NTS 92H 840884

EASTERN LEASEHOLDS INCORPORATED

VANCOUVER, BRITISH COLUMBIA

EVALUATION OF PRECIOUS METAL CONTENT IN PLACER LEASES IN THE SIMILKAMEEN MINING DISTRICT

PROJECT 1229 APRIL 1983

WRIGHT ENGINEERS LIMITED
Vancouver Canada

INDEX

SECTION 1

INTRODUCTION

SECTION 1

INTRODUCTION

By letter from Eastern Leaseholds Inc. dated 9 February 1983, Roy Ellerman, P. Eng. on behalf of Wright Engineers Limited of Vancouver was commissioned to monitor and prepare a report covering the evaluation of the precious metals content of certain placer leases in the Similkameen Mining District, near Princeton, B.C. The test work leading to this evaluation was to be performed by W. Rosch in his laboratory located in the vicinity of the leases. The following report covers the work performed and the results obtained during the test period beginning February 28, 1983.

The laboratory facilities of Mr. Rosch are located in the basement of his home and lack some facilities to do accurate work, however, essential gravity separation equipment is available and in good working order. While the test results may not be accurate to normal laboratory standards, they should represent a reasonable assessment of the precious metal content of the series of samples processed during the test period.

It was agreed with the client that General Testing Laboratories of Vancouver would perform the precious metal analyses of all samples produced during this test period since they had previous experience in the analysis of this type of material.

SECTION 2

EXECUTIVE SUMMARY

SECTION 2

EXECUTIVE SUMMARY

A sample of material weighing approximately 25 kg was taken by R. Ellerman from each of five leases at locations previously prepared by either cleaning down vertical faces of the deposit or from pits dug into virgin ground. Fresh faces were exposed just before the samples were actually removed. The five samples were taken to the Rosch laboratory where R. Ellerman removed about a 2 kg "head" sample which was placed in plastic bags, tagged and locked in the trunk of his car.

Each of the 5 samples was processed in the presence of R. Ellerman by a technique developed by Mr. Rosch. A 10 kg sample was first mixed with an equal weight of water and a wetting agent, "Mr. Kleen", and subjected to high-speed agitation or scrubbing to ensure all particles were to grain size. The samples were then subjected to screening and conventional gravity separation to produce heavy mineral concentrates. These concentrates in total were dried, bagged and tagged by R. Ellerman for analysis by General Testing Laboratories for gold, silver, platinum and "other" platinum group metals.

The analytical results obtained by General Testing showed a substantial difference in the total* precious metal content of each of the 5 samples as determined in the "head" sample compared to that determined in the concentrates. The "head" samples showed a consistently low total precious metal content (0.02 to 0.08 grams per dry metric tonne) while the concentrate analysis showed the total precious metal content to be in the range of 2.5 to 7.0 grams per dry metric tonne, a factor of about 100. Sample A "head" sample was rechecked by Bacon Donaldson & Associates using a large sample weight and the mercury amalgamation procedure for gold and silver only. Their results showed Sample A to contain 0.019 gms of gold per tonne of ore. This is comparable to that obtained by General Testing of 0.016 gms of gold per tonne of ore.

---

* total of the combined weights of Au, Ag, Pt and "other" Pt group.

As a further check on the work performed in the Rosch laboratory, a new sample of about 50 kgs was taken from sample area A by Eastern Leasehold's geologist and brought directly to the Bacon Donaldson laboratory for processing through their gravity circuit with instructions as to process parameters. A concentrate and mids-concentrate were produced from a sample weight of 98.8 pounds (44.81 kgs). The combined concentrate and mids concentrate analysis showed this sample to contain 1.374 grams/tonne of precious metals. The Rosch test on a sample from Area A gave a combined previous metal content of 6.11 grams/tonne. The Bacon Donaldson results are significant in that they confirm, that for at least Sample Area A, the direct fire analyses of the "heads" do not appear to represent the true value of the precious metal content in the sample. The reason for this is not apparent at this time. The results also confirm that the precious metals can be recovered at a high ratio of concentration using conventional gravity separation techniques.

The results of this work, while not totally conclusive, indicate that the 5 leases sampled contain appreciable amounts of gold and platinum group metals and that a development program should be initiated, in stages, to better define the technical and economic viability of the area. This programme, as detailed under Section 5 together with estimated costs is summarized as follows:

Stage I

The test work outlined in this report should be precisely duplicated in an independent laboratory in an attempt to resolve the discrepancy between head sample analysis and concentrate analyses. Estimated cost of this programme is $25,000.

Stage II

If Stage I is successful, initiate an exploration programme to develop ore reserves sufficient to support an economically viable operation. The cost of a drilling programme is estimated to be about $300,000 and the setting up of a laboratory to process the drill core samples will cost a further $250,000.

Stage III

If Stage I and II are successful, then a pilot plant should be built and operated to more fully define the design and operating parameters of the process. The capital cost of this plant is estimated to be in the range of $800,000. The plant may be self-sustaining in terms of operating cost.

Stage IV

The success of Stages I, II and III should lead directly into a detailed feasibility study by an independent consulting company including financial analysis of the project. This document should be of a quality acceptable to banking and financial institutions. Cost of this study will be in the order of $300,000.

Summarizing the above, the development programme, culminating in a Feasibility Report, is estimated to cost a total of about $1,675,000. This together with contingencies and outside overheads could bring it to $2,000,000. We believe this is a reasonable expenditure considering the possible potential of the area.

The potential for ore reserves in the lease area that makes up Eastern Leaseholds block of ground, is very substantial. The surface area of the leases is in the order of 5 million square metres. The alluvial deposit rises from the Similkameen River to a height of 300 to 400 metres. No rock outcrops are apparent except on the north and south extremities of the area. The volume of alluvia therefore is enormous. As to whether the deposit constitutes an economic ore reserve will depend on confirming test work and exploration, but the potential is promising.

