COST SUMMARY WORK

			Permit Action	: Permit Renewal		
Site: Bowie No	o. 2 Mine			3	Permit/Jo	ob#: C1996083
PROJECI	<u>IDENTIFICA</u>	<u>l'ION</u>				
PROJECT Task #:	000	TION State:	Colorado	Abbro	eviation:	None
			Colorado Delta		eviation: _	None C083-000
Task #:	000	State:				

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	
	Description	Used	Size	Hours	Cost
001	Pull back and Haul Portal Bench Fill Material to	TRUCK1	1	609.56	\$404,650.02
	Cut Slope		<u> </u> .	1.50.00	
002	Regrade D-Portal Bench	DOZER	4	158.03	\$202,238.29
003	Pull up Material for Utility Corridor	EXCAVATE	2	24.96	\$12,597.00
004	Regrade Utility Corridor	DOZER	4	4.48	\$5,735.37
005	Rip and Regrade Material Storage Area at Gob Pile	DOZER	4	1.73	\$2,214.69
006	Pull Back Material @ Old Truck Loadout Material Storage Area	EXCAVATE	2	21.27	\$10,734.00
007	Regrade Old Truck Loadout Material Storage Area	DOZER	4	8.21	\$10,504.91
008	Pull Back Material at Truck Loadout/Coal Stockpile	EXCAVATE	2	147.57	\$74,466.00
009	Regrade New Truck Loadout and Coal Stockpile	DOZER	4	32.38	\$41,438.55
010	Pull Material Back onto Train L/O Facil. and Railbed Benches	EXCAVATE	2	431.74	\$217,860.00
011	Regrade Train Loadout Facilities and Railbed Benches	DOZER	4	171.56	\$219,545.68
012	Backfill and Regrade Train L/O Overland Conveyor Corridor	DOZER	4	5.62	\$7,185.63
013	Haul Fill from Upper Mat'l Strge Area to B-Seam Portal Bench	SCRAPER1	1	82.40	\$45,884.70
014	Haul Fill fr Adj. Mat'l Storage Area to B-Seam Portal Bench	TRUCK1	1	89.33	\$57,762.63
015	Backfill and Regrade B-Seam Portal Bench	DOZER	4	38.70	\$52,870.21
016	Pull Material Back onto Freeman Gulch Vent Shaft Bench	EXCAVATE	2	2.31	\$1,169.00
017	Push mat'l from Freeman Gulch Vent Shaft back to Cut Slope	DOZER	4	0.48	\$610.45
018	Regrade Freeman Gulch Vent Shaft Pad	DOZER	4	8.63	\$11,049.96
019	Regrade Drill Pads from MRs and TRs	DOZER	4	87.79	\$112,348.35
020	Regrade Material Storage Area from TR-29	DOZER	4	0.48	\$613.89
021	Backfill and Regrade New Prep Plant Bench	DOZER	4	36.99	\$47,340.24
022	Replace Fill from Material Storage Area to Water Tank Bench	SCRAPER1	1	1.51	\$841.42
023	Regrade Borrow Area	DOZER	4	19.14	\$24,497.89
024	Regrade Hubbard Creek Vent Shaft Pad	DOZER	4	1.89	\$2,414.81
025	Regrade Upper Parking Lot Expansion Area	EXCAVATE	1	3.65	\$923.00
026	Haul Mat'l from Bowie No. 1 Stkpl to Hubbard Crk Vent Shaft	TRUCK1	1	26.68	\$25,480.98

Reclamation Cost Estimate RN-3 Page 2 of 312

027	Haul Rock to Vent Shafts for Disposal	TRUCK1	1
035	Spread Uncompacted Refuse on Gob Pile #2	DOZER	4
036	Spread Uncompacted Refuse on Gob File #2	DOZER	4
030	Spread Uncompacted Refuse at Gob Pile #3	DOZER	4
038	Compact Material Hauled to Gob Pile #1	COMPACT	1
039	Compact Refuse on Gob Pile #2	COMPACT	1
040	Compact Refuse on Gob Pile #2	COMPACT	1
040	Compact Refuse at Gob Pile #3	COMPACT	1
041	Haul Top 1' from Stockpile Area to Gob Pile #1	SCRAPER1	1
042	Place 4' of Cover on Gob Pile #1	SCRAPER1	1
043	Replace Subsoil from Stockpile to Gob Pile #2	SCRAPER1	1
044	Replace Subsoil from Stockpile to Gob File #2 Replace Subsoil from Stockpile to Gob Pile #2	SCRAPER1	1
045	Place 1.6' of Cover on Gob Pile #3	SCRAPER1	1
050	Compact Backfilled D-Portal Bench,Roads, &	COMPACT	1
050	Utility Corridor	commen	1
051	Compact Backfilled Material at Truck	COMPACT	1
	Loadout/Coal Stockpile		
052	Compact Backfilled Train Loadout	COMPACT	1
053	Compact B-Seam Portal Bench	COMPACT	1
054	Compact Backfilled Freeman Gulch Vent Shaft	COMPACT	1
	Pad		
060	Rip Utility Bench	RIPPER	4
061	Rip D-Portal Bench	RIPPER	4
062	Rip Truck Loadout/Coal Stockpile Area	RIPPER	4
063	Rip Regraded Mine Area Prior to Topsoil	RIPPER	4
	Replacement		
064	Rip Train Loadout Facilities and Railbed Benches	RIPPER	4
065	Rip B-Seam Portal Bench	RIPPER	4
066	Rip Rock Laydown Pad Topsoil	RIPPER] 1
070	Rip Haul Roads (Portion Being Reclaimed) & Old	RIPPER	4
	Truck Loadout		ļ
071	Remove Haul Road Subbase and Place on Gob Pile #1	SCRAPER1	1
072	Rip Truck Loadout Road	RIPPER	4
072	Haul Truck Loadout Koad Haul Truck Loadout Subbase to Gob Pile #1	SCRAPER1	4
073	Rip Upper Haul Road Asphalt Prior to Road	RIPPER	4
074	Narrowing	KIFFLK	4
075	Pull Back/Haul Fill Mat'l from Upper Haul Rd	TRUCK1	1
	Narrowing		
076	Regrade Narrowed Section of Haul Road	DOZER	4
077	Rip Gob Pile #1 Road	RIPPER	4
078	Regrade Gob Pile #1 Road	DOZER	4
079	Rip Access Road	RIPPER	4
080	Haul Access Road Surface to Gob Pile #1	SCRAPER1	1
081	Regrade Access Road	DOZER	4
082	Rip Freeman Gulch Vent Shaft Light-Use Road	RIPPER	4
083	Backfill and Regrade Haul Road to Gob Pile #2	DOZER	4
084	Rip Lower Haul Road	RIPPER	4
085	Regrade Lower Haul Road	DOZER	4
086	Regrade Light Use Roads from MRs and TRs	DOZER	4
090	Finish Grade Disturbed Mine Area	GRADER	1
091	Finish Grade Train Loadout	GRADER	1
092	Finish Grade B-Seam Portal Bench	GRADER	1
093	Finish Grade Gob Pile #2	GRADER	1

10.50	\$4,249.97
68.14	\$87,196.19
86.77	\$111,037.35
99.16	\$126,899.83
13.38	\$1,877.00
153.51	\$21,525.00
134.32	\$18,834.00
148.39	\$20,807.00
14.59	\$8,124.49
86.77	\$48,317.67
102.82	\$57,257.50
429.02	\$238,906.47
101.00	\$56,244.80
577.52	\$80,975.00
10.07	*** ***
63.35	\$8,883.00

215.94	\$30,278.00
128.72	\$18,049.00
1.83	\$257.00
0.30	\$423.00
3.71	\$5,074.00
2.06	\$2,819.00
59.09	\$80,726.00
7.69	\$10,509.00
3.71	\$5,074.00
0.43	\$147.00
116.47	\$159,846.00
30.54	\$17,006.95
2.14	\$2,946.00
12.75	\$7,097.98
2.95	\$4,050.00
141.47	\$93,914.32
26.11	\$33,412.46
2.35	\$3,238.00
5.17	\$7,056.51
0.73	\$1,011.00
4.86	\$2,705.66
1.79	\$2,295.72
0.20	\$287.00
0.20	\$598.38
	\$1,304.00
0.95 36.46	
	\$49,800.93 \$114,107,16
83.60	\$114,197.16
129.92	\$17,754.00
16.91	\$2,311.00
6.91	\$945.00
16.37	\$2,238.00
7.63	\$2,604.29

Reclamation Cost Estimate RN-3 Page 3 of 312

 Backfill and Regrade Pond C Backfill and Regrade Gob Pile Pond D Backfill and Regrade Pond F Backfill and Regrade Pond J Backfill and Regrade Pond K Excavate for Post-mining Channel at B-Seam Portals Install Riprap, Gavel, and geotextile in BSeam Channel Replace Topsoil from Stockpile A to Portal/Ut Bench Replace Topsoil from Stockpile A to Truck 	
 Backfill and Regrade Pond F Backfill and Regrade Pond J Backfill and Regrade Pond K Excavate for Post-mining Channel at B-Seam Portals Install Riprap, Gavel, and geotextile in BSeam Channel Replace Topsoil from Stockpile A to Portal/Ut Bench 	DOZER DOZER DOZER EXCAVATE NA ility SCRAPER1
 Backfill and Regrade Pond J Backfill and Regrade Pond K Excavate for Post-mining Channel at B-Seam Portals Install Riprap, Gavel, and geotextile in BSeam Channel Replace Topsoil from Stockpile A to Portal/Ut Bench 	DOZER EXCAVATE NA ility SCRAPER1
 Backfill and Regrade Pond K Excavate for Post-mining Channel at B-Seam Portals Install Riprap, Gavel, and geotextile in BSeam Channel Replace Topsoil from Stockpile A to Portal/Ut Bench 	DOZER EXCAVATE NA ility SCRAPER1
Portals Install Riprap, Gavel, and geotextile in BSeam Channel Replace Topsoil from Stockpile A to Portal/Ut Bench	ility SCRAPER1
 Install Riprap, Gavel, and geotextile in BSeam Channel Replace Topsoil from Stockpile A to Portal/Ut Bench 	ility SCRAPER1
Channel 0 Replace Topsoil from Stockpile A to Portal/Ut Bench	ility SCRAPER1
0 Replace Topsoil from Stockpile A to Portal/Ut Bench	-
	SCRAPER1
Loadout/Coal Stkpl	
2 Replace Topsoil from Stockpile F to Train Loa	dout SCRAPER1
3 Replace Topsoil from Stockpile A to B-Seam	SCRAPER1
Portal Bench	SCRAI LRI
4 Replace Topsoil fm Stockpile to Freeman Guld Vent Shaft Pad	ch DOZER
5 Replace Topsoil fm Stockpiles C/D to Pond C Gob Pond D	and SCRAPER1
6 Replace topsoil from Stockpile to Pond F	DOZER
7 Replace topsoil from Stockpile F to Pond J	SCRAPER1
8 Replace topsoil from Stockpile F to Pond K	SCRAPER1
9 Replace topsoil fm stockpile to MR/TR Light-	
Roads	
Replace topsoil from stockpiles to MR/TR dril pads	1 DOZER
Replace topsoil from Stockpile A to Prep Plant Bench	t SCRAPER1
Replace topsoil from stockpile to Material Stor Area	rage DOZER
Replace topsoil from Stockpile E to Gob Pile #	2 SCRAPER1
Replace Topsoil from Stockpile to Gob Pile #2	
Replace topsoil from stockpile to Gob Pile #3	SCRAPER1
	DOZER
Replace topsoil from stockpile to Haul RoadReplace topsoil from stockpile to Water Tank	SCRAPER1
Bench	Servin Eltri
Replace topsoil from Stockpile G to TR35 road/pad	SCRAPER1
9 Replace topsoil from stockpile to Borrow Area	DOZER
0 Replace topsoil fin stockpile to Upper Parking	
Expansion	
Replace topsoil fm stockpile to Hubbard Ck Vo Shaft Pad	ent DOZER
0 Seal Portals and Shafts	MINESEAL
Concrete Plug and Backfill Vent Shaft	NA
2 Plug/Seal Boreholes	BOREHOLE
Drill Seed Mix 3 on Disturbed Area	REVEGE
Drill Seed Drill Pads	REVEGE
Drill Seed Lt-Use Roads to Drill Pads and Terr	
Creek	DEVECE
4 Broadcast Seed Mix 3 on Gob Pile #3	REVEGE
5 Drill seed Hubbard Creek Vent Shaft Pad	REVEGE
6 Drill Seed Rock Laydown Area	REVEGE
7 Weed Control Over 10-Year Liability Period5 Demolish and Remove all Structures	REVEGE DEMOLISH

11.61	\$3,849.63
8.18	\$2,712.93
10.87	\$3,603.42
20.29	\$6,726.38
1.52	\$505.20
0.63	\$318.00
72.59	\$35,040.73
12.59	\$55,010.75
652.39	¢2(2)201 40
032.39	\$363,291.49
42.52	\$23,675.47
39.98	\$22,263.01
87.66	\$48,814.27
	. ,
0.93	\$1,273.32
0.75	$\psi_{1,275.52}$
12.10	ф л 202 00
13.12	\$7,303.88
3.95	\$1,350.55
2.85	\$1,588.31
1.92	\$1,067.77
27.35	\$37,359.60
21.55	φ57,557.00
36.23	¢10.016.17
30.23	\$48,046.47
22.41	\$12,479.57
0.18	\$250.33
28.82	\$16,047.92
69.19	\$38,528.45
132.68	\$73,884.88
0.17	\$228.58
1.71	\$952.98
5.01	\$2,791.77
5.44	\$7,434.02
0.46	\$148.25
0.40	ψ1 + 0.2J
0.54	#1.000.0#
0.74	\$1,009.85
40.00	\$181,171.28
40.00	\$98,746.83
1,502.00	\$766,245.38
40.00	\$591,236.10
60.00	\$52,274.71
65.00	\$60,052.61
0.00	\$131,843.93
0.00	\$1,669.67
0.00	\$278.28
0.00	\$51,528.62
	\$1,725,362.77
80.00	φ1,/ <i>23</i> ,302.//

Reclamation Cost Estimate RN-3 Page 4 of 312

170	Proctor Testing of Backfill	NA
71	Nuclear Density Testing of Backfill	NA
72	Water Truck for Moisture Augmentation of	MISCTRUK
	Backfill Material	
73	Site Maintenance - Ten Years	SITEMAINT
		ENANCE
74	Support Equipment for Scraper Hauling	SITEMAINT
		ENANCE
80	Mobilize/Demobilize Equipment for First	MOBILIZE
	Construction Season	
81	Mobilize/Demobilize Equipment for Second	MOBILIZE
	Construction Season	
82	Mobilize/Demoblize Equipment for Pond Removal	MOBILIZE
83	Mobilize/Demobilize Equipment for Yearly Site	MOBILIZE
	Maintenance	
41	Regrade Terror Creek Light-Use Road	DOZER
42	Replace Topsoil from Stockpile to Terror Creek	DOZER
50	Lt-Use Road	DOZED
52	Regrade BRL-1-03-01, 1-08-01, and 1-08-04 pads	DOZER
53	Regrade Light-Use Roads BRL-1-03-01, -08-01, and -08-04	DOZER
54	Replace topsoil on BRL-1-03-01, -08-01, and -08-	DOZER
	04 pads	
255	Replace topsoil on LU Roads to BRL-1-03-01, -	DOZER
	08-01, & -08-04	
56	Reseed BRL-1-03-01, -08-01, and -08-04 pads	REVEGE
57	Reseed BRL-1-03-01, -08-01, and -08-04 LU roads	REVEGE
61	Concrete plug and backfill Terror Creek vent shaft	NA
78	Access Road Topsoil (9.08 acres - TR73)	DOZER
79	Plug and seal 13 boreholes TR-73	BOREHOLE
80	Reseed Drill Pads (13 pads - TR-73)	REVEGE
81	Reseed Access Roads - TR-73	REVEGE
.82	Drill Pad backfill (13 pads TR-73)	DOZER
83	Access Road Regrading (9.08 acres - TR73)	DOZER
.84	Drill Pad Topsoil (13 pads - TR73)	DOZER
85	Regrade GVB-B13F Drill Pad	DOZER
86	Regrade Light-Use Road to GVB-B13F	DOZER
87	Replace Topsoil from Stockpile to GVB-B13F pad	DOZER
88	Replace Topsoil from Stockpile to GVB-B13F	DOZER
	Light-Use Road	
89	Reseed GVB-B13F Drill Pad	REVEGE
90	Reseed Light-Use Road to GVB-B13F	REVEGE
.99	Plug and Seal GVB-B13F	BOREHOLE
00	Plug and Seal 4 Utility Holes at Fan Bench	BOREHOLE
01	Reseed Add'l Disturbance from Utility Boreholes	REVEGE
~ •	at Fan Bench	
02	Regrade Fan Bench - Utility Borehole Mudpit	DOZER
	Add'l Dist.	
31	Regrade Vent Hole B13 Drill Pad	DOZER
35	Re-topsoil Vent Hole B13 Drill Pad	DOZER
37	Reseed Bleeder Vent Boreholes B13	REVEGE
38	Plug and Seal GVB B13C-1	BOREHOLE
10		
	Reserved road and nod for GVR R12C 1	REVECE
39 40	Reseed road and pad for GVB B13C-1 Regrade GVB B13C-1 pad and road	REVEGE DOZER

10.00	\$689.85
1,760.00	\$125,910.40
1,437.02	\$127,191.00
,	. ,
292.00	\$238,012.40
449.16	\$103,205.76
	,,
12.00	\$46,787.39
12:00	\$ 10,707 lbs
12.00	\$46,787.39
12.00	\$10,707.09
6.50	\$4,574.19
14.00	\$29,916.42
14.00	$\psi_{2}^{j}, j_{1}^{j}0.42$
29.73	\$7,415.42
22.45	\$5,599.40
22.43	\$3,399.40
5.51	\$1,374.20
23.45	\$5,848.35
1.61	¢401.00
1.61	\$401.90
10.62	\$2 (50 00
10.63	\$2,650.90
1.00	¢1.005.74
4.00	\$1,285.74
16.00	\$4,838.09
40.00	\$151,385.41
43.32	\$8,583.58
156.00	\$86,308.99
23.92	\$32,425.71
18.16	\$24,617.51
123.24	\$24,418.65
93.57	\$18,538.40
57.06	\$11,305.14
6.50	\$1,621.35
3.64	\$908.09
2.60	\$648.50
1.07	\$265.93
1.07	φ205.75
2.00	\$1,280.08
2.00	\$403.50
48.00	\$6,849.62
	. ,
48.00	\$14,649.86
1.00	\$542.64
1.00	¢1 011 57
4.06	\$1,011.57
10.54	#2 (25 25
10.54	\$2,628.36
5.96	\$1,487.17
0.20	\$1,391.40
48.00	\$5,544.98
2.00	\$1,767.07
13.39	\$3,338.67
5.68	\$1,417.10

Reclamation Cost Estimate RN-3

Page 5 of 312

		SUBTOTALS:	13170.9	\$8,742,874.59
INDIRECT COSTS				
OVERHEAD AND PROFIT:				
Liability insurance:	2.02%		Total =	\$176,606.07
Performance bond:	1.05%		Total =	\$91,800.18
Job superintendent:	2,100.00 hrs		Total =	\$137,361.00
Profit:	10.00%		Total =	\$874,287.46
		TOT	ALO&P =	\$1,280,054.71
	CON	TRACT AMOUNT (direct	(+ O & P) =	\$10,022,929.30
LEGAL - ENGINEERING - PR		C: 0.00	Total =	0.00
Engineering work and/or c	ontract/bid preparation:	4.00%	Total =	\$400,917.17
Reclamation managemen	t and/or administration:	3.13%	-	\$313,717.69
	CONTINGENCY:	0.00	Total =	\$0.00
		TOTAL INDIRE	CT COST =	\$1,994,689.57
	TOTAL BO	OND AMOUNT (direct +	indirect) =	\$10,737,564.16

Bowie No. 2 Mine

Reclamation Cost Estimate RN-3

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Mi	ne	Perm	it Action:	Permit Ren	ewal 3	Permit/Job#:	C1996083
PROJECT IDE	NTIFICATION						
Task #: 001		State:	Colorado Delta			Abbreviation: _ Filename: _	None C083-001
Agency o	r organization nan	ne: DRN	4S				
HOURLY EQU	IPMENT COST	ſ			Shift	basis: <u>1 per day</u>	
		-	Εαι	uipment Descr		<u> </u>	
	Truck Loader Tea		Cat 77.	3F	•		
C	and Emilian and I	-Loader:		5C L 13'-7" S	Stick		
Supj	ort Equipment -L -Dı	imp Area:	NA NA				
Road M	Iaintenance – Mote		NA				
	-Wa	ter Truck:	NA				
Cost Breakdown:	Truck/Loa	ader Team		Support	Equipment	Maint	enance Equipment
	Truck	Excavato	or L	Load Area	Dump Area	Motor Grad	
%Utilization-machine:	100	100		NA	NA	NA	NA
Ownership cost/hour:	\$60.64	\$78.8	1	NA	NA	NA	NA
Operating cost/hour:	\$119.47	\$139.	55	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.0	0	NA	NA	NA	NA
Operator cost/hour:	\$25.66	\$33.9	4	NA	NA	NA	NA
Unit Subtotals:	\$205.77	\$252.	30	NA	NA	NA	NA
Number of Units:	2	1		0	0	0	0
Group Subtotals:	Work:	\$663.84		Support:	\$0.00	Mai	nt: \$0.00
Total work team co MATERIAL QU Initial volume	JANTITIES		CCY	Swell	factor: 1.16	5	
Loose volume	e: 304,01	10	LCY				
	ource of estimated e of estimated swe Material Purcha To	ll factor:	Operator Cat Han \$0.00 \$0.00	r Estimate dbook			
HOURLY PRO	DDUCTION						
<u>Truck Capacity:</u> <u>Truck Payload (we</u> Material Desc	weight: 2,900			Pounds/LCY ock, 50% Eart			

Truck Bed ((volume)	Basis:

Struck Volume:	35.00	LCY
Heaped Volume:	46.50	LCY
Average Volume:	40.75	LCY
Adjusted Volume:	42.25	LCY

Final Truck Volume Based on Number of Loader Passes: 42.26 LCY

Site Altitude (ft.): 6900 feet

Loading Tool Capacity

		Bucket Size Class:	Large
Rated Capacity:	6.900	LCY (heaped)	
Bucket Fill Factor:	0.875	Loose material - 1" and over (85 - 90%) 0.875	
Adjusted Capacity:	6.038	LCY	

Job Condition Corrections:

	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	of Loading Tool Passes Required to		7	passes
Excavators and Front Shovels:	T	ruck:		
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	: <u>NA</u> D	ump:	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 Adjustme	nt: NA	minutes
	Adjusted Loader Cycle Tin	ne: 0.570	minutes
	Net Load Time per Truc	ck: 3.520	minutes

Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	3.520	Minutes	Adjusted for site altitude:	3.520	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time:	Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, wa	atered,
maintained 3.0		

Haul H			1					
Seg #	Haul (Ft)	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	600.0	0	17.00	3.00	20.00	379	1.588	
					Haul Time:	1.588	minutes	
Return	Route:							
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	600.0	0	-17.00	3.00	-14.00	1377	0.566	
					Return Time:	0.566	minutes	
				Total Tru	ck Cycle Time:	7.474	minutes	
Loading Pr Truck Unit Pr	oduction	600.89	LCY/Hour		Adjusted for j	ob efficiency:	498.74	_ LCY/Hour
	oddetion	339.28	LCY/Hour		Adjusted for j	ob efficiency:	281.60	_ LCY/Hour
Optimal No. o	f Trucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			0	•	k team productio			
					r team productio			
			Adjusted multipl	e truck/loade	r team productio	on: 498.	74 LCY/H	lour
JOB	FIME AN	ND COST						
Fl	eet size: _	1	Team(s)	r	Fotal job time:	609.5	6 Hour	rs
U	nit cost:	\$1.331	/LCY		Total job cost:	\$404,65	0.02	

Page 9 of 312

Task description:	Regrade D-Portal Bench			
Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION			
Task #: 002 Date: 1/16/2013 User: SLB	State: Colorado County: Delta		Abbreviation: Filename:	None C083-002
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
Horsepower: 574 Blade Type: Ser	ni-Universal	_		
	er day RG)			
Cost Breakdown: Ownership Cost/Hour:	\$99.15	<u>Utilization %</u> NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour: Operator Cost/Hour:	\$0.00 \$37.41	0 NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$319.93 \$1,279.71			
MATERIAL QUANTInitial Volume:260,Swell factor:1.16Loose volume:303,	593			
Source of estimated volu Source of estimated swel factor:	L			
HOURLY PRODUC	<u> TION</u>			
Average push distance: Unadjusted hourly production:	100 feet 1,718.9 LCY/hr			
Materials consistency dea	scription: Compacted fill or en	mbankment 0.9		
Average push gradient: Average site altitude:	10 % 6,900 feet			
Material weight:	2,900 lbs/LCY			
Weight description:	Decomposed rock - 50% Rock	, 50% Earth		
Job Condition Correction		Source		
Operator	Skill: 0.750	(AVG.)		

Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	480.26 LCY/hr
Adjusted fleet production:	1921.04 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.666/LCY

Total job time:	158.03 Hours	
Total job cost:	\$202,238.29	

Page 11 of 312

HYDRAULIC EXCAVATOR WORK

Task description:	Pull up Material fo	or Utility	Corridor		
e: Bowie No. 2 Mine	Permi	t Action:	Permit Renewal 3	Perm	nit/Job#: <u>C1996083</u>
PROJECT IDENTIF	ICATION				
Task #: 003	State:	Colorado		Abbrev	iation: None
Date: 1/16/2013	County:	Delta		File	ename: C083-003
User: SLB					
Agency or organ	nization name: DRM	IS			
HOURLY EQUIPME	<u>ENT COST</u>				
Basic Machine:	Cat 365C L 13'-7" St	ick	Hor	sepower:	404
Attachment 1:	ROPS Cab			ht (MT):	70.51
				ift Basis:	1 per day
			Data	a Source:	(CRG)
Cost Breakdown:		I			
Ownership Cost/H	Hour: \$78.81		Utilization % NA		
Operating Cost/F			100		
Operator Cost/H			NA		
Total Unit Cost/H					
Total Fleet Cost/	Hour: \$504.6	0			
MATERIAL QUANT					
	1,490	CCY	Swell factor:	1.165	
	3,386	LCY	b wen fuetor.	1.105	
Source	of estimated volume:	Page 3.02	2-2		
	timated swell factor:	Cat Hand			
HOURLY PRODUC	ΓΙΟΝ				
Excavator Cycle Time (lo		ed. dump l	bucket, swing empty):		
	-	-		GEVEDE	
			Condition Description: hin Basic Description:	SEVERE SEVERE	
	Secondary Job Con		Cycle Time Value:	0.570	minutes
Load Bucket Capacity			Cycle Thile Value.	0.570	
			Bu	cket Size Cla	ss: Small
Rated Capacity	3.61	LCY (he	aped)		
Bucket Fill Factor			igh clay (80% - 90%) (0.850	
Adjusted Capacity	3.07	LCY			
Job Condition Correction	Factors		Site Alti	tude: <u>6900</u> fe	et
		Source	2		
Altitude Adj:	1.00	(CAT H	,		
Job Efficiency:	0.83	(1 shift/da			
Net Correction:	0.83	multiplie	r		
	djusted Hourly Unit Pr			.CY/Hour	
	djusted Hourly Unit Pr			CY/Hour	
Ad	ljusted Hourly Fleet Pr	oduction:	536.18 L	.CY/Hour	

Fleet size:	2	Excavator	Total job time:	24.97	Hours
Unit cost:	\$0.941	/LCY	Total job cost:	\$12,597.00	

Page 13 of 312

Bowie No. 2 Mine	Permi	t Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIE	TCATION				
		~			
Task #: 004		Colorado		Abbreviation:	None
Date: $1/16/2013$	County: I	Delta		Filename:	C083-004
User: SLB	<u> </u>				
Agency or orga	anization name: DRM	IS			
IOURLY EQUIPM	ENT COST				
Basic Machine: Ca	t D10T - 10SU				
Horsepower: 57			_		
±	mi-Universal		_		
Attachment: NA			_		
			_		
	ber day		_		
Data Source: (C	RG)		_		
Cost Breakdown:		I			
	* • • • • •		<u>Utilization %</u>		
Ownership Cost/Hour:	\$99.15		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
•	· · · · · · · · · · · · · · · · · · ·		NA		
otal unit Cost/Hour:	\$319.93		NA		
•	· · · · · · · · · · · · · · · · · · ·		NA		
otal unit Cost/Hour: otal Fleet Cost/Hour:	\$319.93 \$1,279.71		NA		
otal unit Cost/Hour:	\$319.93 \$1,279.71		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$319.93 \$1,279.71 TITIES		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3	\$319.93 \$1,279.71 TITIES 386		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,2 Swell factor: 1.00	\$319.93 \$1,279.71 FITIES 386 00		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,2 Swell factor: 1.00	\$319.93 \$1,279.71 TITIES 386		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,2 Swell factor: 1.00	\$319.93 \$1,279.71 TITIES 386 00 386 LCY Ime: Division of 1		NA on, Mining & Safety		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: Swell factor: Loose volume:	\$319.93 \$1,279.71 TITIES 386 00 386 LCY Ime:Division of 1				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: Swell factor: Loose volume: 13,3 cource of estimated volu	\$319.93 \$1,279.71 TITIES 386 00 386 LCY Ime: Division of 1				
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: YATERIAL QUAN Initial Volume: Swell factor: Loose volume: 13,2 cource of estimated volucource of estimated swe	\$319.93 \$1,279.71 TITIES 386 00 386 LCY Ime: Division of 1				
Total unit Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: Swell factor: Loose volume: 13,5 cource of estimated volu ource of estimated swe actor:	\$319.93 \$1,279.71 TITIES 386 00 386 LCY Ime: Division of 1 Il Cat Handbo				
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,5 ource of estimated voluource of estimated sweactor: 100 HOURLY PRODUCC 100	\$319.93 \$1,279.71 TITIES 386 00 386 LCY 10 11 Division of 1 Cat Handbo				
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: YATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,5 ource of estimated voluource of estimated sweactor: 100 HOURLY PRODUC 100 Average push distance: 100	\$319.93 \$1,279.71 TITIES 386 00 386 LCY 100 feet 100 feet	ok			
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: YATERIAL QUAN Initial Volume: 13,2 Swell factor: 1.00 Loose volume: 13,5 ource of estimated volu 13,5 ource of estimated swe actor: HOURLY PRODUC Average push distance: Jnadjusted hourly Yeta	\$319.93 \$1,279.71 TITIES 386 00 386 LCY 10 11 Division of 1 Cat Handbo	ok			
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: YATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,5 ource of estimated voluource of estimated sweactor: 100 HOURLY PRODUC 100 Average push distance: 100	\$319.93 \$1,279.71 TITIES 386 00 386 LCY 100 feet 100 feet	ok			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 cource of estimated voluource of estimated sweactor: HOURLY PRODUC Average push distance: Jnadjusted hourly roduction:	\$319.93 \$1,279.71 FITIES 386 00 386 LCY Ime: Division of 1 Cat Handbox TTION <u>100 feet</u> 1,718.9 LCY/H	ok hr	 on, Mining & Safety 		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: YATERIAL QUAN Initial Volume: 13,2 Swell factor: 1.00 Loose volume: 13,5 ource of estimated volu 13,5 ource of estimated swe actor: HOURLY PRODUC Average push distance: Jnadjusted hourly Yeta	\$319.93 \$1,279.71 FITIES 386 00 386 LCY Ime: Division of 1 Cat Handbox TTION <u>100 feet</u> 1,718.9 LCY/H	ok hr			
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yatterial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 cource of estimated volucource of estimated sweactor: HOURLY PRODUC Average push distance: Jnadjusted hourly roduction: Materials consistency definition	\$319.93 \$1,279.71 TITIES 386 00 386 LCY ame: Division of 1 11 Cat Handbox TION 100 feet 1,718.9 LCY/h esscription: Partly cont	ok hr	 on, Mining & Safety 		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 Jource of estimated volution of estimated swell 13,3 Jource of estimated volution of estimated swell 13,3 Jource of estimated volution of estimated swell 13,4 Jource of estimated volution of estimated swell 13,5 HOURLY PRODUC 13,5 Average push distance: 13,6 Jource of estimated swell 13,7 Average push distance: 13,7 Materials consistency determine 13,7 Materials consistency determine 13,7 Materials consistency determine 13,7	\$319.93 \$1,279.71 TITIES 386 00 386 LCY ame: Division of 1 11 Cat Handbox TION 100 feet 1,718.9 LCY/h escription: Partly con 0 %	ok hr	 on, Mining & Safety 		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yatterial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 cource of estimated volucource of estimated sweactor: HOURLY PRODUC Average push distance: Jnadjusted hourly roduction: Materials consistency definition	\$319.93 \$1,279.71 TITIES 386 00 386 LCY ame: Division of 1 11 Cat Handbox TION 100 feet 1,718.9 LCY/h esscription: Partly cont	ok hr	 on, Mining & Safety 		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,5 ource of estimated volu 13,5 ource of estimated volu 13,5 ource of estimated swe actor: HOURLY PRODUC Average push distance: Inadjusted hourly roduction: Materials consistency de Average push gradient: Average site altitude: Yerage site altitude:	\$319.93 \$1,279.71 TITIES 386 00 386 LCY ume: Division of 1 11 Cat Handbox 2TION 100 feet 1,718.9 LCY/h escription: Partly con 0 % 6,500 feet	ok hr	 on, Mining & Safety 		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 Jource of estimated volution of estimated swell 13,3 Jource of estimated volution of estimated swell 13,3 Jource of estimated volution of estimated swell 13,4 Jource of estimated volution of estimated swell 13,5 HOURLY PRODUC 13,5 Average push distance: 13,6 Jource of estimated swell 13,7 Average push distance: 13,7 Materials consistency determine 13,7 Materials consistency determine 13,7 Materials consistency determine 13,7	\$319.93 \$1,279.71 TITIES 386 00 386 LCY ame: Division of 1 11 Cat Handbox TION 100 feet 1,718.9 LCY/h escription: Partly con 0 %	ok hr	 on, Mining & Safety 		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 Jource of estimated voluource of estimated sweactor: HOURLY PRODUC Average push distance: Inadjusted hourly roduction: Materials consistency de Average push gradient: Average site altitude: Material weight:	\$319.93 \$1,279.71 IITIES 386 00 386 LCY ime: Division of 1 11 Cat Handbox TION 100 feet 1,718.9 LCY/h escription: Partly con 0 % 6,500 feet 2,900 lbs/LCY	ok hr nsolidated -	on, Mining & Safety		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yotal Fleet Cost/Hour: Year Cost/Hour: Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,5 ource of estimated volu ource of estimated swe actor: HOURLY PRODUCC Average push distance: Inadjusted hourly roduction: Aterials consistency de Average push gradient: Average site altitude: Aterial weight: Veight description:	\$319.93 \$1,279.71 TITIES 386 00 386 LCY ime: Division of 1 11 Cat Handbox 2 TION 100 feet 1,718.9 LCY/h escription: Partly con 0 % 6,500 feet 2,900 lbs/LCY Decomposed rock - 5	ok hr nsolidated -	on, Mining & Safety		
Yotal unit Cost/Hour: Yotal Fleet Cost/Hour: Yotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 13,3 Swell factor: 1.00 Loose volume: 13,3 Jource of estimated voluource of estimated sweactor: HOURLY PRODUC Average push distance: Inadjusted hourly roduction: Materials consistency de Average push gradient: Average site altitude: Material weight:	\$319.93 \$1,279.71 IITIES 386 300 386 LCY ame: Division of 1 11 Cat Handbox TION 100 feet 1,718.9 LCY/h escription: Partly con 0 % 6,500 feet 2,900 lbs/LCY Decomposed rock - 5 n Factor	ok hr nsolidated - 50% Rock	on, Mining & Safety		

Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	746.69 LCY/hr
Adjusted fleet production:	2986.76 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.428/LCY

Total job time:	4.48 Hours
Total job cost:	\$5,735.37

Bowie No. 2 Mine	Permit A	Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	<u>TCATION</u>				
Task #: 005 Date: 1/16/2013 User: SLB		olorado elta		Abbreviation: Filename:	None C083-005
Agency or orga	nization name: DRMS				
HOURLY EQUIPMI	ENT COST				
Basic Machine: Cat	t D10T - 10SU				
Horsepower: 574	4		_		
1	mi-Universal		_		
Attachment: NA			_		
	er day		_		
	RG)		_		
	(C)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$99.15		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$319.93 \$1,279.71				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume:3,63	\$1,279.71 <u>FITIES</u> 30				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>3,63</u> Swell factor: <u>1.16</u>	\$1,279.71 FITIES 55				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22	\$1,279.71 FITIES 30 55 59 LCY				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu	\$1,279.71 FITIES 30 55 29 LCY ume:Map 15-1				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu Source of estimated swel	\$1,279.71 FITIES 30 55 29 LCY ume:Map 15-1	k			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu	\$1,279.71 FITIES 30 55 29 LCY ume:Map 15-1	k			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu Source of estimated swell Source of estimated swell Source Source of estimated swell Source	\$1,279.71 CITIES 30 55 29 LCY ume: Map 15-1 II Cat Handbool	k			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu Source of estimated swel	\$1,279.71 CITIES 30 55 29 LCY ume: Map 15-1 II Cat Handbool	k			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu Source of estimated volu Source of estimated swell Source Actor: Source	\$1,279.71 FITIES 30 55 39 LCY ume: Map 15-1 II Cat Handbool TION	k			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu Source of estimated volu Source of estimated swell actor: HOURLY PRODUCC Average push distance:	\$1,279.71 FITIES 30 55 29 LCY ume: Map 15-1 II Cat Handbool TION 100 feet				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 3000000000000000000000000000000000000	\$1,279.71 FITIES 30 55 39 LCY ume: Map 15-1 II Cat Handbool TION				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu Source of estimated volu Source of estimated swell actor: HOURLY PRODUCC Average push distance:	\$1,279.71 FITIES 30 55 29 LCY ume: Map 15-1 II Cat Handbool TION 100 feet				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 3 Source of estimated swell 3 actor: 4 HOURLY PRODUCT 4 Average push distance: 1 Jnadjusted hourly 5	\$1,279.71 FITIES 30 55 29 LCY ume: Map 15-1 II Cat Handbool TION 100 feet 1,718.9 LCY/hr				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 3000000000000000000000000000000000000	\$1,279.71 FITIES 30 55 29 LCY ume: Map 15-1 II Cat Handbool TION 100 feet 1,718.9 LCY/hr		 nbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 5000000000000000000000000000000000000	\$1,279.71 FITIES 30 35 39 LCY ume: Map 15-1 11 Cat Handbook TION 100 feet 1,718.9 LCY/hr scription: Compacted		 nbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 5000000000000000000000000000000000000	\$1,279.71 FITIES 30 55 39 LCY ume: Map 15-1 100 feet 1,718.9 LCY/hr scription: Compacted 0 %				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 5000000000000000000000000000000000000	\$1,279.71 FITIES 30 35 39 LCY ume: Map 15-1 11 Cat Handbook TION 100 feet 1,718.9 LCY/hr scription: Compacted				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 3000000000000000000000000000000000000	\$1,279.71 FITIES 30 35 39 LCY ume: Map 15-1 11 Cat Handbool TION 100 feet 1,718.9 LCY/hr scription: Compacted 0 % 6,000 feet				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 5000000000000000000000000000000000000	\$1,279.71 FITIES 30 55 39 LCY ume: Map 15-1 100 feet 1,718.9 LCY/hr scription: Compacted 0 %		 nbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 5000000000000000000000000000000000000	\$1,279.71 FITIES 30 55 29 LCY ume: Map 15-1 101 Cat Handbool TION	fill or er			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 3000000000000000000000000000000000000	\$1,279.71 FITIES 30 35 39 LCY ume: Map 15-1 11 Cat Handbool TION 100 feet 1,718.9 LCY/hr scription: Compacted 0 % 6,000 feet	fill or er			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,63 Swell factor: 1.16 Loose volume: 4,22 Source of estimated volu 5000000000000000000000000000000000000	\$1,279.71 ITTIES 30 55 39 LCY ume: Map 15-1 11 Cat Handbool TION	fill or er			

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

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	2443.6 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.524/LCY
Total job time:	1 73 Hours

I otal job time:	1.73 Hours	
Total job cost:	\$2,214.69	-

Page 17 of 312

HYDRAULIC EXCAVATOR WORK

Task description:	Pull Back Materia	ıl @ Old T	ruck Loadout Materia	ll Storage Area	
Bowie No. 2 Mine	Perm	it Action:	Permit Renewal 3	Permit/Job#	t: <u>C1996083</u>
PROJECT IDENTI	FICATION				
Task #: 006	State:	Colorado		Abbreviation:	None
Date: 1/16/2013 User: SLB	3 County:	Delta		Filename:	C083-006
Agency or org	anization name: DRM	AS			
HOURLY EQUIPM	IENT COST				
Basic Machine:	Cat 365C L 13'-7" S	tick	Horse	power:	404
Attachment 1:	ROPS Cab		Weight		70.51
					per day
			Data S	Source: (CRG)
Cost Breakdown:		1			
	μι		Utilization %		
Ownership Cost Operating Cost			<u>NA</u> 100		
Operating Cost Operator Cost			<u> </u>		
Total Unit Cost			1111		
	·				
Total Fleet Cos	st/Hour: \$504.6	50			
MATERIAL QUAN	TITIES				
Initial volume:	9,790	CCY	Swell factor:	1.165	
Loose volume:	11,405	LCY			
Source	of estimated volume:	Page 3.02	2-2		
	estimated swell factor:	Cat Hand			
HOURLY PRODUC	TION				
			1		
Excavator Cycle Time (load bucket, swing load	ed, dump t	bucket, swing empty):		
	I	Basic Job C	Condition Description:	SEVERE	
	Secondary Job Cor	dition with	in Basic Description:	SEVERE	
			Cycle Time Value:	0.570	minutes
Load Bucket Capacity			-	~ ~ ~ ~	
	0.61			ket Size Class: S	mall
Rated Capaci		LCY (head	1 /	950	
Bucket Fill Fact Adjusted Capaci		LCY	igh clay (80% - 90%) 0.	850	
• •		LUI			
Job Condition Correction	on Factors		Site Altitu	ide: <u>6500</u> feet	
		Source			
Altitude Adj:	1.00	(CAT HI			
Job Efficiency:	0.83	(1 shift/da			
Net Correction:	0.83	multiplier			
Uı	nadjusted Hourly Unit P	roduction:	323.00 LC	CY/Hour	
	Adjusted Hourly Unit P			CY/Hour	
1	Adjusted Hourly Fleet P	roduction:	536.18 LC	CY/Hour	

Unit cost: _____\$0.941 /LCY

Total job cost: \$10,734.00

KOWIE NO 7 Mino	Denne's Art	Demuit Devel 12	D	C100C002
Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
ΟΟΙΕΩΤΙΝΕΝΤΙΕΙΩΑΊ	FION			
PROJECT IDENTIFICAT	<u>lion</u>			
Task #: 007	State: Colorado		Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-007
User: SLB	_			
Agency or organization	on name: DRMS			
IOURLY EQUIPMENT	COST			
Basic Machine: Cat D107	ľ - 10SU			
Horsepower: 574	• •	_		
Blade Type: Semi-Un	iversal	_		
Attachment: NA		_		
Shift Basis: <u>1 per day</u>		_		
Data Source: (CRG)		_		
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$99.15	NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
otal unit Cost/Hour: \$31	9.93			
OTAL HIGHT COST/HOURS \$1 '	270 71			
Yotal Fleet Cost/Hour: \$1,2	279.71			
otal Fleet Cost/Hour:				
ATERIAL QUANTITIE				
Initial Volume:9,790	<u>2S</u>			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC	ES CY			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume:	2 <u>S</u> 2 <u>Y</u> Page 3.02-2			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: ource of estimated swell	E <u>S</u> CY			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume:	2 <u>S</u> 2 <u>Y</u> Page 3.02-2			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: ource of estimated swell actor: 1	ES Page 3.02-2 Cat Handbook			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: ource of estimated swell	ES Page 3.02-2 Cat Handbook			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: ource of estimated swell actor: 1	ES Page 3.02-2 Cat Handbook			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: ource of estimated swell actor: HOURLY PRODUCTION	ES Page 3.02-2 Cat Handbook			
ATERIAL QUANTITIE Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet			
ATERIAL QUANTITIE Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr	 mbankment 0.9		
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or er	 mbankment 0.9		
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or end %	 mbankment 0.9		
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or er	 mbankment 0.9		
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or en % 00 feet	 mbankment 0.9		
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or end %	 mbankment 0.9		
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or end % 00 feet 00 lbs/LCY			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or en % 00 feet			
Initial Volume: 9,790 Swell factor: 1.165 Loose volume: 11,405 LC ource of estimated volume: 000000000000000000000000000000000000	ES Page 3.02-2 Cat Handbook 150 feet 1,243.2 LCY/hr on: Compacted fill or en % 00 feet 00 lbs/LCY composed rock - 50% Rock			

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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	347.35 LCY/hr
Adjusted fleet production:	1389.4 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.921/LCY
Total ich time:	9 21 Hours

Total job time:	8.21 Hours
Total job cost:	\$10,504.91

Page 21 of 312

HYDRAULIC EXCAVATOR WORK

Task description:	Pull Back Material at Tru	ck Loadout/Coal Stockpi	le	
ite: Bowie No. 2 Mine	Permit Action	Permit Renewal 3	Permit/Job	t: <u>C1996083</u>
PROJECT IDENTIFIC	CATION			
Task #: 008	State: Colorado)	Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-008
User: SLB				
Agency or organiz	ation name: DRMS			
HOURLY EQUIPMEN	T COST			
Basic Machine: C	at 365C L 13'-7" Stick	Horse	power:	404
Attachment 1: R	OPS Cab	Weight	(MT):	70.51
				per day
		Data S	ource: ((CRG)
Cost Breakdown:				
	¢ 7 0.01	Utilization %		
Ownership Cost/Ho Operating Cost/Ho		<u>NA</u> 100		
Operator Cost/Ho		NA		
Total Unit Cost/Ho		1111		
Total Fleet Cost/He	our: \$504.60			
		-		
MATERIAL QUANTIT Initial volume: 67.9		Swall factory 1	165	
Initial volume: 67,9 Loose volume: 79,1		Swell factor: 1	.165	
	estimated volume: Operate nated swell factor: Cat Har	or Estimate		
HOURLY PRODUCTI				
		1 1		
Excavator Cycle Time (load	l bucket, swing loaded, dump	bucket, swing empty):		
		Condition Description:	SEVERE	
	Secondary Job Condition with	-	SEVERE	
Load Ducket Canacity		Cycle Time Value:	0.570	minutes
Load Bucket Capacity		Dual	et Size Class: S	
Rated Capacity:	3.61 LCY (h		et Size Class:	Small
Bucket Fill Factor:		ough clay (80% - 90%) 0.8	850	
Adjusted Capacity:	3.07 LCY			
Job Condition Correction F		Site Altitud	de: <u>6000</u> feet	
	Sour			
Altitude Adj:	1.00 (CAT I			
Job Efficiency:	0.83 (1 shift/	,		
Net Correction:	0.83 multipli			
Unadi	usted Hourly Unit Production	a: 323.00 LC	Y/Hour	
	usted Hourly Unit Production		Y/Hour	
	sted Hourly Fleet Production		Y/Hour	

Fleet size:	2	Excavator	Total job time:	147.58	Hours
Unit cost:	\$0.941	/LCY	Total job cost:	\$74,466.00	

Page 23 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICAT	<u>rion</u>			
Task #: 009	State: Colorado		Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-009
User: SLB	_			
Agency or organization	on name: DRMS			
HOURLY EQUIPMENT	<u>COST</u>			
Basic Machine: Cat D107	Γ - 10SU			
Horsepower: 574		_		
Blade Type: Semi-Un	iversal	_		
Attachment: NA				
Shift Basis: 1 per day	,	_		
Data Source: (CRG)				
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$99.15	NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
	9.93			
Total Fleet Cost/Hour: \$1,	279.71			
MATEDIAL OUANTITU	70			
MATERIAL QUANTITIE				
Initial Volume: 67,920				
Swell factor: 1.165				
Loose volume: 79,127 LC	ĽΥ			
Source of estimated volume:	Operator Estimate			
Source of estimated swell	Cat Handbook			
factor:	Cut Hundbook			
HOURLY PRODUCTION	J			
	- 100 feet			
Average push distance:				
Unadjusted hourly	1,718.9 LCY/hr			
production:				
Materials consistency descripti	on: Compacted fill or en	mbankment 0.9		
Average push gradient: 0 %	1			
	00 feet			
Average site altitude: 6,0			_	
Average site altitude:6,0Material weight:2,9	00 feet	, 50% Earth	_	
Average site altitude:6,0Material weight:2,9Weight description:Dec	00 feet 00 lbs/LCY composed rock - 50% Rock			
Average site altitude:6,0Material weight:2,9	00 feet 00 lbs/LCY composed rock - 50% Rock	, 50% Earth Source (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:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	2443.6 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.524/LCY

Total job time:	32.38 Hours
Total job cost:	\$41,438.55

Page 25 of 312

HYDRAULIC EXCAVATOR WORK

Task description:	Pull Material Ba	ck onto Tra	ain L/O Facil. and Rail	bed Benches	
Bowie No. 2 Mine	Perr	nit Action:	Permit Renewal 3	Permit/Job#	t: C1996083
PROJECT IDENTI	FICATION				
Task #: 010	State:	Colorado		Abbreviation:	None
Date: 1/16/2013 User: SLB		Delta		Filename:	C083-010
Agency or org	anization name: DR	MS			
HOURLY EQUIPM	IENT COST				
Basic Machine:	Cat 365C L 13'-7" S	Stick	Horse	epower:	404
Attachment 1:	ROPS Cab		Weigh	t (MT):	70.51
					per day
			Data	Source: (CRG)
Cost Breakdown:		I			
	AT \$70.0		Utilization %		
Ownership Cost			<u>NA</u>		
Operating Cost Operator Cost			100 NA		
Total Unit Cost					
Total Fleet Cos	st/Hour: \$504.	60			
MATERIAL QUAN	TITIES				
Initial volume:	231,495	CCY	Swell factor:	1.000	
Loose volume:	231,495	LCY			
Source	of estimated volume:	Operator	Estimate		
	estimated swell factor:	Cat Hand			
HOURLY PRODUC	TION				
			1		
Excavator Cycle Time	load bucket, swing loa	ded, dump l	bucket, swing empty):		
			Condition Description:	SEVERE	
	Secondary Job Co	ndition with	nin Basic Description:	SEVERE	
Land Durchest Compatitu			Cycle Time Value:	0.570	minutes
Load Bucket Capacity					11
	2.01			ket Size Class: S	mall
Rated Capaci		_ LCY (he	1 /	950	
Bucket Fill Fact Adjusted Capaci		LCY	igh clay (80% - 90%) 0.	.850	
· ·	· · · · · · · · · · · · · · · · · · ·				
Job Condition Correction	on Factors		Site Altitu	ıde: <u>5900</u> feet	
		Source			
Altitude Adj:	1.00	(CAT H			
Job Efficiency:	0.83	(1 shift/da			
Net Correction:	0.83	multiplier	r		
U	nadjusted Hourly Unit l	Production:	323.00 LC	CY/Hour	
	Adjusted Hourly Unit I		268.09 LC	CY/Hour	
	Adjusted Hourly Fleet I	Production:	536.18 LC	CY/Hour	

Fleet size:	2	Excavator	Total job time:	431.75	Hours
Unit cost:	\$0.941	/LCY	Total job cost:	\$217,860.00	

Task description:	Regrade Train	Loadout Fac	littles and Rallbed Ben	icnes	
Bowie No. 2 Mine	P	ermit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 011	State	: Colorado		Abbreviation:	None
Date: 1/16/2013	County			Filename:	C083-011
User: SLB					
Agency or orga	nization name:	ORMS			
HOURLY EQUIPM	ENT COST				
	t D10T - 10SU				
Horsepower: 574			_		
1	ni-Universal		_		
Attachment: NA			_		
	er day		_		
	RG)		_		
	(0)				
Cost Breakdown:			TT.11.		
o	***	-	<u>Utilization %</u>		
Ownership Cost/Hour:	\$99.1		NA		
Operating Cost/Hour:	\$183.		100		
	\$0.00	0	0		
Ripper op. Cost/Hour:					
Ripper op. Cost/Hour: Operator Cost/Hour:	\$37.4		NA		
Operator Cost/Hour:	\$37.4		NA		
Operator Cost/Hour: Total unit Cost/Hour:	\$37.4 \$319.93		NA		
Operator Cost/Hour:	\$37.4		NA		
Operator Cost/Hour: Total unit Cost/Hour:	\$37.4 \$319.93 \$1,279.71		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$37.4 \$319.93 \$1,279.71		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231	\$37.4 \$319.93 \$1,279.71 <u><u></u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> 1 <u></u> 1 1 1 1 1 1 1 1		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00	\$37.4 \$319.93 \$1,279.71 <u><u></u></u> <u></u> 495 0		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00	\$37.4 \$319.93 \$1,279.71 <u><u></u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> 1 1 1 1 1 1 1 1		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00	\$37.4 \$319.93 \$1,279.71 TITIES 495 0 495 LCY		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231	\$37.4 \$319.93 \$1,279.71 <u>EITIES</u> 495 0 495 LCY me:Operato	or Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu	\$37.4 \$319.93 \$1,279.71 CITIES 495 0 495 LCY me:Operato	or Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated swell	\$37.4 \$319.93 \$1,279.71 EITIES 495 0 495 LCY me: Operato 1 Cat Har	or Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swel factor: HOURLY PRODUC	\$37.4 \$319.93 \$1,279.71 TITIES 495 0 495 LCY me: Operato 1 Cat Har TION	or Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance:	\$37.4 \$319.93 \$1,279.71 TITIES 495 0 495 LCY me: Operato 1 Cat Har TION 200 feet	1 	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly	\$37.4 \$319.93 \$1,279.71 TITIES 495 0 495 LCY me: Operato 1 Cat Har TION	1 	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance:	\$37.4 \$319.93 \$1,279.71 TITIES 495 0 495 LCY me: Operato 1 Cat Har TION 200 feet	1 	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly	\$37.4 \$319.93 \$1,279.71 CITIES 495 0 495 LCY me: Operato 1 Cat Har TION 200 feet 946.0 LCY	1 			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	\$37.4 \$319.93 \$1,279.71 <u>CITIES</u> 495 0 495 LCY me: Operato 1 Cat Har <u>TION</u> <u>200 feet</u> 946.0 LC scription: Conse	Y/hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$37.4 \$319.93 \$1,279.71 <u>EITIES</u> 495 0 495 LCY me: Operato 1 Cat Har <u>TION</u> <u>200 feet</u> 946.0 LC scription: Conse <u>5 %</u>	Y/hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	\$37.4 \$319.93 \$1,279.71 <u>CITIES</u> 495 0 495 LCY me: Operato 1 Cat Har <u>TION</u> <u>200 feet</u> 946.0 LC scription: Conse	Y/hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$37.4 \$319.93 \$1,279.71 <u>EITIES</u> 495 0 495 LCY me: Operato 1 Cat Har <u>TION</u> <u>200 feet</u> 946.0 LC scription: Conse <u>5 %</u>	Y/hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume: 231, Swell factor: 1.00 Loose volume: 231, Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	\$37.4 \$319.93 \$1,279.71 CITIES 495 0 495 LCY me: Operato 1 Cat Har TION 200 feet 946.0 LC scription: Conse 5 % 5,900 feet	I I I I I I I I I I I I I I I I I I I			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	\$37.4 \$319.93 \$1,279.71 CITIES 495 0 495 LCY me: Operato 1 Cat Har TION 200 feet 946.0 LC scription: Conse 5 % 5,900 feet 2,900 lbs/LCY Decomposed roc	I I I I I I I I I I I I I I I I I I I			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	337.34 LCY/hr
Adjusted fleet production:	1349.36 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.948/LCY

Total job time:	171.56 Hours	
Total job cost:	\$219,545.68	

Task description:	Backfill and Re	grade Train	L/O Overland Convey	or Corridor	
Bowie No. 2 Mine	Pe	ermit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	TICATION				
Task #: 012	State:	Colorado		Abbreviation:	None
Date: 1/16/2013	County:	Delta		Filename:	C083-012
User: SLB	County.	Dena		i nonumo.	0003 012
Agency or orga	nization name: <u>D</u>	RMS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: Cat	t D10T - 10SU				
Horsepower: 574			_		
1	mi-Universal				
Attachment: NA					
	er day		_		
	RG)				
	XU)		_		
Cost Breakdown:			1		
			Utilization %		
Ownership Cost/Hour:	\$99.15	5	NA		
Operating Cost/Hour:	\$183.3	6	100		
Ripper op. Cost/Hour:	\$0.00		0		
	\$37.4	1	NA		
Operator Cost/Hour:	\$37.4	1	NA		
	\$37.43	1	NA		
Operator Cost/Hour:		1	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$319.93 \$1,279.71	1	NA		
Operator Cost/Hour: Total unit Cost/Hour:	\$319.93 \$1,279.71	1	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$319.93 \$1,279.71	1	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25	\$319.93 \$1,279.71 <u>FITIES</u> 59	1	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16	\$319.93 \$1,279.71 <u>FITIES</u> 55	1	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7	\$319.93 \$1,279.71 FITIES 59 55 87 LCY		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu	\$319.93 \$1,279.71 FITIES 55 787 LCY ume:Division	Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7	\$319.93 \$1,279.71 FITIES 55 787 LCY ume:Division	Estimate			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu	\$319.93 \$1,279.71 FITIES 55 787 LCY ume:Division	Estimate			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated swel	\$319.93 \$1,279.71 FITIES 55 787 LCY ume:Division	Estimate			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated swel	\$319.93 \$1,279.71 <u>EITIES</u> 59 55 87 LCY time: <u>Division</u> 11 Cat Hand	Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swel factor: HOURLY PRODUCC	\$319.93 \$1,279.71 TITIES 59 55 787 LCY ume: Division Il Cat Hand TION	Estimate	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance:	\$319.93 \$1,279.71 TITIES 59 55 787 LCY ume: Division Il Cat Hand TION 100 feet	 Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly	\$319.93 \$1,279.71 TITIES 59 55 787 LCY ume: Division Il Cat Hand TION	 Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance:	\$319.93 \$1,279.71 TITIES 59 55 787 LCY ume: Division Il Cat Hand TION 100 feet	 Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly	\$319.93 \$1,279.71 FITIES 59 55 787 LCY time: Division Cat Hand TION 100 feet 1,718.9 LC	Estimate dbook	 mbankment 0.9		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de	\$319.93 \$1,279.71 FITIES 59 55 57 LCY time: Division 10 Cat Hand TION 100 feet 1,718.9 LC scription: Comp	Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$319.93 \$1,279.71 FITIES 59 55 787 LCY time: Division Cat Hand Cat Hand TION 100 feet 1,718.9 LC scription: Comp 10 %	Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de	\$319.93 \$1,279.71 FITIES 59 55 57 LCY time: Division 10 Cat Hand TION 100 feet 1,718.9 LC scription: Comp	Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	\$319.93 \$1,279.71 FITIES 59 55 787 LCY ume: Division Il Cat Hand TION <u>100 feet</u> 1,718.9 LC scription: Comp <u>10 %</u> 5,900 feet	Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$319.93 \$1,279.71 FITIES 59 55 787 LCY time: Division Cat Hand Cat Hand TION 100 feet 1,718.9 LC scription: Comp 10 %	Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	\$319.93 \$1,279.71 FITIES 59 55 787 LCY ume: Division Il Cat Hand TION <u>100 feet</u> 1,718.9 LC scription: Comp <u>10 %</u> 5,900 feet	Estimate dbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,25 Swell factor: 1.16 Loose volume: 10,7 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	\$319.93 \$1,279.71 FITIES 59 55 787 LCY time: Division 10 Cat Hand TION <u>100 feet</u> 1,718.9 LC scription: Comp <u>10 %</u> <u>5,900 feet</u> 2,900 lbs/LCY Decomposed roch	Estimate dbook			

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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	480.26 LCY/hr
Adjusted fleet production:	1921.04 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.666/LCY
Total job time:	5 62 Hours

1 otal job time:	5.02 Hours
Total job cost:	\$7,185.63

Reclamation Cost Estimate RN-3

Page 31 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mi	na	Permit Action:	Permit Renewal	3 Porm	nit/Job#: C1996	5083
ble. Dowle No. 2 Mi				<u> </u>	III/J00#. <u>C1990</u>	0005
PROJECT IDE	NTIFICATION					
Task #:013		State: Colorado		Abbrevi		
		ounty: Delta		File	name: <u>C083-0</u>	13
User: <u>SLB</u>						
Agency of	r organization name	: DRMS				
<u>HOURLY EQU</u>	IPMENT		COSTSh	ift basis: <u>1 per da</u>	<u>iy</u>	
		Equipm	ent Description			
			G w/push-pull			
		-Dozer: NA				
Sup	port Equipment -Loa	nd Area: NA				
		np Area: NA				
Road N	Iaintenance – Motor					
	-water	r Truck: NA				
Cost Breakdown:	Scraper Wo	ork Team	Support Equip	oment	Maintenance	Equipment
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truc
%Utilization-machine	: 100	NA	NA	NA	NA	NA
Ownership cost/hour	: \$65.78	NA	NA	NA	NA	NA
Operating cost/hour	: \$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour	: NA	NA	NA	NA	NA	NA

NA

NA

0

Maint:

NA

NA

0

\$0.00

Operator cost/hour:	\$30.02	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA
Number of Units:	2	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00

Total work team cost/hour: **<u>\$556.86</u>**

MATERIAL QUANTITIES

Initial volume: Loose volume:	53,000 61,745	CCY LCY	Swell factor:	1.165
Sour	ce of estimated volume:	Operator E	Estimate	
Source of estimated swell factor:		Cat Handb	ook	

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	Decomposed rock - 50% Rock,	Heaped Volume:	22.00	LCY
	50% Earth			
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: 0.52 minutes

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2874	0.40
				Return Time:	0.40 1	ninutes
			Total Scrape	r team cycle time:	2.42	minutes
			Adjusted 1	for job conditions:	749.34	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	single scrap	per team (unit) h	nourly production:	749.34	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	749.34	LCY/Hour
Optima	Unadjusted unit proc Il Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flag	t size: 1	Team(s)	т	otal job time:	82.40	Hours

Unit cost: \$0.743 /LCY

Total job cost: **\$45,884.70**

Bowie No. 2 Mine

Reclamation Cost Estimate RN-3

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	te: Bowie No. 2 Mine Permi		t Action:	Permit Rene	ewal 3	Permit/Job#:	C1996083
PROJECT IDEN	TIFICATION	[
Task #: 014		State: 0	Colorado)		Abbreviation:	None
Date: 1/16/2	.013	County: I	Delta			Filename:	C083-014
User: SLB							
Agency or	organization nan	ne: DRM	IS				
HOURLY EQUI	PMENT COST	<u>Γ</u>			Shift	basis: <u>1 per day</u>	
			Eq	uipment Descri	ption		
Т	ruck Loader Tea		Cat 77		•		
		-Loader:	CAT 9	88H			
Suppo	ort Equipment -L		NA NA				
Road Ma	aintenance – Mote	mp Area:	NA				
Road Ma		ter Truck:	NA				
	T 1/T	1 5		G			<u> </u>
<u>Cost Breakdown</u> :	Truck/Loa Truck	ader Team Loader	I	Support I	Equipment Dump Area	Mainte Motor Grad	enance Equipment ler Water Truck
%Utilization-machine:	100	100		NA	NA	NA	NA
Ownership cost/hour:	\$60.64	\$82.23	3	NA	NA	NA	NA
Operating cost/hour:	\$119.47	\$117.0		NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00		NA	NA	NA	NA
Operator cost/hour:	\$25.66	\$35.82		NA	NA	NA	NA
Unit Subtotals:	\$205.77	\$235.0		NA	NA	NA	NA
Number of Units:	2	1		0	0	0	0
Group Subtotals:	Work:	\$646.61		Support:	\$0.00	Mai	nt: \$0.00
Total work team cos MATERIAL QU							
			COV	C11	faatam 1.10	E	
Initial volume: Loose volume:		5	CCY LCY	Swell	factor: 1.16		
	· · · · · ·						
	rce of estimated		Cat Har	n of Reclamatic	on, Mining & S	Safety	
Source of estimated swell factor: Material Purchase Cost:			\$0.00	lubook			
		tal Cost:	\$0.00				
		_					
HOURLY PRO	DUCTION						
Truck Capacity:							
Truck Payload (weig	ght) Basis:						
Material w	eight: 2,900			Pounds/LCY			
Descri	ption: Decom	posed rock	- 50% R	ock, 50% Earth	1		
Rated Pa	yload: 122,52	0		Pounds			

Bowie No. 2	Mine
-------------	------

Truck Bed ((volume)	Basis:
	· · · · · · · · · · · · · · · · · · ·	

Struck Volume:	35.00	LCY
Heaped Volume:	46.50	LCY
Average Volume:	40.75	LCY
Adjusted Volume:	42.25	LCY

Loading Tool Capacity						
			Buc	ket Size Class: N	A	
Rated Capacity	9.200	LCY (heaped)			111	
Bucket Fill Facto			I - 1" and over (85	5 - 90%) 0 875		_
Adjusted Capacity		LCY		0 000 0.015		_
Tajastea Capachi						
Job Condition Correcti	<u>ons:</u>	S	Site Altitude (ft.):	<u>6900</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.830	0.830				
ret concetion.	0.050	0.050				
Loading Tool Cycle Ti	<u>ne:</u>	Number of Loading	Tool Passes Requ		5 1	passes
Excavators and Front Sh	ovels:			Truck:		
Machine Cycle Tin	ne vs. Job Conditi	ion Rating: NA				
•	ue within this Ba	U				
Track Loade	rs – Material Des	cription:				
Cycle Time Elements (m		·				
-				D 0.100		
Load: NA		Maneuver: NA		Dump: 0.100)	
Wheel and Track Load	ers - Unadjusted]	Basic Loader Cycle T	ime (load, dump, 1	maneuver): 0	.575 min	utes
Cycle Time Facto	ors			Factor (min.)	Source	
		erial 0.02		0.020	(Cat HB)	
Materi	al. Mixed mat	c11a1 0.02				
•		or dozer piled 10 ft. hi	gh or less 0.01	0.010	(Cat HB)	
Materi Stockpi Truck Ownersh	le: Conveyor o p: Common o	or dozer piled 10 ft. hi wnership of trucks an		0.010 -0.040	(Cat HB) (Cat HB)	
Materi Stockpi Truck Ownersh Operatio	le: Conveyor o p: Common o on: Constant op	or dozer piled 10 ft. hi wnership of trucks an peration -0.04		0.010 -0.040 -0.040	(Cat HB) (Cat HB) (Cat HB)	
Materi Stockpi Truck Ownersh	le: Conveyor o p: Common o on: Constant op	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 rget 0.00	d loaders -0.04	0.010 -0.040 -0.040 0.000	(Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Materi Stockpi Truck Ownersh Operatio	le: Conveyor o p: Common o on: Constant op	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 rget 0.00 Net Cycle Ti	d loaders -0.04 me Adjustment:	0.010 -0.040 -0.040 0.000 -0.050	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Materi Stockpi Truck Ownersh Operatio	le: Conveyor o p: Common o on: Constant op	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 .rget 0.00 Net Cycle Ti Adjusted Loa	d loaders -0.04 me Adjustment: der Cycle Time:	0.010 -0.040 -0.040 0.000 -0.050 0.525	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Materi Stockpi Truck Ownersh Operatio	le: Conveyor o p: Common o on: Constant op	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 .rget 0.00 Net Cycle Ti Adjusted Loa	d loaders -0.04 me Adjustment:	0.010 -0.040 -0.040 0.000 -0.050	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Materi Stockpi Truck Ownersh Operatio	le: Conveyor o p: Common o on: Constant op	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 .rget 0.00 Net Cycle Ti Adjusted Loa	d loaders -0.04 me Adjustment: der Cycle Time:	0.010 -0.040 -0.040 0.000 -0.050 0.525	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Materi Stockpi Truck Ownersh Operatio Dump Targ	le: Conveyor o p: Common o on: Constant op et: Nominal ta	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 .rget 0.00 Net Cycle Ti Adjusted Loa	d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	0.010 -0.040 -0.040 0.000 -0.050 0.525	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Materi Stockpi Truck Ownersh Operatio Dump Targ Truck Cycle Time:	ime: 0.70	or dozer piled 10 ft. hi wnership of trucks an peration -0.04 rget 0.00 Net Cycle Ti Adjusted Loa Net Load	d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted	0.010 -0.040 -0.040 0.000 -0.050 0.525 2.200	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	 Minute

