



STATE OF
COLORADO

Cazier - DNR, Tim <tim.cazier@state.co.us>

RCQ Blasting

1 message

TOM SMITH <Tom@rmmaterials.com>

Mon, Sep 21, 2015 at 8:23 AM

To: "Cazier - DNR, Tim" <tim.cazier@state.co.us>

Tim,

Attached is the blast report for RCQ on the 18th of August. There are two seismograph readings readings and they are labeled accordingly.

Tom



DOC078.PDF

155K

Buckley Powder Co.**BLAST REPORT**

PO NUMBER: 150800996

SERVICE SITE LOCATION: LouviersORDER NO.: 7402605BLAST NUMBER: 4-2015 BLAST TIME: 2:59 pm BLAST DATE: 08/18/2015CUSTOMER: ROCKY MOUNTAIN MATERIA MINE ADDRESS: Rocky Mountain Matera Colorado Springs, COROCK TYPE: Granite Tons/Yd3: 2.20 EXPECTED VIBRATION: 0.000**LOCATION OF BLAST**LOCATION OF BLAST IN MINE: North BENCH: Bench 1BLAST GPS POINTS: N-038.60765 & W 104.94623**WEATHER**WEATHER: Partly Cloudy CEILING: Medium TEMPERATURE: 86 WIND DIRECTION & SPEED: North 3**NEAREST NON-OWNED STRUCTURE**NAME: ROCKY MOUNTAIN MATERIALS GPS Points: N -038.60765 & W 104.94390DISTANCE: 756 Ft DIRECTION: 90°**SEISMOGRAPH DATA**

LOCATION		DISTANCE		GPS POINTS		CALIBRATION DATE	
1	ROCKY MOUNTAIN MAT	756	Ft	N -038.60765	& W 104.94390	02/09/2015	
	L (F) T (F)	V (F)	AIR (db)	SEISMOGRAPH	SERIAL	OPERATOR	
1	0.203 17 0.097 22	0.141 17	120	BA 9241	BA 9241		

BLAST DATA

NUMBER OF HOLES (EA)		EXPLOSIVES SIZE, TYPE & WEIGHT	
HOLE DIAMETER (IN)	4.5	SIZE	TYPE
HOLE DEPTH (FT)	45	0.44	SPARTAN 200
FACE HEIGHT (FT)		0.75	SPARTAN 350
SUB DRILLING (FT)	0	BULK	TITAN 1000 XL
AVG. STEM FACE HOLES (FT)			
STEM OTHER HOLES (FT)	12		
BURDEN FRONT ROW (FT)			
BURDEN OTHER ROWS (FT)	15		
SPACING FRONT ROW (FT)			
SPACING OTHER ROWS (FT)	15		
		TOTAL WEIGHT: 27,418.63	

DETONATORS USED IN BLAST: Non-ElectricMATS USED: NoSTEM TYPE: CRUSHED STONE

TYPE	MFG	DATE CODE	USED	TYPE	MFG	DATE CODE	USED
EZDET 25/350 40 FT	Dyno Nobel Global	06JY15	99	EZTL 17MS 20FT	Dyno Nobel Global	08SE14	13
SPARTAN 350	Dyno Nobel Global	10FE15	123	EZTL 67MS 30 FT	Dyno Nobel Global	12JA15	24
SPARTAN 200	Dyno Nobel Global	13MY15	119	MS 350 50FT	Dyno Nobel Global	13OC14	143
LEADLINE 2500FT	Dyno Nobel Global	15JU15	500	EZTL 9MS 30 FT	Dyno Nobel Global	20AP15	2

CU YDS IN SHOT: 45,000SCALED DISTANCE FACTOR: 27% OF ANFO: 0TONS IN SHOT: 99,000HOLES/DELAY: 3FUEL OIL % (BULK): 0MAX LBS/DELAY: 735AVERAGE LBS/HOLE 228POWDER FACTOR (TONS/LB): 3.61POWDER FACTOR POUNDS/YD3: 0.61BLASTERS NAME: Shoemaker, Don S.BLASTERS NUMBER & STATE: 1-1-1636BLASTERS SIGNATURE: [Signature]SITE SAFETY INSPECTION PERFORMED: YesNUMBER OF PERSONNEL ON SITE: 5**REMARKS :**ALL POINTS : -038.60765,104.94623 000.00000,000.00000