SECTION 3

LOCATION AND DESCRIPTION OF LEASES

SECTION 3

LOCATION AND DESCRIPTION OF LEASES

The group of leases that were sampled, as shown in Exhibit III, lay in the general area of the W. Rosch ranch located on the east side of the Similkameen River about 7 kilometres south of Princeton. The area is serviced by road from Princeton, 3 km of which is paved and the balance a bush trail.

All leases sampled lay within the Similkameen mining district and have the following numbers:

Sample A - lease PL 6016
Sample B - lease E.L. A
Sample C - lease PL 2673
Sample D - lease PML 1615
Sample E - lease PL 1034
Sample F - lease PL 6016

The above properties are located at elevations between 3,000 and 4,000 ft., the ground rising from the Similkameen river level in a series of benches. In general, the leases cover an alluvial deposit consisting of a multiple series of beds varying in consistency from sandy, sandy boulders, sandy clays and clays. Speculation is that the area was not subjected to glacial action. None of the beds appear to be consolidated or cemented. Average bulk density in place appears to be between 1.12 and 1.45 or 1200 to 1450 kg per cubic metre (1,900 to 2,430 lb per cubic yard). Surface moisture content of the in-place material varied from a low of 5% to a high of 28% in clays.

The 5 leases that were sampled are part of a contiguous group made up of 17 placer leases. It is the writer's understanding that Eastern Leaseholds Inc. have letters of understanding whereby they can acquire options to purchase the properties from their respective owners. Further, it is the writer's understanding that the above group of 17 leases is valid and in good standing.

SECTION 4

SUMMARY OF RESULTS

SECTION 4

SUMMARY OF RESULTS

A "head" sample of the material tested was taken for each series and subjected to fire analysis using a 3-assay ton sample or 87.5 grams. The results are shown in the following table calculated in grams per dry metric tonne of material tested.

Head Sample	Grams per Metric Tonne			
	Au	Ag	Pt	Other Pt Group
A	0.016	Trace	0.0057	0.0114
B	0.015	Trace	0.0080	0.0110
C	0.069	Trace	0.0570	Trace
D	0.034	Trace	0.0160	Trace
E	0.034	Trace	0.0160	Trace
F	0.057	Trace	0.0160	Trace

Note: "Other Pt Group" refers to elements of rhodium, iridium and osmium.

The concentrates and middling concentrates produced from each test series were subjected to fire analysis using the entire sample weight. The results of combining the total weights of concentrate and middling concentrate gave results calculated on the basis of grams per dry metric tonne as shown in the table below. It should be noted that the sluice box tailings for sample D & E were not processed due to time constraints and therefore the values shown under D & E are probably low in comparison to A, B and C.

Head Sample	Grams per Metric Tonne			
	Au	Ag	Pt	Other Pt Group
A	4.387	0.476	1.354	1.084
B	1.710	0.214	0.244	0.335
C	1.436	0.137	0.515	0.254
D	1.217	0.136	0.193	0.634
E	1.623	0.170	0.403	0.385
F	0.485	0.055	0.111	0.111

The ratio of gold to silver and gold to total platinum group in the concentrates are shown in the table below:

Sample	Au: Ag	Au: Total Pt
A	9.2:1	1.8:1
B	8.0	2.9
C	10.5	1.9
D	8.9	1.5
E	9.6	2.0
F	8.8	2.2
Average	9.16:1	2.05:1

Sample F was 4 cubic feet of material taken from the same site as Sample A. An attempt was made to process this sample on a continuous flow basis using the Rosch facilities. It quickly became evident that these facilities were unsuitable for this type of programme and the results that were obtained are suspect and not likely to be representative of the more accurate work performed on Samples A, B, C, D and E.

After tabulating the above results it was apparent that a large discrepancy in precious metal values existed between the "head" analysis and that of the concentrates produced from the same sample material. In an attempt to resolve this discrepancy the client agreed to a resampling programme and to process the sample using an independent laboratory. As a result of this decision, the Client's geologist removed a 50 kg sample from site A and delivered it directly to Bacon Donaldson and Associates in Vancouver. They were given instructions to treat the sample through their gravity concentrating facility in a manner similar to the Rosch process. The analytical results of the Bacon Donaldson test using a sample weight of 44.84 kg are as follows:

Grams per Metric Tonne			
Au	Ag	Pt	Other Pt
1.162	0.20	0.005	-

SECTION 5

RECOMMENDATIONS

SECTION 5

RECOMMENDATIONS

The following recommendations are made as to future work that should be performed prior to the issuing of a full feasibility report for the project.

5.1 A decisive resolution of the discrepancy between "head" grade analysis and the analysis of the concentrates produced at the Rosch laboratory from the same samples should be finalized. Until this is done, the viability of the project is in question, particularly in planning future development work. We believe this can only be done by an independent laboratory which will re-sample the test areas and process these samples through its own facilities. The process to be used should duplicate precisely that which was developed by W. Rosch and used in his laboratory for the test series described in this report. Mr. Rosch should be used as an active consultant but should not physically take part in the test work.

5.2 If recommendation 5.1 resolves the discrepancy in favour of the concentrates as shown in this report, and that the "heads" analysis is in error, then an exploration programme should be initiated to establish an economic ore reserve. A minimum reserve, of say, 3.5 million tons, would ensure a concentrator operation of 1,000 t/d for 10 years. A minimum profitable grade would probably be in the range of 1.5 to 2.0 grams of precious metals (Au and Pt group) per tonne of ore, based on present day metal prices and estimated operating cost for this type of deposit.

If drilling is selected as the exploration tool, the type and method must ensure complete recovery of the core material. A reverse circulation type drill may be the best system available at this time but other methods should be investigated prior to a final selection.

