An Investigation into

THE RECOVERY OF NI AND CU FROM THE JUNIOR LAKE ZONE VW DEPOSIT

prepared for

LANDORE RESOURCES

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November 7, 2006

NOTE:
This report refers to the samples as received.

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Executive Summary

Two ore composites originating from the Junior Lake VW Zone were received at the SGS Lakefield site on September 18, 2006. The composites were identified as Junior Lake VW Zone composites A and B.

The ½ drill core was staged-crushed and blended to produce 2-kg flotation charges for metallurgical testing. Representative sub-samples were extracted for a Bond ball mill grindability test and head sample analysis. The grades of pertinent elements are shown in Table 1.

Table 1: Head Assays

Sample		Ni, %	Cu, %	S, %	MgO, %	Co, %	Pt, g/t	Pd, g/t
VW Zone	Composite A	0.89	0.11	1.87	14.6	0.03	<0.02	0.08
	Composite B	0.76	0.12	3.99	10.9	0.03	0.02	0.04

The Bond ball mill grindability test determined a work index of Composite B of 13.3 kWh/t, which is in line with similar ore types.

A series of bulk flotation tests were carried out on the Junior Lake VW Zone Composite A to assess the rougher and cleaner flotation response of the two composites. The first three bulk rougher flotation tests were carried out at different primary grind sizes to determine the grind size that produces the best grade recovery curve. The selected collector and frother were Potassium Amyl Xanthate (PAX) and DowFroth 250 (DF250), respectively, which are both commonly used in sulphide ore flotation circuits. A primary grind of 75 µm produced the best results with a nickel concentrate grade and recovery of 8.31% and 88.2%, respectively. Within the range tested, the primary grind size had only a moderate impact on the flotation response compared to similar ore types from other deposits. In an effort to increase Ni recovery into the rougher concentrate, a fourth bulk rougher test was performed with a lower pH in the third incremental rougher concentrate. However, the rougher concentrate grade and recovery remained virtually unchanged. The grade recovery curves for the four tests are depicted in Figure 1.

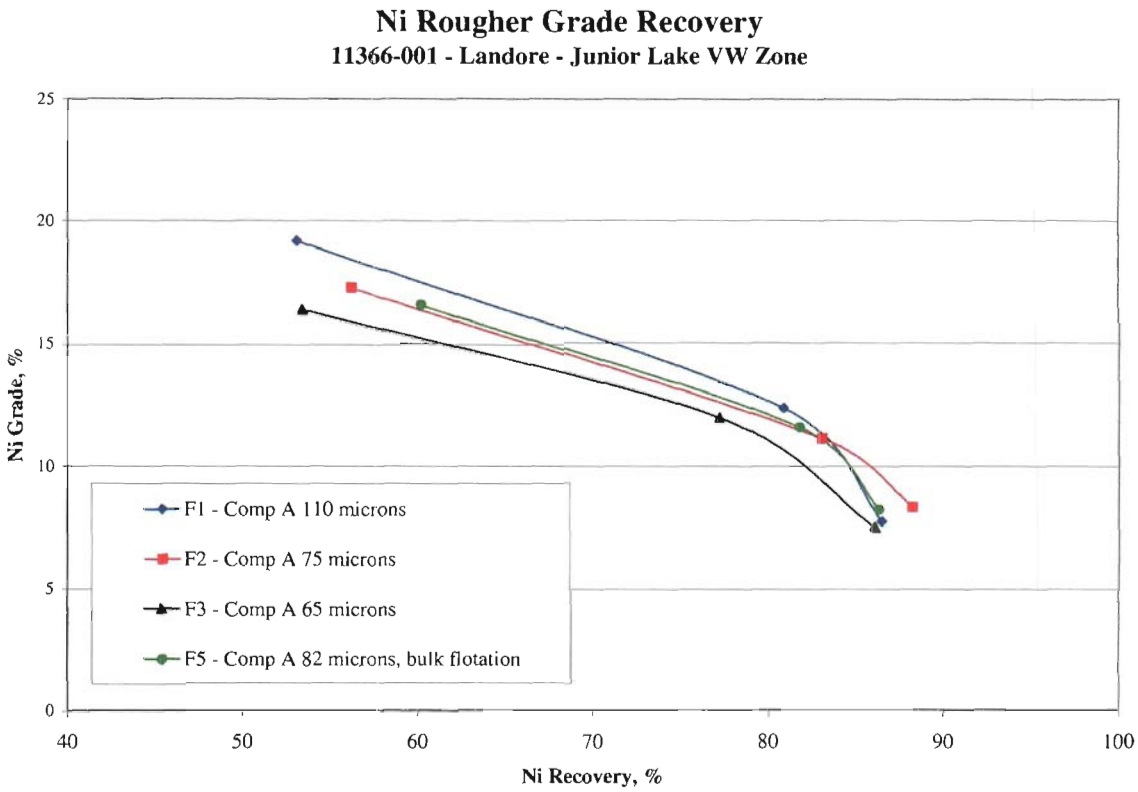

Figure 1: Composite A Bulk Rougher Grade Recovery Curves

Subsequently, three bulk rougher tests were carried out at different primary grind sizes using Composite B. Again, the primary grind size did not have a noticeable impact on the grade recovery curve. However, the shapes of the grade recovery curves of the two composites are distinctively different. While the grade and recovery of the first incremental rougher concentrate were very similar for the two composites, the Composite B yielded much lower grades for a specific recovery for subsequent incremental concentrates (Figure 2). It is concluded that the lower concentrate grade of Composite B was the result of sulphide mineral dilution. A mineralogical analysis of the feed would identify the sulphide mineral species that were present in the ore.

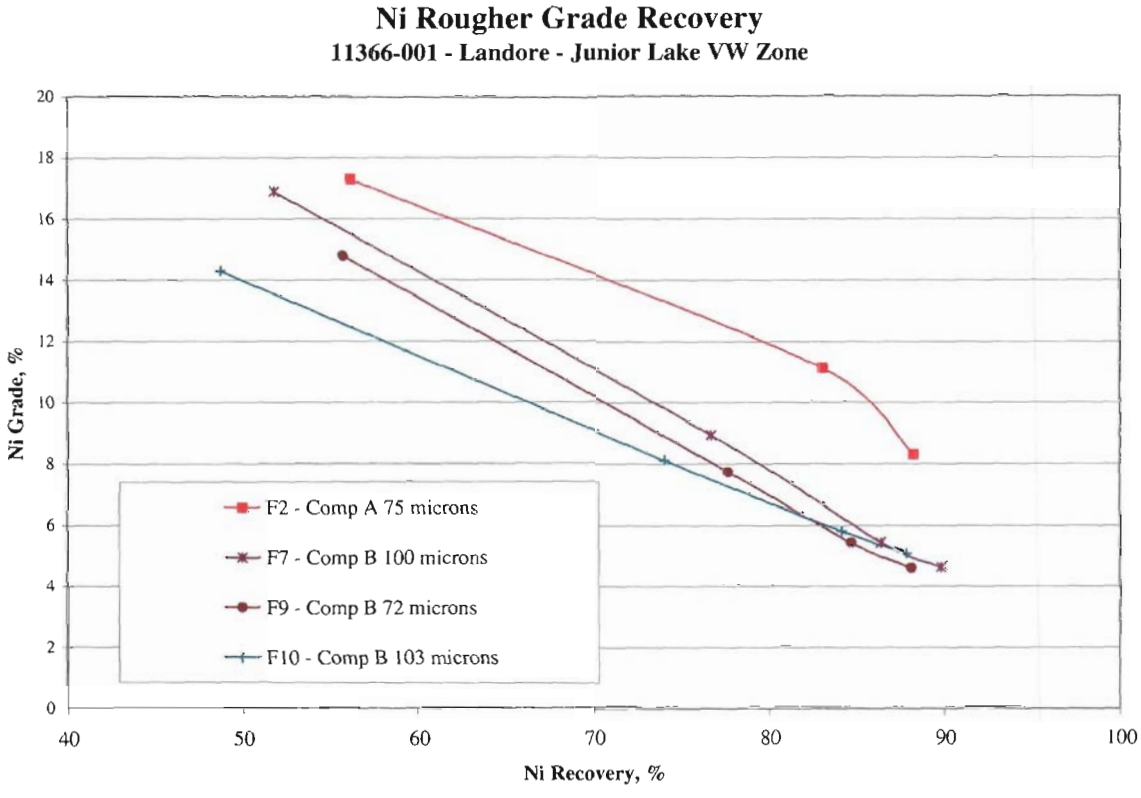

Figure 2: Composite B Bulk Rougher Grade Recovery Curves

In order to take advantage of the fact that the first incremental rougher concentrate constitutes a saleable concentrate at 16-19% Ni and 55-60% recovery, the cleaner flowsheet shown in Figure 3 was selected. The cleaning circuit upgraded the final Ni concentrate grade to 13.5% at 82.4% recovery for Composite A. The final Ni concentrate grade of 7.7% for Composite B was noticeably lower, while the Ni recovery remained at 82%. The sulphur grade of the combined composite B concentrate was 33.8%, an indication that the dilution was primarily iron sulphide minerals. Considering the high cleaner pH pf 10.2-10.5, it was postulated that pyrite was the primary source of dilution, since pyrrhotite no longer floats at this pH. Mineralogical analysis is required to clearly identify the species of sulphur minerals in the concentrate. Once the sulphide mineral species and liberation sizes are known, a flowsheet optimisation program can focus on improving concentrate grades for Composite B.

Minor element scans performed on the combined Ni concentrate of the two composites did not reveal elevated levels of deleterious elements.

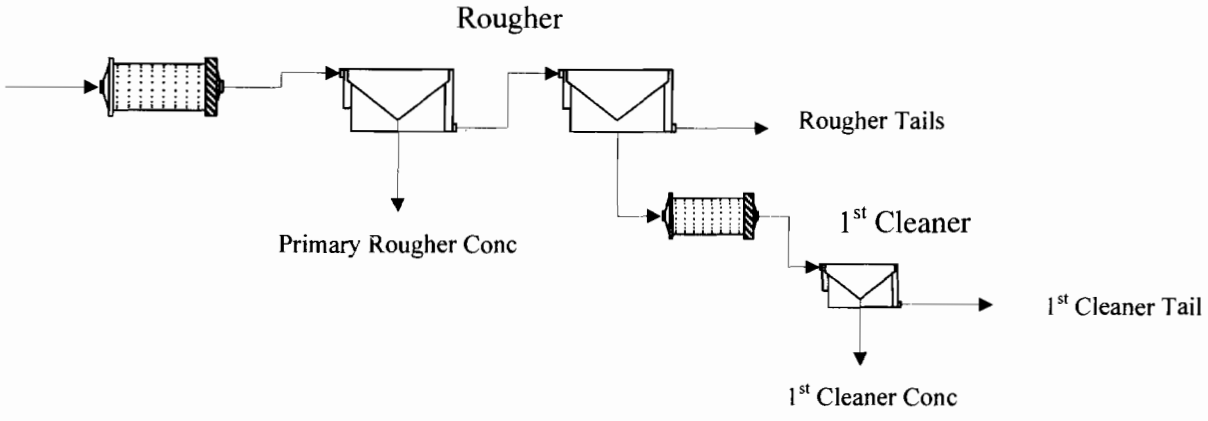

Figure 3: Cleaner Flowsheet

Considering the relatively low head grades of the Junior Lake VW zone ore, the concentrate grade and recovery of Composite A were better than initially anticipated. Further, both composites yielded a Ni recovery of 80-82% and a Cu recovery of approximately 90%.

The preliminary metallurgical test program completed to-date suggests that the VW Zone Composite A can be upgraded to a saleable nickel concentrate with a very simple flotation circuit. The separation efficiency for the Composite B was inferior, primarily due to sulphur mineral dilution. A higher concentrate grade for Composite B could be readily achieved by accepting a lower Ni recovery. For example, the concentrate grade increases to 10% at a Ni recovery of 73.5%. However, a flowsheet optimisation program in the next phase of metallurgical testing should focus on reducing the amount of dilution reporting to the cleaner concentrate, thus improving the concentrate grade while maintaining recovery.

The following action items are recommended for the next phase of metallurgical testing to develop a better understanding of the mineralogy, to evaluate alternative process options, and to optimise the current flotation conditions:

- Joint review of the available drilling data by a Landore Resources geologist and a metallurgist to identify suitable composites for testing and to identify zones of potentially problematic ore;
- Perform heavy liquid separation tests on a representative feed sample to assess the amenability of the ore to pre-concentration by dense media separation;
- Additional Bond ball and rod mill grindability tests to quantify the variability in ore hardness;
- Perform Rapid Mineral Scan (RMS) on a representative sample to identify the species of minerals present in the ore, thus aiding in the flowsheet optimisation;
- Nickel deportment study to quantify the nickel in pentlandite, pyrrhotite and silicates;
- Quantify the grain size distribution of pentlandite and chalcopyrite;
- Bulk rougher and cleaner tests to optimize reagents and regrind times based on the mineralogical results;
- Preliminary settling and filtration tests on tailings and concentrate samples;
- Preliminary environmental testing of tailings and effluents.