_	Haul Rou			1		-1			
	Seg #	Haul Di (Ft)	stance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
	1	600.00		0.00	3.00	3.00	2983	0.764	
						Haul Time:	0.764	minutes	
	Return Ro	oute:				=			
	Seg #	Haul Di	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	600.00		0.00	3.00	3.00	3569	0.381	
						Return Time:	0.381	minutes	
					Total True	ck Cycle Time:	5.145	minutes	
Lo	oading Too Produ		832.76	LCY/Hour		Adjusted for i	ob efficiency:	691.19	LCY/Hour
Truck	Unit Produ		632.70			Aujusted for j	ob efficiency.	091.19	
TTUCK	enit i fout	<u> </u>	469.39	LCY/Hour		Adjusted for j	ob efficiency:	389.59	LCY/Hour
Optima	l No. of Ti	rucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
				Adjusted	d hourly truck	k team production	on: 779.	18 LCY/I	Hour
						r team productio			
				Adjusted multipl	e truck/loade	r team productio	on: 691.	19 LCY/I	Hour
	JOB TIN	ME AND	O COST						
	Fleet	size:	1	Team(s)	1	Total job time:	89.3	3 Hou	irs
	Unit	cost:	\$0.936	/LCY	r	Total job cost:	\$57,762	2.63	

Page 36 of 312

Bowie No. 2 Mine	Permit Ac	ction: <u>F</u>	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 015		orado		Abbreviation:	None
Date: $1/16/2013$	County: Delt			Filename:	C083-015
User: SLB	County	u			0005-015
Agency or organi	zation name: DRMS				
HOURLY EQUIPMEN	NT COST				
Basic Machine: Cat D	D10T - 10SU				
Horsepower: 574					
Blade Type: Semi	-Universal				
Attachment: 3-sha	nk ripper				
Shift Basis: 1 per	day				
Data Source: (CRC	3)				
Tost Brookdown:					
Cost Breakdown:		1	Utilization %		
Ownership Cost/Hour:	\$110.73		NA		
Operating Cost/Hour:	\$110.75		100		
1 0 _	\$10.01				
Ripper op. Cost/Hour:	\$10.01		100		
Operator Cost/Hour:					
Fotal unit Cost/Hour:	\$341.51 \$1,366.06		NA		
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: <u>32,000</u> Swell factor: <u>1.165</u>	\$341.51 \$1,366.06 TIES		NA		
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280	\$341.51 \$1,366.06 TIES) DLCY	ate	NA		
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: <u>32,000</u> Swell factor: <u>1.165</u>	\$341.51 \$1,366.06 TIES) DLCY	ate	NA		
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum	\$341.51 \$1,366.06 TIES) DLCY e:Operator Estimation	ate	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor:	\$341.51 \$1,366.06 TIES) DLCY e: Operator Estima Cat Handbook	ate	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: Swell factor: Loose volume: 37,280 Source of estimated volum Source of estimated swell actor:	\$341.51 \$1,366.06 TIES D DLCY e: Operator Estima Cat Handbook	ate	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance:	\$341.51 \$1,366.06 TIES) DLCY e: Operator Estima Cat Handbook [ON] 150 feet	ate	NA		
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly	\$341.51 \$1,366.06 TIES D DLCY e: Operator Estima Cat Handbook	ate	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance:	\$341.51 \$1,366.06 TIES) DLCY e: Operator Estima Cat Handbook [ON] 150 feet	ate	NA		
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly	\$341.51 \$1,366.06 TIES) D LCY e: Operator Estima Cat Handbook ION <u>150 feet</u> 1,243.2 LCY/hr				
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly production:	\$341.51 \$1,366.06 TIES) D LCY e: Operator Estima Cat Handbook ION <u>150 feet</u> 1,243.2 LCY/hr				
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Gource of estimated swell actor: HOURLY PRODUCT Average push distance: Jnadjusted hourly oroduction: Materials consistency desc	\$341.51 \$1,366.06 TIES) DLCY e: Operator Estima Cat Handbook [ON [ON [150 feet 1,243.2 LCY/hr ription: Compacted fi				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly production: Materials consistency desc Average push gradient:	\$341.51 \$1,366.06 TIES) DLCY e: Operator Estima Cat Handbook ION ION ription: Compacted fi 20 %				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly production: Materials consistency desc Average push gradient:	\$341.51 \$1,366.06 TIES) DLCY e: Operator Estima Cat Handbook ION ION ription: Compacted fi 20 %				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: Initial Volume: Swell factor: Loose volume: 37,280 Source of estimated volum Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly oroduction: Materials consistency desc Average push gradient: Average site altitude:	\$341.51 \$1,366.06 TIES DLCY e: Operator Estima Cat Handbook ION <u>150 feet</u> 1,243.2 LCY/hr ription: Compacted fi 20 % 6,750 feet	ill or emb			
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: 32,000 Swell factor: 1.165 Loose volume: 37,280 Source of estimated volum Source of estimated swell actor: HOURLY PRODUCTI Average push distance: Jnadjusted hourly oroduction: Materials consistency desc Average site altitude: Average site altitude:	\$341.51 \$1,366.06 TIES DLCY e: Operator Estima Cat Handbook ION <u>150 feet</u> 1,243.2 LCY/hr ription: Compacted fi 20 % 6,750 feet 2,900 lbs/LCY Decomposed rock - 50%	ill or emb			

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:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.1937

Adjusted unit production:	240.81 LCY/hr
Adjusted fleet production:	963.24 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$1.418/LCY

Total job time:	38.70 Hours	
Total job cost:	\$52,870.21	

Page 38 of 312

HYDRAULIC EXCAVATOR WORK

Task description:	Pull Material Back of	nto Freema	n Gulch Vent Sh	aft Bench	
Bowie No. 2 Mine	Permit A	Action: Pe	rmit Renewal 3	Permit	/Job#: <u>C1996083</u>
PROJECT IDENTIFI	CATION				
Task #: 016 Date: 1/16/2013 User: SLB		olorado elta		Abbreviat Filena	
Agency or organi	zation name: DRMS				
HOURLY EQUIPME	NT COST				
	Cat 365C L 13'-7" Stick ROPS Cab	<u>k</u>	Weig Shi	sepower: ht (MT): ift Basis: a Source:	404 70.51 1 per day (CRG)
Cost Breakdown:		1			
Ownership Cost/H Operating Cost/H Operator Cost/H Total Unit Cost/H	\$139.55 our: \$33.94	Ut	ilization % NA 100 NA		
Total Fleet Cost/H					
Loose volume: <u>1,8</u> Source of	600 C 664 L restimated volume: O	CCY CY Dperator Esti Cat Handboo		1.165	
HOURLY PRODUCT					
Excavator Cycle Time (loa		, dump buck	et, swing empty):		
	Basi Secondary Job Conditi	ion within E	ition Description: Basic Description: Sycle Time Value:	AVERAGE AVERAGE 0.380	minutes
Load Bucket Capacity			Bu	cket Size Class:	Small
Rated Capacity: Bucket Fill Factor: Adjusted Capacity:	0.850 H	CY (heaped lard, tough c CY			
Job Condition Correction	Factors		Site Alti	tude: <u>6900</u> feet	
Altitude Adj: Job Efficiency: Net Correction:	0.83 (1	Source CAT HB) shift/day) ultiplier			
Ad	justed Hourly Unit Prod justed Hourly Unit Prod usted Hourly Fleet Prod	luction:	402.14 L	.CY/Hour .CY/Hour .CY/Hour	

Fleet size:	2	Excavator	Total job time:	2.32	Hours
Unit cost:	\$0.627	/LCY	Total job cost:	\$1,169.00	

				o Cut Slope	
Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	FICATION				
Task #: 017	State:	Colorado		Abbreviation:	None
Date: $1/16/2013$	County:	Delta		Filename:	C083-017
User: SLB				-	
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPMI	ENT COST				
	t D10T - 10SU				
Horsepower: 574			_		
1	- mi-Universal				
Attachment: NA			_		
	ber day		_		
_	RG)		_		
	,		_		
Cost Breakdown:			Utilization %		
Ownership Cost/Hour:	\$99.15		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$0.00	,	0		
Operator Cost/Hour:	\$37.41		NA		
operator cost from.	φ37.11		na –		
Total unit Cost/Hour:	\$319.93				
Total Fleet Cost/Hour:	\$1,279.71				
	φ 1,2 7 7 •7 1				
MATERIAL QUAN					
MATERIAL QUAN	<u>FITIES</u>				
MATERIAL QUANT	<u>FITIES</u> 00				
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16	<u>FITIES</u> 00 55				
MATERIAL QUANTInitial Volume:1,60Swell factor:1.16Loose volume:1,86	FITIES 00 55 54 LCY				
MATERIAL QUANTInitial Volume:1,60Swell factor:1.16Loose volume:1,86Source of estimated volu	FITIES 00 55 54 LCY ime: Operator				
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated swell	TITIES 00 55 54 LCY ime: Operator				
MATERIAL QUANTInitial Volume:1,60Swell factor:1.16Loose volume:1,86Source of estimated volu	FITIES 00 55 54 LCY ime: Operator				
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated swell	FITIES 00 55 54 LCY ime: Operator 11 Cat Hand				
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCC	FITIES 00 55 54 LCY ime: Operator 11 Cat Hand TION				
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu 1,86 Source of estimated volu 1,86 Source of estimated volu 1,86 MOURLY PRODUCC 1,86 Average push distance: 1,86	TITIES 00 55 54 LCY ime: Operator 11 Cat Hand TION 50 feet	book			
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly Stance:	FITIES 00 55 54 LCY ime: Operator 11 Cat Hand TION	book			
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu 1,86 Source of estimated volu 1,86 Source of estimated volu 1,86 MOURLY PRODUCC 1,86 Average push distance: 1,86	TITIES 00 55 54 LCY ime: Operator 11 Cat Hand TION 50 feet	book			
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly Stance:	TITIES 00 55 54 LCY ume: Operator 11 Cat Hand TION 50 feet 2,748.7 LC	book Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly production: Hourd	TITIES 00 55 54 LCY ume: Operator 11 Cat Hand TION 50 feet 2,748.7 LC	book Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de	TITIES 00 55 54 LCY ume: Operator 11 Cat Hand TION 50 feet 2,748.7 LC escription: Compa	book Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated volu Source of estimated swelfactor: 1 HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: 1	FITIES 00 55 54 LCY ime: Operator 11 Cat Hand TION 50 feet $2,748.7$ LC escription: Compa 0% $7,000$ feet	book Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated volu Source of estimated swelfactor: 1 HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	FITIES 00 55 54 LCY ume: Operator 11 Cat Hand TION 50 feet 2,748.7 LC escription: Compa 0 % 7,000 feet 2,900 lbs/LCY	book Y/hr 			
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated volu Source of estimated swelfactor: 1 HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: 1	FITIES 00 55 54 LCY ime: Operator 11 Cat Hand TION 50 feet $2,748.7$ LC escription: Compa 0% $7,000$ feet	book Y/hr 			
MATERIAL QUANT Initial Volume: 1,60 Swell factor: 1.16 Loose volume: 1,86 Source of estimated volu Source of estimated volu Source of estimated swelfactor: 1 HOURLY PRODUCC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	TITIES 00 55 54 LCY Ime: Operator Operator II Operator II Operator II Operator IIION Scription: Compa 0 % 7,000 feet 2,900 lbs/LCY Decomposed rock n Factor	book Y/hr 			

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

Net correction: 0.3554

Adjusted unit production:	976.89 LCY/hr
Adjusted fleet production:	3907.56 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.327/LCY

Total job time:	0.48 Hours
Total job cost:	\$610.45

Page 42 of 312

Bowie No. 2 Mine	Permit Action	: Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION			
Task #: 018 Date: 1/16/2013	State: <u>Colorado</u> County: Delta)	Abbreviation: Filename:	None C083-018
User: SLB			_	
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	<u>ENT COST</u>			
Basic Machine: Cat	D10T - 10SU			
Horsepower: 574				
	ni-Universal			
Attachment: NA				
Shift Basis: 1 pe	er day			
Data Source: (CR				
Cost Breakdown:				
<u>Jost Dieakuowii</u> .		Utilization %		
Ownership Cost/Hour:	\$99.15	NA		
Operating Cost/Hour:	\$183.36	100		
1 0	\$185.50	0		
Ripper op. Cost/Hour:				
()norator ('ost/Uoire				
Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$37.41 \$319.93 \$1,279.71	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume:9,000 Swell factor:1.165	\$319.93 \$1,279.71 TTIES 5	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.16 Loose volume: 10,44	\$319.93 \$1,279.71 TTIES 0 5 85 LCY			
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume:9,000 Swell factor:1.165	\$319.93 \$1,279.71 TTIES 5 35 LCY ne: Division of Reclamatical contents of the content of the	ntion, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.165 Loose volume: 10,44 Source of estimated volum Source of estimated swell	\$319.93 \$1,279.71 TTIES			
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.165 Loose volume: 10,44 Source of estimated volu Source of estimated swell factor: HOURLY PRODUCT	\$319.93 \$1,279.71 TTIES 5 5 5 5 5 5 5 5 5 5 5 5 5			
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.165 Loose volume: 10,44 Source of estimated volum Source of estimated swell actor:	\$319.93 \$1,279.71 TTIES			
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.163 Loose volume: 10,44 Source of estimated volum Source of estimated swell Cactor: HOURLY PRODUCT Average push distance: Jnadjusted hourly	\$319.93 \$1,279.71 ITIES	ation, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.162 Loose volume: 10,43 Source of estimated volum Source of estimated volum Source of estimated swell actor: HOURLY PRODUCT Average push distance: Jnadjusted hourly production: Materials consistency des	\$319.93 \$1,279.71 ITIES 0 5 35 LCY ne: Division of Reclama Cat Handbook Image: 200 feet 946.0 LCY/hr Scription: Compacted fill or	ation, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.162 Loose volume: 10,44 Source of estimated volum Source of estimated volum Source of estimated volum Source of estimated swell actor: HOURLY PRODUCT Average push distance: Jnadjusted hourly broduction: Materials consistency des Average push gradient:	\$319.93 \$1,279.71 TTIES 5 5 5 5 5 5 5 5 5 5 5 5 5	ation, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.162 Loose volume: 10,43 Source of estimated volum Source of estimated volum Source of estimated swell actor: HOURLY PRODUCT Average push distance: Jnadjusted hourly production: Materials consistency des	\$319.93 \$1,279.71 ITIES 0 5 35 LCY ne: Division of Reclama Cat Handbook Image: 200 feet 946.0 LCY/hr Scription: Compacted fill or	ation, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.162 Loose volume: 10,44 Source of estimated volum Source of estimated volum Source of estimated volum Source of estimated swell actor: HOURLY PRODUCT Average push distance: Jnadjusted hourly broduction: Materials consistency des Average push gradient:	\$319.93 \$1,279.71 TTIES 5 5 5 5 5 5 5 5 5 5 5 5 5	ation, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 1.165 Loose volume: 10,44 Source of estimated volu Source of estimated swell Source of estimated swell Source Average push distance: Jnadjusted hourly Sourcial s consistency des Source of estimated swell	\$319.93 \$1,279.71 TTIES 5 5 5 5 5 5 5 5 5 5 5 5 5	ation, Mining & Safety		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: Initial Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 9,000 Swell factor: 11.62 Loose volume: 10,43 Source of estimated volut Source of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Source Yerage push distance: Jnadjusted hourly Orduction: Materials consistency des Average push gradient: Average site altitude: Material weight: Material weight:	\$319.93 \$1,279.71 TTIES 0 5 35 LCY ne: Division of Reclama Cat Handbook Cat Handbook Cat Handbook 200 feet 946.0 LCY/hr cription: Compacted fill or 5 % 7,000 feet 2,900 lbs/LCY Decomposed rock - 50% Roc	ation, Mining & Safety		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production:	303.57 LCY/hr
Adjusted fleet production:	1214.28 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$1.054/LCY

Total job time:	8.63 Hours	
Total job cost:	\$11,049.96	

Page 44 of 312

Task description:	Regrade Drill Pads from M	Rs and TRs		
Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION			
Task #: 019 Date: 1/16/2013 User: SLB	State:ColoradoCounty:Delta		Abbreviation: Filename:	None C083-019
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	<u>ENT COST</u>			
Horsepower: 574 Blade Type: Sen Attachment: NA	ni-Universal er day			
<u>Cost Breakdown</u> : Ownership Cost/Hour: Operating Cost/Hour: Ripper op. Cost/Hour: Operator Cost/Hour:	\$99.15 \$183.36 \$0.00 \$37.41	Utilization % NA 100 0 NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>166,</u> Swell factor: 1.16	270			
	705 LCY me: DRMS			
HOURLY PRODUC? Average push distance: Unadjusted hourly production:	100 feet 1,718.9 LCY/hr			
Materials consistency des	cription: Compacted fill or e	mbankment 0.9		
Average push gradient: Average site altitude: Material weight:	5 % 7,500 feet 2,900 lbs/LCY			
Weight description:	Decomposed rock - 50% Rock	, 50% Earth		
Job Condition Correction	E. d	Source		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production:	551.60 LCY/hr
Adjusted fleet production:	2206.4 LCY/hr

Unit cost:	\$0.380/LC I	
	4 Dozer(s) \$0.580/LCY	

Total job time:	87.79 Hours
Total job cost:	\$112,348.35

Page 46 of 312

Bowie No. 2 Mine	Perr	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 020	State:	Colorado		Abbreviation:	None
Date: $1/16/2013$		Delta		Filename:	C083-020
User: SLB					
Agency or orga	anization name: DR	RMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: Ca	at D10T - 10SU				
Horsepower: 57					
	emi-Universal				
Attachment: NA			_		
Shift Basis: 1	per day		_		
	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$99.15		NA		
Operating Cost/Hour:			100		
Ripper op. Cost/Hour:			0		
	1		-		
Operator Cost/Hour:	\$37.41		NA		
Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$319.93 \$1,279.71		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>500</u> Swell factor: <u>1.10</u>	\$319.93 \$1,279.71 TITIES) 65		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>500</u> Swell factor: <u>1.10</u>	\$319.93 \$1,279.71 TITIES		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>500</u> Swell factor: <u>1.10</u>	\$319.93 \$1,279.71 TITIES 0 65 3 LCY ume:Division compared to the second se		NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.14 Loose volume: 583 Source of estimated volto Source of estimated sweet	\$319.93 \$1,279.71 TITIES 0 65 3 LCY ume: Division c cat Handb				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.10 Loose volume: 583 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC	\$319.93 \$1,279.71 TITIES 0 65 3 LCY ume: Division c cat Handb CTION				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.10 Loose volume: 583 Source of estimated volu Source of estimated swe factor:	\$319.93 \$1,279.71 TITIES 0 65 3 LCY ume: Division c cat Handb	book			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.10 Loose volume: 583 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly	\$319.93 \$1,279.71 TITIES) 65 3 LCY ume: Division c cat Handb CTION 200 feet 946.0 LCY/I	hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.14 Loose volume: 583 Source of estimated volt Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	\$319.93 \$1,279.71 TITIES) 65 3 LCY ume: Division c cat Handle CTION 200 feet 946.0 LCY/1 escription: Compace	hr	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.14 Loose volume: 583 Source of estimated volt Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$319.93 \$1,279.71 TITIES) 65 3 LCY ume: Division c cat Handb CTION 200 feet 946.0 LCY/I	hr	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.10 Loose volume: 583 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	<u>\$319.93</u> \$1,279.71 TITIES 0 65 3 LCY ume: Division c cat Handle <u>200 feet</u> 946.0 LCY/1 escription: Compace <u>5 %</u> <u>6,000 feet</u>	hr	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.14 Loose volume: 583 Source of estimated volt Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$319.93 \$1,279.71 TITIES) 65 3 LCY ume: Division c cat Handle CTION 200 feet 946.0 LCY/1 escription: Compace 5 %	hr	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.10 Loose volume: 583 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	<u>\$319.93</u> \$1,279.71 TITIES 0 65 3 LCY ume: Division c cat Handle <u>200 feet</u> 946.0 LCY/1 escription: Compace <u>5 %</u> <u>6,000 feet</u>	hr cted fill or e	on, Mining & Safety		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 500 Swell factor: 1.10 Loose volume: 583 Source of estimated volu Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average site altitude: Material weight:	\$319.93 \$1,279.71 TITIES 0 65 3 LCY ume: Division c cat Handb CTION 200 feet 946.0 LCY/I escription: Compace 5 % 6,000 feet 2,900 lbs/LCY Decomposed rock	hr cted fill or e	on, Mining & Safety		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production:	303.57 LCY/hr
Adjusted fleet production:	1214.28 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$1.054/LCY

Total job time:	0.48 Hours
Total job cost:	\$613.89

Page 48 of 312

Task description: B				
Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
	TION			
PROJECT IDENTIFICA	<u>HON</u>			
Task #: 021	State: Colorado		Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-021
User: SLB				
Agency or organizati	on name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: Cat D10	T - 10SU			
Horsepower: 574	1 1050	-		
Blade Type: Semi-Ui	niversal	-		
Attachment: NA		-		
Shift Basis: 1 per da	V	-		
Data Source: (CRG)	<i>)</i>	_		
		-		
Cost Breakdown:	I			
Oran eaching Cost /U	¢00.15	<u>Utilization %</u>		
Ownership Cost/Hour:	\$99.15 \$183.36	NA 100		
Operating Cost/Hour:		100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
Total unit Cost/Hour: \$3	19.93			
	,279.71			
φ <u></u>	,= ; > , ; =			
MATEDIAL OUANTITE	FQ			
MATERIAL QUANTITI				
Initial Volume: 61,000				
Swell factor: 1.165				
Loose volume: 71,065 Lo	CY			
<u> </u>				
Source of estimated volume:	Operator Estimate			
Source of estimated swell	Cat Handbook			
factor:				
	A.T.			
HOURLY PRODUCTIO	<u>N</u>			
Average push distance:	100 feet			
Unadjusted hourly	100 feet 1,718.9 LCY/hr			
Unadjusted hourly production:	1,718.9 LCY/hr			
Unadjusted hourly	1,718.9 LCY/hr	nbankment 0.9		
Unadjusted hourly production: Materials consistency descript	1,718.9 LCY/hr	nbankment 0.9		
Unadjusted hourly production: Materials consistency descript Average push gradient: <u>10</u>	1,718.9 LCY/hr ion: <u>Compacted fill or en</u>	ubankment 0.9		
Unadjusted hourly production: Materials consistency descript Average push gradient: <u>10</u>	1,718.9 LCY/hr	nbankment 0.9		
Unadjusted hourly production: Materials consistency descript Average push gradient: <u>10</u> Average site altitude: <u>6,0</u>	ion: Compacted fill or en % 050 feet	ıbankment 0.9		
Unadjusted hourly production: Materials consistency descript Average push gradient: <u>10</u> Average site altitude: <u>6,0</u>	1,718.9 LCY/hr ion: <u>Compacted fill or en</u>	ubankment 0.9		
Unadjusted hourly production: Materials consistency descript Average push gradient: 10 Average site altitude: 6,0 Material weight: 2,9	ion: Compacted fill or en % 050 feet			
Unadjusted hourly production: Materials consistency descript Average push gradient: 10 Average site altitude: 6,0 Material weight: 2,9 Weight description: Description:	1,718.9 LCY/hr ion: Compacted fill or en % 050 feet 000 lbs/LCY ecomposed rock - 50% Rock,	50% Earth		
Unadjusted hourly production: Materials consistency descript Average push gradient: 10 Average site altitude: 6,0 Material weight: 2,9	1,718.9 LCY/hr ion: Compacted fill or en % 050 feet 000 lbs/LCY ecomposed rock - 50% Rock, ior_			

Dozing mathody		(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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	480.26 LCY/hr
Adjusted fleet production:	1921.04 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.666/LCY

Total job time:	36.99 Hours
Total job cost:	\$47,340.24

Page 50 of 312

NA NA 0 \$0.00

SCRAPER TEAM WORK

Task description:	Replace F	ill from N	Material S	Storage Area to	Water Tank Ben	ch		
Site: Bowie No. 2 Mine		Permi	t Action:	Permit Renewa	13 Per	mit/Job#:	C1996083	
PROJECT IDENT	TIFICATION							
Task #: 022 Date: 1/16/20 User: SLB			Colorado Delta		Abbrev		one 083-022	
Agency or o	rganization name	DRM	IS					_
HOURLY EQUIP	<u>MENT</u>			COSTS	hift basis: <u>1 per c</u>	ay		
			1 1	ent Description				
		Scraper:		G w/push-pull				_
		-Dozer:	NA					_
Suppor	t Equipment -Loa		NA NA					_
Road Mai	ntenance – Motor	p Area: Grader:	NA					_
Koud Mu		Truck:	NA					
								_
Cost Breakdown:	Scraper Wo	ork Team		Support Equi	pment	Mainter	nance Equ	ipment
	Scraper	Doz	zer	Load Area	Dump Area	Motor Gra	ader V	Vater Truck
%Utilization-machine:	100	N	A	NA	NA	NA		NA
Ownership cost/hour:	\$65.78	N.	A	NA	NA	NA		NA
Operating cost/hour:	\$182.63	N	A	NA	NA	NA		NA
Ripper op. cost/hour:	NA	N	A	NA	NA	NA		NA

Ripper op. cost/hour:	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA
Number of Units:	2	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:

Total work team cost/hour: <u>\$556.86</u>

MATERIAL QUANTITIES

Initial volume:	700	CCY	Swell factor:	1.165	
Loose volume:	816	LCY			
Source	ce of estimated volume:	Operator E	stimate		
Source of	estimated swell factor:	Cat Handbo	ook		

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	Decomposed rock - 50% Rock,	Heaped Volume:	22.00	LCY
	50% Earth			
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Site Altitude: 6750 feet

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: <u>0.90</u> Minutes <u>0.60</u> Minutes

Job Condition Correction:

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

Travel Time:

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

Haul Route:

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

Haul Time: **0.69** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	15.00	5.00	20.00	868	1.17
				Return Time:	1.17 r	ninutes
			Total Scraper	team cycle time:	3.36	minutes
			Adjusted for	or job conditions:	539.70	LCY/Hour
			Selected Nun	nber of Scrapers:	2	Scraper(s)
	Adjusted	single scrape	er team (unit) ho	ourly production:	539.70	LCY/Hour
	Adjusted m	ultiple scrape	r team (fleet) ho	ourly production:	539.70	LCY/Hour
Optima	Unadjusted unit proc Number of Scrapers per		650.25	LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	То	otal job time:	1.51	Hours
Unit	t cost: \$1.032	/LCY	То	otal job cost:	\$841.42	

Page 52 of 312

Task description:	Regrade Borrow A	rea			
Bowie No. 2 Mine	Permi	t Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 023 Date: 1/16/2013 User: SLB		Colorado Delta		Abbreviation: Filename:	None C083-023
Agency or organ	nization name: <u>DRM</u>	IS			
HOURLY EQUIPME	ENT COST				
Horsepower: 574 Blade Type: Ser Attachment: NA Shift Basis: 1 p	ni-Universal		- - - -		
Cost Breakdown:			<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour: Ripper op. Cost/Hour:	\$99.15 \$183.36 \$0.00		<u>NA</u> 100 0		
Operator Cost/Hour:	\$37.41		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 25,6 Swell factor: 1.25 Loose volume: 32,0	00				
Source of estimated volu Source of estimated swel factor:					
HOURLY PRODUC	<u>TION</u>				
Average push distance: Unadjusted hourly production:	175 feet 1,074.3 LCY/	hr			
Materials consistency des	scription: Compacte	ed fill or er	nbankment 0.9		
Average push gradient: Average site altitude:	0 % 6,200 feet	_			
Material weight:	2,650 lbs/LCY			_	
Weight description:	Decomposed rock - 2	25% Rock,	75% Earth		

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

Net correction: 0.3890

Adjusted unit production:	417.90 LCY/hr
Adjusted fleet production:	1671.6 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.766/LCY

Total job time:	19.14 Hours	
Total job cost:	\$24,497.89	-

Page 54 of 312

Task description:	Regrade Hubbard (Creek Vent S	Shaft Pad		
Bowie No. 2 Mine	Permit	Action: Pe	ermit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 024		colorado		Abbreviation:	None
Date: $1/16/201$		Pelta		Filename:	C083-024
User: SLB					
Agency or org	ganization name: DRM	5			
HOURLY EQUIPM	<u>IENT COST</u>				
Basic Machine: C	Cat D10T - 10SU				
L	74				
	emi-Universal				
	IA				
	per day				
Data Source: (0	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour			NA		
Operating Cost/Hour			100		
Ripper op. Cost/Hour			0		
Operator Cost/Hour	\$37.41		NA		
Total unit Cost/Hour:	\$319.93		_		
Total Fleet Cost/Hour:	\$1,279.71				
	,				
MATERIAL QUAN	NTITIES				
	900 250				
	625 LCY				
Loose volume: <u>3,</u>	025 LC I				
Source of estimated vo	lume: Operator Est	imate			
Source of estimated sw	cat Handboo	k			
factor:					
HOURLY PRODU	<u>CTION</u>				
Average push distance:	100 feet				
Unadjusted hourly	1,718.9 LCY/h	r			
production:	1,710.7 LC 1/II	L			
r					
Materials consistency of	lescription: Compacted	l fill or emba	nkment 0.9		
•	·				
Average push gradient:					
Average site altitude:	6,900 feet				
Material weight:	2,900 lbs/LCY				
Weight description:	User Provided				
			0		
Job Condition Correcti		, 1	Source		
Operato	or 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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction:	0.2794

Adjusted unit production:	480.26 LCY/hr
Adjusted fleet production:	1921.04 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.666/LCY

Total job time:	1.89 Hours
Total job cost:	\$2,414.81

HYDRAULIC EXCAVATOR WORK

	No. 2 Mine		Per	rmit Action:	Permit Renew	val 3	Permit/Job#	t: <u>C199608</u>
ROJEC	T IDENT	IFICAT	TION					
Task #:	025		State:	Colorado		Ab	breviation:	None
Date:		13	County:	Delta			Filename:	C083-025
User:	SLB		-					
А	gency or or	ganizatio	n name: Dl	RMS				
IOURL	Y EQUIPN	MENT (°OST					
	ic Machine:		65CL 13'-7"	Stick		Horsepower:		404
	tachment 1:		S Cab	SUCK		Weight (MT):		70.51
110			5 Cub			Shift Basis:	-	per day
						Data Source:		CRG)
Cost Break	down:							
					Utilization %			
	nership Cos		\$78.3		NA			
	perating Cos		\$139.		100 NA			
	Operator Cos otal Unit Cos		\$33.9		NA			
Тс	otal Fleet Co	ost/Hour:	\$252	2.30				
	IAL QUA	NTITIE	S					
			nated volume: d swell factor:			actor: <u>1.250</u>		
Loose IOURLY	e volume: Sourc Source of <u>Y PRODU</u>	1,875 ce of estir estimate	d swell factor:	LCY Opeator Cat Hand	Estimate Ibook			
Loose IOURLY	e volume: Sourc Source of <u>Y PRODU</u>	1,875 ce of estir estimate	d swell factor:	LCY Opeator Cat Hand	Estimate			
Loose IOURLY	e volume: Sourc Source of <u>Y PRODU</u>	1,875 ce of estir cestimated CTION	d swell factor:	LCY Opeator Cat Hand aded, dump	Estimate Ibook Ducket, swing er Condition Descr	mpty): iption:SEVE		
Loose IOURLY	e volume: Sourc Source of <u>Y PRODU</u>	1,875 ce of estir cestimated CTION	d swell factor:	LCY Opeator Cat Hand aded, dump	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u>	ERE	minutos
Loose HOURLY	e volume: Sourc Source of <u>Y PRODU</u> Cycle Time	1,875 ce of estin estimated CTION (load but Sec	d swell factor:	LCY Opeator Cat Hand aded, dump	Estimate Ibook Ducket, swing er Condition Descr	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u>	ERE	minutes
Loose HOURLY	e volume: Sourc Source of <u>Y PRODU</u>	1,875 ce of estin estimated CTION (load but Sec	d swell factor:	LCY Opeator Cat Hand aded, dump	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: 0.570	ERE	
Loose IOURLY xcavator	e volume: Source of Y PRODU Cycle Time	1,875 ce of estir cestimated CTION c (load bu Sec	d swell factor: cket, swing lo condary Job C	LCY Cat Hand aded, dump Basic Job C ondition with	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u>	ERE	minutes
Loose IOURLY Excavator Load Buck	e volume: Source of Y PRODU Cycle Time tet Capacity Rated Capac cket Fill Fac	1,875 ce of estir estimated (CTION (load but Sec city:	d swell factor:	LCY Cat Hand aded, dump Basic Job C ondition with	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size	ERE	
Loose IOURLY Excavator Load Buck	e volume: Source of <u>Y PRODU</u> Cycle Time eet Capacity Rated Capac	1,875 ce of estir estimated (CTION (load but Sec city:	d swell factor: cket, swing lo condary Job C 6.90	LCY Cat Hand aded, dump Basic Job C ondition with	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time Y aped)	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size	ERE	
Loose IOURLY Excavator Load Buck	e volume: Source of Y PRODU Cycle Time tet Capacity Rated Capac cket Fill Fac	1,875 The of estimated	d swell factor: cket, swing lo condary Job C <u>6.90</u> 0.850 5.87	LCY Cat Hand aded, dump Basic Job C ondition with LCY (he Hard, tou	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time Y aped) agh clay (80% -	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size	ERE	
Loose IOURLY Excavator Load Buck	e volume: Source of <u>Y PRODU</u> Cycle Time cet Capacity Rated Capac cket Fill Fac usted Capac	1,875 The of estimated	d swell factor: cket, swing lo condary Job C <u>6.90</u> 0.850 5.87	LCY Cat Hand	Estimate Ibook Ducket, swing er Condition Descr nin Basic Descr Cycle Time Y aped) aped) aph clay (80% - S	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size 90%) 0.850	ERE	
Loose IOURLY Excavator Load Buck Load Buck I Buc Adj ob Condit	e volume: Source of <u>Y PRODU</u> Cycle Time cet Capacity Rated Capac cket Fill Fac usted Capac	1,875 The of estimated	d swell factor: cket, swing lo condary Job C <u>6.90</u> 0.850 5.87	LCY Cat Hand aded, dump Basic Job C ondition with LCY (he Hard, tou	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time Y aped) 1gh clay (80% - S	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size 90%) 0.850	ERE	
Loose IOURLY Excavator Load Buck Adj ob Condit Adj Job	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time (cet Capacity) Rated Capac cket Fill Fac usted Capac (usted Capac (usted Capac) (usted Capac)	1,875 The of estimated	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>1.00</u> <u>0.83</u>	LCY Cat Hand aded, dump Basic Job C ondition with LCY (he Hard, tou LCY Source (CAT H (1 shift/d	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time Y aped) agh clay (80% - S B) ay)	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size 90%) 0.850	ERE	
Loose IOURLY Excavator Load Buck Adj ob Condit Adj Job	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time Cycl	1,875 The of estimated	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>0rs</u> 1.00	LCY Cat Hand Cat Hand Cat Hand Cat Hand Cat Hand LCY (he Hard, tog LCY Source (CAT H	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time Y aped) agh clay (80% - S B) ay)	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size 90%) 0.850	ERE	
Loose IOURLY Excavator Load Buck Adj ob Condit Adj Job	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time (cet Capacity) Rated Capac cket Fill Fac usted Capac tion Correct (usted Capac) children Capac (correction)	1,875 The of estimated	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>1.00</u> <u>0.83</u>	LCY Cat Hance Cat Hance Cat Hance Cat Hance Cat Hance Cat Hance LCY (he Hard, too LCY Condition with Cat Cat Hance (CAT H (1 shift/d multiplie)	Estimate Ibook Ducket, swing en Condition Descr nin Basic Descr Cycle Time Y aped) agh clay (80% - S B) ay)	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size 90%) 0.850	ERE e Class: <u> </u>	
Loose IOURLY Excavator Load Buck Adj ob Condit Adj Job	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time (cet Capacity) Rated Capac cket Fill Fac usted Capac tion Correct (usted Capac) children Capac (correction)	1,875 The of estimates	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>1.00</u> <u>0.83</u> d Hourly Unit d Hourly Unit	LCY <u>Cat Hand</u> <u>aded, dump</u> Basic Job C ondition with LCY (he Hard, tou LCY Source (CAT H (1 shift/d multiplie Production: Production:	Estimate Ibook Ducket, swing end Condition Description Ibook Cycle Time Market aped) aped) aph clay (80% - S B) ay) t 617.37 512.42	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size <u>90%)</u> 0.850 ite Altitude: <u>690</u> ite Altitude: <u>690</u> LCY/Hou LCY/Hou	ERE e Class: <u>L</u> 00 feet Ir	
Loose IOURLY Excavator Load Buck Adj ob Condit Adj Job	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time (cet Capacity) Rated Capac cket Fill Fac usted Capac tion Correct (usted Capac) befficiency: Correction:	1,875 The of estimates	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>1.00</u> <u>0.83</u> <u>0.83</u> d Hourly Unit	LCY <u>Cat Hand</u> <u>aded, dump</u> Basic Job C ondition with LCY (he Hard, tou LCY Source (CAT H (1 shift/d multiplie Production: Production:	Estimate Ibook Ducket, swing end Condition Description Ibook Cycle Time Tool aped) aped) aped (80% - S B) ay) 5 617.37	<u>mpty):</u> iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size <u>90%) 0.850</u> ite Altitude: <u>69(</u> LCY/Hou	ERE e Class: <u>L</u> 00 feet Ir	
Loose <u>IOURLY</u> <u>Excavator</u> <u>Load Buck</u> <u>Load Buck</u> <u>I</u> <u>Buck</u> Adj <u>ob Condit</u> Adj <u>Job</u> Net	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time (cet Capacity) Rated Capac cket Fill Fac usted Capac tion Correct (usted Capac) befficiency: Correction:	1,875 The of estimated	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>1.00</u> <u>0.83</u> d Hourly Unit d Hourly Unit	LCY <u>Cat Hand</u> <u>aded, dump</u> Basic Job C ondition with LCY (he Hard, tou LCY Source (CAT H (1 shift/d multiplie Production: Production:	Estimate Ibook Ducket, swing end Condition Description Ibook Cycle Time Market aped) aped) aph clay (80% - S B) ay) t 617.37 512.42	mpty): iption: <u>SEVE</u> iption: <u>SEVE</u> Value: <u>0.570</u> Bucket Size <u>90%)</u> 0.850 ite Altitude: <u>690</u> ite Altitude: <u>690</u> LCY/Hou LCY/Hou	ERE e Class: <u>L</u> 00 feet Ir	
Loose <u>IOURLY</u> <u>Excavator</u> <u>Load Buck</u> <u>Load Buck</u> <u>I</u> <u>Buck</u> Adj <u>ob Condit</u> Adj <u>Job</u> Net	e volume: Source of Source of <u>Y PRODU</u> Cycle Time Cycle Time Externation Capacity Rated Capacity Rated Capacity Capacity Correction Solutitude Adj: DEfficiency: Correction: U	1,875 The of estimated	d swell factor: <u>cket, swing lo</u> condary Job C <u>6.90</u> <u>0.850</u> <u>5.87</u> <u>1.00</u> <u>0.83</u> d Hourly Unit d Hourly Unit	LCY <u>Opeator</u> <u>Cat Hand</u> <u>aded, dump</u> Basic Job C ondition with <u>LCY</u> (he <u>Hard, tot</u> <u>LCY</u> <u>Source</u> (CAT H (1 shift/d multiplie Production: Production:	Estimate Ibook Ducket, swing end Condition Description Ibook Cycle Time Market aped) aped) aph clay (80% - S B) ay) t 617.37 512.42	mpty): iption: SEVE iption: SEVE Value: 0.570 Bucket Size 90%) 0.850 ite Altitude: <u>690</u> ite Altitude: <u>690</u> LCY/Hou LCY/Hou	ERE e Class: <u>L</u> 00 feet Ir	

Unit cost: _____\$0.492 /LCY

Total job cost: \$923.00

Bowie No. 2 Mine

Reclamation Cost Estimate RN-3

TRUCK/LOADER TEAM WORK

Truck Loader Load Area Dump Area Motor Grader	
Date: 1/16/2013 County: Delta Filename: User: SLB SLB Filename: Filename: Agency or organization name: DRMS Shift basis: 1 per day Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: -Dump Area: NA NA Cost Breakdown: Truck/Loader Team Truck Loader Load Area Dump Area Mair NA NA Ownership cost/hour: \$12.02 \$24.98 \$69.88 NA Operating cost/hour: \$63.21 \$43.03 \$142.13 NA NA	
User: SLB Agency or organization name: DRMS HOURLY EQUIPMENT COST Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Main -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Main Maintenance -Motor Grader: NA -Water Truck: NA	None
Agency or organization name: DRMS Magency or organization name: DRMS Shift basis: 1 per day Equipment Description Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: -Dump Area: NA Road Maintenance –Motor Grader: -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Maintenance -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Maintenance in the superior of the	C083-026
HOURLY EQUIPMENT COST Shift basis: 1 per day Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: NA Road Maintenance –Motor Grader: NA Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Main Main Main Output: Truck/Loader Team Support Equipment Main Main Main Main Main Main Motor Grader: Adder Load Area Dump Area Motor Grader Main Main Main Main Motor Grader Load Area Dump Area <th< td=""><td></td></th<>	
Equipment Description Equipment Description Truck Loader Team -Truck: Generic 10-12 cy, 6x4 -Loader: CAT 950H Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Mair Mair Output Colspan="2">Cost Breakdown: Truck/Loader Team Support Equipment Mair Mair Support Equipment Mair Output Colspan="2">Cost Breakdown: Truck/Loader Team Support Equipment Mair Mair Support Equipment Mair Mair Support Equipment Mair Gost Mour: Support Equipment Mair Motor Grader Load Area Dump Area	
Truck Loader Team -Truck: -Loader: Generic 10-12 cy, 6x4 Support Equipment -Load Area: -Dump Area: -Dump Area: CAT 950H Road Maintenance – Motor Grader: -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Maintenance -Motor Grader: -Water Truck: NA Maintenance -Water Team Support Equipment Maintenance Maintenance Truck/Loader Team Support Equipment Maintenance Motor Grader: 100 100 NA NA %Utilization-machine: 100 100 100 NA NA Operating cost/hour: \$12.02 \$24.98 \$69.88 NA NA	Y
-Loader: CAT 950H Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Mair Mair Support Equipment Mair NA Cost Breakdown: Truck/Loader Team Support Equipment Mair Mair Loader Load Area Dump Area Motor Grader: 100 %Utilization-machine: 100 100 100 NA NA Operating cost/hour: \$63.21 \$43.03 \$142.13	
Support Equipment -Load Area: -Dump Area: -Water Truck: Cat D9T - 9SU Road Maintenance –Motor Grader: -Water Truck: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Truck Load Area Dump Area: Maintenance -Water Truck: NA Maintenance NA -Water Truck: NA Maintenance Support Equipment Maintenance Maintenance -Water Truck: NA Maintenance NA Maintenance Support Equipment Maintenance Loader Load Area Dump Area Motor Grader 100 Mutilization-machine: 100 Motor Grader \$63.21 \$43.03 \$142.13 NA NA	
-Dump Area: NA Road Maintenance – Motor Grader: NA -Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Maintenance – Motor Grader: -Water Truck: NA Maintenance Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Multilization-machine: 100 100 100 NA Wotership cost/hour: \$12.02 \$24.98 \$69.88 NA NA Operating cost/hour: \$63.21 \$43.03 \$142.13 NA NA	
-Water Truck: NA Cost Breakdown: Truck/Loader Team Support Equipment Main Truck Loader Load Area Dump Area Motor Grave %Utilization-machine: 100 100 100 NA NA Ownership cost/hour: \$12.02 \$24.98 \$69.88 NA NA Operating cost/hour: \$63.21 \$43.03 \$142.13 NA NA	
Cost Breakdown:Truck/Loader TeamSupport EquipmentMainTruckLoaderLoad AreaDump AreaMotor Grave%Utilization-machine:100100100NANAOwnership cost/hour:\$12.02\$24.98\$69.88NANAOperating cost/hour:\$63.21\$43.03\$142.13NANA	
TruckLoaderLoad AreaDump AreaMotor Gra%Utilization-machine:100100100NANAOwnership cost/hour:\$12.02\$24.98\$69.88NANAOperating cost/hour:\$63.21\$43.03\$142.13NANA	
TruckLoaderLoad AreaDump AreaMotor Gra%Utilization-machine:100100100NANAOwnership cost/hour:\$12.02\$24.98\$69.88NANAOperating cost/hour:\$63.21\$43.03\$142.13NANA	ntenance Equipment
Ownership cost/hour: \$12.02 \$24.98 \$69.88 NA NA Operating cost/hour: \$63.21 \$43.03 \$142.13 NA NA	
Operating cost/hour: \$63.21 \$43.03 \$142.13 NA NA	NA
	NA
Ripper op. cost/hour:NA\$0.00\$0.00NANA	NA
	NA
Operator cost/hour: \$0.00 \$35.82 \$37.41 NA NA	NA
Unit Subtotals: \$75.23 \$103.83 \$249.42 NA NA	NA
Number of Units: 8 1 1 0 0	0
Group Subtotals: Work: \$705.67 Support: \$249.42 Ma	aint: \$0.00
Total work team cost/hour: <u>\$955.09</u>	
MATERIAL QUANTITIES	
Initial volume: 3,000 CCY Swell factor: 1.125	
Loose volume: 3,375 LCY	
Source of estimated volume: Operator Estimate	
Source of estimated swell factor: Cat Handbook	
Material Purchase Cost: \$0.00	
Total Cost: \$0.00	
HOURLY PRODUCTION	
Truck Capacity:	
Truck Payload (weight) Basis:	
Material weight: 2,900 Pounds/LCY	
Description:User ProvidedRated Payload:35,400Pounds	
Payload Capacity: 12.21 LCY	

				U		
Truck Bed (volume) Basis:						
Struck Volume:	10.00	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	12.00	LCY				
Fina	l Truck Volume	Based on Number of L	oader Passes:	11.29	LCY	
Loading Tool Capacity						
Rated Capacity:	4.300	LCY (heaped)	Buc	ket Size Class: <u>N</u>	A	
Bucket Fill Factor:	0.875	Loose material - 1	" and over (84	5 - 90%) 0 875		-
Adjusted Capacity:	3.763	LOOSE Material - I	and over (8.) - 90%) 0.875		-
Job Condition Corrections			Altitude (ft.):	<u>6500</u> feet		
A 1.*. 1 A 1*	Truck	Loader	Source			
Altitude Adj: Job Efficiency:	1.000 0.830	1.000 0.830	(CAT HB (CAT HB	,		
Job Efficiency.	0.850	0.850	(CAT HE)		
Net Correction:	0.830	0.830				
Excavators and Front Shove	els:			Truck:		
Machine Cycle Time v		-				
Selected Value		<u> </u>				
Track Loaders –	Material Descri	iption:				
Cycle Time Elements (min.)	:					
Load: NA	Μ	laneuver: NA		Dump: 0.100)	
Wheel and Track Loaders	- Unadjusted Ba	sic Loader Cycle Time	(load, dump, 1	naneuver): 0	.500 min	utes
Cycle Time Factors	5	Ĵ		Factor (min.)	Source	
Material:	Mixed materi			0.020	(Cat HB)	_
Stockpile:	Dumped by tr			0.020	(Cat HB)	
Truck Ownership:		nership of trucks and lo	aders -0.04	-0.040	(Cat HB)	_
Operation:	Constant ope			-0.040	(Cat HB)	_
Dump Target:	Small target (A diaset as a set.	0.040	(Cat HB)	_
		Net Cycle Time Adjusted Loader		0.000	_ minutes minutes	
		Net Load Tim	•	0.500 1.100	minutes	
		Net Load Th	e per muer.	1.100		
Truck Cycle Time:						
Truck Exchange Time	e: 0.50	Minutes	Adjusted	for site altitude:	0.500	Min
Truck Load Time	e: 1.100	Minutes	Adjusted	for site altitude:	1.100	Min
ck Maneuver and Dump Time	e: 0.90	Minutes	Adjusted	for site altitude:	0.900	Min
L		_	5	—		_
Truck Travel (Haul & Retur maintained 2.0	n) Time:	Road Condition: <u>Ha</u>	rd, smooth, sta	bilized, surfaced, w	vatered,	

Bowie No. 2 Mine

Reclamation Cost Estimate RN-3

-	Haul Rou			1					
	Seg #	Haul D (Ft)	bistance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
	1	47520.	00	0.00	2.00	2.00	2868	16.665	
						Haul Time:	16.665	minutes	
	Return Ro	oute:							
	Seg #	Haul D	istance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
_		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	47520.	00	0.00	2.00	2.00	2905	16.383	
					Total Tru	Return Time: ck Cycle Time:	<u> </u>		
					10101 110	ek Cycle Thile.		minutes	
	oading Too Produ Unit Produ	uction	423.28	LCY/Hour		Adjusted for j	ob efficiency:	351.32	LCY/Hour
TTUCK	Olint i Tout	<u> </u>	19.05	LCY/Hour		Adjusted for j	ob efficiency:	15.81	LCY/Hour
Optima	al No. of Ti	rucks:	22	Truck(s)		Selected Num	ber of Trucks:	8	Truck(s)
					e truck/loade	k team productio r team productio r team productio	on: 126.	50 LCY/H	Iour
	JOB TI	ME ANI	D COST						
	Fleet	size:	1	Team(s)]	Fotal job time:	26.68	8 Hou	rs
	Unit	cost:	\$7.550	/LCY	,	Total job cost:	\$25,480).98	

Bowie No. 2 Mine

Reclamation Cost Estimate RN-3

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	e	Permi	it Actio	n: Permit Rene	ewal 3	Permit/Job#: <u>C</u>	21996083
PROJECT IDENTask #:027Date:1/16/2User:SLB		State:	Colorac Delta	lo	AI		one 183-027
Agency or	organization nar	ne: DRM	15				
HOURLY EQUI	PMENT COS	<u> </u>				asis: <u>1 per day</u>	
т	······			quipment Descri			
1	ruck Loader Tea	m - I ruck: -Loader:		eric 10-12 cy, 6x4 950H	4		
Supp	ort Equipment -L		NA	<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>			
		imp Area:	NA				
Road Ma	aintenance – Mote	or Grader: ter Truck:	NA NA				
	- vv a	ICI TTUCK:	INA				
Cost Breakdown:	Truck/Loa	ader Team		Support 1	Equipment	Maintena	nce Equipment
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100		NA	NA	NA	NA
Ownership cost/hour:	\$12.02	\$24.9	8	NA	NA	NA	NA
Operating cost/hour:	\$63.21	\$43.0	3	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00)	NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$35.8	2	NA	NA	NA	NA
Unit Subtotals:	\$75.23	\$103.8	33	NA	NA	NA	NA
Number of Units:	4	1		0	0	0	0
Group Subtotals:	Work:	\$404.75		Support:	\$0.00	Maint:	\$0.00
Total work team cos MATERIAL QU Initial volume: Loose volume:	ANTITIES _2,000		CCY LCY	Swell	factor: <u>1.000</u>		
	urce of estimated			tor Estimate			
Source	of estimated swe	-		andbook			
	Material Purch	ase Cost:	\$0.00 \$0.00				
			,				
HOURLY PRO	DUCTION						
<u>Truck Capacity:</u> <u>Truck Payload (weig</u> Material w	veight: 2,950	ak brokon		Pounds/LCY			
Descr Rated Pa		ck - broken		Pounds			
Payload Car				LCY			

Truck Bed	(volume) Basis:

Struck Volume:	10.00	LCY
Heaped Volume:	12.00	LCY
Average Volume:	11.00	LCY
Adjusted Volume:	12.00	LCY

		e Based on Number o	I Louder I asses.	11.61	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: N	A	
Rated Capacity:	4.300	LCY (heaped)				
Bucket Fill Factor:	0.675	*	oorly blasted (60) - 75%) 0.675		
Adjusted Capacity:	2.903	LCY				
Job Condition Correction	I <u>S:</u>	Si	ite Altitude (ft.):	7100 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HE			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time	<u>e:</u>	Number of Loading T	Tool Passes Requi	ired to Fill	4	passes
Excavators and Front Show	vels:			Truck:	т 	
		Doting NA				
Machine Cycle Time Selected Value	within this Bas					
Track Loaders	- Material Desci	ription:				
Cycle Time Elements (min).					
Cycle Time Elements (min	.):					
Cycle Time Elements (min Load: <u>NA</u>		Maneuver: NA		Dump: 0.100		
-	N		me (load, dump, 1	I		nutes
Load: NA Wheel and Track Loaders	N s - Unadjusted B		me (load, dump, 1	maneuver): 0.	.500 mii	nutes
Load: NA	S - Unadjusted B		me (load, dump, 1	I	.500 min Source	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors	S - Unadjusted B	asic Loader Cycle Tir ken material 0.04	me (load, dump, 1	maneuver): 0. Factor (min.)	.500 mii	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material:	S - Unadjusted B Bank or brol	asic Loader Cycle Tir ken material 0.04		maneuver):0. Factor (min.) 0.040	.500 min Source (Cat HB)	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:	S - Unadjusted B Bank or brol Dumped by Common ow	asic Loader Cycle Tin ken material 0.04 truck 0.02 ynership of trucks and		maneuver): 0. Factor (min.) 0.040 0.020	500 min Source (Cat HB) (Cat HB)	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	S - Unadjusted B Bank or brol Dumped by Common ow Constant ope	asic Loader Cycle Tin ken material 0.04 truck 0.02 mership of trucks and eration -0.04 et 0.05	l loaders -0.04	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050	500 min Source (Cat HB) (Cat HB) (Cat HB)	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	S - Unadjusted B Bank or brol Dumped by Common ow Constant ope	asic Loader Cycle Tin ken material 0.04 truck 0.02 vnership of trucks and eration -0.04 et 0.05 Net Cycle Tin	l loaders -0.04 ne Adjustment:	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	S - Unadjusted B Bank or brol Dumped by Common ow Constant ope	asic Loader Cycle Tin ken material 0.04 truck 0.02 ynership of trucks and eration -0.04 et 0.05 Net Cycle Tin Adjusted Load	l loaders -0.04 ne Adjustment: ler Cycle Time:	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030 0.530	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	S - Unadjusted B Bank or brol Dumped by Common ow Constant ope	asic Loader Cycle Tin ken material 0.04 truck 0.02 ynership of trucks and eration -0.04 et 0.05 Net Cycle Tin Adjusted Load	l loaders -0.04 ne Adjustment:	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	S - Unadjusted B Bank or brol Dumped by Common ow Constant ope	asic Loader Cycle Tin ken material 0.04 truck 0.02 ynership of trucks and eration -0.04 et 0.05 Net Cycle Tin Adjusted Load	l loaders -0.04 ne Adjustment: ler Cycle Time:	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030 0.530	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	nutes
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	S - Unadjusted B Bank or brol Dumped by Common ow Constant ope Fragile targe	asic Loader Cycle Tin ken material 0.04 truck 0.02 ynership of trucks and eration -0.04 et 0.05 Net Cycle Tin Adjusted Load	l loaders -0.04 ne Adjustment: ler Cycle Time: 'ime per Truck:	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030 0.530	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:		asic Loader Cycle Tin ken material 0.04 truck 0.02 mership of trucks and eration -0.04 et 0.05 Net Cycle Tin Adjusted Load Net Load T	l loaders -0.04 ne Adjustment: ler Cycle Time: 'ime per Truck: Adjusted	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030 0.530 1.690	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	 Minute
Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Tin	 Markovski produkt v standard v	asic Loader Cycle Tin ken material 0.04 truck 0.02 /nership of trucks and eration -0.04 et 0.05 Net Cycle Tin Adjusted Load Net Load T Minutes	l loaders -0.04 ne Adjustment: ler Cycle Time: 'ime per Truck: Adjusted Adjusted	maneuver): 0. Factor (min.) 0.040 0.020 -0.040 -0.040 0.050 0.030 0.530 1.690 for site altitude:	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.500	nutes

F	Haul Rou							T	
	Seg #		Distance	Grade (%)	Roll. Res	Total Res (0)	Velocity (frm)	Travel Time	
		(Ft)			(%)	(%)	(fpm)	(min)	
	1	5280.0	00	10.00	5.00	15.00	734	7.199	
						Haul Time:	7.199	minutes	
_	Return Ro	oute:				_			
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	5280.0	00	-10.00	5.00	-5.00	2938	1.853	
						Return Time:	1.853	minutes	
					Total Tru	ck Cycle Time:	12.142	minutes	
L	oading Too	ol unit							
		uction _	318.08	LCY/Hour		Adjusted for j	job efficiency:	264.01	LCY/Hour
Truck	Unit Produ	uction _	57.37	LCY/Hour		Adjusted for j	job efficiency:	47.62	LCY/Hour
Optima	ul No. of T	rucks:	6	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
				Adjusted	d hourly truck	c team production	on: 190.	47 LCY/H	our
						r team productio			
				Adjusted multipl	e truck/loade	r team productio	on: 190.	47 LCY/H	our
	JOB TI	ME AN	D COST						
	Fleet	size:	1	Team(s)	7	Total job time:	10.5	0 Hour	s
	Unit	cost:	\$2.125	/LCY	,	Total job cost:	\$4,249	.97	

Page 64 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICA	ΓΙΟΝ			
Task #: 035 Date: 1/16/2013	State: <u>Colorado</u> County: Delta		Abbreviation: Filename:	None C083-035
User: SLB			-	
Agency or organizati	on name: DRMS			
HOURLY EQUIPMENT	<u>COST</u>			
Basic Machine: Cat D10'	Г - 10SU			
Horsepower: 574				
Blade Type: Semi-Un	iversal	_		
Attachment: NA				
Shift Basis: 1 per day	1			
Data Source: (CRG)		_		
Cost Breakdown:				
<u>Cost Breakdown</u> .		Utilization %		
Ownership Cost/Hour:	\$99.15	NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
Total unit Cost/Hour: \$31	19.93			
	279.71			
$\frac{101}{101} \text{ Fleet Cost/Hour:} 31,$	2/9./1			
MATERIAL QUANTITI	ES			
Initial Volume: 200,000				
Swell factor: 1.000				
Loose volume: 200,000 L	.CY			
Source of estimated volume:	Baga 2.05.45			
	Page 2.05-45 Cat Handbook			
Source of estimated swell	Cat Handbook			
factor:				
HOURLY PRODUCTION	<u>N</u>			
Average push distance:	200 feet			
Unadjusted hourly	946.0 LCY/hr			
production:				
Materials consistency descript	ion: Loose stockpile 1.2			
Average push gradient: <u>5 %</u>				
	00 feet			
Average site altitude: 6,1				
	00 lbs/LCY			
Material weight: 2,0	00 lbs/LCY			
Material weight: 2,0				
Material weight: 2,0 Weight description: Us	00 lbs/LCY er Provided	Source	_	
Material weight: 2,0	00 lbs/LCY er Provided or	Source (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:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.150	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7757

Adjusted unit production:	733.81 LCY/hr
Adjusted fleet production:	2935.24 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.436/LCY

Total job time:	68.14 Hours
Total job cost:	\$87,196.19

Page 66 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#	C1996083
PROJECT IDENTIFICATIO Task #: 036 Date: 1/16/2013 User: SLB Agency or organization	State: Colorado County: Delta		Abbreviation: Filename:	None C083-036
HOURLY EQUIPMENT CO)ST			
Basic Machine: Cat D10T - Horsepower: 574 Blade Type: Semi-Unive Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Ownership Cost/Hour: Operating Cost/Hour:		 		
Ripper op. Cost/Hour: Operator Cost/Hour:	\$0.00 \$37.41	0 NA		
	0.71			
Total Fleet Cost/Hour: \$1,275 MATERIAL QUANTITIES Initial Volume: 175,000 Swell factor: 1.000 Loose volume: 175,000 LCY Source of estimated volume: Source of estimated swell factor: 1	0.71			
Total Fleet Cost/Hour: \$1,275 MATERIAL QUANTITIES Initial Volume: 175,000 Swell factor: 1.000 Loose volume: 175,000 LCY Source of estimated volume: Source of estimated swell	2.71 	 .4		
Total Fleet Cost/Hour: \$1,275 MATERIAL QUANTITIES Initial Volume: 175,000 Swell factor: 1.000 Loose volume: 175,000 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION Average push distance: Unadjusted hourly	200 feet 946.0 LCY/hr			
Total Fleet Cost/Hour: \$1,275 MATERIAL QUANTITIES Initial Volume: 175,000 Swell factor: 1.000 Loose volume: 175,000 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION Average push distance:	200 feet 946.0 LCY/hr Partly consolidated			
Total Fleet Cost/Hour: \$1,275 MATERIAL QUANTITIES Initial Volume: 175,000 Swell factor: 1.000 Loose volume: 175,000 LCY Source of estimated volume: Source of estimated swell factor: 4 HOURLY PRODUCTION Average push distance: Unadjusted hourly	200 feet 946.0 LCY/hr Partly consolidated			

Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.862	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5330

Adjusted unit production:	504.22 LCY/hr
Adjusted fleet production:	2016.88 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.634/LCY
	04 FR 11

Total job time:	86.77 Hours
Total job cost:	\$111,037.35

Page 68 of 312

Bowie No. 2 Mine		Permit Renewal 3	Permit/Job#:	C1996083
Date: 037 User: SLB	CATION State: Colorado County: Delta		Abbreviation: Filename:	None C083-037
	zation name: DRMS			
HOURLY EQUIPMEN	<u>NT COST</u>			
Horsepower: 574 Blade Type: Semi- Attachment: NA Shift Basis: 1 per Data Source: (CRC Cost Breakdown: Ownership Cost/Hour: Operating Cost/Hour: Ripper op. Cost/Hour: Operator Cost/Hour:	3) \$99.15 \$183.36 \$0.00 \$37.41	<u>Utilization %</u> NA 100 0 NA		
	\$319.93			
Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: Swell factor:1.000	\$1,279.71 <u>TIES</u>			
Total Fleet Cost/Hour: MATERIAL QUANTI Initial Volume: Swell factor:1.000	\$1,279.71 TIES 00 00 LCY	 2 4		
Total Fleet Cost/Hour:	\$1,279.71 <u>TIES</u>)0 <u>00 LCY</u> e: <u>TR-44 Submittal Page</u> Cat Handbook	 2 4		
Total Fleet Cost/Hour:	\$1,279.71 TIES 00 00 LCY e: Cat Handbook [ON _			
Total Fleet Cost/Hour:	\$1,279.71 TIES 00 00 LCY e: Cat Handbook [ON _			
Total Fleet Cost/Hour:	\$1,279.71 TIES 00 00 LCY e: TR-44 Submittal Page Cat Handbook ION 200 feet 946.0 LCY/hr ription: Partly consolidated 5 % 6,100 feet			

Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.862	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	504.22 LCY/hr
Adjusted fleet production:	2016.88 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.634/LCY

Total job time:	99.16 Hours
Total job cost:	\$126,899.83

Page 70 of 312

COMPACTION WORK

Bowie	No. 2 Mine	Per	mit Action: <u>P</u>	Permit Renew	wal 3 Pe	ermit/Job#	: <u>C1996083</u>
<u>PROJE</u>	CT IDENTIFIC	ATION					
Task i	#: 038	State:	Colorado		Abbr	eviation:	None
Date Use		County:	Delta		F	ilename:	C083-038
	Agency or organiza	 ntion name: DR	RMS				
HOUK	LY EQUIPMEN' Basic Machine:	CAT 815F			Homonowan		240
	Compactor Type:	Soil - tamping for			Horsepower: Shift Basis:		240 ber day
	compactor Type.	Son - tamping it			Data Source:		CRG)
Cost Bre	<u>akdown:</u>						
					Utilization %		
		ip Cost/Hour:	\$36.81		NA		
		ng Cost/Hour: or Cost/Hour:	\$79.64 \$23.76		100 NA		
	1	hit Cost/Hour:	\$140.2		NA		
	Total Fle	et Cost/Hour:	\$140.2	1			
MATE	RIAL QUANTIT	<u>IES</u>					
	Loose volume:	14,3		LCY	Shr	inkage fac	tor: 0.875
C	ompacted volume:	12,5	;55	CCY			
	Source	of estimated volu	ime: <u>Total o</u>	of all materia	l hauled to Gob Pi	le	
	Source of estim	ated shrinkage fa	ctor: Cat Ha	ndbook			
HOURI	LY PRODUCTIO	<u>DN</u>		Unadjust	ed hourly product	on = (W x)	<u>SxLxC)/P</u>
	Compa	cted width per pas	ss (W):	6.50	feet		
		ge Compactor Spe		4.00	mph		
		hickness of each l		8.00	inches		
		Conversion Consta		16.3		/12in./27c	u.ft.)
	-	r of machine pass	ses (P)	3	passes		
	Unadhisted		· · · · · · · · · · · · · · · · · · ·		CCV/h-		
Job Con	·	Hourly Unit Prod	· · · · · · · · · · · · · · · · · · ·	1,130.13	CCY/ho	ur	
Job Conc	dition Correction Fa	•	uction:	1,130.13	CCY/ho 	ur	
Job Conc	dition Correction Fa	<u>ctors</u>	uction: Source	1,130.13		ur	
	·	•	Uction: Source (CAT HB)	1,130.13 Site Altit		ur	
Jo	dition Correction Fa	<u>ctors</u>	uction: Source	1,130.13 Site Altit		ur	
Jo	dition Correction Fa Altitude Adj: ob Efficiency: et Correction:	1.00 0.83 0.8300	Source (CAT HB) (1 shift/day) multiplier	1,130.13 Site Altit	rude: <u>6,400</u> feet	ur	
Jo	dition Correction Fa Altitude Adj: ob Efficiency: et Correction: Adju	<u>1.00</u> 0.83	uction: Source (CAT HB) (1 shift/day) multiplier Production:	1,130.13 Site Altit		ur	
Jo N	dition Correction Fa	1.00 0.83 0.8300 sted Hourly Unit	uction: Source (CAT HB) (1 shift/day) multiplier Production:	1,130.13 Site Altit 	cude: <u>6,400</u> feet	ur	
Jo N JOB TI	dition Correction Fa Altitude Adj: ob Efficiency: et Correction: Adju	1.00 0.83 0.8300 sted Hourly Unit	uction: Source (CAT HB) (1 shift/day) multiplier Production: Production:	1,130.13 Site Altit 938.01 938.01	cude: <u>6,400</u> feet	ur 13.39	Hours
Jo N JOB TI Fleet	dition Correction Fa	1.00 0.83 0.8300 sted Hourly Unit sted Hourly Fleet Compactor	uction: Source (CAT HB) (1 shift/day) multiplier Production: Production:	1,130.13 Site Altit 938.01 938.01	ude: <u>6,400</u> feet <u>CCY/Hour</u> <u>CCY/Hour</u>		

