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NORTHWEST ALBERTA PROJECT

Mineral Assessment Report

Metallic and Industrial Minerals
Permit Nos. 9397010001 and 9397010002
Permit Holder Alan David Lewis

Submitted by

713803 Alberta Ltd.

April 15, 2007

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Executive Summary

Activities of 713803 Alberta Ltd. May 2005 to April 2007

The last mineral assessment report was submitted on December 6, 2006. Since that time the activities of 713803 Alberta Ltd. have been primarily a continuation of testing of ore pretreatment and assay analysis techniques at Mr. Lewis' home-based lab facilities.

Consistent with prior experience, the work performed by Mr. Lewis has not yet established consistent and repeatable analytical techniques to prove the existence and successful extraction of commercial quantities of precious metals. However, compared to prior reporting periods, there was a significant increase in the proportion of Mr. Lewis' tests (13 of 56) which did indicate potentially commercial (greater than 0.1 OPT) results.

713803 Alberta Ltd. has maintained contact with other companies or individuals who are pursuing similar efforts to extract precious metals from similar ores to determine if any joint efforts are feasible. These discussions have not led to any joint ventures at this time.

1.0 Introduction

713803 Alberta Ltd. was incorporated in 1996 for the purpose of pursuing exploration and development of potential precious metal bearing properties in northwestern Alberta including the properties that are the subject of this report held under metallic and industrial minerals permit #9397010002 and #9397010001 in the name of Alan David Lewis, a shareholder of 713803 Alberta Ltd. (see Figure 1 showing mineral permit location which is included as Attachment 1.1).

Previous Mineral Assessment Reports have been filed on May 14, 1999, May 17, 2001, May 12, 2003 and December 6, 2006. This report describes the further work conducted in the period from May 2005 to April 2007 which has consisted almost entirely of continuing lab analysis by Alan Lewis in his home based facilities supported by one external commercial lab analysis.

Contact has been maintained with Birch Mountain Resources Ltd. to determine if there was interest in pursuing any exploration/analysis work on the subject permit lands or sample ores. Discussions have also been initiated with another individual who has obtained very promising results on tests of ores similar to those ores obtained from the 713803 Alberta Ltd. lands.

These various activities will be described in more detail in the following sections of the Report.

2. Lab Scale Mineral Content Analysis

Lab scale analyses were conducted by:

- Al Lewis (56 tests in total) at his home lab
- Loring Laboratories Ltd.

Each of these series of tests will be described below.

2.1 Al Lewis

A detailed review of the qualifications, experience and laboratory facilities utilized by Mr. Lewis were provided in the December 6, 2006 assessment report. Given the limited time between that report and the present report, there is no additional information to report.

A chronological summary of all tests conducted by Al Lewis from April 18th of 2005 to March 28th, 2007 is shown on Table 2.1 entitled "Test Procedures and Values", included as Attachment 2.1.1. Column 1 shows the period of time over which the test was conducted and Column 2 provides the test number.

Column 3 shows the type and source of all of the ore tested and the size of the sample used in the test in terms of the number of assay tons. Of the 56 tests, all came from locations within the Lewis permit lands as shown on Figure 2, included as Attachment 2.1.2.

No further geological assessment of the Lewis permit lands has been conducted beyond that originally included in the May14, 1999 Assessment Report and included again in the December 6, 2006 Assessment Report.

Column 4 describes the pre treatment and/or leaching agent used to extract precious metals.

Column 5, entitled "Value", provides the results obtained. Where the bead obtained from a specific test has been analyzed for precious metal content by an external laboratory, the results obtained from the external laboratory are provided. The name and test file number from the external laboratory are provided in Column 6. In those instances where no external analysis has been done the value stated is that measured by Al Lewis. The values stated will be the milligram weight of the bead obtained and that milligram weight converted to a weight of precious metal (in fractions of an ounce) per ton of raw head ore (OPT). This conversion of bead weight to precious metal concentration is achieved by dividing the bead weight by the number of assay tons in the sample that was analyzed.

An assay ton (A.T.) is defined as follows:

1 ton of ore (2000 lbs.) avoirdupois weighs 29166 troy oz.

1 assay ton (A.T.) weighs 29.166 grams.

