cost: \$21,072

BULLDOZER WORKTask description: Crusher Mine Area - Delivery Rd - Mass GradingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0605State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A060510:23:04 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D10T - 10SUHorsepower: 574Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: \$380.21Total Fleet Cost/Hour: \$760.42**MATERIAL QUANTITIES**Initial Volume: 8,867Swell factor: 1.000Loose volume: 8,867 LCYSource of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 165 feetUnadjusted hourly production: 1,141.9 LCY/hrMaterials consistency description: Rock, poorly ripped or blasted 0.6Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4713

Adjusted unit production: 538.18 LCY/hr

Adjusted fleet production: **1076.36** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.706/LCY

Total job time: **8.24** Hours

Total job cost: **\$6,264**

BULLDOZER WORKTask description: **Crusher Mine Area - Delivery Rd - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0606**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0606****10:24:09 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **985**Swell factor: **1.000**Loose volume: **985 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **165 feet**Unadjusted hourly production: **343.9 LCY/hr**Materials consistency description: **Rock, poorly ripped or blasted 0.6**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.600	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3927

Adjusted unit production: 135.05 LCY/hr

Adjusted fleet production: **135.05** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.837/LCY

Total job time: **7.29** Hours

Total job cost: **\$1,809**

TRUCK/LOADER TEAM WORKTask description: Crusher Mine Area - Topsoil - Delivery Rd - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0607State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A06072:13:12 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: 8,244

CCY

Swell factor: 1.215Loose volume: **10,016**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.60	3.00	-0.60	3503	0.213

Haul Time: **0.213** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.60	3.00	6.60	2398	0.394

Return Time: **0.394** minutesTotal Truck Cycle Time: **4.439** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 951.64 LCY/Hour Adjusted for job efficiency: 789.86 LCY/Hour

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

Adjusted hourly truck team production: 1,579.73 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **7.52** Hours

Unit cost: \$1.545 /LCY Total job cost: **\$15,480**

BULLDOZER WORKTask description: Crusher Mine Area -Topsoil - Delivery Road - Dozer SpreadingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0608State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-A060810:25:14 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$248.04Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: 8,244Swell factor: 1.215Loose volume: **10,016 LCY**Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 9,500 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 1,100.64 LCY/hr

Adjusted fleet production: **1100.64** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.225/LCY

Total job time: **9.10** Hours
 Total job cost: **\$2,257**

BULLDOZER RIPPING WORK

Task description: Crusher Mine Area - Topsoil - Delivery Rd - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0609 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A0609
2:09:24 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 10.22 acres Rip Depth (ft): 2.50 Volume: 41,221 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 300.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.734 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.734 Acres/hr
Site Altitude: 9,500 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
Adjusted Hourly Fleet Production: **0.61** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **16.77** Hours

Unit cost: \$430.227 Per acre Total job cost: **\$4,397**

TRUCK/LOADER TEAM WORKTask description: Chicago Mine Area - Topsoil - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A0700State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A07002:13:55 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: 3,228

CCY

Swell factor: 1.215Loose volume: 3,922

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.60	3.00	-0.60	3503	0.213

Haul Time: **0.213** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.60	3.00	6.60	2398	0.394

Return Time: **0.394** minutesTotal Truck Cycle Time: **4.439** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 951.64 LCY/Hour Adjusted for job efficiency: 789.86 LCY/Hour

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

Adjusted hourly truck team production: 1,579.73 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **2.94** Hours

Unit cost: \$1.545 /LCY Total job cost: **\$6,061**

BULLDOZER WORKTask description: **Chicago Mine Area -Topsoil - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0701**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0701****10:26:25 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **3,228**Swell factor: **1.215**Loose volume: **3,922 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **55 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 1,100.64 LCY/hr

Adjusted fleet production: **1100.64** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.225/LCY

Total job time: **3.56** Hours

Total job cost: **\$884**

BULLDOZER RIPPING WORK

Task description: Chicago Mine Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0702

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0702

2:10:41 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 4.10 acres Rip Depth (ft): 2.50 Volume: 16,537 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 150.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.687 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.687 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.57 Acres/hr

Adjusted Hourly Fleet Production: 0.57 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 7.19 Hours

Unit cost: \$459.621 Per acre Total job cost: \$1,884

TRUCK/LOADER TEAM WORKTask description: TR133 WHEX Clay Borrow Area - Topsoil - TransportSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATION

Task #: A0703 State: Colorado Abbreviation: None
 Date: 11/22/2023 County: Teller Filename: M244-A0703
 2:14:41 PM
 User: ERR

Agency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	NA	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$932.37		Support: \$426.60		Maint: \$407.85	

Total work team cost/hour: \$1,766.82MATERIAL QUANTITIES

Initial volume: 3,807 CCY Swell factor: 1.215
 Loose volume: 4,626 LCY

Source of estimated volume: TR133
 Source of estimated swell factor: Cat Handbook
 Material Purchase Cost: \$0.00
 Total Cost: \$0.00

HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
 Description: Top Soil
 Rated Payload: 87,000 Pounds

Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.681** **0.789**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.515	minutes
Net Load Time per Truck:		1.130	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.130 Minutes Adjusted for site altitude: 1.189 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2800.00	0.00	3.00	3.00	3005	1.724

Haul Time: **1.724** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2800.00	0.00	3.00	3.00	3005	1.099

Return Time: **1.099** minutesTotal Truck Cycle Time: **5.964** minutes

Loading Tool unit

Production 948.17 LCY/Hour Adjusted for job efficiency: 786.98 LCY/Hour
Truck Unit Production 305.45 LCY/Hour Adjusted for job efficiency: 253.52 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 760.57 LCY/Hour
Adjusted single truck/loader team production: 760.57 LCY/Hour
Adjusted multiple truck/loader team production: **760.57** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **6.08** HoursUnit cost: \$2.323 /LCY Total job cost: **\$10,745**

BULLDOZER RIPPING WORK

Task description: TR133 WHEX Clay Borrow Area - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0704

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A0704

2:11:46 PM

User: ERR

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 4.70 acres Rip Depth (ft): 2.50 Volume: 18,957 BCY or CCY

Source of estimated quantity: TR133

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 245.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.723 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.723 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.60 Acres/hr

Adjusted Hourly Fleet Production: **0.60** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **7.83** Hours

Unit cost: \$436.825 Per acre Total job cost: **\$2,053**

BULLDOZER WORKTask description: **TR133 WHEX Clay Borrow Area - Topsoil - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0705**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A0705****10:27:21 PM**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **3,807**Swell factor: **1.215**Loose volume: **4,626 LCY**Source of estimated volume: **TR133**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **200 feet**Unadjusted hourly production: **289.3 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 398.02 LCY/hr

Adjusted fleet production: **398.02 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.623/LCY

Total job time: **11.62 Hours**

Total job cost: **\$2,883**

BULLDOZER WORKTask description: **TR137 WHEX Clay Borrow Area Expansion - Fine Grading EMP18**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0706**State: **Colorado**Abbreviation: **None**Date: **12/1/2023**County: **Teller**Filename: **M244-A0706**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **1,870**Swell factor: **1.000**Loose volume: **1,870 LCY**Source of estimated volume: **TR137**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **496.4 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 324.94 LCY/hr

Adjusted fleet production: **324.94** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.763/LCY

Total job time: **5.75** Hours

Total job cost: **\$1,427**

TRUCK/LOADER TEAM WORKTask description: **TR137 WHEX Clay Borrow Area Expansion - Topsoil - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0707**State: **Colorado**Abbreviation: **None**Date: **12/1/2023**County: **Teller**Filename: **M244-A0707**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	NA	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$932.37		Support: \$426.60		Maint: \$407.85	

Total work team cost/hour: **\$1,766.82****MATERIAL QUANTITIES**Initial volume: **6,575**

CCY

Swell factor: **1.215**Loose volume: **7,989**

LCY

Source of estimated volume: **TR137**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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **87,000**

Pounds

Payload Capacity: **54.38**

LCY

Truck Bed (volume) Basis:

Struck Volume:	24.20	LCY
Heaped Volume:	31.40	LCY
Average Volume:	27.80	LCY
Adjusted Volume:	31.40	LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	9.200	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	10.120	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.681	0.789	

Loading Tool Cycle Time:

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.515	minutes
Net Load Time per Truck:		1.130	minutes

Truck Cycle Time:

Truck Exchange Time:	0.60	Minutes	Adjusted for site altitude:	0.732	Minutes
Truck Load Time:	1.130	Minutes	Adjusted for site altitude:	1.189	Minutes
Truck Maneuver and Dump Time:	1.00	Minutes	Adjusted for site altitude:	1.220	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2800.00	0.00	3.00	3.00	3005	1.724

Haul Time: **1.724** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2800.00	0.00	3.00	3.00	3005	1.099

Return Time: **1.099** minutesTotal Truck Cycle Time: **5.964** minutes

Loading Tool unit

Production	<u>948.17</u>	LCY/Hour	Adjusted for job efficiency:	<u>786.98</u>	LCY/Hour
Truck Unit Production	<u>305.45</u>	LCY/Hour	Adjusted for job efficiency:	<u>253.52</u>	LCY/Hour

Optimal No. of Trucks:	<u>3</u>	Truck(s)	Selected Number of Trucks:	<u>3</u>	Truck(s)
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Adjusted hourly truck team production:	<u>760.57</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>760.57</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>760.57</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>10.50</u>	Hours
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Unit cost:	<u>\$2.323</u>	/LCY	Total job cost:	<u>\$18,558</u>
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BULLDOZER RIPPING WORK

Task description: TR137 WHEX Clay Borrow Area Expansion - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A0708

State: Colorado

Abbreviation: None

Date: 12/1/2023

County: Teller

Filename: M244-A0708

User: ERR

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP
Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 8.20 acres Rip Depth (ft): 2.50 Volume: 33,073 BCY or CCY

Source of estimated quantity: TR137

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 245.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.723 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.723 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.60 Acres/hr

Adjusted Hourly Fleet Production: **0.60** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **13.67** Hours

Unit cost: \$436.825 Per acre Total job cost: **\$3,582**

BULLDOZER WORKTask description: **TR137 WHEX Clay Borrow Area Expansion - Topsoil - DZR Spread**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A0709**State: **Colorado**Abbreviation: **None**Date: **12/1/2023**County: **Teller**Filename: **M244-A0709**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **6,575**Swell factor: **1.215**Loose volume: **7,989 LCY**Source of estimated volume: **TR137**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **200 feet**Unadjusted hourly production: **289.3 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 398.02 LCY/hr

Adjusted fleet production: **398.02 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.623/LCY

Total job time: **20.07** Hours

Total job cost: **\$4,978**

BULLDOZER WORKTask description: **AGVLF - Pile Leveling - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1000**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1000****10:28:21 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **31,765**Swell factor: **1.000**Loose volume: **31,765 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,748.7 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7212

Adjusted unit production: 1,982.36 LCY/hr

Adjusted fleet production: **3964.72** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.192/LCY

Total job time: **8.01** Hours

Total job cost: **\$6,092**

BULLDOZER WORKTask description: **AGVLF - Pile Leveling - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1001**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1001****10:29:44 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **3,529**Swell factor: **1.000**Loose volume: **3,529 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-10 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6010

Adjusted unit production: 480.80 LCY/hr

Adjusted fleet production: **480.8** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.516/LCY

Total job time: **7.34** Hours

Total job cost: **\$1,821**

BULLDOZER WORKTask description: **AGVLF - 20 - 200 ft face - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1002**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1002****10:31:05 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **2,395,752**Swell factor: **1.000**Loose volume: **2,395,752 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **165 feet**Unadjusted hourly production: **1,141.9 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7855

Adjusted unit production: 896.96 LCY/hr

Adjusted fleet production: **1793.92 LCY/hr**

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.424/LCY

Total job time: **1,335.48 Hours**
Total job cost: **\$1,015,535**

BULLDOZER WORKTask description: **AGVLF - 20 - 200 ft face - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1003**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1003****10:32:30 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **266,196**Swell factor: **1.000**Loose volume: **266,196 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **165 feet**Unadjusted hourly production: **343.9 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 225.12 LCY/hr

Adjusted fleet production: **225.12 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.102/LCY

Total job time: **1,182.46 Hours**
Total job cost: **\$293,301**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1004**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1004****2:15:25 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: **26,557**

CCY

Swell factor: **1.215**Loose volume: **32,267**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-0.60	3.00	2.40	3328	1.578

Haul Time: **1.578** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	0.60	3.00	3.60	3411	0.874

Return Time: **0.874** minutesTotal Truck Cycle Time: **6.284** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 672.22 LCY/Hour Adjusted for job efficiency: 557.94 LCY/Hour

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

Adjusted hourly truck team production: 1,115.89 LCY/Hour
Adjusted single truck/loader team production: 1,115.89 LCY/Hour
Adjusted multiple truck/loader team production: **1,115.89** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **28.92** HoursUnit cost: \$1.845 /LCY Total job cost: **\$59,534**

BULLDOZER WORKTask description: **AGVLF -Topsoil - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1005**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1005****10:34:11 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **26,557**Swell factor: **1.215**Loose volume: **32,267 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **260 feet**Unadjusted hourly production: **222.5 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 306.12 LCY/hr

Adjusted fleet production: **306.12 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.810/LCY

Total job time: **105.41 Hours**
Total job cost: **\$26,145**

BULLDOZER RIPPING WORK

Task description: AGVLF - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A1006

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A1006

2:12:40 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 32.93 acres Rip Depth (ft): 2.50 Volume: 132,818 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>350.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.741</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.741</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.62 Acres/hr

Adjusted Hourly Fleet Production: **0.62** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **53.52** Hours

Unit cost: \$426.027 Per acre Total job cost: **\$14,029**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 1 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1007**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1007**

2:17:09 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **23,223**

CCY

Swell factor: **1.215**Loose volume: **28,216**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3087.00	3.90	3.00	6.90	1160	2.789

Haul Time: **2.789** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3087.00	-3.90	3.00	-0.90	3503	0.916

Return Time: **0.916** minutesTotal Truck Cycle Time: **7.537** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 560.46 LCY/Hour Adjusted for job efficiency: 465.18 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,395.55 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **21.18** Hours

Unit cost: \$1.846 /LCY Total job cost: **\$52,084**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 2 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1008**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1008**

2:17:50 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **30,224**

CCY

Swell factor: **1.215**Loose volume: **36,722**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3196.00	-0.70	3.00	2.30	3328	1.867

Haul Time: **1.867** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3196.00	0.70	3.00	3.70	3411	1.231

Return Time: **1.231** minutesTotal Truck Cycle Time: **6.930** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
 Truck Unit Production 609.56 LCY/Hour Adjusted for job efficiency: 505.93 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,517.79 LCY/Hour
 Adjusted single truck/loader team production: 1,332.22 LCY/Hour
 Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **27.56** HoursUnit cost: \$1.846 /LCY Total job cost: **\$67,786**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 3 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1009**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1009****2:18:33 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **40,095**

CCY

Swell factor: **1.215**Loose volume: **48,715**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4268.00	-3.30	3.00	-0.30	3503	1.291

Haul Time: **1.291** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4268.00	3.30	3.00	6.30	2853	1.818

Return Time: **1.818** minutesTotal Truck Cycle Time: **6.941** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 608.59 LCY/Hour Adjusted for job efficiency: 505.13 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,515.39 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **36.57** HoursUnit cost: \$1.846 /LCY Total job cost: **\$89,925**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 4 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1010**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1010**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **59,506**

CCY

Swell factor: **1.215**Loose volume: **72,300**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6312.00	-5.50	3.00	-2.50	3450	1.926

Haul Time: 1.926 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6312.00	5.50	3.00	8.50	2327	2.985

Return Time: 2.985 minutesTotal Truck Cycle Time: 8.743 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 483.15 LCY/Hour Adjusted for job efficiency: 401.01 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)Adjusted hourly truck team production: 1,203.04 LCY/HourAdjusted single truck/loader team production: 1,203.04 LCY/HourAdjusted multiple truck/loader team production: 1,203.04 LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: 60.10 HoursUnit cost: \$2.044 /LCY Total job cost: \$147,790

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 5 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1011**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1011**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: **60,616**

CCY

Swell factor: **1.215**Loose volume: **73,648**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7462.00	-6.20	3.00	-3.20	3450	2.277

Haul Time: 2.277 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7462.00	6.20	3.00	9.20	2134	3.723

Return Time: 3.723 minutesTotal Truck Cycle Time: 9.832 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 429.63 LCY/Hour Adjusted for job efficiency: 356.60 LCY/HourOptimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)Adjusted hourly truck team production: 1,426.38 LCY/HourAdjusted single truck/loader team production: 1,332.22 LCY/HourAdjusted multiple truck/loader team production: 1,332.22 LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: 55.28 HoursUnit cost: \$2.146 /LCY Total job cost: \$158,078

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 6 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1012**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1012**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: **77,411**

CCY

Swell factor: **1.215**Loose volume: **94,054**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8747.00	-6.80	3.00	-3.80	2545	3.618

Haul Time: **3.618** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8747.00	6.80	3.00	9.80	1789	5.013

Return Time: **5.013** minutesTotal Truck Cycle Time: **12.463** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 338.93 LCY/Hour Adjusted for job efficiency: 281.31 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,406.57 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **70.60** Hours

Unit cost: \$2.447 /LCY Total job cost: **\$230,137**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 7 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1013**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1013****2:22:52 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: **104,752**

CCY

Swell factor: **1.215**Loose volume: **127,274**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10490.00	-6.80	3.00	-3.80	2545	4.339

Haul Time: **4.339** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10490.00	6.80	3.00	9.80	1789	5.987

Return Time: **5.987** minutesTotal Truck Cycle Time: **14.158** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 298.35 LCY/Hour Adjusted for job efficiency: 247.63 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,238.17 LCY/Hour
Adjusted single truck/loader team production: 1,238.17 LCY/Hour
Adjusted multiple truck/loader team production: **1,238.17** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **102.79** HoursUnit cost: \$2.633 /LCY Total job cost: **\$335,075**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 8 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1014**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1014**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **59,879**

CCY

Swell factor: **1.215**Loose volume: **72,753**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2805.00	-9.10	3.00	-6.10	1870	1.656