Introduction

Scoping-level metallurgical testing on a composite of ore from the Junior Lake Zone VW deposit was conducted at the SGS Lakefield site between September and October 2006. The work comprised seven (7) batch rougher and eight (8) cleaner flotation tests.

The testwork was carried out to provide a basic understanding of the flotation response of the Junior Lake VW Zone ore. Flowsheet optimization was outside the scope of the test program and should be performed as part of a more comprehensive program in the future.

All metallurgical testing was executed by Rory Guest, under the guidance of Oliver Peters (project manager). The results were reported to Mr. Jim Garber and Mr. Bill Humphries of Landore Resources as they become available.

Oliver Peters
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Experimental work by: Rory Guest
Report preparation by: Oliver Peters, Su McKenzie

Testwork Summary

1. Sample Receipt and Description

Three pails containing ½ drill core originating from the Junior Lake VW Zone were shipped to the SGS Lakefield site. The sample arrived on September 18, 2006 and was given the receipt number 2602800. Upon arrival, the sample was weighed. The total sample mass of 90 kg was deemed sufficient to complete the proposed metallurgical test program.

The sample was identified as Junior Lake VW Zone Composites A and B. Sample selection was performed by Landore Resources without the input of SGS Minerals Services. Therefore, no statement can be made about the representativeness of the sample.

2. Project Deliverables

The primary objective of the metallurgical test program was to develop an initial understanding of the flotation response of the Junior Lake VW Zone ore. A list of project deliverables is shown below:

- Limited characterisation of the chemical, physical, and mineralogical properties of the ore;
- Assessment of the rougher and cleaner flotation response of the two composites;
- Limited characterisation of the chemical properties of final concentrates;
- Identification of metallurgical challenges including recommendations for future metallurgical testing.

3. Sample Preparation

The sample as-received consisted of ½ drill core. In the first processing stage, each composite was crushed to ¼" in a jaw crusher followed by a cone crusher. A 6-kg sub-sample of each composite was riffled out and crushed separately to minus 6 mesh for Bond ball mill grindability testing.

The remainder of the sample was stage-crushed in a roll crusher to minus 10 mesh. In order to minimise the generation of fines, the crushed product was screened on a 10 mesh screen, and

only the oversize was returned to the crusher. In a final step, the minus 10 mesh ore was blended in a rotary splitter and split into 2-kg flotation charges.

The sample preparation flowsheet is shown in Figure 4.

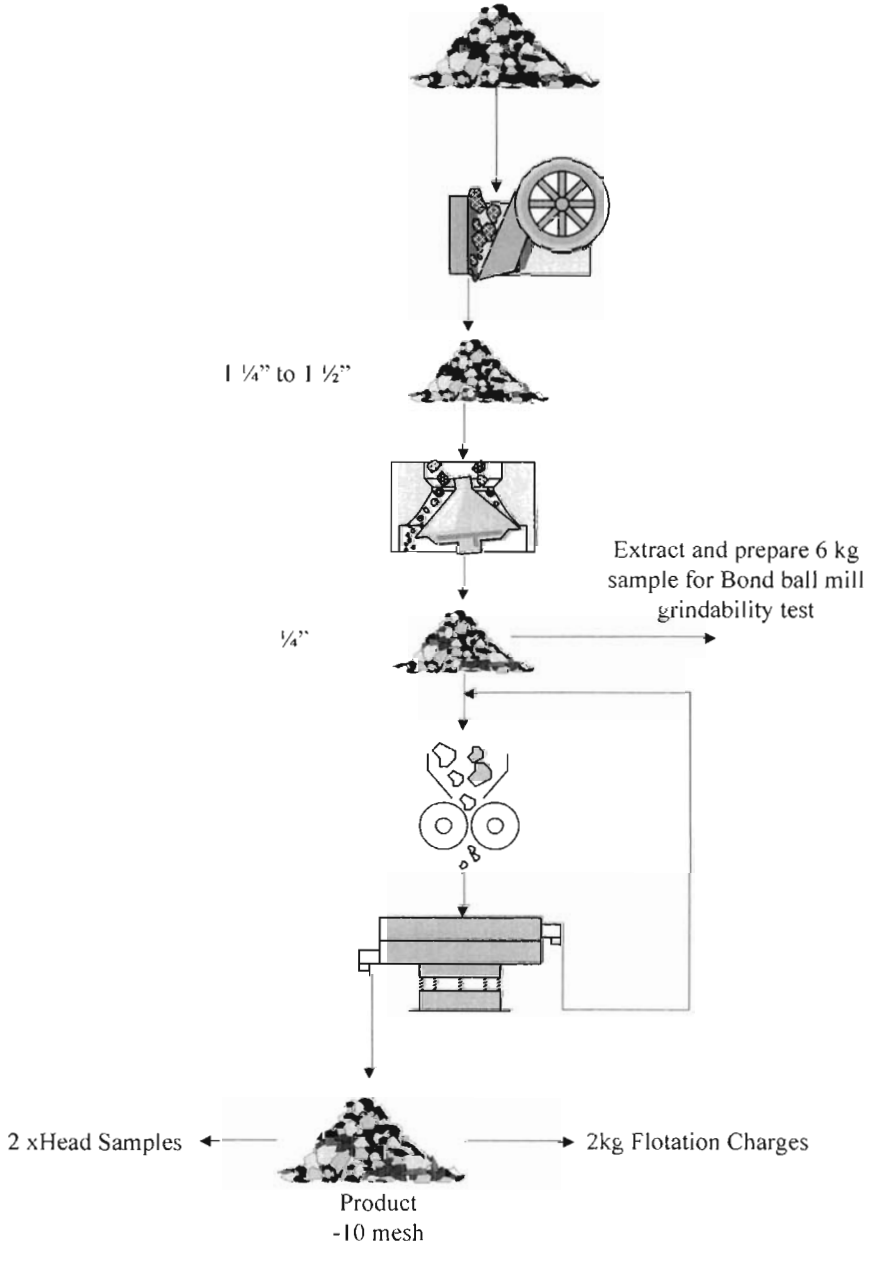


Figure 4: Sample Preparation Flowsheet

4. Sample Characterisation

4.1. Head Assays

Representative head samples of each composite were extracted during sample preparation and submitted for chemical analysis. The results are shown in Table 2 and include ICP scan results to identify deleterious elements in the ore. Based on this limited analysis it appears that all elements that typically create environmental concerns and/or are subject to smelter penalties are close or below the detection limits.

Table 2: Head Assays

Sample		Ni, %	Cu, %	S, %	MgO, %	Co, %	Pt, g/t	Pd, g/t
VW Zone	Composite A	0.89	0.11	1.87	14.6	0.03	<0.02	0.08
	Composite B	0.76	0.12	3.99	10.9	0.03	0.02	0.04

Sample	ICP Assays, g/t									
	Ag	**Al**	**As**	**Ba**	**Be**	**Bi**	**Ca**	**Cd**	**Cr**	**Fe**
Comp A	<2	44,000	<30	58	0.24	<20	85,000	<2	800	92,000
Comp B	<2	38,000	<30	72	0.56	<20	75,000	<2	360	120,000

	K	**Li**	**Mg**	**Mn**	**Mo**	**Na**	**P**	**Pb**	**Sb**	**Se**
Comp A	2,000	<5	86,000	870	<5	8,700	<200	<50	<10	<30
Comp B	1,800	<5	65,000	950	<5	11,000	650	<50	<10	<30

	Sn	**Sr**	**Ti**	**Tl**	**V**	**Y**	**Zn**
Comp A	<20	44	3,500	<30	230	15	72
Comp B	<20	79	2,500	<30	160	15	110

4.2. Grindability

A Bond ball grindability test was carried out on the VW Zone ore to determine the grinding energy requirements. Since the composition of the two composites was very similar, only the Composite B was subjected to the grindability test.

A mesh of grind of 150 mesh (106 µm) was selected instead of the standard 100 mesh (150 µm). The finer mesh was chosen based on grind size requirements of similar ore types. It was anticipated that a primary grind of ~75 µm (200 mesh) would be required to yield sufficient liberation between sulphide minerals and gangue minerals. As a rule of thumb, the mesh of grind for the Bond ball mill grindability test should be one standard screen size larger than the desired P_{80} of the mill discharge, which in this case was 106 µm or 150 mesh.

The grindability test yielded a Bond work index of 13.3 kWh/t, which is in line with similar sulphide deposits. SGS Minerals Services maintains a database containing more than 2,000 Bond ball mill index grindability test results. In order to facilitate a comparison of the Junior Lake VW Zone results with other ores tested at SGS, the Junior Lake grindability results are plotted against the database histogram in Figure 5. The graph illustrates that the Junior Lake sample is slightly softer that the database average.

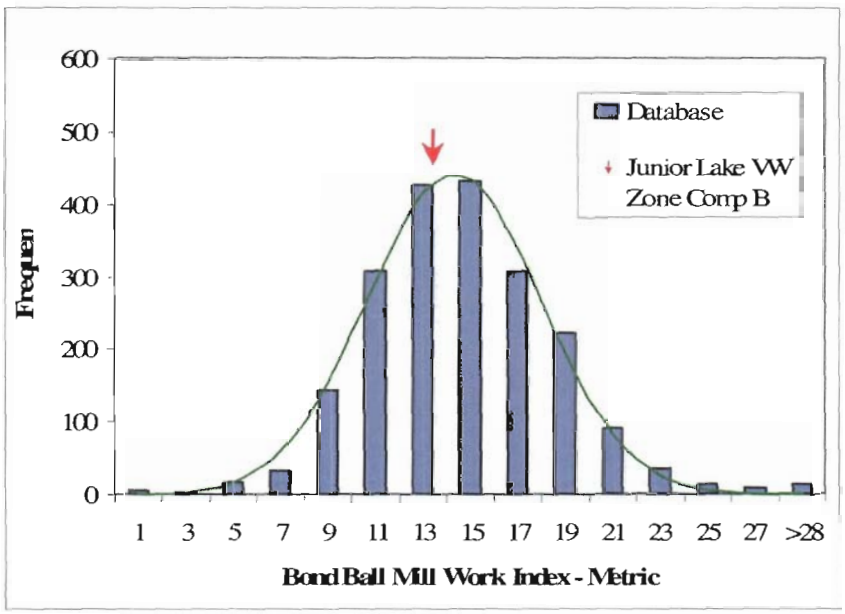


Figure 5: Junior Lake VW Zone Grindability Test Results

5. Flotation Testing

5.1. Mill Calibration

Mill calibration tests were carried out to establish the grind time required in a lab mill to obtain a target product size. Two grind times of 18 minutes and 25 minutes were selected for Composite A, which yielded a P_{80} of the mill discharge of 106 µm and 79 µm, respectively. One charge of Composite B was ground for 26 minutes and the results were then correlated to Composite A.

The results of the three mill calibration grinds are depicted in Figure 6. Grind curves typically follow a power function and, therefore, the same relationship was selected to connect the two data points of composite A. Composite B proved to be slightly harder than Composite A. A P_{80} size

reduction rate of 4 µm was used to correlate Composites A and B. This average value has been established using mill calibration data for various deposits.

The detailed size distribution analysis reports for the three grinds are attached in Appendix B.

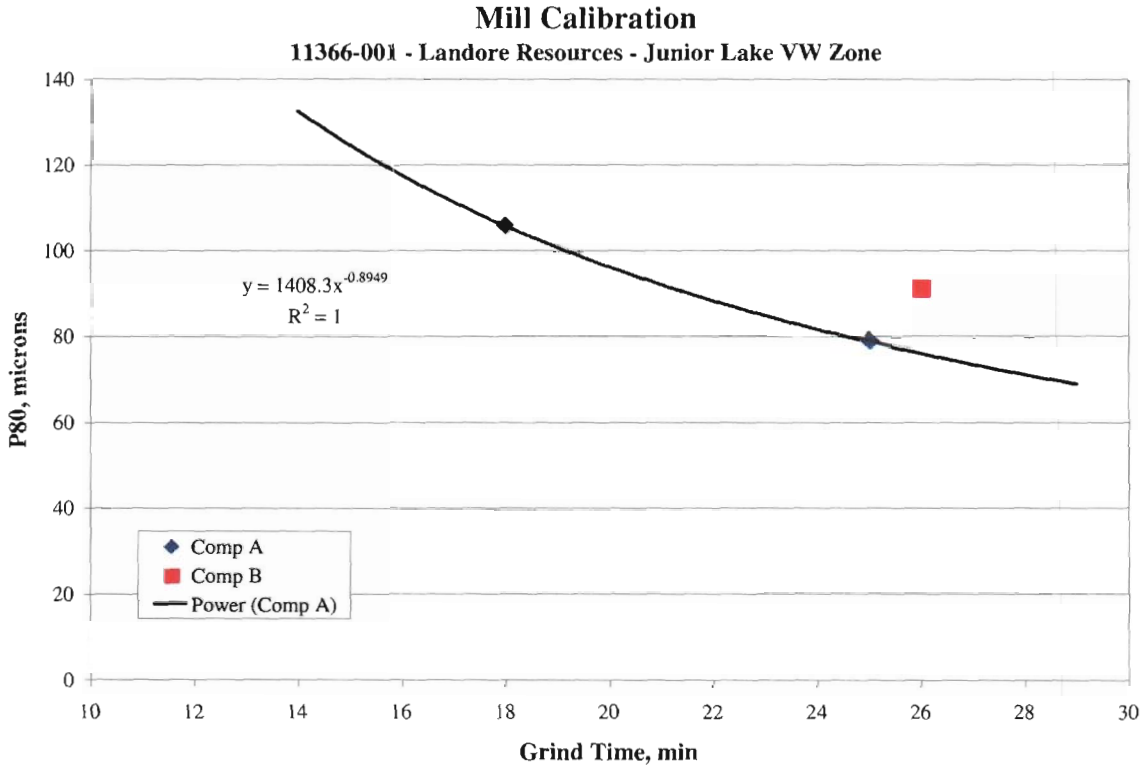


Figure 6: Mill Calibration Curve

5.2. Bulk Rougher

A sample of Composite A was subjected to a rougher flotation test with three incremental rougher concentrates to provide a first indication the flotation kinetics of the Junior Lake VW Zone ore. The selected collector and frother were PAX and DF250, respectively, which are commonly used in sulphide ore flotation circuits. For the first test a relatively coarse primary grind of P_{80}=110 µm was chosen. The grade recovery curve for this first test is depicted in Figure 7. At the end of 12 minutes flotation, 86.5% of the Ni was recovered into the rougher concentrate at a combined grade of 7.75%. The relatively low mass pull of 9.7% was attributed to the low sulphur head grade of Composite A and good selectivity between sulphide and gangue minerals. Assuming that pentlandite and chalcopyrite are the only Ni- and Cu-bearing minerals, almost

50% of the sulphur in Composite A was allocated to these minerals. Consequently, dilution of the concentrate with other sulphide minerals was not a major concern. A detailed identification of the sulphide ore species would require a mineralogical analysis such as a Rapid Mineral Scan (RMS), which is recommended for the next phase of the metallurgical testing.

