

## **APPENDIX A**

### **DRAWINGS**

- MT12-CL-01 Title Sheet
- MT12-CL-02 Closeout Plan Index Sheet
- MT12-CL-03 Gamma and Soil Radium Sample Locations
- MT12-CL-04 Facility Disposition Plan
- MT12-CL-05 Shaft Closure - Manway Vent
- MT12-CL-06 Shaft Closure - Production Shaft
- MT12-CL-07 Final Grading Plan Mine Water Treatment Pond and Ore Pad Areas
- MT12-CL-08 Typical Sections - Mine Water Treatment Pond Infill
- MT12-CL-09 Final Grading and Cover Plan - South Waste Rock Pile Area
- MT12-CL-10 Final Grading and Cover Sections - South Waste Rock Pile Area
- MT12-CL-11 Final Grading and Cover Plan - North Waste Rock Pile Area
- MT12-CL-12 Final Grading and Cover Sections - North Waste Rock Pile Area
- MT12-CL-13 Final Site Grading Plan

# MOUNT TAYLOR MINE CLOSEOUT/CLOSURE PLAN

## DRAWING LIST

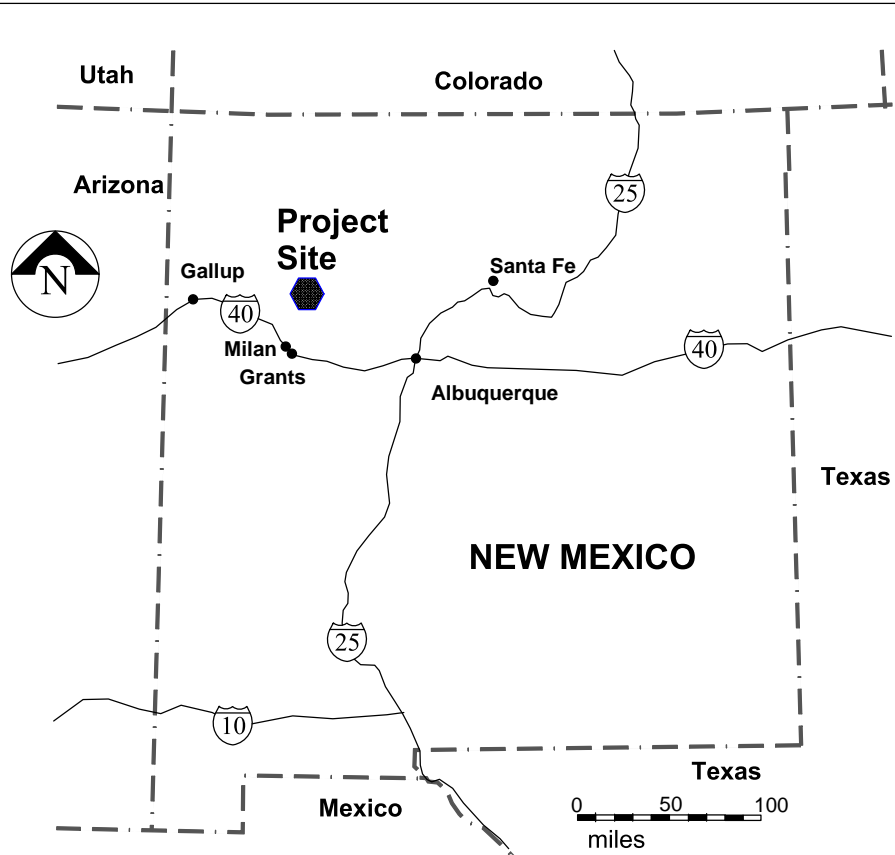
DRAWING NUMBER	DRAWING TITLE
MT13-CL-01	TITLE SHEET
MT13-CL-02	CLOSEOUT PLAN INDEX SHEET
MT13-CL-03	GAMMA AND SOIL RADIUM SAMPLE LOCATIONS
MT13-CL-04	FACILITY DISPOSITION PLAN
MT13-CL-05	SHAFT CLOSURE - MANWAY VENT
MT13-CL-06	SHAFT CLOSURE - PRODUCTION SHAFT
MT13-CL-07	FINAL GRADING PLAN- MINE WATER TREATMENT POND AND ORE PAD AREA
MT13-CL-08	TYPICAL SECTIONS - MINE WATER TREATMENT POND INFILL
MT13-CL-09	FINAL GRADING AND COVER PLAN- SOUTH WASTE ROCK PILE AREA
MT13-CL-10	FINAL GRADING AND COVER SECTIONS- SOUTH WASTE ROCK PILE AREA
MT13-CL-11	FINAL GRADING AND COVER PLAN- NORTH WASTE ROCK PILE AREA
MT13-CL-12	FINAL GRADING AND COVER SECTIONS- NORTH WASTE ROCK PILE AREA
MT13-CL-13	FINAL SITE GRADING PLAN

## GENERAL NOTES

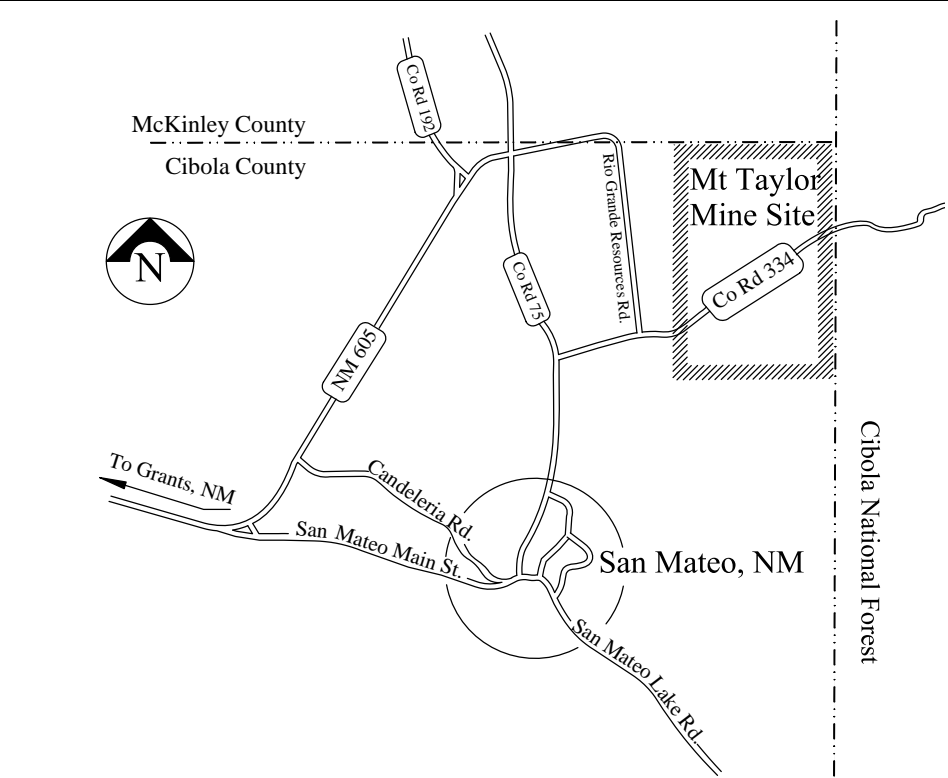
- G-01 FOR DETAILS REGARDING CONSTRUCTION AND MATERIAL REQUIREMENTS FOR THIS PROJECT, SEE THE PROJECT SPECIFICATIONS. IN ANY CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS WILL GOVERN.
- G-02 THE GRID AND COORDINATES SHOWN ON ALL PLANS ARE NEW MEXICO WEST ZONE NAD 83
- G-03 THE TOPOGRAPHIC MAP OF THIS SITE USED IN THESE DRAWINGS AS A BASE MAP WAS PRODUCED BY THOMAS R. MANN & ASSOCIATES, INC. IN MAY 2012.

## SURVEY REFERENCES


- S-1.0 THE TOPOGRAPHIC BASE MAP WAS PRODUCED BY AERIAL SURVEY METHODS AND COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
- S-2.0 SURVEY DATA FOR THE MAP WAS FURNISHED BY THE FOLLOWING:
- S- 2.1 FIELD SURVEY OF CONTROL POINTS AND THE 1000 FOOT GRID- BY SURVEY CONTROL, INC. ALBUQUERQUE NM
- S- 2.2 AERIAL PHOTOGRAPHY EXPOSED ON MAY 4, 2012 BY BLUE SKIES CONSULTING, BELEN NM.
- S- 2.3 ORTHOPHOTO BASE MAPPING AND RELATED DIGITAL FILES PRODUCED BY THOMAS R. MANN, INC.



STATE MAP

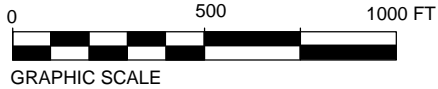
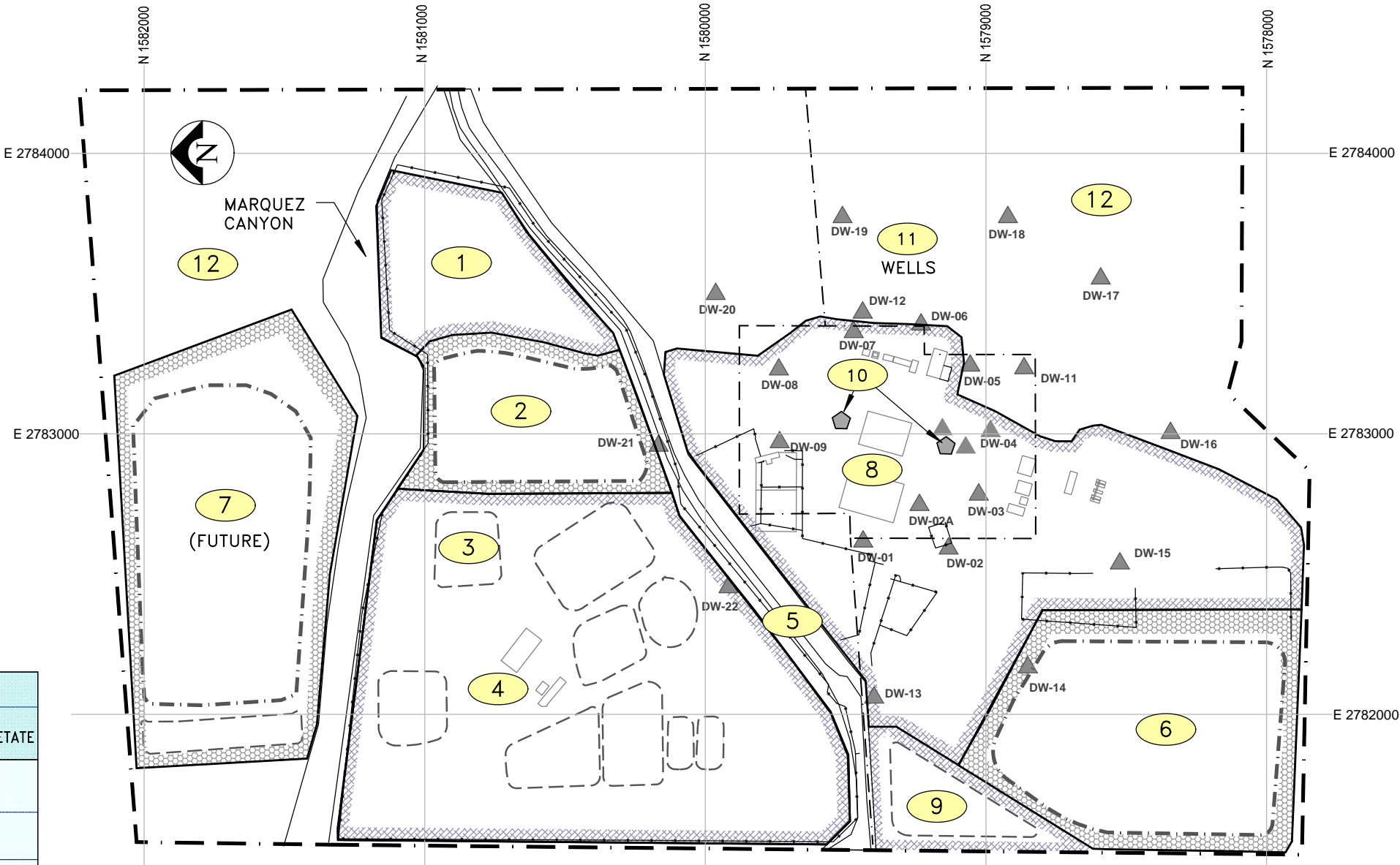