Haul Time: **1.656** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2805.00	9.10	3.00	12.10	1628	1.862

Return Time: **1.862** minutesTotal Truck Cycle Time: **7.350** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 574.72 LCY/Hour Adjusted for job efficiency: 477.02 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,431.06 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **54.61** HoursUnit cost: \$1.846 /LCY Total job cost: **\$134,296**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - Topsoil - Lift 9 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1015**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1015**

2:25:09 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: **41,737**

CCY

Swell factor: **1.215**Loose volume: **50,710**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1859.00	-8.00	3.00	-5.00	1870	1.140

Haul Time: **1.140** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1859.00	8.00	3.00	11.00	1734	1.214

Return Time: **1.214** minutesTotal Truck Cycle Time: **6.186** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 682.87 LCY/Hour Adjusted for job efficiency: 566.78 LCY/Hour

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

Adjusted hourly truck team production: 1,133.57 LCY/Hour
Adjusted single truck/loader team production: 1,133.57 LCY/Hour
Adjusted multiple truck/loader team production: **1,133.57** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **44.74** HoursUnit cost: \$1.816 /LCY Total job cost: **\$92,104**

BULLDOZER WORKTask description: **AGVLF -Topsoil - Lift 1 - 9 - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1016**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1016****10:35:40 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **497,443**Swell factor: **1.215**Loose volume: **604,393 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **210 feet**Unadjusted hourly production: **277.8 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 382.20 LCY/hr

Adjusted fleet production: **382.2** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.649/LCY

Total job time: **1,581.35** Hours

Total job cost: **\$392,242**

BULLDOZER RIPPING WORK

Task description: AGVLF - Topsoil - Lift 1 - 9 - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A1017

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A1017

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User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 616.66 acres Rip Depth (ft): 2.50 Volume: 2,487,195 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>442.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.751</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.751</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.62 Acres/hr

Adjusted Hourly Fleet Production: 0.62 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 989.93 Hours

Unit cost: \$420.783 Per acre Total job cost: \$259,480

BULLDOZER WORKTask description: **SGVLF - 100 ft face - Mass Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1100**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1100****10:37:41 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	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: **\$380.21**Total Fleet Cost/Hour: **\$760.42****MATERIAL QUANTITIES**Initial Volume: **1,797,311**Swell factor: **1.000**Loose volume: **1,797,311 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **145 feet**Unadjusted hourly production: **1,284.6 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7855

Adjusted unit production: 1,009.05 LCY/hr

Adjusted fleet production: **2018.1 LCY/hr**

JOB TIME AND COST

Fleet size: 2 Dozer(s)
 Unit cost: \$0.377/LCY

Total job time: **890.60 Hours**
 Total job cost: **\$677,231**

BULLDOZER WORKTask description: **SGVLF - 100 ft face - Fine Grading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1101**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1101****10:39:30 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **199,701**Swell factor: **1.000**Loose volume: **199,701 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **145 feet**Unadjusted hourly production: **381.4 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **2,800 lbs/LCY**Weight description: **Granite - Broken****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production: 249.66 LCY/hr

Adjusted fleet production: **249.66 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.994/LCY

Total job time: **799.89 Hours**
 Total job cost: **\$198,407**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 1 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1102**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1102****2:25:50 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: **13,456**

CCY

Swell factor: **1.215**Loose volume: **16,349**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6269.00	7.10	3.00	10.10	795	7.950

Haul Time: **7.950** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6269.00	-7.10	3.00	-4.10	3450	1.873

Return Time: **1.873** minutesTotal Truck Cycle Time: **13.655** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 309.35 LCY/Hour Adjusted for job efficiency: 256.76 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,283.78 LCY/Hour
Adjusted single truck/loader team production: 1,283.78 LCY/Hour
Adjusted multiple truck/loader team production: **1,283.78** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **12.74** Hours

Unit cost: \$2.539 /LCY Total job cost: **\$41,513**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 2 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1103**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1103**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: **12,686**

CCY

Swell factor: **1.215**Loose volume: **15,413**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4774.00	5.40	3.00	8.40	985	4.952

Haul Time: **4.952** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4774.00	-5.40	3.00	-2.40	3503	1.405

Return Time: **1.405** minutesTotal Truck Cycle Time: **10.189** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 414.58 LCY/Hour Adjusted for job efficiency: 344.10 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,376.40 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **11.57** HoursUnit cost: \$2.146 /LCY Total job cost: **\$33,083**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 3 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1104**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1104****2:27:17 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **16,792**

CCY

Swell factor: **1.215**Loose volume: **20,402**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3710.00	3.90	3.00	6.90	1160	3.326

Haul Time: **3.326** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3710.00	-3.90	3.00	-0.90	3503	1.092

Return Time: **1.092** minutesTotal Truck Cycle Time: **8.250** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 512.02 LCY/Hour Adjusted for job efficiency: 424.98 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,274.94 LCY/Hour
Adjusted single truck/loader team production: 1,274.94 LCY/Hour
Adjusted multiple truck/loader team production: **1,274.94** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **16.00** HoursUnit cost: \$1.929 /LCY Total job cost: **\$39,353**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 4 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1105**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1105**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **25,752**

CCY

Swell factor: **1.215**Loose volume: **31,289**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3178.00	1.90	3.00	4.90	1550	2.249

Haul Time: **2.249** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3178.00	-1.90	3.00	1.10	3503	1.103

Return Time: **1.103** minutesTotal Truck Cycle Time: **7.184** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 588.00 LCY/Hour Adjusted for job efficiency: 488.04 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,464.13 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **23.49** HoursUnit cost: \$1.846 /LCY Total job cost: **\$57,756**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 5 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1106**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1106**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$1,270.82		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,058.88****MATERIAL QUANTITIES**Initial volume: **41,227**

CCY

Swell factor: **1.215**Loose volume: **50,091**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2868.00	-2.00	3.00	1.00	3503	1.348

Haul Time: **1.348** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2868.00	2.00	3.00	5.00	3296	1.240

Return Time: **1.240** minutesTotal Truck Cycle Time: **6.420** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 657.98 LCY/Hour Adjusted for job efficiency: 546.12 LCY/Hour

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

Adjusted hourly truck team production: 1,092.25 LCY/Hour
Adjusted single truck/loader team production: 1,092.25 LCY/Hour
Adjusted multiple truck/loader team production: **1,092.25** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **45.86** Hours

Unit cost: \$1.885 /LCY Total job cost: **\$94,421**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 6 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1107**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1107****2:29:39 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: **70,800**

CCY

Swell factor: **1.215**Loose volume: **86,022**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3821.00	-4.20	3.00	-1.20	3503	1.174

Haul Time: **1.174** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3821.00	4.20	3.00	7.20	2398	1.806

Return Time: **1.806** minutesTotal Truck Cycle Time: **6.812** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 620.12 LCY/Hour Adjusted for job efficiency: 514.70 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,544.09 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **64.57** HoursUnit cost: \$1.846 /LCY Total job cost: **\$158,789**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 7 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A1108State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A11082:30:23 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 55,023

CCY

Swell factor: 1.215Loose volume: **66,853**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2908.00	-8.90	3.00	-5.90	1870	1.713

Haul Time: **1.713** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2908.00	8.90	3.00	11.90	1628	1.918

Return Time: **1.918** minutesTotal Truck Cycle Time: **7.463** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 566.02 LCY/Hour Adjusted for job efficiency: 469.80 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,409.39 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **50.18** Hours

Unit cost: \$1.846 /LCY Total job cost: **\$123,405**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 8 - Transport**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A1109State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A11092:31:21 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	3	1	1	0	1	1
Group Subtotals:	Work: \$1,671.11		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,459.17****MATERIAL QUANTITIES**Initial volume: 48,228

CCY

Swell factor: 1.215Loose volume: **58,597**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 200,000

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4903.00	-7.30	3.00	-4.30	2545	2.028

Haul Time: **2.028** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4903.00	7.30	3.00	10.30	1789	2.878

Return Time: **2.878** minutesTotal Truck Cycle Time: **8.738** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour

Truck Unit Production 483.43 LCY/Hour Adjusted for job efficiency: 401.24 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 1,203.73 LCY/Hour

Adjusted single truck/loader team production: 1,203.73 LCY/Hour

Adjusted multiple truck/loader team production: **1,203.73** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **48.68** HoursUnit cost: \$2.043 /LCY Total job cost: **\$119,711**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 9 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1110**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1110**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: **43,297**

CCY

Swell factor: **1.215**Loose volume: **52,606**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 16.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 17.600 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.565	minutes
Net Load Time per Truck:		1.795	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5285.00	-8.70	3.00	-5.70	1870	2.975

Haul Time: 2.975 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5285.00	8.70	3.00	11.70	1628	3.372

Return Time: 3.372 minutesTotal Truck Cycle Time: 10.179 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 414.99 LCY/Hour Adjusted for job efficiency: 344.44 LCY/HourOptimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)Adjusted hourly truck team production: 1,377.76 LCY/HourAdjusted single truck/loader team production: 1,332.22 LCY/HourAdjusted multiple truck/loader team production: 1,332.22 LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: 39.49 HoursUnit cost: \$2.146 /LCY Total job cost: \$112,912

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 10 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1111**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1111**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work: \$2,071.40		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$2,859.46****MATERIAL QUANTITIES**Initial volume: **38,594**

CCY

Swell factor: **1.215**Loose volume: **46,892**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7928.00	-7.10	3.00	-4.10	2545	3.279

Haul Time: **3.279** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7928.00	7.10	3.00	10.10	1789	4.563

Return Time: **4.563** minutesTotal Truck Cycle Time: **11.674** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 361.84 LCY/Hour Adjusted for job efficiency: 300.33 LCY/HourOptimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 1,201.31 LCY/Hour
Adjusted single truck/loader team production: 1,201.31 LCY/Hour
Adjusted multiple truck/loader team production: **1,201.31** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **39.03** HoursUnit cost: \$2.380 /LCY Total job cost: **\$111,615**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 11 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1112**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1112**

2:34:08 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: **38,532**

CCY

Swell factor: **1.215**Loose volume: **46,816**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7725.00	-8.50	3.00	-5.50	1870	4.348

Haul Time: **4.348** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7725.00	8.50	3.00	11.50	1628	4.865

Return Time: **4.865** minutesTotal Truck Cycle Time: **13.045** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/HourTruck Unit Production 323.81 LCY/Hour Adjusted for job efficiency: 268.76 LCY/HourOptimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,343.82 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: **1,332.22** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **35.14** HoursUnit cost: \$2.447 /LCY Total job cost: **\$114,553**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 12 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1113**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1113**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	5	1	1	0	1	1
Group Subtotals:	Work: \$2,471.69		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,259.75****MATERIAL QUANTITIES**Initial volume: **27,409**

CCY

Swell factor: **1.215**Loose volume: **33,302**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY

Heaped Volume: 78.80 LCY

Average Volume: 69.70 LCY

Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>0.980</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Load Time: 1.795 Minutes Adjusted for site altitude: 1.832 Minutes

Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8359.00	-9.10	3.00	-6.10	1870	4.705

Haul Time: **4.705** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8359.00	9.10	3.00	12.10	1628	5.273

Return Time: **5.273** minutesTotal Truck Cycle Time: **13.810** minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 305.87 LCY/Hour Adjusted for job efficiency: 253.87 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 1,269.37 LCY/Hour
Adjusted single truck/loader team production: 1,269.37 LCY/Hour
Adjusted multiple truck/loader team production: **1,269.37** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **26.23** Hours

Unit cost: \$2.568 /LCY Total job cost: **\$85,519**

TRUCK/LOADER TEAM WORKTask description: **SGVLF - Topsoil - Lift 13 - Transport**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1114**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A1114**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 777F
-Loader:	CAT 992K
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$206.48	\$229.24	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$160.10	\$200.29	\$160.22	NA	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$400.29	\$470.24	\$380.21	NA	\$271.99	\$135.86
Number of Units:	6	1	1	0	1	1
Group Subtotals:	Work: \$2,871.98		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,660.04****MATERIAL QUANTITIES**Initial volume: **17,859**

CCY

Swell factor: **1.215**Loose volume: **21,699**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **200,000**

Pounds

Payload Capacity: 125.00 LCY

Truck Bed (volume) Basis:

Struck Volume: 60.60 LCY
 Heaped Volume: 78.80 LCY
 Average Volume: 69.70 LCY
 Adjusted Volume: 78.80 LCY

Final Truck Volume Based on Number of Loader Passes: 70.40 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>16.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>17.600</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.625 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.565</u>	minutes
Net Load Time per Truck:		<u>1.795</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>1.795</u>	Minutes	Adjusted for site altitude:	<u>1.832</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9638.00	-8.40	3.00	-5.40	1870	5.425

Haul Time: 5.425 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9638.00	8.40	3.00	11.40	1734	5.716

Return Time: 5.716 minutesTotal Truck Cycle Time: 14.973 minutes

Loading Tool unit

Production 1,605.09 LCY/Hour Adjusted for job efficiency: 1,332.22 LCY/Hour
Truck Unit Production 282.11 LCY/Hour Adjusted for job efficiency: 234.16 LCY/Hour

Optimal No. of Trucks: 6 Truck(s) Selected Number of Trucks: 6 Truck(s)

Adjusted hourly truck team production: 1,404.93 LCY/Hour
Adjusted single truck/loader team production: 1,332.22 LCY/Hour
Adjusted multiple truck/loader team production: 1,332.22 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 16.29 HoursUnit cost: \$2.747 /LCY Total job cost: \$59,613

BULLDOZER WORKTask description: **SGVLF -Topsoil - Lift 1 - 13 - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A1115**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A1115****10:41:10 PM**User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **449,655**Swell factor: **1.215**Loose volume: **546,331 LCY**Source of estimated volume: **2022 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **145 feet**Unadjusted hourly production: **381.4 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 524.73 LCY/hr

Adjusted fleet production: **524.73 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.473/LCY

Total job time: **1,041.17 Hours**
Total job cost: **\$258,253**

BULLDOZER RIPPING WORK

Task description: SGVLF - Topsoil - Lift 1 - 13 - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A1116

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A1116

2:14:10 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 557.39 acres Rip Depth (ft): 2.50 Volume: 2,248,140 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 245.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.723 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.723 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.60 Acres/hr

Adjusted Hourly Fleet Production: 0.60 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 928.90 Hours

Unit cost: \$436.825 Per acre Total job cost: \$243,482

BULLDOZER RIPPING WORK

Task description: TR113 AGVLF - Leach Cell Footprint - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A1117

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A1117

2:15:45 PM

User: ERR

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D10T - 10SU

Horsepower: 574

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$178.69	NA
Operating Cost/Hour:	\$160.22	100
Ripper Ownership Cost/Hour:	\$24.49	NA
Ripper Operating Cost/Hour:	\$11.23	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$415.93	
Total Fleet Cost/Hour:	\$415.93	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 1.68 acres Rip Depth (ft): 2.50 Volume: 6,776 BCY or CCY

Source of estimated quantity: TR113

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.87 feet/pass
Average Ripping Width: 8.67 feet/pass
Average Ripping Length: 348.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.988 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.988 Acres/hr
Site Altitude: 9,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.82 Acres/hr

Adjusted Hourly Fleet Production: 0.82 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 2.05 Hours

Unit cost: \$506.990 Per acre Total job cost: \$852

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9400**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2000**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2000**

2:36:52 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$3,644.80		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,813.07****MATERIAL QUANTITIES**Initial volume: **340,405**

CCY

Swell factor: **1.000**Loose volume: **340,405**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 53.000 LCY (heaped)
 Bucket Fill Factor: 0.675 Blasted rock - poorly blasted (60 - 75%) 0.675
 Adjusted Capacity: 35.775 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 2.095 Minutes Adjusted for site altitude: 2.138 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4374.00	8.20	3.00	11.20	724	6.136

Haul Time: **6.136** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4374.00	-8.20	3.00	-5.20	3450	1.307

Return Time: **1.307** minutesTotal Truck Cycle Time: **11.581** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 741.40 LCY/Hour Adjusted for job efficiency: 615.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 2,461.46 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: **2,425.79** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **140.33** HoursUnit cost: \$1.984 /LCY Total job cost: **\$675,406**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9500**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2001**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2001**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: \$3,118.36		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,286.63****MATERIAL QUANTITIES**Initial volume: **437,763**

CCY

Swell factor: **1.000**Loose volume: **437,763**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3782.00	5.80	3.00	8.80	925	4.221

Haul Time: 4.221 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3782.00	-5.80	3.00	-2.80	3503	1.113

Return Time: 1.113 minutesTotal Truck Cycle Time: 9.472 minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 906.48 LCY/Hour Adjusted for job efficiency: 752.38 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 2,257.15 LCY/Hour
Adjusted single truck/loader team production: 2,257.15 LCY/Hour
Adjusted multiple truck/loader team production: 2,257.15 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 193.95 HoursUnit cost: \$1.899 /LCY Total job cost: \$831,372

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9600**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2002**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2002**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: \$2,591.92		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$3,760.19****MATERIAL QUANTITIES**Initial volume: **669,112**

CCY

Swell factor: **1.000**Loose volume: **669,112**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2074.00	3.90	3.00	6.90	1160	1.965

Haul Time: 1.965 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3782.00	-5.80	3.00	-2.80	3503	1.113

Return Time: 1.113 minutesTotal Truck Cycle Time: 7.216 minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 1,189.90 LCY/Hour Adjusted for job efficiency: 987.61 LCY/Hour

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

Adjusted hourly truck team production: 1,975.23 LCY/Hour
Adjusted single truck/loader team production: 1,975.23 LCY/Hour
Adjusted multiple truck/loader team production: 1,975.23 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 338.75 HoursUnit cost: \$1.904 /LCY Total job cost: \$1,273,771

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9700**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2003**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2003**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: \$2,591.92		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$3,760.19****MATERIAL QUANTITIES**Initial volume: **924,083**

CCY

Swell factor: **1.000**Loose volume: **924,083**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1628.00	-4.90	3.00	-1.90	3450	0.556

Haul Time: **0.556** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1628.00	4.90	3.00	7.90	2327	1.206

