M/023/071

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Mine Plan, HiCal Mine #1, /023/071,Juab County, Utah

105.3 Cross-Section Complete NO SCALE ON X-SECTIONS

106.3 See Mine-Plan on all accounts ?

104.4 Sufficient

106.5 All soil will be salvaged and saved for redistribution and will be distributed as even as possible upon reclamation NRCS - USDA Soil Survey (92) Nephi Area, Utah

106.6 See 106.5 (all soil will be saved). It is impossible to estimate how much Topsoil is on the property because in places it is solid outcrop, in other places it Can be approximately two feet deep. All soil will be saved for redistribution. All topsoil in redistribution stockpiles will be reseeded until used for final Reclamation.

106.7 Ground Cover, Fifty percent of the property is covered, forty percent of that cover is Big Sagebrush (Artemisia tridentate nutt), nine percent is June grass, rice grass and quack grass, one percent is juniper, rubber rabbit brush, (small rabbit brush approximately one foot tall) and match brush. See photograph previously sent.
When final reclamation is complete ground cover will be thirty-five percent or more.

106.9 Sufficient

107.1 Warning signs will be placed on property

107.6 As the mine advances South reclamation if feasible and will be done.

109.4 Sufficient

110.2 One to One slope on all highwalls on final reclamation.

110.5 Site will be ripped with bulldozer parallel to the mine contours, except where the one to one slope exists, then it will be reclaimed with a tracthoe. Seed for reclamation will be broadcast in the fall as recommended by DOGM.

111.7 (110.5 above)

Submitted by Robert L. Steele

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R647-4-105 105.3 CROSS SECTION MAPS

R647-106 OPERATION PLAN

106.3 THE LIFE OF THIS PLAN COULD BE 30 YEARS AND AS MANY AS 50 ACRES. I HAVE ESTIMATED THAT ONLY 8 ACRES WILL BE DISTURBED AT ANY ONE TIME AND IT WILL MOST LIKELY BE ONLY 6 ACRES. AS THE ORE IS MINED AND THE PIT MOVES SOUTH EAST, THE DISTURBED LANDS WHERE THE ORE IS MINED WILL BE RECLAIMED AS HAS BEEN ON THE NORTH EAST END OF THE MINE.

106.4 THE OVERBURDEN IS NOT OVERBURDEN, IT IS SEAM OF CLAY WITHIN THE ORE DEPTH. WHICH IS REMOVED AS THE ORE IS MINED. IT WOULD BE CLOSED AS WASTED, BUT HAS BEEN CALLED IN AS OVERBURDEN. THIS MATERIAL WILL BE PLACED IN CONVENIENT SPOTS WITHIN THE MINE AND WILL BE REDISTURBED. WITHIN THE PIT WHEN ALL ORE IS MINED. THEN IT WILL BE COVERED WITH TOP SOIL AND RE-SEEDED.

106.5 ALL THE SOIL IS ALL DESIRABLE SOIL WITHIN THE MINE AREA, WHICH CAN BE USED TO GROW PLANTS OF ANY KIND NATIVE TO THE AREAS. (SEE RECLAIMED AREA)

106.6 AT ANY ONE TIME THERE WILL BE LESS THAN 8 ACRES OF DISTURBANCE AND THE TOP SOIL IS 0 TO 24" DEEP MOST OF THE TIME. THERE WILL BE LESS THAN 6 ACRES OF DISSTURBED LANDS.

106.7 NO RESPONSE NEEDED

106.8 DEPTH TO GROUND WATER IS FROM INFERMATION FROM AWELL 2 MILES TO THE NORTH WEST. THERE ARE NO WELLS WITHIN THE MINE AREA.

106.9 SEE CROSS SETION MAP (OVERBURDEN WASTE)

107.1 BERMS DOSED AROUND THE INTERIOR MINE SITE SIGNS WILL BE PLACED TO WARN THE PUBLIC.

107.6 CONCURRENT RECLAMATION

109-2 INPACT ASSESSMENT – (NO IMPACT)

109-3 INPACT ASSESSMENT – (NO IMPACT)

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TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--Continued