SITE LOCATION MAP

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	 <b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020			PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>	
<b>0</b>	2013 REVISION	4-01-13	EL	AK	AK				SHEET TITLE: <b>TITLE SHEET</b>	
						Prepared By: Alan Kuhn Associates LLC	SIZE <b>B</b> DWG NO. <b>MT13-CL-01</b>	SCALE: <b>NONE</b>		REV <b>0</b>

AREA		TASKS					
NO.	AREA DESCRIPTION	DEMOLITION	SOIL CLEANUP	PLUG/ BACKFILL	BACKFILL AND COVER	FINISH GRADING	REVEGETATE
1	BORROW AREA		X			X	X
2	ORE PAD AREA	X	X			X	X
3	ORE PAD RUNOFF RETENTION POND	X	X		X	X	X
4	MINE WATER TREATMENT AREA	X	X		X	X	X
5	COUNTY ROAD ROW		X			X	
6	SOUTH WASTE ROCK PILE AREA				X	X	X
7	NORTH WASTE ROCK PILE AREA – (FUTURE)				X	X	X
8	SERVICE AND SUPPORT AREA	X	X			X	
9	SOUTH STORMWATER RETENTION POND		X				
10	MINE SHAFTS – MANWAY AND PRODUCTION	X		X			
11	DEWATERING WELLS			X			
12	UNDEVELOPED AREAS						X


NOTE  
FOR QUANTITIES AND DETAILED DESCRIPTIONS OF EACH TASK  
SEE THE PROJECT SPECIFICATIONS



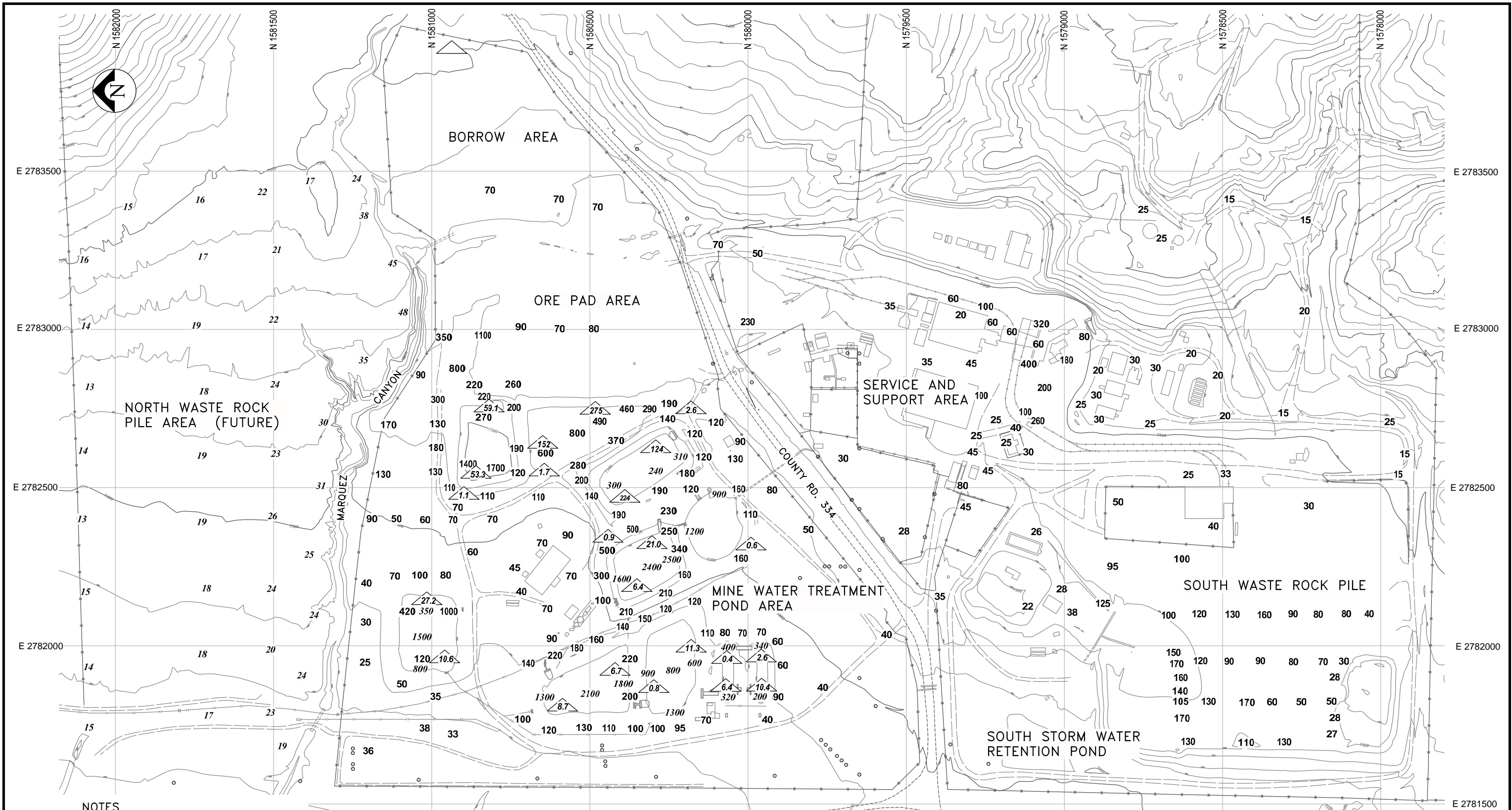
### LEGEND

- MINE PERMIT BOUNDARY
- DW-03 DEWATERING WELL
- POND
- ORE PAD OR WASTE ROCK PILE
- BUILDING
- MINE SHAFT

FOR GRID AND SURVEY INFO SEE SHEET MT13-CL-01

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<div><b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020</div>	PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>				
<b>0</b>	2013 REVISION	4-01-13	EL	AK	AK		SHEET TITLE: <b>CLOSEOUT PLAN INDEX SHEET</b>			REV	
						<div>Prepared By: Alan Kuhn Associates LLC</div>	<div>SIZE <b>B</b> DWG NO. <b>MT13-CL-02</b></div>	<div>SCALE: <b>AS SHOWN</b></div>			<b>0</b>




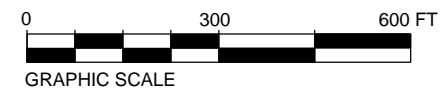


NOTES


- 1 ALL SAMPLING LOCATIONS APPROXIMATE
- 2 SOIL SAMPLING IN MINE WATER TREATMENT PONDS APRIL 10, 2012
- 3 GAMMA RAY SURVEY MAY 23, 2002 READINGS IN  $\mu\text{R/hr}$  BACKGROUND +OR- 18  $\mu\text{R/hr}$
- 4 GAMMA RAY SURVEY APRIL 10, 2012 READINGS IN  $\mu\text{R/hr}$  BACKGROUND +OR- 12  $\mu\text{R/hr}$  INSTRUMENT: Eberline PRM-7 #182,

LEGEND

-  SOIL RADIUM READINGS ( $\text{pCi/g}$ ) ( $R_a$  226 IN 0-6 INCHES)
- 21 GAMMA READINGS APRIL 2012
- 38 GAMMA READINGS MAY 2002



FOR GRID AND SURVEY INFO SEE SHEET MT13-CL-01

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<div><b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020</div>			PROJECT TITLE: MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN		
0	2013 REVISION	4-01-13	EL	AK	AK	Prepared By:		SIZE B	SCALE: AS SHOWN	SHEET TITLE: GAMMA AND SOIL RADIUM SAMPLE LOCATIONS	REV 0
						Alan Kuhn Associates LLC		DWG NO.	MT13-CL-03		



FACILITY KEY

FACILITIES TO BE REMOVED	FACILITIES TO REMAIN
01 MANWAY/VENT SHAFT HEADFRAME AND HEATER BUILDINGS	04 STORAGE BUILDINGS (2)
02 PRODUCTION SHAFT HEADFRAME	06 HOIST HOUSE
03 VENT FAN STRUCTURE	07 SERVICE BUILDING
05 GLYCOL HEAT EXCHANGER	08 SUBSTATION (NOTE 1)
26 COOLING TOWER	09 WATER TREATMENT/ BOILER BUILDING
27 CHLORINE BUILDING	10 COMPRESSOR BUILDING
28 CONDUIT 1	11 ELECTRICAL BUILDING
29 CONDUIT 2	12 PORTABLE BUILDING
30 MINE CAR RAILS	13 FUEL PUMP HOUSE
31 BARIUM CHLORIDE BUILDING	14 CARPENTER SHOP
32 ION EXCHANGE PLANT	15 FUEL STORAGE TANKS
33 FLOCCULANT BUILDING	16 WATER TANK
34 TREATED WATER PIPELINE	17 YORK CHILLER
35 PLANT AND REFRIGERATION WATER PIPELINES	18 GUARD HOUSE
36 MINE WATER TREATMENT PUMP HOUSE	19 FIRE EQUIPMENT BUILDING
TP MINE WATER TREATMENT PONDS (#1 THROUGH #8)	20 CORE STORAGE BUILDING
TP ORE PAD RUNOFF RETENTION POND	21 ADOBE HOUSE (PRE-MINING STRUCTURE)
HS (22) HYDRAULIC CONTROL STRUCTURES	22 FAN SHOP
37 TRUCK WASH EQUIPMENT AND DRAINAGE PIPES	23 CAR SHOP
38 SANITARY TREATMENT PLANT	24 ACCESS/UTILITY TUNNEL
	25 PUMP BUILDING
	39 SEPTIC TANK
	40 LEACH FIELD
	41 DRAINAGE PIPES

WELLS

DW-00	DW-00
WELLS TO BE PLUGGED	WELLS TO REMAIN
DW-02 AND DW-09 DW-11 THROUGH DW-22 SM24-38 AND SM24-43 MONITORING WELLS	DW-01 DW-2A THROUGH DW-08 AND DW-10