Page 71 of 312

COMPACTION WORK

Bowie No. 2 Mine	Permit Action:	Permit Renewa	al 3 Pe	ermit/Job#:	C1996083
PROJECT IDENTIFICAT	ION				
Task #: 039	State: Colorado		Abbr	eviation:	None
Date: 1/16/2013	County: Delta		F	ilename:	C083-039
User: SLB					
Agency or organization	n name: DRMS				
HOURLY EQUIPMENT C	OST				
	AT 815F		Horsepower:	2	240
Compactor Type: So	il - tamping foot		Shift Basis:	1 pe	er day
			Data Source:		RG)
Cost Drashdovra			-		
Cost Breakdown:		1	Utilization %		
Ownership C	Cost/Hour: \$36.	81	NA		
Operating C			100		
Operator C			NA		
Total Unit C					
Total Fleet C					
	φ 14 0				
MATERIAL QUANTITIES	<u>5</u>				
Loose volume:	200,000	LCY	Shr	inkage facto	or: 0.900
Compacted volume:	180,000	CCY			
Source of	estimated volume: Page	2.05-45			
Source of estimated	<u> </u>	Iandbook			
	<u> </u>				
HOURLY PRODUCTION		Unadjuste	d hourly product	on = (W x)	<u>S x L x C) / P</u>
	width per pass (W):	6.50	feet		
	ompactor Speed (S):	4.00			
e	ompación speed (s).	4.00	mph		
Compacted thick	tness of each lift (L):	10.00	inches		
Compacted thick Conv	teness of each lift (L):	10.00 16.3	inches	/12in./27cu	l.ft.)
Compacted thick Conv Required number of	rness of each lift (L): version Constant (C): machine passes (P):	10.00 16.3 3	inches (5,280ft passes		l.ft.)
Compacted thick Conv Required number of	teness of each lift (L):	10.00 16.3	inches (5,280ft		.ft.)
Compacted thick Conv Required number of	cness of each lift (L): version Constant (C): machine passes (P): urly Unit Production:	10.00 16.3 3 1,412.67	inches (5,280ft passes		l.ft.)
Compacted thick Conv Required number of Unadjusted Hou	cness of each lift (L): version Constant (C): machine passes (P): urly Unit Production:	10.00 16.3 3 1,412.67	inches (5,280ft passes CCY/ho		ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj:	cness of each lift (L): version Constant (C): cmachine passes (P): urly Unit Production: cs Source 1.00	10.00 16.3 3 1,412.67 Site Altitu	inches (5,280ft passes CCY/ho		l.ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj:	cness of each lift (L): version Constant (C): rachine passes (P): urly Unit Production: rs Source	10.00 16.3 3 1,412.67 Site Altitu	inches (5,280ft passes CCY/ho		l.ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency:	cness of each lift (L): version Constant (C): cmachine passes (P): urly Unit Production: cs Source 1.00	10.00 16.3 3 1,412.67 Site Altitu	inches (5,280ft passes CCY/ho		ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency: Net Correction: 0	cness of each lift (L): version Constant (C): Emachine passes (P): urly Unit Production: Source 1.00 (CAT HB 0.83 (1 shift/dat .8300 multiplier	10.00 16.3 3 1,412.67 Site Altitu () y)	inches (5,280ft passes CCY/ho de: <u>6,100</u> feet		l.ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency: Net Correction: 0 Adjusted	cness of each lift (L): version Constant (C): Emachine passes (P): urly Unit Production: Instruction: Source 1.00 (CAT HB) 0.83 (1 shift/da) .8300 multiplier 1 Hourly Unit Production:	10.00 16.3 3 1,412.67 Site Altitu () y) 1,172.51	inches (5,280ft passes CCY/ho de: <u>6,100</u> feet		l.ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency: Net Correction: 0 Adjusted	cness of each lift (L): version Constant (C): Emachine passes (P): urly Unit Production: Source 1.00 (CAT HB 0.83 (1 shift/dat .8300 multiplier	10.00 16.3 3 1,412.67 Site Altitu () y)	inches (5,280ft passes CCY/ho de: <u>6,100</u> feet		ft)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency: Net Correction: 0 Adjusted	cness of each lift (L): version Constant (C): Emachine passes (P): urly Unit Production: Instruction: Source 1.00 (CAT HB) 0.83 (1 shift/da) .8300 multiplier 1 Hourly Unit Production:	10.00 16.3 3 1,412.67 Site Altitu () y) 1,172.51	inches (5,280ft passes CCY/ho de: <u>6,100</u> feet		l.ft.)
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency: Net Correction: O Adjusted Adjusted	cness of each lift (L): version Constant (C): Emachine passes (P): urly Unit Production: Instruction: Source 1.00 (CAT HB) 0.83 (1 shift/da) .8300 multiplier 1 Hourly Unit Production:	10.00 16.3 3 1,412.67 Site Altitu () () () () () () () () () ()	inches (5,280ft passes CCY/ho de: <u>6,100</u> feet		ft.) Hours
Compacted thick Conv Required number of Unadjusted Hou Job Condition Correction Factor Altitude Adj: Job Efficiency: Net Correction: O Adjusted JOB TIME AND COST	cness of each lift (L): version Constant (C): f machine passes (P): urly Unit Production: rs Source 1.00 (CAT HB 0.83 (1 shift/da) .8300 multiplier 1 Hourly Unit Production: Hourly Fleet Production:	10.00 16.3 3 1,412.67 Site Altitu (a) (b) (c) (c) (c) (c) (c) (c) (c) (c	inches (5,280ft passes CCY/ho de: <u>6,100</u> feet <u>CCY/Hour</u> <u>CCY/Hour</u>	ur	Hours

Page 72 of 312

COMPACTION WORK

Bowie No. 2 Mine	Permit Action:	Permit Renewa	al 3 Pe	ermit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 040	State: Colorado		Abbr	eviation: N	one
Date: 1/16/2013	County: Delta				083-040
User: SLB					
Agency or organ	ization name: DRMS				
HOURLY EQUIPME	NT COST				
Basic Machine:	: CAT 815F		Horsepower:	240)
Compactor Type:	: Soil - tamping foot		Shift Basis:	1 per c	lay
			Data Source:	(CRC	5)
Cost Breakdown:					
			Utilization %		
	ship Cost/Hour: \$36		NA		
	ating Cost/Hour: \$79 rator Cost/Hour: \$23		100 NA		
-	Unit Cost/Hour: \$25		INA		
Total I	Fleet Cost/Hour: \$140				
MATERIAL QUANT	<u>ITIES</u>				
Loose volume		LCY	Shri	inkage factor:	0.900
Loose volume Compacted volume	· · · · · · · · · · · · · · · · · · ·	LCY CCY	Shri	nkage factor:	0.900
Compacted volume	e: 157,500 rce of estimated volume: TR-4	CCY 4 Page 4	Shri	inkage factor:	0.900
Compacted volume Sour	e: 157,500 rce of estimated volume: TR-4	CCY	Shri	inkage factor:	0.900
Compacted volume Sour	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H	CCY 4 Page 4 Handbook	Shri 1 <u>hourly producti</u>		
Compacted volume Sour Source of est	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H	CCY 4 Page 4 Handbook			
Compacted volume Source Source of est HOURLY PRODUCT Com Aver	e:	CCY 4 Page 4 Handbook Unadjuster	d <u>hourly producti</u>		
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H CION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L):	CCY 4 Page 4 Handbook Unadjuster 6.50 4.00 10.00	l <u>hourly producti</u> feet mph inches	on = (W x S x	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H CION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C):	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3	d <u>hourly producti</u> feet mph inches (5,280ft.		<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H CION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): uber of machine passes (P):	CCY <u>4 Page 4</u> <u>4 nadbook</u> <u>4 nadjustee</u> <u>6.50</u> <u>4.00</u> <u>10.00</u> <u>16.3</u> <u>3</u>	d <u>hourly producti</u> feet mph inches (5,280ft. passes	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H CION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): her of machine passes (P): ed Hourly Unit Production: Conversion	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67	l <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TON pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): nber of machine passes (P): ed Hourly Unit Production: Factors	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67	d <u>hourly producti</u> feet mph inches (5,280ft. passes	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): ber of machine passes (P): ed Hourly Unit Production: Factors Source	CCY 4 Page 4 Handbook Unadjustee 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu	l <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): aber of machine passes (P): ed Hourly Unit Production: Factors Source 1.00 (CAT HE	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu	l <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TON pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): ther of machine passes (P): ed Hourly Unit Production: Factors Source 1.00 (CAT HE	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu	l <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho	<u>on = (W x S x</u> /12in./27cu.ft	<u>x L x C) / F</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TON pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): ther of machine passes (P): ed Hourly Unit Production: Factors Source 1.00 (CAT HE 0.83 (1 shift/da 0.8300 multiplier	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu () y)	l <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho de: <u>6,100</u> feet	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction Altitude Adj: Job Efficiency: Net Correction: Add	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H CION pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): her of machine passes (P): ed Hourly Unit Production: Factors Source 1.00 (CAT HE 0.83 (1 shift/da	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu	l <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction Altitude Adj: Job Efficiency: Net Correction: Add	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H CION pacted width per pass (W): rage Compactor Speed (S): dhickness of each lift (L): Conversion Constant (C): her of machine passes (P): ed Hourly Unit Production: Factors Factors Source 1.00 (CAT HE 0.83 (1 shift/da 0.8300 multiplier djusted Hourly Unit Production:	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu 3) y) 1,172.51	d <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho de: <u>6,100</u> feet	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction Altitude Adj: Job Efficiency: Net Correction: Add	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TON pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): ber of machine passes (P): ed Hourly Unit Production: Factors Source 1.00 (CAT HE 0.83 (1 shift/da 0.8300 multiplier djusted Hourly Unit Production: ljusted Hourly Fleet Production:	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu 3) y) 1,172.51	d <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho de: <u>6,100</u> feet	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Compacted volume Source of est HOURLY PRODUCT Com Aver Compacted Required num Unadjuste Job Condition Correction Altitude Adj: Job Efficiency: Net Correction: Add	e: 157,500 rce of estimated volume: TR-4 timated shrinkage factor: Cat H TON pacted width per pass (W): rage Compactor Speed (S): d thickness of each lift (L): Conversion Constant (C): ber of machine passes (P): ed Hourly Unit Production: Factors Source 1.00 (CAT HE 0.83 (1 shift/da 0.8300 multiplier djusted Hourly Unit Production: ljusted Hourly Fleet Production:	CCY 4 Page 4 Handbook Unadjusted 6.50 4.00 10.00 16.3 3 1,412.67 Site Altitu 3) y) 1,172.51 1,172.51	d <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho de: <u>6,100</u> feet	<u>on = (W x S x</u> /12in./27cu.ft	<u>(LxC)/P</u>
Page 73 of 312

Bowie No. 2 Mine		Permit Action:	Permit Renew	wal 3 P	ermit/Job#:	C1996083
PROJECT IDENT	IFICATION					
Task #: 041	Stat	te: Colorado		Abb	reviation:	None
Date: $1/16/201$					Filename:	C083-041
User: SLB		<u></u>				
Agency or or	ganization name:	DRMS				
HOURLY EQUIP	MENT COST					
Basic Mach	ine: CAT 815F			Horsepower:	2	240
Compactor T	ype: Soil - tampir	ng foot		Shift Basis:	1 pe	er day
-	· · ·	-		Data Source:	(Ĉ	CRG)
Cost Breakdown:						
0.1	vnership Cost/Hour:	\$36.	81	Utilization % NA		
	perating Cost/Hour:	\$30.		100	-	
	Operator Cost/Hour:	\$23.		NA	-	
	otal Unit Cost/Hour:	\$140			-	
То	tal Fleet Cost/Hour:	\$140	.21			
MATERIAL QUA	NTITIES					
Loose vol		200,000	LCY	Sh	inkage facto	or: 0.870
Compacted vol		74,000	- CCY		innuge ruet	0.070
-		/				
Source of	Source of estimated f estimated shrinkag	volume: Volu	me XI, Page 1 Iandbook			
- S	Source of estimated f estimated shrinkag	volume: Volu	me XI, Page 1 Iandbook	ed hourly product	ion = (W x)	S x L x C) / P
Source of HOURLY PRODU	Source of estimated f estimated shrinkag [CTION Compacted width per	volume: Volu e factor: Cat F	me XI, Page 1 Iandbook Unadjust 6.50	ed hourly product	ion = (W x)	<u>S x L x C) / P</u>
Source of HOURLY PRODU C	Source of estimated f estimated shrinkag ICTION Compacted width per Average Compactor	volume: Volu e factor: Cat H · pass (W): Speed (S):	me XI, Page 1 Iandbook Unadjust 6.50 4.00	ed <u>hourly product</u> feet fph	ion = (W x	S x L x C) / P
Source of HOURLY PRODU C	Source of estimated f estimated shrinkag ICTION Compacted width per Average Compactor acted thickness of ea	volume: Volu e factor: Cat H · pass (W): Speed (S): ch lift (L):	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00	ed <u>hourly product</u> feet feet mph inches		
Source of HOURLY PRODU C A Compa	Source of estimated f estimated shrinkag COMPACTEDN Compacted width per Average Compactor acted thickness of ea Conversion Co	volume: Volu e factor: Cat H · pass (W): Speed (S): ch lift (L): nstant (C):	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3	ed <u>hourly product</u> feet feet mph inches (5,280ft	<u>ion = (W x)</u> ./12in./27cu	
Source of HOURLY PRODU C A Compa Required b	Source of estimated f estimated shrinkag COMPACTEDN Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine	volume: Volu e factor: Cat H Speed (S): Ch lift (L): Ch lift (C): Ch l	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3	ed <u>hourly product</u> feet mph inches (5,280ft passes	./12in./27cu	
Source of HOURLY PRODU C A Compa Required t Unadj	Source of estimated f estimated shrinkag Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F	volume: Volu e factor: Cat H Speed (S): Ch lift (L): Ch lift (C): Ch l	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho	./12in./27cu	
Source of HOURLY PRODU C A Compa Required b	Source of estimated f estimated shrinkag Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F	volume: Volu e factor: Cat H Speed (S): ch lift (L): nstant (C): passes (P): Production:	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67	ed <u>hourly product</u> feet mph inches (5,280ft passes	./12in./27cu	
Source of HOURLY PRODU C A Compa Required t Unadj Job Condition Correct	Source of estimated f estimated shrinkag Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F ion Factors	volume: Volu e factor: Cat H Speed (S): ch lift (L): nstant (C): passes (P): Production: Source	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho	./12in./27cu	
Source of HOURLY PRODU G A Compa Required to Unadj Job Condition Correct Altitude Adj:	Source of estimated f estimated shrinkag COMPACTION Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F ion Factors :1.00	volume: Volu e factor: Cat H Speed (S): Speed (S): Ch lift (L): Ch lift (L): Ch lift (C): Ch lif	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho	./12in./27cu	
Source of HOURLY PRODU C A Compa Required t Unadj Job Condition Correct	Source of estimated f estimated shrinkag COMPACTION Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit P ion Factors : 1.00 . 0.83	volume: Volu e factor: Cat H Speed (S): ch lift (L): nstant (C): passes (P): Production: Source	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho	./12in./27cu	
Source of HOURLY PRODU C A Compa Required t Unadj Job Condition Correct Altitude Adj: Job Efficiency:	Source of estimated f estimated shrinkag Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F ion Factors : 1.00 : 0.83 : 0.8300	volume: Volu e factor: Cat H Speed (S): ch lift (L): nstant (C): passes (P): Production: (CAT HB (1 shift/da multiplier	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho rude: <u>5,900</u> feet	./12in./27cu	
Source of HOURLY PRODU C A Compa Required t Unadj Job Condition Correct Altitude Adj: Job Efficiency:	Source of estimated f estimated shrinkag COMPACTION Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F ion Factors : 1.00 : 0.83	volume: Volu e factor: Cat H Speed (S): Speed (S): Ch lift (L): Speed (S): Ch lift (L): Speed (C): Ch lift (C): Source (CAT HB) (CAT HB) (1 shift/da) multiplier Unit Production: CAT HB) (1 shift/da) Source (CAT HB) (1 s	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho	./12in./27cu	
Source of HOURLY PRODU C A Compa Required t Unadj Job Condition Correct Altitude Adj: Job Efficiency:	Source of estimated f estimated shrinkag COMPACTION Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F ion Factors : 1.00 : 0.83 : 0.8300 Adjusted Hourly U Adjusted Hourly F	volume: Volu e factor: Cat H Speed (S): Speed (S): Ch lift (L): Speed (S): Ch lift (L): Speed (C): Ch lift (C): Source (CAT HB) (CAT HB) (1 shift/da) multiplier Unit Production: CAT HB) (1 shift/da) Source (CAT HB) (1 s	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/hour cude: <u>5,900</u> feet	./12in./27cu	
Source of HOURLY PRODU G A Compa Required to Unadj Job Condition Correct Altitude Adj: Job Efficiency: Net Correction:	Source of estimated f estimated shrinkag (CTION Compacted width per Average Compactor acted thickness of ea Conversion Co number of machine justed Hourly Unit F ion Factors : 1.00 : 0.83 : 0.8300 Adjusted Hourly U Adjusted Hourly F	volume: Volu e factor: Cat H Speed (S): Speed (S): Ch lift (L): Speed (S): Ch lift (L): Speed (C): Ch lift (C): Source (CAT HB) (CAT HB) (1 shift/da) multiplier Unit Production: CAT HB) (1 shift/da) Source (CAT HB) (1 s	me XI, Page 1 Iandbook Unadjust 6.50 4.00 10.00 16.3 3 1,412.67 Site Altit)) y) 1,172.51 1,172.51	ed <u>hourly product</u> feet mph inches (5,280ft passes CCY/hour cude: <u>5,900</u> feet	./12in./27cu	

Page 74 of 312

SCRAPER TEAM WORK

Task description:	Haul Top	1' from S	Stockpile	Area to Gob Pil	le #1			
Site: Bowie No. 2 Mine	Site: Bowie No. 2 Mine Permit				ul 3 P	ermit/Job#:	C19960	83
PROJECT IDENT	TIFICATION							
Task #: 042 Date: 1/16/20 User: SLB			Colorado Delta			reviation: Filename:	None C083-042	2
Agency or o	rganization name:	DRM	IS					
HOURLY EQUIP	MENT_			COSTS	Shift basis: <u>1 per</u>	r day		
			Equipme	ent Description				
		Scraper:		G w/push-pull				
Suppor	rt Equipment -Loa	-Dozer:	NA NA					
Suppor		p Area:	NA					
Road Mai	ntenance - Motor		NA					
	-Water	Truck:	NA					
<u>Cost Breakdown</u> :	Scraper Wo	rk Team		Support Equi	ipment		ntenance E	
	Scraper	Do	zer	Load Area	Dump Area	Motor	Grader	Water Truck
%Utilization-machine:	100	N	A	NA	NA	N	A	NA
Ownership cost/hour:	\$65.78	N	A	NA	NA	N	A	NA
Operating cost/hour:	\$182.63	N	A	NA	NA	N	A	NA
Ripper op. cost/hour:	NA	N	A	NA	NA	N	A	NA
Operator cost/hour	\$30.02	N	А	NA	NA	N	A	NA

Group Subtotals: Work: Total work team cost/hour: **\$556.86**

\$278.43

2

Unit Subtotals:

Number of Units:

MATERIAL QUANTITIES

Initial volume:	6,453	CCY	Swell factor:	1.000
Loose volume:	6,453	LCY		
Cour	as of actimated volume.	Division	Declamation Mini	na la Cat

NA

0

\$556.86

 Source of estimated volume:
 Division of Reclamation, Mining & Safety

 Source of estimated swell factor:
 Cat Handbook

NA

0

Support:

NA

0

\$0.00

NA

0

Maint:

NA

0

\$0.00

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	User Provided	Heaped Volume:	22.00	LCY
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: <u>0.90</u> Minutes <u>0.60</u> Minutes

Job Condition Correction:

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: **1.37** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3200.00	0.00	3.00	3.00	2874	1.23
			I			I

Return Time: **1.23** minutes

Total Scraper team cycle time:	4.10	minutes
Adjusted for job conditions:	442.29	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	442.29	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	442.29	LCY/Hour

Unadjusted unit production/hour: 532.88 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	14.59	Hours
Unit cost:	\$1.259	/LCY	Total job cost:	\$8,124.49	

Site Altitude: 6750 feet

Page 76 of 312

SCRAPER TEAM WORK

]	Task description: Place 4' of Cover on Gob Pile #1									
Site:	Site: Bowie No. 2 Mine Permit			it Action:	Permit Renewa	13 Per	mit/Job#:	C19960	83	
]	PROJECT	<u>IDEN'</u>	TIFICATION							
	Task #:	043	:	State:	Colorado		Abbrev	viation:	None	
	Date:	1/16/20	013 Co	ounty:	Delta		Fil	ename:	C083-043	3
	User:	SLB								
	Ag	ency or o	organization name	: DRN	4S					
]	HOURLY	EQUI	PMENT_		Equipme	COSTS ent Description	hift basis: <u>1 per c</u>	<u>lay</u>		
			-2	Scraper:	Cat 627	G w/push-pull				
				-Dozer:	NA					
		Suppo	rt Equipment -Loa		NA					
	-Dump Area:			NA						
	Road Maintenance – Motor Grader: -Water Truck:				NA					
			-wate	r Truck:	NA					
<u>(</u>	<u>Cost Break</u>	down:	Scraper Wo	ork Team	L	Support Equi	pment	Main	tenance E	
			Scraper	Do	ozer	Load Area	Dump Area	Motor C	Grader	Water Truck

	Scraper	Dozer	Load Area	Dump Alca	Wotor Orader	Water Frack
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **<u>\$556.86</u>**

MATERIAL QUANTITIES

Initial volume:	34,720
Loose volume.	

40,449 LCY Swell factor: 1.165

Source of estimated volume: Page 3.02-4 Source of estimated swell factor:

Cat Handbook

CCY

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	Decomposed rock - 50% Rock,	Heaped Volume:	22.00	LCY
	50% Earth			
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Page 77 of 312

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: <u>0.90</u> Minutes <u>0.60</u> Minutes

Job Condition Correction:

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: **1.82** minutes

466.17

Return Route:

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

Total Scraper team cycle time:**3.89**minutesAdjusted for job conditions:466.17LCY/HourSelected Number of Scrapers:2Scraper(s)Adjusted single scraper team (unit) hourly production:466.17LCY/Hour

Adjusted multiple scraper team (fleet) hourly production:

Unadjusted unit production/hour: <u>561.65</u> LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	86.77	Hours
Unit cost:	\$1.195	/LCY	Total job cost:	\$48,317.67	

Site Altitude: 6750 feet

LCY/Hour

Page 78 of 312

SCRAPER TEAM WORK

Task description:	Replace Su	ubsoil fro	om Stockj	pile to Gob Pile	#2			
Site: Bowie No. 2 Mine		Permi	t Action:	Permit Renewa	ul 3 Pe	ermit/Job#:	C19960	83
PROJECT IDENT	TIFICATION							
Task #: 044	S	State:	Colorado		Abbro	eviation:	None	
Date: 1/16/20 User: SLB	013 Co	unty:	Delta		F	ilename:	C083-044	1
	rganization name:	DRM	15					
HOURLY EQUIP	<u>MENT</u>			COSTS	Shift basis: <u>1 per</u>	<u>day</u>		
			Equipme	ent Description				
		craper:		G w/push-pull				
		-Dozer:	NA					
Suppor	t Equipment -Loa		NA					
Dood Moi	-Dum ntenance –Motor	p Area:	NA NA					
Koau Iviai		Truck:	NA					
	() diel	Truck.	1111					
Cost Breakdown:	Scraper Wo	rk Team		Support Equi	ipment	Mai	ntenance E	quipment
	Scraper		zer	Load Area	Dump Area	Motor	Grader	Water Truck
%Utilization-machine:	100	N	A	NA	NA	N	A	NA
Ownership cost/hour:	\$65.78	N	A	NA	NA	N	A	NA
Operating cost/hour:	\$182.63	N	A	NA	NA	N	A	NA
Ripper op. cost/hour:	NA	N	A	NA	NA	N	A	NA
Operator cost/hour:	\$30.02	N	A	NA	NA	N	A	NA

Total work team cost/hour: \$556.86

MATERIAL QUANTITIES

Initial volume: Loose volume:

Unit Subtotals:

Number of Units:

Group Subtotals:

LCY 64,075

NA

0

Support:

Swell factor: 1.165

NA

0

0.00

NA

0

Maint:

NA

0

\$0.00

Source of estimated volume: Appendix A Source of estimated swell factor:

\$278.43

2

55,000

Work:

Cat Handbook

CCY

NA

0

\$556.86

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	Decomposed rock - 50% Rock,	Heaped Volume:	22.00	LCY
	50% Earth			
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Page 79 of 312

Site Altitude: 6750 feet

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: <u>0.90</u> Minutes <u>0.60</u> Minutes

Job Condition Correction:

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

Travel Time:

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

Haul Route:

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

Haul Time: 0.97 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	5.00	0.00	2921	0.44
				Return Time:	0.44	minutes
			Total Scraper	team cycle time:	2.91	minutes
			Adjusted fo	r job conditions:	623.16	LCY/Hour
			Selected Nun	nber of Scrapers:	2	Scraper(s)
	Adjusted single scraper team (unit) hourly production:				623.16	LCY/Hour

Adjusted single scraper team (tint) hourly production: 023.16 IC 1/Hour Adjusted multiple scraper team (fleet) hourly production: 623.16 IC Y/Hour

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

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	102.82	Hours
Unit cost:	\$0.894	/LCY	Total job cost:	\$57,257.50	

Page 80 of 312

NA

0

Maint:

NA

0

\$0.00

SCRAPER TEAM WORK

Task description: Replace Subsoil from Stockpile to Gob Pile #2									
Site: Bowie No. 2 Mine		Permi	t Action:	Permit Renewa	13 Per	mit/Job#:	C1996	5083	
PROJECT IDENTIFICATION									
Task #: 045		State:	Colorado		Abbre	viation:	None		
Date: 1/16/20 User: SLB	013 Co	unty:	Delta		Fi	lename:	C083-04	45	
	rganization name:	DRM	IS						
HOURLY EQUIP	MENT			COSTS	hift basis: <u>1 per o</u>	<u>day</u>			
			Equipme	ent Description					
	-5	Scraper:		'G w/push-pull					
		-Dozer:	NA						
Suppor	rt Equipment -Loa		NA						
DeedMa	-Dum ntenance –Motor	p Area:	NA NA						
Koau Iviai		Truck:	NA NA						
	- \\ ater	TTUCK.							
Cost Breakdown:	Scraper Wo	ork Team		Support Equi	pment	Mai	ntenance	Equipment	
	Scraper	Do		Load Area	Dump Area		Grader	Water Truck	
%Utilization-machine:	100	N	A	NA	NA	N	A	NA	
Ownership cost/hour:	\$65.78	N	A	NA	NA	N	A	NA	
Operating cost/hour:	\$182.63	N	A	NA	NA	N	A	NA	
Ripper op. cost/hour:	NA	N	A	NA	NA	N	A	NA	
Operator cost/hour:	\$30.02	N	A	NA	NA	N	A	NA	

NA

0

Support:

Total work team cost/hour: **<u>\$556.86</u>**

MATERIAL QUANTITIES

Initial volume:	118,196
Loose volume:	1

Unit Subtotals:

Number of Units:

Group Subtotals:

137,698 LCY

NA

0

\$556.86

CCY

\$278.43

2

Work:

Swell factor: 1.165

NA

0

0.00

Source of estimated volume: Appendix A Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	Decomposed rock - 50% Rock,	Heaped Volume:	22.00	LCY
	50% Earth			
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Page 81 of 312

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: <u>0.90</u> Minutes <u>0.60</u> Minutes

Job Condition Correction:

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2400.00	10.00	5.00	15.00	734	3.29

Haul Time: **3.29** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2400.00	-10.00	5.00	-5.00	2938	0.86

Return Time: **0.86** minutes

Total Scraper team cycle time: Adjusted for job conditions:	5.65 320.96	 LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	320.96	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	320.96	LCY/Hour

Unadjusted unit production/hour: <u>386.70</u> LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	429.02	Hours
Unit cost:	\$1.735	/LCY	Total job cost:	\$238,906.47	

Site Altitude: 6100 feet

Page 82 of 312

SCRAPER TEAM WORK

	Task descrip	otion:	Place 1.6'	of Cove	r on Gob	Pile #3				
Site:	Bowie No	o. 2 Mine		Perm	it Action:	Permit Renewa	13 Per	mit/Job#:	C1996	5083
	PROJECI	[IDEN]	TIFICATION							
	Task #:	046	:	State:	Colorado		Abbrev	viation:	None	
	Date:	1/16/20	013 Co	unty:	Delta		Fil	ename:	C083-0	46
	User:	SLB		• _						
	HOURLY	EQUIP	<u>PMENT</u>		Equipm	COSTS ent Description	hift basis: <u>1 per c</u>	lay		
			-5	Scraper:	Cat 62	7G w/push-pull				
				-Dozer:	NA					
		Suppor	rt Equipment -Loa	d Area:	NA					
				p Area:	NA					
]	Road Mai	intenance – Motor		NA					
_			-Water	r Truck:	NA					
	<u>Cost Break</u>	<u>down</u> :	Scraper Wo			Support Equi	1	1		Equipment
			Scraper	Do	ozer	Load Area	Dump Area	Motor	Grader	Water Truck

	~····			r		
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$556.86

MATERIAL QUANTITIES

Initial	volume:
Loose	volume:

48,375

Swell factor: 1.250

Source of estimated volume: Appendix A Source of estimated swell factor:

38,700

Cat Handbook

CCY

LCY

HOURLY PRODUCTION

		Scraper Bowl (volu	me) Basis:	
Material weight:	2,650 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	User Provided	Heaped Volume:	22.00	LCY
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	19.92 LCY	Adjusted Capacity:	18.85	LCY

Site Altitude: 6100 feet

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: 0.90 Minutes 0.60 Minutes

Job Condition Correction:

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

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

Haul Time: **1.35** minutes

Return Route:

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

Return Time: **1.07** minutes

Total Scraper team cycle time:	3.92	minutes
Adjusted for job conditions:	478.94	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	478.94	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	478.94	LCY/Hour

Unadjusted unit production/hour: <u>577.04</u> LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	101.00	Hours
Unit cost:	\$1.163	/LCY	Total job cost:	\$56,244.80	—

Reclamation Cost Estimate RN-3

Bowie No. 2 Mine	P	ermit Action:	Permit Renev	wal 3 I	Permit/Job#	: <u>C1996083</u>
PROJECT IDENTI	FICATION					
Task #: 050	State	: Colorado		Abb	reviation:	None
Date: $1/16/2013$		-			Filename:	C083-050
1:03:31 F	5					
User: SLB						
	ganization name: I	ORMS				
HOURLY EQUIPM				11		240
Basic Machi		. fo ot		Horsepower:		240
Compactor Ty	pe: Soil - tamping	g foot		Shift Basis:		ber day
				Data Source:	((CRG)
Cost Breakdown:						
				Utilization %		
Own	nership Cost/Hour:	\$3	6.81	NA		
Op	erating Cost/Hour:	\$7	9.64	100	_	
Ō	perator Cost/Hour:	\$2	3.76	NA	_	
Tot	al Unit Cost/Hour:	\$14	40.21			
Tota	al Fleet Cost/Hour:	\$1 4	40.21	-		
MATERIAL QUAN	TITIES					
MATERIAL QUAN						
Loosa volu		0.112	LCV	Sh	rinkaga faa	tor: 0.975
Loose volu		9,112	LCY	Sh	rinkage fac	tor: <u>0.875</u>
Loose volu Compacted volu		9,112 1,723	LCY CCY	Sh	rinkage fac	tor: <u>0.875</u>
Compacted volu	Ime: 54 ource of estimated vol	1,723 olume: <u>Tot</u>	CCY		rinkage fac	tor: <u>0.875</u>
Compacted volu	ime: 54	1,723 olume: <u>Tot</u>	CCY		rinkage fac	tor: <u>0.875</u>
Compacted volu S Source of	ume: 54 ource of estimated ve estimated shrinkage	1,723 olume: <u>Tot</u>	CCY tal of All Backfi Handbook	illing Tasks		
Compacted volu S Source of HOURLY PRODUC	ume: 54 ource of estimated ve estimated shrinkage	olume: <u>Tot</u> factor: <u>Cat</u>	CCY tal of All Backfi Handbook Unadjust	illing Tasks ted <u>hourly produc</u>		
Compacted volu S Source of HOURLY PRODUC	ume: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p	1,723 olume: <u>Tot</u> factor: <u>Cat</u> pass (W):	CCY tal of All Backfi Handbook Unadjus 6.50	illing Tasks ted <u>hourly produc</u> feet		
Compacted volu S Source of HOURLY PRODUC Co A	ume: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p verage Compactor S	h 1,723 olume: Tot factor: Cat pass (W): peed (S):	CCY tal of All Backfi Handbook Unadjus 6.50 4.00	illing Tasks ted <u>hourly produc</u> feet feet		
Compacted volu S Source of HOURLY PRODUC Co A	ume: 54 ource of estimated version 54 estimated shrinkage 55 CTION 55 ompacted width per presented width per presented compactor Sected thickness of each	h 1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L):	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00	illing Tasks ted hourly produc feet feet inches	tion = (W x	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac	ume: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p verage Compactor S cted thickness of each Conversion Cons	11,723 olume: Tot factor: Cat pass (W):	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3	ted <u>hourly produc</u> feet mph inches (5,280f		<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODU(Co A Compac Required n	ume: 54 ource of estimated version 54 estimated shrinkage 55 CTION 55 ompacted width per presented width per presented compactor Sected thickness of each	11,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P):	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00	illing Tasks ted hourly produc feet feet inches	<u>tion = (W x</u> t./12in./27c	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODU(Co A Compac Required n	Ime: 54 ource of estimated version estimated shrinkage CTION ompacted width per preserver verage Compactor Sected thickness of each Conversion Consumber of machine parameter umber of machine parameter usted Hourly Unit Preserver	11,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P):	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13	ted <u>hourly produc</u> feet mph inches (5,280f passes	<u>tion = (W x</u> t./12in./27c	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju	Ime: 54 ource of estimated version estimated shrinkage CTION ompacted width per preserver verage Compactor Sected thickness of each Conversion Consumber of machine parameter umber of machine parameter usted Hourly Unit Preserver	11,723 olume: Tot factor: Cat pass (W):	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti	ted hourly produc feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27c	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction	ume: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p verage Compactor S cted thickness of each Conversion Cons umber of machine pa isted Hourly Unit Pro on Factors	11,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P): oduction: Source	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e	ted hourly produc feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27c	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj:	ime: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p verage Compactor S cted thickness of each Conversion Cons umber of machine pa isted Hourly Unit Pro on Factors 1.00	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): oduction: Sourc (CAT F	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB)	ted hourly produc feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27c	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency:	ime: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p verage Compactor S cted thickness of each Conversion Cons umber of machine pa isted Hourly Unit Pre on Factors 1.00 0.83	11,723 olume: Tot factor: Cat pass (W):	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay)	ted hourly produc feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27c	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	ime: 54 ource of estimated verticated shrinkage 54 estimated shrinkage 55 CTION 55 ompacted width per proverage Compactor Sected thickness of each Conversion Consumber of machine parasted Hourly Unit Proton Factors 1.00 0.83 0.8300 0.8300	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): oduction: oduction: (CAT F (1 shift/c multiplie	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay) er	illing Tasks ted hourly produc feet mph inches (5,280f passes CCY/h tude: <u>6,500</u> feet	tion = (W x	<u>SxLxC)/</u>]
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	ime: 54 ource of estimated ve estimated shrinkage CTION ompacted width per p verage Compactor S cted thickness of each Conversion Cons umber of machine pa isted Hourly Unit Pre on Factors 1.00 0.83 0.8300 Adjusted Hourly Un	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P): oduction: (CAT H (1 shift/c multiplic it Production	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay) er :938.01	illing Tasks ted hourly produc feet mph inches (5,280f passes CCY/h tude: <u>6,500</u> feet	<u>tion = (W x</u> t./12in./27c our	<u>SxLxC)/</u> 1
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	ime: 54 ource of estimated verticated shrinkage 54 estimated shrinkage 55 CTION 55 ompacted width per proverage Compactor Sected thickness of each Conversion Consumber of machine parasted Hourly Unit Proton Factors 1.00 0.83 0.8300 0.8300	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P): oduction: (CAT H (1 shift/c multiplic it Production	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay) er :938.01	illing Tasks ted hourly produc feet mph inches (5,280f passes CCY/h tude: <u>6,500</u> feet	<u>tion = (W x</u> t./12in./27c our	<u>SxLxC)/</u> 1
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	ume: 54 ource of estimated vertice estimated shrinkage CTION ompacted width per proverage Compactor Sected thickness of each Conversion Consumber of machine parameter of machine pa	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P): oduction: (CAT H (1 shift/c multiplic it Production	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay) er :938.01	illing Tasks ted hourly produc feet mph inches (5,280f passes CCY/h tude: <u>6,500</u> feet	<u>tion = (W x</u> t./12in./27c our	<u>SxLxC)/</u>
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	ume: 54 ource of estimated vertice estimated shrinkage CTION ompacted width per proverage Compactor Sected thickness of each Conversion Consumber of machine parameter of machine pa	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P): oduction: (CAT H (1 shift/c multiplic hit Production	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay) er : 938.01	illing Tasks ted hourly produc feet mph inches (5,280f passes CCY/h tude: <u>6,500</u> feet	<u>tion = (W x</u> t./12in./27c our	<u>SxLxC)/</u>
Compacted volu S Source of HOURLY PRODUC Co A Compac Required n Unadju ob Condition Correction Altitude Adj: Job Efficiency: Net Correction: (OB TIME AND CO Fleet size:	ume: 54 ource of estimated vertice estimated shrinkage CTION 0 ompacted width per proverage Compactor S estimated thickness of each Conversion Construction Construction Construction Construction umber of machine particle 1.00 0.83 0.8300 Adjusted Hourly Unit Present OST	h1,723 olume: Tot factor: Cat pass (W): peed (S): h lift (L): stant (C): asses (P): oduction: Sourc (CAT H (1 shift/c multiplic hit Production et Production	CCY tal of All Backfi Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti e IB) lay) er : 938.01 : 938.01	illing Tasks ted hourly produc feet mph inches (5,280f passes CCY/h tude: 6,500 feet CCY/Hour CCY/Hour	<u>tion = (W x</u> t./12in./27c our	<u>s S x L x C) /</u> u.ft.)

Bowie No. 2 Mine	P	Permit Action:	Permit Renew	val 3 F	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION					
Task #: 051	State				reviation:	None
Date: 1/16/2013 1:07:12 PM	County	v: Delta			Filename:	C083-051
User: SLB					_	
Agency or organ	nization name:	DRMS				
IOURLY EQUIPME	<u>ENT COST</u>					
Basic Machine	: CAT 815F			Horsepower:		240
Compactor Type	: Soil - tamping	g foot		Shift Basis:		er day
				Data Source:	(0	CRG)
<u>Cost Breakdown:</u>				Utilization %		
	rship Cost/Hour:	\$36		NA	_	
	ating Cost/Hour: rator Cost/Hour:	<u>\$79</u> \$23		100 NA	_	
1	Unit Cost/Hour:	\$140		1111	_	
Total	Fleet Cost/Hour:	\$14	0.21			
ATERIAL OUANT	TTIES					
IATERIAL QUANT Loose volum		7,920	LCY	Sh	rinkage fact	or: 0.875
	le:6	7,920 9,430	LCY CCY	Sh	rinkage fact	or: <u>0.875</u>
Loose volum Compacted volum Sou	e: 6 e: 5 rce of estimated v	9,430 olume: Oper	CCY rator Estimate	Sh	rinkage fact	or: <u>0.875</u>
Loose volum Compacted volum Sou	e: 6	9,430 olume: Oper	CCY	Sh	rinkage fact	or: <u>0.875</u>
Loose volum Compacted volum Sou	e: 6 6 6 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	9,430 olume: Oper	CCY rator Estimate Handbook	Sh ed <u>hourly produc</u>		
Loose volum Compacted volum Sou Source of es IOURLY PRODUCT	e: 6 be: 5 brce of estimated v timated shrinkage FION pacted width per p	9,430 olume: <u>Oper</u> factor: <u>Cat</u> pass (W):	CCY rator Estimate Handbook Unadjust 6.50			
Loose volum Compacted volum Sou Source of es IOURLY PRODUCT Com Ave	e: 6 be: 5 rce of estimated v timated shrinkage FION pacted width per p grage Compactor S	9,430 olume: Oper factor: Cat I pass (W): Speed (S):	CCY rator Estimate Handbook Unadjust 6.50 4.00	ed <u>hourly produc</u> feet mph		
Loose volum Compacted volum Sou Source of es IOURLY PRODUCT Com Ave	e: 6 be: 5 crce of estimated v timated shrinkage FION pacted width per p prage Compactor S bed thickness of eac	9,430 olume: Oper factor: Cat] pass (W): peed (S): h lift (L):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00	ed <u>hourly produc</u> feet mph inches	tion = (W x	S x L x C) / I
Loose volum Compacted volum Source of es IOURLY PRODUCT Com Ave Compacte	e: 6 be: 5 rce of estimated v timated shrinkage FION pacted width per p grage Compactor S	9,430 olume: Oper factor: Cat] pass (W): Speed (S): h lift (L): stant (C):	CCY rator Estimate Handbook Unadjust 6.50 4.00	ed <u>hourly produc</u> feet feet inches (5,280f		S x L x C) / I
Loose volum Compacted volum Sou Source of es IOURLY PRODUCT Com Ave Compacte Required num	e: 6 be: 5 bree of estimated v timated shrinkage CION pacted width per p parage Compactor S brage C	9,430 olume: Open factor: Cat I pass (W):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3	ed <u>hourly produc</u> feet mph inches	<u>tion = (W x</u> t./12in./27cu	S x L x C) / I
Loose volum Compacted volum Sou Source of es IOURLY PRODUCT Com Ave Compacte Required num	e: 6 be: 5 bree of estimated v timated shrinkage CION pacted width per p brage Compactor S brage Co	9,430 olume: Open factor: Cat I pass (W):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13	ed <u>hourly produc</u> feet mph inches (5,280f passes	<u>tion = (W x</u> t./12in./27cu	S x L x C) / I
Loose volum Compacted volum Source of es IOURLY PRODUCT Com Ave Compacte Required num Unadjust	e: 6 be: 5 bree of estimated v timated shrinkage CION pacted width per p brage Compactor S bed thickness of eac Conversion Con nber of machine p ed Hourly Unit Pr <u>Factors</u>	9,430 olume: Oper factor: Cat I pass (W): pass (W): pass (W): pass (W): pass (W): speed (S): h lift (L): stant (C): oduction: Source	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27cu	S x L x C) / I
Loose volum Compacted volum Source of es IOURLY PRODUCT Com Ave Compacte Required num Unadjust ob Condition Correction	e: 6 be: 5 bree of estimated v timated shrinkage TION pacted width per p parage Compactor S brage Compactor S brage Compactor S conversion Con nber of machine p ed Hourly Unit Pr <u>Factors</u> 1.00	9,430 olume: Oper factor: Cat I pass (W): pass (W): pass (W): pass (V): pass (P): stant (C): stant (C): oduction: Cource (CAT HI	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27cu	S x L x C) / I
Loose volum Compacted volum Source of es IOURLY PRODUCT Com Ave Compacte Required num Unadjust	e: 6 be: 5 bree of estimated v timated shrinkage CION pacted width per p brage Compactor S bed thickness of eac Conversion Con nber of machine p ed Hourly Unit Pr <u>Factors</u>	9,430 olume: Oper factor: Cat I pass (W): pass (W): pass (W): pass (W): pass (W): speed (S): h lift (L): stant (C): oduction: Source	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3)	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27cu	S x L x C) / I
Loose volum Compacted volum Source of es IOURLY PRODUCT Com Ave Compacte Required num Unadjust ob Condition Correction Altitude Adj: Job Efficiency:	e: 6 e: 5 rce of estimated v timated shrinkage TION pacted width per p page Compactor S ed thickness of eac Conversion Con nber of machine p ed Hourly Unit Pr <u>Factors</u> 1.00 0.83 0.8300	9,430 olume:Oper factor:Cat] pass (W): pass (W): pass (S): pass (P): oduction: Source [CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3)	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h rude: <u>6,000</u> feet	tion = (W x it./12in./27cu our	S x L x C) / I
Loose volum Compacted volum Source of es DURLY PRODUCT Com Ave Compacte Required num Unadjust ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e: 6 e: 5 rce of estimated v timated shrinkage FION pacted width per p pacted width per p erage Compactor S ed thickness of eac Conversion Con nber of machine p ed Hourly Unit Pr Factors 1.00 0.83	9,430 olume:Oper factor:Cat] pass (W): pass (W): pass (S): pass (S): stant (C): asses (P): oduction: Source [(CAT HI [(1 shift/da) multiplier hit Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3)	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h	<u>tion = (W x</u> t./12in./27cu our	S x L x C) / I
Loose volum Compacted volum Source of es DURLY PRODUCT Com Ave Compacte Required num Unadjust Do Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e: 6 be: 5 be: 5 be: 5 be: 5 be: 5 be: 5 be: 6 be: 5 be: 6 be: 6 be: 6 be: 7 be:	9,430 olume:Oper factor:Cat] pass (W): pass (W): pass (S): pass (S): stant (C): asses (P): oduction: Source [(CAT HI [(1 shift/da) multiplier hit Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) yy 938.01	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h rude: <u>6,000</u> feet	<u>tion = (W x</u> t./12in./27cu our	S x L x C) / I
Loose volum Compacted volum Source of es IOURLY PRODUCT Com Ave Compacte Required num Unadjust ob Condition Correction Altitude Adj: Job Efficiency: Net Correction: A Add	e: 6 e: 5 rce of estimated v timated shrinkage FION pacted width per p rrage Compactor S ed thickness of eac Conversion Con nber of machine p ed Hourly Unit Pr Factors 1.00 0.83 0.8300 djusted Hourly Ur ljusted Hourly Fle ST	9,430 olume: Oper factor: Cat I pass (W): pass (W): peed (S): stant (C): asses (P): roduction: Source (CAT HI (1 shift/da multiplier hit Production: eet Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) 938.01 938.01	ed hourly produc feet mph inches (5,280f passes CCY/h cude: <u>6,000</u> feet	<u>tion = (W x</u> t./12in./27cu our	<u>S x L x C) / H</u> 1.ft.)
Loose volum Compacted volum Source of es DURLY PRODUCT Com Ave Compacte Required num Unadjust Do Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e: 6 be: 5 be: 5 be: 5 be: 5 be: 5 be: 5 be: 6 be: 5 be: 6 be: 6 be: 6 be: 7 be:	9,430 olume: Oper factor: Cat I pass (W): pass (W): peed (S): stant (C): asses (P): roduction: Source (CAT HI (1 shift/da multiplier hit Production: eet Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) 938.01 938.01	ed <u>hourly produc</u> feet mph inches (5,280f passes CCY/h rude: <u>6,000</u> feet	<u>tion = (W x</u> t./12in./27cu our	S x L x C) / I

Reclamation Cost Estimate RN-3

Bowie No. 2 Mine	Per	rmit Action:	Permit Renev	wal 3 Pe	ermit/Job#: <u>C1996</u>
ROJECT IDENTIFIC	ATION				
Task #: 052	State:	Colorado		Abbr	eviation: None
Date: $1/16/2013$	County:	Delta			ilename: C083-0
1:07:52 PM					
User: SLB					
Agency or organiza	ation name: D	RMS			
OURLY EQUIPMEN	T COST				
Basic Machine:	CAT 815F			Horsepower:	240
Compactor Type:	Soil - tamping f	foot		Shift Basis:	1 per day
compactor Type.	Son unping i	1001	<u> </u>	Data Source:	(CRG)
					()
ost Breakdown:				Utilization %	
Ownersh	ip Cost/Hour:	\$36	81	NA	
	ng Cost/Hour:	\$30 \$79		100	
	or Cost/Hour:	\$23		NA	
-	nit Cost/Hour:	\$140			
Total Ele	et Cost/Hour:	\$14	n 9 1]	
Total Pie		φ 1 4	0.21	-	
IATERIAL QUANTIT	TIES				
Loose volume:	231	495	ICY	Shr	inkage factor: 0.8
Loose volume: Compacted volume:		,495 2 .558	LCY CCY	Shr	inkage factor:0.8
Compacted volume:	202	2,558	CCY	Shr	inkage factor: <u>0.8</u>
Compacted volume: Source	202 e of estimated vol	2,558 lume: Oper	CCY cator Estimate	Shr	inkage factor: <u>0.8</u>
Compacted volume: Source	202	2,558 lume: Oper	CCY	Shr	inkage factor: <u>0.8</u>
Compacted volume: Source	202 e of estimated vol nated shrinkage fa	2,558 lume: Oper	CCY rator Estimate Handbook		inkage factor: 0.8 ion = (W x S x L x C
Compacted volume: Source Source of estim	202 e of estimated vol nated shrinkage fa	2 ,558 lume: <u>Oper</u> actor: <u>Cat I</u>	CCY rator Estimate Handbook		
Compacted volume: Source Source of estim OURLY PRODUCTIO Compa	202 e of estimated vol nated shrinkage fa	2,558 lume: Oper actor: Cat I ass (W):	CCY cator Estimate Handbook Unadjust	ted hourly product	
Compacted volume: Source Source of estim OURLY PRODUCTIO Compa Averag	202 e of estimated vol nated shrinkage fa ON acted width per pa	2,558 lume: Oper actor: Cat l ass (W): eed (S):	CCY rator Estimate Handbook Unadjus 6.50	ted <u>hourly product</u>	
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp hickness of each Conversion Const	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): cant (C):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3	ted <u>hourly product</u> feet mph inches	
Compacted volume: Source Source of estim OURLY PRODUCTIO Compa Averag Compacted t C Required numbe	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp chickness of each Conversion Const er of machine pas	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): cant (C): sses (P):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3	ted <u>hourly product</u> feet mph inches (5,280ft passes	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim OURLY PRODUCTIO Compa Averag Compacted t C Required numbe	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp hickness of each Conversion Const	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): cant (C): sses (P):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3	ted <u>hourly product</u> feet mph inches (5,280ft	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim OURLY PRODUCTIO Compa Averag Compacted t C Required numbe	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp thickness of each Conversion Const er of machine pas Hourly Unit Proc	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): cant (C): sses (P):	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13	ted <u>hourly product</u> feet mph inches (5,280ft passes	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t C Required numbe Unadjusted ob Condition Correction Fa	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp thickness of each Conversion Const er of machine pas Hourly Unit Proc	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): cant (C): sses (P): duction: Source	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti	ted hourly product feet mph inches (5,280ft passes CCY/ho	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t C Required numbe Unadjusted ob Condition Correction Fa	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp thickness of each Conversion Const er of machine pas Hourly Unit Proc actors 1.00	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): sses (P): duction: Source (CAT HI	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3)	ted hourly product feet mph inches (5,280ft passes CCY/ho	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Compacted t Compacted t Co	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp thickness of each Conversion Const er of machine pas Hourly Unit Prod actors 1.00 0.83	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): sees (P): duction: Source (CAT HF (1 shift/da	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3)	ted hourly product feet mph inches (5,280ft passes CCY/ho	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t C Required numbe Unadjusted ob Condition Correction Fa	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp thickness of each Conversion Const er of machine pas Hourly Unit Proc actors 1.00	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): sses (P): duction: Source (CAT HI	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3)	ted hourly product feet mph inches (5,280ft passes CCY/ho	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t Compacted t Compact	202e of estimated volnated shrinkage faONacted width per page Compactor Spchickness of eachConversion Conster of machine pasHourly Unit Prodactors1.000.830.8300	2,558 lume: Oper actor: Cat l ass (W): eed (S): lift (L): function: duction: Source (CAT HI (1 shift/da multiplier	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3)	ted hourly product feet mph inches (5,280ft passes CCY/ho	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t Compacted t Compact	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp thickness of each Conversion Const er of machine pas Hourly Unit Prod actors 1.00 0.83	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): ant (C): duction: duction: (CAT HI (1 shift/da multiplier t Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3)	ted <u>hourly product</u> feet mph inches (5,280ft passes CCY/ho tude: <u>5,900</u> feet	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t Compacted t Compact	202 e of estimated vol nated shrinkage fa ON acted width per pa ge Compactor Sp hickness of each Conversion Const er of machine pas Hourly Unit Prod actors 1.00 0.83 0.8300 usted Hourly Unit	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): ant (C): duction: duction: (CAT HI (1 shift/da multiplier t Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3) yy) 938.01	ted hourly product feet mph inches (5,280ft passes CCY/ho tude: <u>5,900</u> feet	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTIO Compa Averag Compacted t Compacted t Compact	202e of estimated vol hated shrinkage faONacted width per pa ge Compactor Spthickness of each Conversion Const er of machine pas Hourly Unit Prod actors1.00 0.83 0.8300usted Hourly Unit sted Hourly Unit Fleet	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): ant (C): duction: duction: (CAT HI (1 shift/da multiplier t Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3) yy) 938.01	ted hourly product feet mph inches (5,280ft passes CCY/ho tude: <u>5,900</u> feet	ion = (W x S x L x C) ./12in./27cu.ft.)
Compacted volume: Source Source of estim COURLY PRODUCTION Compa Averag Compacted t Compacted t Compac	202e of estimated vol hated shrinkage faONacted width per pa ge Compactor Spthickness of each Conversion Const er of machine pas Hourly Unit Prod actors1.00 0.83 0.8300usted Hourly Unit sted Hourly Unit Fleet	2,558 lume: Oper actor: Cat I ass (W): eed (S): lift (L): ant (C): sees (P): duction: Source (CAT HF (1 shift/da multiplier t Production: t Production:	CCY rator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Alti 3) y) 938.01 938.01	ted hourly product feet mph inches (5,280ft passes CCY/ho tude: <u>5,900</u> feet	ion = (W x S x L x C) ./12in./27cu.ft.)

Reclamation Cost Estimate RN-3

		Seam Portal Ben		12 P	······	00000
Bowie No. 2 Mine		Permit Action:	Permit Renev	wal 3 Pe	ermit/Job#: <u>C1</u>	1996083
PROJECT IDENTI	FICATION					
Task #: 053	St	ate: Colorado		Abbr	eviation: Nor	ne
Date: $1/16/2013$						33-053
1:08:29 P						
User: SLB						
Agency or org	anization name:	DRMS				
HOURLY EQUIPM	IFNT COST					
Basic Machin				Horsepower:	240	
Compactor Ty		ing foot		Shift Basis:	1 per da	v
compactor ry	pe. <u>5011 - tamp</u>	ling 100t		Data Source:	(CRG)	
					()	
Cost Breakdown:				Utilization %		
Owr	nership Cost/Hour	: \$36	.81	NA		
	erating Cost/Hour			100		
	perator Cost/Hour			NA		
Tot	al Unit Cost/Hour	: \$140	0.21			
Tot	al Fleet Cost/Hour	: \$140) 21	1		
MATERIAL QUAN	TITIES					
Loose volu	me:	138,000	LCY	Shr	inkage factor:	0.875
	me:	138,000 120,750	LCY CCY	Shr	nkage factor:	0.875
Loose volu Compacted volu	me:	120,750		Shr	nkage factor:	0.875
Loose volu Compacted volu So	me:	120,750 l volume: Oper	CCY	Shri	inkage factor:	0.875
Loose volu Compacted volu Source of	me: me: ource of estimated estimated shrinka;	120,750 l volume: Oper	CCY ator Estimate Handbook			
Loose volu Compacted volu Source of HOURLY PRODUC	me: me: ource of estimated estimated shrinka; CTION	120,750 l volume: Oper ge factor: Cat H	CCY ator Estimate Handbook Unadjust	ted hourly producti		
Loose volu Compacted volu Source of HOURLY PRODUC	me: me: ource of estimated estimated shrinka; <u>CTION</u> ompacted width pe	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50	ted <u>hourly producti</u>		
Loose volu Compacted volu Source of HOURLY PRODUC Co A	me: ume: ource of estimated estimated shrinkay CTION ompacted width per verage Compactor	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00	ted <u>hourly producti</u> feet mph		
Loose volu Compacted volu Source of HOURLY PRODUC Co A	me: ource of estimated estimated shrinkag <u>CTION</u> ompacted width per verage Compactor oted thickness of e	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00	ted <u>hourly producti</u> feet feet mph inches	on = (W x S x I	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac	me: me: ource of estimated estimated shrinkag <u>CTION</u> ompacted width pe verage Compactor eted thickness of e Conversion Co	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3	ted <u>hourly producti</u> feet mph inches (5,280ft.		
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n	me: ource of estimated estimated shrinkag <u>CTION</u> ompacted width per verage Compactor oted thickness of e	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00	ted <u>hourly producti</u> feet feet mph inches	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n	me: me: ource of estimated estimated shrinkag CTION ompacted width per verage Compactor eted thickness of e Conversion Co umber of machine asted Hourly Unit	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13	ted <u>hourly producti</u> feet mph inches (5,280ft. passes	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n Unadju	me: me: ource of estimated estimated shrinkag CTION ompacted width per verage Compactor eted thickness of e Conversion Co umber of machine asted Hourly Unit	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13	ted hourly producti feet mph inches (5,280ft. passes CCY/ho	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n Unadju tob Condition Correction Altitude Adj:	me: me: ource of estimated estimated shrinkag CTION ompacted width per verage Compactor eted thickness of e Conversion Co umber of machine asted Hourly Unit on Factors 1.00	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit	ted hourly producti feet mph inches (5,280ft. passes CCY/ho	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n Unadju	me: me: ource of estimated estimated shrinkag <u>CTION</u> ompacted width pe- verage Compactor cted thickness of e Conversion Co umber of machine ested Hourly Unit on Factors	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY eator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit	ted hourly producti feet mph inches (5,280ft. passes CCY/ho	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n Unadju tob Condition Correction Altitude Adj:	me: me: ource of estimated estimated shrinkag CTION ompacted width per verage Compactor eted thickness of e Conversion Co umber of machine asted Hourly Unit on Factors 1.00	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) y)	ted hourly producti feet mph inches (5,280ft. passes CCY/ho	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n Unadju Ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	me:	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) y)	ted <u>hourly producti</u> feet mph inches (5,280ft. passes CCY/ho tude: <u>6,750</u> feet	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of a HOURLY PRODUC Co A Compac Required n Unadju Ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	me: me: ource of estimated estimated shrinkag CTION ompacted width per- verage Compactor cted thickness of e Conversion Courd umber of machine usted Hourly Unit on Factors 1.00 0.83	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) y)	ted hourly producti feet mph inches (5,280ft. passes CCY/ho	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of a HOURLY PRODUC Co A Compac Required n Unadju Ob Condition Correction Altitude Adj: Job Efficiency: Net Correction	me:	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) y) 938.01	ted hourly producti feet mph inches (5,280ft. passes CCY/ho tude: <u>6,750</u> feet	$on = (W \times S \times I)$ /12in./27cu.ft.)	
Loose volu Compacted volu Source of HOURLY PRODUC Co A Compac Required n Unadju tob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	me:	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) y) 938.01 938.01	ted hourly producti feet mph inches (5,280ft. passes CCY/ho tude: <u>6,750</u> feet CCY/Hour CCY/Hour	<u>on = (W x S x I</u> /12in./27cu.ft.) ur	- x C) /]
Loose volu Compacted volu Source of a HOURLY PRODUC Co A Compac Required n Unadju Ob Condition Correction Altitude Adj: Job Efficiency: Net Correction	me:	120,750 I volume: Oper ge factor: Cat H er pass (W):	CCY ator Estimate Handbook Unadjust 6.50 4.00 8.00 16.3 3 1,130.13 Site Altit 3) y) 938.01 938.01	ted hourly producti feet mph inches (5,280ft. passes CCY/ho tude: <u>6,750</u> feet	$on = (W \times S \times I)$ /12in./27cu.ft.)	

Reclamation Cost Estimate RN-3

ROJECT IDENTIFICATION Task #: 054 State: Colorado Abbreviation: None Date: 1/16/2013 County: Delta Filename: C083-054 1:09:08 PM	Task description:	Compact Backfi	lled Freeman	Gulch Vent	Shaft Pad		
Task #: 054 State: Colorado Abbreviation: None Date: 1/16/2013 County: Delta C083-054 User: SLB	Bowie No. 2 Mine	Per	mit Action: _	Permit Renew	val 3 P	ermit/Job#:	C1996083
Date: 1/16/2013 County: Delta Filename: C083-054 User: SLB	ROJECT IDENTIFI	CATION					
User: SLB Agency or organization name: DRMS OURLY EQUIPMENT COST Basic Machine: CAT 815F Horsepower: 240 Soil - tamping foot Shift Basis: Departor Type: Soil - tamping foot Dots Breakdown: Utilization % Ownership Cost/Hour: \$36.81 NA Operating Cost/Hour: \$23.76 NA Operating Cost/Hour: \$140.21 Image: State Sta	Date: 1/16/2013						
OURLY EQUIPMENT COST Basic Machine: CAT \$15F Horsepower: 240 Compactor Type: Soil - tamping foot Shift Basis: Iper day Data Source: (CRG) past Breakdown: Utilization % Operating Cost/Hour: \$36.81 NA Operating Cost/Hour: \$140.21 Total Unit Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Source of estimated volume: Operator Estimate Source of estimated volume: Operator Estimate Source of estimated volume: Operator Estimate Source of estimated volume: 6.50 feet Average Compactor Speed (S): 4.00 mph Conversion Constant (C): 16.3 (5.2806f./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1.130.13 CCY/hour Adjusted Hourly Unit Production: 1.130.13 CCY/hour Average Compactor Speed (S): 4.00 mph Conversion Constant (C): 16.3 (5.280f1/12in./27c						_	
Basic Machine: CAT 815F Horsepower: 240 Compactor Type: Soil - tamping foot Shift Basis: 1 per day Data Source: (CRG) est Breakdown: Utilization % Operating Cost/Hour: \$79.64 100 Operator Cost/Hour: \$23.76 NA Operator Cost/Hour: \$140.21 Image: Signature of the signater of the signature of the signature of th	Agency or organi	zation name: DF	RMS				
Compactor Type: Soil - tamping foot Shift Basis: 1 per day Data Source: (CRG) Dott Source: (CRG) Ownership Cost/Hour: \$36.81 NA Operating Cost/Hour: \$79.64 100 Operator Cost/Hour: \$23.76 NA Operator Cost/Hour: \$140.21 Intervention Total Unit Cost/Hour: \$140.21 Intervention Total Fleet Cost/Hour: \$140.21 Intervention Compacted volume: 1.964 LCY Shrinkage factor: 0.875 Compacted volume: 1.719 CCY Shrinkage factor: 0.875 Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: 0.875 Compacted width per pass (W): 6.50 feet feet Average Compactor Speed (S): 4.00 mph compacted flickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5.280f1/2in./27.cu.ft.) pases Inadjusted Hourly Unit Production: 1.130.13 CCY/hour ab Condition Correction Factors Site Altitude: 7.000 feet Source Source	HOURLY EQUIPMEN	NT COST					
Compactor Type: Soil - tamping foot Shift Basis: 1 per day Data Source: (CRG) Dott Source: (CRG) Ownership Cost/Hour: \$36.81 NA Operating Cost/Hour: \$79.64 100 Operator Cost/Hour: \$23.76 NA Operator Cost/Hour: \$140.21 Intervention Total Unit Cost/Hour: \$140.21 Intervention Total Fleet Cost/Hour: \$140.21 Intervention Compacted volume: 1.964 LCY Shrinkage factor: 0.875 Compacted volume: 1.719 CCY Shrinkage factor: 0.875 Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: 0.875 Compacted width per pass (W): 6.50 feet feet Average Compactor Speed (S): 4.00 mph compacted flickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5.280f1/2in./27.cu.ft.) pases Inadjusted Hourly Unit Production: 1.130.13 CCY/hour ab Condition Correction Factors Site Altitude: 7.000 feet Source Source	Basic Machine:	CAT 815F			Horsepower:	2	240
Data Source: (CRG) ost Breakdown: Utilization % Ownership Cost/Hour: \$36.81 NA Operating Cost/Hour: \$379.64 100 Operator Cost/Hour: \$23.76 NA Total Unit Cost/Hour: \$140.21 Total Unit Cost/Hour: \$140.21 Externation of the cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Externation of the cost/Hour: \$140.21 Shrinkage factor: 0.875 Compacted volume: 1.964 LCY Shrinkage factor: 0.875 Compacted volume: 1.964 CY Shrinkage factor: 0.875 Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: 0.875 Compacted width per pass (W): 6.50 feet 64 Average Compactor Speed (S): 4.00 mph conversion Constant (C): 16.3 (5.280ft/12in/27cu.ft.) Required number of machine passes (P): 3 passes passes conversion constant (C): 1.130.13 CCY/hour ab Condition Correction Factors Site Altitude: 7,000 feet Source Source Alt			oot	_			
Ownership Cost/Hour: \$36.81 NA Operating Cost/Hour: \$79.64 100 Operator Cost/Hour: \$23.76 NA Operator Cost/Hour: \$140.21 Image: State of the s				_			
Ownership Cost/Hour: \$36.81 NA Operating Cost/Hour: \$79.64 100 Operator Cost/Hour: \$23.76 NA Operator Cost/Hour: \$140.21 Image: State of the s	Cost Breakdown:						
Operating Cost/Hour: \$79.64 100 Operator Cost/Hour: \$23.76 NA Total Unit Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$170 CCY Shrinkage factor: 0.875 Compacted woldme: Operator Cost Operator Estimate Source of estimated shrinkage factor: Conversion Constant (C): Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3<					Utilization %		
Operator Cost/Hour: \$23.76 NA Total Unit Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$170 Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: Cat Handbook OURLY PRODUCTION Unadjusted hourly production = (W x S x L x C) / H Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph Conversion Constant (C): 16.3 (5.280ft/12in/27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour Sb Condition Correction Factors Site Altitude: 7,000 feet<	Owners	ship Cost/Hour:	\$36.	81	NA	_	
Total Unit Cost/Hour: \$140.21 Total Fleet Cost/Hour: \$140.21 EATERIAL QUANTITIES Loose volume: 1,964 LOY Shrinkage factor: 0.875 Compacted volume: 1,719 CCY Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: Cat Handbook OURLY PRODUCTION Unadjusted hourly production = (W x S x L x C)/I Compacted width per pass (W): 6.50 Average Compactor Speed (S): 4.00 Average Compactor Speed (S): 4.00 Conversion Constant (C): 16.3 Conversion Constant (C): 16.3 Quarked Hourly Unit Production: 1,130.13 CCY/hour Site Altitude: 7,000 ab Condition Correction Factors Site Altitude: 7,000 feet Source 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour						_	
Total Fleet Cost/Hour: \$140.21 ATERIAL QUANTITIES Losse volume: 1,964 LCY Shrinkage factor: 0.875 Compacted volume: 1,719 CCY Source of estimated shrinkage factor: 0.875 Source of estimated shrinkage factor: Cat Handbook COY Source of estimated shrinkage factor: 0.875 OURLY PRODUCTION Unadjusted hourly production = (W x S x L x C)/I Nu adjusted hourly production = (W x S x L x C)/I Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour cb Condition Correction Factors Site Altitude: 7,000 feet Source Altitude Adj: 1.00 (CAT HB) OM Job Efficiency: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour <td>1</td> <td></td> <td></td> <td></td> <td>NA</td> <td>-</td> <td></td>	1				NA	-	
International constraints ATERIAL QUANTITIES Loose volume: 1,964 LCY Shrinkage factor: 0.875 COmpacted volume: Operator Estimate Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: CAT Handbook OURLY PRODUCTION Unadjusted hourly production = (W x S x L x C) / I Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph Compacted thickness of each lift (L): 8.00 inches COY Surce for machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.830 1 shift/day) Net Correction: 0.938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OE TIME AND COST	Total U	Unit Cost/Hour:	\$140.	21			
Loose volume: 1,964 LCY Shrinkage factor: 0.875 Compacted volume: 1,719 CCY Shrinkage factor: 0.875 Source of estimated shrinkage factor: Cat Handbook Cat Handbook Cat Handbook OURLY PRODUCTION Unadjusted hourly production = (W x S x L x C)/H Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph mph Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour bb Condition Correction Factors Site Altitude: 7,000 feet Source Altitude Adj: 1.00 (CAT HB) OB 500 feet Job Efficiency: 0.830 (1 shift/day) Net Correction: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour CY/Hour Destinated Hourly Fleet Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour Destinated Hourly Fleet Production: 938.01 CCY/Hour	Total F	leet Cost/Hour:	\$140	.21			
Loose volume: 1,964 LCY Shrinkage factor: 0.875 Compacted volume: 1,719 CCY Shrinkage factor: 0.875 Source of estimated shrinkage factor: Cat Handbook Cat Handbook Cat Handbook OURLY PRODUCTION Unadjusted hourly production = (W x S x L x C)/H Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph mph Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour bb Condition Correction Factors Site Altitude: 7,000 feet Source Altitude Adj: 1.00 (CAT HB) OB 500 feet Job Efficiency: 0.830 (1 shift/day) Net Correction: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour CY/Hour Destinated Hourly Fleet Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour Destinated Hourly Fleet Production: 938.01 CCY/Hour	AATERIAI OHANTI	TIFS					
Compacted volume: 1,719 CCY Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: Cat Handbook COURLY PRODUCTION Unadjusted hourly production = (W x S x L x C)/I Compacted width per pass (W): 6.50 Average Compactor Speed (S): 4.00 Average Compactor Speed (S): 4.00 Conversion Constant (C): 16.3 Conversion Constant (C): 16.3 Required number of machine passes (P): 3 Unadjusted Hourly Unit Production: 1,130.13 CY/hour Site Altitude: 7,000 feet Source Source Altitude Adj: 1.00 CAT HB) 0.8300 Job Efficiency: 0.8300 Majusted Hourly Unit Production: 938.01 CY/Hour CY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Total job time: 1.83 Hours			C 1	LOV	<u>C1</u>	· 1 · · · · · · · · ·	0.075
Source of estimated volume: Operator Estimate Source of estimated shrinkage factor: Cat Handbook COURLY PRODUCTION Unadjusted hourly production = (W x S x L x C)/I Compacted width per pass (W): 6.50 Average Compactor Speed (S): 4.00 Average Compactor Speed (S): 4.00 Compacted thickness of each lift (L): 8.00 Conversion Constant (C): 16.3 Unadjusted Hourly Unit Production: 1,130.13 CY/hour Sucree Altitude Adj: 1.00 OB Contection: 0.8300 Multiplier Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Total job time: 1.83 Hours					Shr	inkage facto	or: 0.875
Source of estimated shrinkage factor: Cat Handbook COURLY PRODUCTION Unadjusted hourly production = (W x S x L x C) / H Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour ab Condition Correction Factors Site Altitude: 7,000 feet Source Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Total job time: 1.83 Hours	-						
Unadjusted hourly production = (W x S x L x C)/H Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour ob Condition Correction Factors Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours							
Compacted width per pass (W): 6.50 feet Average Compactor Speed (S): 4.00 mph Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour ob Condition Correction Factors Site Altitude: 7,000 feet Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Yeat Production: 938.01 CCY/Hour Pleet size: 1 Compactor(s) Total job time: 1.83 Hours	Source of esti	mated shrinkage fa	ctor: Cat H	andbook			
Average Compactor Speed (S): 4.00 mph Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour bb Condition Correction Factors Site Altitude: 7,000 feet source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours	HOURLY PRODUCT	ION		Unadjust	ed hourly product	ion = (W x)	<u>S x L x C) / P</u>
Compacted thickness of each lift (L): 8.00 inches Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour bb Condition Correction Factors Site Altitude: 7,000 feet bb Condition Correction: 0.83 (1 shift/day) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours	Com	bacted width per par	ss (W):	6.50	feet		
Conversion Constant (C): 16.3 (5,280ft./12in./27cu.ft.) Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour ab Condition Correction Factors Site Altitude: 7,000 feet bb Condition Correction: 0.83 (1 shift/day) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours	Aver	age Compactor Spe	ed (S):		mph		
Required number of machine passes (P): 3 passes Unadjusted Hourly Unit Production: 1,130.13 CCY/hour ab Condition Correction Factors Site Altitude: 7,000 feet Source Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours					inches		
Unadjusted Hourly Unit Production: 1,130.13 CCY/hour bb Condition Correction Factors Site Altitude: 7,000 feet bb Condition Correction Factors Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours						./12in./27cu	ı.ft.)
bb Condition Correction Factors Site Altitude: 7,000 feet Source Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours	1	1	· · · ·				
Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83 Hours	Unadjuste	d Hourly Unit Prod	uction:	1,130.13	CCY/ho	our	
Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83	ob Condition Correction I	Factors		Site Altit	ude: <u>7,000</u> feet		
Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83		1					
Net Correction: 0.8300 multiplier Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83							
Adjusted Hourly Unit Production: 938.01 CCY/Hour Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST Fleet size: 1 Compactor(s) Total job time: 1.83	• _			7)			
Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST	Net Correction:	0.8300	multiplier				
Adjusted Hourly Fleet Production: 938.01 CCY/Hour OB TIME AND COST	Ad	justed Hourly Unit	Production:	938.01	CCY/Hour		
Fleet size: 1 Compactor(s) Total job time: 1.83 Hours							
Fleet size: 1 Compactor(s) Total job time: 1.83 Hours	OB TIME AND COS	Т	-				
Unit cost: \$0.149 per CCY Total job cost: \$257.00							
			r(s)	То	tal job time:	1.83	Hours