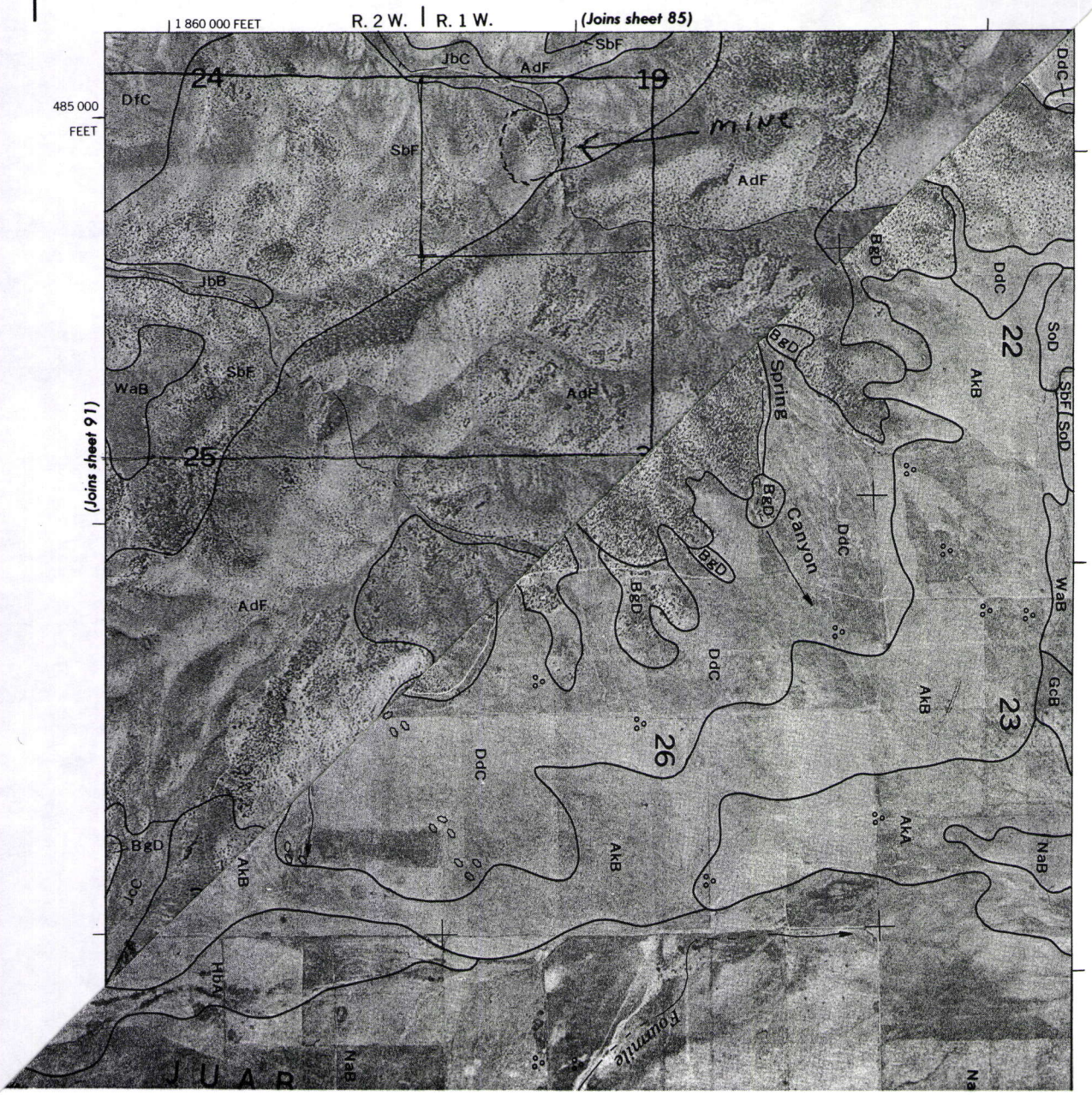
Soil name and map symbol	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	G/cm3	In/hr	In/in	pH	Mmhos/cm					Pct
RoF*:												
Wallsburg-------	0-10	18-27	1.20-1.40	0.6-2.0	0.05-0.10	6.1-7.8	<2	Low--------	0.15	1	8	1-4
	10-19	35-50	1.25-1.35	0.2-0.6	0.05-0.09	6.6-7.8	<2	Low--------	0.15			
	19	---	---	---	---	---	---	----------	----			
RpD----------	0-7	27-35	1.20-1.30	0.6-2.0	0.10-0.13	7.9-8.4	<2	Low--------	0.28	1	8	1-2
Rofiss	7-60	27-35	1.25-1.35	0.2-0.6	0.05-0.10	8.5-9.0	<2	Low--------	0.24			
Rr----------	0-9	18-27	1.15-1.30	0.6-2.0	0.17-0.20	7.4-7.8	<4	Low--------	0.24	2	8	2-5
Roshe Springs	9-60	18-27	1.25-1.40	0.6-2.0	0.16-0.18	7.4-9.0	<4	Low--------	0.37			
RS*.												
Rubble land												
Sa----------	0-7	18-27	1.20-1.30	0.06-0.2	0.01-0.08	>7.8	>16	Moderate	0.49	5	4L	<1
Saltair	7-60	20-35	1.20-1.30	0.06-0.2	0.01-0.08	>7.8	>16	Moderate	0.49			
SbF----------	0-5	20-25	1.10-1.15	0.6-2.0	0.13-0.15	6.6-8.4	<2	Low--------	0.24	2	8	1-2
Sandall	5-32	20-27	1.15-1.30	0.6-2.0	0.07-0.10	7.4-9.0	<2	Low--------	0.20			
	32	---	---	---	---	---	---	----------	----			
ScD, ScF---------	0-6	10-15	1.25-1.55	2.0-6.0	0.08-0.10	7.9-9.0	<2	Low--------	0.28	1	8	1-2
Sanpete	6-60	10-15	1.35-1.55	2.0-6.0	0.04-0.08	7.9-9.0	<2	Low--------	0.17			
SdE*, SdF*, SeB*, SeF*:												
Saxby----------	0-6	18-27	1.15-1.25	0.6-2.0	0.08-0.11	8.5-9.0	<2	Low--------	0.28	1	8	1-3
	6-18	18-27	1.15-1.30	0.6-2.0	0.05-0.08	8.5-9.0	<2	Low--------	0.24			
	18	---	---	---	---	---	---	----------	----			
Rock outcrop.												
