

TO: CIL Plant Operators

CC: TRP Shifters, D. Cooper, G. Doerksen

FROM: Bryan Cross

DATE: October 7, 1988

SUBJECT: CIL TANK PROFILE SAMPLING.

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Starting at midnight tonight (0000 hrs Oct. 8/88) Plant Operators will be required to perform sampling on all of the CIL tanks twice weekly. The Surge tank is not required but in addition to the regular shift Feed and Tails samples, Feed Samples to Tanks #2, #3, #4, #5 and #6 are necessary. Tonight's samples will be the first and until the plant shuts down these "tank profile" samples are to be taken twice a week. As "carbon profile" samples are being taken on Mondays and Thursdays take the "tank profile" samples on Tuesday and Wednesdays for the midnight to noon period. The 8pm-8am Operator is to put out the properly labelled pails complete with permanganate addition and initiate sampling on a once hourly basis. Sampling is to be from the feed launders, use a plastic one litre density pail on a rope to obtain them. Along with the sampler pail carry a 20 mesh screen with you when performing a sampling round, this is to screen out carbon that would contaminate assays. To do this pour the obtained sample from the one litre pail through the screen into the composite sample pail. It is good practice to replace the lid on the composite sample pails to minimize contamination risk.

The 8am-8pm Operator is to continue the sampling during their portion of the sampling period until noon, then filter the samples. Cleanliness and care must be taken to avoid sample contamination during filtration, handling of the filter cake, and bottling the filtrate. After removing the filtrate flask use some filtrate to rinse the labelled sample bottle, discard the rinse and fill the bottle with the solution sample. The flask then should be reassembled into the filtration apparatus so a litre or so of tap water can be filtered through the filter cake to wash any residual solution out of the solids sample. Vacuum dry filter cake can then be removed to a sample tray, be labeled, and sent to the lab for a gold assay. There are seven of each solid and solution samples, please make sure they all get to the lab.

In addition to the above sampling during the 12 hour period one set of the following readings must be taken for each sampling point: pH, temperature, dissolved oxygen, and cyanide (titration) concentration. Record the readings on the forms provided.

*Bryan Cross*

# CIL TANK PROFILE

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DATE AND TIME OF SAMPLING =

TANK FEED	ASSAY OZ Au/TON SOLIDS	SOLUTION	pH	CN lb/ton	% SOLIDS	D.O. mg/l	TEMPERATURE DEG C
SURGE							
1							
2							
3							
4							
5							
6							
TAILS							

CIL TANK PROFILE  
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SEPT. 24 to 28, 1988 AVERAGES

TANK FEED	ASSAY oz Au/TON SOLIDS	SOLUTION	pH	CN lb/ton	% SOLIDS
SURGE	0.0528	0.0037	10.30	0.022	
1	0.0584	0.0048	10.27	0.052	36.90
2	0.0514	0.0055	10.50	0.264	36.90
3	0.0492	0.0046	10.56	0.406	36.80
4	0.0490	0.0029	10.64	0.518	35.60
5	0.0500	0.0019	10.56	0.540	35.40
6	0.0490	0.0011	10.51	0.464	35.40
TAILS	0.0486	0.0010	10.47	0.376	

My Averages for the season:

Feed to surge tank 0.0038 g/ton

Feed to CIL #1 w/o NaCN 0.0050 g/ton

Feed to CIL #2 (with NaCN & Carbon) .0055 g/ton.

Bryan Cross  
Nov 15/88