To establish an ore reserve of, say, 3.5 million tonnes, we estimate that an order-of-magnitude programme would involve the drilling of 10,000 to 15,000 feet at a cost of between $12 and $15 per foot or a total expenditure of about $300,000, including the cost of analysis.

To overcome the difficulty of direct fire analysis of the core samples, we recommend that a standard laboratory procedure be developed for determining the precious metal content of exploration samples based on the W. Rosch process. This should involve total drill core increments being subjected to concentration and the total concentrate then subjected to fire analysis followed by separation of the metallic bead into components of Au, Ag, Pt and Other Pt group. This procedure would give recoverable precious metal analysis. A fully equipped laboratory should be set up in the vicinity of the leases or in Princeton to include concentrating and fire assay facilities. The cost of this facility would be in the range of $250,000.

5.3 To complete the programme of work required for the development of a feasibility study, assuming an economic ore reserve is indicated, it will then be necessary to set up a pilot plant operation to develop design and operating parameters for the Rosch process. We believe this is necessary since certain design aspects of the process such as scrubbing, desliming and gravity separation are critical to its success.

The pilot plant flowsheet as shown in Exhibit III meets the requirements of the process. Preliminary estimates of the cost of this facility including a building, power and water service would be in the range of $800,000. It would be capable of processing 3 tonnes of ore per hour to produce a final dore metal. Depending on the precious metal content of the ore, the value of metal recovered may sustain the operating cost of the facility.

5.4 If the results of the work carried out in the above 3 recommendations indicates the project is technically and economically viable, then the project should be studied in detail with the production of a feasibility report by an

independent engineering firm. This report would detail the project design including mining, process and ancillary services and develop a capital and operating cost and a financial analysis of the project. This report should be of a quality acceptable by banking or financial institutions. The cost of preparing this report would be in the range of $300,000.

With the completion of the feasibility report, management would then be in a position to make decisions as to the future of the project. It should be borne in mind, however, that the work could be terminated at the end of any of the 4 stages, should results prove negative.

5.5 An environmental impact assessment will have to be initiated at some period of time prior to the development of the feasibility report. If the exploration programme is successful, the timing for this assessment may be at the completion of this stage of work. The assessment will detail the parameters and work required to prepare an Initial Environmental Evaluation (IEE) leading to a final Environmental Import Statement (EIS). Cost of the assessment has not been estimated at this time.

SECTION 6

EVALUATION PROCEDURE

SECTION 6

EVALUATION PROCEDURE

6.1 SAMPLING PROCEDURE

Five bulk samples of about 25 kg each were taken by the writer and designated A, B, C, D and E, correspond to locations as shown on the attached map designated Exhibit 1. In each location, the sample site had been previously prepared by cutting a clean verticle face of about 2.5 m in height or digging a shallow trench using a front-end loader. In the case of Sample F, this was about 5 cubic metres of material taken by W. Rosch from the location of Sample A and trucked to his laboratory and placed on a wooden platform.

From each bulk sample, 500 grams were removed for moisture determination.

From each bulk sample, 10 kg were removed for evaluation by taking random scoops. In the case of Sample F, a wooden box having a volume of 1 cubic foot was used to measure out 4 cubic feet of material for evaluation. The material was compacted in the box to simulate material in-place.

6.2 SAMPLE TREATMENT PROCEDURE

The sample treatment laboratory was set up by W. Rosch in the basement of his home. The equipment consisted of pulp mixing, 30 inch diameter ball mill, 1 ft x 3 ft shaking screen with a 20 mesh opening, screen cloth, a 8 in x 8 ft fines sluice box, an 8 in x 8 ft coarse sluice box, a shaking table and miscellaneous tanks, pumps, scales and laboratory equipment. The sluice boxes were equipped with heavy wool blankets and expanded metal sheets. All samples were dried by placing them in metal pans on a hot plate.

6.2.1 Sample A - Treatment Procedure

The material consisted of fine grained sand generally in the range of 100% passing 60 mesh and containing minor amounts of clay-like particles.

A representative head sample of about 2 kg was removed from the bulk sample and packaged for analysis.

A 500 gram representative sample was removed from the bulk sample, placed in a metal tray and dried for free moisture determination.

A 10 kg representative sample was removed from the bulk sample for treatment to produce a concentrate of precious metals. First, about 500 grams of sample were mixed with 1/2 litre of water and a few drops of a wetting agent (Mr. Kleen) in a Waring blender for about 2 minutes and then placed in a plastic pail. This was repeated until all of the 10 kg sample was mixed. The resulting pulp containing about 50% solids was metered by hand to the 20 mesh vibrating screen equipped with water sprays. The screen undersize and oversize flowed by gravity to their respective sluice boxes. The sluice box tails were each retained in their own sump box. After all of the sample had passed the sluice boxes, the sluice box blankets were carefully removed and thoroughly washed into a pail. Both sluice box concentrates were then metered by hand onto the shaking table that produced concentrate, middling and tailings fractions. The total concentrate and middling sample was dried separately and packaged for analysis. The oversize sluice box tailings were collected, dried and weighed to determine the amount of plus 20 mesh in the 10 kg sample.

6.2.2 Sample B - Treatment Procedure

The material consisted of sand and boulders with boulder size up to 100 mm in diameter. Very little clay material was observed.

The test procedure was the same as for Sample A except that the sample was not mixed with water in the blender but was metered by hand directly onto the wet vibrating screen.

6.2.3 Sample C - Treatment Procedure

The material consisted mainly of fine sand having very little plus 20 mesh or clay materials.

The test procedure was the same as performed on Sample B.

6.2.4 Sample D - Treatment Procedure

The material consisted of sandy clay with some plus 20 mesh material.

The test procedure was the same as performed on Sample A.

6.2.5 Sample E - Treatment Procedure

The material had a very high clay content with some fine sand of which very little was in the plus 20 mesh range.

The test procedure was the same as performed on Sample A.