Return Time: **1.206** minutesTotal Truck Cycle Time: **5.900** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 1,455.31 LCY/Hour Adjusted for job efficiency: 1,207.91 LCY/Hour

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

Adjusted hourly truck team production: 2,415.82 LCY/Hour
Adjusted single truck/loader team production: 2,415.82 LCY/Hour
Adjusted multiple truck/loader team production: **2,415.82** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **382.51** HoursUnit cost: \$1.556 /LCY Total job cost: **\$1,438,321**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9800**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2004**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2004**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: \$3,118.36		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,286.63****MATERIAL QUANTITIES**Initial volume: **511,553**

CCY

Swell factor: **1.000**Loose volume: **511,553**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3194.00	-7.50	3.00	-4.50	2545	1.373

Haul Time: 1.373 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3194.00	7.50	3.00	10.50	1789	2.162

Return Time: 2.162 minutesTotal Truck Cycle Time: 7.673 minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 1,119.02 LCY/Hour Adjusted for job efficiency: 928.79 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 2,786.37 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: 2,425.79 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 210.88 HoursUnit cost: \$1.767 /LCY Total job cost: \$903,968

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9900**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2005**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2005**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$3,644.80		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,813.07****MATERIAL QUANTITIES**Initial volume: **291,740**

CCY

Swell factor: **1.000**Loose volume: **291,740**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4981.00	-8.80	3.00	-5.80	1870	2.804

Haul Time: **2.804** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4981.00	8.80	3.00	11.80	1628	3.455

Return Time: **3.455** minutesTotal Truck Cycle Time: **10.397** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 825.83 LCY/Hour Adjusted for job efficiency: 685.44 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 2,741.77 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: **2,425.79** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **120.27** HoursUnit cost: \$1.984 /LCY Total job cost: **\$578,848**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 10000**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2006**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2006**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$3,644.80		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,813.07****MATERIAL QUANTITIES**Initial volume: **84,553**

CCY

Swell factor: **1.000**Loose volume: **84,553**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6981.00	-8.60	3.00	-5.60	1870	3.930

Haul Time: **3.930** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6981.00	8.60	3.00	11.60	1628	4.632

Return Time: **4.632** minutesTotal Truck Cycle Time: **12.700** minutes

Loading Tool unit

Production	<u>2,922.64</u>	LCY/Hour	Adjusted for job efficiency:	<u>2,425.79</u>	LCY/Hour
Truck Unit Production	<u>676.08</u>	LCY/Hour	Adjusted for job efficiency:	<u>561.14</u>	LCY/Hour

Optimal No. of Trucks:	<u>4</u>	Truck(s)	Selected Number of Trucks:	<u>4</u>	Truck(s)
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Adjusted hourly truck team production:	<u>2,244.57</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>2,244.57</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>2,244.57</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>37.67</u>	Hours
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Unit cost:	<u>\$2.144</u>	/LCY	Total job cost:	<u>\$181,308</u>
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TRUCK/LOADER TEAM WORKTask description: **AGVLF - 9920**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2007**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2007**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$3,644.80		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,813.07****MATERIAL QUANTITIES**Initial volume: **6,599,307**

CCY

Swell factor: **1.000**Loose volume: **6,599,307**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4606.00	5.20	3.00	8.20	985	4.817

Haul Time: **4.817** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4606.00	-5.20	3.00	-2.20	3503	1.356

Return Time: **1.356** minutesTotal Truck Cycle Time: **10.311** minutes

Loading Tool unit

Production	<u>2,922.64</u>	LCY/Hour	Adjusted for job efficiency:	<u>2,425.79</u>	LCY/Hour
Truck Unit Production	<u>832.72</u>	LCY/Hour	Adjusted for job efficiency:	<u>691.16</u>	LCY/Hour

Optimal No. of Trucks:	<u>4</u>	Truck(s)	Selected Number of Trucks:	<u>4</u>	Truck(s)
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Adjusted hourly truck team production:	<u>2,764.64</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>2,425.79</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>2,425.79</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>2,720.48</u>	Hours
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Unit cost:	<u>\$1.984</u>	/LCY	Total job cost:	<u>\$13,093,843</u>
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TRUCK/LOADER TEAM WORKTask description: **AGVLF - 10020**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2008**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2008**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: \$3,118.36		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,286.63****MATERIAL QUANTITIES**Initial volume: **4,040,912**

CCY

Swell factor: **1.000**Loose volume: **4,040,912**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4269.00	2.30	3.00	5.30	1550	3.077

Haul Time: 3.077 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4269.00	-2.30	3.00	0.70	3503	1.447

Return Time: 1.447 minutesTotal Truck Cycle Time: 8.662 minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 991.25 LCY/Hour Adjusted for job efficiency: 822.74 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 2,468.22 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: 2,425.79 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 1,665.81 HoursUnit cost: \$1.767 /LCY Total job cost: \$7,140,720

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 10100**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2009**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2009**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: \$2,591.92		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$3,760.19****MATERIAL QUANTITIES**Initial volume: **3,919,057**

CCY

Swell factor: **1.000**Loose volume: **3,919,057**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 53.000 LCY (heaped)
 Bucket Fill Factor: 0.675 Blasted rock - poorly blasted (60 - 75%) 0.675
 Adjusted Capacity: 35.775 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.830** **0.813**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes
 Truck Load Time: 2.095 Minutes Adjusted for site altitude: 2.138 Minutes
 Truck Maneuver and Dump Time: 1.20 Minutes Adjusted for site altitude: 1.200 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1495.00	-4.00	3.00	-1.00	3503	0.508

Haul Time: **0.508** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1495.00	4.00	3.00	7.00	2398	1.000

Return Time: **1.000** minutesTotal Truck Cycle Time: **5.646** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 1,520.79 LCY/Hour Adjusted for job efficiency: 1,262.25 LCY/Hour

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

Adjusted hourly truck team production: 2,524.51 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: **2,425.79** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **1,615.58** HoursUnit cost: \$1.550 /LCY Total job cost: **\$6,074,884**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 10190**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2010**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2010**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: \$2,591.92		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$3,760.19****MATERIAL QUANTITIES**Initial volume: **3,562,003**

CCY

Swell factor: **1.000**Loose volume: **3,562,003**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3784.00	-6.60	3.00	-3.60	2545	1.600

Haul Time: **1.600** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3784.00	6.60	3.00	9.60	1789	2.355

Return Time: **2.355** minutesTotal Truck Cycle Time: **8.093** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/HourTruck Unit Production 1,060.95 LCY/Hour Adjusted for job efficiency: 880.59 LCY/HourOptimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 1,761.18 LCY/Hour
Adjusted single truck/loader team production: 1,761.18 LCY/Hour
Adjusted multiple truck/loader team production: **1,761.18** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **2,022.51** HoursUnit cost: \$2.135 /LCY Total job cost: **\$7,605,040**

TRUCK/LOADER TEAM WORKTask description: **AGVLF - 10280**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2011**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2011**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	Cat D10T - 10SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	\$178.69	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	\$160.22	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	\$380.21	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$3,644.80		Support: \$760.42		Maint: \$407.85	

Total work team cost/hour: **\$4,813.07****MATERIAL QUANTITIES**Initial volume: **3,477,782**

CCY

Swell factor: **1.000**Loose volume: **3,477,782**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.813	

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6052.00	-7.60	3.00	-4.60	1870	3.407

Haul Time: **3.407** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6052.00	7.60	3.00	10.60	1734	3.804

Return Time: **3.804** minutesTotal Truck Cycle Time: **11.349** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 756.56 LCY/Hour Adjusted for job efficiency: 627.94 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 2,511.78 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: **2,425.79** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **1,433.67** HoursUnit cost: \$1.984 /LCY Total job cost: **\$6,900,350**

TRUCK/LOADER TEAM WORKTask description: **Remove ROM**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A2100State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A21002:52:57 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$2,591.92		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,379.98****MATERIAL QUANTITIES**Initial volume: 12,587

CCY

Swell factor: 1.000Loose volume: **12,587**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 2,800

Pounds/LCY

Description: Granite - BrokenRated Payload: 492,200

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1126.00	2.00	3.00	5.00	1550	0.996

Haul Time: **0.996** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1126.00	-2.00	3.00	1.00	3503	0.562

Return Time: **0.562** minutesTotal Truck Cycle Time: **5.696** minutes

Loading Tool unit

Production	<u>2,922.64</u>	LCY/Hour	Adjusted for job efficiency:	<u>2,425.79</u>	LCY/Hour
Truck Unit Production	<u>1,507.44</u>	LCY/Hour	Adjusted for job efficiency:	<u>1,251.17</u>	LCY/Hour

Optimal No. of Trucks:	<u>2</u>	Truck(s)	Selected Number of Trucks:	<u>2</u>	Truck(s)
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Adjusted hourly truck team production:	<u>2,502.35</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>2,425.79</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>2,425.79</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>5.19</u>	Hours
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Unit cost:	<u>\$1.393</u>	/LCY	Total job cost:	<u>\$17,538</u>
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TRUCK/LOADER TEAM WORKTask description: **Remove DCF and Liner**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A2200**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A2200**

2:53:53 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

Equipment Description	
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D10T - 10SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$207.26	\$859.02	\$178.69	NA	\$212.21	\$86.29
Operating cost/hour:	\$284.76	\$639.31	\$160.22	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$526.44	\$1,539.04	\$380.21	NA	\$271.99	\$135.86
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work: \$2,591.92		Support: \$380.21		Maint: \$407.85	

Total work team cost/hour: **\$3,379.98****MATERIAL QUANTITIES**Initial volume: **12,587**

CCY

Swell factor: **1.000**Loose volume: **12,587**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,800**

Pounds/LCY

Description: **Granite - Broken**Rated Payload: **492,200**

Pounds

Payload Capacity: 175.79 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
 Heaped Volume: 192.00 LCY
 Average Volume: 172.50 LCY
 Adjusted Volume: 175.79 LCY

Final Truck Volume Based on Number of Loader Passes: 143.10 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>53.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.675</u>	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<u>35.775</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.830 0.813

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.665	minutes
Net Load Time per Truck:		2.095	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.80</u>	Minutes	Adjusted for site altitude:	<u>0.800</u>	Minutes
Truck Load Time:	<u>2.095</u>	Minutes	Adjusted for site altitude:	<u>2.138</u>	Minutes
Truck Maneuver and Dump Time:	<u>1.20</u>	Minutes	Adjusted for site altitude:	<u>1.200</u>	Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1126.00	2.00	3.00	5.00	1550	0.996

Haul Time: **0.996** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1126.00	-2.00	3.00	1.00	3503	0.562

Return Time: **0.562** minutesTotal Truck Cycle Time: **5.696** minutes

Loading Tool unit

Production 2,922.64 LCY/Hour Adjusted for job efficiency: 2,425.79 LCY/Hour
Truck Unit Production 1,507.44 LCY/Hour Adjusted for job efficiency: 1,251.17 LCY/Hour

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

Adjusted hourly truck team production: 2,502.35 LCY/Hour
Adjusted single truck/loader team production: 2,425.79 LCY/Hour
Adjusted multiple truck/loader team production: **2,425.79** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **5.19** HoursUnit cost: \$1.393 /LCY Total job cost: **\$17,538**

TRUCK/LOADER TEAM WORKTask description: Cresson Underground Portal BackfillSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A2300State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A23002:55:38 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	NA	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	NA	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	NA	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	NA	\$271.99	\$135.86
Number of Units:	7	1	1	0	1	1
Group Subtotals:	Work: \$1,847.21		Support: \$426.60		Maint: \$407.85	

Total work team cost/hour: **\$2,681.66****MATERIAL QUANTITIES**Initial volume: 592

CCY

Swell factor: 1.000Loose volume: **592**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 2,800

Pounds/LCY

Description: Granite - BrokenRated Payload: 87,000

Pounds

Payload Capacity: 31.07 LCY**Truck Bed (volume) Basis:**

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.07 LCY

Final Truck Volume Based on Number of Loader Passes: 31.05 LCY**Loading Tool Capacity**Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 0.675 Blasted rock - poorly blasted (60 - 75%) 0.675
 Adjusted Capacity: 6.210 LCY

Job Condition Corrections:Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.681 0.789**Loading Tool Cycle Time:** Number of Loading Tool Passes Required to Fill Truck: 5 passes**Excavators and Front Shovels:**

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.515	minutes
Net Load Time per Truck:		2.160	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 2.160 Minutes Adjusted for site altitude: 2.274 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9300.00	10.00	3.00	13.00	708	13.198

Haul Time: **13.198** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9300.00	-10.00	3.00	-7.00	3706	2.587

Return Time: **2.587** minutesTotal Truck Cycle Time: **20.010** minutes

Loading Tool unit

Production 619.89 LCY/Hour Adjusted for job efficiency: 514.51 LCY/HourTruck Unit Production 93.10 LCY/Hour Adjusted for job efficiency: 77.28 LCY/HourOptimal No. of Trucks: 7 Truck(s) Selected Number of Trucks: 7 Truck(s)Adjusted hourly truck team production: 540.93 LCY/HourAdjusted single truck/loader team production: 514.51 LCY/HourAdjusted multiple truck/loader team production: **514.51** LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: **1.15** HoursUnit cost: \$5.212 /LCY Total job cost: **\$3,086**

BULLDOZER RIPPING WORK

Task description: **Foundations and Buildings - Ripping**

Site: **Cresson Project** Permit Action: **2023** Permit/Job#: **M1980244**

PROJECT IDENTIFICATION

Task #: **A3000** State: **Colorado** Abbreviation: **None**
Date: **11/21/2023** County: **Teller** Filename: **M244-A3000**
2:16:50 PM
User: **ZTT**

Agency or organization name: **DRMS**

HOURLY EQUIPMENT COST

Basic Machine: **Cat D7R DS Series II LGP** Horsepower: **240**
Ripper Attachment: **3-Shank Ripper** Shift Basis: **1 per day**
Data Source: **(CRG)**

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: **Area**

Alternate Methods:

Seismic: **NA** Bank Volume: **NA** BCY **NA**
Area: **9.89** acres Rip Depth (ft): **2.50** Volume: **39,890** BCY or CCY

Source of estimated quantity: **2022 CC&V Provided Estimate**

HOURLY PRODUCTION

Seismic:

Seismic Velocity: **NA** feet/second

Area:

Average Ripping Depth: **2.45** feet/pass
Average Ripping Width: **6.50** feet/pass
Average Ripping Length: **184.00** feet/pass
Average Dozer Speed: **88.00** feet/minute
Average Maneuver Time: **0.25** minutes/pass
Production per unit area: **0.704** acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: **0.704** Acres/hr
Site Altitude: **9,500** feet
Altitude Adj: **1.00** (CAT HB)
Job Efficiency: **0.83** (1 shift/day)
Net Correction: **0.83** multiplier

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

JOB TIME AND COST

Fleet size: **1** Grader(s) Total job time: **16.93** Hours

Unit cost: **\$448.758** Per acre Total job cost: **\$4,438**

TRUCK/LOADER TEAM WORKTask description: **Foundations and Buildings - B&G and Topsoil - 5.1k Haul**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A3001**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A3001**

2:56:44 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 966H
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$130.23	\$65.69	\$114.76	\$114.76	\$212.21	\$86.29
Operating cost/hour:	\$77.33	\$48.09	\$91.98	\$91.98	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$240.10	\$154.49	\$248.04	\$248.04	\$271.99	\$135.86
Number of Units:	6	1	1	1	1	1
Group Subtotals:	Work: \$1,595.09		Support: \$496.08		Maint: \$407.85	

Total work team cost/hour: **\$2,499.02****MATERIAL QUANTITIES**Initial volume: **31,873**

CCY

Swell factor: **1.215**Loose volume: **38,726**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **52,000**

Pounds

Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY
 Heaped Volume: 18.70 LCY
 Average Volume: 16.60 LCY
 Adjusted Volume: 18.70 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 5.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 5.500 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

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

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.440	minutes
Net Load Time per Truck:		0.980	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes
 Truck Load Time: 0.980 Minutes Adjusted for site altitude: 0.980 Minutes
 Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5100.00	3.00	3.00	6.00	1171	4.426

Haul Time: **4.426** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5100.00	-3.00	3.00	0.00	3159	1.744

Return Time: **1.744** minutesTotal Truck Cycle Time: **8.550** minutes

Loading Tool unit

Production 668.92 LCY/Hour Adjusted for job efficiency: 555.20 LCY/Hour
Truck Unit Production 115.79 LCY/Hour Adjusted for job efficiency: 96.11 LCY/Hour

Optimal No. of Trucks: 6 Truck(s) Selected Number of Trucks: 6 Truck(s)

Adjusted hourly truck team production: 576.63 LCY/Hour
Adjusted single truck/loader team production: 555.20 LCY/Hour
Adjusted multiple truck/loader team production: **555.20** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **69.75** HoursUnit cost: \$4.501 /LCY Total job cost: **\$174,308**

TRUCK/LOADER TEAM WORKTask description: **Foundations and Buildings - B&G and Topsoil - 8.3k Haul**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A3002State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A30023:01:06 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 966H
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$130.23	\$65.69	\$114.76	\$114.76	\$212.21	\$86.29
Operating cost/hour:	\$77.33	\$48.09	\$91.98	\$91.98	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$240.10	\$154.49	\$248.04	\$248.04	\$271.99	\$135.86
Number of Units:	9	1	1	1	1	1
Group Subtotals:	Work: \$2,315.39		Support: \$496.08		Maint: \$407.85	

Total work team cost/hour: **\$3,219.32****MATERIAL QUANTITIES**Initial volume: 2,497

CCY

Swell factor: 1.215Loose volume: **3,034**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 52,000

Pounds

Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY
 Heaped Volume: 18.70 LCY
 Average Volume: 16.60 LCY
 Adjusted Volume: 18.70 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 5.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 5.500 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

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

Net Correction: 0.830 0.830

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.440	minutes
Net Load Time per Truck:		0.980	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes
 Truck Load Time: 0.980 Minutes Adjusted for site altitude: 0.980 Minutes
 Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8300.00	5.00	3.00	8.00	936	8.915