The second bulk rougher test F2 was a repeat of test F1 but at a finer primary grind of 75 µm. Nickel rougher concentrate grade and recovery improved slightly to 8.31% and 88.2%, respectively. It is postulated that the finer grind resulted in a better liberation between sulphide minerals and gangue minerals. The grade recovery curve of this test is plotted in Figure 7.

In order to assess whether or not an even finer grind would further improve rougher concentrate grade and/or recovery, test F3 was executed at a primary grind of 65 µm. The Ni rougher concentrate grade and recovery decreased to 7.51% and 86.1%, respectively, thus placing it at the lowest grade recovery point of all three tests (Figure 7). Although liberation improved for finer grinds, the generation of fines often results in slower flotation kinetics and slimes losses.

Copper recovery ranged between 90.8% and 92.6% for the three tests.

In summary, a primary grind of 75 µm appeared to constitute the best compromise between mineral liberation and minimising the generation of fines that do not report to the concentrate due to their slow flotation kinetics. That said, the Junior Lake Composite A showed a lower sensitivity towards grind size compared to ores from other deposits. In fact, a significant percentage of the grade and recovery differences between the three rougher tests could be the result of a normal variance between repeat flotation tests. Small differences in the execution of the flotation tests (e.g. froth removal frequency) and changes in the tap water chemistry can have a noticeable impact on the flotation results.

The pH in the third rougher was decreased to pH=8.0 in test F5 to increase nickel recovery into the rougher concentrate. At this reduced pH, pyrrhotite reported to the rougher concentrate, thus recovering smaller pentlandite grains, which were locked with pyrrhotite. Despite the lower pH, the sulphur recovery into the third rougher concentrate remained unaffected, which was an indication that the second rougher tailings did not contain a significant amount of pyrrhotite or that the pyrrhotite was locked with gangue minerals.

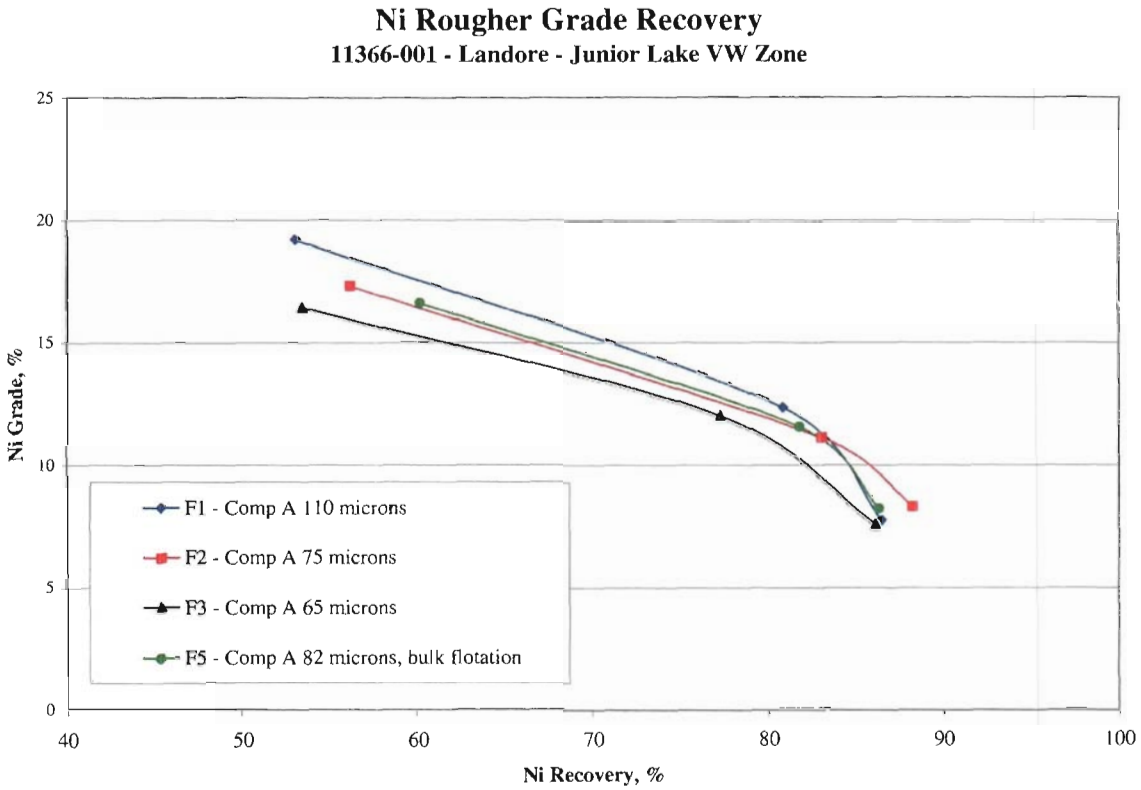


Figure 7: Bulk Rougher Grade Recovery Curves for Comp A

Subsequently, Junior Lake Composite B was subjected to an incremental bulk rougher flotation to assess the flotation kinetics. Three different primary grind times were tested to evaluate the impact of grind size on grade and recovery. Furthermore, a fourth incremental rougher concentrate was added to determine if a noticeable amount of slow Ni and Cu minerals could be recovered by increasing flotation time.

The grade recovery curves for the three Composite B tests are shown in Figure 8. For comparison purposes, the grade recovery curve of Composite A test F3 was reproduced in the same graph. Once again, the grind size did not appear to have a significant impact on concentrate grade or recovery (within the tested range). However, the shapes of the grade recovery curves of the two composites were distinctively different. While the grade and recovery of the first incremental rougher concentrates were very similar for the two composites, the Composite B yielded much lower grades for a given recovery for subsequent incremental concentrates. A review of the head assays for both composites revealed that the sulphur grade of Composite B

was twice as high compared to Composite A, despite similar Ni and Cu grades. Also, sulphur recovery into the Composite B rougher concentrate was 85-90%, therefore, 10-15% higher compared to Composite A. It is concluded that the lower concentrate grade of Composite B was the result of sulphur mineral dilution. Again, a mineralogical analysis of the feed would identify the sulphur mineral species that are present in the ore.

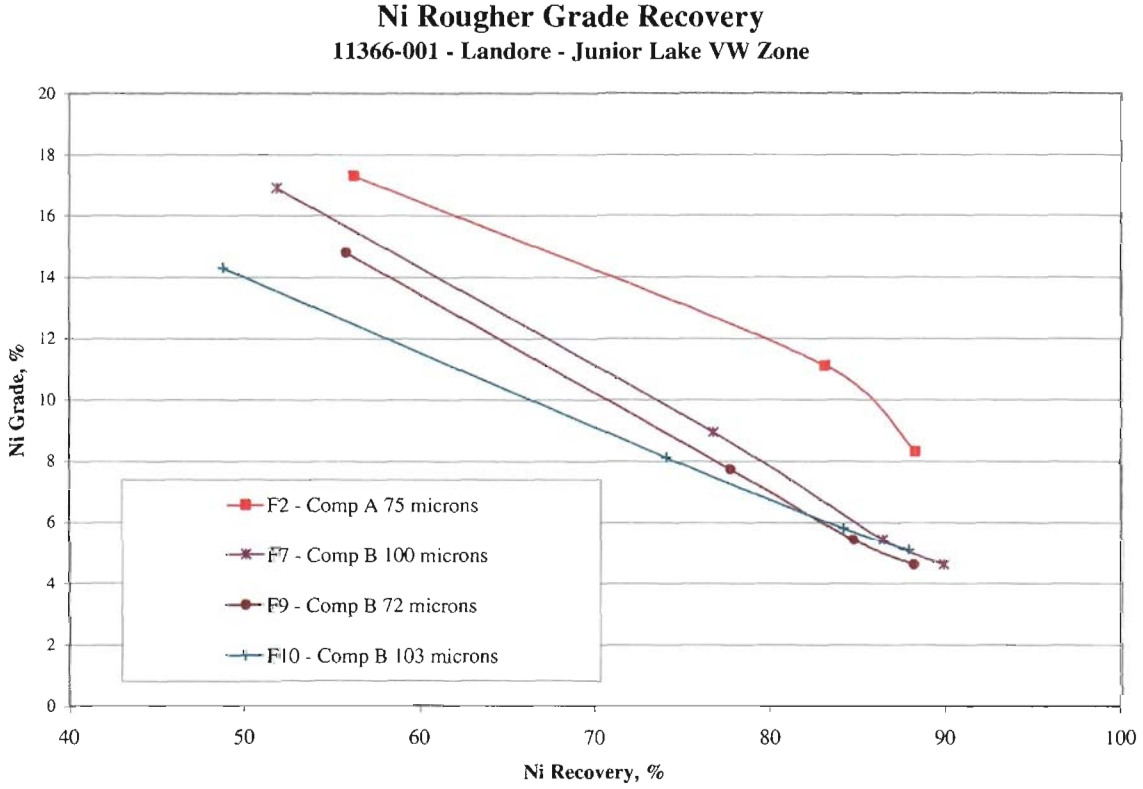


Figure 8: Bulk Rougher Grade Recovery Curves for Comp B

5.3. Bulk Cleaner

The first bulk cleaner test, F4, employed the rougher stage of F2 (75 µm primary grind), followed by a 3-minute regrind and a two-stage cleaning circuit (Figure 9). Cleaning was performed at a pH of 10.2-10.5 to depress any pyrrhotite that was present in the rougher concentrate. Although the 2nd Ni cleaner concentrate yielded a high Ni grade of 21.3%, Ni recovery was only 36.5%. The combined 1st Ni cleaner concentrate and the 1st cleaner scavenger concentrate produced a combined concentrate grade of 17.6% at a recovery of 70%.

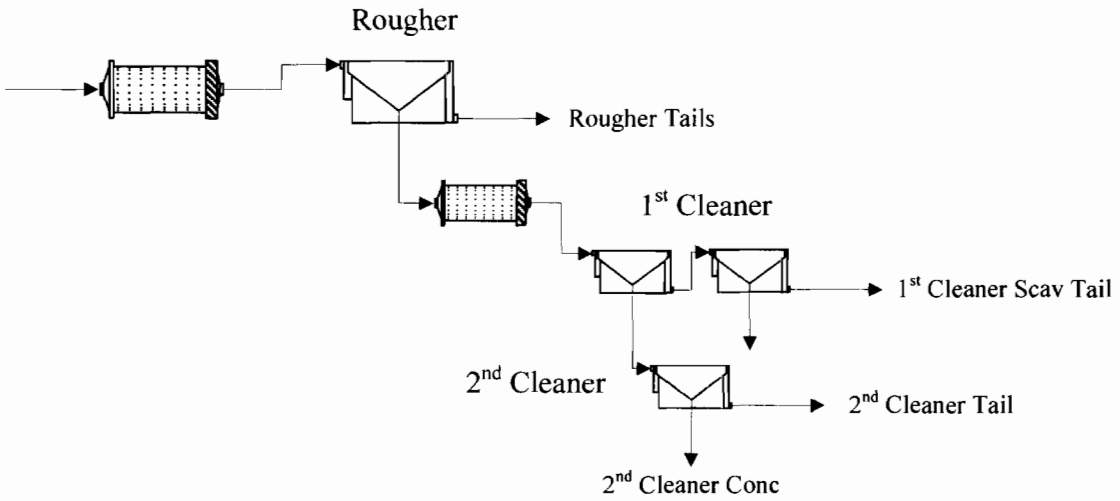


Figure 9: Flowsheet Bulk Cleaner Test F4

This first scoping test demonstrated that conventional rougher flotation, followed by regrind and cleaning, may not be the most suitable flowsheet for the Junior Lake VW zone ore. Furthermore, the first incremental rougher concentrate in the bulk rougher tests always produced concentrate grades of 16 to 19% at 55-60% Ni recovery, which constitutes a saleable Ni concentrate. Hence, the flowsheet was modified to produce a primary rougher concentrate that directly reports to the final concentrate. Only the second and third incremental concentrates were then subjected to a regrind, followed by single-stage cleaning. The flowsheet is depicted in Figure 10.

