



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

October 30, 2017

Mr. Kirk Daehling
Natural Soda LLC
3200 CR 31
Rifle, CO 81650

**Re: Nahcolite Project, Permit No. M-1983-194, Updated Reclamation Cost Estimate,
Revision No. AM-4**

Dear Mr. Daehling:

On September 6, 2017 the Division of Reclamation, Mining and Safety (DRMS) approved the Amendment application submitted to the Division on May 23, 2017, addressing the following:

- *Amendment to increase the permit acreage to 12,248 acres to be consistent with the EPA UIC permit area. Also to allow for construction of a new loadout area which includes a new elevator, conveyance system, a new electrical room and a baghouse. Amendment also incorporates a total of seven new wells. Total allowed maximum disturbance remains at 260 acres.*

It was brought to DRMS staff's attention that the reclamation cost estimate provided with the approval letter included the cost to plug and abandon wells that have already been plugged and abandoned. Please see the enclosed updated reclamation cost estimate with the total bond amount of \$3,950,444.75. This amount is less than the currently held bond amount of \$4,158,340.68 by a total of \$207,895.93. If you wish to reduce the bond amount to the amount that is required you must file a surety reduction request to do so. The revision is final and the currently held bond is considered adequate.

If you need additional information, please contact me at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, telephone no. 970.241.2042.

Sincerely,

Travis Marshall
Environmental Protection Specialist

Enclosure - Updated Reclamation Cost Estimate



Mr. Kirk Daehling
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September 26, 2017

cc: Paul Daggett
BLM - White River Field Office
220 East Market Street
Meeker, CO 81641

Gerald Daub
Daub & Associates, Inc.
1985 ½ South Broadway
Grand Junction, CO 81507

COST SUMMARY WORK

Task description: _____

Site: Nahcolite Project

Permit Action: AM-4

Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 9/7/2017

County: Rio Blanco

Filename: M194-001

User: THM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo. of NSI Plant, Pipelines and Powerlines and Parking Lot	DEMOLISH	1	160.00	\$1,738,278.58
02a	Borehole P&A	BOREHOLE	1	342.00	\$991,022.95
03a	Re-grade Process Ponds	DOZER	2	141.43	\$54,261.00
04a	Re-grade Plant Area	DOZER	2	83.95	\$32,206.00
05a	Re-grade Well Pads	DOZER	2	117.84	\$45,210.00
06a	Distribute 6" of topsoil over 8 acre process pond area	DOZER	2	5.92	\$2,271.00
07a	Distribute 6" topsoil over 16 acre plant/process area	DOZER	2	11.84	\$4,541.00
08a	Replace topsoil over re-graded well pads and access roads	DOZER	2	28.50	\$10,933.00
09a	Rip compacted areas	RIPPER	2	20.87	\$8,623.00
10a	Distribute 6" topsoil over 27.7 acres of decompact area	DOZER	2	15.22	\$5,838.00
11a	Revegetate 87.76 acres	REVEGE	1	87.76	\$186,285.00
12a	Mobilization	MOBILIZE	1	8.00	\$6,307.00
<u>SUBTOTALS:</u>				1023.33	\$3,085,777

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 570.66
Profit: 10.00

Total = \$62,332.70

Total = \$32,400.66

Total = \$41,686.71

Total = \$308,577.70

TOTAL O & P = \$444,997.77

CONTRACT AMOUNT (direct + O & P) = \$3,530,774.77

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00

Total = 500.00

Engineering work and/or contract/bid preparation: 4.25

Total = \$150,057.93

Reclamation management and/or administration: 5.00

\$176,538.74

CONTINGENCY: 3.00

Total = \$92,573.31

TOTAL INDIRECT COST = \$864,667.75

TOTAL BOND AMOUNT (direct + indirect) = \$3,950,444.75

BOREHOLE SEALING WORK

Task description: Borehole P&A

Site: Nahcolite Project

Permit Action: AM-4

Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 9/6/2017

County: Rio Blanco

Filename: 02a

User: THM

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
3M-TDR	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1876	1,876.00	LF	\$7.69	\$14,426.44
89-1	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1627	1,627.00	LF	\$7.69	\$12,511.63
89-2	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1417	1,417.00	LF	\$7.69	\$10,896.73
89-3	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	347	347.00	LF	\$7.69	\$2,668.43
90-1	Portland cement grout - 10 in. (labor, equip, materials)	9.625"	1417	1,417.00	LF	\$16.68	\$23,640.09
90-3	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1627	1,627.00	LF	\$7.69	\$12,511.63
90-4	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1417	1,417.00	LF	\$7.69	\$10,896.73
BG-1	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1627	1,627.00	LF	\$7.69	\$12,511.63
BG-4	Portland cement grout - 4 in. (labor, equip, materials)	4.5	1627	1,627.00	LF	\$7.69	\$12,511.63
DS-2	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1876	1,876.00	LF	\$7.69	\$14,426.44
DS-3	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1876	1,876.00	LF	\$7.69	\$14,426.44
EX-2	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1876	1,876.00	LF	\$7.69	\$14,426.44
IRI-1	Portland cement grout - 4 in. (labor, equip, materials)	4"	347	347.00	LF	\$7.69	\$2,668.43
IRI-4	Portland cement grout - 4 in. (labor, equip, materials)	4"	1417	1,417.00	LF	\$7.69	\$10,896.73