6.2.6 Sample F - Treatment Procedure

This was a 4 cubic foot sample, taken from the same location as Sample A, by W. Rosch. The sample was compacted into a 1 cubic foot box in an effort to simulate in-place material.

The material consisted of fine grained sand with a minor amount of clay particles.

The treatment procedure consisted of hand metering the sample into a 30 in dia. x 18 in ball mill with water. The resultant slurry was fed to the wet vibrating screen. Screen undersize was directed to the fine sluice box. The sluice box concentrate was then hand metered to the shaking table where concentrate, middling and tailings fractions were produced. These fractions were dried and packaged for analysis.

6.2.7 Bacon Donaldson Test Procedure

The sample was weighed and then fed into a Sala pot pump and recirculated with water to thoroughly scrub and free the mineral grains. The resulting slurry was then fed at a controlled rate to a Reichert spiral concentrator which produced a rough concentrate, a middling concentrate that was recycled, and tailings. The two concentrates were then hand-panned and the separate concentrates were fire-assayed to produce a precious metal bead. The beads were weighed and sent to General Testing Laboratories for parting into gold, silver and platinum group constituents.

A second sample, designated Sample B was processed by Bacon Donaldson. This was a random, very high-clay sample picked up by the Eastern Leasehold's geologist on the roadside leading to the Rosch ranch. Because of the high clay content, it was difficult to handle in the laboratory and the results are low and questionable (see the Bacon Donaldson Report - Exhibit II).

The results of Sample A concentrate analysis are as follows:

Feed Weight - 98.8 lb = 44.84 kg.

Product	Sample Weight	Total Wt of Precious Metals	Mg		
			Au	Ag	Pt Group
Concentrate	176.7 gm	60.234 mg	51.35	8.71	0.16
Middling	950.0 gm	1.320 mg	0.78	0.18	0.049
Total	-	61.554	52.13	8.89	0.209

Converting these results to grams per metric tonne gives the following:

Grams per Metric Tonne		
Au	Ag	Pt Group
1.162	0.020	0.005

SECTION 7

DETAILED TEST RESULTS

SECTION 7

DETAILED TEST RESULTS

7.0 DETAILED TEST RESULTS

All analyses were performed by General Testing Laboratories of Vancouver. The total amount of all concentrate samples was fire assayed to produce dore metal beads. The beads from each sample were combined and analyzed for gold, silver and platinum group metals.

7.1 Free Moisture Content

Sample A - 4.0%
B - 12.0%
C - 10.0%
D - 20.0%
E - 28.0%

7.2 Bulk Density

Performed on Sample A only giving an average of **80.5 lb/cubic ft.**

Equivalent to = 2173 lb/cubic yard
= 1295 kg/cubic metre

7.3 Oversize Material Content - Plus 20 Mesh

Sample A - Nil - Dry Basis
B - 83.5%
C - 1.33%
D - 2.10%
E - 1.11%

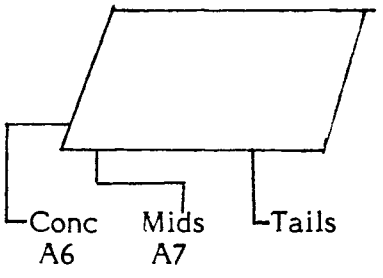
7.4 Analytical Results

The analytical results are shown in Exhibit I which consists of the analytical results tabulated by General Testing Laboratories.

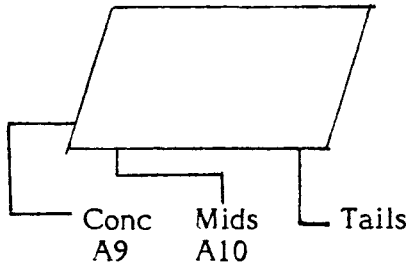
7.4.1 Sample A

Sample weight - (wet) - 10,000 grams
% moisture - 3.13%
Sample weight - (dry) - 9,687 grams

Sluice Box Conc.



Sluice Box Tailing



ANALYTICAL RESULTS

Sample	Wt. in gm	Weight in Mg Au	Ag	Pt	Other Pt Group
A1 Heads	87.5	0.0014	0.01	0.0005	0.001
A6	16.67	33.174	3.356	11.158	7.903
A7	27.92	2.048	0.079	0.105	0.369
A9	16.49	6.251	1.150	1.570	2.127
A10	15.26	0.937	0.023	0.286	0.099
Total of A6, 7, 9 & 10	76.34	42.41	4.61	13.12	10.50

Sample	GRAMS PER DRY METRIC TONNE Au grams	Ag grams	Pt grams	Other Pt Group grams
A1 Heads	0.016	-	0.0057	0.01143
Total of A6, 7, 9 & 10	4.378	0.476	1.354	1.084

Concentration Ratio

Total Wt of A 6, 7, 9 and 10 = 76.34 gm

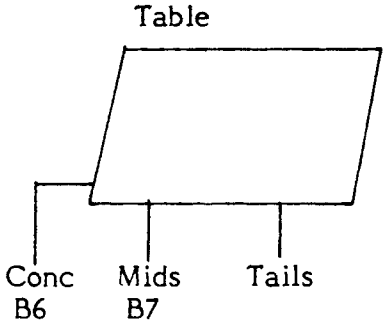
Weight of sample (dry) = 9,687 gm

Concentration ratio = $\frac{9687}{76.34}$ = 126.9:1

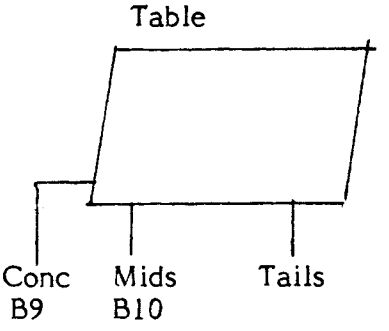
7.4.2 Sample B

Sample weight - (wet) - 10,000 grams
% moisture - 7.22%
Sample weight - (dry) - 9,288 grams

Sluice Box Conc.