SfC, SfD, SfE, SgC----------	0-15	10-20	1.35-1.45	0.6-2.0	0.18-0.20	6.6-9.0	2-4	Low--------	0.55	1	5	.5-1
Shabliss	15-40	---	---	---	---	---	---	----------	----			
	40-60	14-25	1.45-1.50	2.0-6.0	0.11-0.14	>7.8	4-8	Low--------	0.43			
ShE, ShF, SkF----	0-8	20-25	1.15-1.25	0.6-2.0	0.08-0.11	6.6-7.3	<2	Low--------	0.24	1	8	2-5
Sheep Creek	8-17	27-35	1.25-1.40	0.6-2.0	0.08-0.11	6.6-8.4	<2	Low--------	0.28			
	17-28	5-18	1.35-1.45	2.0-6.0	0.06-0.07	7.4-8.4	<2	Low--------	0.24			
	28	---	---	---	---	---	---	----------	----			
SmE*:												
Sheep Creek-----	0-8	20-25	1.15-1.25	0.6-2.0	0.08-0.11	6.6-7.3	<2	Low--------	0.24	1	8	2-5
	8-17	27-35	1.25-1.40	0.6-2.0	0.08-0.11	6.6-8.4	<2	Low--------	0.28			
	17-28	5-18	1.35-1.45	2.0-6.0	0.06-0.07	7.4-8.4	<2	Low--------	0.24			
	28	---	---	---	---	---	---	----------	----			
Flygare---------	0-20	18-22	1.25-1.35	0.6-2.0	0.17-0.19	5.6-6.5	<2	Low--------	0.28	2	6	1-3
	20-31	20-32	1.30-1.40	0.6-2.0	0.04-0.10	5.6-6.5	<2	Low--------	0.28			
	31-49	20-32	1.30-1.40	0.6-2.0	0.06-0.10	5.1-6.5	<2	Low--------	0.24			
	49-60	15-32	1.30-1.45	2.0-6.0	0.04-0.08	5.1-6.5	<2	Low--------	0.20			
SN*.												
Slickens												
SoD----------	0-4	18-27	1.15-1.25	2.0-6.0	0.11-0.13	7.4-9.0	<2	Low--------	0.20	1	8	1-2
Spager	4-17	18-27	1.15-1.30	2.0-6.0	0.08-0.11	>8.4	<4	Low--------	0.20			
	17	---	---	---	---	---	---	----------	----			
SpE*, SpF*:												
Starley---------	0-16	18-27	1.15-1.30	0.6-2.0	0.04-0.08	6.6-8.4	<2	Low--------	0.24	1	8	2-5
	16-19	18-27	1.20-1.30	0.6-2.0	0.04-0.08	6.6-8.4	<2	Low--------	0.24			
	19	---	---	---	---	---	---	----------	----			
Rock outcrop.												