IRI-5	Portland cement grout - 4 in. (labor, equip, materials)	4.625"	347	347.00	LF	\$7.69	\$2,668.43
IRI-6	Portland cement grout - 4 in. (labor, equip, materials)	4"	1627	1,627.00	LF	\$7.69	\$12,511.63
IRI-7	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1876	1,876.00	LF	\$7.69	\$14,426.44
IRI-8	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	347	347.00	LF	\$7.69	\$2,668.43
12H-I	Portland cement grout - 8 in. (labor, equip, materials)	7.625"	1935	1,935.00	LF	\$11.21	\$21,691.35
12H-R	Portland cement grout - 8 in. (labor, equip, materials)	7.625"	1935	1,935.00	LF	\$11.21	\$21,691.35
10H-I	Portland cement grout - 8 in. (labor, equip, materials)	7.625"	1935	1,935.00	LF	\$11.21	\$21,691.35
10H-R	Portland cement grout - 8 in. (labor, equip, materials)	7.625"	1935	1,935.00	LF	\$11.21	\$21,691.35
BG-5	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1645	1,645.00	LF	\$7.69	\$12,650.05
DS-5	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1902	1,902.00	LF	\$7.69	\$14,626.38
BG-6	Portland cement grout - 4 in. (labor, equip, materials)	4.5"	1639	1,639.00	LF	\$7.69	\$12,603.91
WSW-2	Portland cement grout - 8 in. (labor, equip, materials)	7.625"	1460	1,460.00	LF	\$11.21	\$16,366.60
DVPW-1(A)	Portland cement grout - 8 in. (labor, equip, materials)	7"	2350	2,350.00	LF	\$11.21	\$26,343.50
DVPW-(B)	Portland cement grout - 8 in. (labor, equip, materials)	7"	2350	2,350.00	LF	\$11.21	\$26,343.50
10H-1V	Portland cement grout - 8 in. (labor, equip, materials)	7"	2010	2,010.00	LF	\$11.21	\$22,532.10
13H-I	Portland cement grout - 8 in. (labor, equip, materials)	8"	2335	2,335.00	LF	\$11.21	\$26,175.35
13H-R	Portland cement grout - 8 in. (labor, equip, materials)	8"	2310	2,310.00	LF	\$11.21	\$25,895.10
8H-I	Portland cement grout - 8 in. (labor, equip, materials)	7"	2110	2,110.00	LF	\$11.21	\$23,653.10
8H-R	Portland cement grout - 8 in. (labor, equip, materials)	7"	2110	2,110.00	LF	\$11.21	\$23,653.10
14H-I	Portland cement grout - 8 in. (labor, equip, materials)	7"	2110	2,110.00	LF	\$11.21	\$23,653.10

	in. (labor, equip, materials)						
14H-R	Portland cement grout - 8 in. (labor, equip, materials)	7"	2110	2,110.00	LF	\$11.21	\$23,653.10
WSW-3	Portland cement grout - 8 in. (labor, equip, materials)	7"	1420	1,431.00	LF	\$11.21	\$16,041.51
WSW-4	Portland cement grout - 8 in. (labor, equip, materials)	7"	1431	1,431.00	LF	\$11.21	\$16,041.51
I (Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4"	1882	1,882.00	LF	\$7.69	\$14,472.58
J (Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4"	1487	1,487.00	LF	\$7.69	\$11,435.03
K (Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4"	1593	1,593.00	LF	\$7.69	\$12,250.17
M (Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4"	1917	1,917.00	LF	\$7.69	\$14,741.73
DS-7 (Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4"	1897	1,897.00	LF	\$7.69	\$14,587.93
O (Phase 2)	Portland cement grout - 8 in. (labor, equip, materials)	7.0"	1294	1,294.00	LF	\$11.21	\$14,505.74
DS-6 (Phase 3)	Portland cement grout - 4 in. (labor, equip, materials)	4"	1882	1,882.00	LF	\$7.69	\$14,472.58
15H-I	Portland cement grout - 8 in. (labor, equip, materials)	7"	1960	1,960.00	LF	\$11.21	\$21,971.60
15H-R	Portland cement grout - 8 in. (labor, equip, materials)	7"	1960	1,960.00	LF	\$11.21	\$21,971.60
16H-I	Portland cement grout - 8 in. (labor, equip, materials)	7"	1960	1,960.00	LF	\$11.21	\$21,971.60
16H-R	Portland cement grout - 8 in. (labor, equip, materials)	7"	1960	1,960.00	LF	\$11.21	\$21,971.60
17H-I	Portland cement grout - 8 in. (labor, equip, materials)	7"	1960	1,960.00	LF	\$11.21	\$21,971.60
17R-1	Portland cement grout - 8 in. (labor, equip, materials)	7"	1960	1,960.00	LF	\$11.21	\$21,971.60
401H-I SHL	Portland cement grout - 8 in. (labor, equip, materials)	6.366"	2094	2,094.00	LF	\$11.21	\$23,473.74
401H-R SHL	Portland cement grout - 8 in. (labor, equip, materials)	8.835	2094	2,094.00	LF	\$11.21	\$23,473.74
402H-I SHL	Portland cement grout - 8 in. (labor, equip,	6.366	2097	2,097.00	LF	\$11.21	\$23,507.37

	materials)						
402H-R	Portland cement grout - 8 in. (labor, equip, materials)	8.835	2097	2,097.00	LF	\$11.21	\$23,507.37
403H-I SHL	Portland cement grout - 8 in. (labor, equip, materials)	6.366	2095	2,095.00	LF	\$11.21	\$23,484.95
403H-R SHL	Portland cement grout - 8 in. (labor, equip, materials)	8.835	2095	2,095.00	LF	\$11.21	\$23,484.95
12H-IR SHL	Portland cement grout - 8 in. (labor, equip, materials)	8.835	2061	2,061.00	LF	\$11.21	\$23,103.81

Job Hours: 342.00Total Cost: \$991,023.00