ROUNDUP POWDER COMPANY

DAKOTA DIVISION - STURGIS, SOUTH DAKOTA
"SERVICE IS OUR FIRST PRODUCT"

D.H. BLATTNER & SONS
BROHM/GILT EDGE MINING PROJECT

DRILL & BLAST RECORD

Blast Number 313B Name of blaster Kevin Collins

Date 5-13-92 Time of blast 2:00 P.m.

BLAST DATA

Location Sundax Pit Level 5-20-5

Type of material ORE/Waste Type of Pattern Square [ ] Staggered [ ]

	Production	High wall / Toe
Hole Diameter	6 1/2"	6 1/2"
Burden	13'	10.5'
Spacing	13'	11'
Hole depth	20'	20'
Subdrill	3'	3'
Stem Length	10'-16'	5' Cut 12'
Stem Material	1" conn	1" Conn
Cu/Yd per hole	125.18	85.18
Number of Holes	192	15
Avg. Lbs. per hole	120#	60#

	DRY	WET	TOTAL
Total Number of Holes	0	207	207

Total Cubic Yards This Shot 25,312 Overall Powder Factor 1.16

ATMOSPHERIC CONDITIONS

Temperature 70° Wind Calm Sky Conditions Clear

Comments: theyre was quite a few holes in this shot that they couldn't get drilled theyre was some fly rock, about of wood in shot

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DRILL & BLAST RECORD

Blast Number 314 B Name of blaster Kenny Collins

Date 5-18-92 Time of blast 5:10 P.m.

BLAST DATA

Location @ Sunday Pit Level 5-20-6

Type of material ORE/waste Spread Pattern: Square ☐ Staggered ☑

	Production	High Wall Lift
Hole Diameter	6½"	6½"
Burden	13'	10.5'
Spacing	13'	11'
Hole depth	20'	20'
Subdrill	3'	3'
Stem Length	10'-16'	5' (+) 12'
Stem Material	1" Conn.	1" Conn.
Cu/Yd per hole	125.18	85.18
Number of Holes	165	33
Avg. Lbs. per hole	130#	60#

	DRY	WET	TOTAL
Total Number of Holes	48	150	198

Total Cubic Yards This Shot 23,466 Overall Powder Factor 1.14

ATMOSPHERIC CONDITIONS

Temperature 85° Wind Calm Sky Conditions Clear

Comments:

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DRILL & BLAST RECORD

Blast Number 315 B Name of Blaster Kevin Collins

Date 5-20-92 Time of blast 5:10 P.m.

BLAST DATA

Location Sunday Pit Level 5-20-7

Type of material ORE/Waste Type of Pattern: Square [ ] Staggered [✓]

	Production	Highwall / Toe
Hole Diameter	6½"	6½"
Burden	13'	10.5'
Spacing	13'	11'
Hole depth	20'	20'
Subdrill	3'	3'
Stem Length	10'-16'	5' Deck 16'
Stem Material	1" Conn.	1" Conn.
Cu/Yd per hole	125.18	85.18
Number of Holes	144	14
Avg. Lbs. per hole	130#	60#

	DRY	W	TOTAL
Total Number of Holes	22	136	158

Total Cubic Yards This Shot 19,218 Overall Powder Factor 1.13

ATMOSPHERIC CONDITIONS

Temperature 90° Wind Calm Sky Conditions Clear

Comments: Shot was about 85% wet, had about 3 redrills, one holes we never did get very deep. big wire had a break in it.

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DRILL & BLAST RECORD

Blast Number 316 B Name of Blaster Kenni Collins

Date 5-28-92 Time of Blast 12:10 P.M.

BLAST DATA

Location Sunday Pit Level S-20-5 A

Type of material ORE/waste Type of Pattern: Square [ ] Staggered [✓]

	Production	Highwall / Toe
Hole Diameter	6½"	6½"
Burden	12'	10'
Spacing	12'	11'
Hole depth	20'	20'
Subdrill	3'	3'
Stem Length	10'-16'	12' Deck 5'
Stem Material	1" Conn.	1" Conn.
Cu/Yd per hole	106.6	81.48
Number of Holes	45	14
Avg. Lbs. per hole	130#	60#

	DRY	WET	TOTAL
Total Number of Holes	0	59	59

Total Cubic Yards This Shot 5,938 Overall Powder Factor 1.0

ATMOSPHERIC CONDITIONS

Temperature 60° Wind 10mph N.W. Sky Conditions Part'y Cloudy

Comments: We got all the holes loaded except for one. It opened up a old shaft after we shot it & water was coming out everywhere.

GILT EDGE MINE

OWNER: Brohm Mining Corp. CONTRACTOR: D.H. Blattner and Son's

BLASTING NOTICE

Date: 7-2-92 Shot#: 5-12-160

Estimated Time of Blast 5:10 P.M.

Nunber of Holes..... 140
Burden..... 13X13 10X10
Spacing..... 13X13 10X10
Stemming..... 10'-16
Powder Factor..... 1.0
Downhole Delay..... 500MS 600MS
Surface Delay..... 125MS 35MS
Elevation..... 5,340'

GUARD STATIONS

	Supervisor	Station
1	Roundup Powder	Crusher
2	Charlie Boring	Front Gate
3		
4		
5		

Submitted By:

Fred Rikin D.H. Blattner Supervisor

Kenni Collins Roundup Powder Co

Approved By:

William R. Fox Brohm Mining Corp

DISTRIBUTION:

D.H. Blattner and Son's, Inc
Brohm Mining Corporation
Lance Hubbard
Rod MacLead
Bill Moths

GILT EDGE MINE

OWNER: Brohm Mining Corp. CONTRACTOR: D.H. Blattner and Son's

BLASTING NOTICE

Date: 7-2-92 Shot#: 5-12-16

Estimated Time of Blast 5:10 P.M.

Nunber of Holes	140
Burden	13X13 10X10
Spacing	13X13 10X10
Stemming	10'-16
Powder Factor	1.0
Downhole Delay	500ms 600ms
Surface Delay	125ms 35ms
Elevation	5,340'

GUARD STATIONS

	Supervisor	Station
1	Roundup Powder	Crusher
2	Charlie Boring	Front Gate
3		
4		
5		

Submitted By:

Fred Riker D.H. Blattner Supervisor

Kevin Collins Roundup Powder Co

Approved By:

William R. Fyo Brohm Mining Corp

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GILT EDGE MINE

OWNER: Brohm Mining Corp. CONTRACTOR: D.H. Blattner and Son's

BLASTING NOTICE

Date: 7-3-92 Shot#: S-21-8

Estimated Time of Blast 9:30 Am

Nunber of Holes..... 70
Burden..... 10'±13'
Spacing..... 10'±13'
Stemming..... 10'-14'
Powder Factor..... 1.0
Downhole Delay..... 14±15 ms
Surface Delay..... 35,125,150
Elevation..... 5320

GUARD STATIONS

Supervisor	Station
1 Charles Boring	Front Gate
2 Round-up	Sunday pit
3	
4	
5	

Submitted By:

[signature] D.H. Blattner Supervisor

_____ Roundup Powder Co

Approved By:

[signature] Brohm Mining Corp

DISTRIBUTION:

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