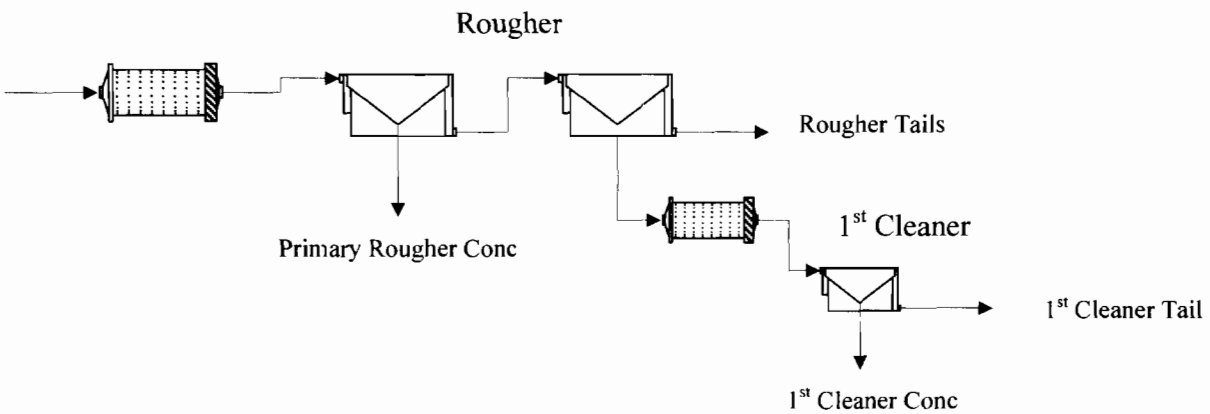


Figure 10: Flowsheet Bulk Cleaner Test F6

Composite A was subjected to this flowsheet in test F6. The first incremental rougher concentrate yielded a Ni grade of 17.4% at a 68.5% recovery. An additional 17.1% Ni was recovered into the secondary rougher concentrate at a mass pull of 6.4%. Approximately 70% of this mass was then rejected in the cleaning stage at moderate Ni losses of 3.2%. The combined primary rougher concentrate and 1st cleaner concentrate yielded a Ni grade of 13.54% with a 82.4% recovery. The combined Cu recovery was 90.6%.

Test F8 was a repeat test of F6 with more aggressive rougher flotation conditions. The PAX dosage was increased from 30 g/t in the secondary rougher to 60 g/t. Surprisingly, the mass pull into the secondary rougher concentrate decreased by 1% from 8.8% to 9.8%. The nickel and copper recovery increased by 2.6% and 3.2%, respectively. However, these recovery improvements were not carried over into the cleaner concentrate, but reported to the tailings. The nickel grade of the 1st cleaner tailings increased from 0.61% in F6 to 1.29 in test F8. The higher cleaner tailing losses could be due to incomplete liberation between pyrrhotite and pentlandite. Frequently, this type of flotation response can be observed when pentlandite flames are present in the ore. Since the higher reagent dosages in the secondary rougher did not yield any grade or recovery improvements, the flotation conditions of test F6 were deemed to be superior. The cleaner grade recovery curves for the two tests are depicted in Figure 11 and clearly show the common grade-recovery end point of the two flotation tests.

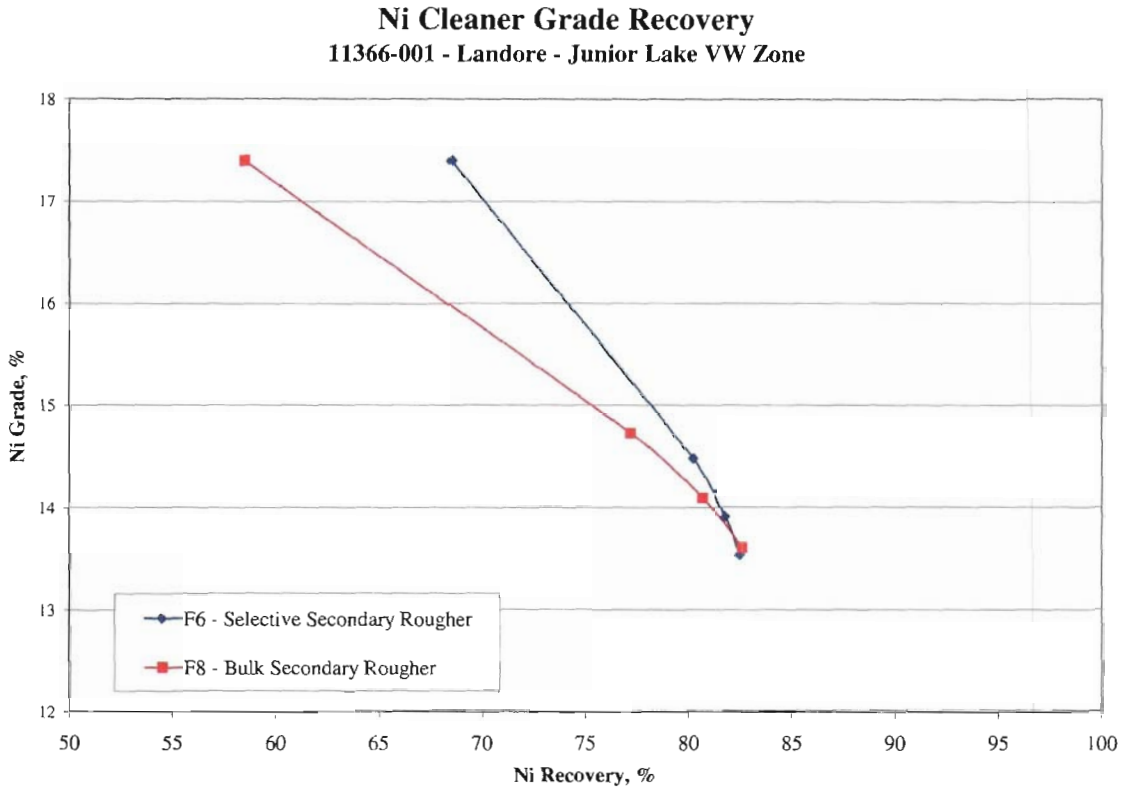


Figure 11: Comparison of the F6 and F8 Cleaner Performance

In order to assess the bulk cleaner flotation response of the VW Zone Composite B, the ore was subjected to the flotation conditions from test F6. The Ni grade of the primary rougher concentrate was about 3% lower compared to Composite A, and the Ni recovery decreased by 10%. Although the combined primary rougher and 1st cleaner nickel recovery was virtually identical for both composites, the combined concentrate grade of Composite A was only 7.7% compared to 13.5% for Composite B. The grade recovery curves for both composites are depicted in Figure 12.

The sulphur grade of the combined Composite B concentrate was 33.8%, thus most of the dilution responsible for the low concentrate grade were sulphur minerals. The mineralogical testing suggested, which is in the conclusions and recommendation section of this report, will aid in identifying the species responsible for the dilution.

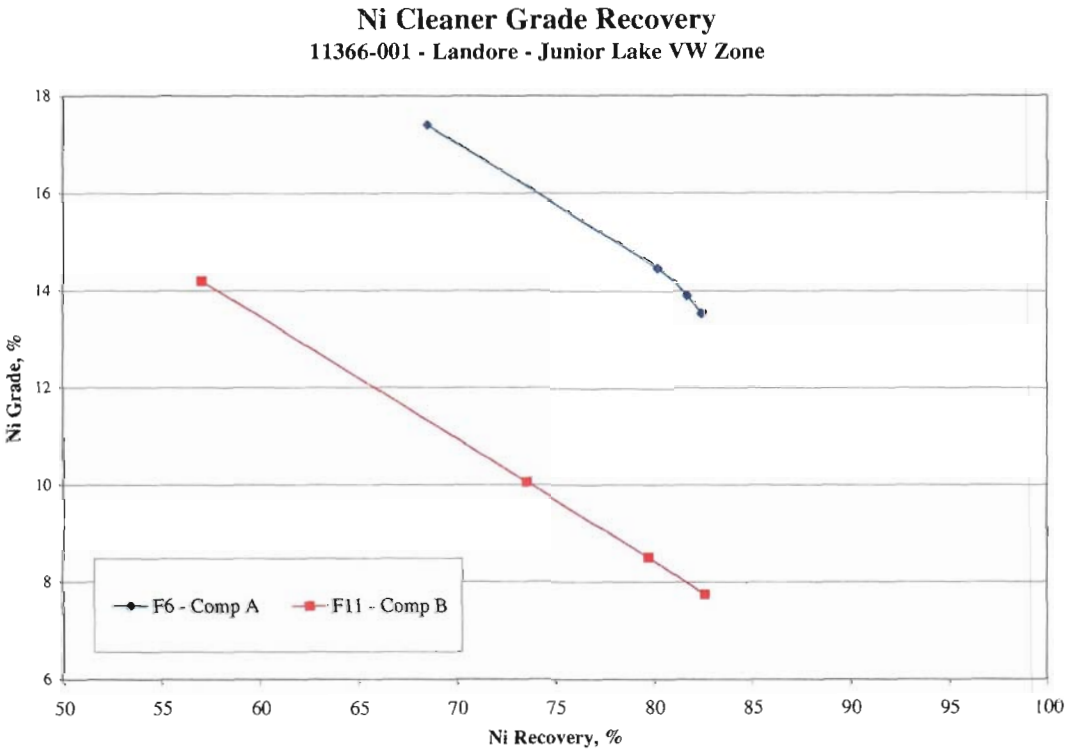


Figure 12: Grade Recovery Curve for Comp A and B Bulk Cleaner Tests

5.4. Assessment of Repeatability

As a result of the simplicity of the proposed flowsheet no streams were being circulated and locked cycle testing was not feasible. In order to quantify the variation between repeat flotation tests and to increase the confidence in the flotation results, the optimised bulk cleaner tests for both composites were performed in triplicate. The results for Composites A and B are displayed in Figure 13 and Figure 14, respectively and the statistical analysis is summarised in Table 3.

With the exception of the primary rougher concentrate, the relative standard deviations were well within an acceptable range for Composite A. The nickel units that were not recovered into the primary rougher concentrate reported to the secondary rougher concentrate, and ultimately, the cleaner concentrate.

With regards to Composite B, the variation between tests was noticeably higher, thus resulting in higher relative standard deviations. These high standard deviations have to be kept in mind for future optimisation tests, as differences in the flotation response may not be the result of changed flotation conditions, but could be caused by variation alone.