Haul Time: **8.915** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8300.00	-5.00	3.00	-2.00	3159	2.709

Return Time: **2.709** minutesTotal Truck Cycle Time: **14.004** minutes

Loading Tool unit

Production	<u>668.92</u>	LCY/Hour	Adjusted for job efficiency:	<u>555.20</u>	LCY/Hour
Truck Unit Production	<u>70.69</u>	LCY/Hour	Adjusted for job efficiency:	<u>58.68</u>	LCY/Hour

Optimal No. of Trucks:	<u>9</u>	Truck(s)	Selected Number of Trucks:	<u>9</u>	Truck(s)
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Adjusted hourly truck team production:	<u>528.08</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>528.08</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>528.08</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>5.75</u>	Hours
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Unit cost:	<u>\$6.096</u>	/LCY	Total job cost:	<u>\$18,495</u>
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TRUCK/LOADER TEAM WORKTask description: **Foundations and Buildings - B&G and Topsoil - 9.3k Haul**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A3003State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A3003

3:01:53 PM

User: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 966H
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$130.23	\$65.69	\$114.76	\$114.76	\$212.21	\$86.29
Operating cost/hour:	\$77.33	\$48.09	\$91.98	\$91.98	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$240.10	\$154.49	\$248.04	\$248.04	\$271.99	\$135.86
Number of Units:	10	1	1	1	1	1
Group Subtotals:	Work: \$2,555.49		Support: \$496.08		Maint: \$407.85	

Total work team cost/hour: **\$3,459.42****MATERIAL QUANTITIES**Initial volume: 5,228

CCY

Swell factor: 1.215Loose volume: **6,352**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 52,000

Pounds

Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY
 Heaped Volume: 18.70 LCY
 Average Volume: 16.60 LCY
 Adjusted Volume: 18.70 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 5.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 5.500 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

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

Net Correction: 0.830 0.830

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.440	minutes
Net Load Time per Truck:		0.980	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes
 Truck Load Time: 0.980 Minutes Adjusted for site altitude: 0.980 Minutes
 Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9300.00	10.00	3.00	13.00	586	15.888

Haul Time: **15.888** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9300.00	-10.00	3.00	-7.00	3159	3.035

Return Time: **3.035** minutesTotal Truck Cycle Time: **21.303** minutes

Loading Tool unit

Production 668.92 LCY/Hour Adjusted for job efficiency: 555.20 LCY/HourTruck Unit Production 46.47 LCY/Hour Adjusted for job efficiency: 38.57 LCY/HourOptimal No. of Trucks: 14 Truck(s) Selected Number of Trucks: 10 Truck(s)

Adjusted hourly truck team production: 385.72 LCY/Hour
Adjusted single truck/loader team production: 385.72 LCY/Hour
Adjusted multiple truck/loader team production: **385.72** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **16.47** HoursUnit cost: \$8.969 /LCY Total job cost: **\$56,970**

TRUCK/LOADER TEAM WORKTask description: **Foundations and Buildings - B&G and Topsoil - 10.3k Haul**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A3004**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A3004**

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User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 966H
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$130.23	\$65.69	\$114.76	\$114.76	\$212.21	\$86.29
Operating cost/hour:	\$77.33	\$48.09	\$91.98	\$91.98	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$240.10	\$154.49	\$248.04	\$248.04	\$271.99	\$135.86
Number of Units:	10	1	1	1	1	1
Group Subtotals:	Work: \$2,555.49		Support: \$496.08		Maint: \$407.85	

Total work team cost/hour: **\$3,459.42****MATERIAL QUANTITIES**Initial volume: **43,716**

CCY

Swell factor: **1.215**Loose volume: **53,115**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **52,000**

Pounds

Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY

Heaped Volume: 18.70 LCY

Average Volume: 16.60 LCY

Adjusted Volume: 18.70 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>5.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>5.500</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

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

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.440	minutes
Net Load Time per Truck:		0.980	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes

Truck Load Time: 0.980 Minutes Adjusted for site altitude: 0.980 Minutes

Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10300.00	3.00	3.00	6.00	1171	8.866

Haul Time: **8.866** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10300.00	-3.00	3.00	0.00	3159	3.390

Return Time: **3.390** minutesTotal Truck Cycle Time: **14.636** minutes

Loading Tool unit

Production 668.92 LCY/Hour Adjusted for job efficiency: 555.20 LCY/Hour
Truck Unit Production 67.64 LCY/Hour Adjusted for job efficiency: 56.14 LCY/Hour

Optimal No. of Trucks: 10 Truck(s) Selected Number of Trucks: 10 Truck(s)

Adjusted hourly truck team production: 561.42 LCY/Hour
Adjusted single truck/loader team production: 555.20 LCY/Hour
Adjusted multiple truck/loader team production: **555.20** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **95.67** HoursUnit cost: \$6.231 /LCY Total job cost: **\$330,955**

TRUCK/LOADER TEAM WORKTask description: **Foundations and Buildings - B&G and Topsoil - 11.4k Haul**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A3005State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A30053:03:32 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 966H
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$130.23	\$65.69	\$114.76	\$114.76	\$212.21	\$86.29
Operating cost/hour:	\$77.33	\$48.09	\$91.98	\$91.98	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$240.10	\$154.49	\$248.04	\$248.04	\$271.99	\$135.86
Number of Units:	9	1	1	1	1	1
Group Subtotals:	Work: \$2,315.39		Support: \$496.08		Maint: \$407.85	

Total work team cost/hour: **\$3,219.32****MATERIAL QUANTITIES**Initial volume: 393

CCY

Swell factor: 1.215Loose volume: **477**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 52,000

Pounds

Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY

Heaped Volume: 18.70 LCY

Average Volume: 16.60 LCY

Adjusted Volume: 18.70 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>5.000</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) <u>1.100</u>
Adjusted Capacity:	<u>5.500</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	<u>1.000</u>	<u>1.000</u>	(CAT HB)
Job Efficiency:	<u>0.830</u>	<u>0.830</u>	(CAT HB)

Net Correction: 0.830 0.830

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	<u>0.020</u>	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	<u>0.000</u>	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	<u>-0.040</u>	(Cat HB)
Operation:	Constant operation -0.04	<u>-0.040</u>	(Cat HB)
Dump Target:	Nominal target 0.00	<u>0.000</u>	(Cat HB)
Net Cycle Time Adjustment:		<u>-0.060</u>	minutes
Adjusted Loader Cycle Time:		<u>0.440</u>	minutes
Net Load Time per Truck:		<u>0.980</u>	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes

Truck Load Time: 0.980 Minutes Adjusted for site altitude: 0.980 Minutes

Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	11400.00	1.00	3.00	4.00	1817	6.456

Haul Time: **6.456** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	11400.00	-1.00	3.00	2.00	2978	3.973

Return Time: **3.973** minutesTotal Truck Cycle Time: **12.809** minutes

Loading Tool unit

Production	<u>668.92</u>	LCY/Hour	Adjusted for job efficiency:	<u>555.20</u>	LCY/Hour
Truck Unit Production	<u>77.29</u>	LCY/Hour	Adjusted for job efficiency:	<u>64.15</u>	LCY/Hour

Optimal No. of Trucks:	<u>9</u>	Truck(s)	Selected Number of Trucks:	<u>9</u>	Truck(s)
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Adjusted hourly truck team production:	<u>577.35</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>555.20</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>555.20</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>0.86</u>	Hours
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Unit cost:	<u>\$5.798</u>	/LCY	Total job cost:	<u>\$2,769</u>
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TRUCK/LOADER TEAM WORKTask description: **Foundations and Buildings - B&G and Topsoil - 20k Haul**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A3006State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A3006

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User: ERRAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 966H
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$130.23	\$65.69	\$114.76	\$114.76	\$212.21	\$86.29
Operating cost/hour:	\$77.33	\$48.09	\$91.98	\$91.98	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$240.10	\$154.49	\$248.04	\$248.04	\$271.99	\$135.86
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: \$634.69		Support: \$496.08		Maint: \$407.85	

Total work team cost/hour: **\$1,538.62****MATERIAL QUANTITIES**Initial volume: 127

CCY

Swell factor: 1.215Loose volume: **154**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 52,000

Pounds

Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY
 Heaped Volume: 18.70 LCY
 Average Volume: 16.60 LCY
 Adjusted Volume: 18.70 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 5.000 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 5.500 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

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

Net Correction: 0.830 0.830

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.060	minutes
Adjusted Loader Cycle Time:		0.440	minutes
Net Load Time per Truck:		0.980	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes
 Truck Load Time: 0.980 Minutes Adjusted for site altitude: 0.980 Minutes
 Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	20000.00	6.00	3.00	9.00	824	24.308

Haul Time: **24.308** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	20000.00	-6.00	3.00	-3.00	3159	6.527

Return Time: **6.527** minutesTotal Truck Cycle Time: **33.215** minutes

Loading Tool unit

Production 668.92 LCY/Hour Adjusted for job efficiency: 555.20 LCY/Hour
Truck Unit Production 29.81 LCY/Hour Adjusted for job efficiency: 24.74 LCY/Hour

Optimal No. of Trucks: 22 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 49.48 LCY/Hour
Adjusted single truck/loader team production: 49.48 LCY/Hour
Adjusted multiple truck/loader team production: **49.48** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **3.12** Hours

Unit cost: \$31.097 /LCY Total job cost: **\$4,798**

TRUCK/LOADER TEAM WORKTask description: **EMP Ponds**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A4000**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A4000**

3:05:15 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	\$241.38	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	\$143.92	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	\$426.60	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$1,161.08		Support: \$853.20		Maint: \$407.85	

Total work team cost/hour: **\$2,422.13****MATERIAL QUANTITIES**Initial volume: **79,719**

CCY

Swell factor: **1.000**Loose volume: **79,719**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **2,650** Pounds/LCYDescription: **Decomposed rock - 25% Rock, 75% Earth**Rated Payload: **87,000** Pounds

Payload Capacity: 32.83 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.681** **0.789**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.495	minutes
Net Load Time per Truck:		1.090	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.090 Minutes Adjusted for site altitude: 1.147 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	2.323

Haul Time: **2.323** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	1.698

Return Time: **1.698** minutesTotal Truck Cycle Time: **7.120** minutes

Loading Tool unit

Production	<u>969.41</u>	LCY/Hour	Adjusted for job efficiency:	<u>804.61</u>	LCY/Hour
Truck Unit Production	<u>255.86</u>	LCY/Hour	Adjusted for job efficiency:	<u>212.36</u>	LCY/Hour

Optimal No. of Trucks:	<u>4</u>	Truck(s)	Selected Number of Trucks:	<u>4</u>	Truck(s)
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Adjusted hourly truck team production:	<u>849.45</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>804.61</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>804.61</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>99.08</u>	Hours
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Unit cost:	<u>\$3.010</u>	/LCY	Total job cost:	<u>\$239,979</u>
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TRUCK/LOADER TEAM WORKTask description: **EMP Ponds - Topsoil**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A4001**State: **Colorado**Abbreviation: **None**Date: **11/22/2023**County: **Teller**Filename: **M244-A4001**

3:06:02 PM

User: **ZTT**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	\$241.38	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	\$143.92	\$31.22	\$28.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	\$426.60	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$1,161.08		Support: \$853.20		Maint: \$407.85	

Total work team cost/hour: **\$2,422.13****MATERIAL QUANTITIES**Initial volume: **4,572**

CCY

Swell factor: **1.215**Loose volume: **5,555**

LCY

Source of estimated volume: **2022 CC&V Provided 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: **1,600**

Pounds/LCY

Description: **Top Soil**Rated Payload: **87,000**

Pounds

Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.681** **0.789**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.495	minutes
Net Load Time per Truck:		1.090	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.090 Minutes Adjusted for site altitude: 1.147 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	2.323

Haul Time: **2.323** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	1.698

Return Time: **1.698** minutesTotal Truck Cycle Time: **7.120** minutes

Loading Tool unit

Production 969.41 LCY/Hour Adjusted for job efficiency: 804.61 LCY/Hour
 Truck Unit Production 255.86 LCY/Hour Adjusted for job efficiency: 212.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 849.45 LCY/Hour
 Adjusted single truck/loader team production: 804.61 LCY/Hour
 Adjusted multiple truck/loader team production: **804.61** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **6.90** HoursUnit cost: \$3.010 /LCY Total job cost: **\$16,722**

TRUCK/LOADER TEAM WORKTask description: Crusher Fuel Island Fresh Water PondSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A4002State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A4002

3:07:03 PM

User: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	\$241.38	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	\$143.92	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	\$426.60	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$1,161.08		Support: \$853.20		Maint: \$407.85	

Total work team cost/hour: **\$2,422.13****MATERIAL QUANTITIES**Initial volume: 1,257

CCY

Swell factor: 1.000Loose volume: **1,257**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:**Truck Payload (weight) Basis:Material weight: 2,650 Pounds/LCYDescription: Decomposed rock - 25% Rock, 75% EarthRated Payload: 87,000 Pounds

Payload Capacity: 32.83 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.681** **0.789**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.495	minutes
Net Load Time per Truck:		1.090	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.090 Minutes Adjusted for site altitude: 1.147 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	2.323

Haul Time: **2.323** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	1.698

Return Time: **1.698** minutesTotal Truck Cycle Time: **7.120** minutes

Loading Tool unit

Production	<u>969.41</u>	LCY/Hour	Adjusted for job efficiency:	<u>804.61</u>	LCY/Hour
Truck Unit Production	<u>255.86</u>	LCY/Hour	Adjusted for job efficiency:	<u>212.36</u>	LCY/Hour

Optimal No. of Trucks:	<u>4</u>	Truck(s)	Selected Number of Trucks:	<u>4</u>	Truck(s)
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Adjusted hourly truck team production:	<u>849.45</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>804.61</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>804.61</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>1.56</u>	Hours
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Unit cost:	<u>\$3.010</u>	/LCY	Total job cost:	<u>\$3,784</u>
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TRUCK/LOADER TEAM WORKTask description: Crusher Fuel Island Fresh Water Pond - TopsoilSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A4003State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A4003

3:07:58 PM

User: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	\$241.38	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	\$143.92	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	\$426.60	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$1,161.08		Support: \$853.20		Maint: \$407.85	

Total work team cost/hour: \$2,422.13**MATERIAL QUANTITIES**Initial volume: 186

CCY

Swell factor: 1.215Loose volume: 226

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 87,000

Pounds

Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: 0.681 0.789

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.495	minutes
Net Load Time per Truck:		1.090	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.090 Minutes Adjusted for site altitude: 1.147 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	2.323

Haul Time: **2.323** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	1.698

Return Time: **1.698** minutesTotal Truck Cycle Time: **7.120** minutes

Loading Tool unit

Production 969.41 LCY/Hour Adjusted for job efficiency: 804.61 LCY/Hour
Truck Unit Production 255.86 LCY/Hour Adjusted for job efficiency: 212.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 849.45 LCY/Hour
Adjusted single truck/loader team production: 804.61 LCY/Hour
Adjusted multiple truck/loader team production: **804.61** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **0.28** HoursUnit cost: \$3.010 /LCY Total job cost: **\$680**

TRUCK/LOADER TEAM WORKTask description: Arequa External PondsSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A4004State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A4004

3:08:47 PM

User: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	\$241.38	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	\$143.92	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	\$426.60	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$1,161.08		Support: \$853.20		Maint: \$407.85	

Total work team cost/hour: **\$2,422.13****MATERIAL QUANTITIES**Initial volume: 85,438

CCY

Swell factor: 1.000Loose volume: **85,438**

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:**Truck Payload (weight) Basis:Material weight: 2,650 Pounds/LCYDescription: Decomposed rock - 25% Rock, 75% EarthRated Payload: 87,000 Pounds

Payload Capacity: 32.83 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.681** **0.789**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.495	minutes
Net Load Time per Truck:		1.090	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.090 Minutes Adjusted for site altitude: 1.147 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	2.323

Haul Time: **2.323** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	1.698

Return Time: **1.698** minutesTotal Truck Cycle Time: **7.120** minutes

Loading Tool unit

Production	<u>969.41</u>	LCY/Hour	Adjusted for job efficiency:	<u>804.61</u>	LCY/Hour
Truck Unit Production	<u>255.86</u>	LCY/Hour	Adjusted for job efficiency:	<u>212.36</u>	LCY/Hour

Optimal No. of Trucks:	<u>4</u>	Truck(s)	Selected Number of Trucks:	<u>4</u>	Truck(s)
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Adjusted hourly truck team production:	<u>849.45</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>804.61</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>804.61</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>106.19</u>	Hours
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Unit cost:	<u>\$3.010</u>	/LCY	Total job cost:	<u>\$257,195</u>
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TRUCK/LOADER TEAM WORKTask description: Arequa External Ponds - TopsoilSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: A4005State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A40053:09:38 PMUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 988H
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:**Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	\$113.82	\$109.98	\$241.38	\$241.38	\$212.21	\$86.29
Operating cost/hour:	\$81.91	\$95.55	\$143.92	\$143.92	\$31.22	\$28.44
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.98	\$40.71	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$228.71	\$246.24	\$426.60	\$426.60	\$271.99	\$135.86
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: \$1,161.08		Support: \$853.20		Maint: \$407.85	

Total work team cost/hour: \$2,422.13**MATERIAL QUANTITIES**Initial volume: 4,637

CCY

Swell factor: 1.215Loose volume: 5,634

LCY

Source of estimated volume: 2022 CC&V Provided EstimateSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 87,000

Pounds

Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis:

Struck Volume: 24.20 LCY
 Heaped Volume: 31.40 LCY
 Average Volume: 27.80 LCY
 Adjusted Volume: 31.40 LCY

Final Truck Volume Based on Number of Loader Passes: 30.36 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 9.200 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 10.120 LCY

Job Condition Corrections:

Site Altitude (ft.): 9500 feet

	Truck	Loader	Source
Altitude Adj:	0.820	0.950	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)

Net Correction: **0.681** **0.789**

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

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.495	minutes
Net Load Time per Truck:		1.090	minutes

Truck Cycle Time:

Truck Exchange Time: 0.60 Minutes Adjusted for site altitude: 0.732 Minutes
 Truck Load Time: 1.090 Minutes Adjusted for site altitude: 1.147 Minutes
 Truck Maneuver and Dump Time: 1.00 Minutes Adjusted for site altitude: 1.220 Minutes

Truck Travel (Haul & Return) Time:
maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	2.323

Haul Time: **2.323** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4600.00	0.00	3.00	3.00	3005	1.698

Return Time: **1.698** minutesTotal Truck Cycle Time: **7.120** minutes

Loading Tool unit

Production 969.41 LCY/Hour Adjusted for job efficiency: 804.61 LCY/Hour
Truck Unit Production 255.86 LCY/Hour Adjusted for job efficiency: 212.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 849.45 LCY/Hour
Adjusted single truck/loader team production: 804.61 LCY/Hour
Adjusted multiple truck/loader team production: **804.61** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **7.00** HoursUnit cost: \$3.010 /LCY Total job cost: **\$16,960**

TRUCK/LOADER TEAM WORKTask description: TR124 Carlton Tunnel Pond CleanoutSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: A4006State: ColoradoAbbreviation: NoneDate: 11/22/2023County: TellerFilename: M244-A4006

3:10:28 PM

User: ERRAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 15-18 cy, 6x4
-Loader:	Cat 320D L 9'-6" Stick
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

Truck/Loader Team

Support Equipment

Maintenance Equipment

	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$32.13	\$70.85	NA	NA	NA	NA
Operating cost/hour:	\$73.27	\$50.01	NA	NA	NA	NA
%Utilization-ripper:	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:	\$32.54	\$37.32	NA	NA	NA	NA
Unit Subtotals:	\$137.94	\$158.18	NA	NA	NA	NA
Number of Units:	1	1	0	0	0	0
Group Subtotals:	Work: \$296.12		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$296.12MATERIAL QUANTITIESInitial volume: 383

CCY

Swell factor: 1.250Loose volume: 479

LCY

Source of estimated volume: TR124Source of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 2,800

Pounds/LCY

Description: Clay - WetRated Payload: 63,980

Pounds

Payload Capacity: 22.85 LCY

Truck Bed (volume) Basis:

Struck Volume: 15.00 LCY
 Heaped Volume: 18.00 LCY
 Average Volume: 16.50 LCY
 Adjusted Volume: 18.00 LCY

Final Truck Volume Based on Number of Loader Passes: 17.08 LCY

Loading Tool Capacity

Bucket Size Class: Small

Rated Capacity:	<u>0.980</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.025</u>	Bank Clay; Earth (100%-105%) 1.025
Adjusted Capacity:	<u>1.005</u>	LCY

Job Condition Corrections:

Site Altitude (ft.): 6900 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.900	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.747	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 17 passes

Excavators and Front Shovels:

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

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

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

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)
Dump Target:	NA	NA	(Cat HB)
Net Cycle Time Adjustment:		NA	minutes
Adjusted Loader Cycle Time:		0.390	minutes
Net Load Time per Truck:		6.340	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.50</u>	Minutes	Adjusted for site altitude:	<u>0.500</u>	Minutes
Truck Load Time:	<u>6.340</u>	Minutes	Adjusted for site altitude:	<u>7.044</u>	Minutes
Truck Maneuver and Dump Time:	<u>0.90</u>	Minutes	Adjusted for site altitude:	<u>0.900</u>	Minutes

Truck Travel (Haul & Return) Time:
penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	760.00	0.00	5.00	5.00	1867	0.488

Haul Time: **0.488** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1560.00	0.00	5.00	5.00	2795	0.592

Return Time: **0.592** minutesTotal Truck Cycle Time: **9.524** minutes

Loading Tool unit

Production 135.81 LCY/Hour Adjusted for job efficiency: 112.72 LCY/Hour
Truck Unit Production 107.57 LCY/Hour Adjusted for job efficiency: 89.29 LCY/Hour

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

Adjusted hourly truck team production: 89.29 LCY/Hour
Adjusted single truck/loader team production: 89.29 LCY/Hour
Adjusted multiple truck/loader team production: **89.29** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **5.36** HoursUnit cost: \$3.316 /LCY Total job cost: **\$1,588**

BULLDOZER RIPPING WORK

Task description: Ancillary Areas - Topsoil - Ripping

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A5002

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-A5002

2:17:45 PM

User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Ripper Attachment: 3-Shank Ripper

Horsepower: 240

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper Ownership Cost/Hour:	\$9.06	NA
Ripper Operating Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$262.12	
Total Fleet Cost/Hour:	\$262.12	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 1,431.00 acres Rip Depth (ft): 2.50 Volume: 5,771,700 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>400.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.747</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.747</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.62 Acres/hr

Adjusted Hourly Fleet Production: **0.62** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **2,308.63** Hours

Unit cost: \$422.878 Per acre Total job cost: **\$605,138**

BULLDOZER RIPPING WORK

Task description: Growth Media Piles - Topsoil - Ripping

Site: Cresson Project Permit Action: 2023 Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A5003 State: Colorado Abbreviation: None
Date: 11/21/2023 County: Teller Filename: M244-A5003
2:18:43 PM
User: ZTT

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.06</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.02</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$262.12</u>	
Total Fleet Cost/Hour:	<u>\$262.12</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 118.80 acres Rip Depth (ft): 2.50 Volume: 479,160 BCY or CCY

Source of estimated quantity: 2022 CC&V Provided Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>200.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.710</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.710</u>	Acres/hr
Site Altitude:	<u>9,500</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Adjusted Hourly Unit Production: 0.59 Acres/hr
Adjusted Hourly Fleet Production: 0.59 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 201.65 Hours

Unit cost: \$444.924 Per acre Total job cost: \$52,857

BULLDOZER WORKTask description: **Monitoring Well Pads - Topsoil/Regrade - Dozer Spreading**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **A5004**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-A5004****10:43:26 PM**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **26,297**Swell factor: **1.429**Loose volume: **37,568 LCY**Source of estimated volume: **Assumed 100' x 100' x 12" per each borehole**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **0 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6445

Adjusted unit production: 515.60 LCY/hr

Adjusted fleet production: **515.6** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.481/LCY

Total job time: **72.86** Hours
 Total job cost: **\$18,073**

BOREHOLE SEALING WORK

Task description: Monitoring Well Closure

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: A6000

State: Colorado

Abbreviation: None

Date: 11/20/2023

County: Teller

Filename: M244-A6000

8:53:10 PM

User: ZTT

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Ancillary Areas (71 Monitoring Holes)	Portland cement grout - 4 in. (labor, equip, materials)	4"	227	16,117.00	LF	\$5.51	\$88,820.79

Job Hours: 167.88

Total Cost: \$88,821.00

REVEGETATION WORKTask description: Ironclad Mine Area - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0001State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000111:09:40 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	26.11	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$60,673.90		
Reseeding Job Cost:	\$14,432.04		
Total Job Cost:	\$75,106		
Job Hours:	32.60		

REVEGETATION WORKTask description: SGOSA Mine Area - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0002State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000211:10:42 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	172.22	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$400,201.39		
Reseeding Job Cost:	\$95,192.88		
Total Job Cost:	\$495,394		
Job Hours:	215.30		

REVEGETATION WORKTask description: N. Cresson Mine Area - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0003State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000311:12:16 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	128.72	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$299,116.96		
Reseeding Job Cost:	\$71,148.69		
Total Job Cost:	\$370,266		
Job Hours:	160.90		

REVEGETATION WORKTask description: N. Cresson Mine Area - Globe Hill HR - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0004State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000411:13:45 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	40.17	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$93,346.24		
Reseeding Job Cost:	\$22,203.57		
Total Job Cost:	\$115,550		
Job Hours:	50.20		

REVEGETATION WORKTask description: ECOSA Mine Area - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0005State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000511:14:36 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	350.85	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$815,298.21		
Reseeding Job Cost:	\$193,928.83		
Total Job Cost:	\$1,009,227		
Job Hours:	438.60		

REVEGETATION WORKTask description: **E. Cresson Mine Area - Revegetation**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0006State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000611:16:18 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	309.52	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$719,256.39		
Reseeding Job Cost:	\$171,084.08		
Total Job Cost:	\$890,340		
Job Hours:	386.90		

REVEGETATION WORKTask description: E. Cresson Mine Area - WHEX - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0007State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000711:17:29 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	199.66	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$463,965.91		
Reseeding Job Cost:	\$110,360.07		
Total Job Cost:	\$574,326		
Job Hours:	249.60		

REVEGETATION WORKTask description: E. Cresson Mine Area - Ironclad - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0008State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000811:18:26 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	14.93	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$34,694.04		
Reseeding Job Cost:	\$8,252.41		
Total Job Cost:	\$42,946		
Job Hours:	18.70		

REVEGETATION WORKTask description: M. Cresson Mine Area - 10185 - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0009State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B000911:19:38 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	83.2	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$193,338.50		
Reseeding Job Cost:	\$45,987.97		
Total Job Cost:	\$239,326		
Job Hours:	104.00		

REVEGETATION WORKTask description: M. Cresson Mine Area - Ruby Rd - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0010State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001011:20:53 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	73.3	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$170,333.07		
Reseeding Job Cost:	\$40,515.84		
Total Job Cost:	\$210,849		
Job Hours:	91.60		

REVEGETATION WORKTask description: M. Cresson Mine Area - AJAX - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0011State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001111:22:11 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	33.31	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$77,405.11		
Reseeding Job Cost:	\$18,411.77		
Total Job Cost:	\$95,817		
Job Hours:	41.60		

REVEGETATION WORKTask description: M. Cresson Mine Area - Crusher - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0012State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001211:23:12 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	60.61	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$140,844.31		
Reseeding Job Cost:	\$33,501.57		
Total Job Cost:	\$174,346		
Job Hours:	75.80		

REVEGETATION WORKTask description: M. Cresson Mine Area - Pit Bottom - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0013State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001311:24:25 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	69.1	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$160,573.20		
Reseeding Job Cost:	\$38,194.33		
Total Job Cost:	\$198,768		
Job Hours:	86.40		

REVEGETATION WORKTask description: M. Cresson Mine Area - S. Cresson HR - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B0014State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001411:25:51 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	30.1	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$69,945.78		
Reseeding Job Cost:	\$16,637.47		
Total Job Cost:	\$86,583		
Job Hours:	37.60		

REVEGETATION WORKTask description: M. Cresson Mine Area - Cresson HR - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0015State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001511:28:07 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	30.1	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$69,945.78		
Reseeding Job Cost:	\$16,637.47		
Total Job Cost:	\$86,583		
Job Hours:	37.60		

REVEGETATION WORKTask description: Crusher Mine Area - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0016State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001611:30:02 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	43.09	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$100,131.68		
Reseeding Job Cost:	\$23,817.57		
Total Job Cost:	\$123,949		
Job Hours:	53.90		

REVEGETATION WORKTask description: **Crusher Mine Area - Delivery Rd - Revegetation**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0017State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001711:31:24 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	10.22	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$23,749.03		
Reseeding Job Cost:	\$5,649.00		
Total Job Cost:	\$29,398		
Job Hours:	12.80		

REVEGETATION WORKTask description: Chicago Mine Area - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B0018State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B001811:32:22 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	4.1	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$9,527.50		
Reseeding Job Cost:	\$2,266.23		
Total Job Cost:	\$11,794		
Job Hours:	5.10		

REVEGETATION WORKTask description: **TR133 WHEX Clay Borrow Area - Revegetation**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **B0019**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-B0019****11:33:25 PM**User: **ERR**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	4.7	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$10,921.77		
Reseeding Job Cost:	\$2,597.88		
Total Job Cost:	\$13,520		
Job Hours:	5.90		

REVEGETATION WORKTask description: **TR 137 WHEX Clay Borrow Area Expansion**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **B0020**State: **Colorado**Abbreviation: **None**Date: **12/1/2023**County: **Teller**Filename: **M244-B0020**User: **ERR**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36
Flax, Lewis Blue	0.25	1.66	\$4.13

Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 8.2 Cost /Acre: \$2,323.78
 Estimated Failure Rate: 25% Cost /Acre*: \$2,210.96
 *Selected Replanting Work Items: FERTILIZING,SEEDING,MULCHING

Initial Job Cost: **\$19,055.00**
 Reseeding Job Cost: **\$4,532.47**
 Total Job Cost: **\$23,587**
 Job Hours: **10.30**

REVEGETATION WORKTask description: AGVLF - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B1000State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B100011:34:25 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	649.59	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$1,509,504.25		
Reseeding Job Cost:	\$359,054.38		
Total Job Cost:	\$1,868,559		
Job Hours:	812.00		

REVEGETATION WORKTask description: SGVLF - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B1001State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B100111:45:21 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	557.39	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$1,295,251.73		
Reseeding Job Cost:	\$308,091.75		
Total Job Cost:	\$1,603,343		
Job Hours:	696.70		

REVEGETATION WORKTask description: **Foundations and Buildings - Revegetation**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B2000State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B200011:49:35 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	13.7	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$31,835.79		
Reseeding Job Cost:	\$7,572.54		
Total Job Cost:	\$39,408		
Job Hours:	17.10		

REVEGETATION WORKTask description: **EMP Ponds - Revegetation**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **B3000**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-B3000****11:55:31 PM**User: **ZTT**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	5.7	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$13,245.55		
Reseeding Job Cost:	\$3,150.62		
Total Job Cost:	\$16,396		
Job Hours:	7.10		

REVEGETATION WORKTask description: Crusher Fuel Island Fresh Water Pond - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B3001State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B300111:56:33 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	0.2	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$464.76		
Reseeding Job Cost:	\$110.55		
Total Job Cost:	\$575		
Job Hours:	0.30		

REVEGETATION WORKTask description: Arequa External Ponds - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B3002State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B300211:57:52 PMUser: ZTTAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	5.7	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$13,245.55		
Reseeding Job Cost:	\$3,150.62		
Total Job Cost:	\$16,396		
Job Hours:	7.10		

REVEGETATION WORKTask description: Ancillary Areas - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B4000State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-B400011:59:19 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	1431	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$3,325,329.18		
Reseeding Job Cost:	\$790,970.94		
Total Job Cost:	\$4,116,300		
Job Hours:	1,789.00		

REVEGETATION WORKTask description: **Growth Media Piles - Revegetation**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **B4001**State: **Colorado**Abbreviation: **None**Date: **11/21/2023**County: **Teller**Filename: **M244-B4001****12:01:08 AM**User: **ZTT**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	118.8	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$276,065.06		
Reseeding Job Cost:	\$65,665.51		
Total Job Cost:	\$341,731		
Job Hours:	149.00		

REVEGETATION WORKTask description: Monitoring Well Pads - RevegetationSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: B4002State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B400212:02:31 AMUser: ERRAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-10-20, 3-9-18	400.00	pound	\$0.68	\$272.00
			Total Fertilizer Materials Cost/Acre	\$272.00

Application

Description	Cost /Acre
NA-fertilizer application incl. with hydroseeding	\$262.23
Total Fertilizer Application Cost/Acre	\$262.23

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.48	4.79	\$9.62
Mountain Brome - Bromar	4.00	6.43	\$15.20
Sandberg Bluegrass - VNS	0.50	10.62	\$4.20
Rye, Winter - VNS	9.63	3.98	\$5.15
Sheep Fescue - Bighorn	1.44	22.48	\$6.34
Slender Wheatgrass - Native	2.88	10.51	\$13.32
Milk Vetch, Cicer - Monarch	0.96	3.20	\$7.87
Mahogany, Mountain	0.13	0.18	\$4.78
Thickspike Wheatgrass - Critana	3.38	11.95	\$23.24
Rose, Wood's	0.31	0.00	\$6.36

Flax, Lewis Blue	0.25	1.66	\$4.13
Yarrow, Western	0.06	3.65	\$2.51
Totals Seed Mix	25.02	79.43	\$102.71

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,306.80
Total Mulch Application Cost/Acre	\$1,306.80

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	16.3	Cost /Acre:	\$2,323.78
Estimated Failure Rate:	25%	Cost /Acre*:	\$2,210.96
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$37,877.61		
Reseeding Job Cost:	\$9,009.66		
Total Job Cost:	\$46,887		
Job Hours:	20.00		

REVEGETATION WORKTask description: **E. Cresson Wildhorse - Tree Planting**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5000State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B500012:05:36 AMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	89	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$32,485.00
Reseeding Job Cost:	\$8,121.25
Total Job Cost:	\$40,606
Job Hours:	111.25

REVEGETATION WORKTask description: N. Cresson - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5001State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B500112:06:59 AMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	23	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$8,395.00
Reseeding Job Cost:	\$2,098.75
Total Job Cost:	\$10,494
Job Hours:	28.75

REVEGETATION WORKTask description: M. Cresson - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5002State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B500212:14:32 AMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	<u>59</u>	Cost /Acre:	<u>\$365.00</u>
Estimated Failure Rate:	<u>25%</u>	Cost /Acre*:	<u>\$365.00</u>
*Selected Replanting Work Items:	<u>NURSERY</u>		
Initial Job Cost:	<u>\$21,535.00</u>		
Reseeding Job Cost:	<u>\$5,383.75</u>		
Total Job Cost:	<u>\$26,919</u>		
Job Hours:	<u>73.75</u>		

REVEGETATION WORKTask description: Squaw OSA - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5004State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B50041:36:18 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	42	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$15,330.00
Reseeding Job Cost:	\$3,832.50
Total Job Cost:	\$19,162
Job Hours:	52.50

REVEGETATION WORKTask description: Arequa - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5005State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B50051:37:14 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres: 115 Cost /Acre: \$365.00
 Estimated Failure Rate: 25% Cost /Acre*: \$365.00
 *Selected Replanting Work Items: NURSERY

Initial Job Cost: **\$41,975.00**
 Reseeding Job Cost: **\$10,493.75**
 Total Job Cost: **\$52,469**
 Job Hours: **143.75**

REVEGETATION WORKTask description: Squaw - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5006State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B50061:38:53 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	85	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$31,025.00
Reseeding Job Cost:	\$7,756.25
Total Job Cost:	\$38,781
Job Hours:	106.25

REVEGETATION WORKTask description: Mill Platform - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5007State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B50071:39:47 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	35	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$12,775.00
Reseeding Job Cost:	\$3,193.75
Total Job Cost:	\$15,969
Job Hours:	43.75