	Task description:	Rip Utility								
Site	: Bowie No. 2 Mi	ne	Perm	nit Action:	Permit Rene	wal 3	Permit	/Job#:	C19960	183
	PROJECT IDE	NTIFICATION								
	1:11:	/2013 Co :28 PM	State: _ unty: _	Colorado Delta			Abbreviat Filena	-	None C083-06	0
	User: <u>SLB</u>									
	•••	r organization name:	DRI	MS						
		IPMENT COST								
	Basic M			1		Horser			574	
	Ripper Attac	chment: <u>3-Shank I</u>	Ripper			Data S	Basis:		er day CRG)	
	Cost Breakdown:					Dulu D		(((10)	
	<u>Cost Breakdown.</u>					Utilizat	ion %			
		Ownership Cost/Ho			10.73	NA				
	Diana	Operating Cost/Ho or Operating Cost/Ho			33.36	10				
	Кірре	Operator Cost/Ho			0.01 7.41	10 NA	-			
		Total Unit Cost/Ho			41.51	111	<u> </u>			
		Total Fleet Cost/Ho		¢1 2	66.06	_				
			ui	φ1,.	00.00	_				
	MATERIAL QU	<u>UANITITES</u>		Se	lected estimati	ng method	: Area			
	Alternate Methods	<u>:</u>								
smic:	Alternate Methods NA	<u>:</u>	Bank	Volume:	NA	В	СҮ		NA	
		: acres		Volume: Depth (ft):	NA 2.63		CY ume: <u>3,182</u>	2	NA	BCY or C
	NA 0.75		Rip D	epth (ft):	2.63			2	NA	BCY or C
	NA 0.75	acres Source of estimated of	Rip D	epth (ft):	2.63			2	NA	BCY or (
	NA 0.75 HOURLY PRO	acres Source of estimated of	Rip D	epth (ft):	2.63			2	NA	BCY or C
	NA 0.75	acres Source of estimated o DUCTION	Rip D quantity	epth (ft):	2.63	Volu	ume: <u>3,182</u>	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic:	acres Source of estimated o DUCTION	Rip D	epth (ft):	2.63	Volu		2	NA	BCY or C
	NA 0.75 HOURLY PRO	acres Source of estimated o DUCTION Seismi	Rip D quantity c Veloc	Depth (ft): : <u>Map</u>	2.63 15-2 NA	Volu	ime: 3,182	2	NA	BCY or 0
	NA 0.75 HOURLY PRO Seismic:	acres Source of estimated o DUCTION	Rip D quantity c Veloc bing Dep	Depth (ft): :: Map 1 ity:	2.63	Volu	ume: <u>3,182</u>	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic:	acres Source of estimated of <u>DUCTION</u> Seismi Average Ripp Average Ripp Average Ripp	Rip D quantity c Veloc bing Dep bing Wig	weighth (ft): ::	2.63 15-2 NA 2.88 8.67 50.00	Volu	feet/second mph degrees feet	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic:	acres Source of estimated of <u>DUCTION</u> Seismi Average Ripp Average Rippi Average Rippi Average Do	Rip D quantity ac Veloc bing Dep bing Wic ing Leng bozer Spe	Depth (ft): : Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00	Volu	feet/second mph degrees feet feet	<u>.</u>	NA	BCY or 0
	NA 0.75 HOURLY PRO Seismic:	acres Source of estimated of <u>DUCTION</u> Seismi Average Ripp Average Rippi Average Rippi Average Do Average Mane	Rip D quantity oc Veloc bing Dep bing Wid ing Leng bozer Spe suver Tin	weighth (ft): : Map ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25	Volu	feet/second mph degrees feet feet feet	2	<u>NA</u>	BCY or 0
	NA 0.75 HOURLY PRO Seismic: Area:	acres Source of estimated of DUCTION Seismi Average Ripp Average Rippi Average Rippi Average Do Average Mane Production pe	Rip D quantity oc Veloc bing Dep bing Wid ing Leng bozer Spe suver Tin	weighth (ft): : Map ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00	Volu	feet/second mph degrees feet feet	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic:	acres Source of estimated of DUCTION Seismi Average Ripp Average Rippi Average Rippi Average Do Average Mane Production pe	Rip D quantity oc Veloc bing Dep bing Wid ing Leng bozer Spe suver Tin	weighth (ft): : Map ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25	Volu	feet/second mph degrees feet feet feet	<u>;</u>	<u>NA</u>	BCY or (
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Ripp Average Rippi Average Rippi Average Do Average Mane Production pe	Rip D quantity ac Veloc bing Dep bing Wic ing Leng bozer Spe buver Tin er unit an	weight (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25	Volu	feet/second mph degrees feet feet feet	<u>.</u>	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Ripp Average Rippi Average Rippi Average Mane Production pe rection Factors djusted Hourly Unit H	Rip D quantity ac Veloc bing Dep bing Wic ing Leng bozer Spe buver Tin er unit an	weighth (ft): :: Map ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730	Volu	feet/second mph degrees feet feet feet acres/hour	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Rippi Average Rippi Average Rippi Average Mane Production pe rection Factors djusted Hourly Unit H	Rip D quantity ac Veloc bing Dep bing Uic ing Leng bozer Spe buver Tin er unit an Producti te Altitu ltitude A	weighth (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,800 1.00	Volu	feet/second mph degrees feet feet acres/hour Acres/hr feet (CAT HB)	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Ripp Average Ripp Average Ripp Average Mane Production pe rection Factors djusted Hourly Unit I Sit Al	Rip D quantity ac Veloc bing Dep bing Dep bing Wid ing Leng bozer Spe cuver Tin er unit at Producti te Altitu ltitude A Efficien	weighth (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,800 1.00 0.83	Volu	feet/second mph degrees feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day)	2	NA	BCY or 0
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Ripp Average Ripp Average Ripp Average Mane Production pe rection Factors djusted Hourly Unit I Sit Al	Rip D quantity ac Veloc bing Dep bing Uic ing Leng bozer Spe buver Tin er unit an Producti te Altitu ltitude A	weighth (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,800 1.00	Volu	feet/second mph degrees feet feet acres/hour Acres/hr feet (CAT HB)	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Rippi Average Rippi Average Rippi Average Mane Production pe rection Factors djusted Hourly Unit I Sitt AI Job Net of Adjusted Hourly	Rip D quantity dc Veloc bing Dep bing Dep bing Uid ing Leng bozer Spe cuver Tin er unit an Producti te Altitu ltitude A Efficien Correcti y Unit P	weighth (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730 6,800 1.00 0.83 0.83 0.61	Volu	feet/second mph degrees feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier res/hr	2	NA	BCY or C
	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Rippi Average Rippi Average Rippi Average Mane Production pe rection Factors djusted Hourly Unit H Sir Al Job	Rip D quantity dc Veloc bing Dep bing Dep bing Uid ing Leng bozer Spe cuver Tin er unit an Producti te Altitu ltitude A Efficien Correcti y Unit P	weighth (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730 6,800 1.00 0.83 0.83 0.61	Volu	feet/second mph degrees feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier	2	NA	BCY or C
smic: Area:	NA 0.75 HOURLY PRO Seismic: Area: Job Condition Corr	acres Source of estimated of DUCTION Seismi Average Rippi Average Rippi Average Rippi Average Mane Production pe rection Factors djusted Hourly Unit H Sir Job Net of Adjusted Hourly	Rip D quantity dc Veloc bing Dep bing Dep bing Uid ing Leng bozer Spe cuver Tin er unit an Producti te Altitu ltitude A Efficien Correcti y Unit P	weighth (ft): :: Map 1 ity:	2.63 15-2 NA 2.88 8.67 50.00 88.00 0.25 0.730 6,800 1.00 0.83 0.83 0.61	Volu	feet/second mph degrees feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier res/hr	2	NA	BCY or C

Unit cost: \$563.797 Per acre

Total job cost: \$423.00

	one 083-061
Task #: 061 State: Colorado Abbreviation: N Date: 1/16/2013 County: Delta Filename: C 1:12:10 PM	083-061
Date: 1/16/2013 County: Delta Filename: C User: SLB Agency or organization name: DRMS Filename: C HOURLY EQUIPMENT COST Basic Machine: Cat D10T - 10SU Horsepower: 574 Ripper Attachment: 3-Shank Ripper Horsepower: 574 Ownership Cost/Hour: \$110.73 NA Operating Cost/Hour: CRC Operating Cost/Hour: \$110.73 NA Operating Cost/Hour: \$37.41 NA Total Unit Cost/Hour: \$331.51 Total Unit Cost/Hour: \$3341.51 Total Unit Cost/Hour: \$31.88 Source of estimated quantity: Map Depth (ft): 2.63 Volume: 38.188 Source of estimated quantity: Map Depth (ft): 2.63 Volume: 38.188 Source of estimated quantity: Map Depth (ft): 2.63 Volume: 38.188 Source of estimated quantity: Map Dept feet/second Area; Area: Seismic: 2.88 mph Average Ripping Depth: 2.88 mph Average Ripping Length: 6et Average Ripp	083-061
1:12:10 PM	ay
User: SLB	lay
Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D10T - 10SU Horsepower: 574 Ripper Attachment: 3-Shank Ripper Data Source: (CR Outer Students: 0 0 (CR Operating Cost/Hour: \$110.73 NA (CR Operating Cost/Hour: \$183.36 100 (CR Operating Cost/Hour: \$183.36 100 (CR Operating Cost/Hour: \$183.36 100 (CR Operating Cost/Hour: \$183.36 (D0) (OD) Operating Cost/Hour: \$183.36 (D0) (D0) Operator Cost/Hour: \$13,366.06 (CR (CR MatterNate Methods: Selected estimating method: Area Maternate Methods: Selected estimating method: Area Source of estimated quantity: Map 15-2 MA Area: 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 Map 15-2 Map 15-2 Map 15-2 Map 15-2 Map 15-2	lay
HOURLY EQUIPMENT COST Basic Machine: Cat D10T - 10SU Horsepower: 574 Ripper Attachment: 3-Shank Ripper Data Source: (CRC Ownership Cost/Hour: \$110.73 NA (CRC Operating Cost/Hour: \$133.36 100 (CRC Operating Cost/Hour: \$130.01 100 (OD) Operator Cost/Hour: \$13.41 NA (CRC Operator Cost/Hour: \$13.366.06 (CRC (CRC MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: Source of estimated quantity: MA BCY N/ Source of estimated quantity: Map 15-2 Map 15-2 (CRC M/ Marea: Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Uength: 50.00 feet <td>lay</td>	lay
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per d Data Source: Cost Breakdown: Utilization % Ownership Cost/Hour: \$110.73 NA Operating Cost/Hour: \$183.36 100 Ripper Operating Cost/Hour: \$183.36 100 Operator Cost/Hour: \$133.36 100 Operator Cost/Hour: \$37.41 NA Total Unit Cost/Hour: \$3341.51 Total Unit Cost/Hour: Total Fleet Cost/Hour: \$1,366.06 MATERIAL OUANTITIES Selected estimating method: Area Alternate Methods: smic: NA Bank Volume: NA BCY NA Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping With: 8.67 degrees Average Ripping Length: 50.00 feet Average Maneuver Time: 0.25 feet Average Maneuver Time: 0.25 feet Average/hour acres/hour	lay
Data Source: (CR0 Cost Breakdown: Utilization % Ownership Cost/Hour: \$110.73 NA Operating Cost/Hour: \$1183.36 100 Ripper Operator Cost/Hour: \$110.73 NA Operator Cost/Hour: \$110.73 NA Operator Cost/Hour: \$110.73 NA Total Unit Cost/Hour: \$314.1 NA Total Unit Cost/Hour: \$3341.51 NA Total Fleet Cost/Hour: \$1,366.06 MATERIAL OUANTITIES Selected estimating method: Area Alternate Methods: Surce of estimated quantity: MA BCY NA Source of estimated quantity: Map 15-2 MA feet/second Area: Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Length: \$0.00 feet Average Ripping Length: \$0.25 feet	
Cost Breakdown: Utilization % Ownership Cost/Hour: \$110.73 NA Operating Cost/Hour: \$183.36 100 Ripper Operating Cost/Hour: \$10.01 100 Operator Cost/Hour: \$137.41 NA Operator Cost/Hour: \$37.41 NA Total Unit Cost/Hour: \$3341.51 Total Unit Cost/Hour: \$341.51 Total Fleet Cost/Hour: \$\$1,366.06 \$\$ \$\$ MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: \$\$ \$\$ \$\$ smic: NA Bank Volume: NA BCY \$\$ Area: 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 \$\$ <td>i)</td>	i)
Utilization % NA Operating Cost/Hour:Sil10.73NA NA Operating Cost/Hour:Sil23.36100Ripper Operating Cost/Hour:\$183.36Operator Cost/Hour:\$37.41NANATotal Unit Cost/Hour:\$3341.51Total Fleet Cost/Hour:\$1,366.06MATERIAL OUANTITIESSelected estimating method:Alternate Methods:smic:NABank Volume:NA9.00acresacresRip Depth (ft):2.63Volume:38,188Source of estimated quantity:Map 15-2HOURLY PRODUCTIONSeismic:Seismic:Average Ripping Depth:2.88Average Ripping Length:50.00Average Maneuver Time:0.25Production per unit area:0.730Arces/hour50.00	
Ownership Cost/Hour: $\$110.73$ NAOperating Cost/Hour: $\$183.36$ 100Ripper Operating Cost/Hour: $\$10.01$ 100Operator Cost/Hour: $\$37.41$ NATotal Unit Cost/Hour: $\$37.41$ NATotal Unit Cost/Hour: $\$341.51$ NATotal Fleet Cost/Hour: $\$1,366.06$ MATERIAL QUANTITIESSelected estimating method:AreaAlternate Methods:Selected estimating method:Areasmic:NABCYNA9.00acresRip Depth (ft):2.63Source of estimated quantity:Map 15-2HOURLY PRODUCTIONSeismic:Seismic:Average Ripping Depth:2.88mphAverage Ripping Length:50.00feetAverage Ripping Length:50.00feetAverage Ripping Length:50.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Operating Cost/Hour: $$183.36$ 100Ripper Operating Cost/Hour: $$10.01$ 100Operator Cost/Hour: $$37.41$ NATotal Unit Cost/Hour: $$341.51$ Total Fleet Cost/Hour: $$$1,366.06$ MATERIAL QUANTITIESSelected estimating method:AreaAlternate Methods:Selected estimating method:AreaArea:9.00acresRip Depth (ft):2.63Volume: $38,188$ Source of estimated quantity:Map 15-2HOURLY PRODUCTIONSeismic:NAfeet/secondArea:Average Ripping Depth:2.88mphAverage Ripping Length:50.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Operator Cost/Hour: \$37.41 NA Total Unit Cost/Hour: \$341.51 Total Fleet Cost/Hour: \$1,366.06 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: Selected estimating method: Area Marea: 9.00 acres Bank Volume: NA BCY NA Source of estimated quantity: Map 15-2 Map 15-2 MA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Ripping Length: 50.00 feet Average Ripping Length: 0.25 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
Total Unit Cost/Hour: \$341.51 Total Fleet Cost/Hour: \$1,366.06 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: Selected estimating method: Area Smic: NA BCY NA 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Ripping Length: 50.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
Total Fleet Cost/Hour: \$1,366.06 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: Selected estimating method: Area Semic: NA BCY NA 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Ripping Length: 50.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: Atternate Methods: NA BCY NA smic: NA Bank Volume: NA BCY NA Area: 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Depth: 2.88 mph Average Ripping Depth: 50.00 feet Average Ripping Length: 50.00 feet Average Dozer Speed: 88.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
Alternate Methods: Bank Volume: NA BCY NA smic: NA acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Dozer Speed: 88.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
smic: NA Bark Volume: NA BCY NA Area: 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Ripping Length: 50.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
Area: 9.00 acres Rip Depth (ft): 2.63 Volume: 38,188 Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Dozer Speed: 88.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
Source of estimated quantity: Map 15-2 HOURLY PRODUCTION Seismic: Seismic: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Depth: 2.88 mph Average Ripping Length: 50.00 feet Average Dozer Speed: 88.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	
HOURLY PRODUCTION Seismic: NA feet/second Area: NA feet/second Area: Average Ripping Depth: 2.88 mph Average Ripping Width: 8.67 degrees Average Ripping Length: 50.00 feet Average Dozer Speed: 88.00 feet Average Maneuver Time: 0.25 feet Production per unit area: 0.730 acres/hour	BCY or 0
Seismic:NAfeet/secondArea:Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area:0.25feet feet acres/hour	
Seismic Velocity:NAfeet/secondArea:Average Ripping Depth:2.88mphAverage Ripping Width:8.67degreesAverage Ripping Length:50.00feetAverage Dozer Speed:88.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Seismic Velocity:NAfeet/secondArea:Average Ripping Depth:2.88mphAverage Ripping Width:8.67degreesAverage Ripping Length:50.00feetAverage Dozer Speed:88.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Average Ripping Depth:2.88mphAverage Ripping Width:8.67degreesAverage Ripping Length:50.00feetAverage Dozer Speed:88.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Average Ripping Depth:2.88mphAverage Ripping Width:8.67degreesAverage Ripping Length:50.00feetAverage Dozer Speed:88.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Average Ripping Length:50.00feetAverage Dozer Speed:88.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Average Dozer Speed:88.00feetAverage Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Average Maneuver Time:0.25feetProduction per unit area:0.730acres/hour	
Production per unit area: 0.730 acres/hour	
· · · · · · · · · · · · · · · · · · ·	
Unadjusted Hourly Unit Production: 0.730 Acres/hr	
Site Altitude: 6,800 feet	
Altitude Adj: 1.00 (CAT HB)	
Job Efficiency: 0.83 (1 shift/day)	
Net Correction: 0.83 multiplier	
Adjusted Hourly Unit Production: 0.61 Acres/hr	
Adjusted Hourly Fleet Production: 2.42 Acres/hr	
JOB TIME AND COST	
Fleet size:4Grader(s)Total job time:3.71	

 Unit cost:
 \$563.797
 Per acre
 Total job cost:
 \$5,074.00

Site: Bowie No. 2			-			
	Mine Permi	it Action:	Permit Renew	val 3 Per	rmit/Job#: <u>(</u>	C1996083
PROJECT II	DENTIFICATION					
Date: 1	/16/2013 County: :12:57 PM	Colorado Delta				one 083-062
	LB					
-	cy or organization name: <u>DRM</u>	4S				
HOURLY E	QUIPMENT COST					
	c Machine: Cat D10T - 10SU			Horsepower:	574	
Ripper A	ttachment: <u>3-Shank Ripper</u>			Shift Basis:	1 per d (CRC	
Cost Breakdow	n				(enc	·)
COSt Dicardow	<u>11.</u>			Utilization %		
	Ownership Cost/Hour:	\$11		NA		
Di	Operating Cost/Hour: pper Operating Cost/Hour:	\$18. \$10	3.36	100		
KI	Operator Cost/Hour:	\$37		NA		
	Total Unit Cost/Hour:	\$34	1.51			
	Total Fleet Cost/Hour:	\$1.30	66.06			
MATEDIAI	QUANTITIES	· · · ·		g method: Area		
Alternate Methonic: NA	Bank	Volume:	NA	BCY	NA	
area: 5.00	acres Rip De	epth (ft):	2.63	Volume: 2	1,215	BCY or
	Source of estimated quantity:	Map 1:	5-1			
HOURLY PH	<u>RODUCTION</u>					
Seismic:	~					
<u>Seismic:</u>	Seismic Veloci	ty:	NA	feet/secon	nd	
<u>Seismic:</u> <u>Area:</u>		·			nd	
	Average Ripping Dep	th:	2.88	mph	nd	
		th:			nd	
	Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec	th: th: th: ed:	2.88 8.67	mph degrees	nd	
	Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin	th: th: th: th: ed:	2.88 8.67 50.00 88.00 0.25	mph degrees feet feet feet feet		
	Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec	th: th: th: th: ed:	2.88 8.67 50.00 88.00	mph degrees feet feet		
<u>Area:</u>	Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin	th: th: th: th: ed:	2.88 8.67 50.00 88.00 0.25	mph degrees feet feet feet		
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are	th: th: th: ed: ne: ea:	2.88 8.67 50.00 88.00 0.25	mph degrees feet feet feet		
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are <u>Correction Factors</u>	th: th: th: ed: ea: on:	2.88 8.67 50.00 88.00 0.25 0.730	mph degrees feet feet feet feet acres/hou		
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are <u>Correction Factors</u> Unadjusted Hourly Unit Production Site Altitude A	th: th: th: ed: ne: ea: on: de:	2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,000 1.00	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE	r 3)	
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are <u>Correction Factors</u> Unadjusted Hourly Unit Production Site Altitude Altitude Au Job Efficience	th: th: th: ed: ea: ea: te: dj: cy:	2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,000 1.00 0.83	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/di	r 3) ay)	
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are <u>Correction Factors</u> Unadjusted Hourly Unit Production Site Altitude A	th: th: th: ed: ea: ea: te: dj: cy:	2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,000 1.00	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE	r 3) ay)	
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spee Average Maneuver Tin Production per unit are <u>Correction Factors</u> Inadjusted Hourly Unit Production Site Altitude Altitude A Job Efficience Net Correction Adjusted Hourly Unit Production	th:	2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,000 1.00 0.83 0.83 0.83	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/di multiplier Acres/hr	r 3) ay)	
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are <u>Correction Factors</u> Juadjusted Hourly Unit Production Site Altitude Altitude A Job Efficience Net Correction	th:	2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,000 1.00 0.83 0.83	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/da multiplier	r 3) ay)	
<u>Area:</u> Job Condition (Average Ripping Dep Average Ripping Wid Average Ripping Leng Average Dozer Spec Average Maneuver Tin Production per unit are <u>Correction Factors</u> Unadjusted Hourly Unit Production Site Altitude Altitude A Job Efficience Net Correction Adjusted Hourly Unit Pr Adjusted Hourly Fleet Pr	th:	2.88 8.67 50.00 88.00 0.25 0.730 0.730 6,000 1.00 0.83 0.83 0.83	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/di multiplier Acres/hr	r 3) ay)	

Unit cost: \$563.797 Per acre

Total job cost: \$2,819.00

Page 95 of 312

	-		ed Mine Area		•		
Site	Bowie No. 2 Min	e	Permit Action	n: Permit Renew	wal 3 Per	mit/Job#:	C1996083
	PROJECT IDEN	TIFICATION					
	Task #: 063	Sta	te: Colorad	lo	Abbre	viation:	None
	Date: 1/16/2		ty: Delta		Fi	lename:	C083-063
	2:38:2	27 PM				_	
	User: SLB						
	Agency or	organization name:	DRMS				
	HOURLY EQUI	PMENT COST					
	Basic Ma	chine: Cat D10T -	10SU		Horsepower:	57	74
	Ripper Attach	ment: 3-Shank Rip	oper		Shift Basis:	1 per	
					Data Source:	(CH	<u>RG)</u>
	Cost Breakdown:				1		
	,			110 72	Utilization %		
		Ownership Cost/Hour:		110.73	NA 100		
		Operating Cost/Hour: Operating Cost/Hour:		183.36 510.01	100		
	Кіррег	Operator Cost/Hour:		637.41	NA		
		Total Unit Cost/Hour:		341.51			
	r	Fotal Elast Cost/Hour	. ¢1	,366.06	-		
		Fotal Fleet Cost/Hour:	. .	,300.00	-		
	MATERIAL QU	<u>ANTITIES</u>	S	Selected estimatin	ng method: Area		
	Alternate Methods:						
mic:	NA		Bank Volume	: NA	BCY	Ν	JA
rea:	169.00	acres	Rip Depth (ft):	: 2.63	Volume: 7	17,078	BCY or
	S	ource of estimated qua	antity: Tota	al Regraded Area	(Ripping per Page 2	2.05-48)	
	HOURLY PROD	UCTION					
	Seismic:	Seismic V	Velocity:	NΔ	feet/seco	ad	
		Seismic V	Velocity:	NA	feet/secon	nd	
	<u>Seismic:</u> <u>Area:</u>		•			nd	
		Average Rippin	g Depth:	2.88	mph	nd	
		Average Rippin Average Rippin	g Depth: g Width:	2.88 8.67	mph degrees	nd	
		Average Rippin Average Rippin Average Ripping	g Depth: g Width: g Length:	2.88 8.67 100.00	mph degrees feet	nd	
		Average Rippin Average Rippin Average Ripping Average Doze	g Depth: g Width: g Length: er Speed:	2.88 8.67	mph degrees	nd	
		Average Rippin Average Rippin Average Ripping	g Depth: g Width: g Length: er Speed: rer Time:	2.88 8.67 100.00 88.00	mph degrees feet feet		
		Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u	g Depth: g Width: g Length: er Speed: rer Time:	2.88 8.67 100.00 88.00 0.25	mph degrees feet feet feet		
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u	g Depth: g Width: g Length: er Speed: ver Time: unit area:	$ \begin{array}{r} 2.88 \\ 8.67 \\ 100.00 \\ 88.00 \\ 0.25 \\ 0.861 \\ \end{array} $	mph degrees feet feet feet acres/hou		
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Prod	g Depth: g Width: g Length: er Speed: ver Time: unit area: oduction:	2.88 8.67 100.00 88.00 0.25 0.861 0.861	mph degrees feet feet feet acres/hou Acres/hr		
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro	g Depth: g Width: g Length: er Speed: ver Time: unit area: oduction: Altitude:	2.88 8.67 100.00 88.00 0.25 0.861 0.861 6,500	mph degrees feet feet feet acres/hou Acres/hr feet	r	
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro Site J	g Depth: g Width: g Length: er Speed: ver Time: unit area: oduction: Altitude: uude Adj:	2.88 8.67 100.00 88.00 0.25 0.861 0.861 6,500 1.00	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE	r 3)	
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro Site Altit Job Ef	g Depth: g Width: g Length: er Speed: ver Time: unit area: oduction: Altitude:	2.88 8.67 100.00 88.00 0.25 0.861 0.861 6,500	mph degrees feet feet feet acres/hou Acres/hr feet	r 3) ay)	
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro Site Altit Job Ef Net Co	g Depth: g Width: g Length: er Speed: unit area: oduction: Altitude: ude Adj: ficiency: prrection:	$\begin{array}{r} 2.88\\ 8.67\\ 100.00\\ 88.00\\ 0.25\\ 0.861\\ \hline 0.861\\ \hline 6,500\\ 1.00\\ 0.83\\ 0.83\\ \hline 0.83\\ \hline \end{array}$	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/d multiplier	r 3) ay)	
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro Site Altit Job Ef Net Co Adjusted Hourly U	g Depth: g Width: g Length: er Speed: unit area: oduction: Altitude: ficiency: prrection: Unit Productio	2.88 8.67 100.00 88.00 0.25 0.861 0.861 6,500 1.00 0.83 0.83 n: 0.71	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/d multiplies	r 3) ay)	
	<u>Area:</u> <u>Job Condition Corre</u> Unadj	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro Site J Altit Job Ef Net Co Adjusted Hourly U	g Depth: g Width: g Length: er Speed: unit area: oduction: Altitude: ficiency: prrection: Unit Productio	2.88 8.67 100.00 88.00 0.25 0.861 0.861 6,500 1.00 0.83 0.83 n: 0.71	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/d multiplier	r 3) ay)	
	<u>Area:</u> Job Condition Corre	Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per u ection Factors usted Hourly Unit Pro Site J Altit Job Ef Net Co Adjusted Hourly U	g Depth: g Width: g Length: er Speed: unit area: oduction: Altitude: ude Adj: ficiency: ficiency: Unit Productio Teet Productio	2.88 8.67 100.00 88.00 0.25 0.861 0.861 6,500 1.00 0.83 0.83 n: 0.71	mph degrees feet feet feet acres/hou Acres/hr feet (CAT HE (1 shift/d multiplier Acres/hr Acres/hr	r 3) ay)	Hours

 Unit cost:
 \$477.661
 Per acre
 Total job cost:
 \$80,726.00

Page 97 of 312

Site			oadout Faciliti				
	Bowie No. 2 Min	<u>ie</u>	Permit Action:	Permit Renew	al 3 Perr	nit/Job#: <u>C1996083</u>	
	PROJECT IDEN	TIFICATION					
	Task #: 064 Date: 1/16/2 2:40: 2:40: User: SLB		ate: <u>Colorado</u> nty: Delta		Abbrev File	iation: <u>None</u> name: C083-064	
	Agency or	organization name:	DRMS				_
	HOURLY EQUI	PMENT COST					
	Basic Ma				Horsepower:	574	
	Ripper Attac	hment: <u>3-Shank Ri</u>	pper		Shift Basis: Data Source:	1 per day (CRG)	
	Cost Breakdown:					(010)	_
		Ownership Cost/Hour	\$1	10.73	Utilization % NA		
		Operating Cost/Hour		83.36	100		
	Ripper	Operating Cost/Hour		0.01	100		
		Operator Cost/Hour Total Unit Cost/Hour		41.51	NA		
			·	366.06			
		Total Fleet Cost/Hour	. , , ,	500.00			
	MATERIAL QU		Se	elected estimating	g method: Area		
	Alternate Methods:						
mic: area:	NA 22.00	acres	Bank Volume: Rip Depth (ft):	NA 2.63	BCY Volume: 93,	NA 347 H	BCY or
neu.		Gource of estimated qu				<u> </u>	
	HOURLY PROI		annity. <u>Divis</u>				_
	Seismic:						
		Seismic	Velocity:	NA	feet/second	1	
	Area:		·			1	
	<u>Area:</u>	Average Rippir	ng Depth:	2.88	mph	1	
	<u>Area:</u>	Average Rippir Average Rippir	ng Depth: ng Width:			1	
	<u>Area:</u>	Average Rippir Average Rippir Average Ripping Average Doz	ng Depth: ng Width: g Length: er Speed:	2.88 8.67 100.00 88.00	mph degrees feet feet	1	
	<u>Area:</u>	Average Rippir Average Rippir Average Ripping Average Doz Average Maneuv	ng Depth: ng Width: g Length: er Speed: ver Time:	2.88 8.67 100.00 88.00 0.25	mph degrees feet feet feet feet	1	
		Average Rippir Average Rippir Average Ripping Average Doz Average Maneuv Production per	ng Depth: ng Width: g Length: er Speed: ver Time:	2.88 8.67 100.00 88.00	mph degrees feet feet	1	
	Job Condition Corr	Average Rippir Average Rippir Average Ripping Average Doz Average Maneuv Production per	ng Depth: ng Width: g Length: er Speed: ver Time: unit area:	2.88 8.67 100.00 88.00 0.25	mph degrees feet feet feet feet	1	
	Job Condition Corr	Average Rippir Average Rippir Average Ripping Average Doz Average Maneuv Production per ection Factors justed Hourly Unit Pro	ng Depth: ng Width: g Length: er Speed: ver Time: unit area: oduction:	2.88 8.67 100.00 88.00 0.25 0.861 0.861	mph degrees feet feet feet acres/hour Acres/hr	1	
	Job Condition Corr	Average Rippir Average Rippin Average Ripping Average Doz Average Maneuv Production per <u>ection Factors</u> justed Hourly Unit Pro	ng Depth: ng Width: g Length: er Speed: ver Time: unit area:	$ \begin{array}{r} 2.88 \\ $	mph degrees feet feet feet acres/hour		
	Job Condition Corr	Average Rippir Average Rippin Average Rippin Average Doz Average Maneuv Production per <u>ection Factors</u> justed Hourly Unit Pr Site Alti	ng Depth: ng Width: g Length: er Speed: ver Time: unit area: oduction: Altitude: tude Adj: fficiency:	2.88 8.67 100.00 88.00 0.25 0.861 0.861 5,900 1.00 0.83	mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day		
	Job Condition Corr	Average Rippir Average Rippin Average Rippin Average Doz Average Maneuv Production per <u>ection Factors</u> justed Hourly Unit Pr Site Alti	ng Depth: ng Width: g Length: er Speed: ver Time: unit area: oduction: Altitude: tude Adj:	2.88 8.67 100.00 88.00 0.25 0.861 0.861 5,900 1.00	mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB)		
	Job Condition Corr	Average Rippir Average Rippin Average Rippin Average Doz Average Maneuv Production per <u>ection Factors</u> justed Hourly Unit Pr Site Alti	ng Depth: ng Width: g Length: er Speed: ver Time: unit area: oduction: dltitude: tude Adj: fficiency: orrection: Unit Production	$\begin{array}{r} 2.88 \\ 8.67 \\ 100.00 \\ 88.00 \\ 0.25 \\ 0.861 \\ \hline \\ 0.861 \\ \hline \\ 5,900 \\ 1.00 \\ 0.83 \\ \hline \\ 0.83 \\ \hline \\ 0.71 \\ \end{array}$	mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day		
	Job Condition Corr	Average Rippin Average Rippin Average Rippin Average Doz Average Maneux Production per ection Factors justed Hourly Unit Pro Site Alti Job E Net Co Adjusted Hourly F	ng Depth: ng Width: g Length: er Speed: ver Time: unit area: oduction: dltitude: tude Adj: fficiency: orrection: Unit Production	$\begin{array}{r} 2.88 \\ 8.67 \\ 100.00 \\ 88.00 \\ 0.25 \\ 0.861 \\ \hline \\ 0.861 \\ \hline \\ 5,900 \\ 1.00 \\ 0.83 \\ \hline \\ 0.83 \\ \hline \\ 0.71 \\ \end{array}$	mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day multiplier Acres/hr		

 Unit cost:
 \$477.661
 Per acre
 Total job cost:
 \$10,509.00

	Task description:	Rip B-Seam I	Portal Bench				
Site	: Bowie No. 2 Mi	ine	Permit Action:	Permit Renewa	13 Perm	it/Job#: <u>C19960</u>	83
	PROJECT IDE	NTIFICATION					
		Stat /2013 Count :51 PM			Abbrevia	ation: <u>None</u> name: C083-065	5
	Agency	or organization name:	DRMS				
	HOURLY EQU	IPMENT COST					
	Basic M				Horsepower:	574	
	Ripper Attac	chment: <u>3-Shank Rip</u>	per		Shift Basis: Data Source:	1 per day (CRG)	
	Cost Breakdown:			1 .		(610)	
		Ownership Cost/Hour:	\$11	0.73	Utilization % NA		
		Operating Cost/Hour:	\$18	3.36	100		
	Rippe	er Operating Cost/Hour: Operator Cost/Hour:	\$10 \$37		100 NA		
		Total Unit Cost/Hour:		1.51	INA		
		Total Fleet Cost/Hour:	\$1.3	66.06			
	MATERIAL Q				mathad. Ana		
	Alternate Methods		Sel	ected estimating	method: Area		
eismic:	NA	_	Bank Volume:	NA	BCY	NA	
Area:	9.00	acres F	tip Depth (ft):	2.63	Volume: 38,1	.88	BCY or CC
		Source of estimated qua	ntity: Operat	tor Estimate			
	HOURLY PRO	DUCTION					
	<u>Seismic:</u>	Seismic V	elocity:	NA	feet/second		
	Area:			2.00			
		Average Ripping Average Ripping		2.88 8.67	mph degrees		
		Average Ripping		50.00	feet		
		Average Dozer		88.00	feet		
		Average Maneuve Production per u		0.25 0.730	feet acres/hour		
	Job Condition Cor	-					
		djusted Hourly Unit Pro	duction:	0.730	Acres/hr		
		Site A	ltitude:	6,750	feet		
			de Adj:	1.00	(CAT HB)		
			iciency:	0.83	(1 shift/day))	
		Net Cor	rection:	0.83	multiplier		
		Adjusted Hourly U Adjusted Hourly Fl		0.61 2.42	Acres/hr Acres/hr		
	JOB TIME AN	D COST					
	Fleet size:	4 Grader	(s)	Total job time:	: 3.71	Ho	urs

 Unit cost:
 \$563.797
 Per acre
 Total job cost:
 \$5,074.00

	Task description:	_Rip Rock Lay	down Pad Toj	psoil			
Site:	Bowie No. 2 Mi	ne	Permit Action:	Permit Renewa	al 3 Permit	/Job#: <u>C1996</u>)83
	PROJECT IDEN	NTIFICATION					
	Task #: 066	Stat	e: Colorado		Abbreviat	ion: None	
		2013 Count	y: Delta		Filena	me: C083-06	6
	User: $\frac{2:41:}{SLB}$	39 PM					
	• •		DRMS				
	HOURLY EQU	<u>IPMENT COST</u>					
	Basic M				Horsepower:	574	
	Ripper Attac	hment: <u>3-Shank Rip</u>	per		Shift Basis: Data Source:	1 per day (CRG)	
						(CKO)	
	Cost Breakdown:				Utilization %		
		Ownership Cost/Hour:	\$11	0.73	NA		
		Operating Cost/Hour:		3.36	100		
	Ripper	r Operating Cost/Hour:		0.01	100 NA		
		Operator Cost/Hour: Total Unit Cost/Hour:	-	7.41	NA		
		Total Fleet Cost/Hour:	\$34	1.51			
	MATERIAL QU	JANTITIES	Sel	lected estimating	method: Area		
	Alternate Methods:	<u>.</u>					
mic:	NA	Η	Bank Volume:	NA	BCY	NA	
rea:	0.20		ip Depth (ft):	2.00	Volume: 645		BCY or
		Source of estimated qua	ntity: Operat	tor Estimate			
	HOURLY PRO	_	, <u> </u>				
		DUCTION					
	Seismic:	Seismic V	alocity	NA	feet/second		
		Seisine v		INA			
	<u>Area:</u>	Augraga Dinning	Donth	2.88	mph		
		Average Ripping Average Ripping		8.67	mph degrees		
		Average Ripping		25.00	feet		
		Average Dozer		88.00	feet		
		Average Maneuve		0.25	feet		
		Production per un	nit area:	0.559	acres/hour		
	Job Condition Corr	rection Factors					
	Unad	ljusted Hourly Unit Prod	luction:	0.559	Acres/hr		
		Site A	ltitude:	7,100	feet		
			de Adj:	1.00	(CAT HB)		
		Job Eff	iciency:	0.83	(1 shift/day)		
		Net Cor	rection:	0.83	multiplier		
		Adjusted Hourly U	nit Production:	0.46	Acres/hr		
		Adjusted Hourly Fl			Acres/hr		
	JOB TIME ANI	D COST					
	Fleet size:	1 Grader	(c)	Total job time	e: 0.43	Ц	ours
	TICCI SIZE.	i Orauell	(5)	i otai joo ullik	. 0.43	пс	Juis

Unit cost: \$736.068 Per acre

Total job cost: ______\$147.00

Site:	Bowie No. 2 M	ine	Permit Ac	tion: Permit Ren	newal 3	Permit/Job#:	C1996083
]	PROJECT IDE	NTIFICATIO	N				
-	Task #: 070		- State: Colo	rado	Ab	breviation:	None
		5/2013	County: Delta			Filename:	C083-070
		2:19 PM				-	
	User: SLE	8					
	Agency	or organization na	me: DRMS				
]	HOURLY EQU	JIPMENT COS	T				
	Basic N	Iachine: Cat D	10T - 10SU		Horsepower:	:	574
	Ripper Atta	chment: 1-Sha	nk Ripper		Shift Basis:		er day
					Data Source:	(0	CRG)
<u>(</u>	Cost Breakdown:						
				* 110 co	Utilization %		
		Ownership Cost		\$110.68	NA 100		
	Dinn	Operating Cost er Operating Cost		\$183.36 \$11.64	100		
	Кірр	Operator Cost		\$37.41	NA		
		Total Unit Cost		\$343.09			
		Total Fleet Cost	Hour:	\$1,372.35			
]	MATERIAL Q	<u>UANTITIES</u>		Selected estimation	ating method: <u>Se</u>	eismic	
1	Alternate Method	<u>s:</u>					
nic:	260,481	BCY	Bank Volu	me: 260,481	BCY	А	dverse
rea:	NA	acres	Rip Depth	(ft): NA	Volume:	NA	BCY or
		Source of estimation	ted quantity:	Operator Estimate			
]	HOURLY PRC	DUCTION					
-	Seismic:						
F	<u>Seisinie.</u>	Sei	smic Velocity:	5,000	feet/se	econd	
	A		_				
4	Area:	Avorage	Ripping Depth:	NA	mph		
			Ripping Width:	NA NA	npn degree	25	
			ipping Length:	NA	degree		
		0	Dozer Speed:	NA	feet		
		U	aneuver Time:	NA	feet		
		Production	n per unit area:	NA	acres/	hour	
]	Job Condition Con	rrection Factors					
	Una	djusted Hourly U	nit Production:	673.60	Cu. yo	ls./hr	
			Site Altitude:	6,500	feet		
			Altitude Adj:	1.00	(CAT	HB)	
			lob Efficiency:	0.83		ft/day)	
		١	Net Correction:	0.83	multir	olier	
		Adjusted Ho	ourly Unit Produc	ction: 559.0)9 Cu. yds./ł	n	
		Adjusted Ho	urly Fleet Produc	etion: 2,236 .	.35 Cu. yds./ł	ir	
	IOR TIME AN	·	urly Fleet Produc	2,236.	. <u>35</u> Cu. yds./f	ır	
<u>.</u>	JOB TIME AN Fleet size:	D COST	urly Fleet Produc Grader(s)	tion: 2,236. Total job		nr 116.48	Hours

Unit cost: \$0.614 Per cu. yd.

Total job cost: \$159,846.00

Page 105 of 312

SCRAPER TEAM WORK

Site:	Bowie No. 2 M	line	Permit Action:	Permit Renewal	3 Per	mit/Job#: <u>C19</u>	96083
]	PROJECT IDI	ENTIFICATION					
	Task #: 071		State: Colorado		Abbrev	viation: None	3
			County: Delta		File	ename: C083	3-071
	User: $\frac{2:4}{SL}$	3:17 PM					
	Agency	or organization nam	e: DRMS				
]	HOURLY EQ	UIPMENT		COSTSh	ift basis: <u>1 per d</u>	ay	
-			Essimu				
_				ent Description			
			-Dozer: NA	G wpush pun			
	Su	pport Equipment -Le					
_	D 1		mp Area: NA				
	Road	Maintenance – Moto -Wat	or Grader: NA er Truck: NA				
		, vi u					
	Cost Breakdowr	Scraper V	Vork Team	Support Equip			ce Equipme
		Scraper	Dozer	Load Area	Dump Area	Motor Grader	r Water
%U	tilization-machin	e: 100	NA	NA	NA	NA	N
0	vnership cost/hou	ır: \$65.78	NA	NA	NA	NA	N
0	perating cost/hou	ır: \$182.63	NA	NA	NA	NA	N
Ri	pper op. cost/hou	ır: NA	NA	NA	NA	NA	N
(Operator cost/hou	ır: \$30.02	NA	NA	NA	NA	N
	Unit Subtota	ls: \$278.43	NA	NA	NA	NA	N
	Number of Unit	as: 2	0	0	0	0	0
	Group Subtota	s: Work:	\$556.86	Support:	\$0.00	Maint	t: \$0.
-	Fotal work team	cost/hour: <u>\$556.86</u>					
]	MATERIAL Q	UANTITIES					
-	Initial volur	ne: 7,484	CCY	Swell facto	or: 1.000		
	Loose volur						
		Source of estimated	volume: Division	of Reclamation, M	lining & Safety		
		ce of estimated swell					
1		DUCTION					
<u> </u>	HOURLY PRO	<u>JDUCTION</u>		Scraper Bo	wl (volume) Bas	is [.]	
	Material weig	ht: 2,850 lbs/LCY		Struck V		<u></u>	LCY
N	faterial description		1/4""-2""diam.)	Heaped V			LCY
1.	Rated Paylo			Average V			LCY
	Payload Capaci	ty: 18.53 LCY		Adjusted Ca	apacity: 18.53		LCY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: 2.40 minutes

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6850.00	6.00	3.00	9.00	1930	3.63
				Return Time:	3.63 n	ninutes
			Total Scrape	r team cycle time:	7.53	minutes
			Adjusted 1	for job conditions:	245.05	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	single scrap	per team (unit) h	nourly production:	245.05	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) l	nourly production:	245.05	LCY/Hour
Optima	Unadjusted unit proc I Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Floo	t size: 1	Team(s)	т	otal job time:	30.54	Hours

Unit cost: \$2.272 /LCY

Total job cost: **\$17,006.95**

	Task description:	KIP III	ICK LOAU	out Road					
Site:	Bowie No. 2 Mi	ine	Peri	mit Action:	Permit Ren	ewal 3	Permit/Jo	b#: <u>C199608</u>	33
	PROJECT IDE	NTIFICATION	I						
	Task #: 072		State:	Colorado			Abbreviation	n: None	
			County:	Delta			Filename	e: C083-072	
		:13 PM						. <u> </u>	
			DD						
	Agency o	r organization nat		RMS					
			_	r T				57 4	
	Basic M Ripper Attac		0T - 10S nk Ripper	U			power: Basis:	574 1 per day	
	Ripper Attac		к кірреі			Data S		(CRG)	
	Cost Breakdown:								
	COSt DICardowii.					Utilizat	ion %		
		Ownership Cost/			0.68	NA	4		
		Operating Cost/			3.36	10			
	Rippe	r Operating Cost/ Operator Cost/			.64 7.41	10 NA			
		Total Unit Cost/			3.09	INA	4		
		Total Fleet Cost/	Hour:	\$1,3	72.35				
	MATERIAL Q	UANTITIES		Sel	ected estimat	ing method	: Seismic		
	Alternate Methods	:							
nic:	4,800	BCY	Ban	k Volume:	4,800	В	CY	Adverse	
rea:	NA	acres		Depth (ft):	NA		ume: NA	Auverse	BCY or
		Source of estimate	-		on Estimate				
	HOURLY PRO		eu quunti	<i></i>					
	Seismic:	Seis	mic Velo	city:	5,000		feet/second		
					2,000		1000 0000110		
	Area:	Average R	inning De	nth.	NA		mph		
		Average R			NA		degrees		
		Average Ri			NA		feet		
		0	Dozer Sp		NA		feet		
		Average Ma			NA		feet		
		Production	i per unit a	area:	NA		acres/hour		
	Job Condition Cor	rection Factors							
	Unac	ljusted Hourly Ur	it Product	tion:	673.60		Cu. yds./hr		
			Site Altit	ude:	6,000		feet		
			Altitude		1.00		(CAT HB)		
			ob Efficie	ncy:	0.83		(1 shift/day)		
		N	et Correct	tion:	0.83		multiplier		
		Adjusted Ho	urly Unit	Production:	559.09	Э Си	yds./hr		
		Aujusicu 110	uny Ome	i roddettom.		<u> </u>	2		
		Adjusted Ho			2,236.3		yds./hr		
	JOB TIME AN	Adjusted Hou							

Unit cost: _____\$0.614 Per cu. yd.

Total job cost: **\$2,946.00**
Page 109 of 312

SCRAPER TEAM WORK

Site: B	Bowie No. 2 Mine		Permit Action	: Permit Renewal	B Per	mit/Job#: <u>C199</u>	6083
<u>PR</u>	OJECT IDENT	IFICATION					
]	Task #: 073 Date: 1/16/20 2:45:11	13 Cou	ate: Colorado nty: Delta	D		viation: <u>None</u> lename: C083-0	073
	User: <u>SLB</u>						
	Agency or of	rganization name:	DRMS				
<u>HC</u>	OURLY EQUIP	MENT		COSTS	hift basis: <u>1 per o</u>	<u>lay</u>	
				nent Description			
			Dozer: NA	27G w/push-pull			
	Suppor	t Equipment -Load	Area: NA				
	Road Main	-Dump ntenance –Motor G					
		-Water					
Cos	st Breakdown:	Scraper Wor	k Team	Support Equi	oment	Maintenance	Fauinment
<u></u>	<u>st Di cakuo wii</u> .	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Tr
%Utiliz	zation-machine:	100	NA	NA	NA	NA	NA
Owne	ership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Oper	ating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Rippe	er op. cost/hour:	NA	NA	NA	NA	NA	NA
Ope	erator cost/hour:	\$30.02	NA	NA	NA	NA	NA
	Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
N	umber of Units:	2	0	0	0	0	0
G	Broup Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.00
Tota	al work team cost/	hour: <u>\$556.86</u>					
М	ATERIAL QUA	NTITIFS					
1111	Initial volume: Loose volume:	6,000 6,000	CCY LCY	Swell fact	or: <u>1.000</u>		
		ce of estimated vol f estimated swell fa		08-18 ndbook			
HO	OURLY PRODU	UCTION					
				Scraper Bo	owl (volume) Ba	sis:	
]	Material weight:	2,850 lbs/LCY		Struck	Volume: 15.70	L	.CY
	erial description:	Gravel - Dry (1/4'	""-2""diam.)	Heaped	Volume: 22.00	L	.CY
	Rated Payload:	52,800 pounds		Average	Volume: 18.85	L	CY
P	ayload Capacity:	18.53 LCY		Adjusted C			CY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

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

Haul Time: **1.35** minutes

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2600.00	0.00	5.00	5.00	2814	1.07
				Return Time:	1.07 n	ninutes
			Total Scrape	r team cycle time:	3.92	minutes
			Adjusted f	for job conditions:	470.72	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	single scrap	ber team (unit) h	nourly production:	470.72	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	470.72	LCY/Hour
Optima	Unadjusted unit proc 1 Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	т	otal job time:	12.75	Hours

Unit cost: _____\$1.183 /LCY

Total job cost: **\$7,097.98**

Page 111 of 312

BULLDOZER RIPPING WORK

	Task description:	_Rip U	pper Haul R	oad Aspl	nalt Prior to R	oad Narr	owing			
Site	Bowie No. 2 M	ine	Perm	it Action:	Permit Rene	wal 3	Permi	t/Job#:	C19960	183
	PROJECT IDE	NTIFICATIO	N							
	Task #: 074		State:	Colorado			Abbrevia	tion:	None	
		5/2013		Delta			Filena	ame:	C083-07	4
		:15 PM								
	User: SLB									
	Agency of	or organization n	ame: DRM	1S						
	HOURLY EQU	IPMENT CO	<u>ST</u>							
			D10T - 10SU				epower:		574	
	Ripper Atta	chment: <u>1-Sh</u>	ank Ripper				t Basis: Source:		er day CRG)	
	Cast Dessistations					Dutu		(21(0)	
	Cost Breakdown:					Utiliza	tion %			
		Ownership Cos	t/Hour:	\$1	10.68		A			
		Operating Cos			33.36		00			
	Rippe	er Operating Cos			1.64		00			
		Operator Cos Total Unit Cos			7.41 43.09	IN	A			
						-				
		Total Fleet Cos	st/Hour:	\$1,3	372.35	_				
	MATERIAL Q	UANTITIES		Se	lected estimati	ng metho	d: Seismic			
	Alternate Methods	<u>s:</u>								
ismic:	6,600	BCY	Bank	Volume:	6,600	F	BCY	А	dverse	
Area:	NA	acres		epth (ft):	NA		lume: NA			BCY or C
		Source of estimation	ated quantity:	Divisi	ion Estimate					
	HOURLY PRO		1 5							
		DUCTION								
	<u>Seismic:</u>	Se	eismic Veloci	tv.	5,000		feet/second			
		50	listille veloei		5,000	,	icel/second			
	Area:	A	Diania - Daa	41	NT A		1.			
			Ripping Dep Ripping Wid		NA NA		mph degrees			
			Ripping Wild		NA		feet			
			ge Dozer Spee		NA		feet			
			Maneuver Tin		NA		feet			
			on per unit are		NA		acres/hour			
	Job Condition Cor	rection Factors								
		djusted Hourly U	Init Productic	n.	673.60		Cu. yds./hr			
	Cita	ajasica mouny (-			
			Site Altitud		6,800		feet			
			Altitude A	·	<u>1.00</u> 0.83		(CAT HB)			
			Job Efficiend Net Correctio	-	0.83		(1 shift/day) multiplier			
						~	•			
			lourly Unit Pi ourly Fleet Pi				ı. yds./hr ı. yds./hr			
	JOB TIME AN	·	,							
			a							
	Fleet size:	4	Grader(s)		Total job ti	me:	2.95		Ho	urs

 Unit cost:
 \$0.614
 Per cu. yd.
 Total job cost:
 \$4,050.00

Bowie No. 2 Mine

Reclamation Cost Estimate RN-3

TRUCK/LOADER TEAM WORK

Site: Bowie No. 2 Min	e	Permit Activ	on: Permit Rene	ewal 3	Permit/Job#:	C1996083
PROJECT IDEN	TIFICATION	<u>I</u>				
Task #: 075		State: Colora	ado		Abbreviation:	None
Date: 1/16/2		County: Delta			Filename:	C083-075
User: $\frac{2:48:0}{\text{SLB}}$	5 PM				_	
	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COS'	г		Shift	basis: <u>1 per day</u>	
<u>HOUKLI EQUI</u>			Equipment Descr		basis. <u>1 per uay</u>	
T	ruck Loader Tea		773F	iption		
			365C L 13'-7" S	tick		
Suppo	ort Equipment -L	Load Area: NA Long Area: NA				
Road Ma	intenance – Mot	1				
	-Wa	ter Truck: NA				
<u>Cost Breakdown</u> :	Truck/Lo Truck	ader Team Excavator	Support Load Area	Equipment Dump Area	Maint Motor Grad	enance Equipment ler Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$60.64	\$78.81	NA	NA	NA	NA
Operating cost/hour:	\$119.47	\$139.55	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$25.66	\$33.94	NA	NA	NA	NA
Unit Subtotals:	\$205.77	\$252.30	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work:	\$663.84	Support:	\$0.00	Mai	nt: \$0.00
Total work team cos	t/hour: <u>\$663.84</u>	<u> </u>				
MATERIAL QU	ANTITIES					
Initial volume:		ССҮ		factor: 1.16	5	
Loose volume:	70,55	LCY				
	rce of estimated		ator Estimate			
Source	of estimated swe		Handbook			
	Material Purch	ase Cost: \$0.00 otal Cost: \$0.00				
			<u> </u>			
HOURLY PRO	DUCTION					
<u>Truck Capacity:</u> Truck Payload (weig	oht) Basis:					
			Pounds/LCY	,		
Material w	eigin. 2,700		I oundo, DO I			
Material w Descri Rated Pa	ption: Decom	posed rock - 50%				

Truck Bed (volume) Basis:						
Struck Volume:	35.00	LCY				
Heaped Volume:	46.50	LCY				
Average Volume:	40.75	LCY				
Adjusted Volume:	42.25	LCY				
Final	Truck Volum	e Based on Number o	f Londor Dossos	12.26	LCY	
Loading Tool Capacity		e Based oli Nullibel o	I LOauer Fasses.	42.26		
Loading Tool Capacity			Buc	ket Size Class: 1	arge	
Rated Capacity:	6.900	LCY (heaped)	Due		Burge	
Bucket Fill Factor:	0.875	Loose material	- 1" and over (8	5 - 90%) 0.875		
Adjusted Capacity:	6.038	LCY				
Job Condition Corrections	<u>:</u>	Si	ite Altitude (ft.):	<u>6900</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HI			
Job Efficiency:	0.830	0.830	(CAT HI	3)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		Number of Loading T	Cool Passas Pagu	ired to Fill		nassas
Excavators and Front Shove		Number of Loading 1	1001 I asses Requ	Truck:	7	passes
Machine Cycle Time v Selected Value v						
Track Loaders –	Material Desc	ription:				
Cycle Time Elements (min.)	:					
Load: NA	1	Maneuver: NA		Dump: 0.10	0	
Wheel and Track Loaders -	Unadiusted F	Basic Loader Cycle Ti	ne (load, dump,	maneuver):	NA min	nutes
Cycle Time Factors			, (10 00 , 00111p,	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 Tin	ne Adjustment:	NA	minutes	
		Adjusted Load	er Cycle Time:	0.570	minutes	
		Net Load T	ime per Truck:	3.520	minutes	
Truck Cycle Time:						
Truck Exchange Time	: 0.70	Minutes	Adjusted	for site altitude:	0.700	Minutes
Truck Load Time	: 3.520	Minutes	Adjusted	for site altitude:	3.520	Minutes
ck Maneuver and Dump Time	: 1.10	Minutes	Adjusted	for site altitude:	1.100	Minutes
Truck Travel (Haul & Return maintained 3.0	n) Time:	Road Condition:	Firm, smooth, ro	lling, dirt/lt. surface	ed, watered,	

Haul Rou	n							
Seg #	Haul Dis (Ft)	stance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	750.00		10.00	3.00	13.00	678	1.135	
					Haul Time:	1.135	minutes	
Return Re			1 1		1			
Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	750.00		-10.00	3.00	-7.00	3512	0.267	
					Return Time:	0.267	minutes	
				Total Tru	ck Cycle Time:	6.722	minutes	
Loading Too Produ Truck Unit Produ	uction	600.89	LCY/Hour		Adjusted for j	ob efficiency:	498.74	_ LCY/Hour
		377.23	LCY/Hour		Adjusted for j	ob efficiency:	313.10	_ LCY/Hour
Optimal No. of T	rucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			Adjusted	d hourly trucl	k team productio	on: 626.	20 LCY/H	Iour
					r team productio			
		Ĺ	Adjusted multipl	e truck/loade	r team productio	on: 498.	74 LCY/H	Iour
JOB TI	ME AND	COST						
Fleet	size:	1	Team(s)]	Fotal job time:	141.4	7 Hou	rs
Unit	cost:	\$1.331	/LCY	,	Total job cost:	\$93,914	1.32	

Page 116 of 312

BULLDOZER WORK

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION			
Task #: 076	State: Colorado		Abbreviation:	None
Date: $1/16/2013$		·	Filename:	C083-076
2:49:30 P	-			0000 010
User: SLB			-	
Agency or org	anization name: DRMS			
IOURLY EQUIPM	IENT COST			
	at D10T - 10SU			
Horsepower: 57				
I	emi-Universal			
Attachment: N				
	per day			
	CRG)			
Cost Breakdown:		.		
O	¢00.15	Utilization %		
Ownership Cost/Hour:		NA 100		
Operating Cost/Hour:		100		
Ripper op. Cost/Hour:				
Operator Cost/Hour:	\$37.41	NA		
otal unit Cost/Hour:	\$319.93			
otal Fleet Cost/Hour:	\$1,279.71			
AATERIAL QUAN	TITIES			
Initial Volume: 60,	564			
Swell factor: 1.1				
	557 LCY			
ource of estimated vol	1			
ource of estimated swe	ell Cat Handbook			
10101.				
HOURLY PRODUC	TION			
verage push distance:	75 feet			
Inadjusted hourly	2,105.3 LCY/hr			
roduction:				
Aterials consistency d	escription: Compacted fill or e	embankment 0.9		
verage push gradient:	5%			
verage site altitude:	6,500 feet			
	2,900 lbs/LCY			
Astanial maining				
Iaterial weight:	2,900 108/1201			
Aaterial weight: Veight description:	Decomposed rock - 50% Rock	k, 50% Earth		
-	Decomposed rock - 50% Rock	k, 50% Earth <u>Source</u>		

Reclamation Cost Estimate RN-3 Page 117 of 312

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3209	

Adjusted unit production:	675.59 LCY/hr
Adjusted fleet production:	2702.36 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.474/LCY

Total job time:	26.11 Hours	
Total job cost:	\$33,412.46	

BULLDOZER RIPPING WORK

	Task description:	Rip Gol	b Pile #1 R	oad					
Site:	Bowie No. 2 M	ine	Perm	it Action:	Permit Renev	wal 3	Permit/Jol	o#: <u>C199608</u>	3
	PROJECT IDE	NTIFICATION	I						
	2:50	:31 PM		Colorado Delta			Abbreviation Filename		
	User: SLB								
	Agency of HOURLY EQU	or organization nar		1S					
	Basic M Ripper Atta		0T - 10SU k Ripper			Horsepo Shift H Data So	Basis:	574 l per day (CRG)	
	Cost Breakdown:							(610)	
		Ownership Cost/	Hour:	\$11	0.68	Utilizatio NA	on %		
		Operating Cost/			33.36	100			
	Rippe	er Operating Cost/			1.64	100			
		Operator Cost/ Total Unit Cost/			7.41 3.09	NA			
						-			
		Total Fleet Cost/	Hour:	\$1,3	72.35	-			
	MATERIAL Q	UANTITIES		Se	lected estimation	ng method:	Seismic		
	Alternate Methods	<u>.:</u>							
mic:	5,277	BCY	Bank	Volume:	5,277	BC	Y	Adverse	
Area:	NA	acres	Rip De	epth (ft):	NA	Volu	ne: NA		BCY or (
		Source of estimate	ed quantity:	Page	3.02-2				
	HOURLY PRO	DUCTION							
	Seismic:	Seis	mic Veloci	ty:	5,000	f	eet/second		
	Area:								
	<u>Mica.</u>	Average R	ipping Dep	th:	NA	r	nph		
		0	ipping Wid		NA		legrees		
		Average Ri			NA		eet		
			Dozer Spee		NA		eet		
		Average Ma	per unit ar		NA NA		eet cres/hour		
	Job Condition Cor		per unit are		INA		eres/nour		
							7 1 4		
	Una	djusted Hourly Un			673.60		Cu. yds./hr		
			Site Altitud	-	6,000		eet		
		-	Altitude A		1.00		CAT HB)		
			ob Efficiend et Correctio		0.83		1 shift/day) nultiplier		
		Adjusted Ho	urly Unit Pi	roduction:	559.09	Cu.	yds./hr		
		Adjusted Hou	Irly Fleet Pi	roduction:	2,236.35	<u> </u>	yds./hr		
	JOB TIME AN	D COST							
	Fleet size:	4 0	Grader(s)		Total job tii	me:	2.36	Hou	rs

 Unit cost:
 \$0.614
 Per cu. yd.
 Total job cost:
 \$3,238.00

Page 120 of 312

BULLDOZER WORK

Bowie No. 2 Mine	Perm	nit Action:	Permit Renewal 3	Permit/Job#:	C1996083
Dowie 100. 2 Willie	10111	<u> </u>	Terrint Rene war 5		01770000
PROJECT IDENTIF	ICATION				
	State:	Colorado		Abbreviation:	None
Task #: 078 Date: 1/16/2013		Delta		Filename:	None C083-078
2:51:47 PN	County:	Dena		Filename:	0083-078
User: SLB				=	
Agency or organ	nization name: DRI	MS			
HOURLY EQUIPME	ENT COST				
	D10T - 10SU		_		
Horsepower: 574			_		
• • • • • • • • • • • • • • • • • • • •	ni-Universal		_		
	hank ripper		_		
	er day		_		
Data Source: (CF	(G)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$110.73		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$10.01		100		
Operator Cost/Hour:	\$37.41		NA		
-			1 12 8		
Total unit Cost/Hour:	\$341.51				
Total Fleet Cost/Hour:	\$1,366.06				
MATERIAL QUANT	<u>TITIES</u>				
Initial Volume: 5,96	3				
		_			
	5 7 LCY	_			
Loose volume. 0,94	/ LC I	-			
Source of estimated volu	<u> </u>				
Source of estimated swel	1 Cat Handb	ook		_	
factor:					
HOURLY PRODUC	<u>TION</u>				
Average push distance:	200 feet				
Unadjusted hourly	946.0 LCY/h	r			
production:					
Materials consistency day	scription: Company	tad fill or or	nhankmant 0.0		
Materials consistency des	semption: <u>Compac</u>	ieu III or er	nbankment 0.9		
Average push gradient:	0 %				
Average site altitude:	6,000 feet				
	2 000 11 7 077				
Material weight:	2,900 lbs/LCY				
Weight description:	Decomposed rock -	50% Rock,	50% Earth		
	_		G		
lob Condition Correction	1 Factor		Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3554	

Adjusted unit production:	336.21 LCY/hr
Adjusted fleet production:	1344.84 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$1.016/LCY

Total job time:	5.17 Hours	
Total job cost:	\$7,056.51	-

BULLDOZER RIPPING WORK

	Task description:	Rip Acc					
Site	Bowie No. 2 M			ermit Renew	al 3 Permit	/Job#: <u>C1996083</u>	
	PROJECT IDE	NTIFICATION	•				
	Task #: 079		State: Colorad	0	Abbreviat	ion: None	
			County: Delta		Filena	me: C083-079	
		2:33 PM					
	User: SLE						
	• •	or organization nar					_
			OT - 10SU		Horsepower:	574	_
	Ripper Atta	chment: <u>1-Shan</u>	k Ripper		Shift Basis: Data Source:	1 per day (CRG)	-
	Cost Breakdown:					(CKO)	-
	COSt Dieakdowii.				Utilization %		
		Ownership Cost/I	Hour: \$	110.68	NA		
		Operating Cost/I		183.36	100		
	Ripp	er Operating Cost/l		11.64	100		
		Operator Cost/		37.41	NA		
		Total Unit Cost/I	Hour: 5.	343.09			
		Total Fleet Cost/	Hour: \$1	,372.35			
	MATERIAL Q	UANTITIES	S	selected estimating	g method: Seismic		
	Alternate Method	<u>s:</u>					
smic:	1,648	BCY	Bank Volume		BCY	Adverse	
Area:	NA	acres	Rip Depth (ft):	NA	Volume: NA	B	CY or C
		Source of estimate	ed quantity:	sion Estimate			_
	HOURLY PRO	DUCTION					
	Seismic:						
	<u></u>	Seis	mic Velocity:	5,000	feet/second		
	Area:						
	<u>mea.</u>	Average R	ipping Depth:	NA	mph		
			pping Width:	NA	degrees		
			oping Length:	NA	feet		
			Dozer Speed:	NA	feet		
		0	neuver Time:	NA NA	feet		
			per unit area:	INA	acres/hour		
	Job Condition Con						
	Una	djusted Hourly Un	it Production:	673.60	Cu. yds./hr		
			Site Altitude:	6,500	feet		
		-	Altitude Adj:	1.00	(CAT HB)		
			b Efficiency: et Correction:	0.83	(1 shift/day) multiplier		
			Irly Unit Production		Cu. yds./hr		
		·	rly Fleet Production	n: 2,236.35	Cu. yds./hr		
	JOB TIME AN	D COST					
	JOD TIME AN						

Unit cost: \$0.614 Per cu. yd.