OTHER AREAS

ORE PAD - 10 ACRES (TO BE REMOVED)

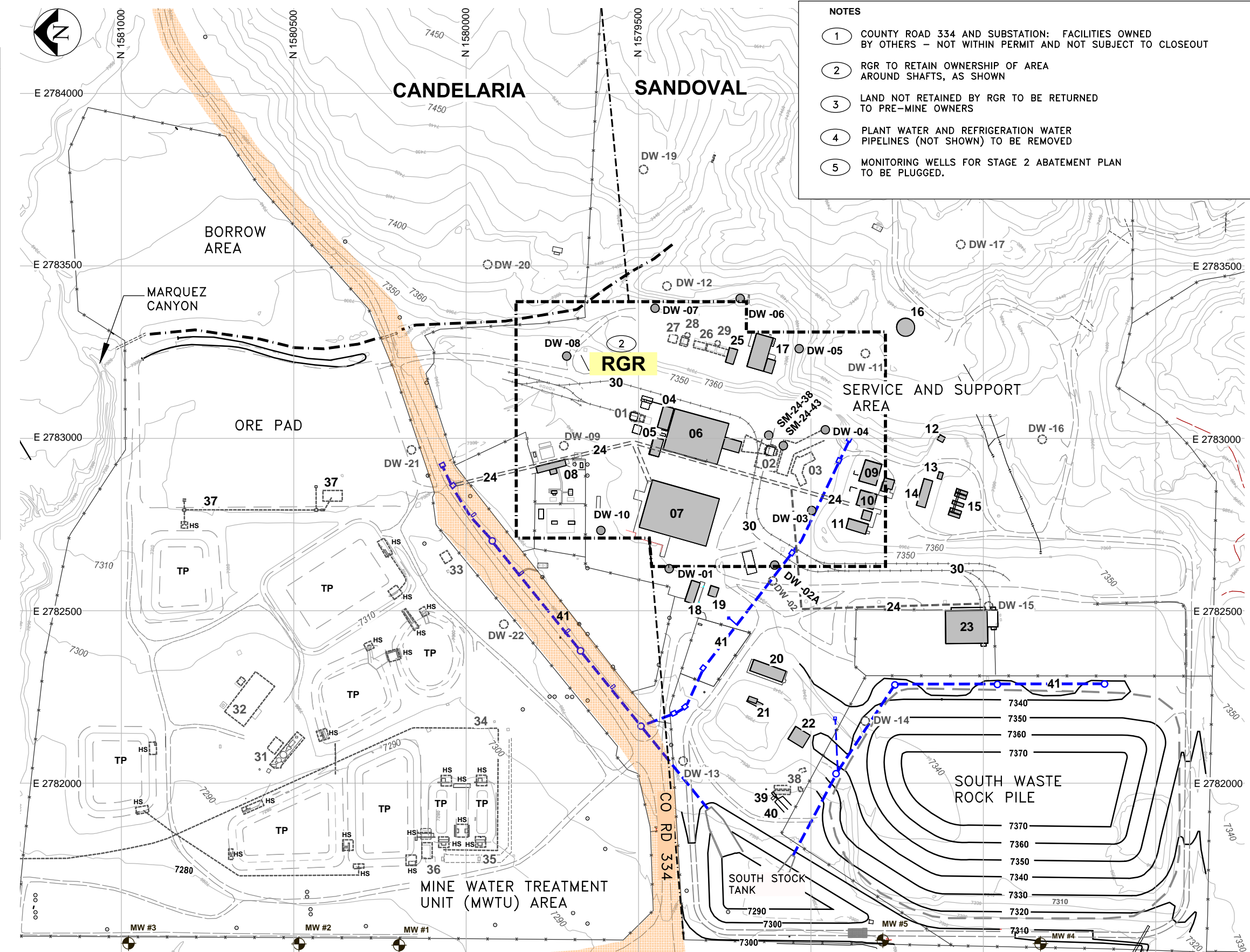
SOUTH STOCK TANK AREA  
(SOUTH STORM WATER RETENTION POND) - 4.4 ACRES

WASTE ROCK PILE AREA 21.7 ACRES  
(REMAINS BUT CLOSED)

COUNTY ROAD 334 ROW- 4.7 ACRES

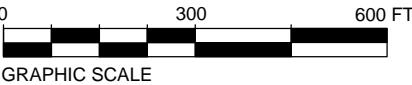
LEGEND

- RETAINED RGR PROPERTY LINE
- PROPERTY LINE
- FENCE LINE
- DRAINAGE PIPES
- ===== ACCESS/UTILITY TUNNEL
- █ FACILITY TO REMAIN
- ⊙ MONITORING WELL  
(TO BE PLUGGED)
- ▲ WELL (PMLU)



NOTES

- 1 COUNTY ROAD 334 AND SUBSTATION: FACILITIES OWNED BY OTHERS - NOT WITHIN PERMIT AND NOT SUBJECT TO CLOSEOUT
- 2 RGR TO RETAIN OWNERSHIP OF AREA AROUND SHAFTS, AS SHOWN
- 3 LAND NOT RETAINED BY RGR TO BE RETURNED TO PRE-MINE OWNERS
- 4 PLANT WATER AND REFRIGERATION WATER PIPELINES (NOT SHOWN) TO BE REMOVED
- 5 MONITORING WELLS FOR STAGE 2 ABATEMENT PLAN TO BE PLUGGED.



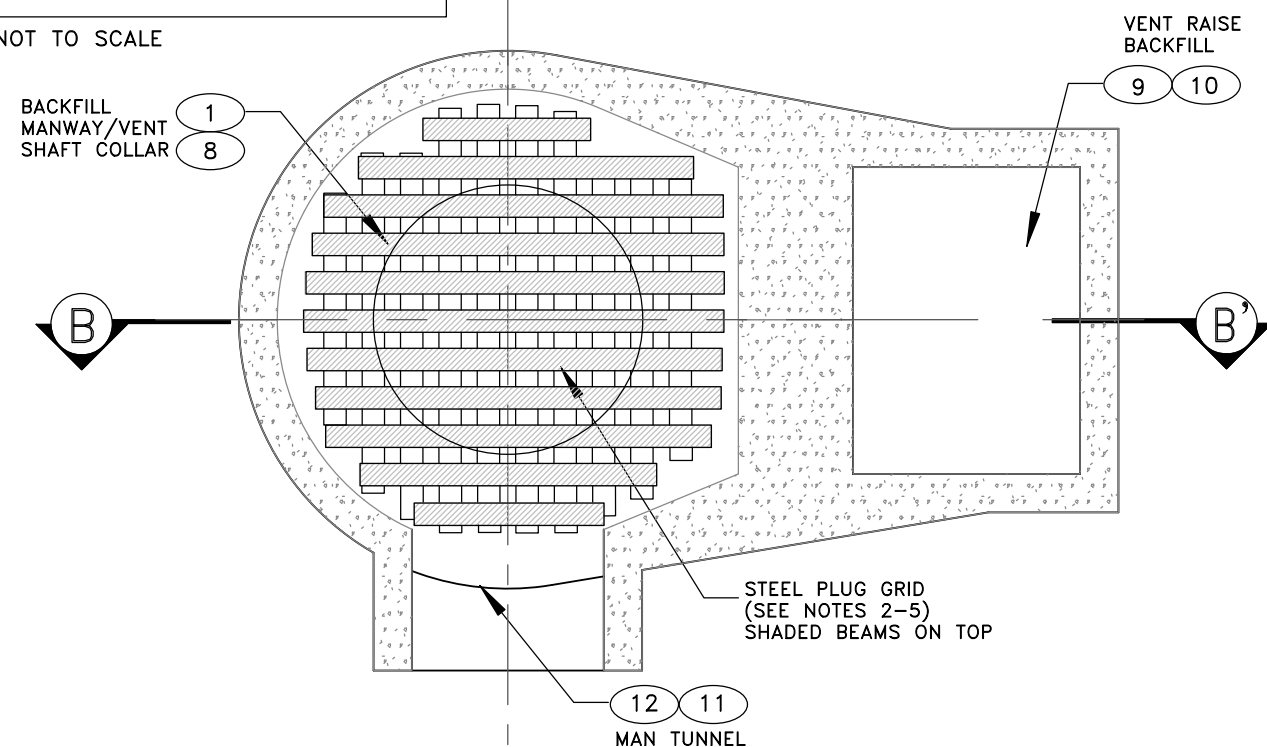
500' GRID = NAD 83 NEW MEXICO WEST

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	RIO GRANDE RESOURCES CORPORATION			PROJECT TITLE: MT. TAYLOR MINE	
0	2013 UPDATE	4-01-13	EL	AK	AK	MOUNT TAYLOR MINE - Grants, NM 87020			CLOSEOUT/CLOSURE PLAN	
						Prepared By:	SIZE	SCALE:	SHEET TITLE:	
						Alan Kuhn Associates LLC	B	AS SHOWN	FACILITY DISPOSITION PLAN	
							DWG NO.	MT13-CL-04	REV	
										0

## SECTION A-A'

SHEET MT13-CL-05

NOT TO SCALE



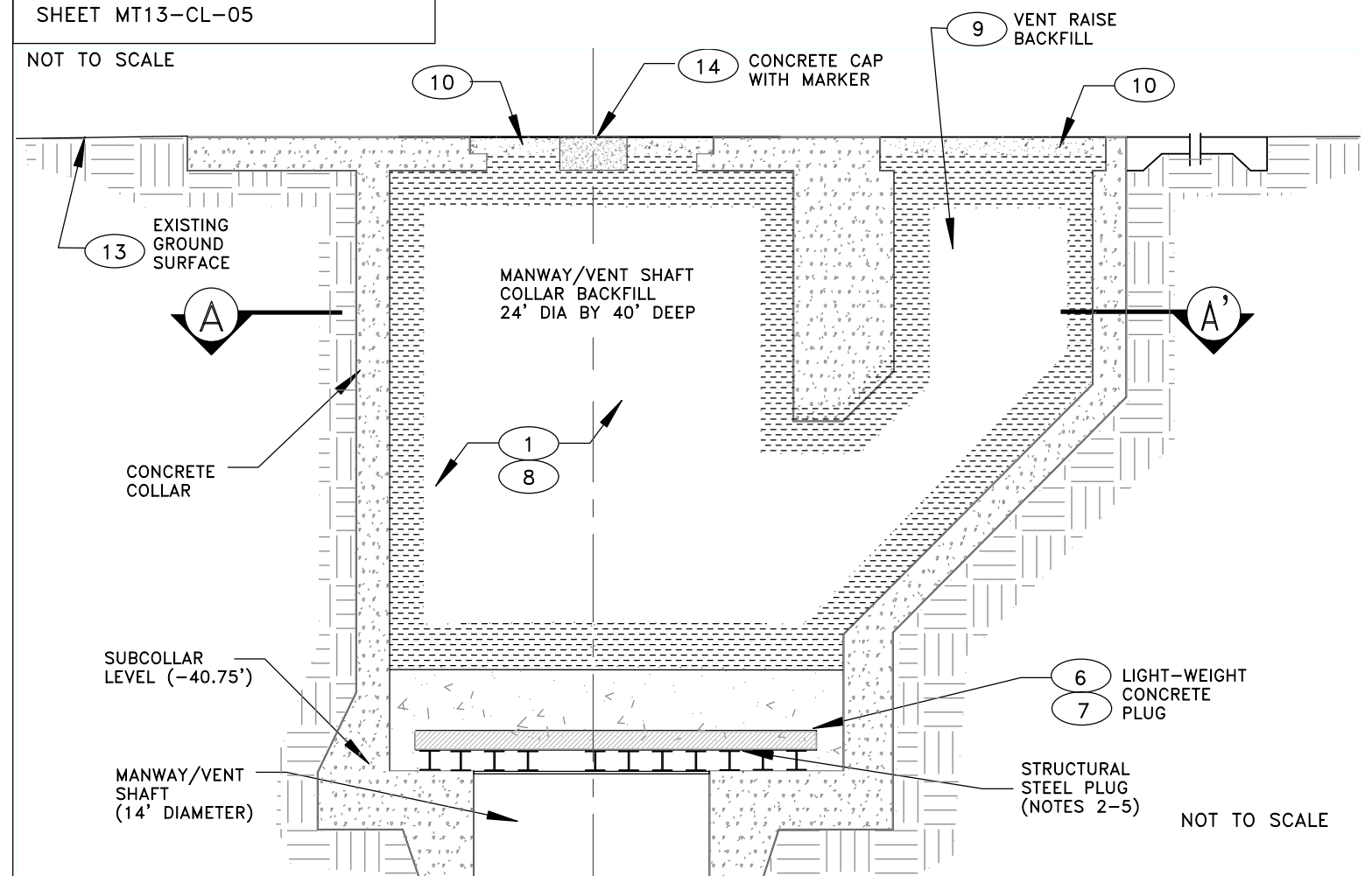
## NOTES:

- 1 REMOVE AND DROP ALL EQUIPMENT, FITTINGS, AND UTILITIES BETWEEN COLLAR TO SUB COLLAR LEVEL.
- 2 LOWER LEVEL STRUCTURAL STEEL = UP TO 23' LONG STEEL BEAMS  
11 BEAMS @ 2 FEET O.C. (W14 X 90)  
LOWER LEVEL BEAMS PLACED ON EXISTING CONCRETE SUBCOLLAR LEVEL.  
BEAMS TO EXTEND A MINIMUM 1.5' AT EACH END BEYOND SUBCOLLAR OPENING.
- 3 UPPER LEVEL STRUCTURAL STEEL = UP TO 23' LONG STEEL BEAMS  
11 BEAMS @ 2 FEET O.C. (W14 x 90)  
UPPER LEVEL BEAMS PLACED PERPENDICULAR TO LOWER LEVEL BEAMS.
- 4 STRUCTURAL STEEL BEAMS RECYCLED FROM HEADFRAME DEMOLITION AND STEEL POSTS AND CAPS STORED ON SITE. NO PURCHASE OF NEW STEEL REQUIRED.
- 5 WELD SCRAP PLATE OR SHEET METAL TO THE BOTTOM OF THE STEEL BEAMS. FABRICATE THE BEAMS AND PLATES IN SECTIONS AT THE GROUND SURFACE AND LOWER INTO THE MANWAY SHAFT COLLAR TO THE POSITION SHOWN IN SECTION BB. CONTRACTOR TO DETERMINE MEANS AND METHODS OF FABRICATION AND INSTALLING FABRICATED SECTIONS INTO PLACE.
- 6 INSTALL LIGHTWEIGHT CONCRETE AT SUBCOLLAR LEVEL (-40.75' TO -34.75')
- 7 EMBED SCRAP CYCLONE FENCE OR OTHER SCRAP STEEL MESH IN LIGHT WEIGHT CONCRETE
- 8 TREMIE PLACED SLURRY BACKFILL WILL INCLUDE SOIL, PORTLAND CEMENT, AND FLY ASH, IN PROPORTIONS TO BE DETERMINED BY BENCH TESTS TO PRODUCE 28-DAY UNCONFINED COMPRESSIVE STRENGTH OF 50 TO 100 PSI.
- 9 VENT RAISE AND MAN TUNNEL BACKFILLED USING SAME SLURRY FILL AS SPECIFIED FOR FILL IN THE COLLAR STRUCTURE. VENT RAISE IS SHOWN IN SECTIONS AA AND BB ON THIS SHEET.

## SECTION B-B'

SHEET MT13-CL-05

NOT TO SCALE




- 10 IN VENT RAISE AND COLLAR, SLURRY BACKFILL TO EXTEND TO WITHIN 1 FOOT OF THE GROUND SURFACE THEN CAP WITH LIGHT-WEIGHT CONCRETE.
- 11 THE PORTION OF THE MAN-TUNNEL RECEIVING BACKFILL IS 10 FEET WIDE, 11 FEET HIGH, AND 40 FEET LONG.
- 12 THE SLURRY BACKFILL IN THE MAN-TUNNEL CAN BE PLACED DIRECTLY AGAINST THE EXISTING STEEL SURE-LOCK DOORS. NO ADDITIONAL CONCRETE BULKHEADS WILL BE NEEDED.
- 13 THE TOP OF THE NATURAL ROCK AT THIS LOCATION IS APPROXIMATELY AT THE EXISTING GROUND SURFACE
- 14 THE SHAFT MARKER TO BE CONSTRUCTED FROM PRECAST CONCRETE WITH A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 2500 PSI. THE MARKER SHALL BE 4 FEET WIDE AND 4 FEET LONG AND 2 FEET THICK AND BE INSCRIBED USING 4 INCH LETTERS EMBEDDED A MINIMUM OF 1/4 INCH DEEP AND STATING THE FOLLOWING: "MOUNT TAYLOR MINE MANWAY/VENT SHAFT, CLOSED (DATE)."

## STEEL BEAMS

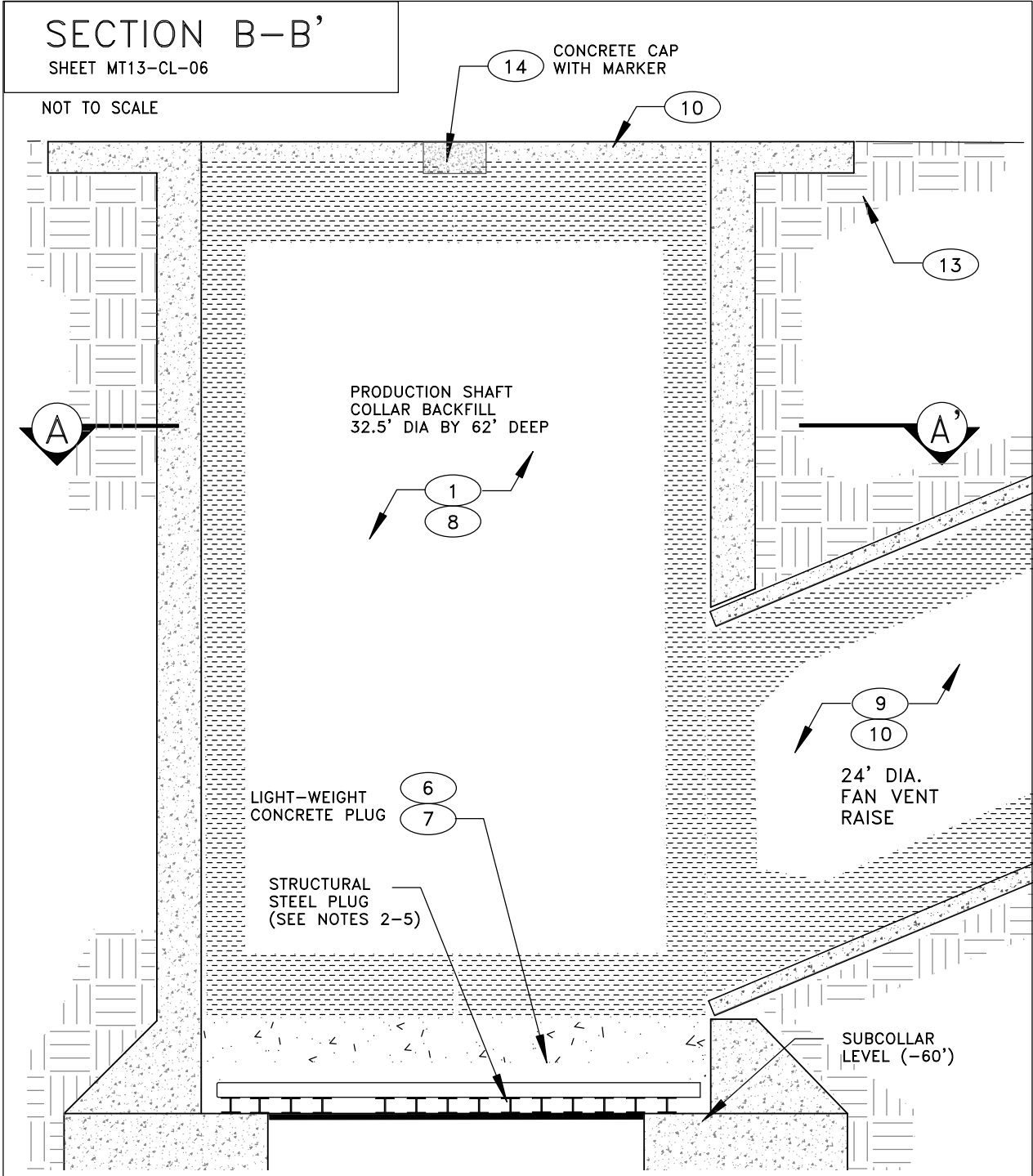
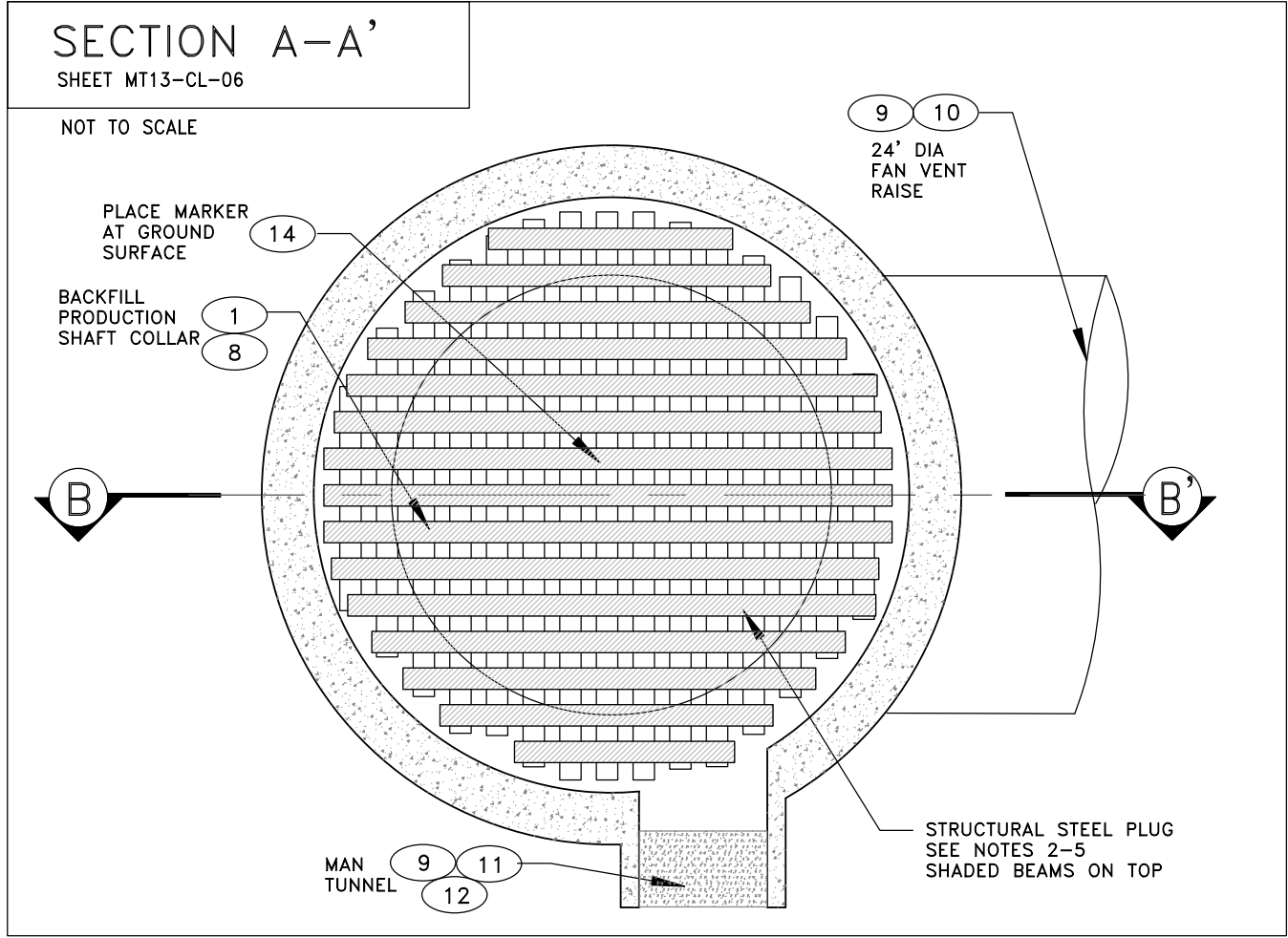
QTY	LENGTH FEET
9	22.5
4	20.0
3	18.0
3	15.0
2	10.0