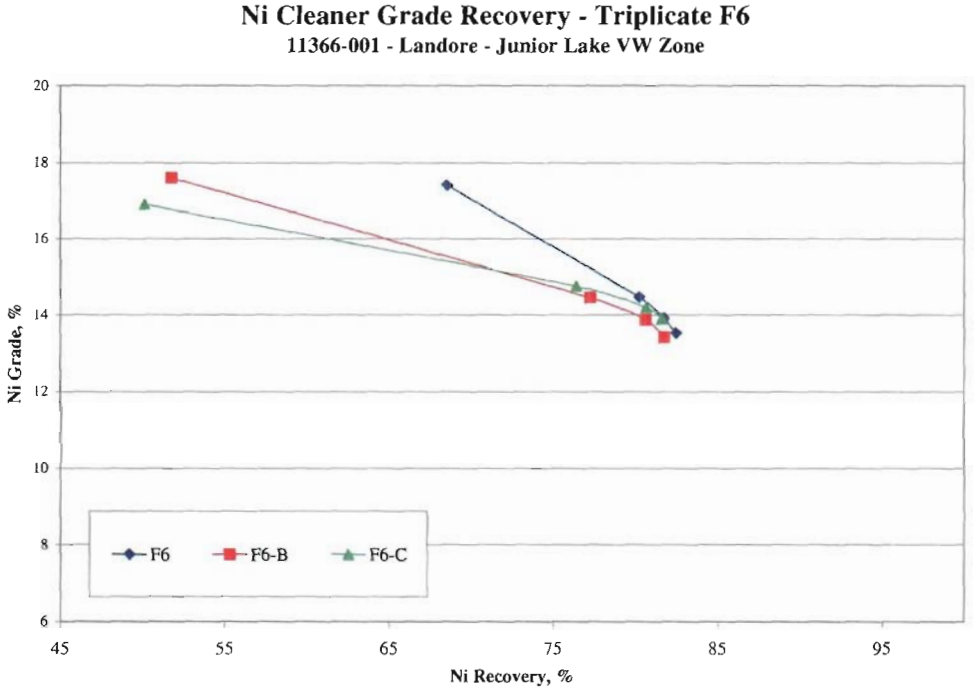


Figure 13: Triplicate F6 test – Composite A

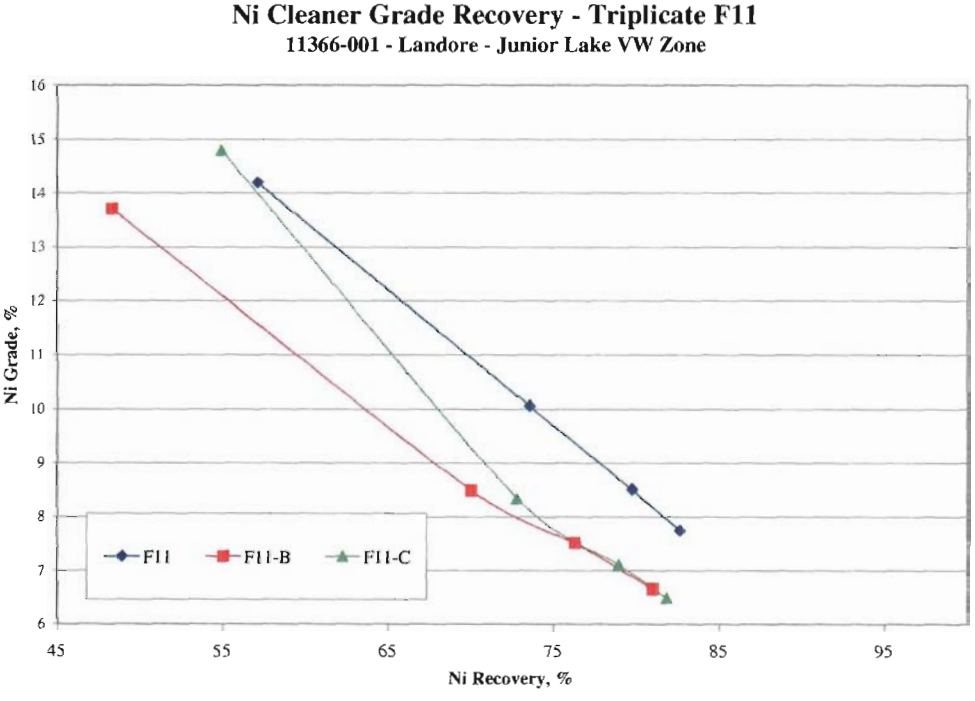


Figure 14: Triplicate F6 test – Composite B

Table 3: Statistical Analysis of Triplicate Tests

	Sample	F6	F6-B	F6-C	Average	StdDev	Rel StdDev
Grade	Pri Ro Concentrate	17.40	17.60	16.90	17.30	0.361	2.1%
	Pri Ro Con & 1st Clnr Conc 1	14.47	14.45	14.77	14.56	0.175	1.2%
	Pri Ro Con & 1st Clnr Conc 1 & 2	13.91	13.88	14.20	14.00	0.176	1.3%
	Pri Ro Con & 1st Clnr Conc 1-3	13.54	13.42	13.91	13.62	0.258	1.9%
Recovery	Pri Ro Concentrate	68.52	51.76	50.11	56.80	10.188	17.9%
	Pri Ro Con & 1st Clnr Conc 1	80.20	77.21	76.40	77.94	2.003	2.6%
	Pri Ro Con & 1st Clnr Conc 1 & 2	81.73	80.59	80.63	80.98	0.645	0.8%
	Pri Ro Con & 1st Clnr Conc 1-3	82.44	81.72	81.59	81.91	0.456	0.6%

	Sample	F11	F11-B	F11-C	Average	StdDev	Rel StdDev
Grade	Pri Ro Concentrate	14.20	13.70	14.80	14.23	0.551	3.9%
	Pri Ro Con & 1st Clnr Conc 1	10.06	8.49	8.34	8.96	0.949	10.6%
	Pri Ro Con & 1st Clnr Conc 1 & 2	8.50	7.51	7.11	7.71	0.718	9.3%
	Pri Ro Con & 1st Clnr Conc 1-3	7.74	6.66	6.50	6.96	0.677	9.7%
Recovery	Pri Ro Concentrate	57.06	48.29	54.88	53.41	4.567	8.6%
	Pri Ro Con & 1st Clnr Conc 1	73.53	70.01	72.77	72.10	1.857	2.6%
	Pri Ro Con & 1st Clnr Conc 1 & 2	79.73	76.25	78.91	78.30	1.816	2.3%
	Pri Ro Con & 1st Clnr Conc 1-3	82.62	80.96	81.81	81.80	0.827	1.0%

5.5. Concentrate Characterisation

Representative samples of the combined Ni concentrate from tests F6 and F11 were submitted for minor element analysis to identify any deleterious elements in the concentrate, which could lead to smelter penalties. The results are summarised in Table 4 and suggest that the concentrations of the deleterious elements were below problematic levels.

Table 4: Nickel Concentrate ICP Scan Results

Composite A

Sample	Mass	ICP Assays, g/t									
	%	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Primary Rougher Conc - Comp A	**51%**	23	15,000	<30	19	0.10	<30	30,000	<2	3,400	420
Cleaner Conc - Comp A	**49%**	6	26,000	<30	55	0.14	<20	54,000	<2	1,700	580
Combined Concentrate - Comp A	**100%**	**15**	**20,000**	**<30**	**37**	**0**	**<20**	**41,643**	**<2**	**2,554**	**497**
	Mass	**Fe**	**K**	**Li**	**Mg**	**Mn**	**Mo**	**Na**	**P**	**Pb**	**Sb**
Primary Rougher Conc - Comp A	**51%**	250,000	630	<5	35,000	320	<5	2,700	<200	800	18
Cleaner Conc - Comp A	**49%**	210,000	1,200	<5	61,000	560	82	4,600	<40	340	<10
Combined Concentrate - Comp A	**100%**	**229,000**	**900**	**<5**	**48,000**	**400**	**45**	**3,600**	**<200**	**571**	**14**
	Mass	**Se**	**Sn**	**Sr**	**Ti**	**Tl**	**V**	**Y**	**Zn**		
Primary Rougher Conc - Comp A	**51%**	<30	<20	14	470	<30	85	11	450		
Cleaner Conc - Comp A	**49%**	<30	<20	25	1,300	<30	150	11	210		
Combined Concentrate - Comp A	**100%**	**<30**	**<20**	**19**	**900**	**<30**	**117**	**11**	**331**		

Composite B

Sample	Mass	ICP Assays, g/t									
	%	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Primary Rougher Conc - Comp B	**38%**	15	7,500	<30	26	0.06	<20	17,000	<2	8,200	210
Cleaner Conc - Comp B	**62%**	4	10,000	<30	37	0.2	<20	25,000	<2	1,100	410
Combined Concentrate - Comp B	**100%**	**8**	**9,000**	**<30**	**33**	**0**	**<20**	**21,990**	**<2**	**3,771**	**335**
	Mass	**Fe**	**K**	**Li**	**Mg**	**Mn**	**Mo**	**Na**	**P**	**Pb**	**Sb**
Primary Rougher Conc - Comp B	**38%**	350,000	390	<5	17,000	250	11	2,000	<200	370	<15
Cleaner Conc - Comp B	**62%**	430,000	540	<7	23,000	360	<8	3,000	<180	<100	<10
Combined Concentrate - Comp B	**100%**	**400,000**	**500**	**<7**	**21,000**	**300**	**<10**	**2,600**	**<200**	**202**	**<15**
	Mass	**Se**	**Sn**	**Sr**	**Ti**	**Tl**	**V**	**Y**	**Zn**		
Primary Rougher Conc - Comp B	**38%**	<30	<20	15	600	<30	44	8.1	210		
Cleaner Conc - Comp B	**62%**	<30	<20	21	900	<30	58	6.4	310		
Combined Concentrate - Comp B	**100%**	**<30**	**<20**	**19**	**800**	**<30**	**53**	**7**	**272**		

6. Conclusions and Recommendations

Considering the relatively low head grades of the Junior Lake VW zone ore, the concentrate grade and recovery of Composite A were better than initially anticipated. Both composites yielded a Ni recovery of 80-82% and a Cu recovery of approximately 90%. While Composite A produced concentrate grades of 13.5%, the grade decreased to only 7% for Composite B. The lower grade of Composite B was attributed to a dilution with sulphur minerals, which reported to the final concentrate. Considering the high cleaner pH of 10.2-10.5, it is postulated that pyrite was the primary source of dilution, since pyrrhotite does no longer float at this pH. However, mineralogical analysis is required to clearly identify the species of sulphur minerals in the concentrate. Once the sulphide mineral species and liberation sizes were known, a flowsheet optimisation program can focus on improving concentrate grades for Composite B.

A review of the call factors for Composite A indicated that the actual head grade of the feed sample were 15-20% lower then the assayed head. Further, the copper head grade was overestimated by 20-30%. This difference in the calculated and assayed copper grade was to be expected as the copper grade of the tailings streams were close to the analytical detection limit.

The actual nickel head grade of Composite B appeared to be closer to 0.70% rather than 0.75%, as determined by the head assay.

The preliminary metallurgical test program completed to-date suggests that the VW Zone Composite A can be upgraded to a saleable nickel concentrate with a very simple flotation circuit. The separation efficiency for the Composite B was inferior, primarily due to sulphur mineral dilution. A higher concentrate grade for Composite B could be readily achieved by accepting a lower Ni recovery. For example, the concentrate grade increased to 10% at a Ni recovery of 73.5%. However, a flowsheet optimisation program in the next phase of metallurgical testing should focus on reducing the amount of dilution reporting to the cleaner concentrate, thus improving the concentrate grade, while maintaining recovery.

The following metallurgical testing is recommended for the next phase of metallurgical work to develop a better understanding of the mineralogy, to evaluate alternative process options, and to optimise the current flotation conditions:

- Joint review of the available drilling data by a Landore Resources geologist and a metallurgist to identify suitable composites for testing and to identify zones of potentially problematic ore;
- Perform heavy liquid separation tests on a representative feed sample to assess the amenability of the ore to pre-concentration by dense media separation;
- Additional Bond ball and rod mill grindability tests to quantify the variability in ore hardness;
- Perform Rapid Mineral Scan (RMS) on a representative sample to identify the species of minerals present in the ore, thus aiding in the flowsheet optimisation;
- Nickel deportment study to quantify the nickel in pentlandite, pyrrhotite and silicates;
- Quantify the grain size distribution of pentlandite and chalcopyrite;
- Bulk rougher and cleaner tests to optimize reagents and regrind times based on the mineralogical results;
- Preliminary settling and filtration tests on tailings and concentrate samples;
- Preliminary environmental testing of tailings and effluents.

Appendix A – Grindability Results

SGS Minerals Services

Standard Bond Ball Mill Grindability Test

Project No.: 11366-001 Product: Minus 6 Mesh Date: Aug 22 06

Sample.: Junior Lake B

Purpose: To determine the ball mill grindability of the sample in terms of a Bond work index number.

Procedure: The equipment and procedure duplicate the Bond method for determining ball mill work indices.

Test Conditions:		
	Mesh of grind:	150 mesh
	Test feed weight (700 mL):	1408 grams
	Equivalent to : 2011 kg/m³ at Minus 6 mesh	
	Weight % of the undersize material in the ball mill feed:	13.0 %
	Weight of undersize product for 250% circulating load:	402 grams

Results: Average for Last Three Stages = **1.55g.** **253%** Circulation load

CALCULATION OF A BOND WORK INDEX

$$BWI = \frac{44.5}{P1^{0.23} \times Grp^{0.82} \times \left\{\frac{10}{\sqrt{P}} - \frac{10}{\sqrt{F}}\right\}}$$

P1 = 100% passing size of the product	106 microns
Grp = Grams per revolution	1.55 grams
P80 = 80% passing size of product	84 microns
F80 = 80% passing size of the feed	2213 microns

BWI = **12.2** (imperial)

BWI = **13.4** (metric)

Grindability Test Data Project No.: 11366-001 Test No.: Junior Lake B

Stage No.	Revs	New Feed (grams)	Undersize In Feed (grams)	Undersize To Be Ground (grams)	U'Size In Product (grams)	Undersize Product Total (grams)	Undersize Product Per Mill Rev (grams)
1	150	1,408	183	220	423	240	1.60
2	217	423	55	347	368	313	1.44
3	246	368	48	355	413	365	1.48
4	235	413	54	349	425	371	1.58
5	220	425	55	347	400	345	1.57
6	224	400	52	350	395	343	1.53
7	229	395	51	351	403	352	1.54

Average for Last Three Stages = 399g. 1.55g.