See footnote at end of table.

92

N.E. 1/4 Sec. 24 T.13S. R. 2E
HI-CAL. Mining Property
Robert Steele

SOIL SURVEY OF FAIRFIELD — NEPHI AREA OF JUAB, SANPETE, AND UTAH COUNTIES — SHEET NUMBER 92



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110-2 SEE CROSS SECTION MAPS
ALL MINE HIGHWALLS WILL BE COVERED WITH WASTE CLAY, OVERBURDEN AND FINALLY A LAYER OF TOPSOIL AND THEN RE-SEEDED. WHEN THE MINE IS RECLAIMED THERE WILL BE NO HIGHWALLS.

110.5 RECLAMATION IS FINE AS IS. (SEE RECLAMATION AREA)

111 ALL RULES APPLY BECAUSE IT HAS BEEN A SMALL MINE. IF RULE R647-4 APPLIES FOR A LARGE MINE APPLICATION THEN IT WILL APPLY.

111.1 SEE 107.1

111.5 SEE RECLAIMED AREA

111.6 SEE 110.2

112 THERE ARE NO VARIANCES

113- THERE ARE NO SURETY RECLAMATION FORMS (INCLUDED)

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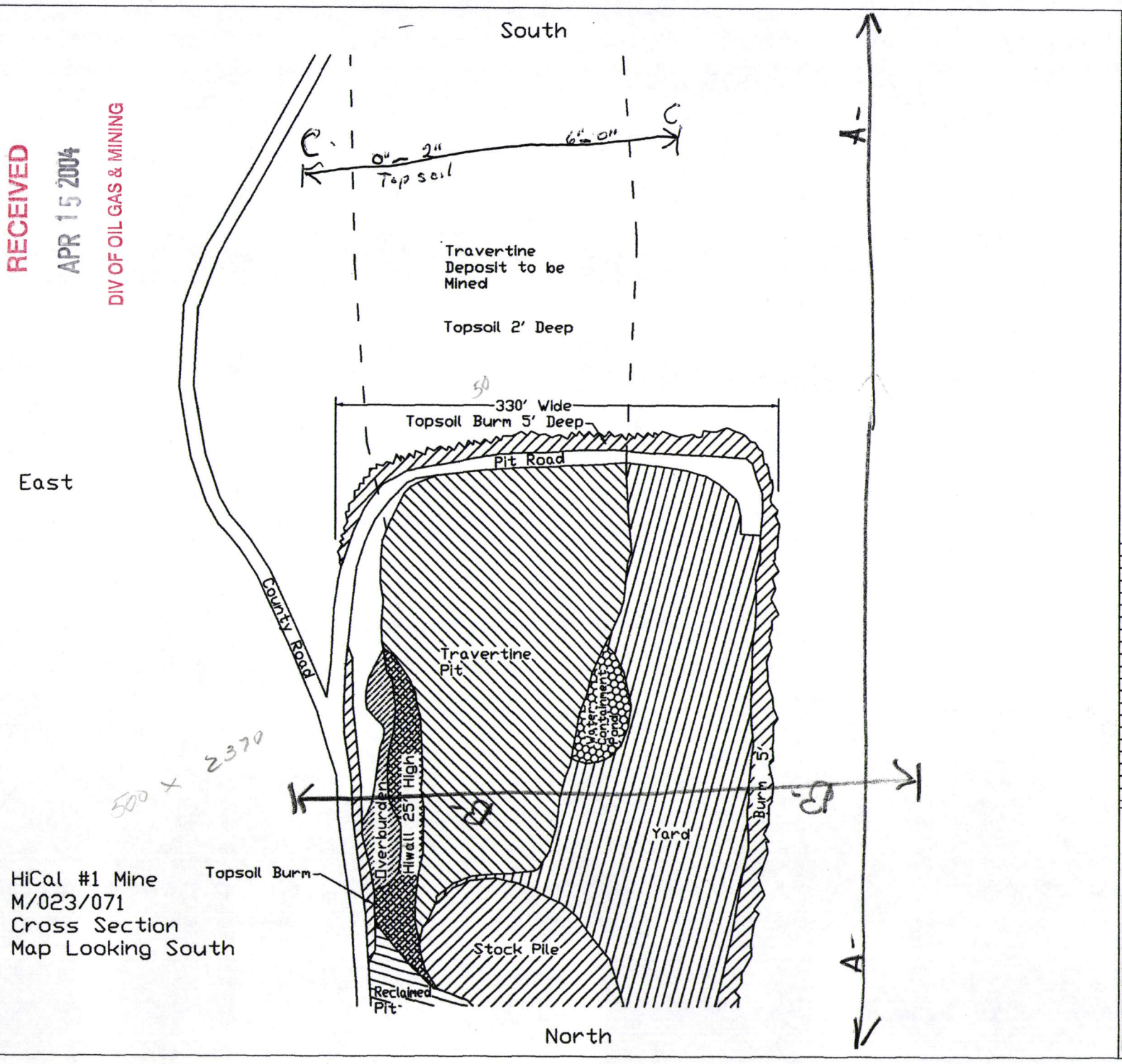