REVEGETATION WORKTask description: **Victor & Ironclad - Tree Planting**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **B5008**State: **Colorado**Abbreviation: **None**Date: **11/21/2023**County: **Teller**Filename: **M244-B5008**

1:40:45 PM

User: **ZTT**Agency or organization name: **DRMS****FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	42	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$15,330.00
Reseeding Job Cost:	\$3,832.50
Total Job Cost:	\$19,162
Job Hours:	52.50

REVEGETATION WORKTask description: **Building Footprint - Tree Planting**Site: **Cresson Project**Permit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5009State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B50091:44:06 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	87	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$31,755.00
Reseeding Job Cost:	\$7,938.75
Total Job Cost:	\$39,694
Job Hours:	108.75

REVEGETATION WORKTask description: Ancillary - Tree PlantingSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: B5010State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-B50101:46:18 PMUser: ZTTAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

Description	Cost /Acre
	\$
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Currant, Golden or Yellow	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Pine, Bristlecone	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Spruce, Englemann	25	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.50	\$0.00	\$62.50
Rose, Wood's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.40	\$0.00	\$120.00
Totals Nursery Stock Cost / Acre					\$365.00

JOB TIME AND COST

No. of Acres:	850	Cost /Acre:	\$365.00
Estimated Failure Rate:	25%	Cost /Acre*:	\$365.00
*Selected Replanting Work Items:	NURSERY		

Initial Job Cost:	\$310,250.00
Reseeding Job Cost:	\$77,562.50
Total Job Cost:	\$387,812
Job Hours:	1,062.50

Rinsing Task C

Rinsing VLF 1											
	AM13	2023	2024	2025	2026	2027	2028	Task #	Form Used	Revision #/ Source	PDF Page
% inflation	-	19.73%	22.24%	24.75%	29.77%	32.28%					
Rinse 1	\$20,843,995.00	\$24,956,515.21						C0001	User Provided AM13		107
Rinse 2	\$20,843,995.00			\$26,002,883.76				C0002	User Provided AM13		107
Rinse 3	\$19,603,000.00					\$25,438,813.10		C0003	User Provided AM13		107

Rising VLF 2											Revision #/ Source	Form Used	Task #	2027 (Q1 Q2)	2026 (Q3 Q4)	2026 (Q1 Q2)	2025 (Q3 Q4)	2025 (Q1 Q2)	2024 (Q3 Q4)	2024 (Q1 Q2)	2023 (Q3 Q4)	2023 (Q1 Q2)	AM13
% inflation	-	19.73%	20.99%	22.24%	23.50%	24.75%	26.01%	27.26%	28.52%	29.77%	C1001	User Provide AM13	108								\$9,724,783.00	\$11,643,482.69	
Rinse 1											C1002	User Provide AM13	108									\$9,724,783.00	
Rinse 2																						\$9,527,931.00	
Rinse 3																						\$9,527,931.00	
																						\$12,125,244.99	
																						\$12,009,620.77	

Breakdown of costs are found at the end of 2022 update (pdf page 109-110) named "User 10" and "User 11". Same for AM13 (pdf pages 107-108)

VLF 1: Each rinse cycle time is 23 months (round to 2 years for table), assess inflation from 10 year avg data below at the start of each rinse cycle		
Total time for rinse is 16,872 hours using AM13's 703 day cycle. Use 40% (6749) for user input row so job superintendent cost is at 20% of hours.		
VLF 2: Each rinse cycle time is 17 months (round to 1.5 years for table), assess inflation from 10 year avg data below at the start of each rinse cycle	VLF1	\$76,398,212
Total time for rinse is 9696 hours using AM13's 404 day cycle. Use 40% (3879) for user input row so job superintendent cost is at 20% of hours.	VLF2	\$35,778,348
	Total	\$112,176,561

Rinse 2 & 3

19.73%

2.51%

6 months: 1.26%

1.2

12-Month Percent Change

Calculate

Series Id: CUUR000SA0L1E

Not Seasonally Adjusted

Area: U.S. city average

Base Period: 1982-84=100

6

 [xls.xls](#)[illegible]

DEMOLITION WORK

Task description: **Foundations and Building Area**

Site: **Cresson Project**

Permit Action: **2023**

Permit/Job#: **M1980244**

PROJECT IDENTIFICATION

Task #: **D0001**

State: **Colorado**

Abbreviation: **None**

Date: **11/20/2023**

County: **Teller**

Filename: **M244-D0001**

8:55:21 PM

User: **ERR**

Agency or organization name: **DRMS**

UNIT COSTS

Location adjustment: 87.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Primary Crusher - bldg	78x48x112	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	419,328.00	CF	\$0.42	\$175,866.16
Primary Crusher - Foundation	78x48	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	3,744.00	SF	\$2.43	\$9,111.40
Crane above Pocket - Bldg	85x33x50	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	140,250.00	CF	\$0.42	\$58,820.85
Crane above Pocket - Foundation	85x33	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,805.00	SF	\$2.43	\$6,826.25
Secondary Crusher MCC- Bldg	53x21x15	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	16,695.00	CF	\$0.38	\$6,292.35
Secondary Crusher MCC - Foundation	53x21	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,113.00	SF	\$2.43	\$2,708.60
Secondary Crushers - Bldg	120x67x107	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	860,280.00	CF	\$0.42	\$360,801.43
Secondary Crushers - Foundation	120x67	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	8,040.00	SF	\$2.43	\$19,566.14
Screen Bldg - Bldg	72x32x86	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	198,144.00	CF	\$0.42	\$83,101.59
Screen Bldg - Foundation	72x32	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,304.00	SF	\$2.43	\$5,607.01
Screen MCCs - Bldg	40x18x15	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	10,800.00	CF	\$0.38	\$4,070.52
Screen MCCs - Foundation	40x18	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	720.00	SF	\$2.43	\$1,752.19
Crusher Maint - Bldg	40x40x17	Bldg. (MN) demo./on-	27,200.00	CF	\$0.32	\$8,714.88

		site disposal in existing pit or cut - Max. 10,000 ft. haul				
Crusher Maint - Foundation	40x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,600.00	SF	\$2.43	\$3,893.76
Security - Bldg	65x40x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	26,000.00	CF	\$0.24	\$6,175.00
Security - Foundation	65x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,600.00	SF	\$2.43	\$6,327.36
MCC for Phase II Pumps - Bldg	21x11x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,772.00	CF	\$0.24	\$658.35
MCC for Phase II Pumps - Foundation	21x11	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	231.00	SF	\$2.43	\$562.16
Laboratory - Bldg	150x69x52	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	538,200.00	CF	\$0.32	\$172,439.28
Laboratory - Foundation	150x69	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	10,350.00	SF	\$2.43	\$25,187.76
Project Mgr Trailer - Bldg	57x12x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	6,840.00	CF	\$0.24	\$1,624.50
Project Mgr Trailer - Foundation	57x12	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	684.00	SF	\$1.22	\$832.29
Project Trailer - Bldg	40x53x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	21,200.00	CF	\$0.24	\$5,035.00
Project Trailer - Foundation	40x53	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	2,120.00	SF	\$1.22	\$2,579.62
Fire Trailer - Bldg	20x10x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,000.00	CF	\$0.24	\$475.00
Fire Trailer - Foundation	20x10	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	200.00	SF	\$1.22	\$243.36
Process Maint Trailer - Bldg	60x25x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	15,000.00	CF	\$0.24	\$3,562.50
Process Maint Trailer - Foundation	60x25	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	1,500.00	SF	\$1.22	\$1,825.20
Crusher Maint Addition - Bldg	25x40x17	Bldg. (MN) demo./on-site disposal in existing	17,000.00	CF	\$0.32	\$5,446.80

		pit or cut - Max. 10,000 ft. haul				
Crusher Maint Addition - Foundation	25x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,000.00	SF	\$2.43	\$2,433.60
Crusher Maint Lean To - Bldg	10x40x13	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	5,200.00	CF	\$0.24	\$1,235.00
Crusher Maint Lean To - Foundation	10x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	400.00	SF	\$2.43	\$973.44
AGADR 1995 - Bldg	165x100x52	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	858,000.00	CF	\$0.42	\$359,845.20
AGADR 1995 - Foundation	165x100	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	16,500.00	SF	\$2.43	\$40,154.40
Pipe Access Gallery - Bldg	60x10x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	6,000.00	CF	\$0.24	\$1,425.00
Pipe Access Gallery - Foundation	60x10	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	600.00	SF	\$2.43	\$1,460.16
Carbon Strip & Regen - Bldg	107x25x45	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	120,375.00	CF	\$0.42	\$50,485.28
Carbon Strip & Regen - Foundation	107x25	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,675.00	SF	\$2.43	\$6,509.88
Process Maint Trailer - Bldg	60x25x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	18,000.00	CF	\$0.24	\$4,275.00
Process Maint Trailer - Foundation	60x25	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	1,500.00	SF	\$1.22	\$1,825.20
AGADR North - Bldg	165x43x44	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	312,180.00	CF	\$0.42	\$130,928.29
AGADR North - Foundation	165x43	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	7,095.00	SF	\$2.43	\$17,266.39
AGADR South - Bldg	108x70x57	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	430,920.00	CF	\$0.42	\$180,727.85
AGADR South - Foundation	108x70	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	7,560.00	SF	\$2.43	\$18,398.02
Etrain - Bldg	142x42x53	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	316,092.00	CF	\$0.42	\$132,568.98
Etrain - Foundation	142x42	Demo. and on-site	5,964.00	SF	\$2.43	\$14,513.99

		disposal in existing pit, 12 in. thick - Max. 50 ft. push				
MCC Fume Scrubber - Bldg	37x16x16	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	9,472.00	CF	\$0.38	\$3,570.00
MCC Fume Scrubber - Foundation	37x16	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	592.00	SF	\$2.43	\$1,440.69
Enrichment Pump Station - Bldg	60x30x38	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	68,400.00	CF	\$0.42	\$28,686.96
Enrichment Pump Station - Foundation	60x30	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,800.00	SF	\$2.43	\$4,380.48
Ph V Preg Pump MCC - Bldg	22x22x17	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	8,228.00	CF	\$0.32	\$2,636.25
Ph V Preg Pump MCC - Foundation	22x22	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	484.00	SF	\$2.43	\$1,177.86
Ph V Preg Enrich MCC - Bldg	42x22x17	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	15,708.00	CF	\$0.32	\$5,032.84
Ph V Preg Enrich MCC - Foundation	42x22	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	924.00	SF	\$2.43	\$2,248.65
Ph V Preg Enrich LVSC - Bldg	20x10x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,400.00	CF	\$0.24	\$570.00
Ph V Preg Enrich LVSC - Foundation	20x10	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	200.00	SF	\$2.43	\$486.72
Victor Maint Light Vehicle Shop - Bldg	80x56x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	53,760.00	CF	\$0.24	\$12,768.00
Victor Maint Light Vehicle Shop - Foundation	80x56	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	4,480.00	SF	\$2.43	\$10,902.53
Truck Wash - Bldg	75x45x41	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	138,375.00	CF	\$0.32	\$44,335.35
Truck Wash - Foundation	75x45	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	3,375.00	SF	\$2.43	\$8,213.40
Truck Shop - Bldg	305x95x65	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,883,375.00	CF	\$0.32	\$603,433.35

Truck Shop - Foundation	305x95	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	28,975.00	SF	\$2.43	\$70,513.56
Mill Maint Warehouse - Bldg	57x200x47	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	535,800.00	CF	\$0.32	\$171,670.32
Mill Maint Warehouse - Foundation	57x200	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	11,400.00	SF	\$2.43	\$27,743.04
Agglomerator - Bldg	20x76x34	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	51,680.00	CF	\$0.42	\$21,674.59
Agglomerator - Foundation	20x76	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,520.00	SF	\$2.43	\$3,699.07
Sump Pump - Bldg	16x15x13	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	3,120.00	CF	\$0.24	\$741.00
Sump Pump - Foundation	16x15	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	240.00	SF	\$2.43	\$584.06
Conveyor Shed - Bldg	85x13x21	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	23,205.00	CF	\$0.32	\$7,434.88
Conveyor Shed - Foundation	85x13	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,105.00	SF	\$2.43	\$2,689.13
Process Corridor - Bldg	15x175x24	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	63,000.00	CF	\$0.38	\$23,744.70
Process Corridor - Foundation	15x175	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,625.00	SF	\$2.43	\$6,388.20
Buckley Main Bldg - Bldg	60x40x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	28,800.00	CF	\$0.24	\$6,840.00
Buckley Main Bldg - Foundation	60x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,400.00	SF	\$2.43	\$5,840.64
Squaw MCC - Bldg	60x27x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	19,440.00	CF	\$0.24	\$4,617.00
Squaw MCC - Foundation	60x27	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,620.00	SF	\$2.43	\$3,942.43
Warehouse - Bldg	104x80x32	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	266,240.00	CF	\$0.32	\$85,303.30

Warehouse - Foundation	104x80	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	8,320.00	SF	\$2.43	\$20,247.55
LVSC Pump - Bldg	151x10x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	18,120.00	CF	\$0.24	\$4,303.50
LVSC Pump - Foundation	151x10	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,510.00	SF	\$2.43	\$3,674.74
SGADR - Bldg	165x200x62	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,046,000.00	CF	\$0.42	\$858,092.40
SGADR - Foundation	165x200	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	33,000.00	SF	\$2.43	\$80,308.80
SGADR Utility - Bldg	60x30x17	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	30,600.00	CF	\$0.38	\$11,533.14
SGADR Utility - Foundation	60x30	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,800.00	SF	\$2.43	\$4,380.48
Security - Bldg	143x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	28,600.00	CF	\$0.24	\$6,792.50
Security - Foundation	143x20	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,860.00	SF	\$2.43	\$6,960.10
Modular Office 1 - Bldg	60x66x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	39,600.00	CF	\$0.24	\$9,405.00
Modular Office 1 - Foundation	60x66	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	3,960.00	SF	\$1.22	\$4,818.53
Modular Office 2 - Bldg	60x66x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	39,600.00	CF	\$0.24	\$9,405.00
Modular Office 2 - Foundation	60x66	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	3,960.00	SF	\$1.22	\$4,818.53
Modular Office 3 - Bldg	12x66x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	7,920.00	CF	\$0.24	\$1,881.00
Modular Office 3 - Foundation	12x66	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	792.00	SF	\$1.22	\$963.71
Substation - Bldg	107x100x15	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	160,500.00	CF	\$0.24	\$38,118.75
Substation - Foundation	107x100	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft.	10,700.00	SF	\$2.43	\$26,039.52

		push				
Auxiliary A - Bldg	66x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	13,200.00	CF	\$0.24	\$3,135.00
Auxiliary A - Foundation	66x20	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,320.00	SF	\$2.43	\$3,212.35
Auxiliary B - Bldg	20x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	4,000.00	CF	\$0.24	\$950.00
Auxiliary B - Foundation	20x20	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	400.00	SF	\$2.43	\$973.44
Auxiliary C - Bldg	46x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	9,200.00	CF	\$0.24	\$2,185.00
Auxiliary C - Foundation	46x20	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	920.00	SF	\$2.43	\$2,238.91
High Grade Mill - Bldg	335x200x86	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	7,482,000.00	CF	\$0.42	\$3,137,950.80
High Grade Mill - Foundation	335x200	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	87,000.00	SF	\$2.43	\$211,723.20
Offices - Bldg	96x80x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	76,800.00	CF	\$0.24	\$18,240.00
Offices - Foundation	96x80	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	7,680.00	SF	\$2.43	\$18,690.05
Buckley Garage - Bldg	100x76x18	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	136,800.00	CF	\$0.32	\$43,830.72
Buckley Garage - Foundation	100x76	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	7,600.00	SF	\$2.43	\$18,495.36
Ironclad Office - Bldg	100x48x13	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	62,400.00	CF	\$0.24	\$14,820.00
Ironclad Office - Foundation	100x48	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	4,800.00	SF	\$2.43	\$11,681.28
Maint Annex - Bldg	75x25x65	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	121,875.00	CF	\$0.32	\$39,048.75
Maint Annex - Foundation	75x25	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	1,875.00	SF	\$2.43	\$4,563.00

Lab Addition - Bldg	30x15x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	4,500.00	CF	\$0.24	\$1,068.75
Lab Addition - Foundation	30x15	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	450.00	SF	\$2.43	\$1,095.12
ROM Silo - Bldg	66x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	972.00	CF	\$0.24	\$230.85
ROM Silo - Foundation	9x9x12	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	81.00	SF	\$2.43	\$197.12
Conveyor Support - Foundation	4x6 (9 lifts)	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	216.00	SF	\$2.43	\$525.66
Newmont Double Wide - Bldg	24x60x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	17,280.00	CF	\$0.24	\$4,104.00
Newmont Double Wide - Foundation	24x60	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	1,440.00	SF	\$1.22	\$1,752.19
Mobile Maint Shop - Bldg	50x100x18	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	90,000.00	CF	\$0.32	\$28,836.00
Mobile Maint Shop - Foundation	50x100	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	5,000.00	SF	\$2.43	\$12,168.00
Lube Bay and Wash Bay - Bldg	50x80x18	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	72,000.00	CF	\$0.32	\$23,068.80
Lube Bay and Wash Bay - Foundation	50x80	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	4,000.00	SF	\$2.43	\$9,734.40
Lube Bay and Wash Bay Apron - Bldg	124x40x1	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	4,960.00	CF	\$0.24	\$1,178.00
Lube Bay and Wash Bay Apron - Foundation	124x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	4,960.00	SF	\$2.43	\$12,070.66
Compressor Housing - Bldg	45x45x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	24,300.00	CF	\$0.24	\$5,771.25
Compressor Housing - Foundation	45x45	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,025.00	SF	\$2.43	\$4,928.04
Substation - Bldg	135x80x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	129,600.00	CF	\$0.24	\$30,780.00
Substation -	135x80	Demo. and on-site	10,800.00	SF	\$2.43	\$26,282.88