START TIME	END TIME	TOTAL TIME	TRUCK NUMBERS
8:30 AM	2:15 PM	05:45	5013

Date 8-18-15Location: Rocky Mtn Materials
Pemase, Cashot #: 4-2015**BLASTER'S CHECKLIST**

Must be filled out as you go

yes / no / NA

PRE-TRIP CHECKLIST

☒	Measuring Tapes and lead ends
☒	Burden pole
☒	Paperwork and Hold Harmless
☒	Splices
☒	Starter and primers
☒	Blasting Signs & cones
☒	Sirens in working order
☒	Seismographs
☒	Paint
☒	Set back Stakes
☒	camera and tape for specific acct.

yes / no / NA

☒	Drillers log (if faxed prior to shot)
☒	Shot reports
☒	Load - blocked and braced
☒	Loading Poles / T Bars
☒	Density Cup and Scales
☒	Two Way Radios
☒	Radios fully Charged
☒	Wheel Chocks
☒	Harness & Lanyard
☒	First Aid Kits
☒	PPE

yes / no / NA

PRESHIFT CHECKLIST

☒	Inspect blast area for Unsafe Working Conditions (including face) for voids, cracks, caves, etc..										
☒	Ensure all employees have their site specific training.										
☒	Secure blast site with warning signs and cones (including floor in front of face)										
☒	Mark fall zone area at least six(6) feet from the crest										
☒	Inspect Harness/ Lanyard before each use if needed for fall zone or top of trucks										
☒	All equipment - back up alarms operational										
☒	Measure front row burden with burden pole or profiler										
☒	Check drill log and all holes for proper depth and blockage										
☒	Insure all needed products are present-enough boosters, detonators etc										
☒	Insure blast design is consistent with closest structures requirements										
☒	Check shot access including traffic activity										
☒	Any need for calling assistance (Hold Harmless, equipment to close, drilling problems, etc...)										
☒	Conduct pre-blast safety meeting with blast crew and customer blast coordinator (include names below)										
	<table border="1"> <tr> <td>Don</td> <td>Bruce</td> <td>Luke</td> <td>Andrew</td> <td>John</td> </tr> <tr> <td>Patrick</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Don	Bruce	Luke	Andrew	John	Patrick				
Don	Bruce	Luke	Andrew	John							
Patrick											
	Items covered <u>Stems slowly</u>										

yes / no / NA

TIE-IN CHECKLIST

☒	Shot tie inspected and signed off by two persons prior to shot including lead line (include names below)		
	<table border="1"> <tr> <td>Don</td> <td>Bruce</td> </tr> </table>	Don	Bruce
Don	Bruce		
☒	Blast area is cleared and blocked before attaching starter cap and lead line		
☒	Blaster in charge in communication with all guards at this time		
☒	Blaster in charge will insure blast area has been cleared and guarded before the siren is sounded		
☒	After proper waiting time blaster in charge will contact all guards before firing blast		
☒	Seismograph located at nearest off site structure or at the Property Line		
☒	Was the shot video taped		
	Reason for not videoing:		

yes / no / NA

POST BLAST CHECKLIST

☒	Maintain guards until shot is cleared and "all clear" is sounded						
☒	Check for misfires, undetonated explosives or burning product and other dangers						
☒	Sound all clear that is audible to all parties						
☒	Dispose of lead line in approved manner						
☒	Dispose of empty boxes in approved methods only						
☒	Complete all paper work prior to leaving site- delivery ticket, return bill of lading, Blaster's checklist						
	<table border="1"> <tr> <td>cup densities</td> <td>1st <u>1.10</u></td> <td>2nd <u>1.05</u></td> <td>3rd <u>1.15</u></td> <td>Final Density</td> <td><u>1.10</u></td> </tr> </table>	cup densities	1st <u>1.10</u>	2nd <u>1.05</u>	3rd <u>1.15</u>	Final Density	<u>1.10</u>
cup densities	1st <u>1.10</u>	2nd <u>1.05</u>	3rd <u>1.15</u>	Final Density	<u>1.10</u>		
☒	Amount of water used in repump operations						
☒	Make one final check of blast site before leaving property to insure no materials have been left and that no hazards are present that may have been missed during clearing process						

Must be completed and turned in daily

Blaster In Charge

Don Sholmat

Buckley Powder Co.