## LIST OF MATERIALS

STEEL PLATE	460 SF
LIGHT WEIGHT CONCRETE	160 CY
BACKFILL SLURRY TOTAL	563 CY
SOIL	510 CY
CEMENT	28 CY
FLY ASH	28 CY
3000 PSI CONCRETE	1.2 CY

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	 <b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020			PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>	
0	2013 REVISION	4-01-13	EL	AK	AK				SHEET TITLE: <b>SHAFT CLOSURE - MANWAY/VENT</b>	
						Prepared By:	SIZE <b>B</b>	SCALE: <b>NONE</b>	REV <b>0</b>	
						Alan Kuhn Associates LLC	DWG NO. <b>MT13-CL-05</b>			





**NOTES:**

- 1 REMOVE AND DROP ALL EQUIPMENT, FITTINGS, AND UTILITIES BETWEEN COLLAR TO SUB COLLAR LEVEL.
- 2 LOWER LEVEL STRUCTURAL STEEL = UP TO 31' LONG STEEL BEAMS 15 BEAMS @ 2 FEET OC. (W14 X 90)  
LOWER LEVEL BEAMS PLACED ON EXISTING CONCRETE SUBCOLLAR LEVEL. BEAMS TO EXTEND A MINIMUM 1.5' AT EACH END BEYOND SUBCOLLAR OPENING.
- 3 UPPER LEVEL STRUCTURAL STEEL = UP TO 31' LONG STEEL BEAMS 15 BEAMS @ 2 FEET O.C. (W14 x 90)  
UPPER LEVEL BEAMS PLACED PERPENDICULAR TO LOWER LEVEL BEAMS.
- 4 STRUCTURAL STEEL BEAMS RECYCLED FROM HEADFRAME DEMOLITION AND STEEL POSTS AND CAPS STORED ON SITE. NO PURCHASE OF NEW STEEL REQUIRED.
- 5 WELD SCRAP PLATE OR SHEET METAL TO THE BOTTOM OF THE STEEL BEAMS. FABRICATE THE BEAMS AND PLATES IN SECTIONS AT THE GROUND SURFACE AND LOWER INTO THE MANWAY SHAFT COLLAR TO THE POSITION SHOWN IN SECTION BB. CONTRACTOR TO DETERMINE MEANS AND METHODS OF FABRICATION AND INSTALLING FABRICATED SECTIONS INTO PLACE.
- 6 INSTALL LIGHTWEIGHT CONCRETE AT SUBCOLLAR LEVEL (-60.0' TO -54.0')
- 7 EMBED SCRAP CYCLONE FENCE OR OTHER SCRAP STEEL MESH IN LIGHT WEIGHT CONCRETE
- 8 SLURRY BACKFILL WILL INCLUDE SOIL, PORTLAND CEMENT, AND FLY ASH, IN PROPORTIONS TO BE DETERMINED BY BENCH TESTS TO PRODUCE 28-DAY UNCONFINED COMPRESSIVE STRENGTH OF 50 TO 100 PSI.


- 9 VENT RAISE AND MAN TUNNEL BACKFILLED USING SAME SLURRY FILL AS SPECIFIED FOR FILL IN THE COLLAR STRUCTURE. VENT RAISE IS 68 FEET LONG AND 24 FEET DIAMETER
- 10 IN VENT RAISE AND COLLAR, SLURRY BACKFILL TO EXTEND TO WITHIN 1 FOOT OF THE GROUND SURFACE THEN CAP WITH LIGHT-WEIGHT CONCRETE.
- 11 THE PORTION OF THE MAN-TUNNEL RECEIVING BACKFILL IS 10 FEET WIDE, 11 FEET HIGH, AND 50 FEET LONG.
- 12 THE SLURRY BACKFILL IN THE MAN-TUNNEL CAN BE PLACED DIRECTLY AGAINST THE EXISTING STEEL SURE-LOCK DOORS. NO ADDITIONAL CONCRETE BULKHEADS WILL BE NEEDED.
- 13 THE TOP OF THE NATURAL ROCK AT THIS LOCATION IS APPROXIMATELY AT THE EXISTING GROUND SURFACE
- 14 THE SHAFT MARKER TO BE CONSTRUCTED FROM PRECAST CONCRETE WITH A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 2500 PSI. THE MARKER SHALL BE 4 FEET WIDE AND 4 FEET LONG AND 2 FEET THICK AND BE INSCRIBED USING 4 INCH LETTERS EMBEDDED A MINIMUM OF 1/4 INCH DEEP AND STATING THE FOLLOWING: "MOUNT TAYLOR MINE PRODUCTION SHAFT CLOSED (DATE)."

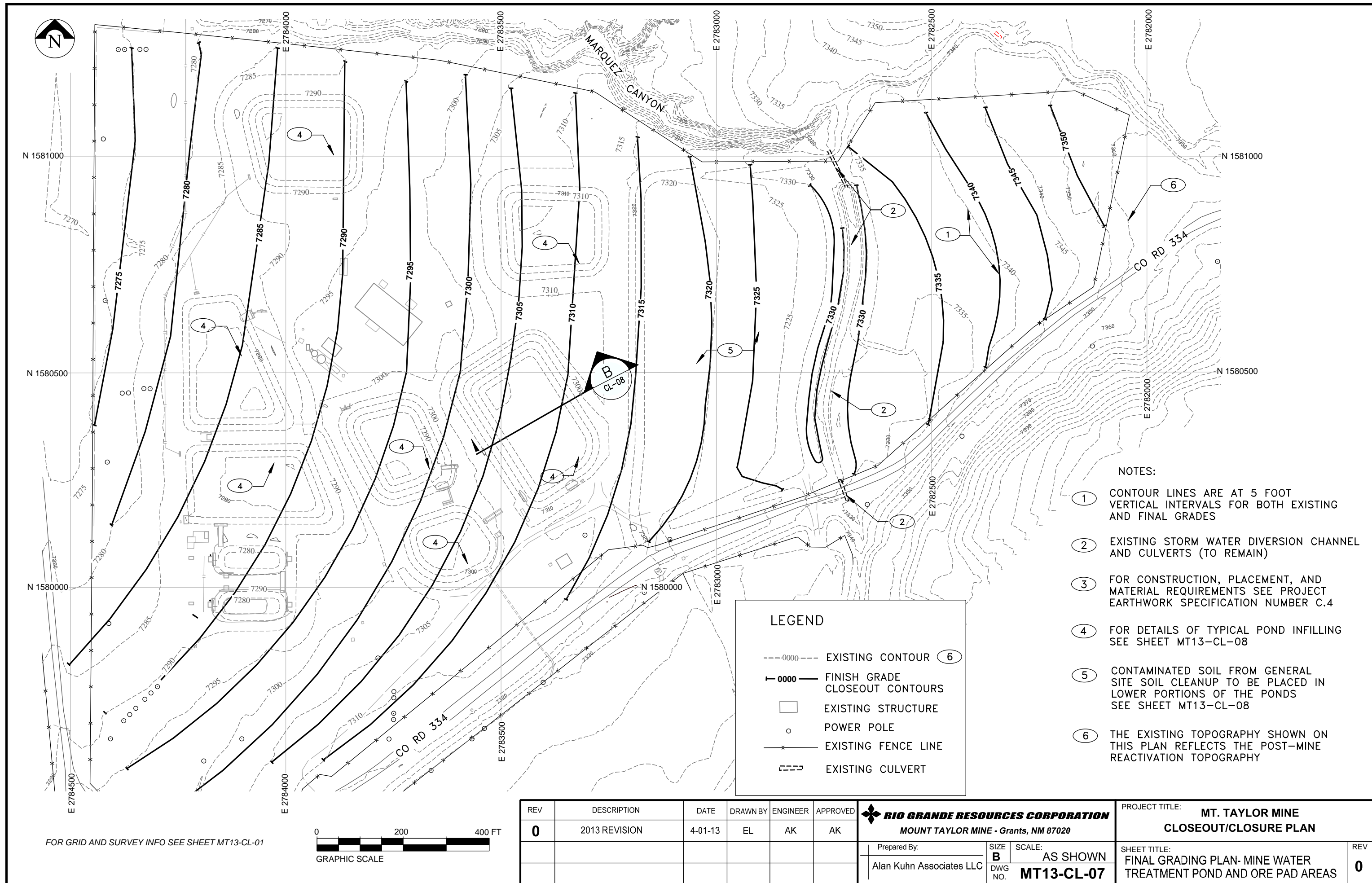
**STEEL BEAMS**

QTY	LENGTH FEET
10	31.0
4	29.0
4	26.0
4	22.0
4	18.0
4	14.0

**LIST OF MATERIALS**

STEEL PLATE	830 SF
LIGHT WEIGHT CONCRETE	215 CY
BACKFILL SLURRY TOTAL	2950 CY
3000 PSI CONCRETE	1.2 CY

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	 <b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020			PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>	
0	2013 REVISION	4-01-13	EL	AK	AK				SHEET TITLE: <b>SHAFT CLOSURE - PRODUCTION SHAFT</b>	
						Prepared By:	SIZE <b>B</b>	SCALE: <b>NONE</b>	SHEET NO. <b>MT13-CL-06</b>	REV <b>0</b>
						Alan Kuhn Associates LLC	DWG NO.			