HiCal #1 Mine
M/023/071
Cross Section
Map Looking South

N

HI-CAL
MINING PROPERTY
NE 1/4 OF SEC.
24 T13S R2W

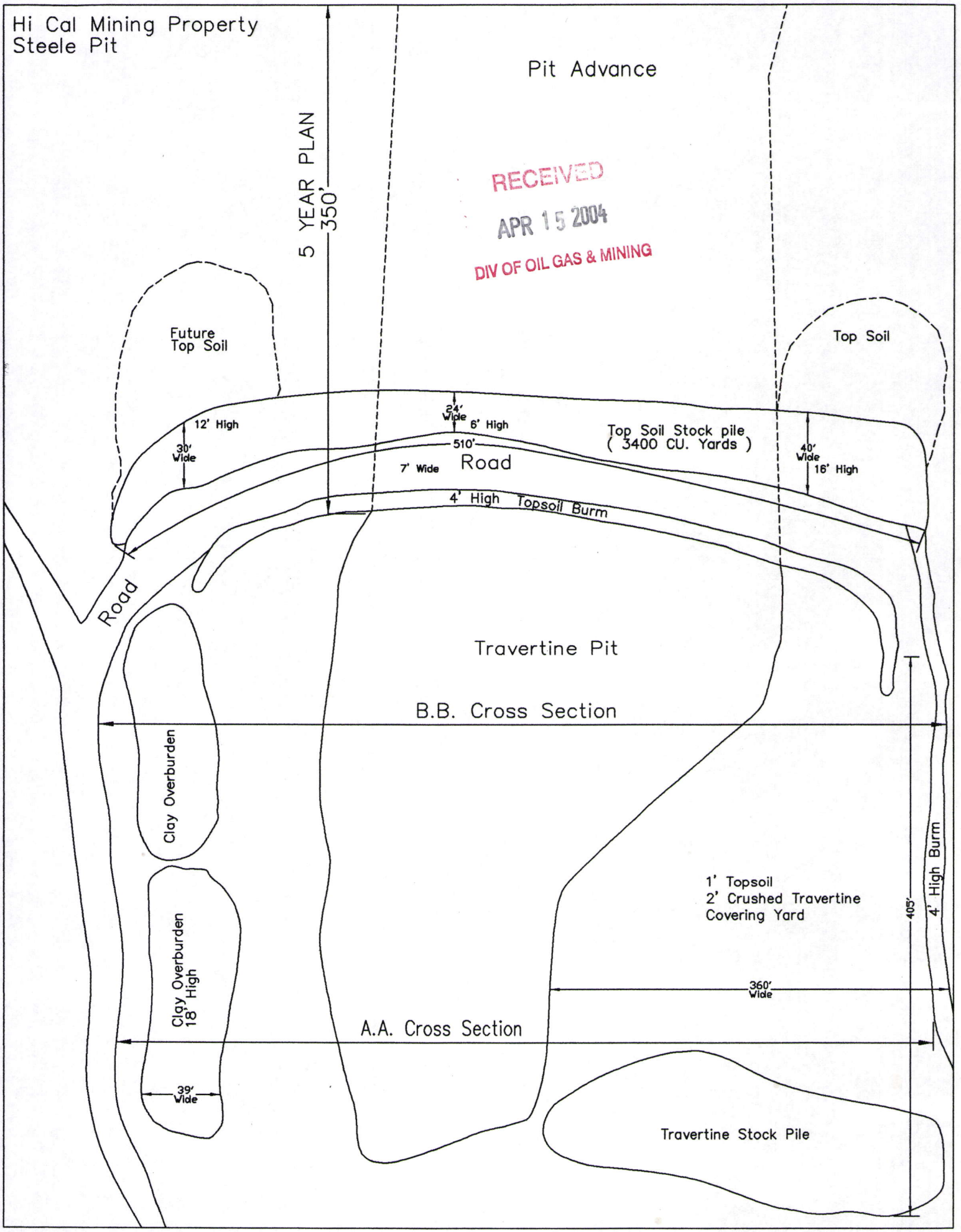
- COUNTY ROAD
- MINE PIT
- RECLAIMED LANDS
- STOCK PILE
- TOP SOIL
- MINE YARD
- HIGHWALL
- OVERBURDEN
- CONTAINMENT POND