DIAGRAM

CUSTOMER NAME: ROCKY MOUNTAIN MATERIALS
BENCH: Bench 1
BLASTER'S NAME: Shoemaker, Don S.

BLAST DATE: 08/18/2015
BLAST NUMBER: 4-2015



○150 ○125 ○100 ○75 ○50 ○25 ○0
○226 ○201 ○176 ○151 ○126 ○101 ○76 ○67 ○92
○368 ○343 ○318 ○293 ○268 ○243 ○218 ○201 ○226
○477 ○452 ○427 ○402 ○377 ○352 ○327 ○310 ○335 ○385 ○410 ○435 ○460
○519 ○494 ○469 ○444 ○419 ○369 ○394 ○377 ○402 ○477 ○502 ○527
○611 ○586 ○561 ○511 ○486 ○469 ○561 ○586 ○611 ○636 ○444 ○469
○770 ○745 ○720 ○695 ○670 ○628 ○653 ○678 ○703 ○728 ○937
○837 ○812 ○787 ○762 ○737 ○720 ○745 ○770 ○795 ○845 ○870
○929 ○904 ○879 ○829 ○812 ○837 ○862 ○887 ○912
○996 ○971 ○946 ○921 ○904 ○929 ○954 ○979 ○1004
○1088 ○1063 ○1038 ○1013 ○996 ○1021 ○1046 ○1071 ○1096
○1180 ○1155 ○1130 ○1105 ○1088 ○1113 ○1138 ○1071 ○1188



Buc 4104

INSTANTEL BlastMate III

Serial Number 8A9241 V 10.72-8.17
Trigger Source Geo 0.0500 in/s
Geo Range Mic 130.0 dB(L)
Record Time 1.25 in/s
Location: Rocky Mtn 3.0 s at 1024 sps
Shot#4-2015 Colo Spr CO
Holes: 120
USER: Don Shoemaker

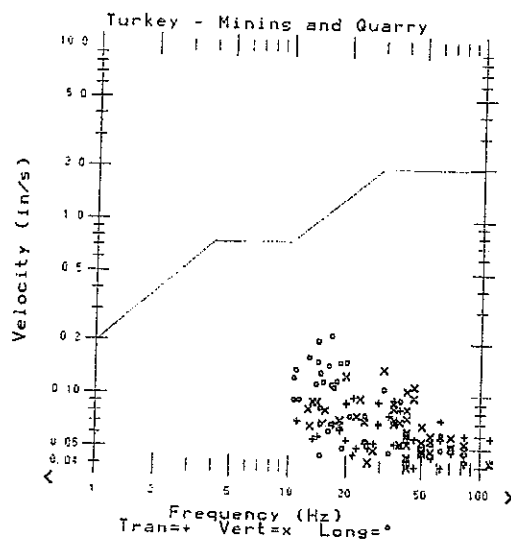
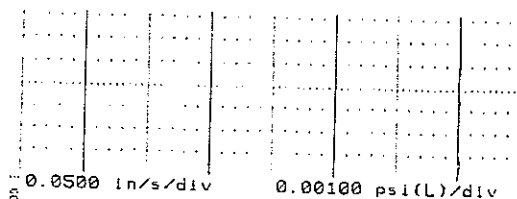
Pattern: 15x15
Scaled Distance 750.0 ft., 449.5 lb.,
35.4

Trigger Long at 02:59:14 PM Aug 18 15

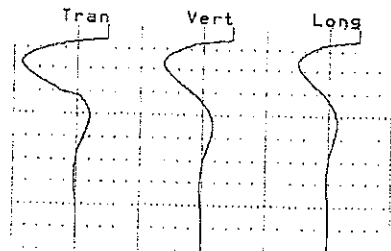
	Tran	Vert	Long
DPV	0.0969	0.141	0.203 in/s
ZC Freq	22	32	17 Hz
Time	0.554	0.078	0.573 sec
Accel	0.0845	0.139	0.101 g
Pk Disp	0.00067	0.00111	0.00173 in