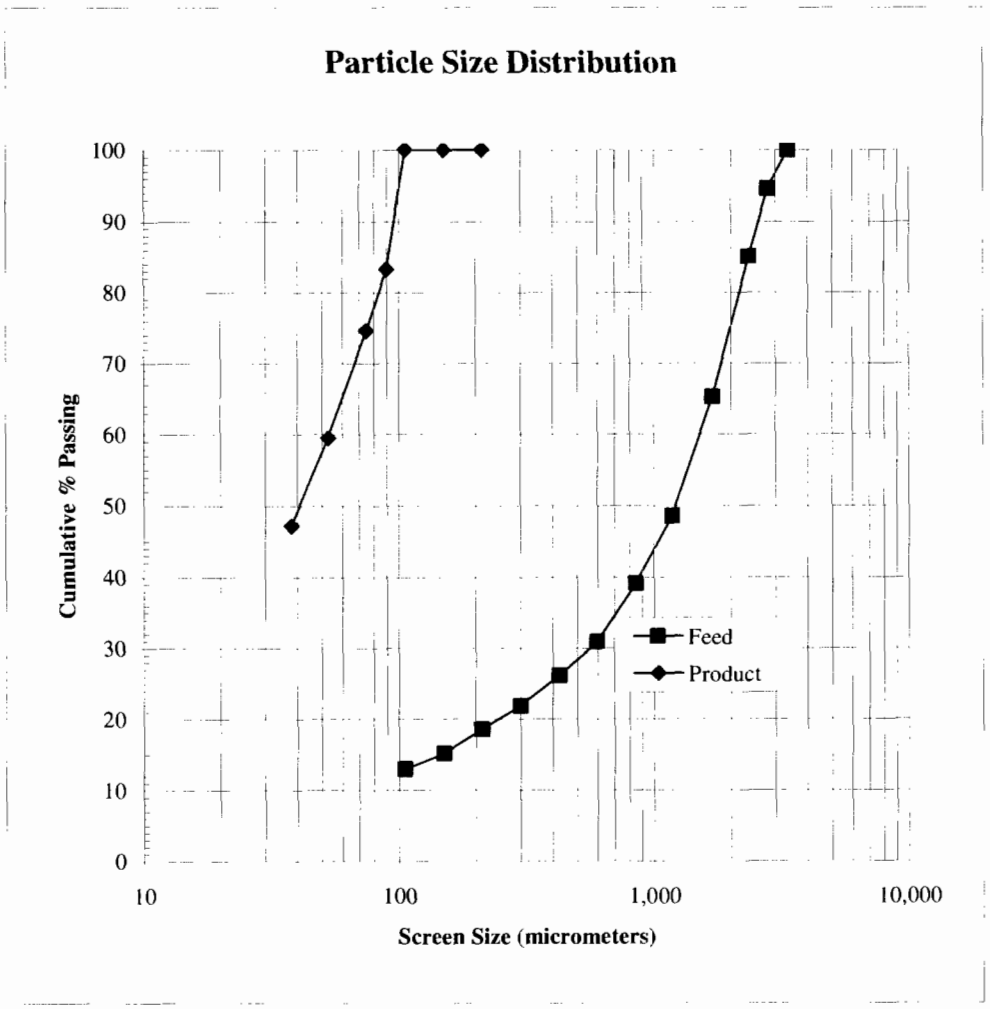
Feed K80

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
6	3,360	0.0	0.0	0.0	100.0
7	2,800	36.1	5.4	5.4	94.6
8	2,360	63.7	9.5	14.9	85.1
10	1,700	132.5	19.8	34.8	65.2
14	1,180	111.4	16.7	51.5	48.5
20	850	63.1	9.5	60.9	39.1
28	600	54.8	8.2	69.1	30.9
35	425	31.6	4.7	73.9	26.1
48	300	28.6	4.3	78.1	21.9
65	212	22.1	3.3	81.5	18.5
100	150	22.5	3.4	84.8	15.2
150	106	14.7	2.2	87.0	13.0
Pan	-106	86.6	13.0	100.0	0.0
Total	-	**667.7**	**100.0**	-	-
K80	**2,213**				

Product K80

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
65	212	0.0	0.0	0.0	100.0
100	150	0.0	0.0	0.0	100.0
150	106	0.0	0.0	0.0	100.0
170	90	25.6	16.8	16.8	83.2
200	75	13.1	8.6	25.4	74.6
270	53	23.1	15.2	40.5	59.5
400	38	18.8	12.3	52.9	47.1
Pan	-38	71.9	47.1	100.0	0.0
Total	-	152.5	**100.0**	-	-
K80	**84**				

Project No.: 11366-001 Test No.: Junior Lake B



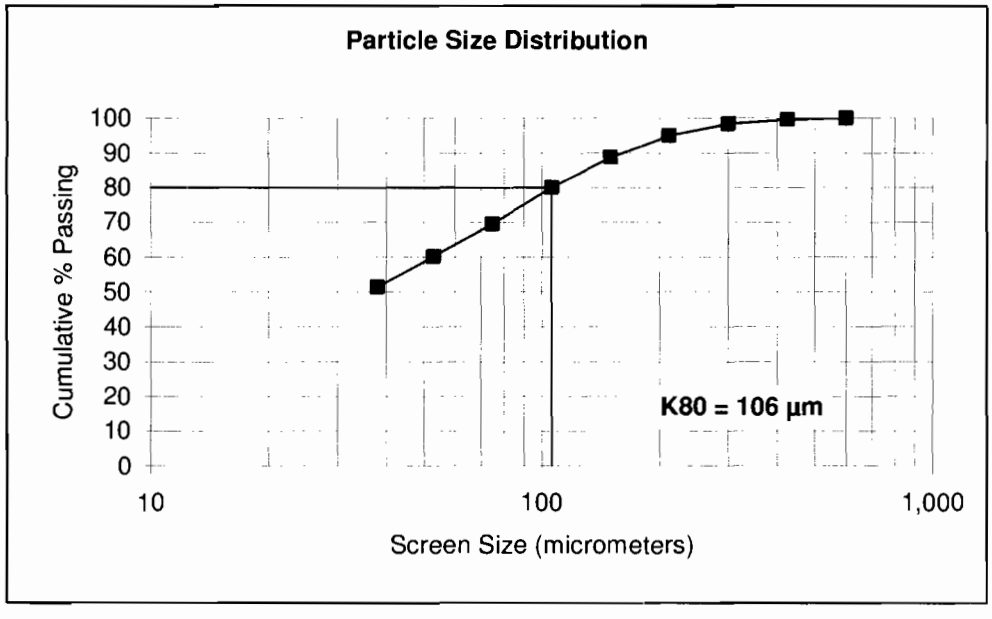
Appendix B – Mill Calibration

SGS Minerals Services
Size Distribution Analysis

Project No.
11366-001

Sample: **18 Min** Test No.: **Zone A**

Size		Weight	% Retained		% Passing
Mesh	µm	grams	Individual	Cumulative	Cumulative
28	600	0.0	0.0	0.0	100.0
35	425	0.7	0.4	0.4	99.6
48	300	2.5	1.3	1.6	98.4
65	212	6.8	3.4	5.1	94.9
100	150	12.2	6.2	11.3	88.7
150	106	17.1	8.7	19.9	80.1
200	75	20.8	10.5	30.5	69.5
270	53	18.4	9.3	39.8	60.2
400	38	17.5	8.9	48.7	51.3
Pan	-38	101.2	51.3	100.0	0.0
Total	-	**197.2**	100.0	-	-
K80	**106**				

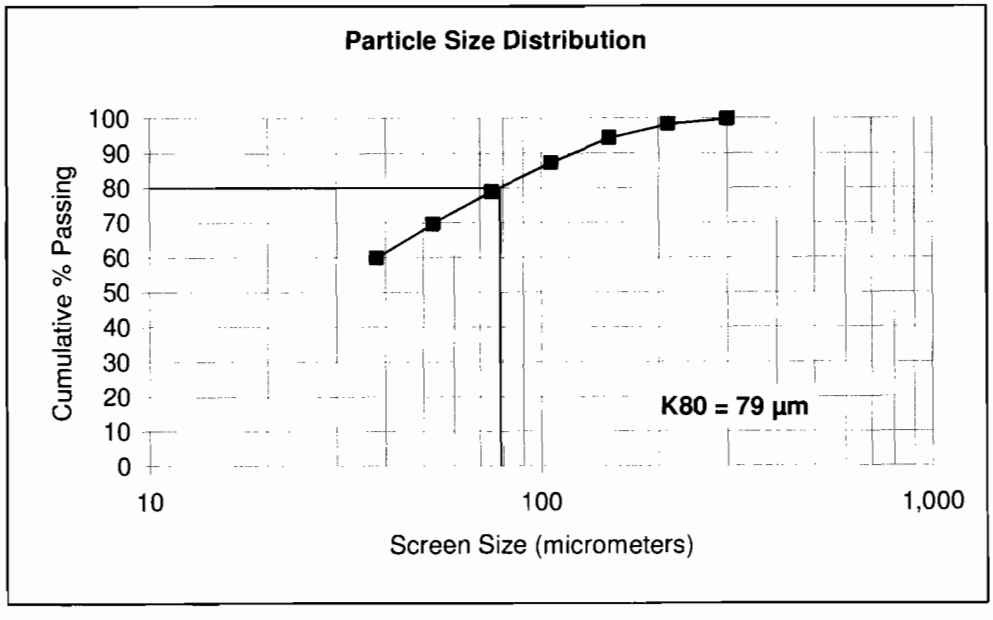


SGS Minerals Services
Size Distribution Analysis

Project No.
11366-001

Sample: **25 Min** Test No.: **Zone A**

Size		Weight	% Retained		% Passing
Mesh	µm	grams	Individual	Cumulative	Cumulative
48	300	0.4	0.2	0.2	99.8
65	212	3.0	1.6	1.8	98.2
100	150	7.5	3.9	5.7	94.3
150	106	13.6	7.1	12.7	87.3
200	75	16.0	8.3	21.1	78.9
270	53	17.9	9.3	30.4	69.6
400	38	18.9	9.8	40.2	59.8
Pan	-38	114.9	59.8	100.0	0.0
Total	**-**	**192.2**	100.0	-	-
K80	**79**				

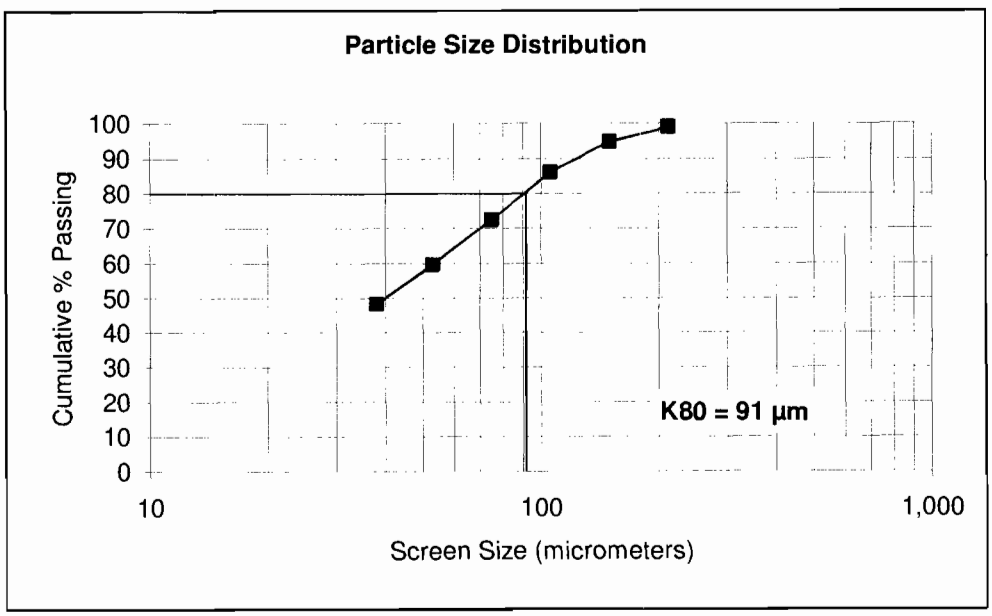


SGS Minerals Services
Size Distribution Analysis

Project No.
11366-001

Sample: **Zone B Comp** Test No.: **2kg@26min**

Size		Weight	% Retained		% Passing
Mesh	µm	grams	Individual	Cumulative	Cumulative
65	212	2.3	1.1	1.1	98.9
100	150	8.6	4.2	5.3	94.7
150	106	17.3	8.5	13.8	86.2
200	75	27.9	13.7	27.5	72.5
270	53	26.2	12.9	40.4	59.6
400	38	23.3	11.4	51.8	48.2
Pan	-38	98.2	48.2	100.0	0.0
Total	**-**	**203.8**	100.0	**-**	**-**
K80	**91**				



Appendix C – Flotation

Test No: F1 **Project No.**: 11366-001 **Operator**: RG **Date**: Sep 6, 2006

Purpose: To establish rougher kinetics at 100 micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 19 minutes @ 65% Solids (80 % passing 100 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 110 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250		Grind	Cond.	Froth	
Grind				19			
Rougher 1	10	17.5			2	2	9.0
Rougher 2	10				2	4	
Rougher 3	20	2.5			2	6	8.9
Total	**40**	**20**		**19**	**6**	**12**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	*47.8*	2.4	*19.20*	*2.71*	*27.60*	53.0	66.53	30.6
Ro Conc 2	*65.3*	3.3	*7.37*	*0.60*	*19.40*	27.8	20.12	29.4
Ro Conc 3	*80.0*	4.0	*1.22*	*0.10*	*7.79*	5.6	4.11	14.5
Rougher Tails	*1798.0*	90.3	*0.13*	*0.01*	*0.61*	13.5	9.23	25.5
Head (calc.)	1991.1	100.0	0.87	0.10	2.16	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	100%		*98%*	*89%*	*116%*			