TOTAL ACERAGE
WILL BE SEVEN (8)
AT ANY GIVEN TIME

NOTES:
NOT DRAWN TO SCALE

LOCATION MAP

K:\Data\robby\area2.bmp



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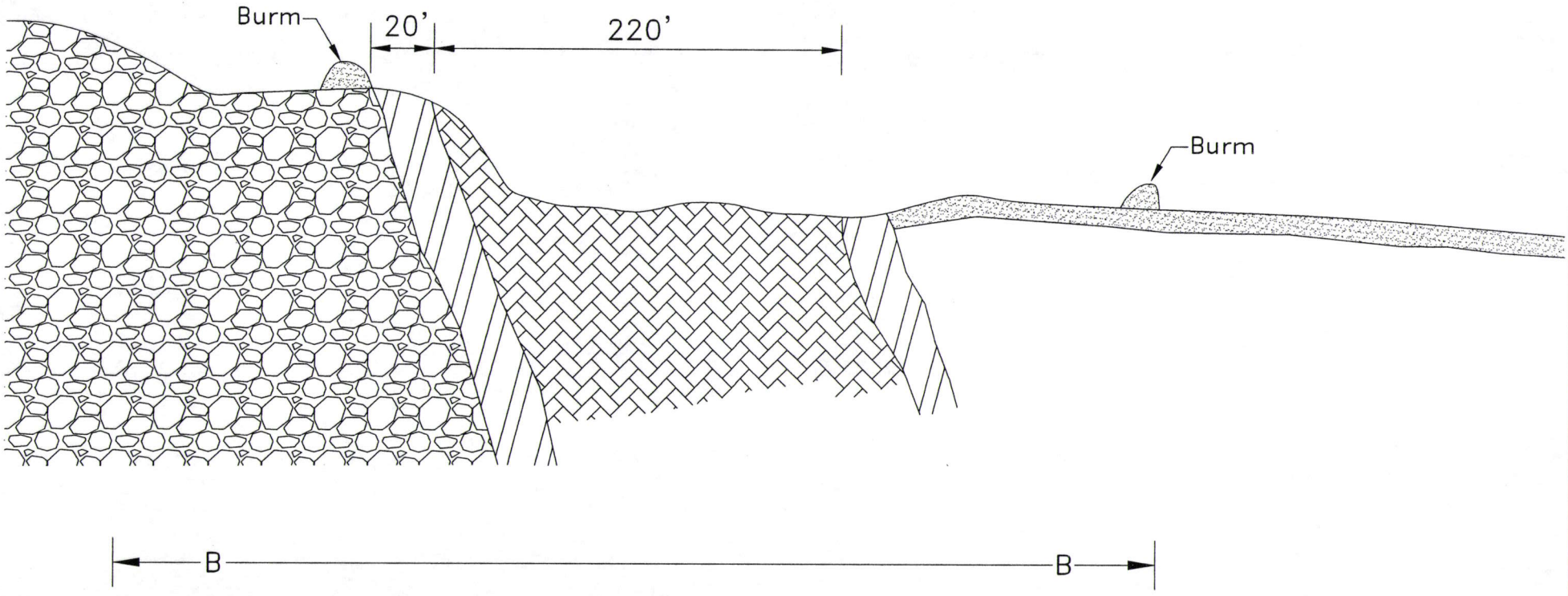
SOUTH

HI Cal
Mining Property
Cross section
Steele pit
(R.L.S.)