Total job cost: **\$1,011.00**

Page 124 of 312

SCRAPER TEAM WORK

Site: Bo	owie No. 2 Mine		Permi	t Action:	Permit Renewal	3 Per	mit/Job#:	C1996083	i
<u>PR(</u>	OJECT IDEN	TIFICATION							
Т	'ask #: 080 Date: 1/16/20 2:53:22 User: SLB	013 Co 3 PM	ounty: 1	Colorado Delta		Abbrev File	viation: ename:	None C083-080	
	Agency of C	organization name	. DRM	15					_
HO	URLY EQUIP	MENT			COSTSh	ift basis: <u>1 per d</u>	<u>ay</u>		
				Equipme	nt Description				
			Scraper:	Cat 627	G w/push-pull				_
	Suppo	rt Equipment -Loa	-Dozer:	NA NA					_
	Suppo		np Area:	NA					_
	Road Ma	intenance - Motor	Grader:	NA					_
		-Water	r Truck:	NA					
Cost	t Breakdown:	Scraper Wo	ork Toom		Support Equip	mont	Main	tenance Equ	inmon
	t Dreakuown.	Scraper	Do:	zer	Load Area	Dump Area	Motor C		Vater T
%Utiliz	ation-machine:	100	N	Δ	NA	NA	NA	A	NA
	ship cost/hour:	\$65.78	N.		NA	NA	N/ N/		NA
	ating cost/hour:	\$182.63	N		NA	NA	NA		NA
1	r op. cost/hour:	NA	N		NA	NA	NA		NA
	rator cost/hour:	\$30.02	N		NA	NA	NA		NA
-	Unit Subtotals:	\$278.43	N	A	NA	NA	NA	4	NA
Nu	umber of Units:	2	0)	0	0	0		0
G	roup Subtotals:	Work:	\$550	6.86	Support:	\$0.00]	Maint:	\$0.0
	ll work team cost								
	Initial volume:	1,928		CCY	Swell facto	r: <u>1.000</u>			
	Loose volume:	1,928		LCY					
		rce of estimated ve			of Reclamation, M	lining & Safety			
	Source of	of estimated swell	tactor:	Cat Hand	book				_
НО	URLY PROD	UCTION							
					Scraper Bo	wl (volume) Bas	is:		
N	Material weight:	2,900 lbs/LCY			Struck V			LCY	
	rial description:	Decomposed roo	ck - 50%	Rock,	Heaped V			LCY	
	-	50% Earth			-				
	Rated Payload: yload Capacity:	52,800 pounds 18.21 LCY			Average V Adjusted Ca			LCY LCY	
	VIUAU CADACHV				Autusteu Ca	1000011V. 10.4		1.4.7	

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

0.90 Minutes 0.60 Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: **1.50** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3900.00	2.50	3.00	5.50	2736	1.57
				Return Time:	1.57 1	ninutes
			Total Scrape	r team cycle time:	4.57	minutes
			Adjusted f	for job conditions:	396.81	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	single scra	per team (unit) h	nourly production:	396.81	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	396.81	LCY/Hour
Optima	Unadjusted unit proc l Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	'otal job time:	4.86	Hours

Unit cost: \$1.403 /LCY

Total job cost: \$2,705.66

Page 126 of 312

BULLDOZER WORK

	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICA	TION			
Task #: 081	State: Colorado		Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-081
2:54:35 PM			-	
User: SLB	_			
Agency or organizat	tion name: DRMS			
HOURLY EQUIPMENT	<u>COST</u>			
Basic Machine: Cat D10)T - 10SU			
Horsepower: 574	1 1000	-		
I	niversal	_		
Attachment: NA		_		
Shift Basis: 1 per da		-		
Data Source: (CRG)	<u>J</u>	-		
		_		
Cost Breakdown:	1	**		
	¢00.17	<u>Utilization %</u>		
Ownership Cost/Hour:	\$99.15	NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
Fotal unit Cost/Hour: \$3	319.93			
	1,279.71			
	·····			
MATERIAL QUANTITI	ES			
Initial Volume: 3,296				
Swell factor: 1.330				
	ΣΥ			
Swell factor: 1.330 Loose volume: 4,384 LC		on Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume:	Division of Reclamation	on, Mining & Safety		
Swell factor:1.330Loose volume:4,384 LCSource of estimated volume:Source of estimated swell		on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume:	Division of Reclamation	on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell factor:	Division of Reclamation Cat Handbook	on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell	Division of Reclamation Cat Handbook	on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTIO	Division of Reclamation Cat Handbook	on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTIO Average push distance:	Division of Reclamation Cat Handbook	on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTIO Average push distance: Unadjusted hourly	Division of Reclamation Cat Handbook	on, Mining & Safety		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTIO Average push distance:	Division of Reclamation Cat Handbook	on, Mining & Safety 		
Swell factor: 1.330 Loose volume: 4,384 LC Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTIO Average push distance: Unadjusted hourly	Division of Reclamation Cat Handbook			
Swell factor: 1.330 Loose volume: 4,384 LO Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTIO Average push distance: Unadjusted hourly broduction: Materials consistency descrip	Division of Reclamation Cat Handbook <u>N</u> <u>100 feet</u> 1,718.9 LCY/hr tion: <u>Compacted fill or er</u>			
Swell factor: Loose volume: Source of estimated volume: Source of estimated swell Cactor: HOURLY PRODUCTIO Average push distance: Unadjusted hourly production:	Division of Reclamation Cat Handbook <u>N</u> <u>100 feet</u> 1,718.9 LCY/hr tion: <u>Compacted fill or er</u>			
Swell factor: 1.330 Loose volume: 4,384 L0 Source of estimated volume: Source of estimated swell Source of estimated swell Source of estimated swell Cource of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Source Average push distance: Unadjusted hourly Droduction: Materials consistency descrip Average push gradient: 0	Division of Reclamation Cat Handbook <u>N</u> <u>100 feet</u> 1,718.9 LCY/hr tion: <u>Compacted fill or er</u>			
Swell factor: 1.330 Loose volume: 4,384 L0 Source of estimated volume: Source of estimated swell Source of estimated swell Source of estimated swell Cource of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Source Average push distance: Unadjusted hourly Droduction: Materials consistency descrip Average push gradient: 0	Division of Reclamation Cat Handbook <u>100 feet</u> 1,718.9 LCY/hr otion: <u>Compacted fill or er</u>			
Swell factor: 1.330 Loose volume: 4,384 L0 Source of estimated volume: Source of estimated swell Source of estimated swell Source of estimated swell Average push distance: Unadjusted hourly Unadjusted hourly Source of estimated swell Average push distance: Materials consistency descrip Average push gradient: 0 Average site altitude: 6	Division of Reclamation Cat Handbook <u>100 feet</u> 1,718.9 LCY/hr otion: <u>Compacted fill or er</u>			
Swell factor: 1.330 Loose volume: 4,384 L0 Source of estimated volume: Source of estimated swell Source of estimated swell Source of estimated swell Average push distance: Unadjusted hourly Unadjusted hourly Sorduction: Materials consistency descrip Average push gradient: 0 Average site altitude: 6 Material weight: 2	Division of Reclamation Cat Handbook	mbankment 0.9		
Swell factor: 1.330 Loose volume: 4,384 L0 Source of estimated volume: Source of estimated swell Source of estimated swell Source of estimated swell Average push distance: Unadjusted hourly Unadjusted hourly Sorduction: Materials consistency descrip Average push gradient: 0 Average site altitude: 6 Material weight: 2	Division of Reclamation Cat Handbook N 100 feet 1,718.9 LCY/hr tion: Compacted fill or en % 500 feet	mbankment 0.9		
Swell factor: 1.330 Loose volume: 4,384 L0 Source of estimated volume: Source of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Source of estimated swell Average push distance: Unadjusted hourly Droduction: Materials consistency descrip Average push gradient: 0 Average site altitude: 6 Material weight: 2	Division of Reclamation Cat Handbook	mbankment 0.9		

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

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	2443.6 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.524/LCY

5

Page 128 of 312

BULLDOZER RIPPING WORK

	Task description:	Rip Freema	ın Gul	lch Vent S	haft Light-Us	e Road				
Site	Bowie No. 2 Mine		Pern	nit Action:	Permit Rene	ewal 3	Perm	nit/Job#	: <u>C1996</u>	083
	PROJECT IDENT	FIFICATION								
	Task #: 082 Date: 1/16/20 2:55:26 User: SLB)13 Cou	tate: _ nty: _	Colorado Delta			Abbrev File	ation: name:	None C083-08	32
		organization name:	DR	MS						
	HOURLY EQUIP									
	Basic Mac Ripper Attachr			J		Sh	sepower: ift Basis: a Source:	1 1	574 per day CRG)	
	Cost Breakdown:					11.11				
		wnership Cost/Hou			0.73		zation % NA			
		Derating Cost/Hou Derating Cost/Hou			03.36 0.01		100 100			
		Operator Cost/Hou	r:	\$3	7.41		NA			
		Cotal Unit Cost/Hou			1.51	_				
		otal Fleet Cost/Hou	r:	,	66.06	_				
	MATERIAL QUA	<u>INTITIES</u>		Se	lected estimat	ing meth	od: Area			
	Alternate Methods:									
smic: Area:	NA 0.60	acres		Volume: Depth (ft):	NA 2.63	v	BCY olume: 2,5	46	NA	BCY or CO
i ii cu.		urce of estimated q	-			`	<u></u>	10		
	HOURLY PRODU	-	uunnity	. <u> </u>						
	<u>Seismic:</u>	Seismic	Veloc	city:	NA		feet/second	I		
	Area:		-		• • • •					
		Average Rippi Average Rippi			2.88 8.67		_ mph degrees			
		Average Rippin			100.00		feet			
		Average Doz			88.00		feet			
		Average Maneu Production per			0.25		_ feet acres/hour			
	Job Condition Correc	-	unit a	ica	0.801					
		sted Hourly Unit P	roducti	ion [.]	0.861		Acres/hr			
	Onacju	•	e Altitu	-	7,000		feet			
			itude A		1.00		(CAT HB)			
			Efficier	·	0.83		(1 shift/day			
			orrecti		0.83		multiplier			
		Adjusted Hourly Adjusted Hourly					Acres/hr Acres/hr			
	JOB TIME AND	COST								

Unit cost: \$477.661 Per acre

Total job cost: \$287.00

Page 130 of 312

BULLDOZER WORK

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#	: C1996083
PROJECT IDENTIFICA	ΓΙΟΝ			
Task #: 083	State: Colorado		Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-083
2:56:29 PM				
User: SLB	_			
Agency or organization	on name: DRMS			
HOURLY EQUIPMENT	<u>COST</u>			
Basic Machine: Cat D10	Γ - 10\$11			
Horsepower: 574	1 - 1050			
Blade Type: Semi-Un	iversal			
Attachment: 3-shank				
Shift Basis: 1 per day				
Data Source: (CRG)				
`				
Cost Breakdown:		¥¥.141		
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$110.73	NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour:	\$10.01	100		
Operator Cost/Hour:	\$37.41	NA		
MATERIAL QUANTITII Initial Volume: 600 Swell factor: 1.165	<u>28</u>			
Loose volume: 699 LCY				
Source of estimated volume:	Division of Reclamat	ion, Mining & Safety		
Source of estimated swell	Cat Handbook			
factor:				
HOURLY PRODUCTION	J			
	—			
Average push distance:	150 feet			
Unadjusted hourly	1,243.2 LCY/hr			
production:				
Materials consistency descript	ion: Compacted fill or e	embankment 0.9		
	^			
, 1				
Average push gradient: _5 %				
	6 00 feet			
Average site altitude: 6,1	00 feet			
Average site altitude: 6,1				
Average site altitude:6,1Material weight:2,9	00 feet	c, 50% Earth		
Average site altitude:6,1Material weight:2,9	00 feet 00 lbs/LCY composed rock - 50% Rock	x, 50% Earth	_	

Reclamation Cost Estimate RN-3 Page 131 of 312

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3209	

Adjusted unit production:	398.94 LCY/hr
Adjusted fleet production:	1595.76 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.856/LCY

Total job time:	0.44 Hours	
Total job cost:	\$598.38	

BULLDOZER RIPPING WORK

	Task description:								
Site	Bowie No. 2 Mine		Permit Acti	on: Permit Ren	iewal 3	Perm	it/Job#	: <u>C1996</u>	5083
	PROJECT IDENT	IFICATION							
	Task #: 084	Sta	ate: Colora	ado		Abbrevi	ation:	None	
	Date: 1/16/20		nty: Delta			Filer	name:	C083-0	84
	<u>2:57:16</u> User: <u>SLB</u>	PM							
		rganization name:	DRMS						
	HOURLY EQUIP		DRWS						
	Basic Macl		10511		Hors	sepower:		574	
	Ripper Attachn					ft Basis:		ber day	
	II · · · · · ·					Source:		CRG)	
	Cost Breakdown:								
						ation %			
		wnership Cost/Hour		\$110.73		NA			
		Derating Cost/Hour Deerating Cost/Hour		\$183.36 \$10.01		100			
		Operator Cost/Hour		\$37.41		NA			
		otal Unit Cost/Hour		\$341.51		<u> </u>			
	Т	otal Fleet Cost/Hour	. d	51,366.06					
			•4	51,500.00					
	MATERIAL QUA	NTITIES		Selected estimat	ting metho	od: Area			
				Selected estimat	ing metho				
	Alternate Methods:			Selected estimat	ting metric				
smic:	Alternate Methods: NA		Bank Volum		-	BCY		NA	
			Bank Volum Rip Depth (f	ne: <u>NA</u>			30	NA	BCY or C
	NA 3.00		Rip Depth (f	ne: <u>NA</u> t): <u>2.00</u>		BCY	30	NA	BCY or C
	NA 3.00 Sou	acres urce of estimated qu	Rip Depth (f	ne: <u>NA</u> t): <u>2.00</u>		BCY	30	NA	BCY or C
	NA 3.00 Souther the second sec	acres urce of estimated qu	Rip Depth (f	ne: <u>NA</u> t): <u>2.00</u>		BCY	30	NA	BCY or C
	NA 3.00 Sou	acres urce of estimated qu UCTION	Rip Depth (f antity: <u>Di</u>	ne: <u>NA</u> t): <u>2.00</u> vision Estimate		BCY olume:9,68		NA	BCY or C
	NA 3.00 Souther the second state of the second	acres urce of estimated qu UCTION	Rip Depth (f	ne: <u>NA</u> t): <u>2.00</u>		BCY		NA	BCY or (
	NA 3.00 Souther the second sec	acres urce of estimated qu UCTION Seismic	Rip Depth (f aantity: <u>Di</u> Velocity:	ne: <u>NA</u> t): <u>2.00</u> vision Estimate NA		BCY olume:9,68		NA	BCY or (
	NA 3.00 Souther the second state of the second	acres urce of estimated qu UCTION	Rip Depth (f aantity: <u>Di</u> Velocity: ng Depth:	ne: <u>NA</u> t): <u>2.00</u> vision Estimate		BCY olume: <u>9,68</u> feet/second mph		NA	BCY or (
	NA 3.00 Souther the second state of the second	acres urce of estimated qu <u>UCTION</u> Seismic Average Rippin Average Rippin Average Ripping	Rip Depth (f aantity: <u>Di</u> Velocity: ng Depth: g Width: g Length:	ne: <u>NA</u> t): <u>2.00</u> vision Estimate <u>NA</u> <u>2.88</u> 8.67 200.00		BCY olume:9,68		NA	BCY or (
	NA 3.00 Souther the second state of the second	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Ripping Average Doze	Rip Depth (f aantity: <u>Di</u> Velocity: ng Depth: g Width: g Length: er Speed:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00		BCY plume: 9,68 feet/second mph degrees feet feet		NA	BCY or 0
	NA 3.00 Souther the second state of the second	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Rippin Average Doze Average Maneuv	Rip Depth (f aantity: <u>Di</u> Velocity: Ig Depth: Ig Width: g Length: er Speed: ver Time:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25		BCY olume: 9,68 feet/second mph degrees feet feet feet		NA	BCY or 0
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per t	Rip Depth (f aantity: <u>Di</u> Velocity: Ig Depth: Ig Width: g Length: er Speed: ver Time:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00		BCY plume: 9,68 feet/second mph degrees feet feet		NA	_ BCY or C
	NA 3.00 Souther the second state of the second	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per t	Rip Depth (f aantity: <u>Di</u> Velocity: Ig Depth: Ig Width: g Length: er Speed: ver Time:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25		BCY olume: 9,68 feet/second mph degrees feet feet feet		NA	BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Ripping Average Doze Average Maneuv Production per t	Rip Depth (f aantity: <u>Di</u> Velocity: ng Depth: ng Width: g Length: er Speed: /er Time: unit area:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25		BCY olume: 9,68 feet/second mph degrees feet feet feet		NA	BCY or C
smic: Area:	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic V Average Rippin Average Ripping Average Ripping Average Maneuv Production per u tion Factors sted Hourly Unit Pro	Rip Depth (f aantity: <u>Di</u> Velocity: ng Depth: ng Width: g Length: er Speed: /er Time: unit area:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947		BCY plume: 9,68 feet/second mph degrees feet feet feet feet acres/hour		NA	BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Rippins Average Rippins Average Maneuv Production per u tion Factors sted Hourly Unit Pro Site Altin	Rip Depth (f aantity: <u>Di</u> Velocity: g Depth: g Width: g Length: er Speed: ver Time: unit area: oduction: Altitude: tude Adj:	ne: NA 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947 0.947 6,500 1.00		BCY plume: 9,68 feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB)		NA	_ BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Rippin Average Rippin Average Maneuv Production per u tion Factors sted Hourly Unit Pro Site Altin Job Ef	Rip Depth (f aantity: <u>Di</u> Velocity: g Depth: g Width: g Length: g Length: er Speed: ver Time: unit area: oduction: Altitude: tude Adj: fficiency:	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947 0.947 6,500 1.00 0.83		BCY olume: 9,68 feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day		NA	BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Rippin Average Rippin Average Maneuv Production per u tion Factors sted Hourly Unit Pro Site Altin Job Ef	Rip Depth (f aantity: <u>Di</u> Velocity: g Depth: g Width: g Length: er Speed: ver Time: unit area: oduction: Altitude: tude Adj:	ne: NA 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947 0.947 6,500 1.00		BCY plume: 9,68 feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB)		NA	BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Average Rippin Average Rippin Average Rippin Average Rippin Average Maneuv Production per u tion Factors sted Hourly Unit Pro Site Altit Job Ef Net Co Adjusted Hourly I	Rip Depth (f	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947 0.947 6,500 1.00 0.83 0.83 ion: 0.79		BCY olume: 9,68 feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day multiplier acres/hr		NA	BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic V Average Rippin Average Rippin Average Rippin Average Rippin Average Maneuv Production per u tion Factors sted Hourly Unit Pro Site Altit Job Ef Net Co	Rip Depth (f	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947 0.947 6,500 1.00 0.83 0.83 ion: 0.79		BCY blume: 9,68 feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day multiplier		NA	_ BCY or C
	NA 3.00 Souther the set of the se	acres urce of estimated qu UCTION Seismic Marcage Rippin Average Rippin Average Rippin Average Rippin Average Rippin Average Maneuv Production per un tion Factors sted Hourly Unit Pro- Site Altitic Job Ef Net Co- Adjusted Hourly F	Rip Depth (f	ne: NA t): 2.00 vision Estimate NA 2.88 8.67 200.00 88.00 0.25 0.947 0.947 6,500 1.00 0.83 0.83 ion: 0.79		BCY olume: 9,68 feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/day multiplier acres/hr		NA	_ BCY or C

Unit cost: \$434.593 Per acre

Total job cost: \$1,304.00

Page 134 of 312

BULLDOZER WORK

Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTI					
Task #: 085 Date: 1/16/2013 2:59:05 Pl	5	Colorado Delta		Abbreviation: Filename:	None C083-085
User: SLB				-	
Agency or orga	anization name: <u>DR</u>	RMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU		_		
Horsepower: <u>57</u> Blade Type: Se	4 emi-Universal		_		
• 1	shank ripper		_		
	per day		_		
Data Source: (C	(RG)		_		
Cost Breakdown:					
	\$110 - 0		<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:			<u>NA</u> 100		
Ripper op. Cost/Hour:			100		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$341.51 \$1,366.06		NA		
Fotal unit Cost/Hour: Cotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10	\$341.51 \$1,366.06 TITIES 998 65				
Fotal unit Cost/Hour: Cotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume:Division of				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10 Loose volume: 44,7 Source of estimated volu Source of estimated swell	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume: Division of Cat Hand		NA		
Fotal unit Cost/Hour: Cotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10 Loose volume: 44,2 Gource of estimated volu 38 Gource of estimated swe 38 Gource of estimated swe 39 Gource of estimated swe 37 Source of estimated swe 37 Gource of estimated swe 37 Source of estimated swe 37	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume: Division of Cat Hand	book	NA		
Fotal unit Cost/Hour: Cotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10 Loose volume: 44,2 Gource of estimated volu 38 Gource of estimated swell 37 Actor: 44,2 Gource of estimated swell 37 Actor: 44,2 Gource of estimated swell 37 Actor: 44 MOURLY PRODUC 37 Average push distance: 37 Juadjusted hourly 37	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume: Division of Cat Handle CTION 200 feet 946.0 LCY/	book	NA		
Fotal unit Cost/Hour: Cotal Fleet Cost/Hour: Cotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.14 Loose volume: 44,2 Gource of estimated volte 44,2 Gource of estimated swell actor: HOURLY PRODUC Average push distance: Inadjusted hourly roduction:	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume: Division of Cat Handle CTION 200 feet 946.0 LCY/	book	 on, Mining & Safety		
Total unit Cost/Hour: Total Fleet Cost/Hour: VATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10 Loose volume: 44,2 Source of estimated volution 3000000000000000000000000000000000000	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume: Division of Cat Handle CTION 200 feet 946.0 LCY/ escription: Compare 5 %	book	 on, Mining & Safety		
Fotal unit Cost/Hour: Cotal Fleet Cost/Hour: Cotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 37,9 Swell factor: 1.10 Loose volume: 44,2 Source of estimated volu 44,2 Source of estimated swell actor: HOURLY PRODUC Average push distance: Inadjusted hourly roduction: Materials consistency de Average push gradient: Average push gradient: Average site altitude:	\$341.51 \$1,366.06 TITIES 998 65 268 LCY ume: Division of Cat Handle CTION 200 feet 946.0 LCY/ escription: Compace 5 % 6,500 feet	book hr cted fill or en	NA		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production:	303.57 LCY/hr
Adjusted fleet production:	1214.28 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$1.125/LCY

 Total job time:
 36.46 Hours

 Total job cost:
 \$49,800.93

Page 136 of 312

BULLDOZER WORK

Bowie No. 2 Mine	Permi	t Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 086 Date: 1/16/2013 2:59:51 PM		Colorado Delta		Abbreviation: Filename:	None C083-086
User: SLB				-	
Agency or organiz	zation name: DRM	15			
HOURLY EQUIPMEN	NT COST				
	D10T - 10SU		_		
Horsepower: 574			_		
	-Universal		_		
Attachment: 3-sha	ink ripper				
Shift Basis: 1 per	day		_		
Data Source: (CRC			_		
. <u></u>	,		_		
Cost Breakdown:		1	T 14:1:		
	φ110 Π 2		<u>Utilization %</u>		
Ownership Cost/Hour:	\$110.73		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$10.01		100		
Operator Cost/Hour:	\$37.41		NA		
MATERIAL QUANTI Initial Volume: 158,32 Swell factor: 1.165 12444	23				
Loose volume: 184,44	46 LCY				
Source of estimated volum	e: DRMS				
Source of estimated swell	Cat Handbo	ok			
factor:					
HOURLY PRODUCT	ION				
HOURLY PRODUCT					
Average push distance:	100 feet				
Average push distance: Unadjusted hourly		hr			
Average push distance:	100 feet	hr			
Average push distance: Unadjusted hourly production:	100 feet 1,718.9 LCY/				
Average push distance: Unadjusted hourly	100 feet 1,718.9 LCY/		mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency desc	<u>100 feet</u> 1,718.9 LCY/		mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency desc Average push gradient:			mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency desc	<u>100 feet</u> 1,718.9 LCY/		mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency desc Average push gradient:			mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency desc Average push gradient: Average site altitude:		ed fill or er 			
Average push distance: Unadjusted hourly production: Materials consistency desc Average push gradient: Average site altitude: Material weight:	<u>100 feet</u> 1,718.9 LCY/ ription: <u>Compacte</u> 5 % 7,500 feet 2,900 lbs/LCY Decomposed rock - 5	ed fill or er 			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production:	551.60 LCY/hr
Adjusted fleet production:	2206.4 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.619/LCY

 Total job time:
 83.60 Hours

 Total job cost:
 \$114,197.16

Page 138 of 312

MOTOR GRADER WORK

Bowie No. 2 Mine	P	ermit Action:	Permit Renew	val 3 P	ermit/Job#: <u>C199608</u>
ROJECT IDENTI	FICATION				
Task #: 090 Date: 1/16/201 3:00:46 H		-			reviation: <u>None</u> Filename: C083-090
User: SLB					
Agency or org	ganization name:	ORMS			
OURLY EQUIPM	IENT COST				
Basic Machi	ne: CAT 14M			Horsepower:	259
Ripper Attachme	ent: Multi-Shank I	Ripper		Shift Basis:	1 per day
				Data Source:	(CRG)
ost Breakdown:				Utilization %	
Ow	nership Cost/Hour:	\$41	.37	NA	_
	erating Cost/Hour:		7.74	100	-
	perating Cost/Hour: perator Cost/Hour:		.00 7.55	0 NA	_
	tal Unit Cost/Hour:		6.65	NA	-
		·			
Tot	al Fleet Cost/Hour:	\$13	9.95		
IATERIAL QUAN	NTITIES				
IATERIAL QUAN Total Are		ped: 169.00)		acres
Total Are	ea to be graded or rip			22005	acres
Total Are) of all disturbed	areas	acres
Total Are	ea to be graded or rip rce of estimated acre			areas	acres
Total Are Sou	ea to be graded or rip rce of estimated acre	age: <u>Total c</u>		areasmph	acres
Total Are Sou	ea to be graded or rip rce of estimated acre <u>CTION</u> Average Grader Selected Appli	age: <u>Total c</u> Speed: cation:	of all disturbed 1.25 Pro	mph duction Deration	- 1.25
Total Are Sou	ea to be graded or rip rce of estimated acre <u>CTION</u> Average Grader Selected Appli Selected Blade	age: <u>Total c</u> Speed: <u></u> cation: <u></u>	1.25 Proc 30	mph duction Deration degrees	- 1.25
Total Are Sou IOURLY PRODU	ea to be graded or rip rce of estimated acre <u>CTION</u> Average Grader Selected Appli Selected Blade Effective Blade L	age: <u>Total c</u> Speed: Cation: Angle: ength:	1.25 1.25 Prov 30 12.10	mph duction Deration degrees feet	- 1.25
Total Are Sou OURLY PRODU Widt	ea to be graded or rip rce of estimated acre <u>CTION</u> Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe	age: Total of Speed: cation: Angle: ength: or pass:	1.25 1.25 Pro 30 12.10 2.00	mph duction Deration degrees feet feet	- 1.25
Total Are Sou OURLY PRODU Widt Net gradin	ea to be graded or rip rce of estimated acre <u>CTION</u> Average Grader Selected Appli Selected Blade Effective Blade L	age: Total c	1.25 1.25 Prov 30 12.10	mph duction Deration degrees feet	- 1.25
Total Are Sou OURLY PRODU Widt Net gradin	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod	age: Total c	1.25 Pro 30 12.10 2.00 10.10 1.5303	mph duction Deration degrees feet feet feet feet	- 1.25
Total Are Sou COURLY PRODUC Widt Net gradin Unadjust	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod on Factors	age: Total of Speed:	1.25 Prod 30 12.10 2.00 10.10 1.5303	mph duction Deration degrees feet feet feet feet acres/he	- 1.25
Total Are Sou OURLY PRODU Widt Net gradin Unadjust ob Condition Correcti Altitude Adj:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod on Factors 1.00	age: Total of Speed:	1.25 Prod 30 12.10 2.00 10.10 1.5303	mph duction Deration degrees feet feet feet feet acres/he	- 1.25
Total Are Sou COURLY PRODUC Widt Net gradin Unadjust ob Condition Correcti Altitude Adj: Job Efficiency:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod on Factors <u>1.00</u> 0.85	age: Total of Speed:	1.25 Prod 30 12.10 2.00 10.10 1.5303	mph duction Deration degrees feet feet feet feet acres/he	- 1.25
Total Are Sou OURLY PRODU Widt Net gradin Unadjust ob Condition Correcti Altitude Adj:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod on Factors 1.00 0.85 0.8500	age: Total of Speed: cation: Angle: ength: er pass: uction: Source (CAT HI (1sh/d, mo multiplier	1.25 Prod 30 12.10 2.00 10.10 1.5303	mph duction Deration degrees feet feet feet feet acres/he	- 1.25
Total Are Sou COURLY PRODUC Widt Net gradin Unadjust ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod on Factors 1.00 0.85 0.8500 Adjusted Hourly Un	age: Total of Speed: cation: Angle: ength: er pass: uction: (CAT HI (1sh/d, model) multiplier it Production:	1.25 Prod 30 12.10 2.00 10.10 1.5303 S B) od.) 1.3008	mph duction Deration degrees feet feet feet acres/ho ite Altitude: <u>6500</u>	- 1.25 our <u>)</u> feet
Total Are Sou COURLY PRODUC Widt Net gradin Unadjust bb Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Prod on Factors 1.00 0.85 0.8500	age: Total of Speed: cation: Angle: ength: er pass: uction: (CAT HI (1sh/d, model) multiplier it Production:	1.25 Prod 30 12.10 2.00 10.10 1.5303	mph duction Deration degrees feet feet feet acres/ho ite Altitude: <u>6500</u>	- 1.25 our <u>)</u> feet
Total Are Sou COURLY PRODUC Widt Net gradin Unadjust ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Produced on Factors 1.00 0.85 0.8500 Adjusted Hourly Unit	age: Total of Speed: cation: Angle: ength: er pass: uction: (CAT HI (1sh/d, model) multiplier it Production:	1.25 Prod 30 12.10 2.00 10.10 1.5303 S B) od.) 1.3008	mph duction Deration degrees feet feet feet acres/ho ite Altitude: <u>6500</u>	- 1.25 our <u>)</u> feet
Total Are Sou COURLY PRODUC Widt Net gradin Unadjust ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	ea to be graded or rip rce of estimated acre CTION Average Grader Selected Appli Selected Blade Effective Blade L h of blade overlap pe g or ripping width pe ed Hourly Unit Produced on Factors 1.00 0.85 0.8500 Adjusted Hourly Unit	age: Total of Speed: Cation: Angle: ength: or pass: uction: source (CAT Hi (1sh/d, model) (1sh/d, model) multiplien it Production: et Production:	1.25 Prod 30 12.10 2.00 10.10 1.5303 S B) od.) 1.3008	mph duction Deration degrees feet feet feet acres/hout ite Altitude: <u>6500</u>	<u>- 1.25</u> our <u>)</u> feet

Unit cost: \$105.05 per acre

Total job cost:

\$17,754.00

Page 140 of 312

MOTOR GRADER WORK

Bowie No. 2 Mine	Pe	ermit Action:	Permit Renew	al 3 Po	ermit/Job#: <u>C199608</u>
PROJECT IDENTIFI	CATION				
		Colorado		4 h h a	None
Task #: 091 Date: 1/16/2013	State: County:				veviation: None Vilename: C083-091
3:03:02 PM		Denu		1	
User: SLB					
Agency or organ	ization name:	ORMS			
HOURLY EQUIPME	NT COST				
Basic Machine:				Horsepower:	259
Ripper Attachment:		ipper		Shift Basis:	1 per day
		- T T -		Data Source:	(CRG)
Cost Breakdown:				-	
LOST DICARGOWIL				Utilization %	
Owner	ship Cost/Hour:	\$41	.37	NA	
	ating Cost/Hour:		.74	100	
	ting Cost/Hour:		.00	0	
-	rator Cost/Hour: _ Unit Cost/Hour:		.55	NA	
Total	Unit Cost/Hour:	\$13	0.03		
Total I	Fleet Cost/Hour:	\$13	9.95		
MATERIAL QUANT	ITIES				
		bed: 22.00			acres
Total Area t	o he graded or ripr				
	o be graded or ripp				
	o be graded or ripp of estimated acrea		or estimate		unos
	of estimated acrea		or estimate		unos
Source	of estimated acrea	age: Operat	or estimate	mph	ucros
Source	of estimated acrea	age: Operat	1.25 Proc	mph luction Deration -	
Source	of estimated acrea TON Average Grader S Selected Applic Selected Blade A	age: Operat	1.25 Proc 30	luction Deration - degrees	
Source	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La	age: Operat	1.25 Proc 30 12.10	luction Deration - degrees feet	
Source <u>HOURLY PRODUCT</u> Width o	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per	age: Operat	1.25 Proc 30 12.10 2.00	luction Deration - degrees feet feet	
Source HOURLY PRODUCT Width o Net grading o	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per	age: Operat	1.25 Proc 30 12.10 2.00 10.10	luction Deration - degrees feet feet feet	1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303	luction Deration - degrees feet feet feet acres/ho	- 1.25
Source HOURLY PRODUCT Width o Net grading o	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ	Age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si	luction Deration - degrees feet feet feet	- 1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si	luction Deration - degrees feet feet feet acres/ho	- 1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted ob Condition Correction Altitude Adj: Job Efficiency:	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ <u>Factors</u> <u>1.00</u> 0.85	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si 3) bd.)	luction Deration - degrees feet feet feet acres/ho	- 1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted ob Condition Correction Altitude Adj:	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ <u>Factors</u> 1.00	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si 3) bd.)	luction Deration - degrees feet feet feet acres/ho	- 1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ <u>Factors</u> <u>1.00</u> 0.85 0.8500	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si 3) bd.)	luction Deration - degrees feet feet feet acres/ho	- 1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ <u>Factors</u> <u>1.00</u> 0.85	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si 3) bd.)	uction Deration - degrees feet feet feet acres/ho te Altitude: 5900	- 1.25
Source EXAMPLE Adj: Source Width o Net grading o Unadjusted Ob Condition Correction Altitude Adj: Sob Efficiency: Net Correction: Add Add	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ <u>Factors</u> <u>1.00</u> 0.85 0.8500 djusted Hourly Unit justed Hourly Flee	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si 3) bd.) 1.3008	uction Deration -	- 1.25
Source HOURLY PRODUCT Width o Net grading o Unadjusted ob Condition Correction Altitude Adj: Job Efficiency: Net Correction:	of estimated acrea TON Average Grader S Selected Applic Selected Blade A Effective Blade La f blade overlap per r ripping width per Hourly Unit Produ <u>Factors</u> <u>1.00</u> 0.85 0.8500 djusted Hourly Uni justed Hourly Flee ST	age: Operat	1.25 Proc 30 12.10 2.00 10.10 1.5303 Si 3) bd.) 1.3008	uction Deration - degrees feet feet feet acres/ho te Altitude: 5900	ur feet

Unit cost: \$105.05 per acre

Total job cost:

\$2,311.00

Page 142 of 312

MOTOR GRADER WORK

	I	Permit Action:	Permit Renew	val 3 F	ermit/Job#:	C1996083
ROJECT IDENT	IFICATION					
Task #: 092	State	-			reviation:	None
Date: 1/16/201 3:03:46		y: Delta]	Filename:	C083-092
User: SLB					-	
Agency or or	ganization name:	DRMS				
IOURLY EQUIPN	MENT COST					
Basic Mach				Horsepower:	2	259
Ripper Attachm	ent: Multi-Shank	Ripper		Shift Basis:		er day
				Data Source:	(C	CRG)
ost Breakdown:			1			
0	manshin Cast/IIaam	¢ 4 1	27	Utilization %		
	vnership Cost/Hour: perating Cost/Hour:		.37 7.74	NA 100	_	
	perating Cost/Hour:		.00	0	_	
	Deperator Cost/Hour:		7.55	NA	_	
То	tal Unit Cost/Hour:	\$13	6.65			
To	tal Fleet Cost/Hour:	\$13	9.95			
IATERIAL QUA	NTITIES					
		1 0.00				
	ea to be graded or rip	oped: 9.00				acres
Total Ar						
	arce of estimated acre	·	or Estimate			
Sou	arce of estimated acre	·	or Estimate			
	arce of estimated acre	eage: Operat	or Estimate	mph		
Sou	arce of estimated acro <u>CTION</u> Average Grader Selected Appl	eage: Operat	1.25 Pro	mph duction Deration		
Sou	arce of estimated acro <u>CTION</u> Average Grader Selected Appl Selected Blade	eage: Operat Speed: Angle:	1.25 Pro 30	duction Deration degrees		
Sot IOURLY PRODU	arce of estimated acro <u>CTION</u> Average Grader Selected Appl Selected Blade Effective Blade I	eage: Operat	1.25 Pro 30 12.10	duction Deration degrees feet		
Sot IOURLY PRODU Widt	arce of estimated acro <u>CTION</u> Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p	eage: Operat	1.25 Pro 30 12.10 2.00	duction Deration degrees feet feet		
Sou IOURLY PRODU Widt Net gradin	arce of estimated acro <u>CTION</u> Average Grader Selected Appl Selected Blade Effective Blade I	eage: Operat	1.25 Pro 30 12.10	duction Deration degrees feet		
Sou IOURLY PRODU Widt Net gradin	Average Grader Selected Appl Selected Blade Effective Blade l th of blade overlap p ag or ripping width p ted Hourly Unit Proc	eage: Operat	1.25 Pro 30 12.10 2.00 10.10 1.5303	duction Deration degrees feet feet feet feet	our	
Sou IOURLY PRODU Widt Net gradin Unadjust	Average Grader Selected Appl Selected Blade Effective Blade l th of blade overlap p ag or ripping width p ted Hourly Unit Proc	eage: Operat	1.25 Pro 30 12.10 2.00 10.10 1.5303 S	duction Deration degrees feet feet feet acres/he	our	
Sou IOURLY PRODU Widt Net gradin Unadjust	arce of estimated acro <u>CTION</u> Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p ag or ripping width p ted Hourly Unit Proc tion Factors	eage: Operat	1.25 Pro 30 12.10 2.00 10.10 1.5303 S	duction Deration degrees feet feet feet acres/he	our	
Sou IOURLY PRODU Widt Net gradin Unadjus ob Condition Correcti Altitude Adj: Job Efficiency:	Irce of estimated acro CTION Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p ag or ripping width p ted Hourly Unit Proc ion Factors 1.00 0.85	Speed: ication: Angle: Length: er pass: luction: Source (CAT Hi (1sh/d, mo	1.25 Pro 30 12.10 2.00 10.10 1.5303 S B) od.)	duction Deration degrees feet feet feet acres/he	our	
Sou IOURLY PRODU Widt Net gradin Unadjust ob Condition Correcti Altitude Adj:	Irce of estimated acro CTION Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p ag or ripping width p ted Hourly Unit Proc ion Factors 1.00 0.85	eage: Operat	1.25 Pro 30 12.10 2.00 10.10 1.5303 S B) od.)	duction Deration degrees feet feet feet acres/he	our	
Sou IOURLY PRODU Widt Net gradin Unadjus ob Condition Correcti Altitude Adj: Job Efficiency:	Irce of estimated acro CTION Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p ag or ripping width p ted Hourly Unit Proc ion Factors 1.00 0.85	Speed: ication: Angle: Length: er pass: luction: luction: (CAT Hi (1sh/d, mo	1.25 Pro 30 12.10 2.00 10.10 1.5303 S B) od.)	duction Deration degrees feet feet feet acres/he	our <u>)</u> feet	
Sou IOURLY PRODU Widt Net gradin Unadjus ob Condition Correcti Altitude Adj: Job Efficiency:	Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p ag or ripping width p ted Hourly Unit Proc ion Factors 1.00 0.85 0.8500	Speed: ication: Angle: Length: er pass: luction: luction: (CAT Hi (1sh/d, model) multiplier nit Production:	1.25 Pro 30 12.10 2.00 10.10 1.5303 S B) od.)	duction Deration degrees feet feet feet acres/he ite Altitude: <u>6750</u>	our <u>)</u> feet	
Sou IOURLY PRODU Wide Net gradin Unadjust ob Condition Correct Altitude Adj: Job Efficiency: Net Correction:	Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p g or ripping width p ted Hourly Unit Proc ion Factors 1.00 0.85 0.8500 Adjusted Hourly Unit Adjusted Hourly Unit	Speed: ication: Angle: Length: er pass: luction: luction: (CAT Hi (1sh/d, model) multiplier nit Production:	1.25 Pro 30 12.10 2.00 10.10 1.5303 S B) od.) 1.3008	duction Deration degrees feet feet feet feet acres/he ite Altitude: <u>675(</u>	our <u>)</u> feet	
Sou IOURLY PRODU Widt Net gradin Unadjus ob Condition Correcti Altitude Adj: Job Efficiency:	Average Grader Selected Appl Selected Blade Effective Blade I th of blade overlap p g or ripping width p ted Hourly Unit Proc ion Factors 1.00 0.85 0.8500 Adjusted Hourly Unit Adjusted Hourly Unit	Speed: Angle: Angle: er pass: er pass: luction: luction: (CAT Hi (1sh/d, mo multiplier nit Production: eet Production:	1.25 Pro 30 12.10 2.00 10.10 1.5303 S B) od.) 1.3008	duction Deration degrees feet feet feet ite Altitude: 675(our <u>)</u> feet	Hours

Unit cost: \$105.05 per acre

Total job cost:

\$945.00

Page 144 of 312

MOTOR GRADER WORK

Bowie No. 2 Mine	Per	rmit Action:	Permit Renew	al 3 Pe	ermit/Job#: <u>C1996083</u>
PROJECT IDENTI	IFICATION				
Task #: 093	State:	Colorado			eviation: None
Date: 1/16/201		Delta		F	ilename: C083-093
User: $\frac{3:04:18 \text{ I}}{\text{SLB}}$					
Agency or org	ganization name: DI	RMS			
HOURLY EQUIPM	MENT COST				
Basic Machi	ine: CAT 14M			Horsepower:	259
Ripper Attachme	ent: Multi-Shank Ri	pper		Shift Basis:	1 per day
				Data Source:	(CRG)
Cost Breakdown:					
				Utilization %	
	nership Cost/Hour:	\$41		NA	
1	perating Cost/Hour:	\$67		100	
	perating Cost/Hour:	\$0.		0	
	Operator Cost/Hour:	\$27		NA	
10		\$136	0.03		
Tot	tal Fleet Cost/Hour:	\$139	.95		
MATEDIAL OUAR	NTITIES				
MATERIAL QUAN					
Total Are	ea to be graded or rippe	ed: 21.30			acres
	arce of estimated acreas	ge: Permit	Volume IX		
Sou	aree of estimated acrea				
Sou	CTION		1.25	mph	
		peed:	1.25 Prod	mph luction Deration -	1.25
	CTION Average Grader S _I Selected Applica Selected Blade A	peed: ngle:	Prod 30		1.25
HOURLY PRODU	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea	peed: ntion: ngle: ngth:	Prod 30 12.10	luction Deration - degrees feet	1.25
HOURLY PRODU	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per	peed: ation: ngle: ngth: pass:	Prod 30 12.10 2.00	luction Deration - degrees feet feet	1.25
HOURLY PRODU Widt Net gradin	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per ag or ripping width per	peed: ngle: ngth: pass: pass:	Prod 30 12.10 2.00 10.10	luction Deration - degrees feet feet feet	
HOURLY PRODU Widt Net gradin Unadjust	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per ag or ripping width per ted Hourly Unit Produc	peed: ngle: ngth: pass: pass:	Prod 30 12.10 2.00 10.10 1.5303	luction Deration - degrees feet feet feet acres/ho	ur
HOURLY PRODU Widt Net gradin	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per ag or ripping width per ted Hourly Unit Produc	peed: ngle: ngth: pass: pass: ction:	Prod 30 12.10 2.00 10.10 1.5303	luction Deration - degrees feet feet feet	ur
HOURLY PRODU Widt Net gradin Unadjust	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors	peed: ngle: ngth: pass: pass: ction:	Prod 30 12.10 2.00 10.10 1.5303 Si	luction Deration - degrees feet feet feet acres/ho	ur
HOURLY PRODU Widt Net gradin Unadjust Ob Condition Correcti Altitude Adj:	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00	peed: ngle: pass: pass: pass: tion: CAT HE	Prod 30 12.10 2.00 10.10 1.5303 Si 3)	luction Deration - degrees feet feet feet acres/ho	ur
HOURLY PRODU Widt Net gradin Unadjust	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Lea th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00 0.85	peed: ngle: ngth: pass: pass: ction:	Prod 30 12.10 2.00 10.10 1.5303 Si 3) d.)	luction Deration - degrees feet feet feet acres/ho	ur
HOURLY PRODU Widt Net gradin Unadjust Ob Condition Correcti Altitude Adj: Job Efficiency:	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Least th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00 0.85 0.8500	peed: ngle: ngth: pass: pass: tion: CAT HE (1sh/d, mo multiplier	Prod 30 12.10 2.00 10.10 1.5303 Si 3) d.)	luction Deration - degrees feet feet feet acres/ho te Altitude: <u>6100</u>	ur
HOURLY PRODU Widt Net gradin Unadjust Ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Least th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00 0.85 0.8500 Adjusted Hourly Unit	peed: ngle: ngth: pass: pass: tion: CAT HE (1sh/d, mo multiplier Production:	Prod 30 12.10 2.00 10.10 1.5303 Si 3) d.) 1.3008	luction Deration - degrees feet feet feet acres/ho te Altitude: <u>6100</u>	ur
HOURLY PRODU Widt Net gradin Unadjust Ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Least th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00 0.85 0.8500	peed: ngle: ngth: pass: pass: tion: CAT HE (1sh/d, mo multiplier Production:	Prod 30 12.10 2.00 10.10 1.5303 Si 3) d.)	luction Deration - degrees feet feet feet acres/ho te Altitude: <u>6100</u>	ur
HOURLY PRODU Widt Net gradin Unadjust Ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Least th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00 0.85 0.8500 Adjusted Hourly Unit Adjusted Hourly Fleet	peed: ngle: ngth: pass: pass: tion: CAT HE (1sh/d, mo multiplier Production:	Prod 30 12.10 2.00 10.10 1.5303 Si 3) d.) 1.3008	luction Deration - degrees feet feet feet acres/ho te Altitude: <u>6100</u>	ur
HOURLY PRODU Widt Net gradin Unadjust ob Condition Correcti Altitude Adj: Job Efficiency: Net Correction:	CTION Average Grader Sp Selected Applica Selected Blade A Effective Blade Least th of blade overlap per ag or ripping width per ted Hourly Unit Product ion Factors 1.00 0.85 0.8500 Adjusted Hourly Unit Adjusted Hourly Fleet	peed: ngle: ngth: pass: pass: pass: ction: CAT HE (1sh/d, mo multiplier Production: Production:	Prod 30 12.10 2.00 10.10 1.5303 Si 3) d.) 1.3008	uction Deration - degrees feet feet acres/ho te Altitude: 6100	ur feet
Unit cost: \$105.05 per acre

Total job cost:

\$2,238.00

Page 146 of 312

Bowie No. 2 Mine	Perm	it Action:	Permit Renewal 3	Permit/Job#:	C1996083
ROJECT IDENTIFI	CATION				
Task #: 095	State:	Colorado		Abbreviation:	None
Date: $1/16/2013$	County:	Delta		Filename:	C083-095
3:05:10 PM	County.	Denu		T fiendifie.	0005 075
User: SLB				-	
Agency or organi	ization name: DRM	MS			
IOURLY EQUIPME	NT COST				
	D10T - 10SU				
Horsepower: 574	5101 - 1050		_		
1	i-Universal		_		
• I	ank ripper		_		
Shift Basis: 1 per			_		
Data Source: (CRC			_		
	J)		_		
ost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$110.73		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$10.01		100		
Operator Cost/Hour:	\$37.41		NA		
- latal unit Cast/II	¢241 51				
otal unit Cost/Hour: otal Fleet Cost/Hour:	\$341.51 \$341.51				
	ФЈ41.51				
IATERIAL QUANTI	TIES				
<u>IATENIAL QUANTI</u>	<u>TIES</u>				
Initial Volume: 4,290					
Swell factor: 1.330		-			
Loose volume: 5,706	LCY	-			
ource of estimated volum	ne: Map 22B;	Operator E	stimate		
ource of estimated swell	Cat Handbo	ook			
actor:					
IOURLY PRODUCT	ION				
verage push distance:	75 feet				
Inadjusted hourly	2,105.3 LCY	/hr			
roduction:					
	ription: Compact	ted fill or e	mbankment 0.9		
	Inpuon. Compaci				
laterials consistency desc	-				
Aterials consistency desc	0 %				
laterials consistency desc	-				
Iaterials consistency desc verage push gradient: verage site altitude:	0 % 6,000 feet				
Aterials consistency desc	0 %			_	
aterials consistency desc verage push gradient: verage site altitude:	0 % 6,000 feet		, 50% Earth		
aterials consistency desc verage push gradient: verage site altitude: aterial weight:	0 % 6,000 feet 2,900 lbs/LCY Decomposed rock -		, 50% Earth		

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

Adjusted unit production:	748.22 LCY/hr
Adjusted fleet production:	748.22 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.456/LCY

 Total job time:
 7.63 Hours

 Total job cost:
 \$2,604.29

Page 148 of 312

		Permit Action:	Permit Renewal 3	Permit/Job#:	C199608.
PROJECT IDENT	<u>IFICATION</u>				
Task #: 096		tate: Colorado		Abbreviation:	None
Date: 1/16/20		nty: Delta		Filename:	C083-096
<u>3:05:56</u>	PM			-	
User: SLB					
Agency or o	rganization name:	DRMS			
HOURLY EQUIP	MENT COST				
Basic Machine:	Cat D10T - 10SU				
Horsepower:	574				
Blade Type:	Semi-Universal				
Attachment:	3-shank ripper				
	1 per day				
Data Source:	(CRG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hou		10.73	NA		
Operating Cost/Hou		83.36	100		
Ripper op. Cost/Hou		0.00	0		
Operator Cost/Hou	ır: \$3	37.41	NA		
Fotal unit Cost/Hour:	\$331.50				
Fotal Fleet Cost/Hour					
MATERIAL QUA	<u>NTITIES</u>				
Initial Volume: 5	,334				
Initial Volume: 5 Swell factor: 1	,334 .330				
Initial Volume:5Swell factor:1Loose volume:7	,334 .330 ,094 LCY				
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v	,334 .330 ,094 LCY olume: <u>Ma</u> t	0 22C; Operator E	stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s	,334 .330 ,094 LCY olume: <u>Ma</u> t	0 22C; Operator E Handbook	stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s	,334 .330 ,094 LCY olume: <u>Ma</u> t		stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor:	,334 .330 ,094 LCY olume: <u>Map</u> well Cat		stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s	,334 .330 ,094 LCY olume: <u>Map</u> well Cat		stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU	,334 .330 ,094 LCY olume: <u>Map</u> well Cat J <u>CTION</u> e: 100 fe	Handbook	stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU	,334 .330 ,094 LCY olume: <u>Map</u> well Cat J <u>CTION</u> e: 100 fe	Handbook	stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU	,334 .330 ,094 LCY olume: <u>Map</u> well Cat J <u>CTION</u> e: 100 fe	Handbook	stimate		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU Average push distance Unadjusted hourly production:	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>UCTION</u> e: <u>100 fe</u> 1,718.	Handbook et 9 LCY/hr			
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s Cactor: HOURLY PRODU Average push distance Unadjusted hourly production:	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>UCTION</u> e: <u>100 fe</u> 1,718.	Handbook			
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU Average push distance Unadjusted hourly production: Materials consistency	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>UCTION</u> e: <u>100 fe</u> 1,718. description: <u>C</u>	Handbook et 9 LCY/hr			
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU Average push distance Unadjusted hourly production: Materials consistency Average push gradien	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>UCTION</u> e: <u>100 fe</u> 1,718. description: <u>C</u> t: <u>0 %</u>	Handbook et 9 LCY/hr			
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU Average push distance Unadjusted hourly production: Materials consistency	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>UCTION</u> e: <u>100 fe</u> 1,718. description: <u>C</u>	Handbook et 9 LCY/hr			
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s factor: HOURLY PRODU Average push distance Unadjusted hourly production: Materials consistency Average push gradien Average site altitude:	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>UCTION</u> e: <u>100 fe</u> 1,718. description: <u>C</u> t: <u>0 %</u>	Handbook et 9 LCY/hr ompacted fill or et			
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated stactor: HOURLY PRODU Average push distance Jnadjusted hourly production: Materials consistency Average push gradien Average site altitude: Material weight:	,334 .330 ,094 LCY olume: <u>Map</u> well Cat <u>JCTION</u> e: <u>100 fe</u> 1,718. description: <u>C</u> t: <u>0 %</u> <u>6,000 feet</u> <u>2,900 lbs/LC</u>	et 9 LCY/hr ompacted fill or en Y	mbankment 0.9		
Initial Volume: 5 Swell factor: 1 Loose volume: 7 Source of estimated v Source of estimated s Factor: HOURLY PRODU	,334 .330 ,094 LCY olume: <u>Map</u> well Cat JCTION e: <u>100 fe</u> 1,718. description: <u>C</u> t: <u>0 %</u> <u>6,000 feet</u> <u>2,900 lbs/LC</u> <u>Decomposed</u>	Handbook et 9 LCY/hr ompacted fill or et	mbankment 0.9		

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

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	610.9 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.543/LCY

Total job time:	11.61 Hours
Total job cost:	\$3,849.63

Page 150 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFIC	ATION			
Task #: 097 Date: 1/16/2013 3:06:40 PM User: SLB	State: Colorado County: Delta		Abbreviation: Filename:	None C083-097
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMEN	ГСОЯТ			
Horsepower: 574 Blade Type: Semi-U Attachment: 3-shan Shift Basis: 1 per d Data Source: (CRG) Cost Breakdown: Ownership Cost/Hour: Operating Cost/Hour: Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour:	0T - 10SU Jniversal k ripper ay \$110.73 \$183.36 \$0.00 \$37.41 331.50 331.50	Utilization % NA 100 0 NA		
MATERIAL QUANTIT Initial Volume: 3,759 Swell factor: 1.330 Loose volume: 4,999 L Source of estimated volume: Source of estimated swell Source of estimated swell Sactor:	СҮ	tor Estimate		
HOURLY PRODUCTIC Average push distance: Unadjusted hourly production:	<u>2N</u> <u>100 feet</u> 1,718.9 LCY/hr			
Materials consistency descri	ption: <u>Compacted fill or en</u>	mbankment 0.9		
	% ,000 feet			
Material weight: 2	,900 lbs/LCY			
Weight description:	Decomposed rock - 50% Rock	, 50% Earth		

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

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	610.9 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.543/LCY

 Total job time:
 8.18 Hours

 Total job cost:
 \$2,712.93

Page 152 of 312

Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	TICATION				
Task #: 098	State:	Colorado		Abbreviation:	None
Date: 1/16/2013	County:	Delta		Filename:	C083-098
3:07:17 PM					
User: SLB					
Agency or orga	nization name: DR	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
	t D10T - 10SU				
Horsepower: 574			_		
VI	mi-Universal		_		
	hank ripper		_		
	er day		_		
Data Source: (Cl	RG)		_		
Cost Breakdown:					
_			Utilization %		
Ownership Cost/Hour:	\$110.73		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Total unit Cost/Hour:	\$331.50				
Total Fleet Cost/Hour:	\$331.50				
MATERIAL QUAN	FITIES				
Initial Volume: 5,70					
Swell factor: 1.16	5 11 LCY				
Loose volume: 6,64		_			
Source of estimated volu	ime: Appendix	B-4; Divisio	on Estimate		
Source of estimated swell	ll Cat Hand	book			
factor:					
HOURLY PRODUC	TION				
Average push distance:	100 feet				
Unadjusted hourly	1,718.9 LC	Y/hr			
production:					
Materials consistency de	scription: Compa	cted fill or en	mbankment 0.9		
Average nuch andient	0.0/				
Average push gradient: Average site altitude:	0 % 6,100 feet				
Average site attitude:	0,100 leet				
Material weight:	2,900 lbs/LCY				
<i>o o o o o o o o o o</i>					
	D 1 1	500/ D 1	500/ E		
Weight description:	Decomposed rock	- 50% Rock	, 50% Earth		
Weight description: Job Condition Correction	*	- 50% Rock	, 50% Earth <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:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	610.9 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.543/LCY

 Total job time:
 10.87 Hours

 Total job cost:
 \$3,603.42

Page 154 of 312

Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	<u>'ICATION</u>				
		Colorado		Abbroxistion	None
Task #: 099 Date: 1/16/2013	State:	Colorado		Abbreviation:	None
Date: 1/16/2013 3:08:02 PM	County:	Delta		Filename:	C083-099
User: SLB	/1		<u> </u>	-	
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	t D10T - 10SU				
Horsepower: 574			_		
Blade Type: Ser	mi-Universal		_		
Attachment: 3-s	hank ripper		_		
Shift Basis: 1 p	er day		_		
Data Source: (Cl	RG)		_		
Cost Breakdown:					
Jost Dicaraowii.			Utilization %		
Ownership Cost/Hour:	\$110.73	3	NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
MATERIAL QUAN	<u>FITIES</u>				
Initial Volume: 9,32	20				
Swall factor: 1.22	10				
Swell factor: 1.33	96 L CY				
Loose volume: 12,3	996 LCY	_			
Loose volume: <u>12,3</u> Source of estimated volu	ime: Map 22J;	Operator Es	timate		
Loose volume: 12,3 Source of estimated volu Source of estimated swel	ime: Map 22J;		timate		
Loose volume: <u>12,3</u> Source of estimated volu	ime: Map 22J;		timate		
Loose volume: 12,3 Source of estimated volu Source of estimated swell actor:	Ime: <u>Map 22J;</u> Il Cat Hand		timate		
Loose volume: 12,3 Source of estimated volu Source of estimated swel	Ime: <u>Map 22J;</u> Il Cat Hand		timate		
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC	Ime: Map 22J; II Cat Hand	book	timate		
Loose volume: 12,3 Source of estimated volu Source of estimated swell actor: HOURLY PRODUC Average push distance: Jnadjusted hourly	Ime: Map 22J; Cat Hand	book	timate		
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC	Ime: Map 22J; II Cat Hand	book			
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC Average push distance: Jnadjusted hourly production:	Imme: Map 22J; Cat Hand	book Y/hr			
Loose volume: 12,3 Source of estimated volu Source of estimated swell actor: HOURLY PRODUC Average push distance: Jnadjusted hourly	Imme: Map 22J; Cat Hand	book Y/hr	timate nbankment 0.9		
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC Average push distance: Jnadjusted hourly production: Materials consistency de	Imme: Map 22J; Cat Hand	book Y/hr			
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC Average push distance: Jnadjusted hourly oroduction: Materials consistency de Average push gradient:	Ime: Map 22J; II Cat Hand	book Y/hr			
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC Average push distance: Jnadjusted hourly production: Materials consistency de	Imme: Map 22J; Cat Hand	book Y/hr			
Loose volume: 12,3 Source of estimated volu Source of estimated swel actor: HOURLY PRODUC Average push distance: Jnadjusted hourly oroduction: Materials consistency de Average push gradient:	Ime: Map 22J; II Cat Hand	book Y/hr			
Loose volume: 12,3 Source of estimated volu Source of estimated swell actor: HOURLY PRODUC Average push distance: Jnadjusted hourly broduction: Materials consistency de Average push gradient: Average site altitude:	Ime: Map 22J; II Cat Hand TION	book Y/hr			
Loose volume: 12,3 Source of estimated volu Source of estimated swell actor: HOURLY PRODUC Average push distance: Jnadjusted hourly broduction: Materials consistency de Average push gradient: Average site altitude:	Ime: Map 22J; II Cat Hand TION	Y/hr cted fill or en	nbankment 0.9		
Loose volume: 12,3 cource of estimated volu cource of estimated swel actor: HOURLY PRODUC Average push distance: Jnadjusted hourly roduction: Aaterials consistency de Average push gradient: Average site altitude: Aterial weight:	Ime: <u>Map 22J;</u> Cat Hand TION <u>100 feet</u> 1,718.9 LC escription: <u>Compa</u> <u>0 %</u> 5,900 feet 2,900 lbs/LCY Decomposed rock	Y/hr cted fill or en	nbankment 0.9		

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

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	610.9 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.543/LCY

 Total job time:
 20.29 Hours

 Total job cost:
 \$6,726.38

Page 156 of 312

	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
Bowie No. 2 Mine					
PROJECT IDENTIE	TICATION				
		C 1 1			N
Task #: 100	State:	Colorado		Abbreviation:	None
Date: 1/16/2013 3:09:37 PM	County:	Delta		Filename:	C083-100
				-	
User: <u>SLB</u>					
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	t D10T - 10SU				
Horsepower: 574	4		_		
Blade Type: Ser	mi-Universal		_		
	hank ripper		_		
Shift Basis: 1 p	er day		_		
	RG)		_		
Cost Breakdown:					
JUST DICARGUWII.			Utilization %		
Ownership Cost/Hour:	\$110.73	}	NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$0.00	,	0		
Operator Cost/Hour:	\$37.41		NA		
	¢221 50				
Fotal unit Cost/Hour:	\$331.50				
Fotal Fleet Cost/Hour:	\$331.50				
MATERIAL OUANT	FIFTER				
MATERIAL QUAN	<u>111E5</u>				
Initial Volume: 700					
Swell factor: 1.33	30				
	LCY				
Loose volume: 931					
		• Operator E	stimate		
Source of estimated volu	ime: Map 22K	; Operator E	stimate		
Source of estimated volu	ime: Map 22K		stimate		
Source of estimated volu	ime: Map 22K		stimate		
Source of estimated volu Source of estimated swe Sactor:	Ime: Map 22K Il Cat Hand		stimate		
Source of estimated volu Source of estimated swe Cactor: HOURLY PRODUC	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		stimate		
Source of estimated volu Source of estimated swe Sactor: HOURLY PRODUC Average push distance:	Ime: Map 22K II Cat Hand	book	stimate		
Source of estimated volu Source of estimated swe Sactor: HOURLY PRODUC Average push distance: Unadjusted hourly	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	book	stimate		
Source of estimated volu Source of estimated swe Sactor: HOURLY PRODUC Average push distance:	Ime: Map 22K II Cat Hand	book	stimate		
Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Jnadjusted hourly production:	Ime: Map 22K II Cat Hand TION	book Y/hr			
Source of estimated volu Source of estimated swe Sactor: HOURLY PRODUC Average push distance: Unadjusted hourly	Ime: Map 22K II Cat Hand TION	book Y/hr	stimate		
Source of estimated volu Source of estimated swe Factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	Imme: Map 22K II Cat Hand	book Y/hr			
Source of estimated volu Source of estimated swe Factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	Ime: Map 22K II Cat Hand	book Y/hr			
Source of estimated volu Source of estimated swe Factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	Imme: Map 22K II Cat Hand	book Y/hr			
Source of estimated volu Source of estimated swe Sactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	Ime: Map 22K II Cat Hand TION	book Y/hr			
Source of estimated volu Source of estimated swe Factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	Ime: Map 22K II Cat Hand	book Y/hr			
Source of estimated volu Source of estimated swe actor: HOURLY PRODUC Average push distance: Jnadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	Ime: Map 22K II Cat Hand TION	book Y/hr 	mbankment 0.9		
Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Jnadjusted hourly broduction: Materials consistency de Average push gradient: Average site altitude:	Ime: Map 22K Cat Hand TION <u>100 feet</u> 1,718.9 LC escription: Compa <u>0 %</u> 5,900 feet 2,900 lbs/LCY Decomposed rock	book Y/hr 	mbankment 0.9		

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

Adjusted unit production:	610.90 LCY/hr
Adjusted fleet production:	610.9 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.543/LCY

Total job time:	1.52 Hours
Total job cost:	\$505.20

Page 158 of 312

HYDRAULIC EXCAVATOR WORK

Bowie No. 2 Mine	Pe	rmit Action:	Permit Renewal 3	Per	mit/Job#	: <u>C1996083</u>
PROJECT IDENTII	FICATION					
Task #: 101	State:	Colorado		Abbrev	viation:	None
Date: 1/16/2013 3:10:40 Pl	~	Delta		Fil	ename:	C083-101
User: SLB						
Agency or orga	anization name: D	RMS				
HOURLY EQUIPM	ENT COST					
Basic Machine:	Cat 365C L 13'-7'	' Stick	На	rsepower:		404
Attachment 1:	ROPS Cab		Wei	ght (MT):	7	0.51
				hift Basis:		ber day
			Da	ta Source:	((CRG)
<u>Cost Breakdown:</u>		1				
			Utilization %			
Ownership Cost/			NA			
Operating Cost/			100 NA			
Operator Cost/ Total Unit Cost/			NA			
Total Unit Cost	Anour. \$232					
Total Fleet Cos	st/Hour: \$50	4.60				
MATERIAL QUAN	TITIES					
MATERIAL QUAN	1 1 1 1 1 4 7					
Initial volume:		CCY	Swell factor:	1 165		
	290	CCY	Swell factor:	1.165		
Loose volume:	290 338	LCY				
Loose volume: Source	290 338 of estimated volume	LCY : Division	of Reclamation, Min			
Loose volume: Source	290 338	LCY : Division	of Reclamation, Min			
Loose volume: Source	290 338 of estimated volume estimated swell factor	LCY : Division	of Reclamation, Min			
Loose volume: Source Source of e HOURLY PRODUC	290 338 of estimated volume estimated swell factor	LCY : Division : Cat Hanc	of Reclamation, Min lbook	ing & Safety		
Loose volume: Source Source of e	290 338 of estimated volume estimated swell factor	LCY : Division : Cat Hand	of Reclamation, Min lbook pucket, swing empty)	ing & Safety		
Loose volume: Source Source of e HOURLY PRODUC	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo	LCY : Division : Cat Hand baded, dump I Basic Job C	of Reclamation, Min lbook bucket, swing empty) Condition Description	ing & Safety : :		
Loose volume: Source Source of e HOURLY PRODUC	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C	LCY : Division : Cat Hance baded, dump l Basic Job C Condition with	of Reclamation, Min lbook bucket, swing empty) Condition Description hin Basic Description	ing & Safety : :		
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C	LCY : Division : Cat Hance baded, dump l Basic Job C Condition with	of Reclamation, Min lbook bucket, swing empty) Condition Description	ing & Safety : :		minutes
Loose volume: Source Source of e HOURLY PRODUC	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C	LCY : Division : Cat Hance baded, dump l Basic Job C Condition with	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value	ing & Safety : SEVERE : SEVERE : 0.570		-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C	LCY : Division : Cat Hand Daded, dump I Basic Job C Condition with	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B	ing & Safety : :		_ minutes mall
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit	290 338 of estimated volume estimated swell factor <u>CTION</u> load bucket, swing lo Secondary Job C ty: <u>3.61</u>	LCY Cat Hance Daded, dump l Basic Job C Condition with LCY (he	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B aped)	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl		-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: <u>3.61</u> pr: <u>0.850</u>	LCY Cat Hance Cat Hance Cat Hance Daded, dump I Basic Job C Condition with LCY (he Hard, tou	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl		-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: <u>3.61</u> or: 0.850	LCY Cat Hance Daded, dump l Basic Job C Condition with LCY (he	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B aped)	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl		-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: <u>3.61</u> or: 0.850 ty: 3.07	LCY Cat Hance Cat Hance Cat Hance Daded, dump I Basic Job C Condition with LCY (he Hard, tou	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B aped) 1gh clay (80% - 90%)	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: <u>3.61</u> or: 0.850 ty: 3.07	LCY Cat Hance Cat Hance Cat Hance Daded, dump I Basic Job C Condition with LCY (he Hard, tou LCY	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B aped) ugh clay (80% - 90%) Site Al	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl 0.850	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correctio	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: <u>3.61</u> pr: 0.850 ty: <u>3.07</u> on Factors	LCY Cat Hance Cat Hance Cat Hance Daded, dump I Basic Job C Condition with LCY (he Hard, tou LCY Source	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B aped) 1gh clay (80% - 90%) Site Al	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl 0.850	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correctio Altitude Adj:	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: 3.61 or: 0.850 ty: 3.07 on Factors 1.00	LCY Cat Hance Cat Hance Cat Hance Daded, dump I Basic Job C Condition with LCY (he Hard, tou LCY Source (CAT Hi	of Reclamation, Min lbook bucket, swing empty) Condition Description nin Basic Description Cycle Time Value B aped) 1gh clay (80% - 90%) Site Al	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl 0.850	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correctio Altitude Adj: Job Efficiency:	290 338 of estimated volume estimated swell factor CTION load bucket, swing lo Secondary Job C ty: 3.61 or: 0.850 ty: 3.07 on Factors 1.00 0.83	LCY Cat Hance Cat Hance Cat Hance Cat Hance Daded, dump I Basic Job C Condition with LCY (he Hard, tou LCY Source (CAT Hi (1 shift/data)	of Reclamation, Min lbook bucket, swing empty) Condition Description in Basic Description Cycle Time Value B aped) agh clay (80% - 90%) Site Al	ing & Safety : SEVERE : SEVERE : 0.570 ucket Size Cl 0.850	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correctio Altitude Adj: Job Efficiency: Net Correction:	$ \begin{array}{r} 290 \\ 338 \\ of estimated volume estimated swell factor CTION \\ load bucket, swing $	LCY Cat Hand Cat Hand Daded, dump l Basic Job C Condition with LCY (he Hard, tou LCY Source (CAT Hi (1 shift/da multiplier	of Reclamation, Min lbook bucket, swing empty) Condition Description in Basic Description Cycle Time Value B aped) agh clay (80% - 90%) Site Al B) ay)	ing & Safety :	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correction Altitude Adj: Job Efficiency: Net Correction:	290 338 of estimated volume estimated swell factor CTION load bucket, swing load Secondary Job C ty: 3.61 or: 0.850 ty: 3.07 on Factors 1.00 0.83 0.83 0.83 nadjusted Hourly Uni	LCY Cat Hance Cat Hance Cat Hance Cat Hance Condition with LCY (he Hard, tou LCY Source (CAT Hi (1 shift/da multiplien t Production:	of Reclamation, Min book boucket, swing empty) Condition Description in Basic Description Cycle Time Value B aped) agh clay (80% - 90%) Site Al B) ay) - 323.00	ing & Safety :	ass: Si	-
Loose volume: Source Source of e HOURLY PRODUC Excavator Cycle Time (Load Bucket Capacity Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correctio Altitude Adj: Job Efficiency: Net Correction:	$ \begin{array}{r} 290 \\ 338 \\ of estimated volume estimated swell factor CTION \\ load bucket, swing $	LCY Cat Hand Cat Hand Cat Hand Cat Hand Cat Hand Cat Hand Condition with LCY LCY Condition with LCY Condition Cat Hi Cat	of Reclamation, Min book boucket, swing empty) Condition Description in Basic Description Cycle Time Value B aped) agh clay (80% - 90%) Site Al B) ay) Condition Description Cycle Time Value B aped) Site Al B) ay) Condition Description Cycle Time Value B aped) Site Al Cycle Al Cycl	ing & Safety :	ass: Si	-