Sluice Box Tailing



ANALYTICAL RESULTS

Sample	Wt. in gm	Weight in Mg Au	Ag	Pt	Other Pt Group
B1 Heads	87.5	0.0013	0.01	0.0007	0.001
B6	36.03	8.323	1.564	1.182	1.933
B7	11.93	0.196	0.062	0.007	0.007
B9	42.05	7.012	0.336	1.048	1.111
B10	17.80	0.349	0.032	0.031	0.062
Total of B6, 7, 9 & 10	107.81	15.88	1.99	2.27	3.113

GRAMS PER DRY METRIC TONNE

Sample	Au grams	Ag grams	Pt grams	Other Pt Group grams
B1 Heads	0.015	-	0.008	0.011
Total of B6, 7, 9 & 10	1.710	0.214	0.244	0.335

Concentration Ratio

Total Wt of B6, 7, 9 and 10 = 107.81 gm

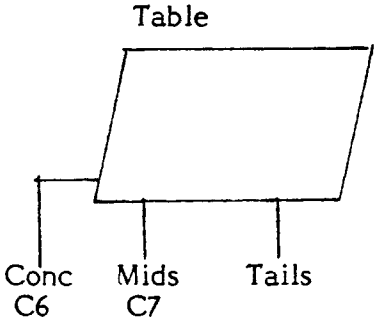
Weight of sample (dry) = 9,288 gm

Concentration ratio = $\frac{9288}{107.81}$ = 86.15:1

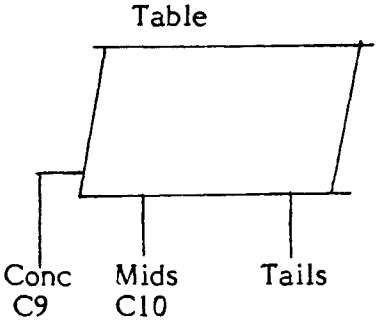
7.43 Sample C

Sample weight - (wet) - 10,000 grams
% moisture - 6.73
Sample weight - (dry) - 9,337 grams

Sluice Box Conc.



Sluice Box Tailing



ANALYTICAL RESULTS

Sample	Wt. in gm	Weight in Mg Au	Ag	Pt	Other Pt Group
C1 Heads	87.5	0.006	0.01	0.0005	0.001
C6	62.93	10.250	0.889	3.144	1.918
C7	51.63	0.207	0.032	0.509	0.008
C9	42.38	2.852	0.326	1.572	0.441
C10	18.74	0.097	0.032	0.036	0.003
Total of C6, 7, 9 & 10	175.68	13.406	1.279	4.811	2.370

GRAMS PER DRY METRIC TONNE

Sample	Au grams	Ag grams	Pt grams	Other Pt Group grams
C1 Heads	0.069	-	0.057	-
Total of C6, 7, 9 & 10	1.436	0.137	0.515	0.254

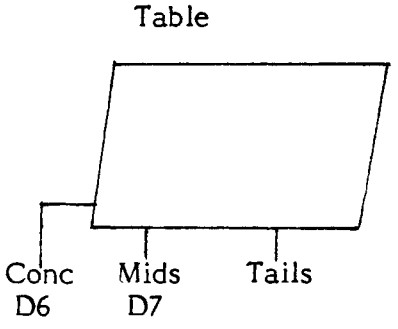
Concentration Ratio

Total Wt of C6, 7, 9 and 10	=	175.68	gm
Weight of sample (dry)	=	9,337	gm
Concentration ratio = $\frac{9337}{175.68}$	=	53:1	

7.44 Sample D

Sample weight - (wet) - 10,000 grams
% moisture - 15.81%
Sample weight - (dry) - 8,419 grams

Sluice Box Conc.



Note: Sluice box tailings were not processed in Series D test.

ANALYTICAL RESULTS

Sample	Wt. in gm	Weight in Mg Au	Ag	Pt	Other Pt Group
D1 Heads	87.5	0.0030	-	0.0014	-
D6	62.40	10.068	1.112	1.602	5.337
D7	25.47	0.182	0.029	0.021	-
Total of D6 & 7	87.87	10.250	1.141	1.623	5.337

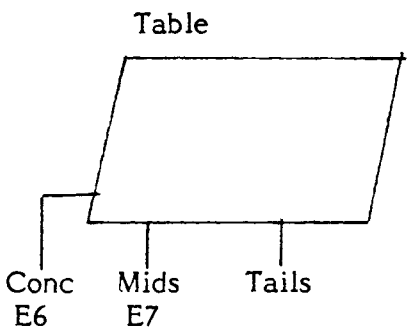
GRAMS PER DRY METRIC TONNE

Sample	Au grams	Ag grams	Pt grams	Other Pt Group grams
D1 Heads	0.034	-	0.016	-
Total of D6 & 7	1.217	0.136	0.193	0.634

7.4.5 Sample E

Sample weight - (wet) - 10,000 grams
% moisture - 17.30%
Sample weight - (dry) - 8,270 grams

Sluice Box Conc.