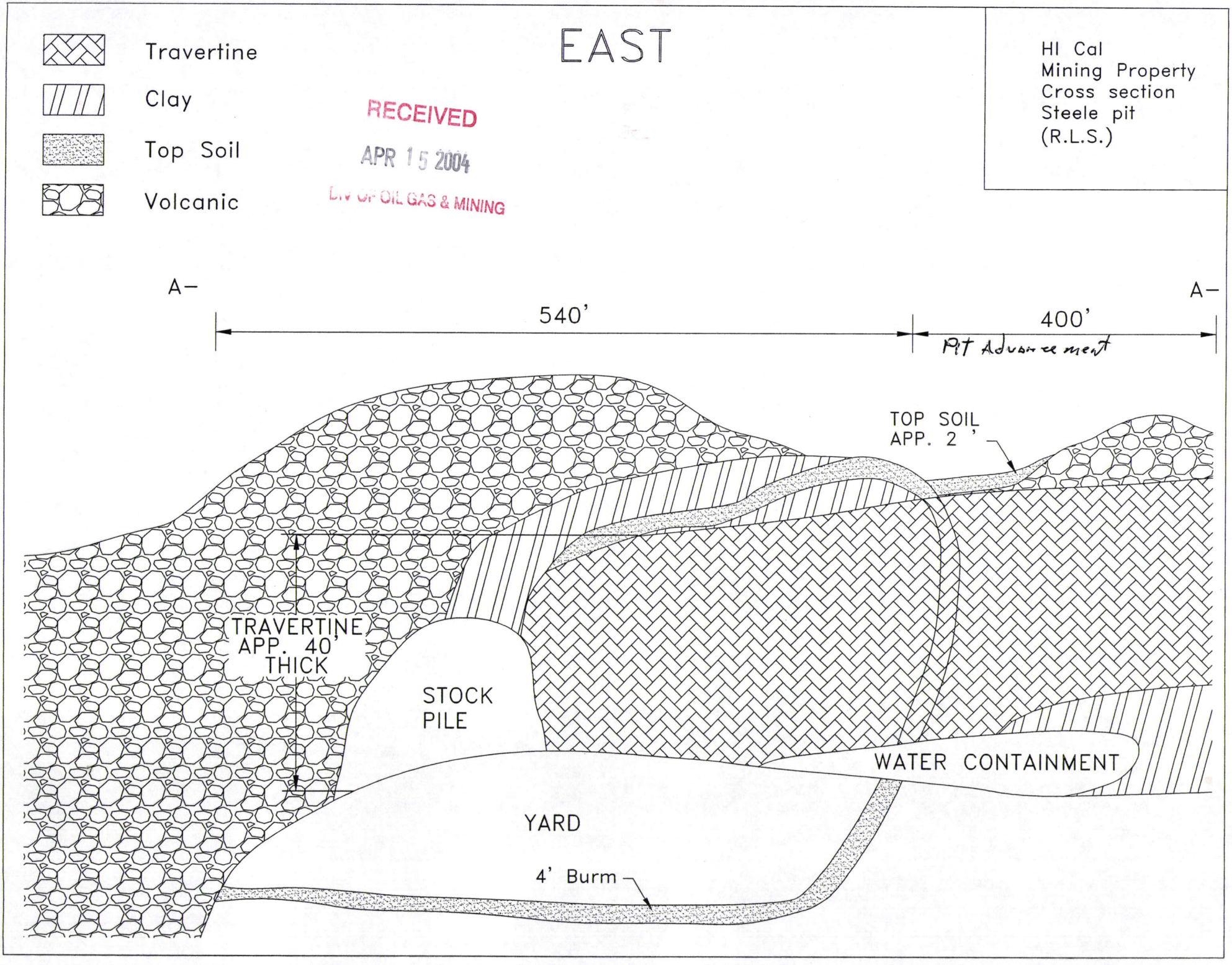


Travertine

Clay

Top Soil

Volcanic



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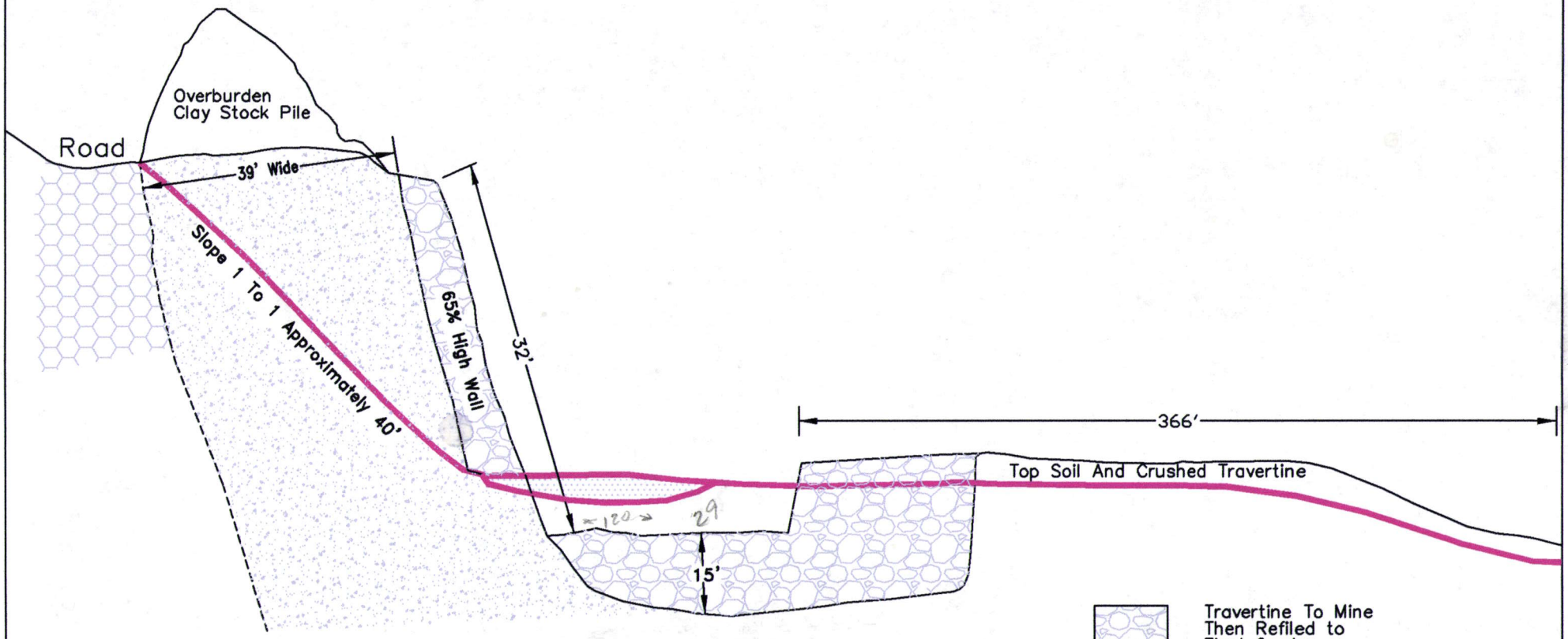
Hi Cal Mining Property
Steele Pit