PVS 0.213 in/s at 0.573 Sec

PSPL 120.1 dB(L) at 0.685 Sec
4.4 Hz



SENSORCHECK CALIBRATION



FI=6.1 OT=4.4 FV=7.3 OV=3.9
FL=7.7 OL=3.8 FM=20.1 PM=539
Tran, Vert, Long, MicL Passed
Battery Level: 6.3 Volts

Calibration Name Instantel
Calibration February 9, 2015

Format Copyrighted 1996-2010 Instantel

Date/Time MicL at 14:56:33 August 18, 2015
 Trigger Source Geo: 0.630 mm/s, Mic: 3.90 pa.(L)
 Range Geo: 31.7 mm/s
 Record Time 30.0 sec at 1024 sps
 Job Number: 1

Serial Number BC6736 V 10.72-8.17 MiniMate Plus
 Battery Level 6.2 Volts
 Unit Calibration July 21, 2014 by Instantel
 File Name _TEMP.EVT

Notes

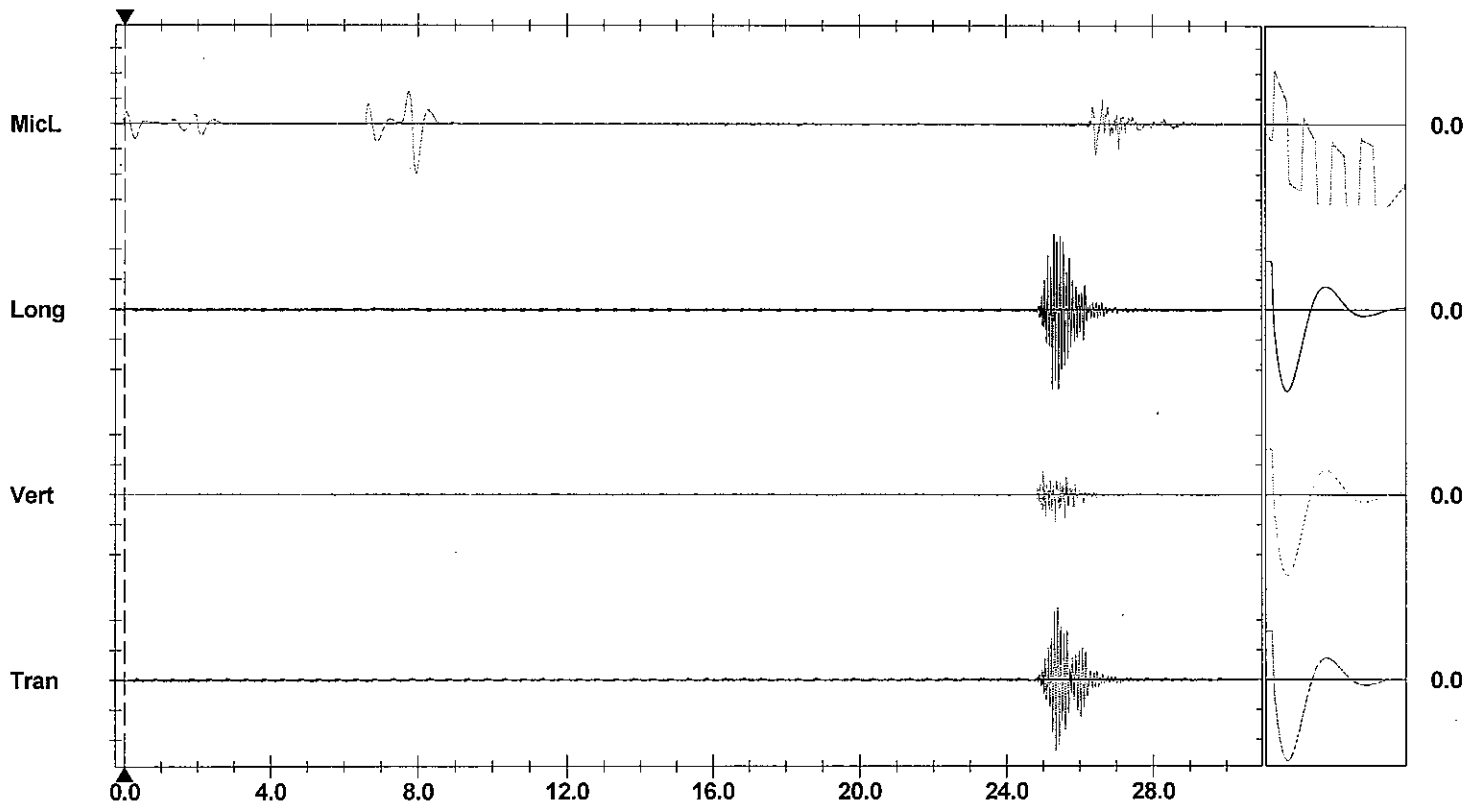
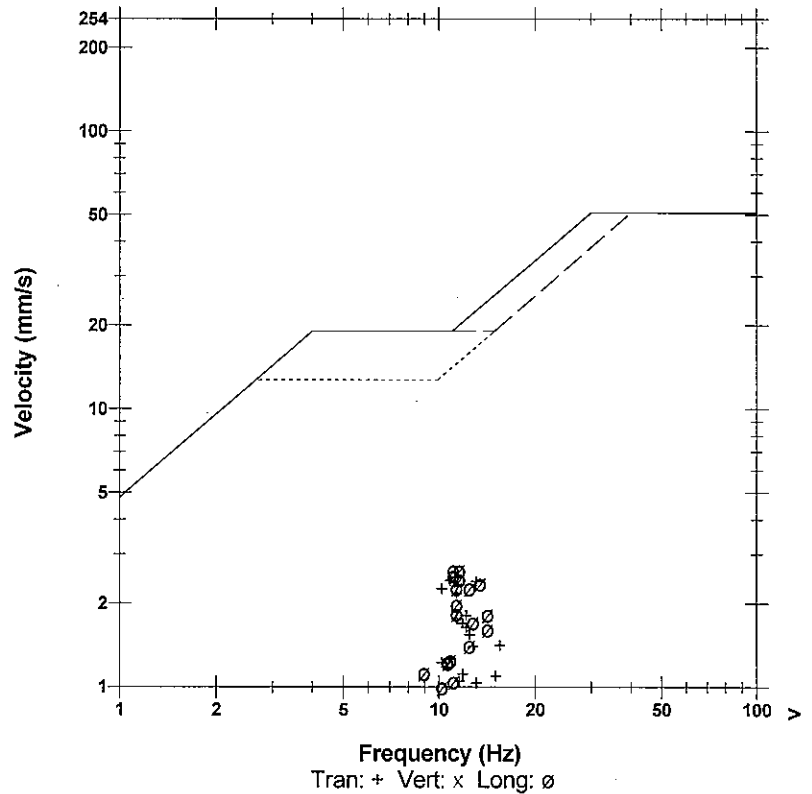
Location: Red Canon Scalehouse
 Client: Matheson Mining Ltd.
 User Name: Tech: 14
 General: Tests

Microphone Linear Weighting
 PSPL 19.5 pa.(L) at 7.944 sec
 ZC Freq 1.7 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 651 mv)

	Tran	Vert	Long	
PPV	2.41	0.968	2.64	mm/s
ZC Freq	11	17	12	Hz
Time (Rel. to Trig)	25.405	25.342	25.271	sec
Peak Acceleration	0.0298	0.0166	0.0315	g
Peak Displacement	0.0333	0.00981	0.0359	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.4	7.6	7.5	Hz
Overswing Ratio	3.8	3.4	3.6	

Peak Vector Sum 3.31 mm/s at 25.354 sec

USBM RI8507 And OSMRE



Time Scale: 1.00 sec/div Amplitude Scale: Geo: 1.000 mm/s/div Mic: 10.00 pa.(L)/div
 Trigger =

Sensor Check