PROPOSED BLASTING PLAN

Hyak Wa. I 90

Company WESTERN STATES Date SEPT 24, 2010 Shot # 44

Location of Blast STA 1342+00 — 1343+00 (PRESPLIT ONLY)

Date of Blast Planned SEPT 27 Time of Blast 6:00 Rock Type LAPILLI TUFF

Name of Blaster CHARLES MURPHY License Number UP 21262

Direction NORTH Distance ≈ 150' Feet From I-90 WESTBOUND

# of Pre-Split Holes 41 Spacing 30" Depth MAX 24' MIN 7 Slope .25/1 Charge WT 6# LF Drilled ≈ 500

Holes 41 Burden PRESPLIT ft Spacing 30" ft Depth MAX 24 MIN 7 Diameter 3" Stemming 5'

Holes _____ Burden _____ ft Spacing _____ ft Depth _____ Diameter _____ Stemming _____

Holes _____ Burden _____ ft Spacing _____ ft Depth _____ Diameter _____ Stemming _____

Rows 1 Bench Height MAX 24' ft Yield NA cu/yds Subdrilling 2'

Type Stemming CRUSHED STONE 5/8" Max Weight of Explosives per Delay 30#

Explosives Type and Estimated Quantity's

Anfo N/A lbs Primer's _____ lbs/ea Pre-Split Powder ≈ 110# lbs

Stick Powder Type _____ Amount _____ lbs

Stick Powder Type _____ Amount _____ lbs

Stick Powder Type _____ Amount _____ lbs

Hole to Hole Delay _____ MS Row to Row Delay _____ MS

Total Weight of Explosives ≈ 110# lbs Estimated Powder Factor N/A lbs cu/yd

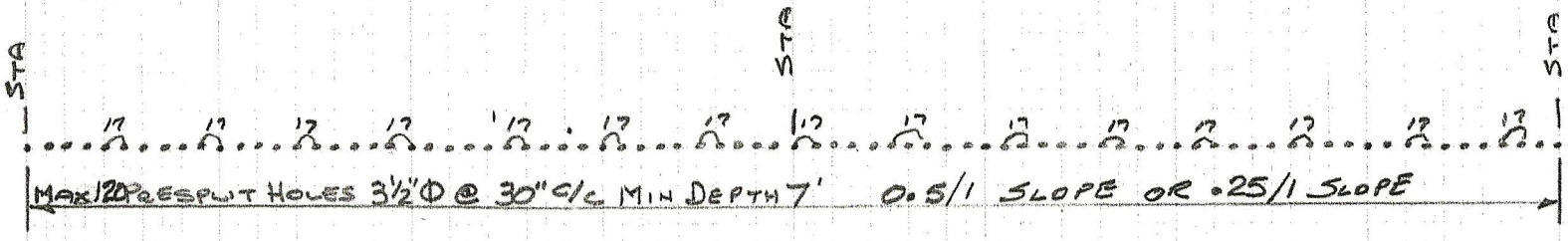
Method of Initation NON ELEC Type of Detonator & Delay MSC 17

Notes: SEE ATTACHED STANDARD BLAST COMPONENT C
THIS BLAST IS PRESPLIT ONLY

Plan Submitted By Chuck Murphy Date SEPT 24, 2010

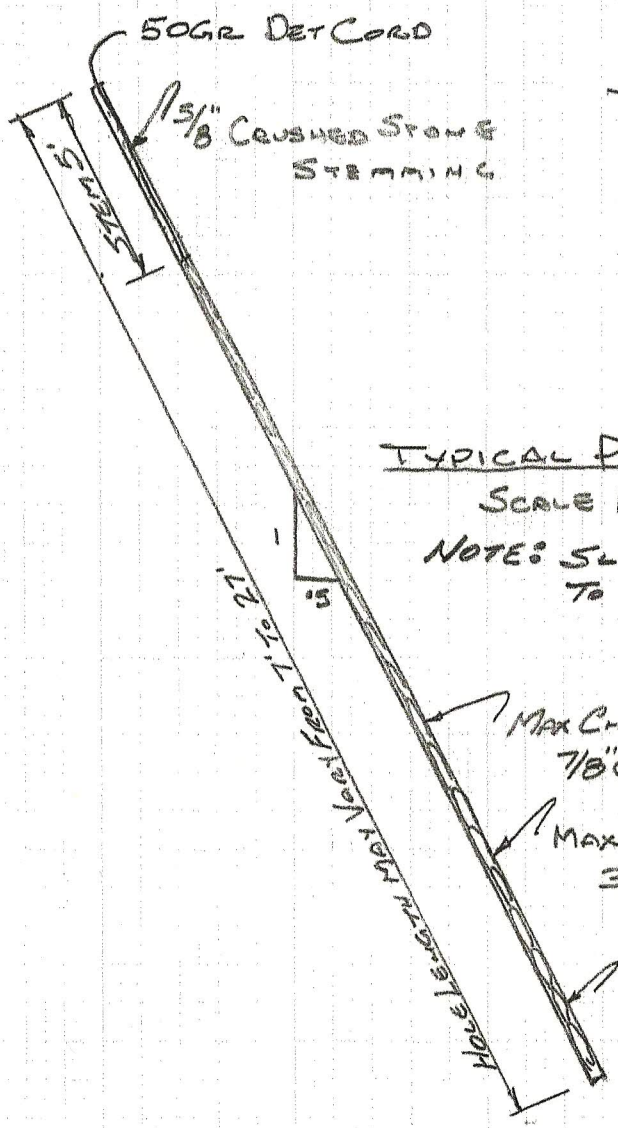
Note: Production blast holes will only be fired if pre-split line is blasted in combination or prior to the blast for a distance of 30 feet at the beginning and end of production blasting.

TODAY DATE: SEPT 24, 10



PLAN VIEW STANDARD BLAST COMPONENT C

SCALE: 1" = 25'



TYPICAL PRESPLIT HOLE

SCALE 1" = 5'

NOTE: SLOPE MAY VARY FROM .25/1 TO .5/1 (SHOWN AS .5/1)

MAX CHARGE WT 7.1# SENETEL POWERSPLIT 7/8"Φ x 16" L

MAX 5 HOLES PER 17ms DELAY 35.6# DELAY MAX

HOLE DIA MAY BE 3"Φ IN LAPILLI TUFF OR 3½" IN WEAK BASALT

PROPOSED BLAST #: 44

PROPOSED DATE: SEPT 27, 2010

SUBMITTED BY: CHARLES MURPHY