JOB TIME AND COST

Fleet size:	2	Excavator	Total job time:	0.63	Hours
Unit cost:	\$0.941	/LCY	Total job cost:	\$318.00	

Reclamation Cost Estimate RN-3

Page 160 of 312

Postmining Channel	Construction	Task No	o. 102			
Permit	n-12 Permit C1996 rado Division of Reclam Renewal 3	State : Colorado ation, Mining and Safety	No. 2 Mine County: cription: Install Riprap, G		tile in B-Seam	
Channel L (ft)	D W (bot) (ft) (ft)	WSlopes(Top)(X:1)(ft)	V/LF V tot (CY) (CY)	Riprap	Slope L Surf (ft) (sf)	Riprap V CY
C/F				365		132 0
Totals 0				365	0	132
Materials Needed:	Geotextile (SY):	1,093	Riprap (CY):	365	Gravel (CY):	182
Material Costs: Means Reference	Geotextile (SY): 33 46 26.10 0100	\$ 1.99	Riprap (CY): \$ 31 37 13.10 0011	72.90	Gravel (CY): 31 23 23.16 0050	\$ 34.38
Totals:	Geotextile (SY):	\$ 2,175.07	Riprap (CY): \$	26,608.50	Gravel (CY):	\$ 6,257.16
Hours:	Geotextile (SY):	12.49	Riprap (CY): 47. 7.75	.10	Gravel (CY):	13.00
	87.5 SY/HR		CY/HR		14 CY/HR	
	Channel Reconstruction Channel Reconstruction		\$	72.59 35,040.73		

Reclamation Cost Estimate RN-3

Page 161 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	!	Permit Action:	Permit Renewal	3 Per	mit/Job#: <u>C199</u>	6083
PROJECT IDEN	TIFICATION					
Task #: 110	S	State: Colorado		Abbre	viation: None	
Date: 1/16/20 3:15:30 User: SLB		unty: Delta		Fil	ename: C083-1	10
	organization name:	DRMS				
HOURLY EQUIF	-		COSTSh	ift basis: <u>1 per c</u>	lay	
		Fauipme	ent Description			
		Scraper: Cat 627	G w/push-pull			
Suppo	rt Equipment -Loa	-Dozer: NA d Area: NA				
Suppo	1 1	p Area: NA				
Road Ma	intenance – Motor					
	-Water	Truck: NA				
Cost Breakdown:	Scraper Wo	ork Team	Support Equip	ment	Maintenance	Equipment
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Tri
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.00
Total work team cost	NTITIES			1 107		
Initial volume: Loose volume:	91,800 103,275	CCY LCY	Swell facto	r: <u>1.125</u>		
	rce of estimated vo of estimated swell	U				
HOURLY PROD	UCTION					
			Scraper Boy	wl (volume) Bas	sis:	
Material weight:	2,550 lbs/LCY	1	Struck V			CY
Material description: Rated Payload:	Earth - Dry pack 52,800 pounds	ed	Heaped V Average V			.CY .CY
Rated Pavioad	57 XOO nounde		Average V	olume ix x >	1	I Y

<u>0.90</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8000.00	5.00	5.00	10.00	1068	7.53

Haul Time: **7.53** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8000.00	-5.00	5.00	0.00	2921	2.83
				Return Time:	2.83	minutes
			Total Scrape	r team cycle time:	11.86	minutes
			Adjusted f	for job conditions:	158.30	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scra	per team (unit) h	nourly production:	158.30	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	158.30	LCY/Hour
Optima	Unadjusted unit proo l Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	652.39	Hours

Fleet size:	I	Team(s)	Total job time:	652.39	H
Unit cost:	\$3.518	/LCY	Total job cost:	\$363,291.49	

Reclamation Cost Estimate RN-3

Page 163 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action:	Permit Renewal	3 Per	mit/Job#: C1996	5083
PROJECT IDEN	TIFICATION					
Task #: 111 Date: 1/16/20 3:16:28 User: SLB	013 Co	State: <u>Colorado</u> ounty: Delta			viation: <u>None</u> ename: C083-1	11
Agency or o	rganization name	: DRMS				
HOURLY EQUIP	MENT		COSTSI	nift basis: <u>1 per c</u>	lay	
		Equipme	ent Description			
		Scraper: Cat 627	G w/push-pull			
	t Equipment -Loa	p Area: NA Grader: NA				
	-Wate:	r Truck: NA				
<u>Cost Breakdown</u> :	Scraper Wo	ork Team	Support Equip	oment	Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	NA	NA	N.
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	N
Operating cost/hour:	\$182.63	NA	NA	NA	NA	N.
Ripper op. cost/hour:	NA	NA	NA	NA	NA	N/
Operator cost/hour:	\$30.02	NA	NA	NA	NA	N/
Unit Subtotals:	\$278.43	NA	NA	NA	NA	N
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.
Total work team cost	/hour: <u>\$556.86</u>					
MATERIAL QUA Initial volume:	20,100	CCY	Swell facto	or: 1.125		
Loose volume:	20,100		Swell lacu	01. 1.123		
	rce of estimated ve f estimated swell					
HOURLY PROD	UCTION		Scraper Bo	owl (volume) Bas	zie.	
						CV
Material weight: Material description:	2,550 lbs/LCY Earth - Dry pack	red	Struck V Heaped V			CY CY
Rated Payload:	52,800 pounds		Average V			CY
Payload Capacity:	20.71 LCY	<u> </u>	Adjusted C			CY

CIRCES Cost Estimating Software

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-5.00	5.00	0.00	2921	0.83

Haul Time: **0.83** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	5.00	5.00	10.00	1768	1.20
				Return Time:	1.20 n	ninutes
			Total Scrape	r team cycle time:	3.53	minutes
			Adjusted f	for job conditions:	531.86	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scraj	per team (unit) h	ourly production:	531.86	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	ourly production:	531.86	LCY/Hour
Optima	Unadjusted unit proc Number of Scrapers per			LCY/Hour		
JOB T	ME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	42.52	Hours

Unit cost: \$1.047 /LCY

Total job cost: **\$23,675.47**

Reclamation Cost Estimate RN-3

Page 165 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action:	Permit Renewal	<u>3</u> Per	rmit/Job#: <u>C1996</u>	5083
PROJECT IDEN	TIFICATION					
Task #: 112 Date: 1/16/20 3:17:32 User: SLB	013 Co	State: Colorado unty: Delta			viation: <u>None</u> lename: C083-1	12
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	MENT		COSTSh	ift basis: <u>1 per o</u>	day	
		Equipme	ent Description			
			'G w/push-pull			
Suppor	t Equipment -Loa	-Dozer: NA d Area: NA				
Suppor		p Area: NA				
Road Mai	ntenance – Motor					
	-Water	Truck: NA				
<u>Cost Breakdown</u> :	Scraper Wo	rk Team	Support Equip	ment	Maintenance	Equipme
<u>cost breakdown</u> .	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.0
	<u>NTITIES</u> 24,000 27,000 ce of estimated vo		Swell facto 5-36; Page 2.05-48			
	f estimated swell	factor: <u>Cat Hand</u>	lbook			
HOURLY PRODU	JUTION		Soronor Do	wl (voluma) Da		
	0.550.11 7.573			wl (volume) Bas		CN/
Material weight: Material description:	2,550 lbs/LCY Earth - Dry pack	ed	Struck V Heaped V			CY CY
Rated Payload:	52,800 pounds	cu	Average V			CY
Payload Capacity:	20.71 LCY		Adjusted C			CY

CIRCES Cost Estimating Software

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	5.00	5.00	2218	0.71

Haul Time: **0.71** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	5.00	5.00	2814	0.57
				Return Time:	0.57 1	ninutes
			Total Scrape	r team cycle time:	2.78	minutes
			Adjusted f	for job conditions:	675.35	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	single scra	per team (unit) h	nourly production:	675.35	LCY/Hour
	Adjusted m	ultiple scrap	per team (fleet) h	nourly production:	675.35	LCY/Hour
Optima	Unadjusted unit proc Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	39.98	Hours

Unit cost: \$0.825 /LCY

Total job cost: ______\$22,263.01

Reclamation Cost Estimate RN-3

Page 167 of 312

SCRAPER TEAM WORK

ScraperDozerLoad AreaDump AreaMoto%Utilization-machine:100NANANANAOwnership cost/hour:\$65.78NANANANAOperating cost/hour:\$182.63NANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.02NANANANA	
Date: 1/16/2013 County: Delta Filename: 3:18:21 PM	C083-113 aintenance Equip or Grader Wa NA NA
DOURLY EQUIPMENT COSTShift basis: 1 per day Equipment Description Scraper: Cat 627G w/push-pull -Dozer: NA NA Support Equipment -Load Area: NA NA -Dump Area: NA NA Road Maintenance -Motor Grader: NA NA -Water Truck: NA NA Cost Breakdown: Scraper Work Team Support Equipment M ©utilization-machine: 100 NA NA NA Ownership cost/hour: \$65.78 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operator cost/hour: \$30.02 NA NA NA Operator cost/hour: \$30.02 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Muti Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0	or Grader Wa NA NA
Equipment Description -Scraper: Cat 627G w/push-pull -Dozer: NA Support Equipment -Load Area: NA -Dump Area: NA -Dump Area: NA -Outer Truck: NA -Outer Truck: NA -Cost Breakdown: Scraper Work Team Support Equipment M -Water Truck: NA Scraper Dozer Load Area %Utilization-machine: 100 NA NA Ownership cost/hour: \$65.78 NA NA Operating cost/hour: \$182.63 NA NA Operator cost/hour: \$30.02 NA NA NA Unit Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 0 Cose volume: 23,050 LCY Swell factor: 1.125	or Grader Wa NA NA
-Scraper: Cat 627G w/push-pull -Dozer: NA Support Equipment -Load Area: NA -Dump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA Cost Breakdown: Scraper Work Team Scraper Dozer Load Area Dump Area Matter Truck: NA Scraper Dozer Load Area Dump Area Moto Scraper Overeship cost/hour: \$65.78 NA NA Operating cost/hour: \$182.63 NA NA Na NA Na NA Na NA Operator cost/hour: \$30.02 Na NA Number of Units: 2 O 0 Group Subtotals: Work: \$556.86 Support: MATERIAL QUANTITIES Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	or Grader Wa NA NA
-Scraper: Cat 627G w/push-pull -Dozer: NA Support Equipment -Load Area: NA -Dump Area: NA -Bump Area: NA Road Maintenance –Motor Grader: NA -Water Truck: NA Cost Breakdown: Scraper Work Team Support Equipment M Cost Breakdown: Scraper Work Team Support Equipment M %Utilization-machine: 100 NA NA NA Ownership cost/hour: \$65.78 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operator cost/hour: \$182.63 NA NA NA Operator cost/hour: \$30.02 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 Support: \$0.00 1.125 Loose volume: 23,050 LCY	or Grader Wa NA NA
Support Equipment -Load Area: -Dump Area: NA Road Maintenance -Motor Grader: -Water Truck: NA NA NA -Water Truck: NA Ocost Breakdown: Scraper Work Team Support Equipment M Vater Truck: NA NA M Cost Breakdown: Scraper Work Team Support Equipment M %Utilization-machine: 100 NA NA NA Ownership cost/hour: \$65.78 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operator cost/hour: \$182.63 NA NA NA Nunit Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0 Total work team cost/hour: <td< td=""><td>or Grader Wa NA NA</td></td<>	or Grader Wa NA NA
Image: Normal Strategy Image: Normal Strategy NA Road Maintenance – Motor Grader: -Water Truck: NA NA Cost Breakdown: Scraper Work Team Support Equipment M Scraper Dozer Load Area Dump Area Moto %Utilization-machine: 100 NA NA NA Ownership cost/hour: \$65.78 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operator cost/hour: \$182.63 NA NA NA Operator cost/hour: \$30.02 NA NA NA Unit Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$23,050 LCY Swell factor: 1.125 Loose volume: 23,050 LCY Swell factor: 1.125	or Grader Wa NA NA
Road Maintenance – Motor Grader: -Water Truck: NA Cost Breakdown: Scraper Work Team Support Equipment M ©ost Breakdown: Scraper Dozer Load Area Dump Area Motor %Utilization-machine: 100 NA NA NA NA Ownership cost/hour: \$65.78 NA NA NA NA Operating cost/hour: \$182.63 NA NA NA NA Operating cost/hour: \$182.63 NA NA NA NA Operator cost/hour: \$30.02 NA NA NA NA Operator cost/hour: \$30.02 NA NA NA NA Unit Subtotals: \$278.43 NA NA NA NA Number of Units: 2 0 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 0 Total work team cost/hour: \$556.86 Swell factor: 1.125 Lose volume: 23,050 LCY Swell factor: 1.125 Source of estimated volume: Operator Es	or Grader Wa NA NA
Cost Breakdown: Scraper Work Team Support Equipment M %Utilization-machine: 100 NA NA NA 0wnership cost/hour: \$65.78 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operating cost/hour: \$182.63 NA NA NA Operator cost/hour: \$182.63 NA NA NA Operator cost/hour: \$182.63 NA NA NA Operator cost/hour: \$182.63 NA NA NA Unit Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 Swell factor: 1.125 Loose volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Swell factor: 1.125	or Grader Wa NA NA
ScraperDozerLoad AreaDump AreaMotor%Utilization-machine:100NANANANAOwnership cost/hour:\$65.78NANANANAOperating cost/hour:\$182.63NANANANAOperating cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.02NANANANAOperator cost/hour:\$30.02NANANANAUnit Subtotals:\$278.43NANANANANumber of Units:20000Group Subtotals:Work:\$556.86Support:\$0.000Total work team cost/hour:\$556.86Support:\$0.001.125Initial volume:20,489CCYSwell factor:1.125Loose volume:23,050LCYSwell factor:1.125	or Grader Wa NA NA
ScraperDozerLoad AreaDump AreaMotor%Utilization-machine:100NANANANAOwnership cost/hour:\$65.78NANANANAOperating cost/hour:\$182.63NANANANAOperating cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.02NANANANAOperator cost/hour:\$30.02NANANANAUnit Subtotals:\$278.43NANANANANumber of Units:20000Group Subtotals:Work:\$556.86Support:\$0.000Total work team cost/hour:\$556.86Support:\$0.001.125Initial volume:20,489CCYSwell factor:1.125Loose volume:23,050LCYSwell factor:1.125	or Grader Wa NA NA
Ownership cost/hour:\$65.78NANANAOperating cost/hour:\$182.63NANANARipper op. cost/hour:NANANANAOperator cost/hour:\$30.02NANANAOperator cost/hour:\$30.02NANANAUnit Subtotals:\$278.43NANANANumber of Units:2000Group Subtotals:Work:\$556.86Support:\$0.00Total work team cost/hour:\$556.86Support:\$0.00MATERIAL QUANTITIESInitial volume:20,489CCYSwell factor:1.125Loose volume:23,050LCYSource of estimated volume:Operator Estimate	NA
Operating cost/hour:\$182.63NANANARipper op. cost/hour:NANANANAOperator cost/hour:\$30.02NANANAOperator cost/hour:\$278.43NANANAUnit Subtotals:\$278.43NANANANumber of Units:2000Group Subtotals:Work:\$556.86Support:\$0.00Total work team cost/hour:\$556.86Support:\$0.00Total work team cost/hour:\$556.86Support:\$0.00MATERIAL QUANTITIESLOSe volume:20,489CCYSwell factor:1.125Loose volume:23,050LCYLCYSource of estimated volume:Operator Estimate	
Ripper op. cost/hour: NA NA NA NA NA Operator cost/hour: \$30.02 NA NA NA NA Unit Subtotals: \$278.43 NA NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 Support: \$0.00 MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	NA
Operator cost/hour: \$30.02 NA NA NA Unit Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 Support: \$0.00 MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	
Unit Subtotals: \$278.43 NA NA NA Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 Support: \$0.00 MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	NA
Number of Units: 2 0 0 0 Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 Support: \$0.00 MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	NA
Group Subtotals: Work: \$556.86 Support: \$0.00 Total work team cost/hour: \$556.86 MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	NA
Total work team cost/hour: \$556.86 MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	0
MATERIAL QUANTITIES Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY LCY Source of estimated volume: Operator Estimate	Maint:
Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Swell factor: 1.125 Source of estimated volume: Operator Estimate	
Initial volume: 20,489 CCY Swell factor: 1.125 Loose volume: 23,050 LCY Swell factor: 1.125 Source of estimated volume: Operator Estimate	
Loose volume: 23,050 LCY Source of estimated volume: Operator Estimate	
Source of estimated volume:Operator Estimate	
Source of estimated swen factor. Cat Handbook	
HOURLY PRODUCTION	
Scraper Bowl (volume) Basis:	
Material weight: 2,550 lbs/LCY Struck Volume: 15.70	LCY
Material description: Earth - Dry packed Heaped Volume: 22.00	LUI
Rated Payload:52,800 poundsAverage Volume:18.85	LCY

CIRCES Cost Estimating Software

Adjusted Capacity: 18.85

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

0.90 Minutes 0.60 Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: **4.27** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3900.00	-9.00	3.00	-6.00	2938	1.37
				Return Time:	1.37 I	ninutes
			Total Scrape	r team cycle time:	7.14	minutes
			Adjusted	for job conditions:	262.95	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scra	per team (unit) l	nourly production:	262.95	LCY/Hour
	Adjusted m	ultiple scrap	ber team (fleet) l	nourly production:	262.95	LCY/Hour
Optima	Unadjusted unit proo 1 Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	Total job time:	87.66	Hours
	43 110		-			

Unit cost: \$2.118 /LCY

Total job cost: \$48,814.27

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION			
				NT
Task #: $1/16/2012$	State: Colorado		Abbreviation:	None
Date: 1/16/2013	County: Delta		Filename:	C083-114
<u>3:19:42 PM</u>			-	
User: SLB				
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	NT COST			
	D10T - 10SU			
Horsepower: 574	D101 - 1050	_		
· · · · · · · · · · · · · · · · · · ·	i-Universal	_		
<i>•</i> • • • • • • • • • • • • • • • • • •	ank ripper	_		
	r day	_		
Data Source: (CR		_		
<u></u>	<u>.</u>	_		
Cost Breakdown:	I	TT/11 0/		
Ownership Cost/Hour:	\$110.72	<u>Utilization %</u> NA		
	\$110.73	<u> </u>		
Operating Cost/Hour:	\$183.36			
Ripper op. Cost/Hour:	\$10.01	100		
Operator Cost/Hour:	\$37.41	NA		
Total unit Cost/Hour:	\$341.51			
Total Fleet Cost/Hour:	\$1,366.06			
-	,			
MATERIAL QUANT	<u>ITIES</u>			
Initial Volume: 2,830				
Swell factor: 1.125				
Loose volume: 3,184				
Source of estimated volun	ne: Division Estimate			
Source of estimated swell	Cat Handbook			
actor:				
	YON			
HOURLY PRODUCT				
Average push distance:	75 feet			
Jnadjusted hourly	2,105.3 LCY/hr			
production:				
Materials consistency deso	cription: Consolidated stock	bile 1.0		
	-			
Average push gradient:	5 %			
Average site altitude:	7,000 feet			
Material weight:	2,550 lbs/LCY			
-			_	
Material weight: Weight description:	Earth - Dry packed	Source	_	

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	853.91 LCY/hr
Adjusted fleet production:	3415.64 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.400/LCY

Total job time:	0.93 Hours
Total job cost:	\$1,273.32

Reclamation Cost Estimate RN-3

Page 171 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action:	Permit Renewal	3 Peri	mit/Job#:	C1996083	
PROJECT IDEN	TIFICATION						
Task #: 115	S	State: Colorado		Abbrev	viation: N	lone	
Date: 1/16/20 3:20:28		unty: Delta		File	ename: C	2083-115	
User: SLB							
Agency or o	rganization name:	DRMS					_
HOURLY EQUIP	MENT		COSTSh	ift basis: <u>1 per d</u>	ay		
		Equipme	ent Description				
		craper: Cat 627	G w/push-pull				_
Sunno	t Equipment -Loa	Dozer: NA d Area: NA					-
Suppo		p Area: NA					-
Road Mai	ntenance – Motor						_
	-Water	Truck: NA					_
Cost Breakdown	Source Wo	nh Taom	Support Fauin	mont	Mainta	nonco Equ	
<u>Cost Breakdown</u> :	Scraper Wo Scraper	Dozer	Support Equip Load Area	Dump Area	Motor Gr	nance Equ ader W	ater 7
%Utilization-machine:	100	NA	NA	NA	NA		NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA		N/ N/
Operating cost/hour:	\$182.63	NA	NA	NA	NA		NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA		NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA		NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA		NA
Number of Units:	2	0	0	0	0		0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	М	aint:	\$0.0
Total work team cost	/hour: \$556 86	I	L. L			1	
MATERIAL QUA							
Initial volume: Loose volume:	5,300 5,963	CCY LCY	Swell facto	or: <u>1.125</u>			
	ce of estimated vo f estimated swell						_
Source	i esumated swell		IUUUK				-
HOURLY PROD	UCTION						
v	<u>-</u>		Scraper Ro	wl (volume) Bas	is		
Motorial 1.4	2 550 lb - / CV				<u>101</u>	LOV	
Material weight: Material description:	2,550 lbs/LCY Earth - Dry pack	ed	Struck V Heaped V			LCY LCY	
Rated Payload:	52,800 pounds		Average V			LCY	
Payload Capacity:	20.71 LCY		Adjusted C			LCY	

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	10.00	5.00	15.00	734	2.06

Haul Time: 2.06 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	-10.00	5.00	-5.00	2938	0.57
				Return Time:	0.57	minutes
			Total Scrape	r team cycle time:	4.13	minutes
			Adjusted f	for job conditions:	454.59	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scrap	per team (unit) h	nourly production:	454.59	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	454.59	LCY/Hour
	Unadjusted unit proc	luction/hour	547.70	LCY/Hour		

Fleet size:	1	Team(s)	Total job time:	13.12	Hours
Unit cost:	\$1.225	/LCY	Total job cost:	\$7,303.88	

Page 173 of 312

	o. 2 Mine	Pe	rmit Action:	Permit Renewal 3	Permit/Job#	C1996083
ROJEC	T IDENTIFI	CATION				
Task #:	116	State:	Colorado		Abbreviation:	None
Date:	1/16/2013	County:	Delta		Filename:	C083-116
	3:22:10 PM	[
User:	SLB					
Ag	gency or organ	ization name: D	RMS			
IOURLY	<u> EQUIPME</u>	NT COST				
Basic Ma	achine: Cat	D10T - 10SU				
	power: 574			_		
	L	ni-Universal		_		
	• I	ank ripper		_		
		er day		_		
	Source: (CR			_		
Cost Break	down:					
Ownershi	Cost/Hour	¢1107	3	<u>Utilization %</u>		
	p Cost/Hour: g Cost/Hour:	\$110.7 \$183.3		<u>NA</u> 100		
- · ·						
	. Cost/Hour:	\$10.01		100		
Operator	Cost/Hour:	\$37.41	-	NA		
'otal unit C	Cost/Hour:	\$341.51				
	Cost/Hour:	\$341.51				
<u>/IATERI</u>	AL QUANT	<u>ITIES</u>				
Initial Vo	lume: 1,000)				
Swell f						
Loose vo		5 LCY				
	stimated volur	ne Division	of Poclamati			
				on, Mining & Safety		
	stimated swell			on, Mining & Safety		
				on, Mining & Safety		
ource of e actor:	stimated swell	Cat Hand		on, Mining & Safety		
ource of e actor:		Cat Hand		on, Mining & Safety		
ource of e actor: IOURLY	stimated swell	Cat Hand		on, Mining & Safety		
ource of e actor: IOURLY average pu	stimated swell PRODUC1 sh distance:	Cat Hand CION 300 feet	lbook	on, Mining & Safety 		
ource of e actor: IOURLY Average pu Jnadjusted	stimated swell PRODUC1 sh distance: hourly	Cat Hand	lbook	on, Mining & Safety		
ource of e actor: IOURLY average pu	stimated swell PRODUC1 sh distance: hourly	Cat Hand CION 300 feet	lbook	on, Mining & Safety		
ource of e actor: IOURLY Average pu Jnadjusted roduction:	stimated swell PRODUC1 sh distance: hourly	Cat Hand CION <u>300 feet</u> 633.3 LCY	lbook			
ource of e actor: IOURLY werage pu Jnadjusted roduction: faterials co	stimated swell PRODUCT sh distance: hourly onsistency des	Cat Hand	lbook 7/hr			
ource of e actor: IOURLY werage pu Inadjusted roduction: Materials co werage pu	stimated swell PRODUCT sh distance: hourly onsistency des sh gradient:	Cat Hand CION <u>300 feet</u> 633.3 LCY cription: <u>Conso</u> 0 %	lbook 7/hr			
ource of e actor: IOURLY werage pu Jnadjusted roduction: faterials co	stimated swell PRODUCT sh distance: hourly onsistency des sh gradient:	Cat Hand	lbook 7/hr			
ource of e actor: IOURLY werage pu Inadjusted roduction: Materials co werage pu	stimated swell PRODUCT sh distance: hourly onsistency des sh gradient: e altitude:	Cat Hand CION <u>300 feet</u> 633.3 LCY cription: <u>Conso</u> 0 %	lbook 7/hr			
ource of e actor: HOURLY Average pu Inadjusted roduction: faterials co average pu average sit faterial we	stimated swell PRODUCT sh distance: hourly onsistency des sh gradient: e altitude: eight:	Cat Hand <u>300 feet</u> 633.3 LCY cription: Conso 0 % 6,100 feet 2,550 lbs/LCY	lbook /hr lidated stockp			
ource of e actor: HOURLY Average pu Inadjusted roduction: Materials co Average pu Average sit Material we Veight deso	stimated swell PRODUCT sh distance: hourly onsistency des sh gradient: e altitude: eight:	Cat Hand Cat Hand CION <u>300 feet</u> 633.3 LCY cription: Conso 0 % 6,100 feet 2,550 lbs/LCY Earth - Dry packe	lbook /hr lidated stockp			

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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	284.48 LCY/hr
Adjusted fleet production:	284.48 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$1.200/LCY

 Total job time:
 3.95 Hours

 Total job cost:
 \$1,350.55

Reclamation Cost Estimate RN-3

Page 175 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Min	e	Permit Action:	Permit Renewal	3 Per	mit/Job#: <u>C1996</u>	083
PROJECT IDEN	TIFICATION					
Task #: 117 Date: 1/16/2 3:23:0 User: SLB	2013 Co	State: <u>Colorado</u> unty: Delta			viation: <u>None</u> lename: C083-1	17
Agency or	organization name:	DRMS				
HOURLY EQUI	PMENT_		COSTShi	ift basis: <u>1 per c</u>	lay	
		Equipme	ent Description			
		Scraper: Cat 627	G w/push-pull			
Supp	ort Equipment -Loa	-Dozer: NA d Area: NA				
Supp		p Area: NA				
Road Ma	aintenance – Motor					
	-Water	Truck: NA				
Cost Breakdown:	Scraper Wo	ork Team	Support Equip	ment	Maintenance	Eauipme
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	NA	NA	N
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	N
Operating cost/hour:	\$182.63	NA	NA	NA	NA	N
Ripper op. cost/hour:	NA	NA	NA	NA	NA	N
Operator cost/hour:	\$30.02	NA	NA	NA	NA	N
Unit Subtotals:	\$278.43	NA	NA	NA	NA	N
Number of Units:	2	0	0	0	0	(
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.
Total work team cos MATERIAL QU Initial volume: Loose volume:	ANTITIES 	CCY LCY	Swell facto	r: <u>1.125</u>		
	arce of estimated vo		5-36; Page 2.05-48	and Man 37		
	of estimated swell			and map 52		
	of estimated swell					
Source			Scraper Boy	wl (volume) Bas	sis:	
Source	DUCTION		<u>Scraper Bov</u> Struck V			СҮ
Source	UCTION 2,550 lbs/LCY Earth - Dry pack	ed	_	Yolume: <u>15.70</u> Yolume: <u>22.00</u>	L	CY CY CY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

0.90 Minutes 0.60 Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

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

Haul Time: **1.39** minutes

Return Route:

1 2700.00 0.00 5.00 5.00 2814 Return Time: 1.11 Total Scraper team cycle time: Adjusted for job conditions: 469.37 Selected Number of Scrapers: Adjusted single scraper team (unit) hourly production: Adjusted multiple scraper team (fleet) hourly production: 469.37 Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer: 565.50 LCY/Hour) Travel Time (min)
Total Scraper team cycle time: Adjusted for job conditions: Selected Number of Scrapers: Adjusted single scraper team (unit) hourly production: 	1.11
Adjusted for job conditions: 469.37 Selected Number of Scrapers: 2 Adjusted single scraper team (unit) hourly production: 469.37 Adjusted multiple scraper team (fleet) hourly production: 469.37 Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer:	minutes
Selected Number of Scrapers: 2 Adjusted single scraper team (unit) hourly production: 469.37 Adjusted multiple scraper team (fleet) hourly production: 469.37 Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer:	minutes
Adjusted single scraper team (unit) hourly production: 469.37 Adjusted multiple scraper team (fleet) hourly production: 469.37 Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer:	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: 469.37 Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer:	Scraper(s)
Unadjusted unit production/hour: 565.50 LCY/Hour Optimal Number of Scrapers per push dozer:	LCY/Hour
Optimal Number of Scrapers per push dozer:	LCY/Hour
IOR TIME AND COST	
JUD HIME AND COOL	
Fleet size: 1 Team(s) Total job time: 2.85	Hours

Unit cost: \$1.186 /LCY

Total job cost: \$1,588.31

Payload Capacity: 20.71 LCY

Reclamation Cost Estimate RN-3

Page 177 of 312

SCRAPER TEAM WORK

		Permit Action:	Permit Renewal	3 Per	mit/Job#: <u>C199</u>	6083
PROJECT IDENT	IFICATION					
Task #: <u>118</u> Date: <u>1/16/20</u> <u>3:24:04</u> User: <u>SLB</u>	13 Cou	tate: <u>Colorado</u> inty: Delta			viation: <u>None</u> lename: C083-1	.18
	rganization name:	DRMS				
HOURLY EQUIP	-		COSTSh	ift basis: <u>1 per o</u>	lay	
		Fauinme	ent Description			
	-S		G w/push-pull			
Suppor	- t Equipment -Load	Dozer: NA 1 Area: NA				
Suppor		o Area: NA				
Road Main	ntenance – Motor (Grader: NA				
	-Water	Truck: NA				
Cost Breakdown:	Scraper Wo	rk Team	Support Equip	ment	Maintenance	Equipme
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	NA	NA	N
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	N
Operating cost/hour:	\$182.63	NA	NA	NA	NA	N
Ripper op. cost/hour:	NA	NA	NA	NA	NA	N
Operator cost/hour:	\$30.02	NA	NA	NA	NA	N
Unit Subtotals:	\$278.43	NA	NA	NA	NA	N
Number of Units:	2	0	0	0	0	(
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0
Total work team cost/	hour: <u>\$556.86</u>					
MATERIAL QUA	<u>NTITIES</u>					
Initial volume:	800	CCY	Swell facto	or: 1.125		
Loose volume:	900	LCY				
	ce of estimated vo f estimated swell f		5-36; Page 2.05-48 lbook	3; Map 32		
HOURLY PRODU	UCTION					
			<u>Scraper Bo</u>	wl (volume) Bas	Sis:	
Material weight:	2,550 lbs/LCY		<u>Scraper Bo</u> Struck V			CY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

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

Haul Time: **1.39** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2700.00	0.00	5.00	5.00	2814	1.11
				Return Time:	1.11	minutes
			Total Scrape	r team cycle time:	4.00	minutes
			Adjusted f	for job conditions:	469.37	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scra	per team (unit) h	nourly production:	469.37	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	469.37	LCY/Hour
Optima	Unadjusted unit proc l Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	1.92	Hours

Unit cost: \$1.186 /LCY

Total job cost: \$1,067.77

Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
Task #: 119	State:	Colorado		Abbreviation:	None
Date: 1/16/2013		Delta		Filename:	C083-119
3:25:16 P	М				
User: SLB				_	
Agency or orga	anization name: DF	RMS			
HOURLY EQUIPM					
	at D10T - 10SU		_		
Horsepower: 57			_		
• •	emi-Universal		_		
	shank ripper		_		
	per day		_		
Data Source: (C	CRG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:			NA		
Operating Cost/Hour:			100		
Ripper op. Cost/Hour:			100		
Operator Cost/Hour:	\$37.41		NA		
			1 12 1		
Total unit Cost/Hour			1111		
	\$341.51				
Total unit Cost/Hour: Total Fleet Cost/Hour:					
Total Fleet Cost/Hour:	\$341.51 \$1,366.06				
Total Fleet Cost/Hour: MATERIAL QUAN	\$341.51 \$1,366.06 TITIES				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>67</u> ,	\$341.51 \$1,366.06 TITIES 794				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>67,</u> Swell factor: <u>1.1</u> 2	\$341.51 \$1,366.06 TITIES 794 25				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>67,</u> Swell factor: <u>1.1</u> 2	\$341.51 \$1,366.06 TITIES 794				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76,	\$341.51 \$1,366.06 TITIES 794 25 268 LCY				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volume	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume:Division	 Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volumes 61,	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume:Division	 Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volu- Source of estimated swe	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume:Division	 Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volu Source of estimated swe factor:	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand	 Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volu Source of estimated swe factor: HOURLY PRODUC	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION	 Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance:	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet	Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67,' Swell factor: 1.12 Loose volume: 76,' Source of estimated volu Source of estimated swell Source of estimated swell factor: HOURLY PRODUC Average push distance: Unadjusted hourly 1	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION	Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67,' Swell factor: 1.12 Loose volume: 76,' Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly State	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet	Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67,' Swell factor: 1.1' Loose volume: 76,' Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production:	<u>\$341.51</u> \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand <u>CTION</u> <u>100 feet</u> 1,718.9 LC	 Estimate book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67,' Swell factor: 1.1' Loose volume: 76,' Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production:	<u>\$341.51</u> \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand <u>CTION</u> <u>100 feet</u> 1,718.9 LC	Estimate			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76,2 Source of estimated volt Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency definition Materials consistency definition	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet 1,718.9 LC escription: Consol	 Estimate book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, 7 Swell factor: 1.17 Loose volume: 76, 7 Source of estimated volt Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet 1,718.9 LC escription: Consol 5 %	 Estimate book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76,2 Source of estimated volt Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency definition 1000000000000000000000000000000000000	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet 1,718.9 LC escription: Consol	 Estimate book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, 7 Swell factor: 1.17 Loose volume: 76, 7 Source of estimated volt Source of estimated swelfactor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet 1,718.9 LC escription: Consol 5 %	 Estimate book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67, Swell factor: 1.12 Loose volume: 76, Source of estimated volu Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	\$341.51 \$1,366.06 TITIES 794 25 268 LCY ume: Division ell Cat Hand CTION 100 feet 1,718.9 LC escription: Consol 5 % 7,500 feet 2,550 lbs/LCY	 Estimate lbook Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 67,' Swell factor: 1.12 Loose volume: 76,' Source of estimated volu 5000000000000000000000000000000000000	<u>\$341.51</u> \$1,366.06 TITIES 794 25 268 LCY ume: <u>Division</u> ell Cat Hand <u>CTION</u> <u>100 feet</u> 1,718.9 LC escription: <u>Consol</u> <u>5 %</u> 7,500 feet <u>2,550 lbs/LCY</u> Earth - Dry packed	 Estimate lbook Y/hr idated stockp			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	697.19 LCY/hr
Adjusted fleet production:	2788.76 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.490/LCY

Total job time:	27.35 Hours
Total job cost:	\$37,359.60
BULLDOZER WORK

Bowie No. 2 Mine	Perr	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTI	FICATION				
		Calanda		A 1-1-	Mana
Task #: <u>120</u> Date: <u>1/16/2013</u>	State:	Colorado Delta		Abbreviation:	None C083-120
Date: 1/16/2013 3:25:58 Pl	5	Delta		Filename:	0085-120
				-	
User: <u>SLB</u>					
Agency or orga	anization name: DR	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	t D10T - 10SU				
Horsepower: 57			_		
	mi-Universal		_		
• 1	shank ripper		_		
	ber day		_		
	RG)		_		
<u></u>			_		
Cost Breakdown:		i			
a ()			<u>Utilization %</u>		
Ownership Cost/Hour:			NA		
Operating Cost/Hour:			100		
Ripper op. Cost/Hour:			0		
Operator Cost/Hour:	\$37.41		NA		
Total unit Cost/Hour:	\$331.50				
Total Fleet Cost/Hour:	\$1,326.00				
10m11001003/110m.	\$1,520.00				
	\$1,520.00				
MATERIAL QUAN	TITIES				
MATERIAL QUAN Initial Volume:78,;	TITIES 580				
MATERIAL QUAN	TITIES 580				
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12	TITIES 580				
MATERIAL QUANInitial Volume:78,3Swell factor:1.12Loose volume:88,4	TITIES 580 25 403 LCY				
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88, 5 Source of estimated volu	TITIES 580 25 403 LCY ume: DRMS Es				
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,6 Source of estimated volu swell	TITIES 580 25 403 LCY ume: DRMS Es				
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88, 5 Source of estimated volu	TITIES 580 25 403 LCY ume: DRMS Es				
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe factor:	TITIES 580 25 403 LCY ume: DRMS Es 11 Cat Handb				
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,6 Source of estimated volu swell	TITIES 580 25 403 LCY ume: DRMS Es 11 Cat Handb				
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe factor:	TITIES 580 25 403 LCY ume: DRMS Es 11 Cat Handb				
MATERIAL QUAN Initial Volume: 78,3 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu swe Source of estimated swe factor: HOURLY PRODUCC 100	TITIES 580 25 403 LCY ume: DRMS Es 11 Cat Handl CTION	book			
MATERIAL QUAN Initial Volume: 78,3 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: 1	TITIES 580 25 403 LCY ume: DRMS Es 01 Cat Handle CTION 120 feet	book			
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly	TITIES 580 25 403 LCY ume: DRMS Es 01 Cat Handle CTION 120 feet	book			
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly	TITIES 580 25 403 LCY ume: DRMS Es 311 Cat Handle 25 25 120 feet 1,503.8 LCY	book	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Source	TITIES 580 25 403 LCY ume: DRMS Es 311 Cat Handle 25 25 120 feet 1,503.8 LCY	book Y/hr	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu 80 Source of estimated swe 6 Source of estimated swe 6 factor: 1000000000000000000000000000000000000	TITIES 580 25 403 LCY ume: DRMS Es 25 Cat Handle Cat Handle CTION 120 feet 1,503.8 LCY escription: Consoli	book Y/hr	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu 8000000000000000000000000000000000000	TITIES 580 25 403 LCY ume: DRMS Es ell Cat Handb	book Y/hr	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,4 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu 80 Source of estimated swe 6 Source of estimated swe 6 factor: 1000000000000000000000000000000000000	TITIES 580 25 403 LCY ume: DRMS Es 25 Cat Handle Cat Handle CTION 120 feet 1,503.8 LCY escription: Consoli	book Y/hr	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu 8000000000000000000000000000000000000	TITIES 580 25 403 LCY ume: DRMS Es ell Cat Handb	book Y/hr	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,6 Source of estimated volu 86,6 Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: 1000000000000000000000000000000000000	TITIES 580 25 403 LCY ume: DRMS Es cat Handle Cat Handle 2TION	book Y/hr	 pile 1.0		
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,6 Source of estimated volu 86,6 Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: 1000000000000000000000000000000000000	TITIES 580 25 403 LCY ume: DRMS Es cat Handle Cat Handle 2TION	book Ý/hr idated stockg	 bile 1.0		
MATERIAL QUAN Initial Volume: 78,5 Swell factor: 1.12 Loose volume: 88,4 Source of estimated volu Source of estimated swe Source of estimated swe factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	TITIES 580 25 403 LCY ume: DRMS Es cat Handb Cat Handb 25 120 feet 1,503.8 LCY escription: Consoli 5 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed	book Ý/hr idated stockg			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit production:	609.94 LCY/hr
Adjusted fleet production:	2439.76 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.543/LCY

Total job time:	36.23 Hours
Total job cost:	\$48,046.47

Reclamation Cost Estimate RN-3

Page 183 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine	·	Permit Action:	Permit Renewal	3 Per	mit/Job#: <u>C199</u>	5083
PROJECT IDEN	TIFICATION					
Task #: 121 Date: 1/16/20 3:26:48 3:26:48 User: SLB	013 Cour	ate: <u>Colorado</u> aty: Delta			viation: <u>None</u> ename: C083-1	21
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	MENT		COSTSh	ift basis: <u>1 per c</u>	lay	
			ent Description			
		raper: Cat 627 Dozer: NA	G w/push-pull			
Suppo	rt Equipment -Load					
**	-Dump	Area: NA				
Road Ma	ntenance –Motor G -Water 7					
	Water 1					
<u>Cost Breakdown</u> :	Scraper Worl		Support Equip		Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water 7
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.0
Total work team cost <u>MATERIAL QUA</u> Initial volume	NTITIES	COV	Small facts			
Initial volume: Loose volume:	11,000 12,375	CCY LCY	Swell facto	r: <u>1.125</u>		
	ce of estimated volu f estimated swell fa					
HOURLY PROD	UCTION					
			Scraper Bo	wl (volume) Bas	sis:	
Material weight:	2,550 lbs/LCY		Struck V			CY
Material description:	Earth - Dry packed	1	Heaped V			CY
Rated Payload:	52,800 pounds		Average V	olume: 18.85	T	CY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-20.00	5.00	-15.00	1295	0.77

Haul Time: **0.77** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	20.00	5.00	25.00	712	1.13
				Return Time:	1.13	ninutes
			Total Scrape	r team cycle time:	3.40	minutes
			Adjusted f	for job conditions:	552.19	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scraj	per team (unit) h	nourly production:	552.19	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	552.19	LCY/Hour
Optima	Unadjusted unit proc Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	22.41	Hours

Unit cost: \$1.008 /LCY

Total job cost: \$12,479.57

BULLDOZER WORK

	e	Permit	Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDEN	TIFICATIO)N				
			7 - 1 I		A h h and i a i a i	Nama
Task #: <u>122</u> Date: <u>1/16/2</u>	012		Colorado Delta		Abbreviation: Filename:	None C083-122
3:27:5		County: I	Jena		Filename:	C085-122
User: SLB					-	
Agency or	organization r	name: DRM	S			
HOURLY EQUII	PMENT CO	ST				
Basic Machine:	Cat D10T - 1					
Horsepower:	574	1050		-		
Blade Type:	Semi-Univer	rsal		_		
Attachment:	3-shank ripp			_		
Shift Basis:	1 per day	~		_		
Data Source:	(CRG)			_		
-	(010)			_		
Cost Breakdown:			1			
Our angle in Control		¢110 72		Utilization %		
Ownership Cost/Ho		\$110.73		NA 100		
Operating Cost/He		\$183.36		100		
Ripper op. Cost/He		\$10.01		100		
Operator Cost/Ho	our:	\$37.41		NA		
Cotal unit Cost/Hour	: \$341.5	1				
Total Fleet Cost/Hou						
MATERIAL QUA	ANTITIES					
Initial Volume:	250					
	1.125					
Swell factor:						
Swell factor:	281 LCY					
Swell factor: Loose volume:	281 LCY	Division of I	Reclamati	on Mining & Safety		
Swell factor: Loose volume: Source of estimated	281 LCY volume:			on, Mining & Safety		
Swell factor: Loose volume: ource of estimated ource of estimated	281 LCY volume:	Division of I Cat Handboo		on, Mining & Safety		
Swell factor: Loose volume: ource of estimated	281 LCY volume:			on, Mining & Safety		
Swell factor: Loose volume: Source of estimated Source of estimated actor:	281 LCY volume: swell			on, Mining & Safety		
Swell factor: Loose volume: Source of estimated	281 LCY volume: swell			on, Mining & Safety		
Swell factor: Loose volume: Source of estimated Source of estimated actor:	281 LCY volume: swell UCTION			on, Mining & Safety		
Swell factor: Loose volume: Source of estimated source of estimated actor: HOURLY PROD	281 LCY volume: swell UCTION ce:	Cat Handboo		on, Mining & Safety		
Swell factor: Loose volume: Source of estimated Source of estimated actor: HOURLY PROD	281 LCY volume: swell UCTION ce:	Cat Handboo		on, Mining & Safety		
Swell factor: Loose volume: Gource of estimated actor: HOURLY PROD Average push distand	281 LCY volume: swell UCTION ce:	Cat Handboo		on, Mining & Safety		
Swell factor: Loose volume: ource of estimated ource of estimated actor: HOURLY PROD Average push distand Jnadjusted hourly roduction:	281 LCY volume: swell UCTION ce:	Cat Handboo 200 feet 946.0 LCY/hr	ok			
Swell factor: Loose volume: Source of estimated actor: HOURLY PROD Average push distand Jnadjusted hourly production: Materials consistenc	281 LCY volume: swell UCTION ce: y description:	Cat Handboo 200 feet 946.0 LCY/hr	ok			
Swell factor: Loose volume: Source of estimated actor: HOURLY PROD Average push distand Jnadjusted hourly production: Materials consistenc	281 LCY volume: swell UCTION ce: y description: nt:5 %	Cat Handboo 200 feet 946.0 LCY/hr Consolida	ok			
Swell factor: Loose volume: Source of estimated actor: HOURLY PROD Average push distand Jnadjusted hourly production: Materials consistenc	281 LCY volume: swell UCTION ce: y description: nt:5 %	Cat Handboo 200 feet 946.0 LCY/hr Consolida	ok			
Swell factor: Loose volume: Gource of estimated actor: HOURLY PROD Average push distand Jnadjusted hourly production: Materials consistenc Average push gradie Average site altitude	281 LCY volume: swell UCTION ce:	Cat Handboo 200 feet 946.0 LCY/hr Consolidat	ok			
Swell factor: Loose volume: Source of estimated actor: HOURLY PROD Average push distand Jnadjusted hourly production: Materials consistenc	281 LCY volume: swell UCTION ce:	Cat Handboo 200 feet 946.0 LCY/hr Consolida	ok			
Swell factor: Loose volume: Gource of estimated actor: HOURLY PROD Average push distand Inadjusted hourly roduction: Materials consistenc Average push gradie Average site altitude Material weight:	281 LCY volume: swell UCTION ce: y description: 	Cat Handboo 200 feet 946.0 LCY/hr <u>Consolida</u> feet bs/LCY	ok			
Swell factor: Loose volume: ource of estimated ource of estimated actor: HOURLY PROD Average push distand Inadjusted hourly roduction: Materials consistenc Average push gradie	281 LCY volume: swell UCTION ce: y description: int:5 % ::6,000 f 2,550 f 	Cat Handboo 200 feet 946.0 LCY/hr Consolidat	ok			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit production:	383.70 LCY/hr
Adjusted fleet production:	1534.8 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.890/LCY

Total job time:	0.18 Hours
Total job cost:	\$250.33

Reclamation Cost Estimate RN-3

Page 187 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Mine		Permit Action	n: Permit Renewal	13 Per	mit/Job#: <u>C</u>	21996083	
PROJECT IDEN	<u>FIFICATION</u>						
Task #: 123		tate: Colorad	0	Abbro	viation: No	no	
Date: $1/16/20$		inty: Delta	0			083-123	
3:37:38							
User: <u>SLB</u>							
Agency or o	organization name:	DRMS					
HOURLY EQUIE	MENT		COSTS	hift basis: <u>1 per o</u>	day		
		Equip	ment Description				
		craper: Cat 62	27G w/push-pull				
		Dozer: NA Area: NA					
Suppo	rt Equipment -Load Dump-						
Road Ma	intenance – Motor (
	-Water	Truck: NA					
	C W	1 00				г.	
<u>Cost Breakdown</u> :	Scraper Wor Scraper	ber Dozer	Support Equi	Dump Area	Mainten Motor Gra	ance Equip	oment ater Tr
0/11/11	-			-			
%Utilization-machine:	100 \$65.78	NA NA	NA NA	NA NA	NA NA		NA NA
Ownership cost/hour: Operating cost/hour:	\$182.63	NA	NA	NA	NA		NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA		NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA		NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA		NA
Number of Units:	2	0	0	0	0		0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Ma	int:	\$0.00
Total work team cost	/hour: \$556.86						
	, nour: <u>900000</u>						
MATERIAL QUA	ANTITIES						
Initial volume:	13,900	CCY	Swell fact	or: <u>1.125</u>			
Loose volume:	15,638	LCY					
	rce of estimated vo						
Source of	of estimated swell f	actor: <u>Cat Ha</u>	ndbook				
HOURLY PROD	UCTION						
			Scraper Bo	owl (volume) Bas	<u>sis:</u>		
Material weight:	2,550 lbs/LCY		Struck	Volume: 15.70		LCY	
Material description:	Earth - Dry packe	ed	Heaped	Volume: 22.00		LCY	
Rated Payload:	52,800 pounds		Average				
Payload Capacity:	20.71 LCY		Adjusted C	Capacity: 18.85	1	LCY	

<u>0.90</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6100 feet

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	12.00	5.00	17.00	650	1.55

Haul Time: **1.55** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-12.00	5.00	-7.00	2938	0.41
				Return Time:	0.41 r	ninutes
			Total Scrape	er team cycle time:	3.46	minutes
			Adjusted	for job conditions:	542.62	LCY/Hour
			Selected Nu	umber of Scrapers:	2	Scraper(s)
	Adjusted	single scrap	er team (unit) l	hourly production:	542.62	LCY/Hour
	Adjusted m	ultiple scrape	er team (fleet) l	hourly production:	542.62	LCY/Hour
	Unadjusted unit prod	luction/hour:	653.76	LCY/Hour		_

Fleet size:	1	Team(s)	Total job time:	28.82	Hours
Unit cost:	\$1.026	/LCY	Total job cost:	\$16,047.92	

Reclamation Cost Estimate RN-3

Page 189 of 312

SCRAPER TEAM WORK

Site: Bowie No.	2 Mine		Permit Action:	Permit Renewal	3 Per	mit/Job#:	C19960	83
PROJECT	IDENT	IFICATION						
Task #:	124	S	State: Colorado		Abbre	viation:	None	
Date:	1/16/20		unty: Delta		Fil	ename:	C083-124	4
User:	3:38:54 SLB	PINI				-		
Age	ncy or or	ganization name:	DRMS					
HOURLY	FOLIP	MENT		COSTSI	nift basis: <u>1 per c</u>	lav		
HOURLII					int basis. <u>1 per (</u>	lay		
		-5		ent Description G w/push-pull				
			Dozer: NA					
	Support	Equipment -Loa						
P	oad Mair	-Dum ntenance –Motor	p Area: NA Grader: NA					
K			Truck: NA					
			I					
Cost Breakd	own:	Scraper Wo		Support Equip			itenance E	quipment Water Tr
		Scraper	Dozer	Load Area	Dump Area	Motor	Jrader	water 1r
%Utilization-ma	chine:	100	NA	NA	NA	N.	A	NA
Ownership cost		\$65.78	NA	NA	NA	N	A	NA
Operating cost		\$182.63	NA	NA	NA	N	A	NA
Ripper op. cost	/hour:	NA	NA	NA	NA	N	A	NA
Operator cost	/hour:	\$30.02	NA	NA	NA	N	A	NA
Unit Sub	totals:	\$278.43	NA	NA	NA	N	A	NA
Number of		2	0	0	0	C		0
Group Sub	totals:	Work:	\$556.86	Support:	\$0.00		Maint:	\$0.00
Total work te	am cost/	hour: <u>\$556.86</u>						
MATERIA	L QUA	NTITIES						
Initial v		39,679	CCY	Swell facto	or: 1.125			
Loose v	olume:	44,639	LCY					
		ce of estimated vo						
S	Source of	estimated swell	factor: Cat Hand	lbook				
HOURLY		ICTION						
HUUKLII						•		
					owl (volume) Bas			
Material v		2,550 lbs/LCY	. 1		Volume: <u>15.70</u>		LC	
Material descr		Earth - Dry pack 52,800 pounds	ea	Heaped Average			LC LC	

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

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

Haul Time: **0.97** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	5.00	0.00	2921	0.44
				Return Time:	0.44	minutes
			Total Scrape	r team cycle time:	2.91	minutes
			Adjusted 1	for job conditions:	645.18	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scraj	per team (unit) h	nourly production:	645.18	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	645.18	LCY/Hour
Optima	Unadjusted unit proo l Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	69.19	Hours

Fleet size:	1	Team(s)	Total job time:	69.19	Ho
Unit cost:	\$0.863	/LCY	Total job cost:	\$38,528.45	

Reclamation Cost Estimate RN-3

Page 191 of 312

SCRAPER TEAM WORK

craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA NA	ent Description 'G w/push-pull Support Equip Load Area NA NA NA NA NA	ift basis: <u>1 per c</u>	Maintenance Motor Grader NA NA NA	
Delta DRMS DRMS Craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA	ent Description 'G w/push-pull Support Equip Load Area NA NA NA NA NA	ment Dump Area NA NA NA NA	Maintenance Motor Grader NA NA NA NA	Equipm Wate
DRMS Equipme craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA	ent Description 'G w/push-pull Support Equip Load Area NA NA NA NA NA	ift basis: <u>1 per c</u> ment Dump Area NA NA NA	lay Maintenance Motor Grader NA NA NA NA	Equipm Wate
Equipme craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA NA	ent Description 'G w/push-pull Support Equip Load Area NA NA NA NA NA	ment Dump Area NA NA NA	Maintenance Motor Grader NA NA NA	Wate
Equipme craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA NA	ent Description 'G w/push-pull Support Equip Load Area NA NA NA NA NA	ment Dump Area NA NA NA	Maintenance Motor Grader NA NA NA	Wate
craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA NA	ent Description 'G w/push-pull Support Equip Load Area NA NA NA NA NA	ment Dump Area NA NA NA	Maintenance Motor Grader NA NA NA	Wate
craper: Cat 627 Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA NA	G w/push-pull Support Equip Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate
Dozer: NA d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA	Support Equip Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate
d Area: NA p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA	Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate N
p Area: NA Grader: NA Truck: NA rk Team Dozer NA NA NA NA NA NA NA NA	Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate N
Truck: NA rk Team Dozer NA	Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate N
rk Team Dozer NA NA NA NA NA NA NA	Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate
Dozer NA NA NA NA NA NA	Load Area NA NA NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Wate
NA NA NA NA NA NA	NA NA NA NA	NA NA NA	NA NA NA	1
NA NA NA NA NA	NA NA NA	NA NA	NA NA	1
NA NA NA NA	NA NA	NA	NA	
NA NA NA	NA			1
NA NA		NA		
NA	37.1		NA	1
	NA	NA	NA	1
	NA	NA	NA	1
0	0	0	0	
\$556.86	Support:	\$0.00	Maint:	\$
CCY LCY	Swell facto	or: <u>1.250</u>		
	Scraper Bo	wl (volume) Bas	sis:	
	Struck V	Volume: 15.70	L	CY
ed		Volume: 22.00	L	CY
			_	CY
Ē	olume: <u>Operator</u> factor: <u>Cat Hand</u>	olume: <u>Operator Estimate</u> factor: <u>Cat Handbook</u> <u>Scraper Bo</u> Struck V ed Heaped V	Operator Estimate Gactor: Operator Estimate Cat Handbook Scraper Bowl (volume) Base Struck Volume: 15.70 ed Heaped Volume: 22.00	Operator Estimate Gactor: Cat Handbook Scraper Bowl (volume) Basis: Struck Volume: 15.70 L ed Heaped Volume: 22.00 L

<u>0.90</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	0.00	5.00	5.00	2218	1.07

Haul Time: **1.07** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	0.00	5.00	5.00	2814	0.86
				Return Time:	0.86	minutes
			Total Scrape	r team cycle time:	3.43	minutes
			Adjusted f	for job conditions:	547.36	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	single scra	per team (unit) h	nourly production:	547.36	LCY/Hour
	Adjusted m	ultiple scrap	per team (fleet) h	nourly production:	547.36	LCY/Hour
Optima	Unadjusted unit proc Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	132.68	Hours

Unit cost: \$1.017 /LCY

Total job cost: \$73,884.88

Page 193 of 312

BULLDOZER WORK

	o. 2 Mine	Pe	rmit Action:	Permit Renewal 3	Permit/Job#	: C1996083
PROJEC'	T IDENTIF	TICATION				
Task #:	126	State:	Colorado		Abbreviation:	None
Date:	1/16/2013	County:	Delta		Filename:	C083-126
* *	3:41:30 PN	<u>M</u>				
User:	SLB					
Ag	gency or orga	nization name: D	RMS			
HOURLY	<u>EQUIPMI</u>	ENT COST				
Basic Ma	achine: Cat	t D10T - 10SU				
	power: 57^2					
		mi-Universal		_		
	••	hank ripper				
Shift		ber day				
Data S	Source: (CI	RG)		_		
Cost Break	<u>down</u> :			TT		
Oumonal-	n Cost/Hour	¢1107	2	Utilization %		
	p Cost/Hour:	\$110.7 \$183.3		NA 100		
	g Cost/Hour: b. Cost/Hour:	\$183.3		100		
	Cost/Hour: Cost/Hour:	\$10.0				
operator	Cosumoul.	φ	L	NA		
Total unit C Total Fleet	Cost/Hour:	\$341.51 \$1,366.06				
Total Fleet <u>MATERI</u> Initial Vo Swell f	Cost/Hour: AL QUANT lume: <u>300</u> actor: <u>1.12</u>	\$1,366.06 <u>FITIES</u> 25				
Total Fleet MATERI Initial Vo Swell f Loose vo	Cost/Hour: AL QUAN lume: 300 actor: 1.12 lume: 338	\$1,366.06 FITIES 25 LCY				
Total Fleet <u>MATERI</u> Initial Vo Swell f Loose vo Source of e	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu	\$1,366.06 <u>FITIES</u> 25 LCY ume:Division		on, Mining & Safety		
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e	Cost/Hour: AL QUAN lume: 300 actor: 1.12 lume: 338	\$1,366.06 <u>FITIES</u> 25 LCY ume:Division		on, Mining & Safety		
Total Fleet <u>MATERI</u> Initial Vo Swell f Loose vo Source of e	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu	\$1,366.06 <u>FITIES</u> 25 LCY ume:Division		on, Mining & Safety		
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor:	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel	\$1,366.06 <u>FITIES</u> 25 LCY ume: <u>Division</u> 11 Cat Han		on, Mining & Safety		
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUC	\$1,366.06 <u>FITIES</u> 25 LCY ume: <u>Division</u> 11 Cat Han <u>TION</u>		on, Mining & Safety		
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUCT sh distance:	\$1,366.06 <u>FITIES</u> 25 LCY ume: Division 11 Cat Han <u>TION</u> 150 feet	dbook	on, Mining & Safety		
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel Z PRODUCT ash distance: hourly	\$1,366.06 <u>FITIES</u> 25 LCY ume: <u>Division</u> 11 Cat Han <u>TION</u>	dbook	on, Mining & Safety		
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu Unadjusted production:	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel Z PRODUCT ash distance: hourly	\$1,366.06 <u>FITIES</u> 25 LCY ume: <u>Division</u> 11 Cat Han <u>TION</u> <u>150 feet</u> 1,243.2 LC	dbook			
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu Unadjusted production: Materials co	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUC' ash distance: hourly onsistency den	\$1,366.06 FITIES 25 LCY ume: Division II Cat Han	dbook CY/hr			
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu Unadjusted production: Materials co Average pu	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUC' ash distance: hourly onsistency denotes ash gradient:	\$1,366.06 FITIES 25 LCY ume: Division II Cat Han	dbook CY/hr			
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu Unadjusted production: Materials co	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUC' ash distance: hourly onsistency denotes ash gradient:	\$1,366.06 FITIES 25 LCY ume: Division II Cat Han	dbook CY/hr			
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu Unadjusted production: Materials co Average pu	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUC ash distance: hourly onsistency deal ash gradient: e altitude:	\$1,366.06 FITIES 25 LCY ume: Division II Cat Han	dbook CY/hr			
Total Fleet MATERI Initial Vo Swell f Loose vo Source of e Source of e factor: HOURLY Average pu Unadjusted production: Materials co Average pu Average pu	Cost/Hour: AL QUANT lume: 300 actor: 1.12 lume: 338 stimated volu stimated swel C PRODUC ash distance: hourly onsistency deal ash gradient: e altitude: eight:	\$1,366.06 FITIES 25 LCY ume: Division II Cat Han	dbook CY/hr lidated stockj			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit production:	504.24 LCY/hr
Adjusted fleet production:	2016.96 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.677/LCY

Total job time:	0.17 Hours
Total job cost:	\$228.58

Reclamation Cost Estimate RN-3

Page 195 of 312

SCRAPER TEAM WORK

Site: Bowie No. 2 Min	e	Permit Action:	Permit Renewal	13 Per	rmit/Job#: <u>C199</u>	96083
PROJECT IDEN	TIFICATION					
Task #: 127	St	ate: Colorado		Abbre	viation: None	
Date: 1/16/2	013 Cou				lename: C083-	127
<u>3:43:4</u>	0 PM				. <u> </u>	
User: <u>SLB</u>						
Agency or	organization name:	DRMS				
HOURLY EQUI	<u>PMENT</u>		COSTS	hift basis: <u>1 per (</u>	day	
		Equipm	ent Description			
		raper: Cat 62'	7G w/push-pull			
		Dozer:NAArea:NA				
Suppo	ort Equipment -Load -Dump					
Road Ma	intenance – Motor C					
	-Water					
						. .
<u>Cost Breakdown</u> :	Scraper Wor Scraper	k Team Dozer	Support Equip Load Area	pment Dump Area	Maintenanc Motor Grader	e Equipme Water
				-		
%Utilization-machine:	100	NA	NA	NA	NA	N
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	N
Operating cost/hour:	\$182.63	NA	NA	NA	NA	N
Ripper op. cost/hour:	NA #20.02	NA	NA	NA	NA	N
Operator cost/hour:	\$30.02	NA	NA	NA	NA	N
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.0
Total work team cos MATERIAL QU						
Initial volume: Loose volume:		CCY LCY	Swell fact	or: <u>1.125</u>		
Sor	urce of estimated vol	ume: Operato	r Estimate			
	of estimated swell fa					
HOURLY PROD	UCTION					
			Scraper Bo	owl (volume) Ba	<u>sis:</u>	
Material weight:	2,550 lbs/LCY		Struck	Volume: 15.70)	LCY
Material description:	Earth - Dry packe	d	Heaped			LCY
Rated Payload:	52,800 pounds		Average	Volume: 18.85]	LCY
Payload Capacity:	20.71 LCY		Adjusted C	Capacity: 18.85		LCY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

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

Haul Route:

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

Haul Time: **0.69** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	15.00	5.00	20.00	868	1.17
				Return Time:	1.17	minutes
			Total Scrape	r team cycle time:	3.36	minutes
			Adjusted f	for job conditions:	558.77	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scra	per team (unit) h	nourly production:	558.77	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	nourly production:	558.77	LCY/Hour
Optima	Unadjusted unit prod l Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	1.71	Hours

Fleet size:	1	Team(s)	Total job time:	1.71	Hou
Unit cost:	\$0.997	/LCY	Total job cost:	\$952.98	

Reclamation Cost Estimate RN-3

Page 197 of 312

SCRAPER TEAM WORK

	line	Permit Ac	ction: Permit Renewa	al 3 Per	mit/Job#: <u>C199</u>	6083
PROJECT IDE	ENTIFICATION					
Task #: 128	, 9	State: Colo	orado	Abbre	viation: None	
Date: 1/10	6/2013 Co	ounty: Delt			lename: C083-	128
User: $\frac{3:42}{SLH}$	2:11 PM					
Agency	or organization name	: DRMS				
HOURLY EQU	JIPMENT		COSTS	Shift basis: <u>1 per c</u>	lay	
		Eq	uipment Description			
	-		at 627G w/push-pull			
<u> </u>	pport Equipment -Loa	-Dozer: Nad Area: N				
Sul		np Area: N				
Road	Maintenance – Motor					
	-Wate	r Truck: N	A			
Cost Presiderer	Coronor W	ante Taoma	Support Equi	immont	Maintananaa	Equipment
<u>Cost Breakdown</u>	L: Scraper We Scraper	Dozer	Support Equi	Dump Area	Maintenance Motor Grader	Water Tr
%Utilization-machin	le: 100	NA	NA	NA	NA	NA
Ownership cost/hou	ır: \$65.78	NA	NA	NA	NA	NA
Operating cost/hou	ır: \$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hou	ır: NA	NA	NA	NA	NA	NA
Operator cost/hou	ır: \$30.02	NA	NA	NA	NA	NA
Unit Subtotal	ls: \$278.43	NA	NA	NA	NA	NA
Number of Unit	ts: 2	0	0	0	0	0
Group Subtotal	ls: Work:	\$556.86	Support:	\$0.00	Maint:	\$0.00
Total work team of MATERIAL Q	cost/hour: <u>\$556.86</u>					
Initial volun		CC	CY Swell fac	etor: 1.250		
Loose volun						
ç	Source of estimated v	olume: On	erator Estimate			
	ce of estimated swell		t Handbook			
Sour						
HOURLY PRO	<u>DDUCTION</u>					
	<u>DDUCTION</u>		Scraper B	Bowl (volume) Bas	sis:	
HOURLY PRO	ht: _2,550 lbs/LCY		Struck	Volume: <u>15.70</u>	I	LCY
HOURLY PRO	ht: 2,550 lbs/LCY on: Earth - Dry pacl	ced	Struck Heaped		I	LCY LCY LCY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

<u>0.90</u> Minutes <u>0.60</u> Minutes

Site Altitude: 6750 feet

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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

Haul Time: 4.45 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4500.00	-8.00	3.00	-5.00	2938	1.58
				Return Time:	1.58 1	ninutes
			Total Scrape	r team cycle time:	7.53	minutes
			Adjusted f	for job conditions:	249.33	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scra	per team (unit) h	ourly production:	249.33	LCY/Hour
	Adjusted m	ultiple scrap	ber team (fleet) h	nourly production:	249.33	LCY/Hour
Optima	Unadjusted unit proc l Number of Scrapers per			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	5.01	Hours

Unit cost: \$2.233 /LCY

Total job cost: \$2,791.77

BULLDOZER WORK

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICAT	ΓΙΟΝ			
Task #: 129	State: Colorado		Abbreviation:	None
Date: 1/16/2013 3:44:44 PM	County: Delta		Filename:	C083-129
User: SLB			-	
Agency or organization	on name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: Cat D10				
Horsepower: 574		_		
Blade Type: Semi-Un	iversal			
Attachment: 3-shank i				
Shift Basis: 1 per day				
Data Source: (CRG)				
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$110.73	NA		
Operating Cost/Hour:	\$183.36	100		
Ripper op. Cost/Hour:	\$10.01	100	—	
Operator Cost/Hour:	\$37.41	NA		
	1.51			
Fotal Fleet Cost/Hour: \$1,	366.06			
MATERIAL QUANTITI	ES			
Initial Volume: 7,400				
Swell factor: 1.250				
Loose volume: 9,250 LC	Y			
Source of estimated volume:	Operator Estimate			
	Cat Handbook			
Source of estimated swell	Cat Handbook			
actor:				
HOURLY PRODUCTION	N			
Varaga nuch distance	200 faat			
Average push distance:	200 feet			
Jnadjusted hourly	946.0 LCY/hr			
production:				
Materials consistency description	ion: Consolidated stock	bile 1.0		
Average push gradient: 0 %				
Average site altitude: 6,2	00 feet			
Material weight: 2,5	50 lbs/LCY			
Weight description: Ear	th - Dry packed			
• • •				
ob Condition Correction Fact	or	Source		

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:	1.000	(CAT HB)	
Altitude:	1.000	(CAT HB)	
Material Weight:	0.902	(CAT HB)	
Blade type:	1.000	(PAT)	

Net correction: 0.4492

Adjusted unit production:	424.94 LCY/hr
Adjusted fleet production:	1699.76 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.804/LCY

Total job time:	5.44 Hours
Total job cost:	\$7,434.02

BULLDOZER WORK

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICATI	ON			
Task #: 130	State: Colorado		Abbreviation:	None
Date: $1/16/2013$	County: Delta		Filename:	C083-130
3:45:28 PM	County. Donu		T fieldille.	0005 150
User: SLB			=	
Agency or organization	name: DRMS			
HOURLY EQUIPMENT C	OST			
Basic Machine: Cat D10T - Horsepower: 574	1080	_		
1		_		
Blade Type: Semi-Univ Attachment: NA	ersai	_		
Shift Basis: 1 per day		_		
Data Source: (CRG)		_		
		_		
Cost Breakdown:	i	TT.'1' .' A/		
Ownership Cost/Harry	\$00.15	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:	\$99.15 \$183.36	<u>NA</u> 100		
Ripper op. Cost/Hour:	\$185.50	0		
Operator Cost/Hour:	\$0.00			
	φ31.41	NA		
Total unit Cost/Hour: \$319.	93			
Total Fleet Cost/Hour: \$319.				
MATERIAL QUANTITIES				
Initial Volume: 250				
Swell factor: 1.125				
Loose volume: 281 LCY				
Source of estimated volume:	Division of Reclamati	on, Mining & Safety		
Source of estimated swell	Cat Handbook			
actor:				
HOURLY PRODUCTION				
Average push distance:	100 feet			
Jnadjusted hourly	1,718.9 LCY/hr			
production:	.,. 1009 LO 1/11			
Materials consistency description	n: Consolidated stockp	bile 1.0		
Average push gradient: <u>10 %</u>				
Average site altitude: 6,900	feet			
Material weight: 2,550	lbs/LCY			
	lbs/LCY - Dry packed		_	
	- Dry packed	Source		

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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3531

Adjusted unit production:	606.94 LCY/hr
Adjusted fleet production:	606.94 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.527/LCY

Total job time:0.46 HoursTotal job cost:\$148.25

BULLDOZER WORK

Bowie No. 2 Mine	Perm	nit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 131	State:	Colorado		Abbreviation:	None
Date: 1/16/2013 3:46:08 PM	County:	Delta		Filename:	C083-131
User: SLB					
Agency or organ	nization name: DRI	MS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	D10T - 10SU				
Horsepower: 574			_		
7 1	ni-Universal		_		
	hank ripper		_		
	er day		_		
Data Source: (CF	(G)		_		
Cost Breakdown:		I	Utilization %		
Ownership Cost/Hour:	\$110.73		NA		
Operating Cost/Hour:	\$183.36		100		
Ripper op. Cost/Hour:	\$10.01		100		
Operator Cost/Hour:	\$37.41		NA		
-	¢241.51				
Total unit Cost/Hour:	\$341.51				
Total Fleet Cost/Hour:	\$1,366.06				
MATERIAL QUANT	TITIES				
Initial Volume: 1,45					
Swell factor: 1.25		-			
	0 3 LCY	-			
Source of estimated volu		etimoto			
Source of estimated volu	1				
factor:		UUK			
HOURLY PRODUC					
Average push distance:	100 feet				
Unadjusted hourly	1,718.9 LCY	/hr			
production:					
Materials consistency des	scription: Consolid	lated stockp	oile 1.0		
Average push gradient:	5 %				
Average site altitude:	7,500 feet				
Material weight:	2,900 lbs/LCY				
Weight description:	User Provided				
Job Condition Correction	Factor		Source		
100 Contantion Contection	1 1 10101		bource		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3566

Adjusted unit production:	612.96 LCY/hr
Adjusted fleet production:	2451.84 LCY/hr

JOB TIME AND COST

Fleet size:	4 Dozer(s)
Unit cost:	\$0.557/LCY

 Total job time:
 0.74 Hours

 Total job cost:
 \$1,009.85

SAFEGUARDING UNDERGROUND OPENINGS

Bowie	No. 2 Mine	P	ermit Action:	Permit Renewal 3	Pe	rmit/Job#:	C1996083
PROJ	ECT IDENTIF	ICATION					
Task #:	140	State:	Colorado	Abbr	eviation:	None	
Date:	1/16/2013 3:46:53 PM	County:	Delta	F	ilename:	C083-140)
User:	SLB						

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
D Portal Intake, Beltline & Return bulkhead	200 SF x 3	Adit closure - bulkhead seal, >= 36 sq. ft. (per sq. ft.)	600.00	SF	\$74.32	\$44,592.00
- backfill	185 CY x 3	Adit closure - backfilling (per opening)	3.00	EA	\$1,415.48	\$4,246.44
- drainpipe	165 LFx 3	PVC drain pipe, 6 in. diameter (per ln. ft. incl. mat. & labor)	495.00	LF	\$4.97	\$2,460.15
B Portal Intake, Beltline & Return bulkhead	200 SF x 3	Adit closure - bulkhead seal, >= 36 sq. ft. (per sq. ft.)	600.00	SF	\$74.32	\$44,592.00
- backfill	185 CY x 3	Adit closure - backfilling (per opening)	3.00	EA	\$1,415.48	\$4,246.44
- drainpipe	165 LF x 3	PVC drain pipe, 6 in. diameter (per ln. ft. incl. mat. & labor)	495.00	LF	\$4.97	\$2,460.15
Hubbard Creek Vent Shaft - Fill	10.5'D x 500'	Shaft closure - backfilling, < 100 cu. yd. (per cu. yd.)	3,200.00	СҮ	\$18.84	\$60,288.00
- concrete cap	173 SF	Shaft closure - concrete cap, poured- in-place (per sq. ft.)	173.00	SF	\$105.70	\$18,286.10

Job Hours: 40.00

Total Cost: \$181,171.28

Task #141	Concrete Plug and Backfill Ven Bowie No. 2 Mine - C1996083 Permit Renewal No. 3	t Shaft			16-Jan-13
ltem	Means Location	Unit Cost	Qty	Total	
Steel Dowels	03 21 10.60 2420	\$2.93	2200	\$6,446.00	
Steel Beams	03 21 10.60 0150	\$1,560.00	16.46	\$25,677.60	
Crane Handling	03 21 10.60 2210	\$37.10	16.46	\$610.67	
Saddle Assembly	03 21 10.60 0550	\$1,315.00	1.21	\$1,591.15	
Heavy Gauge Fabric	03 22 05.50 0700 03220 200 1020 Indexed from	\$83.00	5	\$415.00	
Q-Decking Fabric	2009	\$988.85	4.54	\$4,489.38	
Concrete Plugs	CIRCES	\$138.29	254	\$35,125.66	
Subtotal				\$74,355.46	
City Cost Index - 102.2%			1.022	\$1,635.82	
Subtotal				\$75,991.28	
Backfill Shaft	CIRCES	\$16.43	1385	\$22,755.55	

TOTAL

\$98,746.83

Volumes and designs are based on a similar shaft at the West Elk Mine. Costs were obtained from the RS Means Building Construction and Site Work & Landscape Cost Data References, 2012 editions, unless otherwise noted.