ANALYTICAL RESULTS

Sample	Wt. in gm	Weight in Mg Au	Ag	Pt	Other Pt Group
E1 Heads	87.5	0.0030	-	0.0014	-
E6	37.58	13.332	1.389	3.303	3.209
E7	22.58	0.331	0.040	0.093	0.031
Total of E6 & 7	60.16	13.663	1.429	3.396	3.240

GRAMS PER DRY METRIC TONNE

Sample	Au grams	Ag grams	Pt grams	Other Pt Group grams
E1 Heads	0.034	-	0.016	-
Total of E6 & 7	1.623	0.170	0.403	0.385

Concentration Ratio

Total Wt of E6 and 7	=	60.16	gm
Weight of sample (dry)	=	8,270	gm
Concentration ratio = $\frac{8,270}{60.16}$	=	137:1	

7.4.6 Sample F

Sample volume - 4 cubic feet

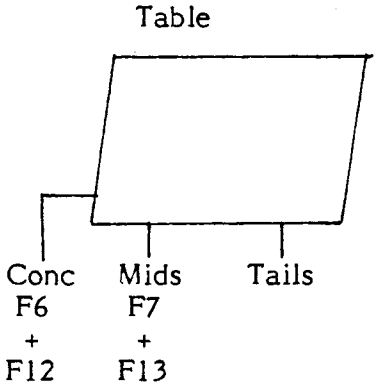
Sample weight - (wet) - 83 + 78 + 79 + 82 = 322 lb

= 146,056 grams

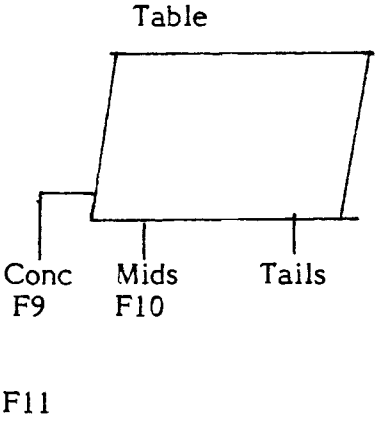
% moisture - 8.25

Sample weight - (dry) - 146.056 x .9175 = 134,006 grams

Sluice Box Conc.



Sluice Box Tailing



ANALYTICAL RESULTS

Sample	Wt. in gm	Weight in Mg Au	Ag	Pt	Other Pt Group
F1 Heads	87.5	0.005	-	0.0014	-
F6	64.20	38.940	4.666	8.964	6.384
F7	156.26	0.151	0.030	0.064	-
F9	121.66	1.539	0.223	0.172	-
F10	123.09	4.907	0.410	1.540	2.080
F12	46.46	18.656	1.863	3.980	3.553
F13	144.99	0.924	0.131	0.105	0.422
Total of F6, 7, 9, 10, 12 and 13	656.66	65.117	7.323	14.827	12.439
F11 Tails	88.78	0.010	-	0.0014	-

Sample	GRAMS PER DRY METRIC TONNE Au grams	Ag grams	Pt grams	Other Pt Group grams
F1 Heads	0.057	-	0.016	-
Total of F6, 7, 9, 10 12 and 13	0.485	0.055	0.111	0.093

SECTION 8

SUGGESTED PROCESS PLANT CONCEPT

SECTION 8

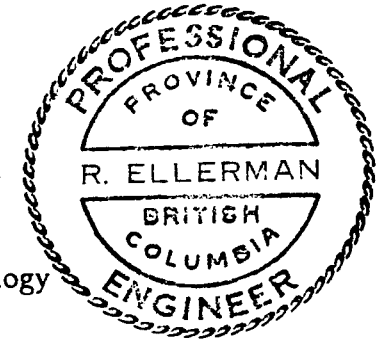
SUGGESTED PROCESS CONCEPTS

Values such as gold and platinum group metals, contained in the samples tests, are distinct grains most of which are in the size range of -100 mesh. These together with the black-sand content can be readily concentrated, with good recovery, by gravity methods such as spirals, tables or Reichert Cone. The only provision is that these values must be liberated from clays, accretions to boulders or cemented particles, by scrubbing.

The process concept is to meter the bank-run material from a hopper using a devise such as an apron feeder into a wet drum scrubber, to liberate the values. The resulting pulp would first be wet screened to remove all +6 mm material to waste, followed by a second screen to remove all +20 mesh material to waste. The resultant screened pulp would then be pumped through hydrocyclones to remove the fine clay particles (desliming). The deslimed slurry would then flow by gravity to Reichert spiral classifiers, where a rough concentrate of heavy minerals including the precious metals, is produced. The rougher concentrate is further up-graded in a Reichert spiral to produce a concentrate and tailings. The tailings are recycled back to process. The concentrate passes to two stages of low intensity wet magnetic separation to remove magnetite which is either wasted to tailings or stockpiled for sale. The non-magnetic pulp then flows to a shaking table to produce a final precious metal concentrate which is dewatered and charged to a fusing furnace for production of dore metal containing the gold, silver and platinum group. The flowsheet for this concept is contained in Exhibit III.

Respectfully Submitted

WRIGHT ENGINEERS LIMITED



R. Ellerman, P. Eng.
Senior Vice President
Process and Mining Technology

Vancouver, B.C.

April 1983

EXHIBIT I

GENERAL TESTING LABORATORIES ASSAY RESULTS

General Testing Laboratories
A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
PHONE (604) 254-1647 TELEX 04-507514 CABLE: SUPERVISE

TO:
WRIGHT ENGINEERS LTD.
1444 Alberni Street
Vancouver, B.C.
V6G 2Z4

CERTIFICATE OF ASSAY

No.: 8303-0757 | DATE: Mar. 18/83

'e hereby certify that the following are the results of assays on: **Placer Sand samples**

MARKED	* GOLD Au (mg)	*SILVER Ag (mg)	* Platinum Pt (mg)	Remaining Pt Group (mg)	Moisture H_2O (%)	xxx	xxx	xxx
A1 Head sample '87.5 gm or 3 A.T.used)	0.0014	< 0.01	0.0005	0.001	3.13			
a6 16.671 gm. (total wt. used)	33.174	3.356	11.158	7.903	-			
7 27.923 gm. (total wt. used)	2.048	0.079	0.105	0.369	-			
9 16.493 gm. total wt. used)	6.251	1.150	1.570	2.127	-			
A10 15.259 gm. total wt. used)	0.937	0.023	0.286	0.099	-			
Head sample 1.5 gm or 3 A.T.used)	0.0013	< 0.01	0.0007	0.001	7.22			
B6 36.034 gm. total wt. used)	8.323	1.564	1.182	1.933	-			
B7 11.931 gm. total wt. used)	0.196	0.062	0.007	0.007	-			
B9 42.052 gm. (total wt. used)	7.012	0.336	1.048	1.111	-			
10 17.800 gm. (total wt. used)	0.349	0.032	0.031	0.062	-			
1 Head sample 87.5 gm or 3 A.T.used)	0.0060	< 0.01	0.005	< 0.001	6.73			
6 62.931 gm. (total wt. used)	10.250	0.889	3.144	1.918	-			
7 51.629 gm. total wt. used)	0.207	0.032	0.059	0.008	-			

(* Precious metals recovered :sample weights used as indicated.)