Foundation		disposal in existing pit, 12 in. thick - Max. 50 ft. push				
Core Shed TR115 SA2 - Bldg	40x100x16	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	64,000.00	CF	\$0.32	\$20,505.60
Core Shed TR115 SA2 - Foundation	40x100	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	4,000.00	SF	\$1.22	\$4,867.20
Autonomous Haulage Tower TR115 SA4 - Bldg	8x10x7	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	560.00	CF	\$0.24	\$133.00
Autonomous Haulage Tower TR115 SA4 - Foundation	8x10	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	80.00	SF	\$1.22	\$97.34
Autonomous Haulage Tower TR115 SA6 - Bldg	8x10x7	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	560.00	CF	\$0.24	\$133.00
Autonomous Haulage Tower TR115 SA6 - Foundation	8x10	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	80.00	SF	\$1.22	\$97.34
Underground Contractor Double Wide - Bldg	24x60x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	17,280.00	CF	\$0.24	\$4,104.00
Underground Contractor Double Wide - Foundation	24x60	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	1,440.00	SF	\$1.22	\$1,752.19
Underground Fixed Maintenance Shop - Bldg	40x60x18	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	43,200.00	CF	\$0.32	\$13,841.28
Underground Fixed Maintenance Shop - Foundation	40x60	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	2,400.00	SF	\$2.43	\$5,840.64
Shotcrete plant - Bldg	55x150x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	99,000.00	CF	\$0.24	\$23,512.50
Shotcrete plant - Foundation	55x150	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	8,250.00	SF	\$1.22	\$10,038.60
VLF2 enrichment pump station - Bldg	60x54x20	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	64,800.00	CF	\$0.32	\$20,761.92
VLF2 enrichment pump station - Foundation	60x54	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	3,240.00	SF	\$2.43	\$7,884.86
VLF2 enrichment pump station - Bldg	15x59x8	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	7,080.00	CF	\$0.24	\$1,681.50
VLF2 enrichment	15x59	Demo. and on-site	885.00	SF	\$2.43	\$2,153.74

pump station - Foundation		disposal in existing pit, 12 in. thick - Max. 50 ft. push				
Warehouse #1 on Dump 4 - Bldg	42x80x22	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	73,920.00	CF	\$0.32	\$23,683.97
Warehouse #1 on Dump 4 - Foundation	42x80	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	3,360.00	SF	\$2.43	\$8,176.90
Warehouse #2 on Dump 4 - Bldg	72x90x22	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	142,560.00	CF	\$0.32	\$45,676.22
Warehouse #2 on Dump 4 - Foundation	72x90	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	6,480.00	SF	\$2.43	\$15,769.73
Warehouse at Mill Platform - Bldg	72x166x22	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	262,944.00	CF	\$0.32	\$84,247.26
Warehouse at Mill Platform - Foundation	72x166	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	11,952.00	SF	\$2.43	\$29,086.39
Main PSES Building - Bldg	180x108x55	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	1,069,200.00	CF	\$0.42	\$448,422.48
Main PSES Building - Foundation	180x108	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	19,440.00	SF	\$2.43	\$47,309.18
Chicago Tunnel Maintenance Shop - Bldg	80x40x20	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	64,000.00	CF	\$0.32	\$20,505.60
Chicago Tunnel Maintenance Shop - Foundation	80x40	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	3,200.00	SF	\$2.43	\$7,787.52
Chicago Tunnel Site Office - Bldg	40x15x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	7,200.00	CF	\$0.24	\$1,710.00
Chicago Tunnel Site Office - Foundation	40x15	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	600.00	SF	\$1.22	\$730.08
Chicago Tunnel Dry Change - Bldg	40x15x12	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	7,200.00	CF	\$0.24	\$1,710.00
Chicago Tunnel Dry Change - Foundation	40x15	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	600.00	SF	\$1.22	\$730.08
High Grade Mill West Tank Farm - Foundation	14,721 SF	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft.	14,721.00	SF	\$2.43	\$35,825.03

		push				
High Grade Mill East Tank Farm - Foundation	13,855 SF	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	13,855.00	SF	\$2.43	\$33,717.53
New Engineering Building 2007 - Bldg	9,324 SF x 13	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	121,212.00	CF	\$0.24	\$28,787.85
New Engineering Building 2007 - Foundation	9,324 SF	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	9,324.00	SF	\$2.43	\$22,690.89
Water Truck Storage Building TR115 SA7 - Bldg	72x90x(avg. 38)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	9,120.00	CF	\$0.32	\$2,922.05
Water Truck Storage Building TR115 SA7 - Footers	(52) 2x2x6	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft. - Max. 50 ft. push	312.00	LF	\$7.30	\$2,277.85
Sidewalks TR115 SA8	638x4	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	2,552.00	SF	\$0.81	\$2,070.18
Concrete Pad TR115 SA8	10x24	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	240.00	SF	\$1.22	\$292.03
Vision Zero 2 Offices and 2 Conex Containers TR115 SA9	12x50x12 & 8x40/20x8.5	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	686.00	CF	\$0.24	\$162.93
Carlton Tunnel Solar Panel Piers TR115 SA11	(8) 5x1	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 50 ft. push	40.00	LF	\$4.87	\$194.69

Job Hours: 7,726.00

Subtotal
 (unadjusted): \$8,887,605.97

Total Cost
 (adjusted for location): \$7,812,205.65

DEMOLITION WORK

Task description: Conveyors and LOB, Septic System, Tire Demo

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: D1000

State: Colorado

Abbreviation: None

Date: 11/20/2023

County: Teller

Filename: M244-D1000

9:00:41 PM

User: ZTT

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Mill Conveyor Demo	1250 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	20.30	EA	\$3,350.00	\$68,005.00
ROM Conveyor Demo	136 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	2.20	EA	\$3,350.00	\$7,370.00
Septic Systems	12 total	Comprehensive storage tank removal, non-leaking - 6,000 to 8,000 gal. tank	12.00	EA	\$5,536.95	\$66,443.40
Tire Disposal	Qt: 50 + 12% Loc. Adj.	USER PROVIDED ITEM	50.00	EA	\$1,126.39	\$56,319.50
Loadout Bin	21.85x36	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	13,492.00	CF	\$0.38	\$5,085.13
Lime Silo	84x21.5	Plant (3S) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	119,088.00	CF	\$0.42	\$49,945.51
Screen Feed	587 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	9.50	EA	\$3,350.00	\$31,825.00
Crushed Ore	1243 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	20.20	EA	\$3,350.00	\$67,670.00
Secondary Crusher Feeder	843 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	13.70	EA	\$3,350.00	\$45,895.00
Shuttle (2)	111 ft. each	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	3.60	EA	\$3,350.00	\$12,060.00
Screen Undersize	620 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	10.10	EA	\$3,350.00	\$33,835.00
Screen Oversize	555 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	9.00	EA	\$3,350.00	\$30,150.00
Product to LOB	586 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5' Length	9.50	EA	\$3,350.00	\$31,825.00
LOB Relocation Phase IV	2050 ft.	Conveyor, Horizontal Belt 24" Belt, 61.5'	33.30	EA	\$3,350.00	\$111,555.00

		Length				
Process Pond Liner Removal - Cutting & Folding + 12% location adjustment	NA	USER PROVIDED ITEM	1.12	EA	\$84,416.00	\$94,545.92
TR79 8' Dia, CMP Manhole	8 ft x 4-6Ft	Pipe, corrugated metal (CMP) - 96 in. diameter pipe	6.00	LF	\$46.79	\$280.75
TR113 Leach Cell Liner Disposal (80mm)	67,049sqft w/20x swell	Load/haul/dump demolished materials/debris into pit - Max. 10,000 ft. haul	12,460.00	CY	\$1.97	\$24,496.36
TR90 Mercury Sampling prior to Demolition	10 Samples	Hazardous waste sampling and analysis, per sample	10.00	EA	\$216.69	\$2,166.89
TR90 Demolish Concentrate Storage Building	4 CY	USER PROVIDED ITEM	4.00	CY	\$32.13	\$128.52
TR90 Demolish, Decommission, Microencapsulate, and Dispose of Retort	1 Retort System	USER PROVIDED ITEM	1.00	EA	\$20,836.00	\$20,836.00
TR90 Demolish Supports for Retort	.5 ton	USER PROVIDED ITEM	0.50	Ton	\$200.00	\$100.00
TR90 Transport One-ton Flask to Refining Facility, Refine, and Ship to Long	1 Flask	USER PROVIDED ITEM	1.00	EA	\$8,560.00	\$8,560.00
TR90 Ten Years of Long Term Storage	10 years	USER PROVIDED ITEM	10.00	YR	\$1,200.00	\$12,000.00
TR90 Disposal with DOE	2200 lbs	USER PROVIDED ITEM	2,200.00	Lbs	\$10.00	\$22,000.00
TR115 SA11 12 Solar Panels 8 Batteries 1 Inverter 250' cable	(12) 6.5'x3.5'x1.3" & (8)	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	25.00	MI	\$9.01	\$225.31
TR115 SA11 12 Solar Panels 8 Batteries 1 Inverter 250' cable	(12) 6.5'x3.5'x1.3" & (8)	Dumpsite disposal charge - Maximum	2.00	TON	\$415.00	\$830.00

Job Hours:	200.00	Subtotal	(unadjusted):	\$804,153.29	Total Cost	(adjusted for	location):	\$706,850.74
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DEMOLITION WORK

Task description: Waste and Tank Disposal

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: D2000

State: Colorado

Abbreviation: None

Date: 11/20/2023
9:01:48 PM

County: Teller

Filename: M244-D2000

User: ERR

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Carbon Columns - Remove Remnant Waste	10	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	10.00	EA	\$432.00	\$4,320.00
Carbon Columns - Dispose Tank	10	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	10.00	EA	\$1,050.00	\$10,500.00
Intermediate - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Intermediate - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
1999 Solution Tanks - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
1999 Solution Tanks - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
1999 Carbon Tanks - Remove Remnant Waste	5	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	5.00	EA	\$432.00	\$2,160.00
1999 Carbon Tanks - Dispose Tank	5	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	5.00	EA	\$1,050.00	\$5,250.00
Kiln - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Kiln - Remove/Haul Bulk Waste	290 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	2,169.00	GAL	\$1.88	\$4,077.72
Kiln - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Carbon Feed - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00

Carbon Feed - Remove/Haul Bulk Waste	1256 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	9,369.00	GAL	\$1.88	\$17,613.72
Carbon Feed - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Carbon Quench - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Carbon Quench - Remove/Haul Bulk Waste	706 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	5,281.00	GAL	\$1.88	\$9,928.28
Carbon Quench - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Carbon Strip - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Carbon Strip - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Cyanide Mix - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
Cyanide Mix - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Tran D Carbon Columns - Remove Remnant Waste	5	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	5.00	EA	\$432.00	\$2,160.00
Tran D Carbon Columns - Dispose Tank	5	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	5.00	EA	\$1,050.00	\$5,250.00
Pregnant Solution Tanks - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Pregnant Solution Tanks - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
D Head - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	\$324.00	\$324.00
D Head - Dispose Tank	1	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	\$880.00	\$880.00
D Transfer - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
D Transfer - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to	1.00	EA	\$1,050.00	\$1,050.00

		12,000 gal. tank				
Pre-Dryer - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Pre-Dryer - Remove/Haul Bulk Waste	8,738 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	65,365.00	GAL	\$1.88	\$122,886.20
Pre-Dryer - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Victor Fresh Water - Dispose Tank	6,842 CF	Load/haul/dump demolished materials/debris into pit - Max. 10,000 ft. haul	254.00	CY	\$1.97	\$499.36
Detox - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Detox - Remove/Haul Bulk Waste	1,413 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	10,570.00	GAL	\$1.88	\$19,871.60
Detox - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Pregnant Solution Tanks - Remove Remnant Waste	4	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	4.00	EA	\$432.00	\$1,728.00
Pregnant Solution Tanks - Dispose Tank	4	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	4.00	EA	\$1,050.00	\$4,200.00
Fire Water - Dispose Tank	11,083 CF	Load/haul/dump demolished materials/debris into pit - Max. 10,000 ft. haul	411.00	CY	\$1.97	\$808.03
Bulk Storage - Remove Remnant Waste	4	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	4.00	EA	\$432.00	\$1,728.00
Bulk Storage - Remove/Haul Bulk Waste	9,236 CF Ea	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	69,090.00	GAL	\$1.88	\$129,889.20
Bulk Storage - Dispose Tank	4	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	4.00	EA	\$1,050.00	\$4,200.00
SST Solution - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
SST Solution - Remove/Haul Bulk Waste	3,392 CF Ea	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	50,748.00	GAL	\$1.88	\$95,406.24
SST Solution - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to	2.00	EA	\$1,050.00	\$2,100.00

		12,000 gal. tank				
Fuel - Remove Remnant Waste	3	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	3.00	EA	\$259.50	\$778.50
Fuel - Dispose Tank	3	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	3.00	EA	\$760.00	\$2,280.00
Prill - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Prill - Remove/Haul Bulk Waste	25,132 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	188,000.00	GAL	\$1.88	\$353,440.00
Prill - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Carbon Columns - Remove Remnant Waste	20	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	20.00	EA	\$432.00	\$8,640.00
Carbon Columns - Dispose Tank	20	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	20.00	EA	\$1,050.00	\$21,000.00
Intermediate - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Intermediate - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Barren - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
Barren - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Acid Mix - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	\$324.00	\$324.00
Acid Mix - Remove/Haul Bulk Waste	1070 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	8,004.00	GAL	\$1.88	\$15,047.52
Acid Mix - Dispose Tank	1	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	\$880.00	\$880.00
Acid Neutralization - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	\$324.00	\$324.00
Acid Neutralization - Remove/Haul Bulk Waste	1070 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	8,004.00	GAL	\$1.88	\$15,047.52

Acid Neutralization - Dispose Tank	1	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	\$880.00	\$880.00
Acid Neut Scrubber - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	\$324.00	\$324.00
Acid Neut Scrubber - Remove/Haul Bulk Waste	1070 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	8,004.00	GAL	\$1.88	\$15,047.52
Acid Neut Scrubber - Dispose Tank	1	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	\$880.00	\$880.00
Concentrated Acid - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	\$324.00	\$324.00
Concentrated Acid - Remove/Haul Bulk Waste	936 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	7,002.00	GAL	\$1.88	\$13,163.76
Concentrated Acid - Dispose Tank	1	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	\$880.00	\$880.00
Sodium hydroxide - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Sodium hydroxide - Remove/Haul Bulk Waste	2,674 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	20,003.00	GAL	\$1.88	\$37,605.64
Sodium hydroxide - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Kiln - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Kiln - Remove/Haul Bulk Waste	290 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	2,169.00	GAL	\$1.88	\$4,077.72
Kiln - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Feed - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Feed - Remove/Haul Bulk Waste	1,256 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	9,396.00	GAL	\$1.88	\$17,664.48
Feed - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Quench - Remove	1	Remove sludge, water,	1.00	EA	\$259.50	\$259.50

Remnant Waste		and rem. product from tank - 3,000 to 5,000 gal.				
Quench - Remove/Haul Bulk Waste	706 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	5,281.00	GAL	\$1.88	\$9,928.28
Quench - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Strip - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Strip - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Preg - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
Preg - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Transfer Water - Dispose Tank	668 CF	Load/haul/dump demolished materials/debris into pit - Max. 5,000 ft. haul	25.00	CY	\$1.44	\$35.98
Pretreatment - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Pretreatment - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
NaCN - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
NaCN - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Carbon Attrition - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Carbon Attrition - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
E Cell Tanks - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
E Cell Tanks - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Thickener - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000	1.00	EA	\$432.00	\$432.00

		gal.				
Thickener - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Process Water - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Process Water - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Thickener - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Thickener - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
NaCN - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
NaCN - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Leach - Remove Remnant Waste	6	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	6.00	EA	\$432.00	\$2,592.00
Leach - Dispose Tank	6	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	6.00	EA	\$1,050.00	\$6,300.00
PS Stabilization - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
PS Stabilization - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
CoMag Clarifiers - Remove Remnant Waste	8	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	8.00	EA	\$432.00	\$3,456.00
CoMag Clarifiers - Dispose Tank	8	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	8.00	EA	\$1,050.00	\$8,400.00
Coagulant - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Coagulant - Remove/Haul Bulk Waste	45,160 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	337,820.00	GAL	\$1.88	\$635,101.60
Coagulant - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Precoat - Remove Remnant Waste	1	Remove sludge, water, and rem. product from	1.00	EA	\$432.00	\$432.00

		tank - 9,000 to 12,000 gal.				
Precoat - Remove/Haul Bulk Waste	45,160 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	337,820.00	GAL	\$1.88	\$635,101.60
Precoat - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
CoMag Process Tanks - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
CoMag Process Tanks - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Wet Wells - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$432.00	\$864.00
Wet Wells - Dispose Tank	2	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Gravity Thickener - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
Gravity Thickener - Dispose Tank	1	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Mag Chloride - Remove Remnant Waste	3	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	3.00	EA	\$432.00	\$1,296.00
Mag Chloride - Remove/Haul Bulk Waste	2,002 CF Ea	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	36,000.00	GAL	\$1.88	\$67,680.00
Mag Chloride - Dispose Tank	3	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	3.00	EA	\$1,050.00	\$3,150.00
Train E Facilities - Carbon Columns - Remove Remnant Waste	5	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	5.00	EA	\$432.00	\$2,160.00
Train E Facilities - Carbon Columns - Dispose Tank	5	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	5.00	EA	\$1,050.00	\$5,250.00
Train E Facilities - Barren Tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Train E Facilities - Barren Tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Soda Ash Mix Tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50