NOTES:

- 1 CONTOUR LINES ARE AT 5 FOOT VERTICAL INTERVALS FOR BOTH EXISTING AND FINAL GRADES
- 2 EXISTING STORM WATER DIVERSION CHANNEL AND CULVERTS (TO REMAIN)
- 3 FOR CONSTRUCTION, PLACEMENT, AND MATERIAL REQUIREMENTS SEE PROJECT EARTHWORK SPECIFICATION NUMBER C.4
- 4 FOR DETAILS OF TYPICAL POND INFILLING SEE SHEET MT13-CL-08
- 5 CONTAMINATED SOIL FROM GENERAL SITE SOIL CLEANUP TO BE PLACED IN LOWER PORTIONS OF THE PONDS SEE SHEET MT13-CL-08
- 6 THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN REFLECTS THE POST-MINE REACTIVATION TOPOGRAPHY

LEGEND

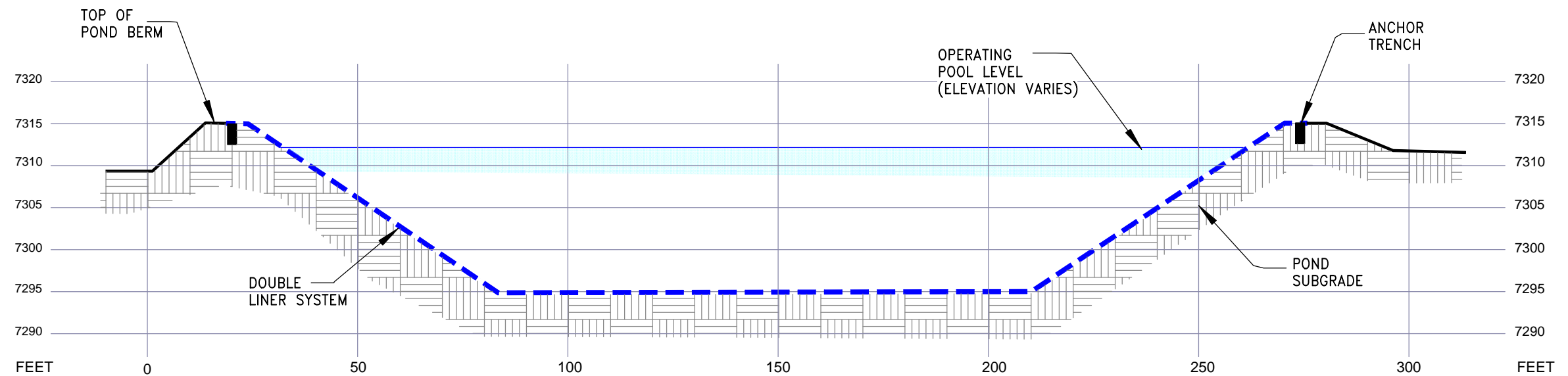
- 0000--- EXISTING CONTOUR 6
- 0000— FINISH GRADE CLOSEOUT CONTOURS
- EXISTING STRUCTURE
- POWER POLE
- \*— EXISTING FENCE LINE
- EXISTING CULVERT

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED
0	2013 REVISION	4-01-13	EL	AK	AK

<b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020		
Prepared By:	SIZE	SCALE:
Alan Kuhn Associates LLC	<b>B</b>	<b>AS SHOWN</b>
	DWG NO.	<b>MT13-CL-07</b>

PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>	
SHEET TITLE: <b>FINAL GRADING PLAN- MINE WATER TREATMENT POND AND ORE PAD AREAS</b>	REV <b>0</b>





**A**  
08 TYPICAL MINE WATER TREATMENT POND  
BEFORE CLOSURE

SCALE: AS SHOWN BY GRID  
(VERTICAL SCALE = 2X HORIZONTAL SCALE)

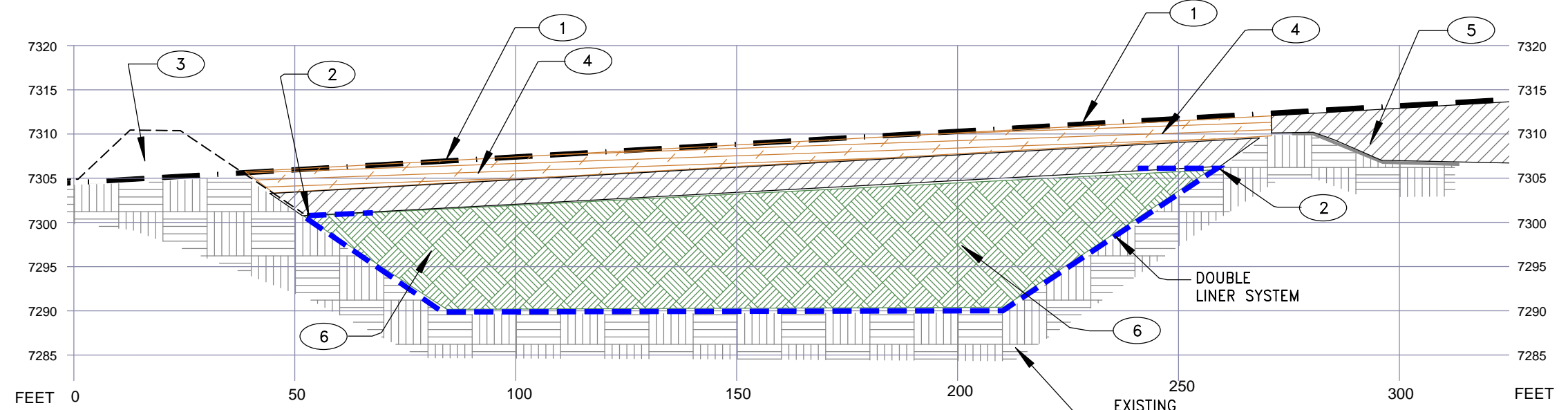
POND #1 SHOWN AS EXAMPLE

NOTES

- 1 FINAL GRADE – GRADE SURFACE TO BE PREPARED FOR REVEGETATION.
- 2 REMOVE LINER SYSTEM FROM ANCHOR TRENCH AND FOLD INTO POND
- 3 CUT EXISTING BERMS AS NEEDED TO REACH FINAL GRADES
- 4 2 FEET MINIMUM COVER – CLEAN SOIL (SC, CL OR CH) – COVER SOIL SHALL BE FREE OF ANY BROKEN ROCK OR CONCRETE FRAGMENTS LARGER THAN 1" DIA.
- 5 COMMON FILL– CLEAN FILL SOILS WITH NO BUILDING DEBRIS.
- 6 POND INFILL – INCLUDING BUILDING DEBRIS AND CONTAMINATED SOIL
- 7 FOR CONSTRUCTION, PLACEMENT, AND MATERIAL REQUIREMENTS SEE PROJECT EARTHWORK SPECIFICATION NUMBER C.4

LEGEND


- EXISTING POND GRADE WITH LINER
- FINAL GRADE
- 4 COVER SOIL
- 5 COMMON FILL
- 6 POND INFILL

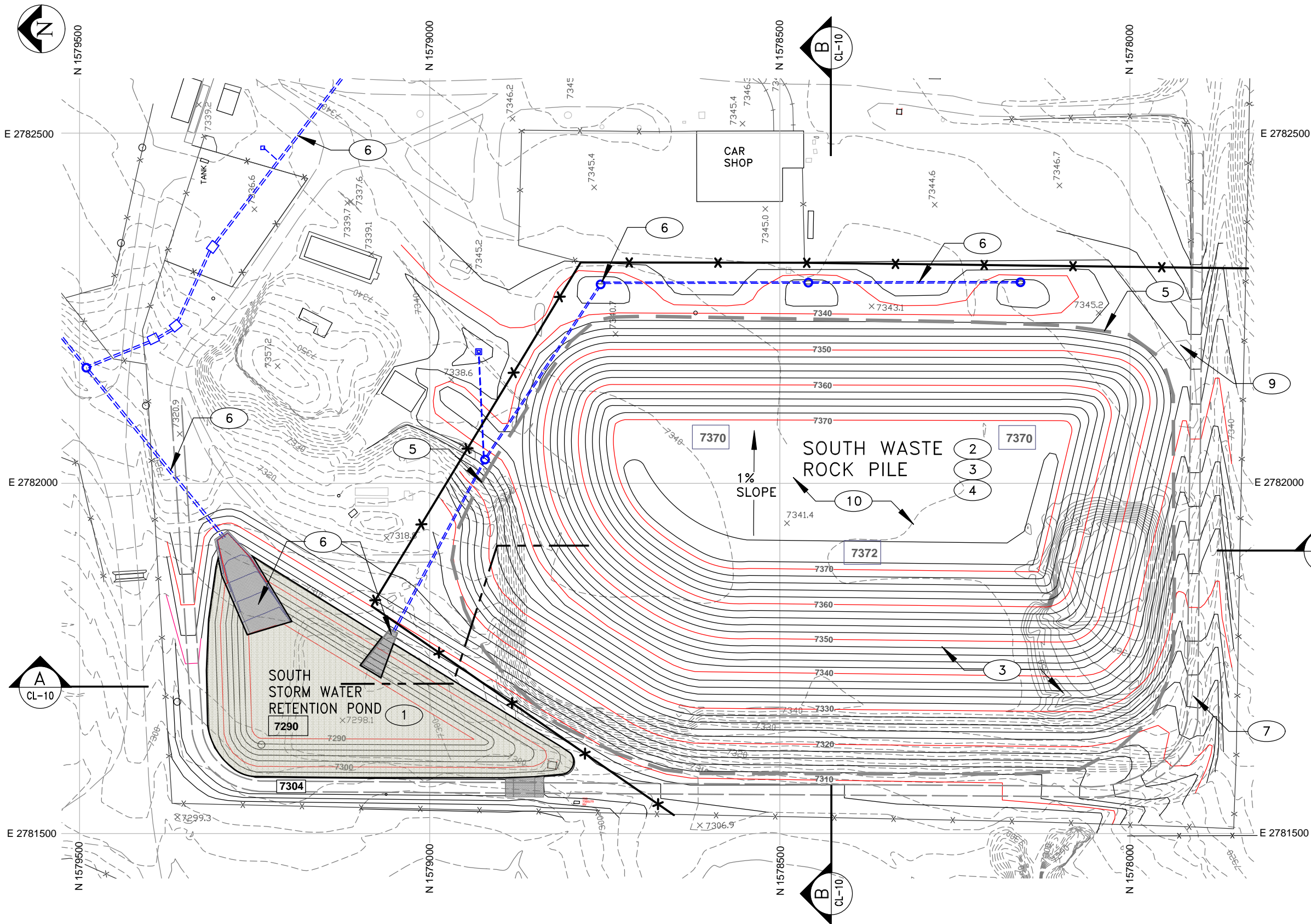


**B**  
07 TYPICAL MINE WATER TREATMENT POND INFILL  
POST CLOSURE CONDITIONS

SCALE: AS SHOWN BY GRID  
(VERTICAL SCALE = 2X HORIZONTAL SCALE)