/ Continued on page 2 ....

L. Wong
PROVINCIAL ASSAYER

General Testing Laboratories
A Division of SGS Supervision Services Inc.
1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
PHONE (604) 254-1647 TELEX 04-507514 CABLE: SUPERVISE

TO:
WRIGHT ENGINEERS LTD.

.... page 2 .....

CERTIFICATE OF ASSAY

No.: 8303-0757 | DATE: Mar. 17/83

We hereby certify that the following are the results of assays on: Placer Sand samples

MARKED	* GOLD Au (mg)	* SILVER Ag(mg)	* Platinum Pt (mg)	* Remaining Pt Group (mg)	Moisture H_2O (%)	xxx	xxx	xxx
						(* Precious metals recovered : sample weights used as indicated.)		
C9 42.376 gm. (total wt. used)	2.852	0.326	1.572	0.441	-			
C10 18.736 gm. (total wt. used)	0.097	0.032	0.036	0.003	-			
D1 Head sample (87.5gm or 3 A.T.used)	0.0030	< 0.01	0.0014	< 0.001	15.81			
D6 62.403 gm. (total wt. used)	10.068	1.112	1.602	5.337	-			
25.466 gm. (total wt. used)	0.182	0.029	0.021	-	-			
E1 Head sample (87.5gm or 3 A.T.used)	0.0030	< 0.01	0.0014	< 0.001	17.30			
E6 37.577 gm. (total wt. used)	13.322	1.389	3.303	3.209	-			
E7 22.579 gm. (total wt. used)	0.331	0.040	0.093	0.031	-			
F1 Head sample (87.5gm or 3 A.T.used)	0.0050	< 0.01	0.0014	< 0.001	8.25			
F6 64.198 gm. (total wt. used)	38.940	4.666	8.964	6.384	-			
F7 156.255 gm. (total wt. used)	0.151	0.033	0.046	-	-			

Continued on page 3 .....

NOTE: REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORE FOR A MAXIMUM OF ONE YEAR.

L. Wong
PROVINCIAL ASSAYER

General Testing Laboratories
A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
PHONE (604) 254-1647 TELEX 04-507514 CABLE: SUPERVISE

TO:
WRIGHT ENGINEERS LTD.

..... page 3 .....

CERTIFICATE OF ASSAY

No.: 8303-0757 | DATE: Mar. 17/83

We hereby certify that the following are the results of assays on: **Placer sand samples**

MARKED	* GOLD Au (mg)	* SILVER Ag(mg)	* Platinum Pt (mg)	*Remaining Pt Group (mg)	Moisture H_2O (%)	xxx	xxx	xxx
						(* Precious metals recoved : sample weights used as indicated.)		
F9 121.657 gm. (total wt. used)	1.539	0.223	0.172	-	-			
F10 123.086 gm. (total wt. used)	4.907	0.410	1.540	2.080	-			
F11 88.778 gm. (total wt. used)	0.010	< 0.01	0.0014	< 0.001	-			
F12 46.461 gm. (total wt. used)	18.656	1.863	3.980	3.553	-			
[illegible] 144.993 gm. [illegible]tal wt. used)	0.924	0.131	0.105	0.422	-			

Remarks: Initial extractions are performed by fire assays. Gold, silver and platimum are quantitative analyses obtained by dissolving dore beads in aqua regia and determined by A.A. spectrometry. Pd occurred in trace quantities. Remaining Pt group mainly of Ir, Rh and Os are determined by difference. These results are not quantitative, they are provided to give further informations as to the total precious metal content in each sample. Some Pt group values are not reported because of inconsistant values.

L. Wong
PROVINCIAL ASSAYER

EXHIBIT II

BACON DONALDSON & ASSOC. REPORT

A.CON, DONALDSON & ASSOCIATES LTD.
Consulting Engineers

2036 Columbia St., Vancouver, B.C. V5Y 3E1 • Tel. 879-8461, Telex 04-53437

1983 April 22 File No. 4374

Wright Engineers Limited
1444 Alberni Street
Vancouver, B. C.
V6G 2Z4

Attention: Mr. Roy Ellerman

Dear Roy:

Re: Similkameen Sands
Gravity Test Programme
Eastern Leaseholds Inc.

We have carried out gravity concentration tests on two samples of sand which were delivered to our laboratory.

Sample A consisted of primarily sand sized material with 0.8% oversize (+12 mesh) material.

Sample B consisted of clay with 9.6% oversize material.

Each sample was screened through a 12 mesh Sweco screen to remove the oversize material and to break up any agglomerates. The minus 12 mesh fraction from each sample was placed into our Reichert spiral test assembly with sufficient water to bring the slurry to approximately 30% solids. The sample was recirculated through the assembly for approximately 10 minutes to ensure complete dispersion of all particles. Only a minor amount of Sparkleen laboratory detergent had been introduced into each sample since we have found negligible problems due to gold floating with spiral.

. . . 2

When stable operation had been achieved, the spiral products were directed to produce a concentrate and a tailing with a middling fraction being recirculated. The spiral concentrate from each sample was panned to produce a final concentrate and a pan tailing (middling fraction).