Soda Ash Mix Tank - Remove/Haul Bulk Waste	402 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	3,007.00	GAL	\$1.88	\$5,653.16
Soda Ash Mix Tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Precoat Mix Tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Precoat Mix Tank - Remove/Haul Bulk Waste	170 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	1,272.00	GAL	\$1.88	\$2,391.36
Precoat Mix Tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
PSE Thickener Polymer Mix Tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
PSE Thickener Polymer Mix Tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
PSE Conditioning Tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
PSE Conditioning Tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Polymer Storage Tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Polymer Storage Tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Magnetite Silo - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
Magnetite Silo - Remove/Haul Bulk Waste	402 CF	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	3,007.00	GAL	\$1.88	\$5,653.16
Magnetite Silo - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Off road diesel tanks - Remove Remnant Waste	6	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	6.00	EA	\$432.00	\$2,592.00
Off road diesel tanks - Dispose Tank	6	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	6.00	EA	\$1,050.00	\$6,300.00
kerosene tank - Remove Remnant	1	Remove sludge, water, and rem. product from	1.00	EA	\$259.50	\$259.50

Waste		tank - 3,000 to 5,000 gal.				
kerosene tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
on-road diesel tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
on-road diesel tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
fuel additive (Anti-Gel) tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
fuel additive (Anti-Gel) tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
gasoline tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
gasoline tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
antifreeze tanks - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	2.00	EA	\$259.50	\$519.00
antifreeze tanks - Dispose Tank	2	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
hydraulic oil (10 wt) tanks - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	2.00	EA	\$259.50	\$519.00
hydraulic oil (10 wt) tanks - Dispose Tank	2	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
30 wt motor oil - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	2.00	EA	\$259.50	\$519.00
30 wt motor oil - Dispose Tank	2	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
15/40 wt motor oil - Remove Remnant Waste	2	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	2.00	EA	\$259.50	\$519.00
15/40 wt motor oil - Dispose Tank	2	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
oil water separator tank - Remove Remnant Waste	1	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
oil water separator	535 CF	Hazardous waste	4,000.00	GAL	\$1.88	\$7,520.00

tank - Remove/Haul Bulk Waste		removal - Bulk liquids, large quantities (over 2,500 gal.)				
oil water separator tank - Dispose Tank	1	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Dispose Hazardous Materials	440,000 Gal	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	440,000.00	GAL	\$1.88	\$827,200.00
Lump Sum 11-Demo PCS @ Fuel Island Plus 12% location adjustment	NA	USER PROVIDED ITEM	1.12	EA	\$113,506.00	\$127,126.72
Carbon in ADR Columns - Remove Remnant Waste	45 columns	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	45.00	EA	\$432.00	\$19,440.00
Carbon in ADR Columns - Remove/Haul Bulk Waste	45 x 5 Tons Carbon	Hazardous waste removal - Bulk solids, large quantities (over 1.5 tons)	225.00	TON	\$1,014.61	\$228,287.25

Job Hours: 160.00Subtotal
(unadjusted): \$3,644,857.62Total Cost
(adjusted for location): \$3,203,829.85

DEMOLITION WORK

Task description: **Fence and Culvert Demo**

Site: **Cresson Project**

Permit Action: **2023**

Permit/Job#: **M1980244**

PROJECT IDENTIFICATION

Task #: **D3000**

State: **Colorado**

Abbreviation: **None**

Date: **11/20/2023**

County: **Teller**

Filename: **M244-D3000**

9:12:08 PM

User: **ZTT**

Agency or organization name: **DRMS**

UNIT COSTS

Location adjustment: 87.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Arequa Fence Removal	3450 ft	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	3,450.00	LF	\$3.39	\$11,695.50
Squaw Fence Removal	8835 ft	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	8,835.00	LF	\$3.39	\$29,950.65
Ironclad Culvert 1	80 ft	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	80.00	LF	\$7.73	\$618.30
Ironclad Culvert 2	80 ft	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	80.00	LF	\$7.73	\$618.30
Ironclad Culvert 3	80 ft	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	80.00	LF	\$7.73	\$618.30
Ironclad Culvert 4	80 ft	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	80.00	LF	\$7.73	\$618.30

Job Hours: **60.00**

Subtotal
(unadjusted): **\$44,119.35**

Total Cost
(adjusted for location): **\$38,780.91**

DEMOLITION WORK

Task description: Fence Installation (RS Means 32 31 13.20 0920)

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: D4000

State: Colorado

Abbreviation: None

Date: 11/20/2023

County: Teller

Filename: M244-D4000

9:13:03 PM

User: ZTT

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 100.00 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Cresson Fencing	22542 ft	USER PROVIDED ITEM	22,542.00	LF	\$48.95	\$1,103,430.90
Globe Hill Fencing	16764 ft	USER PROVIDED ITEM	16,764.00	LF	\$48.95	\$820,597.80
Safety Signs	NA	USER PROVIDED ITEM	111.00	EA	\$244.18	\$27,103.98

Job Hours: 320.00

Subtotal
(unadjusted): \$1,951,132.68

Total Cost
(adjusted for location): \$1,951,132.68

DEMOLITION WORK

Task description: Pipe Demo

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: D5000

State: Colorado

Abbreviation: None

Date: 11/20/2023
9:14:09 PM

County: Teller

Filename: M244-D5000

User: ZTT

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Arequa Large Pipes	6900 ft	Pipe, steel, welded connections - 10 in. diameter pipe	6,900.00	LF	\$11.77	\$81,213.00
Arequa Small Pipes	21200 ft	Pipe, steel, welded connections - 10 in. diameter pipe	21,200.00	LF	\$11.77	\$249,524.00
Squaw Large Pipes	4082 ft	Pipe, steel, welded connections - 10 in. diameter pipe	4,082.00	LF	\$11.77	\$48,045.14
Arequa Small Pipes	12422 ft	Pipe, steel, welded connections - 10 in. diameter pipe	12,422.00	LF	\$11.77	\$146,206.94
Barren Pipe (TR76)	300 ft	Pipe, steel, welded connections - 10 in. diameter pipe	300.00	LF	\$11.77	\$3,531.00
TR130 18" HDPE Stormwater Pipe	2331 ft	Pipe, sewer/water - 15 to 18 in. diameter pipe	2,331.00	LF	\$5.03	\$11,724.93
TR130 24" HDPE Stormwater Pipe	890 ft	Pipe, sewer/water - 21 to 24 in. diameter pipe	890.00	LF	\$7.54	\$6,710.60
ADR - PSES Piping North (6)	715 ft	Pipe, steel, welded connections - 10 in. diameter pipe	4,290.00	LF	\$11.77	\$50,493.30
CoMag - PSES South (3)	100 ft	Pipe, steel, welded connections - 10 in. diameter pipe	300.00	LF	\$11.77	\$3,531.00
TR92 4" HDPE Solution Pipe	1950 ft	Pipe, sewer/water - 12 in. diameter pipe	1,950.00	LF	\$5.03	\$9,808.50
TR92 30" HDPE Solution Pipe	100 ft	Pipe, sewer/water - 27 to 36 in. diameter pipe	100.00	LF	\$7.54	\$754.00
TR79 4" HDPE Solution Pipe	1700 ft	Pipe, sewer/water - 12 in. diameter pipe	1,700.00	LF	\$5.03	\$8,551.00

Job Hours: 80.00

Subtotal
(unadjusted): \$620,093.41

Total Cost
(adjusted for location): \$545,062.11

DEMOLITION WORK

Task description: Power Line Demo

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: D6000

State: Colorado

Abbreviation: None

Date: 11/20/2023

County: Teller

Filename: M244-D6000

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User: ERR

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 100.00 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Power Lines (Single Pole)	7.2 mi	USER PROVIDED ITEM	1.00	Ea	\$347,098.00	\$347,098.00
Crusher and ADR1 Lines (Double Pole)	1.9 mi	USER PROVIDED ITEM	1.00	Ea	\$106,333.00	\$106,333.00

Job Hours: 80.00

Subtotal
(unadjusted): \$453,431.00

Total Cost
(adjusted for location): \$453,431.00

BULLDOZER WORKTask description: **Erosion Maintenance**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **E0001**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-E0001****10:44:44 PM**User: **ERR**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS Series II LGP**Horsepower: **240**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	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: **\$248.04**Total Fleet Cost/Hour: **\$248.04****MATERIAL QUANTITIES**Initial Volume: **69,838**Swell factor: **1.429**Loose volume: **99,771 LCY**Source of estimated volume: **AM13 CC&V Provided Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **800.0 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **30 %**Average site altitude: **9,500 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.298	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.1921

Adjusted unit production: 153.68 LCY/hr

Adjusted fleet production: **153.68** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$1.614/LCY

Total job time: **649.21** Hours
 Total job cost: **\$161,031**

SITE MAINTENANCE

Task description: Vegetation Survey

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: E0002

State: Colorado

Abbreviation: None

Date: 11/21/2023

County: Teller

Filename: M244-E0002

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User: ERR

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Vegetation Survey - Field Work	50.00	USER PROVIDED ITEM	500.00	HR	\$132.56	\$66,280.00
Vegetation Survey - Reporting	16.00	USER PROVIDED ITEM	160.00	HR	\$132.56	\$21,209.60
Vegetation Survey - Travel	10.00	USER PROVIDED ITEM	100.00	HR	\$132.56	\$13,256.00
Vegetation Survey - Equipment	1.00	USER PROVIDED ITEM	1.00	EA	\$13,485.00	\$13,485.00

Job Hours: 760.00

Total Cost: \$114,230.60

REVEGETATION WORKTask description: Site-wide Weed ControlSite: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244PROJECT IDENTIFICATIONTask #: E0003State: ColoradoAbbreviation: NoneDate: 11/21/2023County: TellerFilename: M244-E00031:47:09 PMUser: ERRAgency or organization name: DRMSFERTILIZINGMaterials

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
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$338.80

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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 1790.04
 Estimated Failure Rate: 0%
 *Selected Replanting Work Items: NONE

Cost /Acre: \$338.80
 Cost /Acre*: \$0.00

Initial Job Cost: **\$606,465.55**
 Reseeding Job Cost: **\$0.00**
 Total Job Cost: **\$606,466**
 Job Hours: **160.00**

DRILLING EQUIPMENT

Task description: Perforate VLF Liner (6,000 LF)

Site: Cresson Project

Permit Action: 2023

Permit/Job#: M1980244

PROJECT IDENTIFICATION

Task #: E2000

State: Colorado

Abbreviation: None

Date: 11/20/2023

County: Teller

Filename: M244-E2000

10:46:09 PM

User: ERR

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Make and Model: Atlas Capco DM45/LP - 7-7/8"

Horsepower: 519.00

Attachment 1: Clear water pump station, 225 psi

Shift Basis: 1 per day

Attachment 2: Mud service pump station, 225 psi

Weight: 45.25

Labor Unit 1: Driller - Caisson Drill

(US Tons)

Labor Unit 2: Laborer - Caisson Drill

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$410.31</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$386.12</u>	<u>100</u>
Operator Cost/Hour:	<u>\$74.97</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$871.40</u>	

Total Fleet Cost/Hour: \$871.40

JOB TIME AND COST

Fleet size: 1 Equipment Set(s) Total job time: **690.00** Hours

Unit cost: \$871.40 /Hour

Total job cost: **\$601,266**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial Mobilization**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0001**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0001****10:49:58 PM**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D7R DS Series II LGP	38.49	\$123.82	\$158.17	2	\$563.98	\$316.34	\$500.00
Cat D8T - 8SU	47.71	\$241.38	\$158.17	2	\$799.10	\$316.34	\$500.00
Cat D10T - 10SU	84.53	\$178.69	\$175.95	4	\$1,418.56	\$703.80	\$1,000.00
CAT 16M	28.73	\$212.21	\$158.17	2	\$740.76	\$316.34	\$500.00
CAT 966H	25.80	\$65.69	\$82.29	2	\$295.96	\$164.58	\$500.00
CAT 988H	54.46	\$109.98	\$175.95	2	\$571.86	\$351.90	\$500.00
CAT 992K	107.88	\$229.24	\$175.95	2	\$810.38	\$351.90	\$500.00
LETOURNEAU L2350	293.90	\$859.02	\$175.95	2	\$2,069.94	\$351.90	\$500.00
CAT 953D	17.10	\$101.76	\$82.29	2	\$368.10	\$164.58	\$500.00
CAT 973D	29.07	\$146.11	\$158.17	2	\$608.56	\$316.34	\$500.00
CAT 450E	9.80	\$92.02	\$82.29	8	\$1,394.48	\$658.32	\$500.00
Grove GMK3055, 141', 54.4 MT	39.30	\$156.30	\$158.17	2	\$628.94	\$316.34	\$500.00
Grove RT650E, 105', 45.4 MT	28.74	\$270.71	\$158.17	4	\$1,715.52	\$632.68	\$1,000.00
Broderson IC-200- 3F, 59', 13.6MT	13.75	\$82.29	\$82.29	8	\$1,316.64	\$658.32	\$500.00
Cat 725	24.54	\$130.23	\$82.29	20	\$4,250.40	\$1,645.80	\$5,000.00
Cat 740	36.49	\$113.82	\$158.17	6	\$1,631.94	\$949.02	\$1,500.00
Cat 777F	80.18	\$206.48	\$175.95	16	\$6,118.88	\$2,815.20	\$4,000.00
KOM45.00U 830E	244.00	\$207.26	\$175.95	14	\$5,364.94	\$2,463.30	\$2,500.00

Water Tanker, 7,000 Gal.	29.65	\$86.29	\$158.17	2	\$488.92	\$316.34	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	2	\$178.04	\$164.58	\$500.00
Hydroseeder with Tractor	28.00	\$12.80	\$158.17	2	\$341.94	\$316.34	\$500.00
Cat 312D L 9'-2" Stick	14.83	\$61.84	\$82.29	3	\$432.39	\$246.87	\$500.00
Atlas Capco DM45/LP - 7-7/8"	1.25	\$410.31	\$82.29	2	\$985.20	\$164.58	\$500.00
Cat 307D 7'-3" Stick	7.95	\$37.88	\$82.29	2	\$240.34	\$164.58	\$500.00
CAT 246C	3.58	\$30.84	\$82.29	1	\$113.13	\$82.29	\$250.00

Subtotals:

\$33,448.90**\$14,948.58****\$24,250.00****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	\$89.44	8	\$715.52	\$715.52
Generic 10-12 cy, 6x4	\$116.31	4	\$465.24	\$465.24
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	30	\$2,484.00	\$2,484.00
Water Tanker, 3,500 Gal.	\$75.37	2	\$150.74	\$150.74

Subtotals:

\$3,815.50**\$3,815.50**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$227,249.75</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$8,818.04</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 6.62 Hours

Total job cost: \$236,068

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 1Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0002State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F000210:52:58 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 2Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0003State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F000310:53:41 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	2	\$178.04	\$164.58	\$500.00
Hydroseeder with Tractor	28.00	\$12.80	\$158.17	2	\$341.94	\$316.34	\$500.00
Subtotals:					\$519.98	\$480.92	\$1,000.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	16	\$1,324.80	\$1,324.80
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,400.17	\$1,400.17

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$5,353.15</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$3,235.95</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 6.62 Hours

Total job cost: \$8,589

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 3Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0004State: ColoradoAbbreviation: NoneDate: 3/15/2023County: TellerFilename: M244-F0004User: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 4Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**

Task #: F0005 State: Colorado Abbreviation: None
 Date: 11/20/2023 County: Teller Filename: M244-F0005
10:55:29 PM
 User: ACY

Agency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**

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

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Site Maintenance Yr 5**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0006**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0006****10:56:22 PM**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Atlas Capco DM45/LP - 7-7/8"	1.25	\$410.31	\$82.29	2	\$985.20	\$164.58	\$500.00

Subtotals: **\$985.20** **\$164.58** **\$500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	16	\$1,324.80	\$1,324.80
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37

Subtotals: **\$1,400.17** **\$1,400.17**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$5,627.67</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$3,235.95</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 6.62 Hours

Total job cost: \$8,864

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 6Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0007State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F000710:57:31 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 7Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0008State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F000810:58:27 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 8Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0009State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F000910:59:43 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Site Maintenance Yr 9**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0010**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0010****11:00:48 PM**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Site Maintenance Yr 10**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0011**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0011****11:01:30 PM**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	14	\$1,159.20	\$1,159.20
Water Tanker, 3,500 Gal.	\$75.37	1	\$75.37	\$75.37
Subtotals:			\$1,234.57	\$1,234.57

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,853.23</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,853

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Site Maintenance Yr 11**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0012**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0012****11:02:54 PM**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	12	\$993.60	\$993.60
Subtotals:			\$993.60	\$993.60

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,296.32</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,296

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 12Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0013State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F001311:05:49 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	12	\$993.60	\$993.60
Subtotals:			\$993.60	\$993.60

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,296.32</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,296

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Site Maintenance Yr 13**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0014**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0014****11:06:31 PM**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	12	\$993.60	\$993.60
Subtotals:			\$993.60	\$993.60

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,296.32</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,296

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Site Maintenance Yr 14Site: Cresson ProjectPermit Action: 2023Permit/Job#: M1980244**PROJECT IDENTIFICATION**Task #: F0015State: ColoradoAbbreviation: NoneDate: 11/20/2023County: TellerFilename: M244-F001511:07:20 PMUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

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

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	12	\$993.60	\$993.60
Subtotals:			\$993.60	\$993.60

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>52.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,296.32</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.31</u>	<u>2.31</u>

JOB TIME AND COST

Total job time: 2.31 Hours

Total job cost: \$2,296

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **TR124 Carlton Tunnel Pond Cleanout - Mob**Site: **Cresson Project**Permit Action: **2023**Permit/Job#: **M1980244****PROJECT IDENTIFICATION**Task #: **F0016**State: **Colorado**Abbreviation: **None**Date: **11/20/2023**County: **Teller**Filename: **M244-F0016****11:08:15 PM**User: **ERR**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat 320D L 9'-6" Stick	23.70	\$70.85	\$82.29	4	\$612.56	\$329.16	\$250.00

Subtotals: **\$612.56** **\$329.16** **\$250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$82.80	4	\$331.20	\$331.20
Generic 15-18 cy, 6x4	\$137.31	4	\$549.24	\$549.24

Subtotals: **\$880.44** **\$880.44**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>61.00</u>	miles
Average Travel Speed:	<u>30.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$5,554.78</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$3,580.46</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>2.03</u>	<u>2.03</u>
Return Time (Hours):	<u>2.03</u>	<u>2.03</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>5.07</u>	<u>4.07</u>

JOB TIME AND COST

Total job time: 10.13 Hours

Total job cost: \$9,135