POND #1 SHOWN AS EXAMPLE

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<div><b>RIO GRANDE RESOURCES CORPORATION</b> <i>MOUNT TAYLOR MINE - Grants, NM 87020</i></div>	PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>			
<b>0</b>	2013 REVISION	4-01-13	EL	AK	AK					
						Prepared By: Alan Kuhn Associates LLC	SIZE <b>B</b> DWG NO. <b>MT13-CL-08</b>	SCALE: <b>AS SHOWN</b>	SHEET TITLE: <b>TYPICAL SECTIONS - MINE WATER TREATMENT POND INFILL</b>	REV <b>0</b>

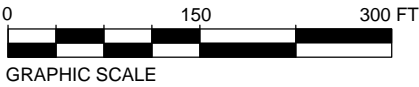


NOTES:


- 1 SOUTH STORM WATER RETENTION POND
- 2 WASTE ROCK PILE AT FINAL BUILDOUT CONTOURS SHOWN AT 2' INTERVALS
- 3 WASTE ROCK PILE SLOPES = 5H TO 1V
- 4 WASTE ROCK PILE TO RECEIVE 2' MIN. CLEAN SOIL COVER PLACED CONTEMPORANEOUSLY WITH WASTE ROCK
- 5 PERIMETER OF WASTE ROCK PILE
- 6 DRAINAGE PIPES, MANHOLES AND CONCRETE SPILLWAYS TO REMAIN
- 7 SERVICE ROAD TO REMAIN
- 8 FOR CONSTRUCTION, PLACEMENT, AND MATERIAL REQUIREMENTS SEE PROJECT EARTHWORK SPECIFICATION NUMBER C.4
- 9 USE CLEAN FILL SOILS FOR FILL AREAS OF 2 FEET OR LESS
- 10 REVEGETATE ALL DISTURBED AREAS

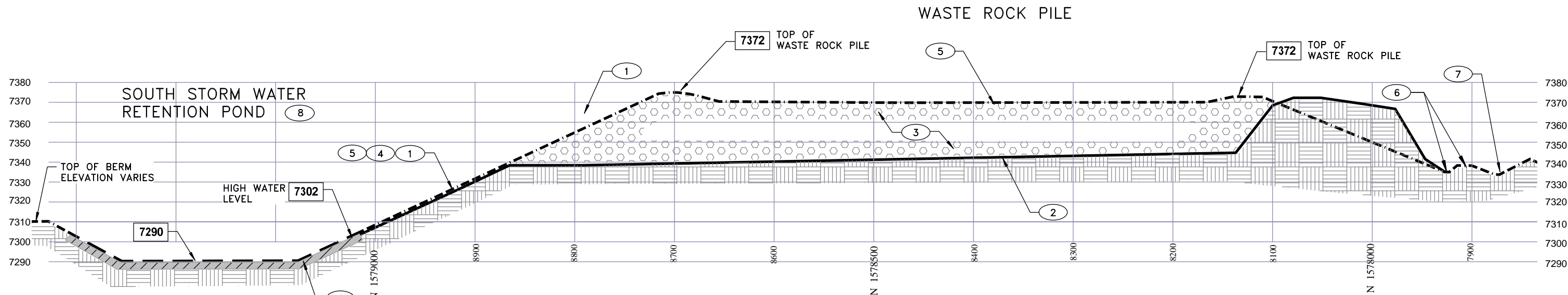
LEGEND

- 0000 DESIGN SPOT ELEVATIONS
- DESIGN CONTOURS (2 FOOT INTERVALS)
- - - EXISTING CONTOURS (2 FOOT INTERVALS)
- ===== DRAINAGE PIPES
- CLAY LINER AREA
- \*— NEW FENCE LINE
- \*— EXISTING FENCE LINE



FOR GRID AND SURVEY INFO SEE SHEET MT13-CL-01

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<div><b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020</div>	PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>			
<b>0</b>	2013 UPDATE	4-01-13	EL	AK	AK		SHEET TITLE: <b>FINAL GRADING AND COVER PLAN- SOUTH WASTE ROCK PILE AREA</b>			REV
										<b>0</b>
						<div>Prepared By: Alan Kuhn Associates LLC</div>	<div>SIZE <b>B</b> DWG NO. <b>MT13-CL-09</b></div>	<div>SCALE: <b>AS SHOWN</b></div>		



SECTION A-A'  
SHEET MT13-CL-09

SCALE: AS SHOWN BY GRID  
(VERTICAL SCALE = 2X HORIZONTAL SCALE)  
GRID = NAD 83 NEW MEXICO WEST

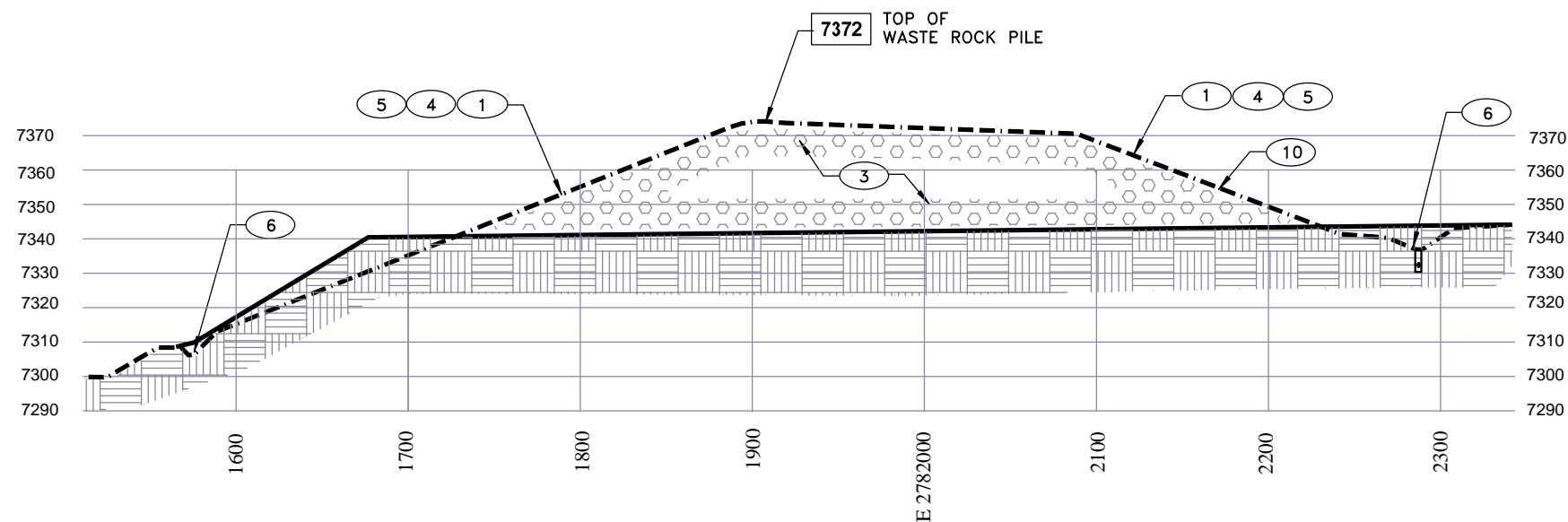
NOTES:

- ① FINAL GRADES AT FULL BUILDOUT
- ② EXISTING GRADES
- ③ WASTE ROCK FROM MINE, CONTAMINATED SOIL AND DEMOLITION DEBRIS
- ④ FINISH SLOPES OF WASTE ROCK PILE - 5H TO 1V MAXIMUM.
- ⑤ TWO FEET OF CLEAN SOIL COVER PLACED CONTEMPORANEOUSLY ON PILE SLOPES
- ⑥ CONTAINMENT BERM AND DRAINAGE SWALE
- ⑦ EXISTING DIVERSION CHANNEL
- ⑧ SOUTH STORM WATER RETENTION POND  
TOP OF BERM ELEVATION = 7304' MINIMUM  
BOTTOM OF BASIN ELEVATION = 7290'
- ⑨ CLAY LINER - 1FT THICK MINIMUM
- ⑩ REVEGETATE ALL DISTURBED AREAS EXCEPT THE SOUTH STORM WATER RETENTION POND

LEGEND


- 0000 DESIGN SPOT ELEVATION
- EXISTING GRADE
- FINAL GRADE
- WASTE ROCK - CONTAMINATED SOIL OR BUILDING DEBRIS
- CLAY LINER