Combined Products	Wt%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	2.40	19.20	2.71	27.6	53.0	66.5	30.6
Ro Conc 1 + 2	5.68	12.37	1.49	22.9	80.9	86.7	60.1
Ro Conc 1 - 3	9.70	7.75	0.92	16.6	86.5	90.8	74.5

Test No: F2 **Project No.**: 11366-001 **Operator**: RG **Date**: Sep 6, 2006

Purpose: To establish rougher kinetics at 75micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 75 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250		Grind	Cond.	Froth	
Grind				26			
Rougher 1	10	17.5			2	2	9.0
Rougher 2	10				2	4	
Rougher 3	20	2.5			2	6	8.8
Total	**40**	**20**		**26**	**6**	**12**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	*55.0*	2.8	*17.30*	*2.19*	*25.40*	56.2	75.16	32.7
Ro Conc 2	*71.4*	3.6	*6.38*	*0.29*	*16.00*	26.9	12.92	26.8
Ro Conc 3	*53.4*	2.7	*1.64*	*0.12*	*10.30*	5.2	4.00	12.9
Rougher Tails	*1813.0*	91.0	*0.11*	*0.01*	*0.65*	11.8	7.92	27.6
Head (calc.)	1992.8	100.0	0.85	0.08	2.14	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	100%		*96%*	*73%*	*115%*			

Combined Products	Wt%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	2.76	17.30	2.19	25.4	56.2	75.2	32.7
Ro Conc 1 + 2	6.34	11.13	1.12	20.1	83.1	88.1	59.5
Ro Conc 1 - 3	9.02	8.31	0.82	17.2	88.2	92.1	72.4

Test No: F3 **Project No.**: 11366-001 **Operator**: RG **Date**: Sep 12, 2006

Purpose: To establish rougher kinetics at 60micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 32 minutes @ 65% Solids (80 % passing 65 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 65 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250		Grind	Cond.	Froth	
Grind				32			
Rougher 1	10	17.5			2	2	9.1
Rougher 2	10				2	4	
Rougher 3	20	2.5			2	6	9.0
Total	**40**	**20**		**32**	**6**	**12**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	*62.3*	3.13	*16.40*	*2.05*	*24.40*	53.4	76.29	31.1
Ro Conc 2	*61.1*	3.07	*7.46*	*0.29*	*17.00*	23.8	10.58	21.2
Ro Conc 3	*95.8*	4.82	*1.77*	*0.10*	*14.90*	8.9	5.72	29.2
Rougher Tails	*1770.0*	89.0	*0.15*	*0.01*	*0.51*	13.9	7.40	18.5
Head (calc.)	1989.2	100.0	0.96	0.08	2.46	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	99%		*108%*	*77%*	*131%*			

Combined Products	Wt%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	3.13	16.40	2.05	24.4	53.4	76.3	31.1
Ro Conc 1 + 2	6.20	11.97	1.18	20.7	77.3	86.9	52.3
Ro Conc 1 - 3	11.02	7.51	0.71	18.2	86.1	92.6	81.5

Test No: F4 **Project No.**: 11366-001 **Operator**: RG **Date**: Sep 12, 2006

Purpose: To assess the cleaner performance at a 75 micron grind & regrind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 81 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					26			
Rougher 1	10	17.5				2	2	9.0
Rougher 2	10					2	4	
Rougher 3	20	2.5				2	6	8.9
Ro Regrind					5			
1st Clnr			5			2	4	10.5
1st Clnr Scav			10			2	4	10.5
2nd Clnr						2	3	10.5
Total	**40**	**20**	**15**		**31**	**12**	**23**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	250g
Speed: rpm	1800	1200	1200

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
2nd Clnr Conc	*29.2*	1.5	*21.30*	*3.60*	*34.80*	36.5	71.12	24.7
2nd Clnr Tails	*16.2*	0.8	*13.60*	*0.60*	*24.50*	12.9	6.58	9.6
1st Clnr Scav Conc	*22.1*	1.1	*15.60*	*0.77*	*25.40*	20.2	11.51	13.6
1t Clnr Scav Tails	*122.9*	6.2	*2.17*	*0.042*	*8.11*	15.6	3.49	24.2
Rougher Tails	*1797.0*	90.4	*0.14*	*0.006*	*0.64*	14.8	7.29	27.9
Head (calc.)	1987.4	100.0	0.86	0.07	2.07	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	99%		*96%*	*68%*	*111%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
1st Clnr Conc	2.28	18.55	2.53	31.12	49.4	77.7	34.3
1st Clnr Conc + 1st Clnr Scav C	3.40	17.59	1.95	29.25	69.6	89.2	47.9
Ro Conc	9.58	7.64	0.72	15.60	85.2	92.7	72.1

Test No: F5 **Project No.**: 11366-001 **Operator**: RG **Date**: Sep 12, 2006

Purpose: To assess the impact of a more aggressive sulphide flotation at 75 micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 82 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250	H2SO4	Grind	Cond.	Froth	
Grind				26			
Rougher 1	10	17.5			2	2	9.0
Rougher 2	10				2	4	
Rougher 3	20	2.5			2	6	8.0
Total	**40**	**20**		**26**	**6**	**12**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	*62.3*	3.1	*16.60*	*2.29*	*23.70*	60.2	82.51	36.6
Ro Conc 2	*59.0*	3.0	*6.30*	*0.27*	*16.80*	21.6	9.21	24.6
Ro Conc 3	*58.7*	3.0	*1.33*	*0.059*	*7.84*	4.5	2.00	11.4
Rougher Tails	*1807.0*	90.9	*0.13*	*0.006*	*0.61*	13.7	6.27	27.4
Head (calc.)	1987.0	100.0	0.87	0.09	2.03	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	99%		*97%*	*79%*	*108%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	3.14	16.60	2.29	23.7	60.2	82.5	36.6
Ro Conc 1 + 2	6.10	11.59	1.31	20.3	81.8	91.7	61.2
Ro Conc 1 - 3	9.06	8.24	0.90	16.3	86.3	93.7	72.6

Test No: F6 **Project No.**: 11366-001 **Operator**: RG **Date**:

Purpose: To assess the cleaner performance at a 75 micron grind & regrind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Combined Products: 39 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					26			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	10					2	4	
Sec Rougher 2	20	2.5				2	6	8.9
Ro Regrind					3			
1st Clnr Conc 1			10	50		2	3	10.2
1st Clnr Conc 2			10	10		2	2	10.2
1st Clnr Conc 3			10	10			2	
Total	**40**	**20**	**30**	**70**	**29**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*68.5*	3.4	*17.4*	*1.98*	*25.50*	68.5	82.93	40.5
1st Clnr Conc 1	*27.9*	1.4	*7.28*	*0.37*	*26.90*	11.7	6.31	17.4
1st Clnr Conc 2	*5.8*	0.3	*4.57*	*0.27*	*17.70*	1.5	0.96	2.4
1st Clnr Conc 3	*3.7*	0.2	*3.34*	*0.19*	*14.00*	0.7	0.43	1.2
1st Clnr Tails	*90.0*	4.5	*0.61*	*0.03*	*6.38*	3.2	1.71	13.3
Ro Tails	*1790.1*	90.1	*0.14*	*0.01*	*0.61*	14.4	7.66	25.3
Head (calc.)	1986.0	100.0	0.88	0.08	2.17	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	*99%*		*98%*	*75%*	*116%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	3.45	17.40	1.98	25.50	68.5	82.9	40.5
Pri Ro Con & 1st Clnr Conc 1	4.85	14.47	0.51	25.91	80.2	89.2	57.8
Pri Ro Con & 1st Clnr Conc 1 & 2	5.15	13.91	0.53	25.44	81.7	90.2	60.2
Pri Ro Con & 1st Clnr Conc 1-3	5.33	13.54	0.55	25.04	82.4	90.6	61.4
Ro Conc	9.86	7.60	1.00	16.47	85.6	92.3	74.7

Test No: F6-B **Project No.**: 11366-001 **Operator**: RG **Date**:

Purpose: To assess the cleaner performance at a 75 micron grind & regrind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Combined Products: 39 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					26			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	10					2	4	
Sec Rougher 2	20	2.5				2	6	8.9
Ro Regrind					3			
1st Clnr Conc 1			10	40		2	3	10.2
1st Clnr Conc 2			10	10		2	2	10.2
1st Clnr Conc 3			10	10			2	
Total	**40**	**20**	**30**	**60**	**29**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*49.6*	2.5	*17.6*	*2.47*	*25.3*	51.8	80.69	30.6
1st Clnr Conc 1	*40.5*	2.0	*10.6*	*0.42*	*29.8*	25.5	11.20	29.4
1st Clnr Conc 2	*7.8*	0.4	*7.29*	*0.26*	*22.7*	3.4	1.34	4.3
1st Clnr Conc 3	*4.8*	0.2	*3.97*	*0.15*	*20.5*	1.1	0.47	2.4
1st Clnr Tails	*57.6*	2.9	*0.94*	*0.04*	*4.87*	3.2	1.52	6.8
Ro Tails	*1816.0*	91.9	*0.14*	*0.004*	*0.60*	15.1	4.78	26.5
Head (calc.)	1976.3	100.0	0.85	0.08	2.08	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	99%		*96%*	*70%*	*111%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	2.51	17.60	2.47	25.30	51.8	80.7	30.6
Pri Ro Con & 1st Clnr Conc 1	4.56	14.45	0.49	27.32	77.2	91.9	59.9
Pri Ro Con & 1st Clnr Conc 1 & 2	4.95	13.88	0.52	26.95	80.6	93.2	64.2
Pri Ro Con & 1st Clnr Conc 1-3	5.20	13.42	0.54	26.65	81.7	93.7	66.6
Ro Conc	8.11	8.94	0.82	18.83	84.9	95.2	73.5

Test No: F6-C **Project No.**: 11366-001 **Operator**: RG **Date**:

Purpose: To assess the cleaner performance at a 75 micron grind & regrind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Combined Products: 39 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					26			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	10					2	4	
Sec Rougher 2	20	2.5				2	6	8.9
Ro Regrind					3			
1st Clnr Conc 1			10	50		2	3	10.2
1st Clnr Conc 2			10	15		2	2	10.2
1st Clnr Conc 3			10	10			2	
Total	**40**	**20**	**30**	**75**	**29**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*49.4*	2.5	*16.9*	*2.56*	*23.7*	50.1	82.41	28.9
1st Clnr Conc 1	*36.8*	1.9	*11.9*	*0.41*	*28.0*	26.3	9.83	25.4
1st Clnr Conc 2	*8.4*	0.4	*8.4*	*0.26*	*21.0*	4.2	1.42	4.4
1st Clnr Conc 3	*3.1*	0.2	*5.16*	*0.17*	*17.1*	1.0	0.34	1.3
1st Clnr Tails	*62.0*	3.1	*1.12*	*0.06*	*6.10*	4.2	2.42	9.3
Ro Tails	*1825.0*	92.0	*0.13*	*0.003*	*0.68*	14.2	3.57	30.6
Head (calc.)	1984.7	100.0	0.84	0.08	2.04	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	99%		*94%*	*70%*	*109%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	2.49	16.90	2.56	23.70	50.1	82.4	28.9
Pri Ro Con & 1st Clnr Conc 1	4.34	14.77	0.48	25.54	76.4	92.2	54.4
Pri Ro Con & 1st Clnr Conc 1 & 2	4.77	14.20	0.51	25.13	80.6	93.7	58.7
Pri Ro Con & 1st Clnr Conc 1-3	4.92	13.91	0.52	24.88	81.6	94.0	60.0
Ro Conc	8.05	8.95	0.83	17.59	85.8	96.4	69.4

Test No: F7 **Project No.**: 11366-001 **Operator**: RG **Date**: Sep 20, 2006

Purpose: To establish rougher kinetics at 75micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite B Ore
Grind: 29 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 100 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250		Grind	Cond.	Froth	
Grind				29			
Rougher 1	10	10			2	2	8.7
Rougher 2	10	2.5			2	4	
Rougher 3	20	2.5			2	6	
Rougher 4	20				2	4	
Total	**60**	**15**		**29**	**8**	**16**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	*43.0*	2.2	*16.90*	*2.74*	*29.30*	51.8	48.25	15.7
Ro Conc 2	*77.3*	3.9	*4.52*	*1.21*	*26.00*	24.9	38.30	25.1
Ro Conc 3	*103.0*	5.2	*1.32*	*0.17*	*25.90*	9.7	7.17	33.3
Ro Conc 4	50.2	2.5	0.96	0.1	22.7	3.4	2.06	14.2
Rougher Tails	*1718.3*	86.3	*0.083*	*0.006*	*0.54*	10.2	4.22	11.6
Head (calc.)	1991.8	100.0	0.70	0.12	4.02	100.0	100.00	100.0
(direct)	2000.0		*0.76*	*0.12*	*3.99*			
Call Factor	100%		*93%*	*102%*	*101%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	2.16	16.90	2.74	29.3	51.8	48.2	15.7
Ro Conc 1 + 2	6.04	8.95	1.76	27.2	76.7	86.6	40.8
Ro Conc 1 - 3	11.21	5.43	1.02	26.6	86.4	93.7	74.2
Ro Conc 1 - 4	13.73	4.61	0.86	25.9	89.8	95.8	88.4