The entire concentrate from each sample was fused to produce a bead for gold, silver and platinum determination. A two assay ton portion of middling fraction was similarly fused. The results achieved with each sample are as follows with the milligrams of metal shown for the middling fraction representing the entire product rather than the portion which was fused.

SAMPLE A

PRODUCT	WEIGHT grams	TOTAL BEAD mg.	Au mg.	Ag mg.	Pt group mg.
Concentrate	176.7	60.234	51.35	8.71	0.16
Middling	950	1.32	0.78	0.18	0.049
Feed	98.8 pounds				

. . . 3

SAMPLE B

PRODUCT	WEIGHT grams	TOTAL BEAD mg.	Au mg.	Ag mg.	Pt group mg.
Concentrate	14.4	0.219	0.16	0.029	0.005
Middling	207.8	0.068	0.036	0.014	0.007
Feed	38.5 pounds				

An additional sample of sand indicated to come from the same location as sample A was brought to our laboratory by Mr. Rosch. This sample was treated in your presence by a combination of tabling and panning. A sample weighing 5.5 pounds was treated to produce 23.3 grams of concentrate. This concentrate was fused to produce a bead as follows:

Total bead = 1.281 mg.
Au = 0.985 mg.
Ag = 0.26 mg.
Pt group = 0.030 mg.

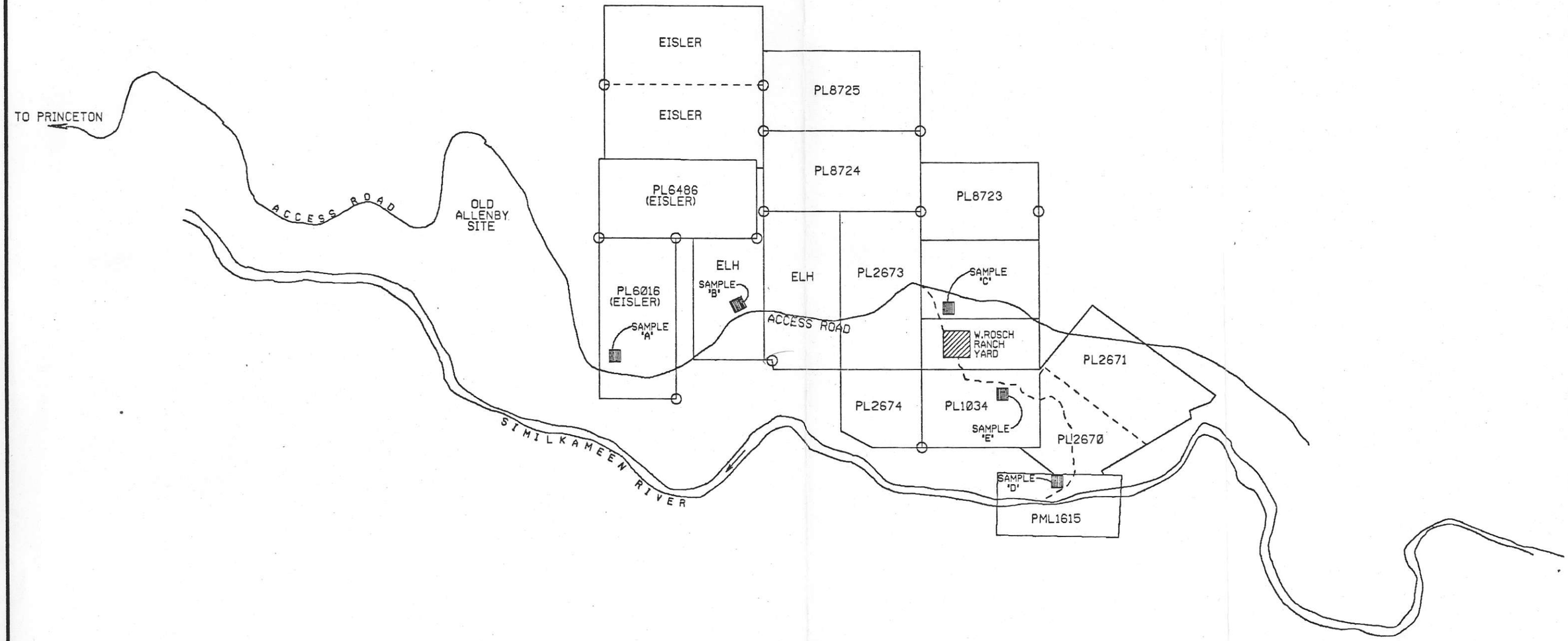
Two small samples which had been delivered at an earlier date were analyzed for gold by amalgamating the sample. A sample identified as "Head" and weighing 1425.4 grams contained 0.019 g/t Au by amalgamation. A fire assay of the amalgamation residue did not detect any additional gold. A sample identified as "Al-wet" was amalgamated but no gold was detected. This sample weighed only 269.4 grams and the resulting gold bead was presumable too small to be observed.

Yours truly,

M.J.A. Vreugde, Ph.D., P. Eng.

EXHIBIT III

DRAWINGS



DSGN.	DRAWN	CHECK	APPR.	ISSUED FOR	DATE	REV.	DESCRIPTION OF REVISION
	PAR						

WRIGHT ENGINEERS LIMITED
VANCOUVER CANADA

SIMILKAMEEN MINING DISTRICT
APPROXIMATE LOCATION OF LEASES
AND SAMPLE LOCATIONS

SCALE: 1:25,000

CAD No: MAP1.DGN

DRAWING No. B 1229 100

REV.

File: 1229

WRIGHT ENGINEERS LIMITED

Calculation Sheet

Project:	EASTERN LEASEHOLDS	**Designed by:**	RE	**Date:**	28 MAR 83
Area:	PILOT PLANT	**Checked by:**		**Sheet**	of
Subject:	3 TONNE / HOUR FLOWSHEET