

0480 0022  
DUVAL CORPORATION - METALS DIVISION  
Battle Mountain Property

(147)  
1 Jan 22

The Battle Mountain Property produces copper, gold and silver. Use is made of both milling and precipitation. A flowsheet of ore through the wet grind in the mill is attached. Listed below are statistics on equipment and production.

MILLING

Primary	Birdsborough Jaw Crusher 60 x 48 operates two shifts	"	"	"
Secondary	1650 Allis-Chalmers gyratory	"	"	"
Tertiary	2 x 6-51 " " Cone crusher	"	"	"

Primary feed	run of mine product	80% - 5½"
Secondary feed	80% - 5½" product	80% - 2"
Tertiary feed	80% - 2" product	100% - 9/16"

Wet grind: Primary	14 x 15 Allis-Chalmers ball mill
Secondary	8 x 14 " " " "
Regrind	6½ x 12½ " " " "
Cyclones	All Krebs D 20B/D 10B

Primary ball mill feed	-9/16"	Product 30% +100 mesh
Regrind mill		Product 80% -325 mesh
Tonnage processed 4600 per day.		

Feed grade:	0.76% Copper recoveries:	80% Copper
	.370 oz/T Silver " :	70% Silver
	.030 oz/T Gold " :	60% Gold
Conc grade	25.0% Copper 10 oz/T Silver	.3.oz/T Gold

FLOTATION

1. 7 banks of Denver 10 x 50cft rougher cells in 3 levels
2. 4 banks of Denver 4 x 50cft cleaner cells
3. 1 bank of Denver 4 x 50cft recleaner cell
4. 1 bank of Denver 4 x 200cft scavenger cells.
5. Automatic froth level control.
6. Reagents:
 

dithiocarbamate	.03 #/T
zanthate	.03 #/T
lime control	pH 10.0
alkyl alcohol frother	.04 #/T
phosphate	.006 #/T
floculant	.004 #/T
7. Thickening
 

conc thickner	1 x 35'
	1 x 30'
tailings thickener	1 x 160'

PRECIPITATION

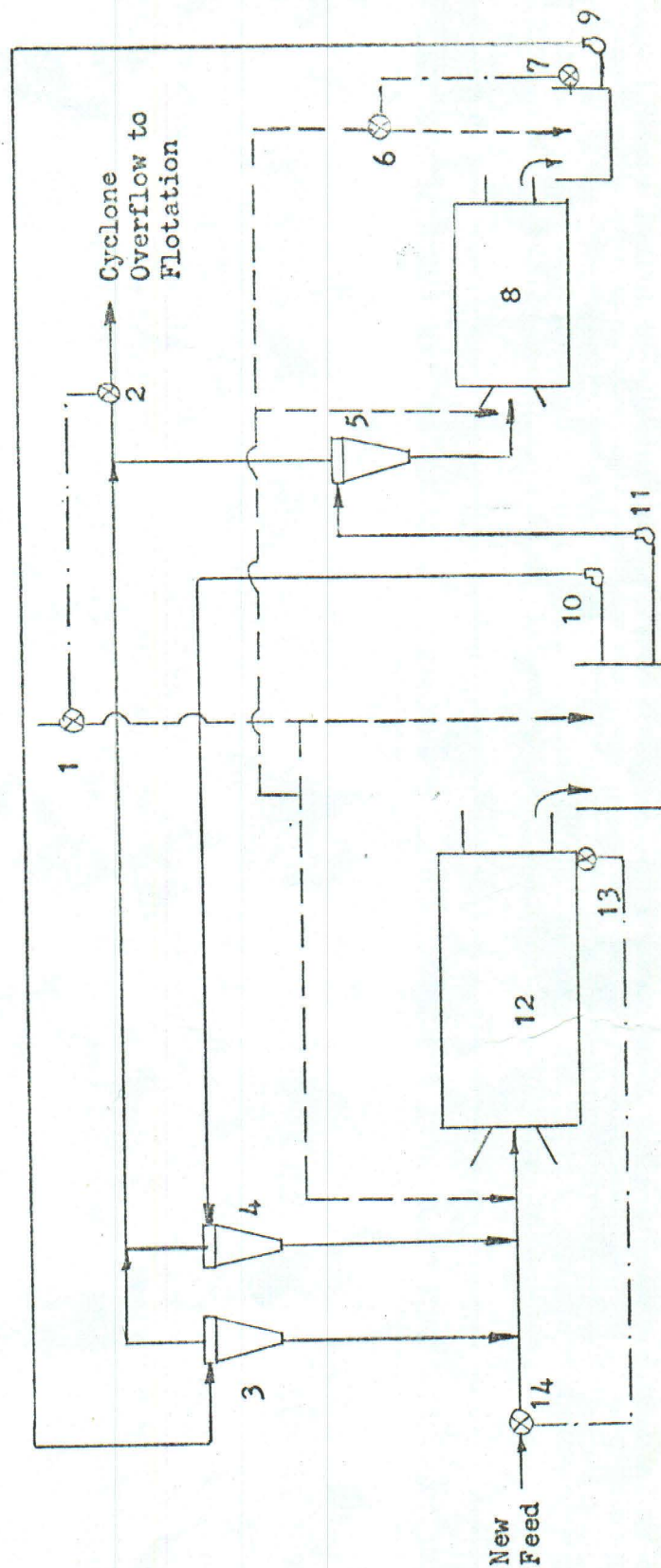
There are two precipitation plants in operation. Both plants are launder type having four compartments / cell and consisting of twelve cells each.

Feed gpm	950	Heads	8-14 lbs/M gals.
Recovery	98%	Precipitate grade.	



# WET GRIND CIRCUIT

9/28/72



- Ore/Slurry lines
- Water lines
- Control loops
- 1. Water valve
- 2. r density gauge
- 3. Krebs D20B
- 4. 4 x Krebs D20B
- 5. Krebs D20B
- 6. Water valve
- 7. Bubble tube
- 8. AC 8x14 mill
- 9. Denver 8x6
- 10. ASH 14x12/Wilfley 14x10
- 11. Denver 10x8
- 12. AC 14x15 mill
- 13. Instantaneous power measurement
- 14. Feed rate control