FOR GRID AND SURVEY INFO SEE SHEET MT13-CL-01

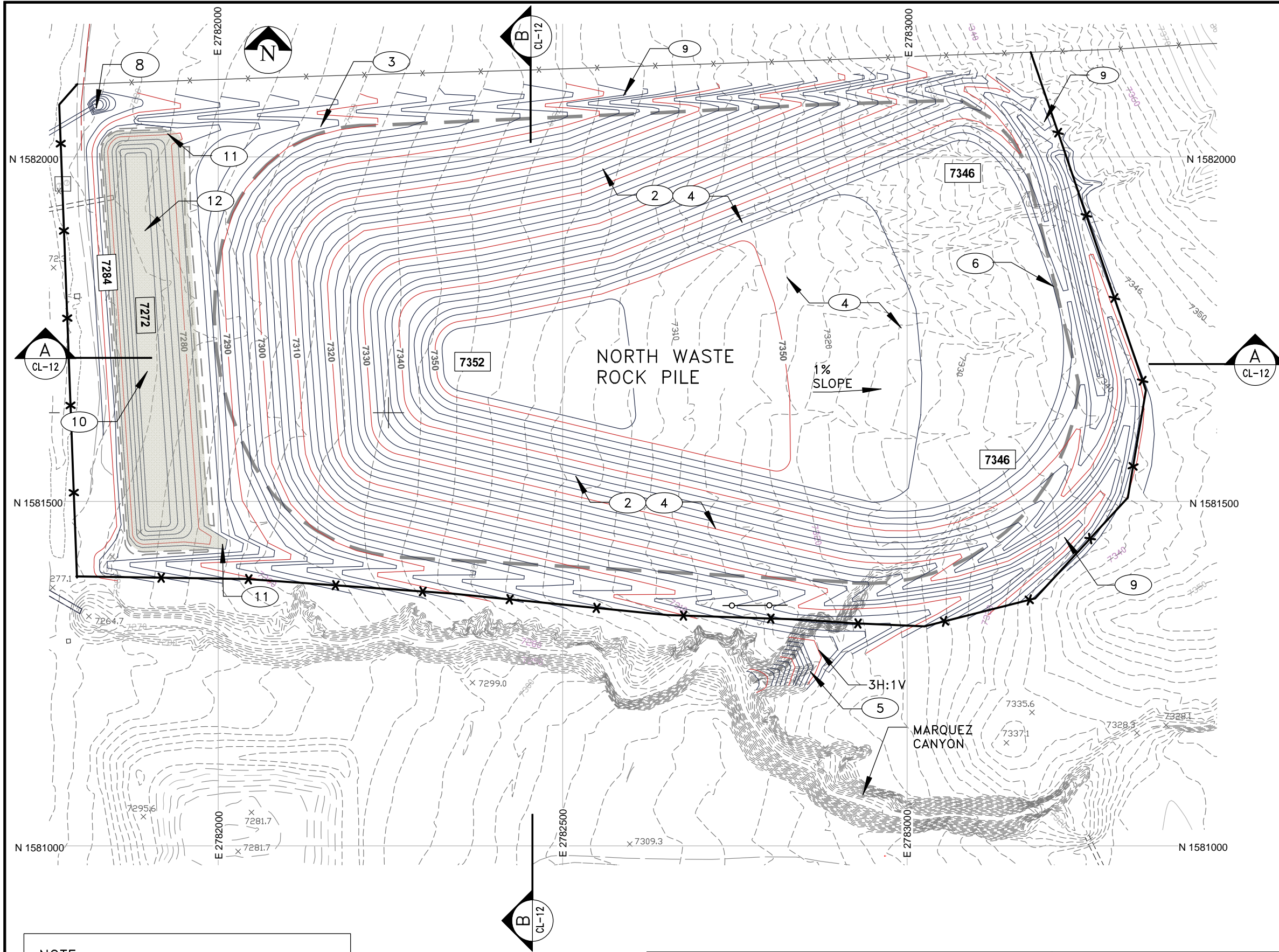


SECTION B-B'  
SHEET MT13-CL-09

SCALE: AS SHOWN BY GRID  
(VERTICAL SCALE = 2X HORIZONTAL SCALE)  
GRID = NAD 83 NEW MEXICO WEST

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<div><b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020</div>	PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>			REV <b>0</b>
<b>0</b>	2013 UPDATE	4-01-13	EL	AK	AK		SHEET TITLE: <b>FINAL GRADING AND COVER SECTIONS SOUTH WASTE ROCK PILE AREA</b>			
						Prepared By: Alan Kuhn Associates LLC	SIZE <b>B</b> DWG NO. <b>MT13-CL-10</b>	SCALE: <b>AS SHOWN</b>		





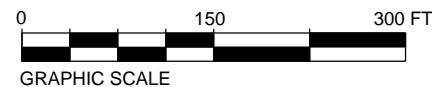
# NOTES:

- 1 WASTE ROCK PILE AT FINAL BUILDOUT CONTOURS SHOWN AT 2' INTERVALS
- 2 WASTE ROCK PILE SLOPES = 5H TO 1V
- 3 DRAINAGE SWALE AT TOE OF SLOPE
- 4 2' THICK COVER OF CLEAN SOIL OVER WASTE ROCK PILE PLACED CONTEMPORANEOUSLY WITH BUILDOUT
- 5 RIP RAP WHERE DRAINAGE SWALES FLOW INTO MARQUEZ CANYON
- 6 PERIMETER OF WASTE ROCK PILE
- 7 REVEGETATE ALL DISTURBED AREAS
- 8 2' DIA CMP CULVERT
- 9 OUTER DRAINAGE SWALES TO DIVERT RUNOFF FROM MESA
- 10 STORM WATER RETENTION BASIN FOR RUNOFF FROM WASTE ROCK PILE - TOP OF EMBANKMENT ELEVATION = 7284' HIGH WATER ELEVATION = 7282' BOTTOM OF POND ELEVATION = 7272'
- 11 RIP RAP AT SWALE ENTRANCE TO STORM WATER RETENTION BASIN
- 12 CLAY LINER - 1 FT THICK MINIMUM

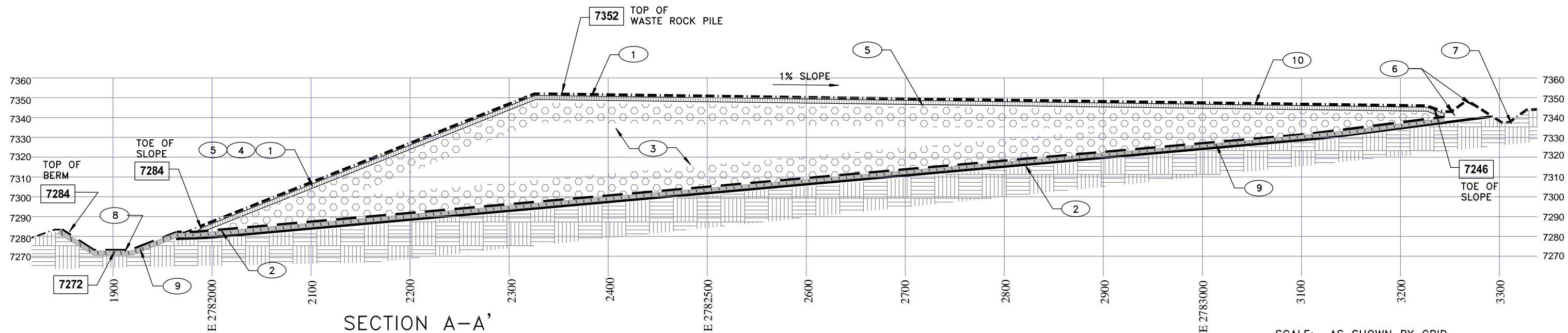
# LEGEND

0000	DESIGN SPOT ELEVATIONS
—	DESIGN CONTOURS (2 FOOT INTERVALS)
- - -	EXISTING CONTOURS (2 FOOT INTERVALS)
— x —	EXISTING FENCE LINE
— x —	NEW FENCE LINE
==	TOP OF STORM WATER RETENTION BASIN
—	PERIMETER OF WASTE ROCK PILE
■	CLAY LINER

NOTE:  
NORTH WASTE ROCK PILE TO BE BUILT ONLY IF NEEDED IN THE FUTURE



REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020			PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>	
0	2013 UPDATE	4-01-13	EL	AK	AK				SHEET TITLE: <b>FINAL GRADING AND COVER PLAN - NORTH WASTE ROCK PILE AREA</b>	
						Prepared By: Alan Kuhn Associates LLC	SIZE <b>B</b> DWG NO. <b>MT13-CL-11</b>	SCALE: <b>AS SHOWN</b>	REV <b>0</b>	



# NOTES:

- 1 FINAL GRADES AT FULL BUILDOUT
- 2 EXISTING GRADES
- 3 WASTE ROCK FROM MINE
- 4 FINAL SLOPES OF WASTE ROCK PILE – 5H TO 1V MAXIMUM.
- 5 TWO FEET OF CLEAN SOIL COVER PLACED CONTEMPORANEOUSLY ON PILE SLOPES
- 6 CONTAINMENT BERM AND DRAINAGE SWALE
- 7 DIVERSION CHANNEL TO DIVERT MESA RUNOFF AWAY FROM PILE
- 8 STORM WATER RETENTION BASIN FOR RUNOFF FROM WASTE ROCK PILE – TOP OF BERM ELEVATION = 7284' BOTTOM OF BASIN ELEVATION = 7272'
- 9 CLAY LINER – 1FT THICK MINIMUM

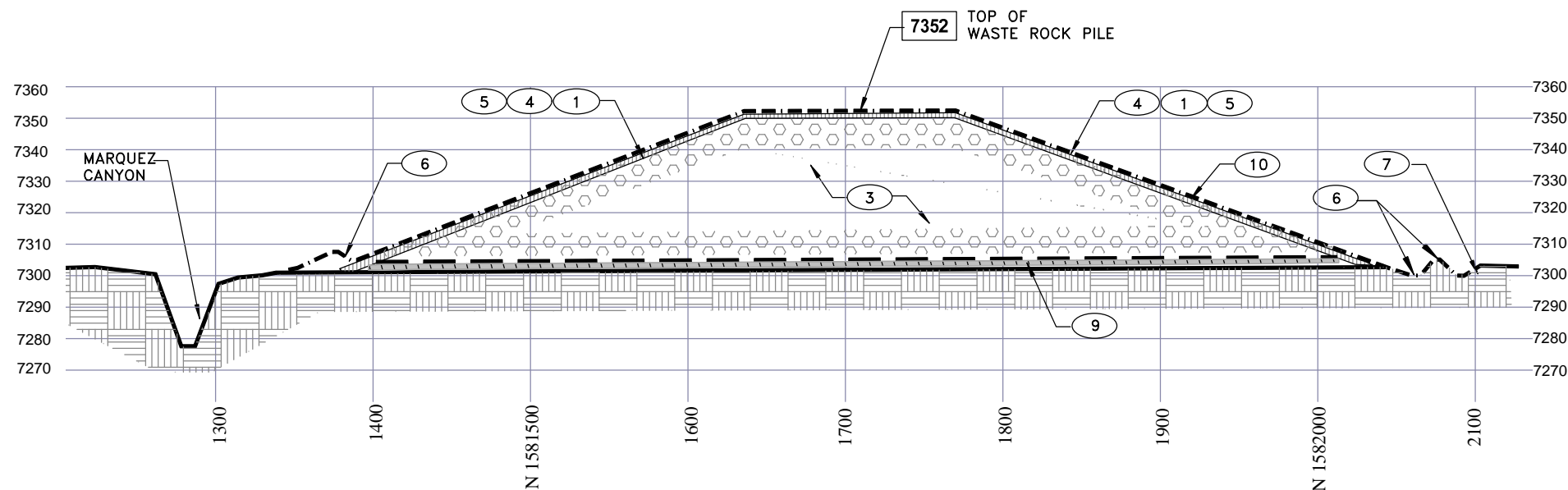
## LEGEND

- 0000 DESIGN SPOT ELEVATION
- EXISTING GRADE
- FINAL GRADE
- WASTE ROCK – CONTAMINATED SOIL OR BUILDING DEBRIS
- CLAY LINER

FOR GRID AND SURVEY INFO SEE SHEET MT13-CL-01

SCALE: AS SHOWN BY GRID  
(VERTICAL SCALE = 2X HORIZONTAL SCALE)

GRID = NAD 83 NEW MEXICO WEST



## SECTION B-B' SHEET MT13-CL-11

SCALE: AS SHOWN BY GRID  
(VERTICAL SCALE = 2X HORIZONTAL SCALE)

GRID = NAD 83 NEW MEXICO WEST

NOTE:  
NORTH WASTE ROCK PILE TO BE BUILT ONLY IF  
NEEDED IN THE FUTURE

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEER	APPROVED	<b>RIO GRANDE RESOURCES CORPORATION</b> MOUNT TAYLOR MINE - Grants, NM 87020			PROJECT TITLE: <b>MT. TAYLOR MINE CLOSEOUT/CLOSURE PLAN</b>	
0	2013 UPDATE	4-01-13	EL	AK	AK				SHEET TITLE: <b>FINAL GRADING AND COVER SECTIONS NORTH WASTE ROCK PILE AREA</b>	
						Prepared By: Alan Kuhn Associates LLC	SIZE B DWG NO. <b>MT13-CL-12</b>	SCALE: AS SHOWN	REV <b>0</b>	