Reclamation Cost Estimate RN-3

Page 207 of 312

BOREHOLE SEALING WORK

Bowie	No. 2 Mine	P	ermit Action:	Permit Renewal 3	Permit/Job#:	C1996083
<u>PROJE</u>	CT IDENTIF	ICATION				
Task #:	142	State:	Colorado	Abbreviat	ion: None	
Date:	1/16/2013 4:11:07 PM	County:	Delta	Filena	ume: C083-14	-2
	SLB					

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Concrete Seal 6" holes - 88	Portland cement grout - 6 in. (labor, equip, materials)	6	63340	8,488.00	LF	\$10.92	\$92,694.90
Bottom Plugs	Stainless steel plug - 6 in. diameter borehole	6	NA	88.00	EA	\$133.74	\$11,769.12
Cut Casing at Surface	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	6	NA	88.00	LF	\$5.87	\$516.56
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	88.00	EA	\$2.81	\$247.28
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	560.00	EA	\$143.59	\$80,410.40
Water Truck	Water Tanker, 3,500 Gal.	NA	NA	560.00	EA	\$85.47	\$47,863.20
Concrete Seal 6.25"/6.75" - 7	Portland cement grout - 6 in. (labor, equip, materials)	6.5	2848	210.00	LF	\$10.92	\$2,293.35
Bottom Plugs	Stainless steel plug - 6 in. diameter borehole	6.5	NA	7.00	EA	\$133.74	\$936.18
Cut Casing at Surface	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	6.5	NA	7.00	LF	\$5.87	\$41.09
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	44.00	EA	\$143.59	\$6,317.96
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	44.00	EA	\$68.18	\$2,999.92
Concrete Seal 7.63"/8" - 21	Portland cement grout - 8 in. (labor, equip, materials)	7.8	2334	2,334.00	LF	\$11.88	\$27,721.38
Bottom Plugs	Stainless steel plug - 8 in. diameter	7.8	NA	21.00	EA	\$183.21	\$3,847.41

	borehole						
Cut Casing at Surface	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	7.8	NA	21.00	LF	\$5.87	\$123.27
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	21.00	EA	\$2.81	\$59.01
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	210.00	EA	\$143.59	\$30,153.90
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	210.00	EA	\$68.18	\$14,317.80
Markers for 6.25"/6.75"	Borehole location/identification marker (EA, material cost only)	NA	NA	7.00	EA	\$2.81	\$19.67
Concrete Seal 4" Alluvials - 3	Portland cement grout - 4 in. (labor, equip, materials)	4	150	9.00	LF	\$7.82	\$70.36
Bottom Plug	Stainless steel plug - 4 in. diameter borehole	4	NA	3.00	EA	\$73.98	\$221.94
Cut Casing at Surface	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	4	NA	3.00	LF	\$5.87	\$17.61
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	3.00	EA	\$2.81	\$8.43
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	6.00	EA	\$143.59	\$861.54
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	6.00	EA	\$68.18	\$409.08
Concrete Seal 6" Exploration - 7	Portland cement grout (Bag, material cost only94 lb. bag)	6	560	835.00	bag	\$11.50	\$9,602.50
Bottom Plug	Stainless steel plug - 6 in. diameter borehole	6	NA	7.00	EA	\$133.74	\$936.18
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	7.00	EA	\$2.81	\$19.67
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	74.00	EA	\$143.59	\$10,625.66
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	74.00	EA	\$68.18	\$5,045.32
Concrete Seal 3" Geotech - 18	Portland cement grout (Bag, material cost only94 lb. bag)	3	560	60.00	bag	\$11.50	\$690.00
Bottom Plug	Stainless steel plug - 2 in. diameter borehole	3	NA	18.00	EA	\$53.52	\$963.36
Cut Casing at Surface	Exposed casing removal - 2 to 3.5 in.	NA	NA	36.00	LF	\$1.33	\$47.88

				1	1	1	
	diameter steel pipe						
Drill Rig	(LF) ATLAS COPCO	NA	NA	38.00	EA	\$143.59	\$5,456.42
Dilli Kig	ROC D7-11,4.0 in.	INA	INA	38.00	LA	φ1 4 5.59	\$5,450.42
Water Truck	Water Tanker, 2,500	NA	NA	38.00	EA	\$68.18	\$2,590.84
	Gal.						· · · · · ·
Concrete Seal	Portland cement	2	92	9.00	LF	\$7.36	\$66.28
2"	grout - 2 in. (labor,						
Piezometers -	equip, materials)						
3		-		2.00		¢20.50	
Bottom Plug	PVC plug - 2 in. diameter borehole	2	NA	3.00	EA	\$20.59	\$61.77
Cut Casing at	Exposed casing	2	NA	3.00	LF	\$1.33	\$3.99
Surface	removal - 2 to 3.5 in.	2	INA	5.00		φ1.55	ф Э. 77
Burrace	diameter steel pipe						
	(LF)						
Borehole	Borehole	NA	NA	3.00	EA	\$2.81	\$8.43
Marker	location/identification						
	marker (EA, material						
	cost only)						
Drill Rig	ATLAS COPCO	NA	NA	6.00	EA	\$143.59	\$861.54
Water Truck	ROC D7-11,4.0 in.	NA	NA	6.00	EA	\$68.18	\$409.08
water Truck	Water Tanker, 2,500 Gal.	INA	INA	0.00	EA	\$08.18	\$409.08
Concrete Seal	Portland cement	15	215	90.00	LF	\$21.88	\$1,969.03
15" D Seam	grout - 12 in. (libor,	10	210	20.00	21	φ21.00	\$1,909.00
Hole	equip, materias)						
Bottom Plug	Stainless steel plug -	15	NA	1.00	EA	\$343.88	\$343.88
	12 in. diameter						
	borehole						
Cut Casing	Exposed casing	15	NA	1.00	LF	\$8.81	\$8.81
	removal - 10 to 16 in.						
	diameter steel pipe (LF)						
Borehole	Borehole	NA	NA	1.00	EA	\$2.81	\$2.81
Marker	location/identification	1111	1111	1.00		Ψ2.01	φ2.01
munor	marker (EA, material						
	cost only)						
Drill Rig	ATLAS COPCO	NA	NA	12.00	EA	\$143.59	\$1,723.08
	ROC D7-11,4.0 in.						
Water Truck	Water Tanker, 2,500	NA	NA	12.00	EA	\$68.18	\$818.16
a 10.0554	Gal.	0.075	0.000	22 510 00		\$11.50	***
Seal 9.375"	Portland cement	9.375	36612	23,518.00	bag	\$11.50	\$270,457.00
GVBs and Explor 37	grout (Bag, material cost only94 lb. bag)						
Bottom Plug	Stainless steel plug -	9.375	NA	37.00	EA	\$251.01	\$9,287.37
Dottolli i lug	10 in. diameter	7.575	1111	57.00		φ231.01	ψ,201.51
	borehole						
Cut Casing at	Exposed casing	9.375	NA	74.00	LF	\$5.87	\$434.38
Surface	removal - 4 to 10 in.						
	diameter steel pipe						
	(LF)						
Borehole	Borehole	NA	NA	37.00	EA	\$2.81	\$103.97
Marker	location/identification						
	marker (EA, material						
Drill Rig	cost only) ATLAS COPCO	NA	NA	500.00	EA	\$143.59	\$71,795.00
Dim Kig	ATLAS CULCU			500.00	LA	φ1+3.39	ψ/1,/93.00

	ROC D7-11,4.0 in.						
Water Truck	Water Tanker, 2,500	NA	NA	500.00	EA	\$68.18	\$34,090.00
water Truck	Gal.			500.00	LA	ψ00.10	\$34,090.00
Concrete Seal 4" Geotech - 11	Portland cement grout - 12 in. (libor, equip, materias)	4	550	24.00	LF	\$21.88	\$525.07
Bottom Plug	Stainless steel plug - 4 in. diameter borehole	4	NA	11.00	EA	\$73.98	\$813.78
Cut Casing at Surface	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	4	NA	11.00	LF	\$5.87	\$64.57
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	11.00	EA	\$2.81	\$30.91
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	44.00	EA	\$143.59	\$6,317.96
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	44.00	EA	\$68.18	\$2,999.92
Seal 9.875" D Seam Hole	Portland cement grout - 10 in. (labor, equip, materials)	9.875	250	67.00	LF	\$17.84	\$1,195.55
Bottom Plug	Stainless steel plug - 10 in. diameter borehole	9.875	NA	1.00	EA	\$251.01	\$251.01
Cut Casing at Surface	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	9.875	NA	1.00	LF	\$5.87	\$5.87
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$2.81	\$2.81
Drill Rig	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	8.00	EA	\$143.59	\$1,148.72
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	8.00	EA	\$68.18	\$545.44

Job Hours: 1,502.00

Total Cost: \$766,245.38

Page 211 of 312

REVEGETATION WORK

Task descri	ption:	Drill Seed Mix 3	on Disturb	ed Area		
te: Bowie N	o. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJEC	<u>r identifi</u>	CATION				
Task #:	150	State:	Colorado		Abbreviation:	None
Date:	1/16/2013 4:13:41 PM	County:	Delta		Filename:	C083-150
	SLB				-	

FERTILIZING

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
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$88.58
Total Tilling Cost/Acre	\$88.58

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	1.30	4.24	\$13.31
Bitterbrush, Antelope	8.30	2.55	\$168.16
Aster, Smooth	0.30	5.22	\$88.27
Great Basin Wildrye - Magnar	1.20	4.88	\$8.99
Kentucky Bluegrass - Ginger	0.10	4.94	\$0.32
Ryegrass, Perennial - Belramo	0.70	3.97	\$0.97
Intermediate Wheatgrass - Oahe	1.80	3.84	\$3.89
Smooth Brome - Manchar	1.20	3.99	\$2.36
Alfalfa - Ranger (inoculated)	0.70	3.37	\$2.02
Burnett, Small (or Little) - Delar	2.80	3.54	\$4.96

Sheep Fescue - Covar	0.20	3.12	\$0.67
Milk Vetch, Cicer - Lutana	1.10	3.66	\$5.59
Tall Wheatgrass - Jose	2.00	3.63	\$4.50
Western Wheatgrass - Arriba	1.40	3.54	\$5.15
Rose, Wood's	2.70	0.00	\$71.25
Flax, Lewis Blue	0.50	3.32	\$8.26
Sagebrush, Silver	0.10	1.94	\$4.19
Saltbush, Four Wing	2.40	3.31	\$25.75
Serviceberry	4.80	8.82	\$512.35
Siberian Wheatgrass	0.90	2.27	\$2.40
Totals Seed Mix	34.50	74.14	\$933.35

Application

Description	Cost /Acre
Drill seeding {DMG}	\$88.20
Total Seed Application Cost/Acre	\$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

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

	No. of Acres:	223.55	Cost	/Acre:	\$1,792.70
Estimate	ed Failure Rate:	50%	Cost /	Acre*:	\$1,704.12
*Selected Replanti	ng Work Items:	SEEDING,MULC	HING		
Initial Job Cost:	\$400,758.09				
Reseeding Job Cost:	\$190,478.01				
Total Job Cost:	\$591,236.10				
Job Hours:	40.00				

REVEGETATION WORK

Task descri	ption:	Drill Seed Drill l	Pads			
te: Bowie N	o. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJEC [*]	<u> TIDENTIFI</u>	<u>CATION</u>				
Task #:	151	State:	Colorado		Abbreviation:	None
Date:	1/16/2013 4:14:41 PM	County:	Delta		Filename:	C083-151
	1.1 1.11 1 1.11					

FERTILIZING

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

	Totals Seed Mix	21.00	236.80	\$384.35
Application				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20
	Total Seed	Application	n Cost/Acre	\$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

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

	No. of Acres:	37.57	Cost /Acre:	\$1,155.12
Estimat	ed Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanti	ng Work Items:	SEEDING		
Initial Job Cost:	\$43,397.86			
Reseeding Job Cost:	\$8,876.85			
Total Job Cost:	\$52,274.71			
Job Hours:	60.00			

REVEGETATION WORK

Task description: Bowie No. 2 Mine		Drill Seed Lt-Use Roads to Drill Pads and Terror Permit Action: Permit Renewal 3			Creek Permit/Job#:	C1996083
PROJEC [*]	FIDENTIFI	CATION				
Task #: Date:	152 1/16/2013 4:14:51 PM	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-152
					-	

FERTILIZING

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
^			¢	¢
			\$	ወ
			Total Fertilizer	
			Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

	Totals Seed Mix	21.00	236.80	\$384.35
Application				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20
	Total Seed	Application	n Cost/Acre	\$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

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

	No. of Acres:	43.16	Cost /Acre:	\$1,155.12
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanti	ng Work Items:	SEEDING		
Initial Job Cost:	\$49,854.98			
Reseeding Job Cost:	\$10,197.63			
Total Job Cost:	\$60,052.61			
Job Hours:	65.00			
Page 217 of 312

REVEGETATION WORK

Task description: Broadcas			ast Seed Mix 3 on Gob Pile #3				
tte: Bowie No. 2 Mine		Permit Action: Permit Renewal 3		Permit/Job#:	: C1996083		
PROJEC	<u>T IDENTIFI</u>	<u>CATION</u>					
Task #:	154	State:	Colorado		Abbreviation:	None	
Date:	1/16/2013 4:20:59 PM	County:	Delta		Filename:	C083-154	

FERTILIZING

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fartilizer Application Cost/Acre	\$0.00
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$88.58
Total Tilling Cost/Acre	\$88.58

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.60	8.48	\$26.62
Bitterbrush, Antelope	16.60	5.11	\$336.32
Aster, Smooth	0.60	10.44	\$176.53
Great Basin Wildrye - Magnar	2.40	9.75	\$17.98
Kentucky Bluegrass - Ginger	0.20	9.87	\$0.63
Ryegrass, Perennial - Belramo	1.40	7.94	\$1.93
Intermediate Wheatgrass - Oahe	3.60	7.69	\$7.78
Smooth Brome - Manchar	2.40	7.99	\$4.73
Alfalfa - Ranger (inoculated)	1.40	6.75	\$4.03
Burnett, Small (or Little) - Delar	5.60	7.07	\$9.91

Sheep Fescue - Covar	0.40	6.24	\$1.34
Milk Vetch, Cicer - Lutana	2.20	7.32	\$11.18
Tall Wheatgrass - Jose	4.00	7.25	\$9.00
Western Wheatgrass - Arriba	2.80	7.07	\$10.30
Rose, Wood's	5.40	0.00	\$142.51
Flax, Lewis Blue	1.00	6.63	\$16.52
Sagebrush, Silver	0.20	3.88	\$8.38
Saltbush, Four Wing	4.80	6.61	\$51.50
Serviceberry	9.60	17.63	\$1,024.70
Siberian Wheatgrass	1.80	4.55	\$4.81
Totals Seed Mix	69.00	148.28	\$1,866.70

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Tota	ls Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	30.63	Cost /Acre:	\$2,899.13
Estimate	d Failure Rate:	50%	Cost /Acre*:	\$2,810.55
*Selected Replantin	ng Work Items:	SEEDING, MULC	HING	
Initial Job Cost:	\$88,800.35			
Reseeding Job Cost:	\$43,043.57			
Total Job Cost:	\$131,843.93			
Job Hours:	0.00			

Page 219 of 312

REVEGETATION WORK

te: Bowie No. 2 Mine		ne Permit Action: Permit Renewal 3		Permit/Job#:	C1996083	
PROJECT	<u> IDENTIFI</u>	CATION				
Task #:	155	State:	Colorado		Abbreviation:	None
Date:	1/16/2013 4:21:59 PM	County:	Delta		Filename:	C083-155
User:	SLB				-	

FERTILIZING

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
•			¢	¢
			φ	φ
			Total Fertilizer	
			Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

	Totals Seed Mix	21.00	236.80	\$384.35
Application				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20

Total Seed Application Cost/Acre \$8

\$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 2	Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	1.2	Cost /Acre:	\$1,155.12
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanti	ng Work Items:	SEEDING		
Initial Job Cost:	\$1,386.14			
Reseeding Job Cost:	\$283.53			
Total Job Cost:	\$1,669.67			
Job Hours:	0.00			

Page 221 of 312

REVEGETATION WORK

Bowie N	o. 2 Mine	Perm	nit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJEC ²	<u>r identifi</u>	CATION				
Task #:	156	State:	Colorado		Abbreviation:	None
Date:	1/16/2013 4:22:39 PM	County:	Delta		Filename:	C083-156
	SLB				-	

FERTILIZING

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
•			¢	¢
			φ	φ
			Total Fertilizer	
			Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

	Totals Seed Mix	21.00	236.80	\$384.35
Application				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20

Total Seed Application Cost/Acre \$8

\$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

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

	No. of Acres:	0.2	Cost /Acre:	\$1,155.12
Estimated Failure Rate:		50%	Cost /Acre*:	\$472.55
*Selected Replanti	ng Work Items:	SEEDING		
Initial Job Cost:	\$231.02			
Reseeding Job Cost:	\$47.26			
Total Job Cost:	\$278.28			
Job Hours:	0.00			

Page 223 of 312

REVEGETATION WORK

Bowie No. 2 Mine	Bowie No. 2 Mine Permit Action: Permit Renewal 3 Permit		Permit/Job#	: C1996083		
PROJECT IDENTIFIC	CATION					
Task #: 157	State:	Colorado			Abbreviation:	None
Date: 8/20/2012	County:	Delta			Filename:	C083-157
User: <u>SLB</u>						
Agency or organi	zation name: DRM	MS				
ERTILIZING						
Aaterials						
Description		Units /	Unit	Co	st / Unit	Cost /Acre
Безстрион		Acre				
				\$		\$
				То	tal Fertilizer	
					Materials Cost/Acre	\$0.00
nnlication					COSTACT	ψυ•υυ
pplication						
Description						Cost /Acre
						\$
		Τ.4-	I Dontili-	Annlingt	Cost/A and	
			i rerulizer	Applicatio	on Cost/Acre	\$0.00
TILLING						
Description						Cost /Acre
						\$
			,	Total Tilli	ng Cost/Acre	\$0.00
FEDING						
SEEDING						
SEEDING Seed Mix				Rate – PLS	Seeds	Cost /Acre
				Rate – PLS LBS /	per SQ.	Cost /Acre
SEEDING Seed Mix				PLS		Cost /Acre
				PLS LBS /	per SQ.	Cost /Acre \$
				PLS LBS / Acre	per SQ. FT	\$
		Totals	Seed Mix	PLS LBS /	per SQ.	
Seed Mix		Totals	Seed Mix	PLS LBS / Acre	per SQ. FT	\$
		Totals	Seed Mix	PLS LBS / Acre	per SQ. FT	\$

Total Seed	Application Cost/Acre	#0.00
1 otal Seeu	Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

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

Application

Description		Cost /Acre
Weed spray, truck, aquatic area, nox. [DMG]		\$61.49
	Total Mulch Application Cost/Acre	\$61.49

NURSERY STOCK PLANTING

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

	No. of Acres:	838	Cost /Acre:	\$61.49
Estimate	ed Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanti	ng Work Items:	NONE		
Initial Job Cost:	\$51,528.62			
Reseeding Job Cost:	\$0.00			
Total Job Cost:	\$51,528.62			
Job Hours:	0.00			

DEMOLITION WORK

	Task description:	Demolis	Demolish and Remove all Structures					
	Site: Bowie No. 2 Mine		Permit Action: Permit Renewal 3	Permit/Job#: _ C	21996083			
PROJECT I	IDENTIFICATION							
Task #:	165	State:	Colorado	Abbreviation:	None			
Date:	1/16/2013 4:24:11 PM	County:	Delta	Filename:	C083-165			
User:	SLB							

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Office and Bath House	120'x50'x24'	Bldg. (MN) demo./on-site disposal in	144,000.00	CF	\$0.21	\$30,672.00
Superstructure		excavated pit - Max. 10,000 ft. haul				
floor	120'x50'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	6,000.00	SF	\$1.70	\$10,188.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	340.00	LF	\$10.19	\$3,463.58
Shop Superstructure	100'x60'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	144,000.00	CF	\$0.21	\$30,672.00
floor	100'x50'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,000.00	SF	\$1.70	\$8,490.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	300.00	LF	\$10.19	\$3,056.10
Warehouse Superstructure	50'x60'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	72,000.00	CF	\$0.21	\$15,336.00
floor	50'x60'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,000.00	SF	\$1.70	\$5,094.00
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	220.00	LF	\$10.19	\$2,241.14
Wash Bay Superstructure	50'x25'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	30,000.00	CF	\$0.21	\$6,390.00
floor	50'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,250.00	SF	\$1.70	\$2,122.50

footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	150.00	LF	\$10.19	\$1,528.05
MCC Building Superstructure D-Seam Portal	18'x42'x11'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	8,316.00	CF	\$0.24	\$1,987.52
floor	18'x42'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	756.00	SF	\$1.70	\$1,283.69
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	120.00	LF	\$10.19	\$1,222.44
MCC Building Superstructure Hubbard Creek	15'x25'x12'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,500.00	CF	\$0.24	\$1,075.50
floor	15'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	375.00	SF	\$1.70	\$636.75
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$10.19	\$814.96
Covered Storage Superstructure - D Seam Portal	30'x80'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	48,000.00	CF	\$0.21	\$10,224.00
floor	30'x80'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	2,400.00	SF	\$1.70	\$4,075.20
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	220.00	LF	\$10.19	\$2,241.14
Covered Storage Superstructure B Seam	27'x55'x15'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	22,275.00	CF	\$0.21	\$4,744.58
floor	40'x15'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.70	\$1,018.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	110.00	LF	\$10.19	\$1,120.57
Covered Storage Superstructure B Seam	50'x25'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	25,000.00	CF	\$0.21	\$5,325.00
floor	50'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,250.00	SF	\$1.70	\$2,122.50
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	150.00	LF	\$10.19	\$1,528.05
Covered Storage Superstructure Stockpile Level	30'x110'x15'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	49,500.00	CF	\$0.21	\$10,543.50
floor	30'x110'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,300.00	SF	\$1.70	\$5,603.40
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	280.00	LF	\$10.19	\$2,852.36

Covered Storage Superstructure Stockpile Level	40'x15'x15'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	9,000.00	CF	\$0.21	\$1,917.00
floor	40'x15'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.70	\$1,018.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	110.00	LF	\$10.19	\$1,120.57
Water Treatment Building Superstructure	40'x21'x12'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,360.00	CF	\$0.19	\$638.40
floor	14'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	840.00	SF	\$1.70	\$1,426.32
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	122.00	LF	\$10.19	\$1,242.81
Fueling Station Superstructure	20'x30'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	12,000.00	CF	\$0.21	\$2,556.00
Fueling Station Containment Structure	20'x30'x4'	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	280.00	SF	\$2.44	\$683.20
-floor	20'x30'x8"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.70	\$1,018.80
10k gal diesel tank remove/haul	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,000.00	\$1,000.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$364.00	\$364.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	150.00	GAL	\$6.00	\$900.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	22.50	LB	\$1.64	\$36.90
500 gal DOTdiesel tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$745.00	\$745.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$218.50	\$218.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	50.00	GAL	\$6.00	\$300.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	7.50	LB	\$1.64	\$12.30
2k gal oil tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$745.00	\$745.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$218.50	\$218.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	200.00	GAL	\$6.00	\$1,200.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	30.00	LB	\$1.64	\$49.20

2.5k gal gas tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$745.00	\$745.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$218.50	\$218.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	250.00	GAL	\$6.00	\$1,500.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	37.00	LB	\$1.64	\$60.68
1k gal motor oil tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$745.00	\$745.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$218.50	\$218.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	100.00	GAL	\$6.00	\$600.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	15.00	LB	\$1.64	\$24.60
Sewage Treatment Plant Superstructure	20'x30'x10'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,000.00	CF	\$0.24	\$1,434.00
floor	20'x30'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.70	\$1,018.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	100.00	LF	\$10.19	\$1,018.70
Substation Superstructure	50'x100'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	50,000.00	CF	\$0.21	\$10,650.00
floor	50'x100'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,000.00	SF	\$1.70	\$8,490.00
transformers	3 each	NON-PCB Transformer Removal	3.00	EA	\$2,500.00	\$7,500.00
Mine Ventilation Fan Superstructure	20'x20'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,200.00	CF	\$0.19	\$608.00
floor	20'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.70	\$679.20
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$10.19	\$814.96
Non-Coal Waste Storage Structures (3)	20'x30'x6'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	10,800.00	CF	\$0.20	\$2,160.00
Rock Dust Storage Area Superstructure	30'x20'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,800.00	CF	\$0.19	\$912.00
floor	30'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.70	\$1,018.80
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	100.00	LF	\$10.19	\$1,018.70
silo	50'hx8'd	Bldg. (MC) demo./on-site disposal in	2,513.00	CF	\$0.28	\$691.08

		excavated pit - Max. 10,000 ft. haul				
silo pad	25'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.70	\$169.80
Pump House Superstructure	18'x12'x8	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,728.00	CF	\$0.19	\$328.32
floor	18'x12'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	216.00	SF	\$1.70	\$366.77
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	60.00	LF	\$10.19	\$611.22
Portal Conveyor Transfer Building Superstructure	20'x24'x45'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	21,600.00	CF	\$0.21	\$4,600.80
floor	20'x24'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	480.00	SF	\$1.70	\$815.04
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	88.00	LF	\$10.19	\$896.46
Screening and Crushing Building	40'x21'x52'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	43,680.00	CF	\$0.21	\$9,303.84
floor	40'x21'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	840.00	SF	\$1.70	\$1,426.32
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	122.00	LF	\$10.19	\$1,242.81
Clean Gob Pile Material Storage Area	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	968.00	CY	\$16.45	\$15,923.60
Clean Haul Road Storage Piles (2)	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	484.00	CY	\$16.45	\$7,961.80
Clean Topsoil Stockpile A Storage Pile	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	1,839.00	CY	\$16.45	\$30,251.55
Clean Portal Bench/Light Use Rd Piles (2)	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	1,670.00	CY	\$16.45	\$27,471.50
Portal Conveyor (D and B Seams)	140'x72"	Conveyor, elevated, including supports - 8 ft. W x 10 ft. H housing	140.00	LF	\$51.81	\$7,253.40
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	5.00	LF	\$20.37	\$101.87
Gob Belt Conveyor	81'x48"	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	81.00	LF	\$43.17	\$3,496.77
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	2.00	LF	\$20.37	\$40.75
Stockpile Conveyor	393'x72"	Conveyor, elevated, including supports - 8 ft. W x 10 ft. H housing	393.00	LF	\$51.81	\$20,361.33
footing	2'x3'	Demo. and on-site disposal in excavated pit,	16.00	LF	\$20.37	\$325.98

		2.0 ft. x 3 ft Max. 200 ft. push				
Reclaim Conveyor	402'x48"	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	402.00	LF	\$43.17	\$17,354.34
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	18.00	LF	\$20.37	\$366.73
Off-Spec Coal Conveyor	111'x72"	Conveyor, elevated, including supports - 8 ft. W x 10 ft. H housing	111.00	LF	\$51.81	\$5,750.91
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	4.00	LF	\$20.37	\$81.50
Radial Stacker #1 Conveyor	150'x36"	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	150.00	LF	\$43.17	\$6,475.50
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	6.00	LF	\$20.37	\$122.24
Radial Stacker #2 Conveyor	80' x 36"	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	80.00	LF	\$43.17	\$3,453.60
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	1.00	LF	\$20.37	\$20.37
Stoker Collecting Conveyor	29' x 36"	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	29.00	LF	\$43.17	\$1,251.93
concrete runway	29' x 48"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	116.00	SF	\$1.13	\$131.31
Stacking Tube	12' diam x 100'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	3,770.00	SF	\$3.66	\$13,801.97
foundation	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	38.00	LF	\$20.37	\$774.21
Stacking Tube	12' diam x 120'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	4,524.00	SF	\$3.66	\$16,562.36
foundation	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	38.00	LF	\$20.37	\$774.21
Stacking Tube	12' diam x 130'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	4,901.00	SF	\$3.66	\$17,942.56
Reclaim Tunnel Part 1	13' diam x 350'	Multiplate Tunnel	9,065.00	SF	\$7.77	\$70,435.05
Reclaim Tunnel Part 2	13' diam x 200'	Multiplate Tunnel	1,481.00	SF	\$7.77	\$11,507.37
Escape Tube	42" x 160'&150'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,797.00	CF	\$0.19	\$721.43
Concrete Fan Housing	6'x6'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	288.00	CF	\$0.19	\$54.72
10k gal hydraulic oil tank	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,000.00	\$1,000.00
remove sludge	NA	Remove sludge, water, and rem. product from	1.00	EA	\$364.00	\$364.00

		tank - 9,000 to 12,000 gal.				
sludge disposal	NA	Dispose of tank sludge off-site - Average	1,000.00	GAL	\$6.00	\$6,000.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$1.64	\$246.00
500 gal antifreeze tank	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$745.00	\$745.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$218.50	\$218.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	50.00	GAL	\$6.00	\$300.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	7.50	LB	\$1.64	\$12.30
Culvert B1(50), B3(100), B7 (220), B9(140)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	510.00	LF	\$2.24	\$1,142.40
B13(110) B18(110) B25(160) C1(110)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	490.00	LF	\$2.24	\$1,097.60
C2(30) C3(40) C8(30) C19(60) C21(170)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	330.00	LF	\$2.24	\$739.20
E1(40) G2(40) G4(25) J5(50) K1(40) K2(130)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	325.00	LF	\$2.24	\$728.00
B11(60) B12(170) B14(70) B20(130) B22(40)	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	470.00	LF	\$2.39	\$1,123.30
B23(40) C4(300) J6(50) J7(50)	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	440.00	LF	\$2.39	\$1,051.60
B15(80) B16(60) B17(90) B19(60) B27(100)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	390.00	LF	\$3.17	\$1,236.30
C11(90) C12(65) C14(170) C15(25)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	350.00	LF	\$3.17	\$1,109.50
C16(90) G3(50) J4(40) J8(40)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	220.00	LF	\$3.17	\$697.40
B28(120) C13(35) D1(40) D2(30)	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	225.00	LF	\$4.43	\$996.75
B21(40) C5(260) C7(130) C20(25)	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	455.00	LF	\$4.83	\$2,197.65
F2(40)	42"	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	40.00	LF	\$6.05	\$242.00
Power line removal	6350' lin.ft.	Powerline or utility line, overhead, wood - Double or "H" pole	6,350.00	LF	\$5.23	\$33,197.80
Portal Bench to Transfer Tower on grade conveyor	36" x 800'	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	800.00	LF	\$17.07	\$13,656.00
Portal Bench to Transfer	36" x 120'	Conveyor, elevated, including supports - 5 ft.	120.00	LF	\$43.17	\$5,180.40

Tower elevated conveyor		W x 6 ft. H housing				
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	38.00	LF	\$20.37	\$774.21
tunnel structure	100 lin.ft.	Tunnel	100.00	LF	\$58.19	\$5,819.00
Transfer Tower to Stockpile overland	36" x 2280'	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	2,280.00	LF	\$17.07	\$38,919.60
Transfer Tower to Stockpile elevated	36" x 475'	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	475.00	LF	\$43.17	\$20,505.75
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	112.00	LF	\$20.37	\$2,281.89
tunnel	80 lin.ft.	USER PROVIDED ITEM	80.00	LF	\$58.19	\$4,655.20
Downhill Conveyor Transfer Tower Structure	16'x16'x25'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	6,400.00	CF	\$0.20	\$1,280.00
concrete pad	16'x16'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	256.00	SF	\$1.70	\$434.69
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	65.00	LF	\$20.37	\$1,324.31
Wildlife Structures	300 lin.ft.	USER PROVIDED ITEM	300.00	LF	\$58.19	\$17,457.00
Reclaim Conveyor overland	36" x 395'	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	395.00	LF	\$17.07	\$6,742.65
Reclaim Conveyor elevated	36" x 180'	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	180.00	LF	\$43.17	\$7,770.60
Coal Loadout Bin	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	46,875.00	CF	\$0.20	\$9,375.00
footing	2'x3'	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft Max. 200 ft. push	100.00	LF	\$19.98	\$1,998.40
Coal Reclaim Tunnel	42" x 160'	Tunnel	160.00	LF	\$58.19	\$9,310.40
escapeway	42" x 160'	Tunnel	160.00	LF	\$13.70	\$2,192.00
fan housing building	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	288.00	CF	\$0.20	\$57.60
Loadout Substation	20'x20'x10'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,000.00	CF	\$0.20	\$800.00
floor	20'x20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.70	\$679.20
transformer	NA	NON-PCB Transformer Removal	1.00	EA	\$2,500.00	\$2,500.00
fencing	100 lin.ft.	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	100.00	LF	\$2.82	\$282.00
Structure at Vent Shaft - Lap Slab	576 sq.ft.	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	576.00	SF	\$1.70	\$978.05
wing and stem walls	1408 sq.ft.	Reinforced concrete walls	1,408.00	SF	\$14.26	\$20,078.08

wing wall footing	100 lin. ft.	Demo. and on-site disposal in excavated pit, 1.5 ft. x 3 ft Max. 200 ft. push	100.00	LF	\$15.28	\$1,528.00
fan and evase	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	22,032.00	CF	\$0.20	\$4,406.40
shaft house	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	10,788.00	CF	\$0.20	\$2,157.60
Haul road pavement removal	NA	Pavement, bituminous, demolition only - 3 in. thick	33,467.00	SY	\$4.01	\$134,202.67
disposal	NA	Loading and 2 mile haul, no salvage - Machine loading	5,578.00	CY	\$15.43	\$86,068.54
guardrail removal	NA	Railing, roadside guiderail and posts (posts on 20 ft. centers)	7,545.00	LF	\$11.04	\$83,296.80
Storage Shed at Topsoil Stockpile	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	76,500.00	CF	\$0.20	\$15,300.00
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,100.00	SF	\$1.70	\$8,659.80
Wood fencing from TR-11	NA	Fencing, wood, all types - 4 ft. to 6 ft. high	140.00	LF	\$1.30	\$182.00
12" PVC Pipe from TR-11	NA	Pipe, corrugated metal (CMP) - 8 in. diameter pipe	42.00	LF	\$1.69	\$70.98
Misc Steel Pipe from TR-11	NA	Pipe, steel, welded connections - 4 in. diameter pipe	18.00	LF	\$1.59	\$28.62
Reclaim Conveyor Transfer Building	20'x20'x45'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	18,000.00	CF	\$0.20	\$3,600.00
floor	20'x20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.70	\$679.20
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$10.19	\$814.96
Batch Weigh System	30'x40'x120'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	144,000.00	CF	\$0.20	\$28,800.00
Railroad Track	NA	Railroad track - Ties and track	7,630.00	LF	\$8.56	\$65,312.80
Storage Track	NA	Railroad track - Ties and track	3,880.00	LF	\$8.56	\$33,212.80
Bypass Track	NA	Railroad track - Ties and track	615.00	LF	\$8.56	\$5,264.40
ballast	NA	Railroad track - Ballast	1,347.00	CY	\$4.23	\$5,697.81
Reclaim Conveyor Transfer Building	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	340.00	LF	\$17.07	\$5,803.80
elevated portion	NA	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	265.00	LF	\$43.17	\$11,440.05
elevated to batch weigh	NA	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	1,200.00	LF	\$43.17	\$51,804.00
footing	NA	Demo. and on-site disposal in excavated pit,	7.00	LF	\$20.37	\$142.62

		2.0 ft. x 3 ft Max. 200 ft. push				
Hazardous Waste Removal	NA	Hazardous waste removal - Drum	20.00	DRUM	\$335.51	\$6,710.20
		solids/liquids, per drum, (7+ drum job)				
test	NA	Hazardous waste sampling and analysis, per	20.00	EA	\$225.00	\$4,500.00
		sample				
transport to dump	NA	Solid transport, large truck (max. 80 drums,	150.00	MI	\$7.00	\$1,050.00
		25 cy, or 18 tons) - Maximum				
dump charges	NA	Dumpsite disposal charge - Average	6.00	TON	\$262.50	\$1,575.00
TR24 Fan Structure	NA	Bldg. (MN) demo./on-site disposal in	12,923.00	CF	\$0.20	\$2,584.60
		excavated pit - Max. 200 ft. push				
floor	NA	Demo. and on-site disposal in excavated pit, 6	20.00	SF	\$1.70	\$33.96
		in. thick - Max. 200 ft. push				
footing	NA	Demo. and on-site disposal in excavated pit,	12.00	LF	\$10.19	\$122.24
		1.5 ft. x 2 ft Max. 200 ft. push				
Conveyor Overpass Retaining	NA	Bldg. (MN) demo./on-site disposal in	3,400.00	CF	\$0.20	\$680.00
Wall		excavated pit - Max. 200 ft. push				
concrete halfwall	NA	Demo. and on-site disposal in existing pit, 8	480.00	SF	\$2.40	\$1,150.56
		in. thick - Max. 200 ft. push				
floor	NA	Demo. and on-site disposal in excavated pit, 6	120.00	SF	\$1.70	\$203.76
		in. thick - Max. 200 ft. push				
footing	NA	Demo. and on-site disposal in excavated pit,	360.00	LF	\$10.19	\$3,667.32
		1.5 ft. x 2 ft Max. 200 ft. push				
multiplate structure	NA	Retaining wall, steel bin type, demolition	60.00	LF	\$8.94	\$536.40
		only - 5.5 ft. D x 4 ft. H				
140k gal water tank	NA	Bldg. (MN) demo./on-site disposal in	19,300.00	CF	\$0.20	\$3,860.00
		excavated pit - Max. 200 ft. push				
Transfer Building	20'x24'x45'	Bldg. (MN) demo./on-site disposal in	21,600.00	CF	\$0.20	\$4,320.00
		excavated pit - Max. 200 ft. push				
floor	20'x35'	Demo. and on-site disposal in excavated pit, 6	700.00	SF	\$1.70	\$1,188.60
		in. thick - Max. 200 ft. push				
footing	2'x3'	Demo. and on-site disposal in excavated pit,	106.00	LF	\$10.19	\$1,079.82
		1.5 ft. x 2 ft Max. 200 ft. push				
MCC Building	NA	Bldg. (MN) demo./on-site disposal in	1,000.00	CF	\$0.20	\$200.00
		excavated pit - Max. 200 ft. push				
floor	NA	Demo. and on-site disposal in excavated pit, 6	100.00	SF	\$1.70	\$169.80
		in. thick - Max. 200 ft. push				
Substation	NA	Bldg. (MN) demo./on-site disposal in	25,000.00	CF	\$0.20	\$5,000.00
		excavated pit - Max. 200 ft. push				
transformer	NA	NON-PCB Transformer Removal	2.00	EA	\$2,500.00	\$5,000.00
Water tank 50k gal	NA	Bldg. (MN) demo./on-site disposal in	6,720.00	CF	\$0.20	\$1,344.00

		excavated pit - Max. 200 ft. push				
Mine vent fan	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	3,200.00	CF	\$0.20	\$640.00
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	40.00	SF	\$1.70	\$67.92
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	116.00	LF	\$10.19	\$1,181.69
Powerlines	NA	Powerline or utility line, overhead, wood - Double or "H" pole	200.00	LF	\$5.23	\$1,045.60
Rock Dust Tank	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	2,513.00	CF	\$0.20	\$502.60
compressor house	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,800.00	CF	\$0.20	\$960.00
Portal Conveyor	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	148.00	LF	\$17.07	\$2,526.36
Gob Conveyor	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	100.00	LF	\$17.07	\$1,707.00
Radial Stacker Conveyor	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	42.00	LF	\$17.07	\$716.94
Wash Plant	55'x70'x80'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	308,000.00	CF	\$0.20	\$61,600.00
floor	55'x70'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,850.00	SF	\$1.70	\$6,537.30
footing	55'x70'	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 200 ft. push	250.00	LF	\$9.99	\$2,498.00
MCC Room	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	5,760.00	CF	\$0.20	\$1,152.00
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	480.00	SF	\$1.70	\$815.04
Transfer Bldg - Reclaim to Plant	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	10,240.00	CF	\$0.20	\$2,048.00
Reclaim Tunnel Multiplate	NA	Retaining wall, steel bin type, demolition only - 5.5 ft. D x 4 ft. H	200.00	LF	\$8.94	\$1,788.00
Stacking Tube	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,900.00	CF	\$0.20	\$980.00
structure	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	8,000.00	SF	\$1.83	\$14,640.00
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	38.00	LF	\$10.19	\$387.11
Clarifier Tank/Thickener	70'd x 10'h x 10"	Demo. and on-site disposal in excavated pit,	2,199.00	SF	\$2.83	\$6,223.17

	th	10 in. thick - Max. 200 ft. push				
base	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,848.00	SF	\$1.70	\$6,533.90
sludge removal	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	10.00	EA	\$364.00	\$3,640.00
Transfer Building - Plant Feed	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	8,192.00	CF	\$0.20	\$1,638.40
Transfer Building - Clean Coal	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,096.00	CF	\$0.20	\$819.20
Refuse Bin	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	24,000.00	CF	\$0.20	\$4,800.00
Reclaim Conveyor	NA	Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	250.00	LF	\$25.91	\$6,477.50
Plant Feed Conveyor	NA	Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	300.00	LF	\$25.91	\$7,773.00
Stoker Stockpile Conveyor	NA	Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	125.00	LF	\$25.91	\$3,238.75
Clean Coal Transfer Conveyor	NA	Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	25.00	LF	\$25.91	\$647.75
Clean Coal Stockpile Conveyor	NA	Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	550.00	LF	\$25.91	\$14,250.50
Refuse Conveyor	NA	Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	275.00	LF	\$25.91	\$7,125.25
Synfuel Plant	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	84,000.00	CF	\$0.20	\$16,800.00
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	28,000.00	SF	\$1.70	\$47,544.00
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	220.00	LF	\$10.19	\$2,241.14
Feed Belt Conveyor	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	50.00	LF	\$17.07	\$853.50
Product Belt Conveyor	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	85.00	LF	\$17.07	\$1,450.95
Return Belt Conveyor	NA	Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	80.00	LF	\$17.07	\$1,365.60
Fan and Duct Work TR62	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	31,752.00	CF	\$0.20	\$6,350.40
footings	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	108.00	LF	\$10.19	\$1,100.20
MCC Building TR62	NA	Bldg. (MN) demo./on-site disposal in	4,500.00	CF	\$0.20	\$900.00

		excavated pit - Max. 200 ft. push				
motor foundation	NA	Demo and on-site disposal in excavated pit	6.00	CY	\$89.00	\$534.00
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	375.00	SF	\$1.70	\$636.75
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	80.00	LF	\$10.19	\$814.96
Water Line TR53	NA	Means 02 41 13.38 1700 PVC 6-8"	400.00	LF	\$1.88	\$752.00
Upper Parking Area Retaining Wall TR50	NA	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	1,305.00	SF	\$3.66	\$4,777.61
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	150.00	LF	\$10.19	\$1,528.05
Parking Area Expansion Culvert	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	80.00	LF	\$2.39	\$191.20
10k gal fuel tank TR47	NA	Excavate and load tank onto trailer, non- leaking - 9,000 gal. to 12,000 gal.	1.00	EA	\$1,230.00	\$1,230.00
remove sludge	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$364.00	\$364.00
dispose of sludge	NA	Dispose of tank sludge off-site - Average	1,000.00	GAL	\$6.00	\$6,000.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$1.64	\$246.00
haul tank to certified dump	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,000.00	\$1,000.00
Trailers (3)	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	3,000.00	CF	\$0.20	\$600.00
Quonset Hut MR108	25'x60'x12.5'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	18,750.00	CF	\$0.20	\$3,750.00
floor	25'x60'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,500.00	SF	\$1.70	\$2,547.00
Hoist Structure MR97	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	1,440.00	CF	\$0.20	\$288.00
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	9.00	LF	\$10.19	\$91.68
piers	NA	Demo and on-site disposal in excavated pit	2.00	CY	\$89.00	\$178.00
head frame	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	5,886.00	CF	\$0.20	\$1,177.20
Collecting Conveyor	NA	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	76.00	LF	\$43.17	\$3,280.92
footing	NA	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft Max. 200 ft. push	2.00	LF	\$20.37	\$40.75
Batch Weigh @ Loadout	30' x 40' x 120'	Bldg. (MN) demo./on-site disposal in	144,000.00	CF	\$0.20	\$28,800.00

		excavated pit - Max. 200 ft. push				
Fuel Station floor	20' x 30'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.70	\$1,018.80
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	100.00	LF	\$10.19	\$1,018.70
Loadout Storage Stacker	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	8,000.00	CF	\$0.20	\$1,600.00
tube	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,678.00	SF	\$1.70	\$6,245.24
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	44.00	LF	\$10.19	\$448.23
Filter Building MR 125	40'x16'x8'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 200 ft. push	5,120.00	CF	\$0.23	\$1,157.12
floor	40'x16'x4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	640.00	SF	\$1.13	\$724.48
footing	112 LF	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft Max. 200 ft. push	112.00	LF	\$10.19	\$1,140.94
Shower Facility Expansion MR 126	16' x 50' x 12'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	9,600.00	CF	\$0.20	\$1,920.00
floor	16'x50'x4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	800.00	SF	\$1.13	\$905.60
footing	82 LF	Demo. and on-site disposal in excavated pit, 1.0 ft. x 2 ft Max. 200 ft. push	82.00	LF	\$6.79	\$556.86
Terror Creek Vent Shaft Collar	30'x30'x12"	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	900.00	SF	\$3.40	\$3,056.40
Terror Creek Vent Shaft Quonset Hut	NA	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	14,720.00	CF	\$0.19	\$2,796.80
pad	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,500.00	SF	\$1.70	\$2,547.00

				Total Cost (adjusted	
Job Hours:	80.00	Subtotal (unadjusted):	\$1,688,221.89	for location):	\$1,725,362.77

Bowie No. 2 Mine	Reclamation Cost E	stimate RN-	3	Page 239 of 312				
Task #170	Proctor Testing of I Bowie No. 2 Mine - Permit Renewal No	C1996083			22-Aug-12			
Assume 5 tests required (operator estimate)								
<i>Item</i> Proctor Test	<i>Means Location</i> 01 45 23.50 4900	Unit Cost \$135.00	Qty	5	Total \$675.00			
Subtotal City Cost Index - 102.2% TOTAL				1.022	\$675.00 \$689.85			

Costs were obtained from the RS Means Building Construction and Site Work & Landscape Cost Data References, 2012 editions, unless otherwise noted.

Bowie No. 2 Mine	Reclamation Cost Esti	imate RN-3	Page 240 of 312					
Task #171	Nuclear Density Testi Bowie No. 2 Mine - C1 Permit Renewal No. 3	996083			22-Aug-12			
Assume technician on site for all backfilling hours (1760 hrs)								
<i>Item</i> Supervision/Quality Control	<i>Means Location</i> 01 41 23.5 0010	<i>Unit Cost</i> \$70.00	Qty 1760	Total \$123,200.00				
Subtotal City Cost Index - 102.2%			1.022	\$123,200.00				
TOTAL			1.022	\$125,910.40				

Costs were obtained from the RS Means Building Construction and Site Work & Landscape Cost Data References, 2012 editions, unless otherwise noted.

Bowie No. 2 Mine	Reclamation Cos	st Estimate RN-3	Page 241 of 31	12
	MISCELLANEC	OUS TRUCK WORK		
Task description:	ater Truck for Mois	sture Augmentation of	Backfill Material	
te: Bowie No. 2 Mine	Permit Action	Permit Renewal 3	Permit/Job#: C	1996083
PROJECT IDENTIFIC	ATION			
Task #: 172 Date: 1/16/2013 4:30:41 PM User: SLB	_ State: <u>Colora</u> County: Delta	<u>do</u>	Abbreviation: <u>No</u> Filename: C0	ne 83-172
Agency or organization HOURLY EQUIPMEN				
	ater Tanker, 5,000 Ga	ıl.	Horsepower: Shift Basis: Weight:	175 1 per day 15.00
Labor Unit 1: Ta	nker Driver - 1 rear a	xle		(US Tons)
Labor Unit 2:				
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$20.80	NA		
Operating Cost/Hour:	\$46.55	100		
Operator Cost/Hour: Total Unit Cost/Hour:	\$21.17 \$88.51	NA		
Total Fleet Cost/Hour		-		
JOB TIME AND COST		_		
Fleet size:1		Total job time:	1,437.02	Hours
Unit cost:\$88.51	/Hour	Total job cost:	\$127,191.00	
			CIRCES Cost Estimati	ng Software

SITE MAINTENANCE

	Task des	scription:	Site Maintena	nce - Ten Ye	ars			
Site:	Bowie	No. 2 Mine	P	ermit Action:	Permit Renewal 3	Pe	rmit/Job#:	C1996083
	<u>PROJE</u>	CT IDENTIFI	CATION					
	Task #: Date:	173 1/16/2013 4:35:15 PM	State: County:	Colorado Delta		previation: Filename:	None C083-173	3
	User:	SLB						
		Agency or organi	zation name:	DRMS				
	UNIT C	OSTS						

Maintenance Unit Cost **Total Cost** Hours per Menu Selection Quantity Unit Item Year Dozer for Rills 24.00 Cat D3K LGP - 3P 240.00 EA \$75.79 \$18,189.60 and Gullies 40.00 EA Grader for Roads 4.00 CAT 12M \$95.57 \$3,822.80 and Ditches \$18,000.00 Pond Dredging 12.00 Dredging 12.00 EA \$216,000.00

Job Hours: 292.00

Total Cost: \$238,012.40

SITE MAINTENANCE

Task dese : Bowie I	No. 2 Mine	Support Equi		Permit Renewal 3	Pe	rmit/Job#:	C1996083
<u>PROJE</u>	CT IDENTIF	ICATION					
Task #:	174	State:	Colorado	Abbre	eviation:	None	
Date:	1/16/2013	County:	Delta	Fi	ilename:	C083-174	1
	4:35:54 PM						
User:	SLB						

<u>UNIT COSTS</u>

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Water Truck	458.57	Water Tanker, 5,000 Gal.	458.57	EA	\$88.51	\$40,588.03
Grader	458.57	CAT 14M	458.57	EA	\$136.55	\$62,617.73

Job Hours: <u>449.16</u>

Total Cost: \$103,205.76

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task descrip	otion: Mo	obilize/Demob	ilize Equip	nent for F	irst Construction	n Season	
e: Bowie No	o. 2 Mine	Per	mit Action:	Permit R	enewal 3	Permit/Job#	: C1996083
PROJECT	IDENTIFICA	TION					
Task #:	180	State:	Colorado			Abbreviation:	None
Date:	1/16/2013 4:36:52 PM	County:	Delta			Filename:	C083-180
User:	SLB	-	-				
					Sh Cost Data	ift basis: Source:	1 per day CRG Data
	Truck Tractor Des	cription: C	SENERIC O	N-HIGHW	AY TRUCK TRA	ACTOR, 6X4, 1	CRG Data DIESEL POWERED,
					400 HP (2ND H		
	Truck Trailer Des	cription: G	ENERIC FC	OLDING G	OOSENECK, DR (25T, 50T, AN	-	UIPMENT TRAILER
Cost Breakd	own:						
Available R	ig Capacities	0-25 Tons	s 26-5	0 Tons	51+ Tons		
Our	arshin Cost/Hours	\$16.63	¢	8 37	\$22.33		

Available Kig Capacities	0-25 1 ons	26-50 1 ons	51+100
Ownership Cost/Hour:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

NON ROADABLE EQUIPMENT:

Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
(TONS)				fleet		
84.53	\$99.15	\$125.45	4	\$898.41	\$501.80	\$1,000.00
77.56	\$78.81	\$125.45	2	\$408.52	\$250.90	\$500.00
22.88	\$36.81	\$88.67	1	\$125.48	\$88.67	\$250.00
23.57	\$37.98	\$88.67	1	\$126.65	\$88.67	\$250.00
54.46	\$82.23	\$125.45	1	\$207.68	\$125.45	\$250.00
49.74	\$60.64	\$117.55	3	\$534.56	\$352.65	\$750.00
43.48	\$65.78	\$117.55	4	\$733.32	\$470.20	\$1,000.00
15.00	\$20.80	\$88.67	1	\$109.47	\$88.67	\$250.00
0.00	\$49.55	\$88.67	1	\$138.22	\$88.67	\$250.00
25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$0.00
	(TONS) 84.53 77.56 22.88 23.57 54.46 49.74 43.48 15.00 0.00 25.00	(TONS) 84.53 \$99.15 77.56 \$78.81 22.88 \$36.81 23.57 \$37.98 54.46 \$82.23 49.74 \$60.64 43.48 \$65.78 15.00 \$20.80 0.00 \$49.55 25.00 \$39.59	(TONS) \$125.45 84.53 \$99.15 \$125.45 77.56 \$78.81 \$125.45 22.88 \$36.81 \$88.67 23.57 \$37.98 \$88.67 54.46 \$82.23 \$125.45 49.74 \$60.64 \$117.55 43.48 \$65.78 \$117.55 15.00 \$20.80 \$88.67 0.00 \$49.55 \$88.67 25.00 \$39.59 \$88.67	(TONS)\$125.454 84.53 \$99.15\$125.454 77.56 \$78.81\$125.452 22.88 \$36.81\$88.671 23.57 \$37.98\$88.671 54.46 \$82.23\$125.451 49.74 \$60.64\$117.553 43.48 \$65.78\$117.554 15.00 \$20.80\$88.671 0.00 \$49.55\$88.671 25.00 \$39.59\$88.671	(TONS)fleet 84.53 \$99.15\$125.454\$898.41 77.56 \$78.81\$125.452\$408.52 22.88 \$36.81\$88.671\$125.48 23.57 \$37.98\$88.671\$126.65 54.46 \$82.23\$125.451\$207.68 49.74 \$60.64\$117.553\$534.56 43.48 \$65.78\$117.554\$733.32 15.00 \$20.80\$88.671\$109.47 0.00 \$49.55\$88.671\$138.22 25.00 \$39.59\$88.671\$128.26	(TONS)fleet 84.53 $\$99.15$ $\$125.45$ 4 $\$898.41$ $\$501.80$ 77.56 $\$78.81$ $\$125.45$ 2 $\$408.52$ $\$250.90$ 22.88 $\$36.81$ $\$88.67$ 1 $\$125.48$ $\$88.67$ 23.57 $\$37.98$ $\$88.67$ 1 $\$126.65$ $\$88.67$ 54.46 $\$82.23$ $\$125.45$ 1 $\$207.68$ $\$125.45$ 49.74 $\$60.64$ $\$117.55$ 3 $\$534.56$ $\$352.65$ 43.48 $\$65.78$ $\$117.55$ 4 $\$733.32$ $\$470.20$ 15.00 $\$20.80$ $\$88.67$ 1 $\$109.47$ $\$88.67$ 0.00 $\$49.55$ $\$88.67$ 1 $\$138.22$ $\$88.67$ 25.00 $\$39.59$ $\$88.67$ 1 $\$128.26$ $\$88.67$

Subtotals: \$3,506.27 \$2,233.02

\$4,750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$70.40	1	\$70.40	\$70.40
Lube Truck, 6x4, 210 HP	\$84.15	1	\$84.15	\$84.15
Flatbed Truck, 6x4, 45K GVW	\$77.12	1	\$77.12	\$77.12
Light Duty Pickup, 4x4, 1 T. Crew	\$84.01	1	\$84.01	\$84.01
		Subtotals:	\$315.68	\$315.68

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	GRAND JUNCTION 100.00 40.00	miles mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$45,208.99	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$1,578.40	_
		_

Transportation Cycle Time:

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

Total job time:	12.00	Hours
Total job cost:	\$46,787.39	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description	: <u>Mo</u>	bilize/Demobilize	Equipment for	Second	Construction S	beason	
: Bowie No. 2	Mine	Permit	Action: Permit	Renewal	<u>3</u> Pe	ermit/Job#: <u>C19</u>	96083
PROJECT ID	ENTIFICAT	ION					
Task #: 18	1	State: Co	olorado		Abbr	eviation: None	
	16/2013		elta			ilename: C083	
4:4	45:50 PM	•					
User: SI	B						
Agency	or organizatio	n name: DRMS					
FOLIPMENT	' Τ Ρ ΑΝ <u></u> ΓΟΙ	RT RIG COST					
EQUII MENT					CL '6 L	1 1	
					Shift ba Cost Data Sou		
					Cost Data Sou	rce: CKG Da	ita
Tru	ck Tractor Desc	cription: GEN	ERIC ON-HIGH	WAY TH	RUCK TRACTO	OR, 6X4, DIESEL	POWERED.
					P (2ND HALF,		, , ,
Tri	ick Trailer Desc	cription: GENE	RIC FOLDING			DECK EQUIPME	NT TRAILER
110	lek Huner Dese				Γ , 50T, AND 10		
				(20)	1,001,111,210	,01)	
Cost Breakdown	1 <u>:</u>						
Available Rig C	anacities	0-25 Tons	26-50 Tons	5	1+ Tons		
	ip Cost/Hour:	\$16.63	\$18.37		\$22.33		
	ng Cost/Hour:	\$44.38	\$46.13		\$50.07		
	or Cost/Hour:	\$27.66	\$27.66		\$27.66		
	er Cost/Hour:	\$0.00	\$25.39		\$25.39		
	it Cost/Hour:	\$88.67	\$117.55		5125.45		
1000101	in Cost Hour.	<i>ф00.07</i>	ψ117.55	4	5125.15		
NON ROADA	BLE EQUIP	MENT:					
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Perm
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
L.	(TONS)				fleet		
Cat D10T - 10SU	84.53	\$99.15	\$125.45	4	\$898.41	\$501.80	\$1,000.00
Cat 365C L 13'-7	" 77.56	\$78.81	\$125.45	2	\$408.52	\$250.90	\$500.00
Stick							
CAT 815F	22.88	\$36.81	\$88.67	1	\$125.48	\$88.67	\$250.00
CAT 14M	23.57	\$37.98	\$88.67	1	\$126.65	\$88.67	\$250.00
CAT 988H	54.46	\$82.23	\$125.45	1	\$207.68	\$125.45	\$250.00
Cat 773F	49.74	\$60.64	\$117.55	3	\$534.56	\$352.65	\$750.00
Cat 627G w/push- pull		\$65.78	\$117.55	4	\$733.32	\$470.20	\$1,000.00
Water Tanker, 5,000 Gal.	15.00	\$20.80	\$88.67	1	\$109.47	\$88.67	\$250.00
ATLAS COPCO ROC D7-11,4.0 in	0.00	\$49.55	\$88.67	1	\$138.22	\$88.67	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$0.00

Subtotals: \$3,506.27 \$2,233.02 \$4,750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip	Return Trip
			Cost/hr/ fleet	Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$70.40	1	\$70.40	\$70.40
Lube Truck, 6x4, 210 HP	\$84.15	1	\$84.15	\$84.15
Flatbed Truck, 6x4, 45K GVW	\$77.12	1	\$77.12	\$77.12
Light Duty Pickup, 4x4, 1 T. Crew	\$84.01	1	\$84.01	\$84.01
		Subtotals:	\$315.68	\$315.68

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	GRAND JUNCTION 100.00 40.00	miles mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$45,208.99	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$1,578.40	_

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time:	12.00	Hours

Total job cost: **\$46,787.39**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task descrip	otion: Mo	obilize/Demobl	ize Equipn	nent for Po	ond Removal		
e: Bowie No	o. 2 Mine	Perm	nit Action:	Permit R	enewal 3	Permit/Job#:	C1996083
PROJECT	<u>IDENTIFICAT</u>	<u>CION</u>					
Task #: Date: User:	182 1/17/2013 SLB	State: County:	Colorado Delta			Abbreviation: Filename:	None C083-182
Ag	ency or organizatio	n name: DR	MS				
<u>EQUIPMI</u>	ENT TRANSPO	<u>RT RIG COS</u>	<u>T</u>		-		l per day CRG Data
	Truck Tractor Des	cription: Gl	ENERIC O	N-HIGHW	AY TRUCK TI 400 HP (2ND]	, ,	DIESEL POWERED,
	Truck Trailer Des	cription: GE	ENERIC FO	LDING G		ROP DECK EQU	JIPMENT TRAILER
Cost Breakd	own:						
Available R	ig Capacities	0-25 Tons	26-5	0 Tons	51+ Tons		
Owne	ership Cost/Hour:	\$16.63		8.37	\$22.33		
Ope	rating Cost/Hour:	\$44.38	\$4	6.13	\$50.07		
Op	erator Cost/Hour:	\$27.66	\$2	27.66	\$27.66		

NON ROADABLE EQUIPMENT:

Helper Cost/Hour:

Total Unit Cost/Hour:

\$0.00

\$88.67

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	COSt/III/ Heet	Cost/ fieet
	(TONS)				fleet		
Cat D9T - 9SU	60.01	\$69.88	\$125.45	1	\$195.33	\$125.45	\$250.00
Cat 627G w/push-	43.48	\$65.78	\$117.55	1	\$183.33	\$117.55	\$250.00
pull							
Drill/Broadcast	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Seeder with							
Tractor							

\$25.39

\$117.55

\$25.39

\$125.45

Subtotals: \$506.92 \$331.67 \$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$77.12	1	\$77.12	\$77.12
		Subtotals:	\$77.12	\$77.12

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	DELTA	
Total one-way travel distance:	45.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost *	\$4,400.67	
'* two round trips with haul rig:	φ+,+00.07	
Total Roadable Mob/Demob Cost **	\$173.52	
** one round trip, no haul rig:	φ175.52	

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time: 6.50 Hours

Total job cost: \$4,574.19

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task descrip	otion: Mo	obilize/Demob	mze Equipme	nt for Yearly Site M	lamenance	
e: Bowie No	o. 2 Mine	Per	mit Action: P	Permit Renewal 3	Permit/Job#	: <u>C1996083</u>
PROJECT	<u>IDENTIFICA</u>	<u>FION</u>				
Task #:	183	State:	Colorado		Abbreviation:	None
Date:	1/17/2013 9:37:38 AM	County:	Delta		Filename:	C083-183
User:	SLB	-				
C	ency or organizatio		RMS ST			
C	ency or organization					
C				Cost		1 per day
C				Cost		1 per day CRG Data
C		RT RIG COS	<u>ST</u>	HIGHWAY TRUCK	Data Source:	
C	ENT TRANSPO	RT RIG COS	<u>ST</u> JENERIC ON-I	HIGHWAY TRUCK 400 HP (2N DING GOOSENECK	Data Source: TRACTOR, 6X4, I D HALF, 2006)	CRG Data
C	ENT TRANSPO Truck Tractor Des Truck Trailer Des	RT RIG COS	<u>ST</u> JENERIC ON-I	HIGHWAY TRUCK 400 HP (2N DING GOOSENECK	Data Source: 0 TRACTOR, 6X4, I D HALF, 2006) , DROP DECK EQ	CRG Data

0-25 Tons	26-50 Tons	51+ Tons
\$16.63	\$18.37	\$22.33
\$44.38	\$46.13	\$50.07
\$27.66	\$27.66	\$27.66
\$0.00	\$25.39	\$25.39
\$88.67	\$117.55	\$125.45
	\$16.63 \$44.38 \$27.66 \$0.00	\$16.63 \$18.37 \$44.38 \$46.13 \$27.66 \$27.66 \$0.00 \$25.39

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
_	(TONS)				fleet		
Cat D3K LGP - 3P	9.20	\$12.64	\$88.67	10	\$1,013.09	\$886.70	\$2,500.00
CAT 14M	23.57	\$37.98	\$88.67	5	\$633.26	\$443.35	\$1,250.00
				Subtotals:	\$1,646.35	\$1,330.05	\$3,750.00

ROADABLE EQUIPMENT:

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

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	DELTA	
Total one-way travel distance:	45.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost *	\$29,916.30	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$0.00	

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time: 14.00 Hours

Total job cost: **\$29,916.30**

BULLDOZER WORK

PROJECT IDENTIFI	Permit Action:	Permit Renewal 3	Permit/Job#	: <u>C1996083</u>
	CATION			
Task #: 241	State: Colorado		Abbreviation:	None
Date: 1/17/2013	County: Delta		Filename:	C083-241
9:45:24 AM	<u> </u>			
User: SLB				
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	NT COST			
	D9T - 9SU			
Horsepower: 405				
	i-Universal	_		
Attachment: NA				
Shift Basis: 1 pe	r day			
Data Source: (CR				
Cost Breakdown:				
St Di culturo () II.		Utilization %		
Ownership Cost/Hour:	\$69.88	NA		
Operating Cost/Hour:	\$142.13	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
MATERIAL QUANT Initial Volume: 9,800 Swell factor: 1.125 Loose volume: 11,02)			
<i></i>				
Source of estimated volum Source of estimated swell	ne: Division of Reclamat Cat Handbook	ion, Mining & Safety		
factor:	Cat Handbook			
lactor.				
	ION			
HOURLY PRODUCT				
	125 feet			
Average push distance:	125 feet 1.055.6 LCY/hr			
Average push distance: Unadjusted hourly	125 feet 1,055.6 LCY/hr			
Average push distance: Unadjusted hourly				
Average push distance: Unadjusted hourly production:	1,055.6 LCY/hr	mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency dese	1,055.6 LCY/hr	mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency deso Average push gradient:	1,055.6 LCY/hr cription: Compacted fill or e	mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency dese	1,055.6 LCY/hr	mbankment 0.9		
Average push distance: Unadjusted hourly production: Materials consistency desc Average push gradient:	1,055.6 LCY/hr cription: Compacted fill or e	mbankment 0.9		
Job Condition Correction Factor		Source		
---------------------------------	--------	---------------		
Operator Skill:	0.750	(AVG.)		
Material consistency:	0.900	(CAT HB))		
Dozing method:	1.000	(GEN.)		
Visibility:	1.000	(AVG.)		
Job efficiency:	0.830	(1 SHIFT/DAY)		
Spoil pile:	0.800	(FND-RF)		
Push gradient:	0.903	(CAT HB)		
Altitude:	1.000	(CAT HB)		
Material Weight:	0.868	(CAT HB)		
Blade type:	1.000	(PAT)		
Net correction:	0.3513			

Adjusted unit production:	370.83 LCY/hr
Adjusted fleet production:	370.83 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.673/LCY

Total job time:	29.73 Hours
Total job cost:	\$7,415.42

Bowie No. 2 Mine	Peri	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: <u>242</u> Date: <u>1/17/2013</u> 9:46:08 AN	State: County:	Colorado Delta		Abbreviation: _ Filename:	None C083-242
User: SLB				-	
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
	: D9T - 9SU				
Horsepower: 405					
Blade Type: Sen	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CF	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$69.88		NA		
Operating Cost/Hour:	\$142.13		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$249.42 \$249.42				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12	\$249.42 <u>FITIES</u> 0 5				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12	\$249.42 <u>FITIES</u> 0				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12	\$249.42 <u>FITIES</u> 0 5 5 5 LCY me:Division of		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu Source of estimated swel	\$249.42 CITIES 0 5 5 LCY me: Division of Cat Handle		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu: Source of estimated swel Source of estimated swel Source of estimated swel	\$249.42 CITIES 0 5 5 LCY me: Division of Cat Handle		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu: Source of estimated swel Source of estimated swel Sactor: HOURLY PRODUCT 100	\$249.42 CITIES 0 5 5 LCY me: Division of Cat Handle 1 Cat Handle TION	book	 on, Mining & Safety 		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu: Source of estimated swel Source of estimated swel Source Factor: HOURLY PRODUCT Average push distance: Unadjusted hourly	\$249.42 CITIES 0 5 5 LCY me: Division of Cat Handle 1 Cat Handle TION 125 feet 1,055.6 LCY	book Y/hr	 on, Mining & Safety mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu: 8,32 Source of estimated swelfactor: 8,40 HOURLY PRODUCT Average push distance: Unadjusted hourly production: 100	\$249.42 CITIES 0 5 5 LCY me: Division of Cat Handle 1 Cat Handle TION 125 feet 1,055.6 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu Source of estimated swel Source of estimated swel Source Factor: HOURLY PRODUCT Average push distance: Unadjusted hourly Ordertials consistency destinated States	\$249.42 CITIES 0 5 5 5 5 5 5 1 Cat Handle Interview of the second se	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu Source of estimated swel Source of estimated swel Source Average push distance: Unadjusted hourly Sourceiron: Materials consistency destance:	\$249.42 CITIES 0 5 5 5 5 5 5 5 5 5 5 0 5 1 Division of Cat Handle	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 7,40 Swell factor: 1.12 Loose volume: 8,32 Source of estimated volu: 8,32 Source of estimated volu: Source of estimated swel Source of estimated swel Source of estimated swel Source of estimated swel Source Yearage push distance: Unadjusted hourly Unadjusted hourly Source of estimated swel Average push distance: Unadjusted hourly Average push gradient: Average site altitude:	\$249.42 CITIES 0 5 5 5 5 5 5 1 1 125 125 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 10 125 120 120 120 120 120 120	Y/hr cted fill or e	mbankment 0.9		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	370.83 LCY/hr
Adjusted fleet production:	370.83 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.673/LCY

Total job time:	22.45 Hours
Total job cost:	\$5,599.40

Page 256 of 312

	Peri	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 252 Date: 1/17/2013 9:47:01 AM	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-252
User: SLB				-	
Agency or organ	nization name: <u>DR</u>	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat Horsepower: 405	D9T - 9SU		_		
Blade Type: Sem	ni-Universal		_		
Attachment: NA Shift Basis: 1 pe					
Data Source: (CR	er day RG)		_		
Cost Breakdown:			Litilization 0/		
Ownership Cost/Hour:	\$69.88		<u>Utilization %</u> NA		
Operating Cost/Hour:	\$142.13		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
MATERIAL QUANT Initial Volume: 1,925	5				
Swell factor: 1.250		_			
Swell factor: 1.250	6 LCY	_			
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volum	6 LCY me: Division of		on, Mining & Safety		
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volum Source of estimated swell	6 LCY me: Division of		on, Mining & Safety		
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volum Source of estimated swell	6 LCY me: Division of		on, Mining & Safety		
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volum Source of estimated swell factor:	6 LCY me: <u>Division o</u> l Cat Hand		on, Mining & Safety		
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volur Source of estimated swell factor: HOURLY PRODUCT Average push distance: Unadjusted hourly	6 LCY me: <u>Division o</u> l Cat Hand	book	on, Mining & Safety 		
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volum Source of estimated swell factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production:	6 LCY me:	book Y/hr	on, Mining & Safety mbankment 0.9		
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volu Source of estimated swell factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency des	6 LCY me: Division of Cat Handle I Cat Handle I Image: Cat Handle Image: Image	book Y/hr			
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volu Source of estimated swell factor: 3.000 HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient:	6 LCY me:	book Y/hr			
Swell factor: 1.250	6 LCY me: Division of Cat Handle I Cat Handle I Image: Cat Handle Image: Image	book Y/hr			
Swell factor: 1.250 Loose volume: 2,400 Source of estimated volur Source of estimated swell factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency des Average push gradient: Average site altitude:	6 LCY me: Division of Cat Handl Cat Handl 100 feet 1,243.2 LCY scription: Compace 5 % 8,100 feet	Y/hr cted fill or en	mbankment 0.9		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	436.74 LCY/hr
Adjusted fleet production:	436.74 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.571/LCY

Total job time:	5.51 Hours
Total job cost:	\$1,374.20

Bowie No. 2 Mine	Perr	nit Action:	Permit Renewal 3	Permit/Job#:	C199608
PROJECT IDENTIE	ICATION				
Task #: 253	State:	Colorado		Abbreviation:	None
Date: 1/17/2013	County:	Delta		Filename:	C083-253
9:47:43 A	M			-	
User: SLB					
Agency or orga	nization name: DR	MS			
HOURLY EQUIPM	ENT COST				
	t D9T - 9SU				
Horsepower: 40			_		
1	mi-Universal		_		
Attachment: NA			_		
	ber day		_		
	RG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$69.88		NA		
Operating Cost/Hour:	\$142.13		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Total unit Cost/Hour:	\$249.42				
Total Fleet Cost/Hour:	\$249.42 \$249.42				
	<u> </u>				
MATERIAL QUAN	<u>FITIES</u>				
Initial Volume: 6,00)0				
Swell factor: 1.25		_			
	00 LCY	-			
		-			
Source of estimated volu			on, Mining & Safety		
Source of estimated swe	ll Cat Handb	OOK			
factor:					
HOURLY PRODUC	ΤΙΟΝ				
Average push distance:	150 feet				
Unadjusted hourly	910.5 LCY/ł	nr			
production:					
Materials consistency de	scription: <u>Compac</u>	ted fill or ei	nbankment 0.9		
interesting consistency ac					
·	5 %				
Average push gradient:	<u>5 %</u> 8 100 feet				
·	5 % 8,100 feet				
Average push gradient:					
Average push gradient: Average site altitude: Material weight:	8,100 feet	- 25% Rock,	75% Earth	_	
Average push gradient: Average site altitude:	8,100 feet 2,650 lbs/LCY Decomposed rock -	 25% Rock,	75% Earth	_	

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:	0.903	03 (CAT HB)	
Altitude:	1.000 (CAT HB		
Material Weight:	0.868	(CAT HB)	
Blade type:	1.000	(PAT)	

Adjusted unit production:	319.86 LCY/hr
Adjusted fleet production:	319.86 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.780/LCY

Total job time:	23.45 Hours
Total job cost:	\$5,848.35

Bowie No. 2 Mine	Peri	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	FICATION				
Task #: 254 Date: 1/17/2013 9:48:21 AN	State: County: M	Colorado Delta		Abbreviation: Filename:	None C083-254
User: SLB				-	
Agency or orga	inization name: DR	MS			
HOURLY EQUIPMI	ENT COST				
	t D9T - 9SU		_		
Horsepower: 405					
Blade Type: Ser	mi-Universal				
Attachment: NA	A				
	er day				
1	RG)		_		
	NO)				
Cost Breakdown:					
Ormenshin Cost/III	ф <u>со оо</u>		<u>Utilization %</u>		
Ownership Cost/Hour:	\$69.88		NA		
Operating Cost/Hour:	\$142.13		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
	\$249.42 \$249.42				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813	\$249.42 FITIES 50				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25	\$249.42 FITIES 50 LCY				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25	\$249.42 <u>FITIES</u> 50 LCY ume:Division of		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swel	\$249.42 FITIES 50 LCY ume: Division of 11 Cat Handle		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swel factor: 1	\$249.42 FITIES 50 LCY ume: Division of 11 Cat Handle	book	on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCT Average push distance: Unadjusted hourly	\$249.42 FITIES 50 LCY ume: Division of 11 Cat Handle TION 100 feet 1,243.2 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swel factor: HOURLY PRODUC' Average push distance: Unadjusted hourly production: Materials consistency details	\$249.42 FITIES 50 LCY ume: Division of Cat Handle II Cat Handle TION	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUCC Average push distance: Unadjusted hourly production:	\$249.42 FITIES 50 LCY ume: Division of 11 Cat Handle TION 100 feet 1,243.2 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	\$249.42 FITIES 50 LCY ume: Division of Cat Handle 11 Cat Handle TION	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 650 Swell factor: 1.25 Loose volume: 813 Source of estimated volu Source of estimated swelfactor: HOURLY PRODUC' Average push distance: Unadjusted hourly production: Materials consistency de: Average push gradient: Average site altitude:	\$249.42 FITIES 50 LCY ume: Division of Cat Handle 11 Cat Handle TION	v/hr dated stockj			

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:	gradient: 0.903 (CAT	
Altitude:	1.000 (CAT H	
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	504.24 LCY/hr
Adjusted fleet production:	504.24 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.495/LCY

Total job time:1.61 HoursTotal job cost:\$401.90

Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C199608
PROJECT IDENTIE	FICATION				
Task #: 255	State:	Colorado		Abbreviation:	None
Date: 1/17/2013		Delta		Filename:	C083-255
9:49:00 A					
User: SLB				-	
Agency or orga	anization name: DR	RMS			
HOURLY EQUIPM	ENT COST				
	tt D9T - 9SU				
Horsepower: 40			_		
	mi-Universal		_		
Attachment: NA			_		
	ber day		_		
	RG)		_		
Cost Breakdown:			_		
o 11 o or	* -		<u>Utilization %</u>		
Ownership Cost/Hour:			NA		
Operating Cost/Hour:			100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Total unit Cost/Hour:	\$249.42				
Total Fleet Cost/Hour:	\$249.42 \$249.42				
. oui 1 iou 000/11001.	ψ 47,74				
MATERIAL QUAN	TITIES				
Initial Volume: 3,14					
Swell factor: <u>1.25</u> Loose volume: 3.92	25 LCY				
Source of estimated volu			on, Mining & Safety		
Source of estimated swe	ll Cat Hand	book			
actor:					
HOURLY PRODUC	TION				
Average push distance:	150 feet	1			
Jnadjusted hourly	910.5 LCY/	hr			
production:					
Materials consistency de	escription: <u>Consol</u>	idated stockp	ile 1.0		
Average push gradient:	5 %				
Average site altitude:	8,100 feet				
1. stage site unitude.	0,100 1001				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packed	1			
Weight description: ob Condition Correctio		1	Source		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4056	

Adjusted unit production:	369.30 LCY/hr
Adjusted fleet production:	369.3 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.675/LCY

Total job time:	10.63 Hours
Total job cost:	\$2,650.90

REVEGETATION WORK

Bowie N	o. 2 Mine	Peri	mit Action:	Permit Renewal 3	Permit/Job#	C1996083
PROJEC [®]	<u>r identifi</u>	CATION				
Task #:	256	State:	Colorado		Abbreviation:	None
Date:	1/17/2013	County:	Delta		Filename:	C083-256
	9:49:55 AM					

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cos	st/Acre \$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

Page 265 of 312

\$384.35
Cost /Acre
\$88.20

Total Seed Application Cost/Acre \$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$86.68

NURSERY STOCK PLANTING

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

	No. of Acres:	0.97	C	ost /Acre:	\$1,089.23
Estimate	ed Failure Rate:	50%	Co	st /Acre*:	\$472.55
*Selected Replanti	ng Work Items:	SEEDING			
Initial Job Cost:	\$1,056.55				
Reseeding Job Cost:	\$229.19		_		
Total Job Cost:	\$1,285.74		_		
Job Hours:	4.00		_		

REVEGETATION WORK

Bowie No	o. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT	<u>r identific</u>	CATION				
Task #:	257	State:	Colorado		Abbreviation:	None
Date:	1/17/2013	County:	Delta		Filename:	C083-257
	9:51:18 AM					
	SLB				-	

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cos	st/Acre \$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

	Totals Seed Mix	21.00	236.80	\$384.35
pplication				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20
2 m 000 mg (2 m2)				

Total Seed Application Cost/Acre \$88.20

\$88.20

MULCHING and MISCELLANEOUS

<u>Materials</u>

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$86.68

NURSERY STOCK PLANTING

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

No. of Acres:	3.65	Cost /Acre:	\$1,089.23
Estimated Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanting Work Items:	SEEDING		·

Initial Job Cost:	\$3,975.69
Reseeding Job Cost:	\$862.40
Total Job Cost:	\$4,838.09
Job Hours:	16.00

Bowie No. 2 Mine	Reclamation Cost E	stimate RN-3		Page 268 of 3	12
Task #261	Concrete Plug and I Bowie No. 2 Mine - (Permit Renewal No.	C1996083	ıft		17-Jan-13
<i>Item</i> Concrete Plugs City Cost Index - 102.2% Subtotal	<i>Means Location</i> CIRCES	Unit Cost \$138.29	Qty 269 1.022	+- ,	
Backfill Shaft	CIRCES	\$16.43	6900		
TOTAL				\$151,385.41	

Volumes and designs are based on a similar shaft at the West Elk Mine. Costs were obtained from the RS Means Building Construction and Site Work & Landscape Cost Data References, 2012 editions, unless otherwise noted.

Page 269 of 312

Bowie No. 2 Mine	Perm	it Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 278 Date: 1/17/2013	County:	Colorado Delta		Abbreviation: Filename:	None C083-278
1:10:00 PM User: SLB				-	
Agency or organ	ization name: DRM	AS			
HOURLY EQUIPME	NT COST				
	D8T - 8SU		_		
Horsepower: 310			_		
7 1	i-Universal		_		
Attachment: NA			_		
	r day		_		
Data Source: (CR	G)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$56.69		NA		
Operating Cost/Hour:	\$104.03		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
-r	<i>457.11</i>		11/1		
Total unit Cost/Hour:	\$198.13				
Total Fleet Cost/Hour:	\$198.13				
-					
MATERIAL QUANT	ITIES				
Initial Volume: 14,65					
Swell factor: 1.125					
Loose volume: 16,48	1 LCY				
Source of estimated volum	ne Division of	Paclameti	on, Mining & Safety		
Source of estimated volum	Cat Handbo		on, winning & Salety		
	Cat Handbo	JUK			
factor:					
HOURLY PRODUCT	<u>'ION</u>				
Average push distance:	100 feet				
Unadjusted hourly	852.6 LCY/h	r			
production:	032.0 LUY/II	L			
production.					
Motoriala consistences 1	mintion Doutly	naolidatad	stocknilo 1 1		
Materials consistency desc	Partly co	nsondated	stockpile 1.1		
Average nuch and int	5.04				
Average push gradient:	<u>5 %</u>	_			
Average site altitude:	8,000 feet				
Matarial waight	2 550 lbs/I CV				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packed				
Job Condition Correction	• •		Source		
lob ('ondition ('omenater-					

0.750	(AVG.)
1.100	(CAT HB)
1.000	(GEN.)
1.000	(AVG.)
0.830	(1 SHIFT/DAY)
0.800	(FND-RF)
0.903	(CAT HB)
1.000	(CAT HB)
0.902	(CAT HB)
1.000	(PAT)
0.4462	
	1.100 1.000 1.000 0.830 0.800 0.903 1.000 0.902 1.000

Adjusted unit production:	380.43 LCY/hr
Adjusted fleet production:	380.43 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.521/LCY

Total job time:	43.32 Hours
Total job cost:	\$8,583.58

BOREHOLE SEALING WORK

	Task dese	cription:	Plug and seal	13 boreholes	TR-73			
Site:	Bowie N	No. 2 Mine	Pe	ermit Action:	Permit Renewal 3	Pe	rmit/Job#:	C1996083
	PROJE	<u>CT IDENTIFI(</u>	<u>CATION</u>					
	Task #: Date:	279 1/17/2013 1:11:19 PM	State: County:	Colorado Delta		eviation: lename:	None C083-279)
	User:	SLB						

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
13 bore holes	PVC plug - 10 in. diameter borehole	9.375	18030	13.00	EA	\$96.54	\$1,255.02
Fill holes with cement	Portland cement grout (Bag, material cost only94 lb. bag)	9.375	18030	4,321.00	bag	\$11.50	\$49,691.50
Cut casings	Exposed casing removal - 4 to 10 in. diameter steel pipe (LF)	9.375	NA	26.00	LF	\$5.87	\$152.62
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	13.00	EA	\$2.81	\$36.53
Drill Rig time	SCHRAMM T450BH	NA	NA	156.00	EA	\$178.70	\$27,877.20
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	156.00	EA	\$46.77	\$7,296.12

Job Hours: 156.00

Total Cost: \$86,308.99

REVEGETATION WORK

Ta	ask descrip	otion:	Reseed Drill Pac	ls (13 pads -	TR-73)		
Site:	Bowie No	o. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#	C1996083
<u>P</u>]	ROJECT	IDENTIFI	CATION				
	Task #:	280	State:	Colorado		Abbreviation:	None
	Date:	1/17/2013 1:13:12 PM	County:	Delta		Filename:	C083-280

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cos	st/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
Arrowleaf Balsamroot	1.10	1.37	\$43.46
Bitterbrush, Antelope	16.60	5.11	\$336.32
Indian Ricegrass - Native	1.90	6.15	\$12.81
Alfalfa - Ladak (inoculated)	1.40	6.75	\$4.37
Burnett, Small (or Little) - Delar	5.60	7.07	\$9.91
Sheep Fescue - Covar	0.40	6.24	\$1.34
Slender Wheatgrass - Native	2.00	7.30	\$4.50
Milk Vetch, Cicer - Lutana	2.20	7.32	\$11.18
Streambank Wheatgrass - Sodar	3.00	9.78	\$12.63

Thickspike Wheatgrass - Critana	5.00	17.68	\$25.85
Western Wheatgrass - Arriba	2.80	7.07	\$10.30
Needlegrass, Green - Lodorm	1.76	7.31	\$9.49
Rose, Wood's	5.40	0.00	\$142.51
Sagebrush, Louisiana or Prairie	0.20	20.16	\$27.48
Sagebrush, Mountain or Big	0.20	10.56	\$6.74
Flax, Lewis Blue	1.00	6.63	\$16.52
Saltbush, Four Wing	4.80	6.61	\$51.50
Serviceberry	9.60	17.63	\$1,024.70
Basin Wildrye - Trailhead	2.40	9.75	\$15.72
Totals Seed Mix	67.36	160.50	\$1,767.33

Application

Application		
Description		Cost /Acre
Broadcast seeding [DMG]		\$261.28
	Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Tota	ls Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	11.96	Cost /Acre:	\$2,711.18
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$0.00
*Selected Replanti	ng Work Items:	NONE		
Initial Job Cost:	\$32,425.71			
Reseeding Job Cost:	\$0.00			
Total Job Cost:	\$32,425.71			
Job Hours:	23.92			

REGETATION WORK

Bowie N	o. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
ROJEC	<u> IDENTIFI</u>	CATION				
Task #:	281	State:	Colorado		Abbreviation:	None
Deter	1/17/2013	County:	Delta		Filename:	C083-281
Date:						
Date:	1:14:09 PM					

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cos	st/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
Arrowleaf Balsamroot	1.10	1.37	\$43.46
Bitterbrush, Antelope	16.60	5.11	\$336.32
Indian Ricegrass - Native	1.90	6.15	\$12.81
Alfalfa - Ladak (inoculated)	1.40	6.75	\$4.37
Burnett, Small (or Little) - Delar	5.60	7.07	\$9.91
Sheep Fescue - Covar	0.40	6.24	\$1.34
Slender Wheatgrass - Native	2.00	7.30	\$4.50
Milk Vetch, Cicer - Lutana	2.20	7.32	\$11.18
Streambank Wheatgrass - Sodar	3.00	9.78	\$12.63

Thickspike Wheatgrass - Critana	5.00	17.68	\$25.85
Western Wheatgrass - Arriba	2.80	7.07	\$10.30
Needlegrass, Green - Lodorm	1.76	7.31	\$9.49
Rose, Wood's	5.40	0.00	\$142.51
Sagebrush, Louisiana or Prairie	0.20	20.16	\$27.48
Sagebrush, Mountain or Big	0.20	10.56	\$6.74
Flax, Lewis Blue	1.00	6.63	\$16.52
Saltbush, Four Wing	4.80	6.61	\$51.50
Serviceberry	9.60	17.63	\$1,024.70
Basin Wildrye - Trailhead	2.40	9.75	\$15.72
Totals Seed Mix	67.36	160.50	\$1,767.33

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Fotal Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Tota	ls Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	9.08	Cost /Acre:	\$2,711.18
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$0.00
*Selected Replanti	ng Work Items:	NONE		
Initial Job Cost:	\$24,617.51			
Reseeding Job Cost:	\$0.00			
Total Job Cost:	\$24,617.51			
Job Hours:	18.16			

Page 276 of 312

Bowie No. 2 Mine Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICATION				
Task #: 282 State:	Colorado		Abbreviation:	None
Date: 1/17/2013 County: 1:15:23 PM	Delta		Filename:	C083-282
User: SLB			-	
Agency or organization name:	RMS			
HOURLY EQUIPMENT COST				
Basic Machine: Cat D8T - 8SU		_		
Horsepower: 310		_		
Blade Type: Semi-Universal		_		
Attachment: NA		_		
Shift Basis: 1 per day		_		
Data Source: (CRG)		_		
Cost Breakdown:		LT4:1:4' = 0/		
Ownership Cost/Hour: \$56.69		<u>Utilization %</u> NA		
Operating Cost/Hour: \$104.03	3	100		
Ripper op. Cost/Hour: \$0.00		0		
Operator Cost/Hour: \$37.41		NA		
Fotal unit Cost/Hour: \$198.13				
Fotal Fleet Cost/Hour: \$198.13				
MATERIAL QUANTITIES				
Initial Volume: 28,944				
Swell factor: 1.165	_			
Loose volume: 33,720 LCY	_			
		on, Mining & Safety		
Source of estimated swell Cat Hand	book			
factor:				
HOURLY PRODUCTION				
Average push distance: 100 feet				
Unadjusted hourly 852.6 LCY/	/hr			
production:				
Materials consistency description: <u>Compa</u>	cted fill or en	mbankment 0.9		
Average push gradient: 5 %				
Average site altitude: 8,000 feet				
<u> </u>				
Material weight: 2,900 lbs/LCY				
Weight description: Decomposed rock	- 50% Rock	, 50% Earth		
Weight description: Decomposed rock ob Condition Correction Factor	- 50% Rock	, 50% Earth Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	273.60 LCY/hr
Adjusted fleet production:	273.6 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.724/LCY

 Total job time:
 123.24 Hours

 Total job cost:
 \$24,418.65

Page 278 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICATI	<u>ON</u>			
Task #: 283	State: Colorado		Abbreviation:	None
Date: 1/17/2013	County: Delta		Filename:	C083-283
1:16:11 PM				
User: SLB				
Agency or organization	name: DRMS			
HOURLY EQUIPMENT CO	<u>DST</u>			
Basic Machine: Cat D8T - 8	SU			
Horsepower: 310		_		
Blade Type: Semi-Unive	rsal	_		
Attachment: NA		_		
Shift Basis: 1 per day		_		
Data Source: (CRG)		_		
Cost Breakdown:				
O multi Cart	¢56.60	<u>Utilization %</u>		
Ownership Cost/Hour:	\$56.69	NA 100		
Operating Cost/Hour: Ripper op. Cost/Hour:	\$104.03 \$0.00	<u> </u>		
Operator Cost/Hour:	\$37.41	NA 0		
	ψ37.41	INA		
Cotal unit Cost/Hour: \$198.1				
Cotal Fleet Cost/Hour:\$198.3	13			
MATERIAL QUANTITIES				
Initial Volume: 21,974				
Swell factor: 1.165				
Loose volume: 25,600 LCY				
ource of estimated volume:	Division of Reclamati	on Mining & Safaty		
Source of estimated swell	Cat Handbook	on, winning & Salety		
actor:				
HOURLY PRODUCTION				
	100.0			
Average push distance:	100 feet			
Jnadjusted hourly	852.6 LCY/hr			
production:				
Aaterials consistency description	: Compacted fill or en	mbankment 0.9		
	.			
Average push gradient: 5%	<u> </u>			
Average site altitude: 8,000	teet			
Aaterial weight: 2,900	lbs/LCY			
Veight description: Decor	nposed rock - 50% Rock	, 50% Earth		
Weight description: Decor ob Condition Correction Factor	nposed rock - 50% Rock	50% Earth		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	273.60 LCY/hr
Adjusted fleet production:	273.6 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.724/LCY

Total job time:	93.57 Hours
Total job cost:	\$18,538.40

Page 280 of 312

Task description: Bowie No. 2 Mine	Drill Pad Topsoil (13 pads -	Permit Renewal 3	Permit/Job#:	C100409
Bowie No. 2 Mine	Permit Action:	r chilit Kellewal 3		C199008
PROJECT IDENTIFI	CATION			
Task #: 284	State: Colorado		Abbreviation:	None
Date: 1/17/2013	County: Delta		Filename:	C083-284
1:16:54 PM				
User: SLB				
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	<u>NT COST</u>			
Basic Machine: Cat	D8T - 8SU			
Horsepower: 310				
· ·	i-Universal	_		
Attachment: NA				
	r day			
Data Source: (CR		_		
Cost Breakdown:		_		
COSt DICARGOWII.		Utilization %		
Ownership Cost/Hour:	\$56.69	NA		
Operating Cost/Hour:	\$104.03	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
- F	· · · · · · · · · · · · · · · · · · ·	1111		
Total unit Cost/Hour:	\$198.13			
Total Fleet Cost/Hour:	\$198.13			
MATERIAL QUANT	ITIES			
Initial Volume: 19,29	15			
Swell factor: 1.125				
	7 LCY			
Source of estimated volum		on, Mining & Safety		
Source of estimated swell	Cat Handbook			
factor:				
HOURLY PRODUCT	TON			
Average push distance:	100 feet			
Unadjusted hourly	852.6 LCY/hr			
production:				
F				
Materials consistency des	cription: Partly consolidated	stockpile 1.1		
Average push gradient:	5 %			
Average site altitude:	8,000 feet			
Material weight:	2,550 lbs/LCY			
Weight description.	Earth - Dry packed			
Weight description:	Bartin Dij pachea			
Job Condition Correction	• •	Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	380.43 LCY/hr
Adjusted fleet production:	380.43 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.521/LCY

Total job time:	57.06 Hours
Total job cost:	\$11,305.14

Page 282 of 312

Bowie No. 2 Mine	Peri	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 285	State:	Colorado		Abbreviation:	None
Date: 1/17/2013	County:	Delta		Filename:	C083-285
1:18:30 PM	<u>/</u>			-	
User: <u>SLB</u>					
Agency or organ	nization name: DR	MS			
HOURLY EQUIPME	ENT COST				
	t D9T - 9SU				
Horsepower: 405					
1	ni-Universal				
Attachment: NA					
	er day		_		
Data Source: (CF	RG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$69.88		NA		
Operating Cost/Hour:	\$142.13		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$249.42 \$249.42				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16	\$249.42 <u>FITIES</u> 6 5				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16	\$249.42 FITIES 6				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu	\$249.42 <u>FITIES</u> 6 5 <u>3 LCY</u> me:Division of		on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel	\$249.42 <u>FITIES</u> 6 5 <u>3 LCY</u> me:Division of		on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu	\$249.42 <u>FITIES</u> 6 5 <u>3 LCY</u> me:Division of		on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source of estimated swel	\$249.42 <u>FITIES</u> 6 5 3 LCY me: <u>Division c</u> 1 Cat Handl		on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel	\$249.42 <u>FITIES</u> 6 5 3 LCY me: <u>Division c</u> 1 Cat Handl		on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source Factor: HOURLY PRODUCT	\$249.42 CITIES 6 6 5 3 LCY 0 me: Division of Cat Handle 1 Cat Handle TION 0		on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source of estimated swel	\$249.42 <u>FITIES</u> 6 5 3 LCY me: <u>Division c</u> 1 Cat Handl	book	on, Mining & Safety		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source Average push distance: 1	\$249.42 EITIES 6 6	book	on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu 2,59 Source of estimated volu Source of estimated swel Sactor: HOURLY PRODUCT Average push distance: Unadjusted hourly Droduction: Sactor:	\$249.42 EITIES 6 5 3 LCY me: Division of Cat Handb 1 Cat Handb TION 100 feet 1,243.2 LCY	book K/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu 2,59 Source of estimated volu Source of estimated swel Sactor: HOURLY PRODUCT Average push distance: Unadjusted hourly	\$249.42 EITIES 6 5 3 LCY me: Division of Cat Handb 1 Cat Handb TION 100 feet 1,243.2 LCY	book K/hr	on, Mining & Safety		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source Average push distance: Unadjusted hourly Sourceire Source	\$249.42 FITIES .6 .5 .3 LCY me: Division of Cat Handb .1 Cat Handb TION	book K/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source Average push distance: Unadjusted hourly Materials consistency destance: Source Average push gradient: Source	\$249.42 FITIES .6 .5 .3 LCY me: Division of Cat Handb .1 Cat Handb TION	book K/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source Average push distance: Unadjusted hourly Sourceire Source	\$249.42 FITIES .6 .5 .3 LCY me: Division of Cat Handb .1 Cat Handb TION	book K/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source of estimated swel Source of estimated swel Source Yactor: HOURLY PRODUCY Average push distance: Unadjusted hourly Oroduction: Materials consistency des Average push gradient: Average site altitude:	\$249.42 EITIES 6 5 3 LCY me: Division of Cat Handb 1 Cat Handb TION	book K/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source Average push distance: Unadjusted hourly Unadjusted hourly Source Materials consistency destance: Source Average push gradient: Source	\$249.42 FITIES .6 .5 .3 LCY me: Division of Cat Handb .1 Cat Handb TION	book K/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANI Initial Volume: 2,22 Swell factor: 1.16 Loose volume: 2,59 Source of estimated volu 2,59 Source of estimated volu Source of estimated swel Source of estimated swel Source of estimated swel Source of estimated swel Source Yactor: HOURLY PRODUCY Average push distance: Unadjusted hourly Oroduction: Materials consistency des Average push gradient: Average site altitude:	\$249.42 EITIES 6 5 3 LCY me: Division of Cat Handb 1 Cat Handb TION	//hr cted fill or e	mbankment 0.9		

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	398.94 LCY/hr
Adjusted fleet production:	398.94 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.625/LCY

 Total job time:
 6.50 Hours

 Total job cost:
 \$1,621.35

Page 284 of 312

Bowie No. 2 Mine	Per	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIF	ICATION				
Task #: 286	State:	Colorado		Abbreviation:	None
Date: 1/17/2013 1:19:34 PM	County:	Delta		Filename:	C083-286
User: SLB					
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
	t D9T - 9SU		_		
Horsepower: 405			_		
	mi-Universal		_		
Attachment: NA			_		
	er day		_		
Data Source: (Cl	RG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:	\$69.88		NA		
Operating Cost/Hour:	\$142.13	\$	100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
MATERIAL QUAN Initial Volume: 702 Swell factor: 1.16	55				
	LCY Division		Mining & Safata		
Source of estimated volu			on, Mining & Safety		
Source of estimated swel					
Source of estimated swell factor:					
	TION				
factor: HOURLY PRODUC					
factor: HOURLY PRODUC Average push distance:	200 feet	br			
factor: HOURLY PRODUC Average push distance: Unadjusted hourly		ĥr			
factor: HOURLY PRODUC Average push distance:	200 feet	hr			
factor: HOURLY PRODUC Average push distance: Unadjusted hourly	200 feet 700.0 LCY/		nbankment 0.9		
factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	 700.0 LCY/ scription:Compa		 nbankment 0.9		
factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	<u>200 feet</u> 700.0 LCY/ scription: <u>Compa</u> 5 %		nbankment 0.9		
factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de	 700.0 LCY/ scription:Compa		nbankment 0.9		
factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient:	<u>200 feet</u> 700.0 LCY/ scription: <u>Compa</u> 5 %		nbankment 0.9		
factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude:	<u>200 feet</u> 700.0 LCY/ scription: <u>Compa</u> <u>5 %</u> 7,500 feet	cted fill or er 			
factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency de Average push gradient: Average site altitude: Material weight:	<u>200 feet</u> 700.0 LCY/ scription: <u>Compa</u> <u>5 %</u> 7,500 feet 2,900 lbs/LCY <u>Decomposed rock</u>	cted fill or er 			

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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	224.63 LCY/hr
Adjusted fleet production:	224.63 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$1.110/LCY

Total job time:3.64 HoursTotal job cost:\$908.09

Bowie No. 2 Mine	Perm	it Action:	Permit Renewal 3	Permit/Job#	C1996083
PROJECT IDENTIFICA	ATION				
Task #: 287	State:	Colorado		Abbreviation:	None
Date: 1/17/2013	County:	Delta		Filename:	C083-287
1:20:13 PM					
User: SLB					
Agency or organiza	tion name: DRI	MS			
HOURLY EQUIPMEN	T COST				
Basic Machine: Cat D9	T - 9SU				
Horsepower: 405	1)50		_		
1 <u> </u>	Iniversal		_		
Attachment: NA			_		
Shift Basis: 1 per d	ay		_		
Data Source: (CRG)	•		_		
Cost Breakdown:					
o 11 o			<u>Utilization %</u>		
Ownership Cost/Hour:	\$69.88		NA		
Operating Cost/Hour:	\$142.13		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$37.41		NA		
Total unit Cost/Hour: \$2	249.42				
	249.42				
MATERIAL QUANTIT	IES				
Initial Volume: 1,113					
Swell factor: 1.125		-			
Loose volume: 1,252 Lo	CY	-			
		- F Doolouwe'	on Mining & C. C.		
Source of estimated volume:			on, Mining & Safety		
Source of estimated swell	Cat Handb	UOK			
factor:					
ΠΟΠΟΙ V ΒΒΟΝΠΟΤΙΟ	N				
HOURLY PRODUCTIO					
Average push distance:	125 feet				
Unadjusted hourly	1,055.6 LCY	/hr	_		
production:					
Materials consistency descrip	tion Consolis	lated stock	vila 1.0		
water as consistency descrip	Consolic	ialeu slockj	nie 1.0		
Average push gradient: 5	%				
	,500 feet				
-					
Material weight: 2	,550 lbs/LCY				
Weight description: E	arth - Dry packed				
Job Condition Correction Factor			0		
In the disting Counseling De	rtor		Source		

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:	0.900	(SSD-FC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	481.67 LCY/hr
Adjusted fleet production:	481.67 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.518/LCY

Total job time:2.60 HoursTotal job cost:\$648.50

Bowie No. 2 Mine	Permit	Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFI	CATION				
Task #: 288 Date: 1/17/2013 1:20:59 PM		Colorado Delta		Abbreviation: Filename:	None C083-288
User: SLB				-	
Agency or organi	ization name: DRM	S			
HOURLY EQUIPMEN	NT COST				
	D9T - 9SU		_		
1	i-Universal		_		
Attachment: NA			_		
Shift Basis: 1 per	r day		_		
Data Source: (CRC	G)		_		
Cost Breakdown:					
Ownership Cost /II	<u>محم مع</u>		Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:	\$69.88 \$142.13		<u>NA</u> 100		
Ripper op. Cost/Hour:	\$142.13		0		
Operator Cost/Hour:	\$37.41		NA		
			11/3		
Total unit Cost/Hour:	\$249.42				
Total Fleet Cost/Hour:	\$249.42				
MATERIAL QUANTI	<u>TIES</u>				
Initial Volume: 350					
Swell factor: 1.125					
Loose volume: 394 L	CY				
Source of estimated volum	ne: Division of l	Reclamati	on, Mining & Safety		
Source of estimated swell	Cat Handboo		,		
factor:	_				
HOURLY PRODUCT	ION				
Average push distance:	150 feet				
Unadjusted hourly	910.5 LCY/hr				
production:					
•					
Materials consistency desc	cription: Consolida	ted stockp	pile 1.0		
Average push gradient:	5 %				
Average site altitude:	7,500 feet	-			
	,,	-			
Material weight:	2,550 lbs/LCY				
Material weight: Weight description: Job Condition Correction I	Earth - Dry packed		Source		
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:	0.903	(CAT HB)			
Altitude:	1.000	(CAT HB)			
Material Weight:	0.902	(CAT HB)			
Blade type:	1.000	(PAT)			
21					
Net correction:	0.4056				

Adjusted unit production:	369.30 LCY/hr
Adjusted fleet production:	369.3 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.675/LCY

Total job time:	1.07 Hours	
Total job cost:	\$265.93	
		_

REVEGETATION WORK

Т	ask descrip	otion:	Reseed GVB-B	13F Drill Pac	ł		
Site:	Bowie No	o. 2 Mine	Pe	rmit Action:	Permit Renewal 3	Permit/Job#:	C1996083
P	ROJECI	<u>IDENTIFI</u>	CATION				
	Task #: Date:	289	State: County:	Colorado Delta		Abbreviation: Filename:	None C083-289
	Date.	1:22:01 PM		Delta		i nename.	0003-207
	User:	SLB				-	

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

Page 291 of 312

	Totals Seed Mix	21.00	236.80	\$384.35
Application				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20

Total Seed Application Cost/Acre \$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application	n Cost/Acre \$152.57

NURSERY STOCK PLANTING

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

No. of Acres:	0.92	Cost /Acre:	\$1,155.12
Estimated Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$1,062.71
Reseeding Job Cost:	\$217.37
Total Job Cost:	\$1,280.08
Job Hours:	2.00

REVEGETATION WORK

Bowie No	o. 2 Mine	Perm	nit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT	FIDENTIFI	CATION				
Task #:	290	State:	Colorado		Abbreviation:	None
Date:	1/17/2013 1:23:00 PM	County:	Delta		Filename:	C083-290
					=	

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

Page 293 of 312

	Totals Seed Mix	21.00	236.80	\$384.35
pplication				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20
				+

Total Seed Application Cost/Acre \$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
Tota	Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres:	0.29	Cost /Acre:	\$1,155.12
Estimated Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$334.98
Reseeding Job Cost:	\$68.52
Total Job Cost:	\$403.50
Job Hours:	2.00

Reclamation Cost Estimate RN-3 Page 294 of 312

BOREHOLE SEALING WORK

Task description:	Plug and Seal GVB-B13F		
Site: Bowie No. 2 Mine	Permit Action:	Permit Renewal 3 Pe	ermit/Job#: <u>C1996083</u>
PROJECT IDENTIFIC Task #: 299 Date: 1/17/2013 1:23:59 PM SLB	CATION State: <u>Colorado</u> County: Delta	Abbreviation: Filename:	None C083-299

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	9.375"	1,635'	1.00	EA	\$96.54	\$96.54
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	9.375"	1400	336.00	bag	\$11.50	\$3,864.00
- Cut Casing at Surface	Exposed casing removal - 8 to 14 in. diameter steel pipe (LF)	9.375"	NA	3.00	LF	\$8.81	\$26.43
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$2.81	\$2.81
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	12.00	EA	\$174.62	\$2,095.44
- Water Truck Time	Water Tanker, 2,500 Gal.	NA	NA	12.00	EA	\$63.70	\$764.40

Job Hours: 48.00

Total Cost: \$6,849.62

Reclamation Cost Estimate RN-3 Page 295 of 312

BOREHOLE SEALING WORK

	Task description:	Plug and Sea	al 4 Utility Hol	es at Fan Bench		
Site:	Bowie No. 2 Mine]	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
	PROJECT IDEN	TIFICATION				
	Task #: 300	State:	Colorado	Abbrev		
	Date: 1/17/201	B County:	Delta	File	name: C083-300)

Agency or organization name: DRMS

UNIT COSTS

1:24:38 PM User: SLB

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	2080	4.00	EA	\$96.54	\$386.16
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	10	2080	567.00	bag	\$11.50	\$6,520.50
- Cut Casing at Surface	Exposed casing removal - 8 to 14 in. diameter steel pipe (LF)	10	NA	12.00	LF	\$8.81	\$105.72
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	4.00	EA	\$2.81	\$11.24
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	32.00	EA	\$174.62	\$5,587.84
- Water Truck Time	Water Tanker, 2,500 Gal.	NA	NA	32.00	EA	\$63.70	\$2,038.40

Job Hours: 48.00

Total Cost: \$14,649.86

REVEGETATION WORK

Bowie N	o. 2 Mine	Peri	mit Action:	Permit Renewal 3	Permit/Job#:	C1996083
	<u>r identifi</u>	CATION				
Task #:	301	State:	Colorado		Abbreviation:	None
Date:	1/17/2013 1:25:25 PM	County:	Delta		Filename:	C083-301
					-	

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57

	Totals Seed Mix	21.00	236.80	\$384.35
Application				
Description				Cost /Acre
Drill seeding {DMG}				\$88.20

Total Seed Application Cost/Acre \$8

\$88.20

MULCHING and MISCELLANEOUS

<u>Mater</u>ials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Ap	plication Cost/Acre \$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 2	Nursery Stoc	ek Cost / Acre	\$0.00

No. of Acres:	0.39	Cost /Acre:	\$1,155.12
Estimated Failure Rate:		Cost /Acre*:	\$472.55
ng Work Items:	SEEDING		
\$450.50			
\$92.15			
\$542.64			
1.00			
	ed Failure Rate: ng Work Items: \$450.50 \$92.15 \$542.64	ng Work Items: SEEDING \$450.50 \$92.15 \$542.64	ed Failure Rate: 50% Cost /Acre*: ng Work Items: SEEDING \$450.50 \$92.15 \$542.64

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICA	ATION			
Task #: 302	State: Colorado		Abbreviation:	None
Date: 1/17/2013	County: Delta		Filename:	C083-302
1:26:34 PM			-	
User: <u>SLB</u>				
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMEN	Г COST			
	T - 9SU			
Horsepower: 405	1 7.50	_		
	Jniversal	_		
Attachment: NA				
Shift Basis: 1 per d	ay	_		
Data Source: (CRG)		_		
Cost Breakdown:				
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$69.88	NA		
Operating Cost/Hour:	\$142.13	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
Fotal unit Cost/Hour: \$	249.42			
Total Fleet Cost/Hour: \$	249.42			
MATERIAL QUANTIT	<u>IES</u>			
Initial Volume: 782				
Swell factor: 1.165				
Loose volume: 911 LC	Y			
Source of estimated volume:	Division of Reclamati	on Mining & Safety		
Source of estimated swell	Cat Handbook	on, mining & Salety		
actor:	Cut Hundbook			
HOURLY PRODUCTIO	<u>DN</u>			
Average push distance: Jnadjusted hourly	200 feet 700.0 LCY/hr			
production:	700.0 LC 1/III			
nouuction.				
Materials consistency descrip	otion: Compacted fill or en	mbankment 0.9		
Avenue much and interest	0/			
	% ,500 feet			
Average site altitude: 7	,500 leet			
Material weight: 2	,900 lbs/LCY			
	Decomposed rock - 50% Rock	50% Farth		
	*			
ob Condition Correction Fa	ctor	Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production:	224.63 LCY/hr
Adjusted fleet production:	224.63 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$1.110/LCY

 Total job time:
 4.06 Hours

 Total job cost:
 \$1,011.57

Page 300 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFIC	CATION			
Task #: 331	State: Colorado		Abbreviation:	None
Date: 3/19/2013	County: Delta		Filename:	C083-331
User: SLB				
Agency or organiz	zation name: DRMS			
HOURLY EQUIPMEN	<u>TT COST</u>			
Basic Machine: Cat D	99T - 9SU			
Horsepower: 405				
	-Universal			
Attachment: NA				
Shift Basis: 1 per	day			
Data Source: (CRG				
Cost Breakdown:				
205t DIVARUOWII.		Utilization %		
Ownership Cost/Hour:	\$69.88	NA		
Operating Cost/Hour:	\$142.13	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
operator cost nour.	ψ57.41	NA		
Fotal Fleet Cost/Hour:	\$249.42 \$249.42 <u>TIES</u>			
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook	on, Mining & Safety		
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook 	on, Mining & Safety		
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook	on, Mining & Safety		
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook 	 on, Mining & Safety		
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook TON 100 feet 1,243.2 LCY/hr			
Total Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook TON 100 feet 1,243.2 LCY/hr			
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook			
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook			
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook CON 100 feet 1,243.2 LCY/hr ciption:Consolidated stockp 20 % 7,725 feet			
Fotal Fleet Cost/Hour:	\$249.42 TIES LCY e: Division of Reclamati Cat Handbook CON			

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:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2152

Adjusted unit production:	267.54 LCY/hr
Adjusted fleet production:	267.54 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.932/LCY

 Total job time:
 10.54 Hours

 Total job cost:
 \$2,628.36

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#:	C1996083
PROJECT IDENTIFICATI Task #: 335 Date: 3/19/2013 User: SLB Agency or organization	State: Colorado County: Delta		Abbreviation: Filename:	None C083-335
HOURLY EQUIPMENT C				
Basic Machine:Cat D9T -Horsepower:405Blade Type:Semi-UnivAttachment:NAShift Basis:1 per dayData Source:(CRG)Cost Breakdown:	9SU			
Ownership Cost/Hour: Operating Cost/Hour: Ripper op. Cost/Hour: Operator Cost/Hour:	\$69.88 \$142.13 \$0.00 \$37.41	Utilization % NA 100 0 NA		
Fotal unit Cost/Hour:\$249Total Fleet Cost/Hour:\$249MATERIAL QUANTITIESInitial Volume:1,613Swell factor:1.125Loose volume:1,815	.42			
Source of estimated volume: Source of estimated swell factor:	Division of Reclamati Cat Handbook	on, Mining & Safety		
HOURLY PRODUCTION				
Average push distance: Unadjusted hourly production:	100 feet 1,243.2 LCY/hr			
Materials consistency description	n: Consolidated stock	pile 1.0		
Average push gradient:20 %Average site altitude:7,725				
Material weight: 2,550) lbs/LCY			
Weight description:Earth	- Dry packed			
Job Condition Correction Factor	-	Source		

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:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.2448	

Adjusted unit production:	304.34 LCY/hr
Adjusted fleet production:	304.34 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.820/LCY

Total job time:	5.96 Hours	
Total job cost:	\$1,487.17	

REVEGETATION WORK

Task description:	Reseed Bleeder Vent	Doi choics D				
Bowie No. 2 Mine	Permit A	Action: Peri	nit Renewal 3		Permit/Job#	t: <u>C1996083</u>
PROJECT IDENTIF	<u>ICATION</u>					
Task #: 337		lorado			Abbreviation:	None
Date: 3/19/2013	County: De	lta			Filename:	C083-337
User: SLB						
Agency or orga	nization name: DRMS					
FERTILIZING						
Materials						
		Units /		a		
Description		Acre	Unit	Cos	st / Unit	Cost /Acre
				\$		\$
				Tot	tal Fertilizer	
					Materials Cost/Acre	\$0.00
					COSUACIE	φ υ. υυ
Application						T
Description						Cost /Acre
Description						
T T						Cost/Acre
						\$
x						
		Tota	l Fertilizer App	olicatio	on Cost/Acre	
		Tota	l Fertilizer App	licatio	on Cost/Acre	\$
<u>FILLING</u>		Tota	l Fertilizer App	licatio	on Cost/Acre	\$ \$0.00 Cost /Acre
<u>FILLING</u>		Tota	l Fertilizer App	licatio	on Cost/Acre	\$ \$0.00
<u>FILLING</u>		Tota			on Cost/Acre	\$ \$0.00 Cost /Acre \$
<u>FILLING</u>		Tota				\$ \$0.00 Cost /Acre
<u>FILLING</u> Description SEEDING		Tota	Tota	l Tillin ıte –	ng Cost/Acre	\$ \$0.00 Cost /Acre \$ \$ \$0.00
<u>FILLING</u> Description		Tota	Tota	l Tillin ite – "S	ng Cost/Acre Seeds	\$ \$0.00 Cost /Acre \$
<u>TILLING</u> Description <u>SEEDING</u>		Tota	Tota Ra PL LB	l Tillin ite – "S 3S /	ng Cost/Acre Seeds per SQ.	\$ \$0.00 Cost /Acre \$ \$ \$0.00
<u>FILLING</u> Description <u>SEEDING</u> Seed Mix		Tota	Tota Tota PL LB Ac	l Tillin Ite – .S SS / rre	ng Cost/Acre Seeds per SQ. FT	\$ \$0.00 Cost /Acre \$ \$0.00 Cost /Acre
<u>FILLING</u> Description SEEDING Seed Mix Indian Ricegrass - Nes		Tota	Total Total Ra PL LB Ac 3.0	l Tillin .te – .S .S SS / .re .00	ng Cost/Acre Seeds per SQ. FT 9.71	\$ \$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24
<u>FILLING</u> Description SEEDING Seed Mix Indian Ricegrass - Nesp Bluebunch Wheatgrass	- Secar	Tota	Total Total Ra PL LB Ac 3.0 3.0	I Tillin Ite – .S SS / re 00 00	ng Cost/Acre Seeds per SQ. FT 9.71 9.64	\$ \$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52
FILLING Description SEEDING Seed Mix Indian Ricegrass - Nesg Bluebunch Wheatgrasss Mountain Brome - Bro	- Secar mar		Total Total Ra PL LB Ac 3.0 3.0 3.0 3.0	1 Tillin 1 Tillin .s .s .s .s .s	ng Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82	\$ \$ \$0.00 Cost /Acre \$ \$ \$0.00 Cost /Acre \$ \$21.24 \$20.52 \$10.20
FILLING Description SEEDING Seed Mix Indian Ricegrass - Nesg Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - Vesg	- Secar mar /NS	Tota	Total Total Ra PL LB Ac 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	1 Tillin 1 Tillin .S 3S / .re .00 .00 .00 .00	Seeds per SQ. FT 9.71 9.64 4.82 63.71	\$ \$ \$0.00 Cost /Acre \$ \$ \$0.00 Cost /Acre \$ 21.24 \$20.52 \$10.20 \$26.04
FILLING Description SEEDING Seed Mix Indian Ricegrass - Nesp Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - V Coreopsis, Lance Leafed	- Secar mar /NS ed		Total Total Ra PL LB Ac 3.0 3.0 3.0 3.0 3.0 1.0	1 Tillin 1 Tillin	Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58	\$ \$0.00 \$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65
FILLING Description SEEDING Seed Mix Indian Ricegrass - Ness Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - V Coreopsis, Lance Leafe Western Wheatgrass - Nest	- Secar mar /NS ed		Total Total Ra PL LB Ac 3.0 3.0 3.0 3.0 3.0 1.0 4.0	I Tillin ite – .S SS / re 00 00 00 00 00 00 00 00	Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58 10.10	\$ \$0.00 \$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65 \$14.72
FILLING Description SEEDING Seed Mix Indian Ricegrass - Ness Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - V Coreopsis, Lance Leafe Western Wheatgrass - J Daisy, Englemann's	- Secar mar /NS ed		Total Total Ra PL LB Ac 3.0 3.0 3.0 3.0 3.0 1.0 4.0 1.0	I Tillin ite – .S S / re 00 00 00 00 00 00 00 00 00 0	ag Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58 10.10 4.94	\$ \$ \$0.00 Cost /Acre \$ \$ \$0.00 Cost /Acre \$ 21.24 \$20.52 \$10.20 \$26.04 \$30.65 \$14.72 \$104.61
FILLING Description SEEDING Seed Mix Indian Ricegrass - Ness Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - V Coreopsis, Lance Leafe Western Wheatgrass - Nest	- Secar mar /NS ed	Tota	Total Total Ra PL LB Ac 3.0 3.0 3.0 3.0 3.0 1.0 4.0	I Tillin ite – .S is / ire 00 00 00 00 00 00 00 00 00 0	Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58 10.10	\$ \$0.00 \$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65 \$14.72

Totals Seed Mix21.00	236.80	\$384.35
----------------------	--------	----------

Application Cost /Acre Description \$88.20 Drill seeding (DRMS Cost Data) \$88.20 Total Seed Application Cost/Acre

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Total	s Nursery Stoc	ek Cost / Acre	\$0.00

JOB TIME AND COST

No. of Ac	res: 1	Cost /Acre:	\$1,155.12
Estimated Failure R	ate: 50%	Cost /Acre*:	\$472.55
*Selected Replanting Work Ite	ms: SEEDING		
Initial Job Cost: \$1,155.12			
Reseeding Job Cost: \$236.28			

 Seeding Job Cost:
 \$236.28

 Total Job Cost:
 \$1,391.40

 Job Hours:
 0.20

Filename: C083-338

BOREHOLE SEALING WORK

	Task description:	Plug and Seal GVB B13C-1					
Site:	Bowie No. 2 Mine	Permit Action:	Permit Renewal 3 Pe	ermit/Job#: <u>C1996083</u>			
	PROJECT IDENTIFI	CATION					
	Task #: 338	State: Colorado	Abbreviation:	None			

User: <u>SLB</u> Agency or organization name: DRMS

County:

Delta

UNIT COSTS

4/2/2013

Date:

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	1100	1.00	EA	\$96.54	\$96.54
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	10	1100	264.00	bag	\$11.50	\$3,036.00
- Cut Casing at Surface	Exposed casing removal - 8 to 14 in. diameter steel pipe (LF)	10	NA	3.00	LF	\$8.81	\$26.43
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$2.81	\$2.81
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	10.00	EA	\$174.62	\$1,746.20
- Water Truck Time	Water Tanker, 2,500 Gal.	NA	NA	10.00	EA	\$63.70	\$637.00

Job Hours:

48.00

Total Cost: \$5,544.98

REVEGETATION WORK

Fask description:	Reseed road and pa	ad for GV	D DIJ	C-1			
Bowie No. 2 Mine	Permi	t Action:	Permi	t Renewal 3		Permit/Job#	: <u>C1996083</u>
PROJECT IDENTI	FICATION						
Task #: 339	State: (Colorado				Abbreviation:	None
Date: 4/2/2013	County: I	Delta			-	Filename:	C083-339
User: SLB					-		
A gancy or org	anization name: DRM	2					
Agency of orga		10					
FERTILIZING							
laterials							
Description		Unit Acre		Unit	Cos	t / Unit	Cost /Acre
					\$		\$
					Tot	al Fertilizer Materials Cost/Acre	\$0.00
Application							
							Cost /A serve
Description							Cost /Acre
							\$
							\$
		,	Total I	Fertilizer Apj	olicatio	n Cost/Acre	\$ \$0.00
TILLING		,	Total I	Fertilizer Apj	plicatio	n Cost/Acre	
<u>FILLING</u> Description			Total I	Fertilizer Apj	olicatio	n Cost/Acre	
		, ,	Total I	Fertilizer App	plicatio	n Cost/Acre	\$0.00
<u>FILLING</u> Description		, ,	Total I				\$0.00 Cost /Acre \$
		, ,	Total I			n Cost/Acre g Cost/Acre	\$0.00 Cost /Acre
Description		, ,	Total I				\$0.00 Cost /Acre \$
Description SEEDING		,	Total I	Tota		g Cost/Acre	\$0.00 Cost /Acre \$ \$0.00
Description		, 	Total I	Tota Ra PI	l Tillin ate – _S	g Cost/Acre Seeds	\$0.00 Cost /Acre \$
Description EEDING		· · · · · · · · · · · · · · · · · · ·	Total J	Tota Ra PI LI	l Tillin ate – "S 3S /	g Cost/Acre Seeds per SQ.	\$0.00 Cost /Acre \$ \$0.00
Description SEEDING Seed Mix		· · · · · · · · · · · · · · · · · · ·	Total J	Tota Ra PI LI Ad	l Tillin nte – .S 3S / xre	g Cost/Acre Seeds per SQ. FT	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre
Description EEDING Seed Mix Indian Ricegrass - Nes		, ,	Total I	Tota Ra PI LI Ad 3.0	l Tillin ate – _S 3S / 	g Cost/Acre Seeds per SQ. FT 9.71	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24
Description EEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass	s - Secar	· · · · · · · · · · · · · · · · · · ·	Total I	Tota Tota PI L1 Ac 3.0 3.0	1 Tillin ate – _S 3S / ere 00 00	g Cost/Acre Seeds per SQ. FT 9.71 9.64	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52
Description EEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass Mountain Brome - Bro	s - Secar	· · · · · · · · · · · · · · · · · · ·	Total I	Tota Ra PI L1 Ac 3.0 3.0 3.0	1 Tillin ate – 	g Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20
Description EEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - Y	s - Secar omar VNS	· · · · · · · · · · · · · · · · · · ·	Total J	Tota Ra PI LI Ac 3.0 3.0 3.0 3.0 3.0 3.0	1 Tillin ate – .S 3S / :re 00 00 00 00 00	g Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82 63.71	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04
Description EEEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - `` Coreopsis, Lance Leaf	s - Secar omar VNS fed	· · · · · · · · · · · · · · · · · · ·	Total J	Tota Ra PI LI Ad 3.0 3.0 3.0 3.0 1.0	I Tillin Ate – .S 3S / cre 00 00 00 00 00 00 00 00 00 0	g Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65
Description EEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - `` Coreopsis, Lance Leaf Western Wheatgrass - ``	s - Secar omar VNS fed	· · · · · · · · · · · · · · · · · · ·	Total J	Tota Ra PI LI Ac 3.0 3.0 3.0 3.0 4.0	l Tillin ate – .S 3S / cre 00 00 00 00 00 00 00 00 00 0	g Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58 10.10	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65 \$14.72
Description SEEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - ` Coreopsis, Lance Leaf Western Wheatgrass - Daisy, Englemann's	s - Secar omar VNS fed	, 	Total J	Tota Tota Ra PI LI Ac 3.0 3.	l Tillin ite – .S 3S / ere 00 00 00 00 00 00 00 00 00 0	g Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58 10.10 4.94	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65 \$14.72 \$104.61
Description SEEDING Seed Mix Indian Ricegrass - Nes Bluebunch Wheatgrass Mountain Brome - Bro Sandberg Bluegrass - `` Coreopsis, Lance Leaf Western Wheatgrass -	s - Secar omar VNS fed		Total I	Tota Ra PI LI Ac 3.0 3.0 3.0 3.0 4.0	1 Tillin ate – .S 3S / cre 00 00 00 00 00 00 00 00 00 0	g Cost/Acre Seeds per SQ. FT 9.71 9.64 4.82 63.71 25.58 10.10	\$0.00 Cost /Acre \$ \$0.00 Cost /Acre \$21.24 \$20.52 \$10.20 \$26.04 \$30.65 \$14.72

Totals Seed Mix	21.00	236.80	\$384.35
-----------------	-------	--------	----------

Application

Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20
Total Seed Application Cost/Acre	\$88.20

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Power mulcher (MEANS 32 91 13.16 0250)		\$86.68
	Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

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

No. of Acres:	1.27	Cost /Acre:	\$1,155.12
Estimated Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost: \$1,467.00			

Initial Job Cost:	\$1,467.00
Reseeding Job Cost:	\$300.07
Total Job Cost:	\$1,767.07
Job Hours:	2.00

Page 309 of 312

PROJECT IDENTIFICATION Task #: 340 State: Colorado Date: 4/2/2013 County: Delta User: SLB County: Delta Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG)		<u>None</u> C083-340
Date: 4/2/2013 County: Delta User: SLB Agency or organization name: DRMS HOURLY EQUIPMENT COST DRMS Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG)		
User: SLB Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	Filename:	C083-340
Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG)		
HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG)		
Basic Machine:Cat D9T - 9SUHorsepower:405Blade Type:Semi-UniversalAttachment:NAShift Basis:1 per dayData Source:(CRG)		
Horsepower:405Blade Type:Semi-UniversalAttachment:NAShift Basis:1 per dayData Source:(CRG)Cost Breakdown:		
Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:		
Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG)		
Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: 1		
Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:		
Data Source: (CRG) Cost Breakdown:		
Utilization %		
Ownership Cost/Hour: \$69.88 NA	<u>,</u>	
Ownership Cost/Hour: \$09.88 NA Operating Cost/Hour: \$142.13 100		
Ripper op. Cost/Hour: \$0.00 0		
Operator Cost/Hour: \$37.41 NA		
Initial Volume: 3,074 Swell factor: 1.165 Loose volume: 3,581 LCY Source of estimated volume: DRMS - assume 1.5' material over 1.27 act Cat Handbook	pres	
factor:		
HOURLY PRODUCTION		
Average push distance: 100 feet		
Unadjusted hourly 1,243.2 LCY/hr production:		
Materials consistency description: Consolidated stockpile 1.0		
A		
Average plish gradient: 20%		
Average push gradient: 20 % Average site altitude: 7.725 feet		
Average push gradient: 20 % Average site altitude: 7,725 feet		
Average site altitude: 7,725 feet		

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:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2152

Adjusted unit production:	267.54 LCY/hr
Adjusted fleet production:	267.54 LCY/hr

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.932/LCY	_
otal ich time:	13 30 Hours	

Total job time:	13.39 Hours
Total job cost:	\$3,338.67

Page 311 of 312

Bowie No. 2 Mine	Permit Action:	Permit Renewal 3	Permit/Job#	C1996083
Task #: 341 Date: 4/2/2013 User: SLB	ION State: <u>Colorado</u> County: <u>Delta</u>		Abbreviation: Filename:	None C083-341
Agency or organization	name: DRMS			
HOURLY EQUIPMENT C	<u>OST</u>			
Basic Machine:Cat D9T -Horsepower:405Blade Type:Semi-UnivAttachment:NAShift Basis:1 per dayData Source:(CRG)				
Cost Breakdown:		Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:	\$69.88 \$142.13	<u>NA</u> 100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$37.41	NA		
Total Fleet Cost/Hour: \$249	.42			
	.42	 27 ac		
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume:	 	 27 ac		
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION	42 2 DRMS - 0.75' over 1. Cat Handbook	 27 ac		
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume: Source of estimated swell factor: 1	 	27 ac		
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION Average push distance: Unadjusted hourly	42 2 2 DRMS - 0.75' over 1. Cat Handbook 100 feet 1,243.2 LCY/hr			
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION Average push distance: Unadjusted hourly production: 1	.42 			
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION Average push distance: Unadjusted hourly production: Materials consistency description Average push gradient: 20 % Average site altitude: 7,725	.42 			
Total Fleet Cost/Hour: \$249 MATERIAL QUANTITIES Initial Volume: 1,537 Swell factor: 1.125 Loose volume: 1,729 LCY Source of estimated volume: Source of estimated swell factor: HOURLY PRODUCTION Average push distance: Unadjusted hourly production: Materials consistency description Average push gradient: 20 % Average site altitude: 7,725 Material weight: 2,550	.42 2 <u>DRMS - 0.75' over 1.</u> Cat Handbook <u>100 feet</u> 1,243.2 LCY/hr n: <u>Consolidated stockp</u> 5 feet			

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:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2448

Adjusted unit production:	304.34 LCY/hr
Adjusted fleet production:	304.34 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.820/LCY

Total job time:	5.68 Hours	
Total job cost:	\$1,417.10	