Test No: F8 **Project No.**: 11366-001 **Operator**: RG **Date**: Oct 2, 2006

Purpose: To assess the cleaner performance at a 75 micron grind & regrind
Repeat of F6 with more aggressive sec rougher flotation conditions
Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite A Ore
Grind: 26 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = N/A

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					26			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	30	2.5				2	4	9.0
Sec Rougher 2	30					2	6	9.0
Ro Regrind					3			
1st Clnr Conc 1			10			2	3	10.2
1st Clnr Conc 2			10			2	2	10.2
1st Clnr Conc 3			10				2	
Total	**70**	**20**	**30**		**29**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*56.70*	2.9	*17.40*	*2.24*	*26.20*	58.5	79.74	34.3
1st Clnr Conc 1	*31.7*	1.6	*9.93*	*0.46*	*30.60*	18.7	9.15	22.4
1st Clnr Conc 2	*8.1*	0.4	*7.24*	*0.30*	*25.80*	3.5	1.53	4.8
1st Clnr Conc 3	*5.8*	0.3	*5.57*	*0.30*	*23.30*	1.9	1.09	3.1
1st Clnr Tails	*74.1*	3.7	*1.29*	*0.085*	*8.21*	5.7	3.95	14.1
Ro Tails	*1807.0*	91.1	*0.11*	*0.004*	*0.51*	11.8	4.54	21.3
Head (calc.)	1983.4	100.0	0.85	0.08	2.18	100.0	100.00	100.0
(direct)	2000.0		*0.89*	*0.11*	*1.87*			
Call Factor	99%		*96%*	*73%*	*117%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	2.86	17.40	2.24	26.20	58.5	79.7	34.3
Pri Ro Con & 1st Clnr Conc 1	4.46	14.72	0.48	27.78	77.2	88.9	56.7
Pri Ro Con & 1st Clnr Conc 1 & 2	4.87	14.09	0.52	27.61	80.6	90.4	61.5
Pri Ro Con & 1st Clnr Conc 1-3	5.16	13.61	0.54	27.37	82.5	91.5	64.7
Ro Conc	8.89	8.43	0.91	19.32	88.2	95.5	78.7

Test No: F9 **Project No.**: 11366-001 **Operator**: RG **Date**: Oct 2, 2006

Purpose: To assess the cleaner performance of Comp B at a 75 micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite B Ore
Grind: 35 minutes @ 65% Solids (80 % passing 75 microns) in BM-2
Notes: Grind K80 (Rougher Tail) = 72 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250		Grind	Cond.	Froth	
Grind				35			
Rougher 1	10	10			2	2	8.7
Rougher 2	10	2.5			2	4	
Rougher 3	20	2.5			2	6	
Rougher 4	20				2	4	
Total	**60**	**15**		**35**	**8**	**16**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	S	Cu	Ni	S	Cu
Ro Conc 1	*52.3*	2.6	*14.80*	*2.49*	*27.70*	55.7	54.56	18.0
Ro Conc 2	*87.1*	4.4	*3.50*	*0.89*	*27.60*	21.9	32.48	29.9
Ro Conc 3	*77.5*	3.9	*1.26*	*0.18*	*24.10*	7.0	5.84	23.2
Ro Conc 4	49.5	2.5	0.96	0.1	22	3.4	2.07	13.5
Rougher Tails	*1720.0*	86.6	*0.096*	*0.007*	*0.72*	11.9	5.04	15.4
Head (calc.)	1986.4	100.0	0.70	0.12	4.05	100.0	100.00	100.0
(direct)	2000.0		*0.76*	*0.12*	*3.99*			
Call Factor	99%		*92%*	*100%*	*102%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	2.63	14.80	2.49	27.7	55.7	54.6	18.0
Ro Conc 1 + 2	7.02	7.74	1.49	27.6	77.7	87.0	47.9
Ro Conc 1 - 3	10.92	5.42	1.02	26.4	84.7	92.9	71.1
Ro Conc 1 - 4	13.41	4.59	0.85	25.6	88.1	95.0	84.6

Test No: F10 **Project No.**: 11366-001 **Operator**: RG **Date**: Oct 2, 2006

Purpose: To assess the cleaner performance of Comp B at a 100 micron grind

Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite B Ore
Grind: 24 minutes @ 65% Solids (80 % passing 100 microns) in BM-2
Notes: Grind K80 (Rougher Tail) = 103 microns

Conditions:

Stage	Reagents (g/t)			Time (minutes)			pH
	PAX	DF 250		Grind	Cond.	Froth	
Grind				24			
Rougher 1	10	10			2	2	8.7
Rougher 2	10	2.5			2	4	
Rougher 3	20	2.5			2	6	
Rougher 4	20				2	4	
Total	**60**	**15**		**24**	**8**	**16**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	N/A	N/A
Speed: rpm	1800	N/A	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	*47.0*	2.4	*14.30*	*2.25*	*29.20*	48.7	45.27	17.0
Ro Conc 2	*78.8*	4.0	*4.43*	*1.03*	*30.60*	25.3	34.75	29.9
Ro Conc 3	*73.5*	3.7	*1.89*	*0.32*	*28.20*	10.1	10.07	25.7
Ro Conc 4	39.2	2.0	1.3	0.19	20.6	3.7	3.19	10.0
Rougher Tails	*1746.0*	88.0	*0.096*	*0.009*	*0.80*	12.2	6.73	17.3
Head (calc.)	1984.5	100.0	0.69	0.12	4.06	100.0	100.00	100.0
(direct)	2000.0		*0.76*	*0.12*	*3.99*			
Call Factor	*99%*		*91%*	*98%*	*102%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Ro Conc 1	2.37	14.30	2.25	29.2	48.7	45.3	17.0
Ro Conc 1 + 2	6.34	8.12	1.49	30.1	74.1	80.0	46.9
Ro Conc 1 - 3	10.04	5.82	1.06	29.4	84.1	90.1	72.7
Ro Conc 1 - 4	12.02	5.08	0.91	27.9	87.8	93.3	82.7

Test No: F11 **Project No.**: 11366-001 **Operator**: RG **Date**: Oct 12, 2006

Purpose: To assess the cleaner performance at a 75 micron grind & regrind
Repeat of F8, but with Comp B
Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite B Ore
Grind: 35 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 73 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					35			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	30	2.5				2	4	9.0
Sec Rougher 2	30					2	6	9.0
Ro Regrind					3			
1st Clnr Conc 1			10			2	3	10.2
1st Clnr Conc 2			10			2	2	10.2
1st Clnr Conc 3			10				2	
Total	**70**	**20**	**30**		**38**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*54.90*	2.8	*14.20*	*2.76*	*31.90*	57.1	64.49	21.5
!st Clnr Conc 1	*45.0*	2.3	*5.00*	*1.07*	*34.30*	16.5	20.49	19.0
1st Clnr Conc 2	*28.2*	1.4	*3.00*	*0.42*	*34.60*	6.2	5.04	12.0
1st Clnr Conc 3	*17.7*	0.9	*2.23*	*0.24*	*37.10*	2.9	1.81	8.1
!st Clnr Tails	*86.1*	4.3	*1.08*	*0.100*	*22.10*	6.8	3.66	23.4
Ro Tails	*1762.2*	88.4	*0.08*	*0.006*	*0.74*	10.6	4.50	16.0
Head (calc.)	1994.1	100.0	0.69	0.12	4.08	100.0	100.00	100.0
(direct)	2000.0		*0.76*	*0.12*	*3.99*			
Call Factor	100%		*90%*	*98%*	*102%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	2.75	14.20	2.76	31.90	57.1	64.5	21.5
Pri Ro Con & 1st Clnr Conc 1	5.01	10.06	1.00	32.98	73.5	85.0	40.5
Pri Ro Con & 1st Clnr Conc 1 & 2	6.42	8.50	1.25	33.34	79.7	90.0	52.5
Pri Ro Con & 1st Clnr Conc 1-3	7.31	7.74	1.40	33.79	82.6	91.8	60.6
Ro Conc	11.63	5.27	2.14	29.45	89.4	95.5	84.0

Test No: F11-B **Project No.**: 11366-001 **Operator**: RG **Date**: Oct 12, 2006

Purpose: To assess the cleaner performance at a 75 micron grind & regrind
Repeat of F8, but with Comp B
Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite B Ore
Grind: 35 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 73 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					35			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	30	2.5				2	4	9.0
Sec Rougher 2	30					2	6	9.0
Ro Regrind					3			
1st Clnr Conc 1			10	210		2	3	10.2
1st Clnr Conc 2			10	120		2	2	10.2
1st Clnr Conc 3			10	40			2	
Total	**70**	**20**	**30**	**370**	**38**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*49.80*	2.5	*13.7*	*2.28*	*28.2*	48.3	49.33	18.1
!st Clnr Conc 1	*66.7*	3.4	*4.60*	*1.09*	*33.6*	21.7	31.59	28.8
1st Clnr Conc 2	*27.0*	1.4	*3.27*	*0.54*	*33.7*	6.2	6.33	11.7
1st Clnr Conc 3	*28.3*	1.4	*2.35*	*0.31*	*32.9*	4.7	3.81	12.0
!st Clnr Tails	*72.3*	3.6	*1.07*	*0.14*	*16.3*	5.5	4.40	15.1
Ro Tails	*1742.0*	87.7	*0.11*	*0.006*	*0.64*	13.6	4.54	14.3
Head (calc.)	1986.1	100.0	0.71	0.12	3.92	100.0	100.00	100.0
(direct)	2000.0		*0.76*	*0.12*	*3.99*			
Call Factor	99%		*94%*	*97%*	*98%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	2.51	13.70	2.28	28.20	48.3	49.3	18.1
Pri Ro Con & 1st Clnr Conc 1	5.87	8.49	1.10	31.29	70.0	80.9	46.9
Pri Ro Con & 1st Clnr Conc 1 & 2	7.23	7.51	1.35	31.74	76.3	87.3	58.6
Pri Ro Con & 1st Clnr Conc 1-3	8.65	6.66	1.59	31.94	81.0	91.1	70.5
Ro Conc	12.29	5.00	2.21	27.30	86.4	95.5	85.7

Test No: F11-C **Project No.**: 11366-001 **Operator**: RG **Date**: Oct 12, 2006

Purpose: To assess the cleaner performance at a 75 micron grind & regrind
Repeat of F8, but with Comp B
Procedure: As outlined below.
Feed: 2 kg of minus 10 mesh VW Zone Composite B Ore
Grind: 35 minutes @ 65% Solids (80 % passing 75 micron) in BM-2
Notes: Grind K80 (Rougher Tail) = 73 microns

Conditions:

Stage	Reagents (g/t)				Time (minutes)			pH
	PAX	DF 250	PIBX	Lime	Grind	Cond.	Froth	
Grind					35			
Pri Rougher	10	17.5				2	2	9.0
Sec Rougher 1	30	2.5				2	4	9.0
Sec Rougher 2	30					2	6	9.0
Ro Regrind					3			
1st Clnr Conc 1			10	230		2	3	10.2
1st Clnr Conc 2			10	100		2	2	10.2
1st Clnr Conc 3			10	50			2	
Total	**70**	**20**	**30**	**380**	**38**	**10**	**19**	

Stage	Roughers	1stClnr and Scav.	2nd Cleaner
Flotation Cell	1000 g	250g	N/A
Speed: rpm	1800	1200	N/A

Metallurgical Balance

Product	Weight		Assays, %			% Distribution		
	g	%	Ni	Cu	S	Ni	Cu	S
Pri. Rougher Conc	*51.40*	2.6	*14.8*	*2.40*	*30.3*	54.9	53.47	19.9
!st Clnr Conc 1	*69.5*	3.5	*3.57*	*1.00*	*34.1*	17.9	30.12	30.3
1st Clnr Conc 2	*33.0*	1.7	*2.58*	*0.43*	*33.8*	6.1	6.15	14.3
1st Clnr Conc 3	*20.7*	1.0	*1.94*	*0.22*	*34.7*	2.9	1.97	9.2
!st Clnr Tails	*61.6*	3.1	*0.97*	*0.14*	*13.7*	4.3	3.74	10.8
Ro Tails	*1749.0*	88.1	*0.11*	*0.006*	*0.69*	13.9	4.55	15.4
Head (calc.)	1985.2	100.0	0.70	0.12	3.94	100.0	100.00	100.0
(direct)	2000.0		*0.76*	*0.12*	*3.99*			
Call Factor	99%		*92%*	*97%*	*99%*			

Combined Products	Wt %	Ni	Cu	S	Ni	Cu	S
Pri Ro Concentrate	2.59	14.80	2.40	30.30	54.9	53.5	19.9
Pri Ro Con & 1st Clnr Conc 1	6.09	8.34	1.16	32.48	72.8	83.6	50.3
Pri Ro Con & 1st Clnr Conc 1 & 2	7.75	7.11	1.47	32.77	78.9	89.7	64.6
Pri Ro Con & 1st Clnr Conc 1-3	8.80	6.50	1.64	33.00	81.8	91.7	73.7
Ro Conc	11.90	5.05	2.19	27.96	86.1	95.5	84.6