A.A. Cross Section



Travertine To Mine Then Refiled to Final Grade

Possable Water Impoundment

High Wall

Clay

Volcanic

Final Reclamation Profile

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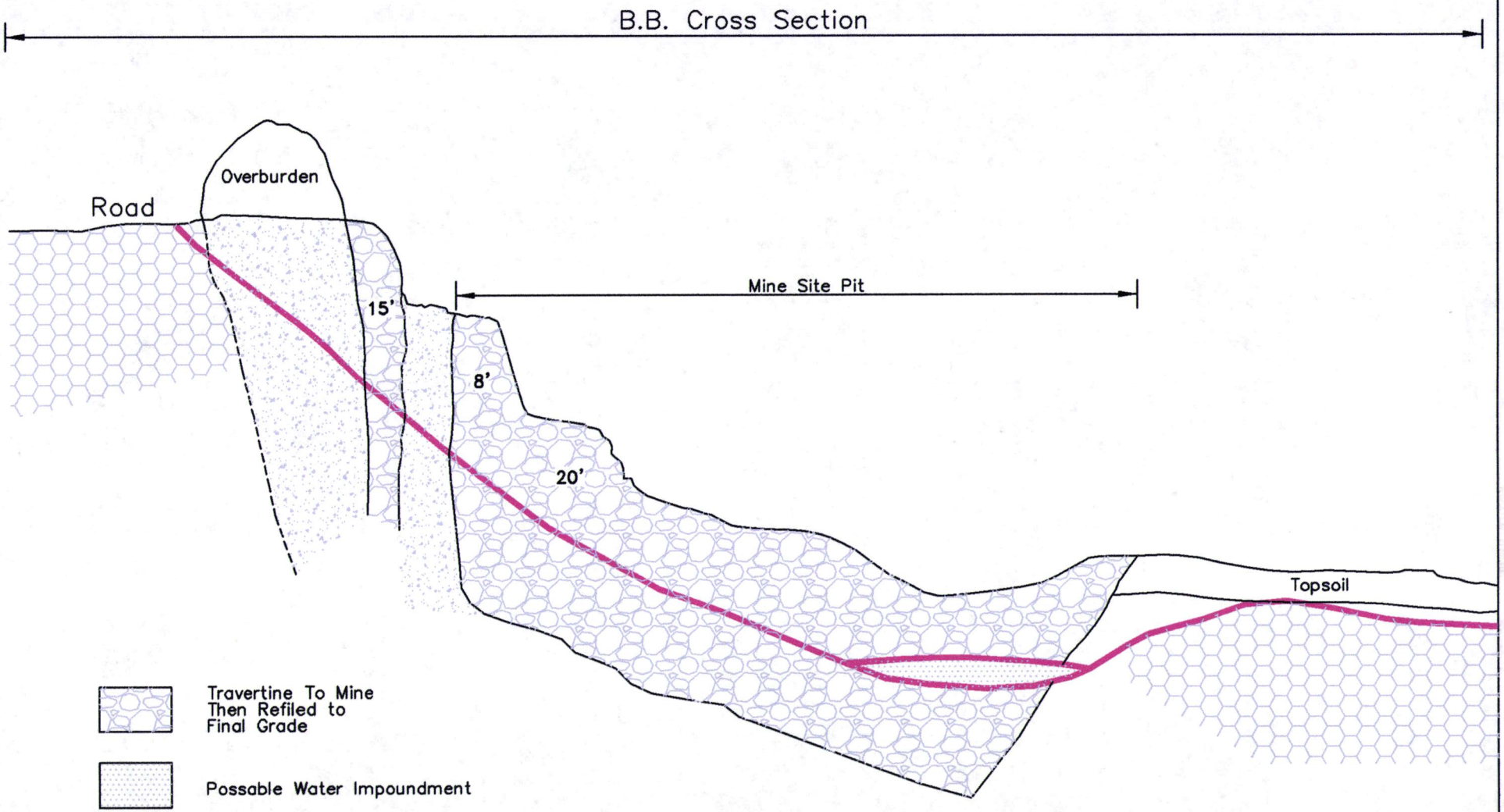
Hi Cal Mining Property
Steele Pit



Travertine To Mine Then Refiled to Final Grade

Possable Water Impoundment

Clay

Volcanic

Final Reclamation Profile

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