Therefore, if the 'assay ton' yields 1 mg. of precious metal, it follows that the 2000 lb. ton of ore has a yield of 1 troy oz. per ton of ore.

Finally, column 7 shows the hours of work performed by Mr. Lewis in conducting the test.

2.2 Discussion of Lewis Analytical Techniques and Results

As discussed in previous assessment reports (May 14, 1999, May 17, 2001, May 12, 2003, and December 6, 2006, 713803 Alberta Ltd. continues to face the challenge of developing and establishing a reliable and repeatable sample pretreatment and leaching techniques to remove and capture the precious metal content from the ore sample. Accordingly, the test analyses reported in the Table 2.1 entitled "Test Procedures and Values" in this assessment report note in Column 3, the various pretreatment and leaching and processes that were used.

The pretreatment agents included:

H2SO4 (sulfuric acid)
NaOH (Sodium hydroxide)
HN03 (nitric acid)

Differing concentrations and proportions of these pretreatment agents were used in the various tests.

Once a sample was pretreated, different leaching agents were utilized to extract the precious metals from the ore samples. These leaching agents included:

HCl (three parts) and HNO3 (one part) (known as Aqua Regia)
NaCl (common salt)
NaBr (sodium bromide)
KI (potassium iodide)

Again, different concentrations of leaching agents realized in various tests. These varying concentrations of leaching agents resulted in differing levels of PH (acid – alkalinity balance) and differing levels of ORP (oxidation reduction potential).

The leached solution was then precipitated and dried. The dried precipitates were then fired in a conventional fire assay and the resulting bead weighed. In certain instances as noted in the table the bead precious metal content was analyzed by an external lab (Loring) to provide independent confirmation of the results that Lewis was achieving.

The specific concentrations of agents used in the various analyses are not reported in Table 2.1. This is based on the anticipation of 713803 Alberta Ltd. that once repeatable techniques are established that they would provide proprietary analytical knowledge which could be the basis of patent applications.

However, in order to provide the maximum amount of information, copies of Mr. Lewis' laboratory log notes covering the processes used Lewis test nos.831 to 886 (redacted to exclude sensitive information) are provided as Attachment 2.2.1. Similarly, log notes (Attachment 2.2.2) are provided to describe the information that was recorded for the firing process of each test.

As compared to the previous assessment reports (December 6, 2006) a similar number of tests has been performed by Mr. Lewis; however, compared to the December 6, 2006 report, there were more of the Lewis tests which produced encouraging results. In particular, in the period from November 30, 2005 through to February 15, 2006 (tests no. 846 to 858) eleven of the thirteen tests produced favorable results. Unfortunately in the remaining tests (859 to 886) these favorable results could not be repeated, but the series of favorable results do provide encouragement to continue our efforts to ultimately develop a repeatable and commercially viable extraction process.

2.3. Loring Laboratories

A test was conducted by Loring to analyze the precious metal content of the bead obtained from test no. 858 conducted by Al Lewis. This test did confirm the significant level of gold being obtained in the previous series of successful Lewis tests. Had a further series of successful Lewis tests been obtained in the series of tests from no. 859 to 886, more confirmation tests would have been done by Loring.

The Loring test report is included as Attachment 2.3.1.

3.0 Computer Tabulation and Analysis of Test Results

Dr. Walter Haessel, a shareholder and director of 713803 Alberta Ltd. who had conducted some preliminary work in assembling data as reported in the December 6, 2006 report, did not conduct any further work in the may, 2005 to April, 2007 period but expects to resume his work in the near future.

4.0 Discussions with Other Companies / Individuals

Contact has also been maintained with Birch Mountain Ltd. who is a public company that has been active for several years in pursuing Alberta gold and platinum prospects. Birch Mountain Resources Ltd. continues to concentrate their efforts on limestone quarry operations to serve the aggregate and quicklime requirements of the Ft. McMurray oil sands industry. They have no current plans to resume their precious metals project.

713803 Alberta Ltd. will maintain contact with Birch Mountain Ltd.

713803 Alberta Ltd. has located an individual analyst who has developed an analytical process which we understand has produced very favorable results on ores similar to those contained in the 713803 Alberta Ltd. lands. We intend to pursue more detailed discussions with this individual to make arrangements for testing of our ores.

ATTACHMENT 1.1

Location of Permit Lands

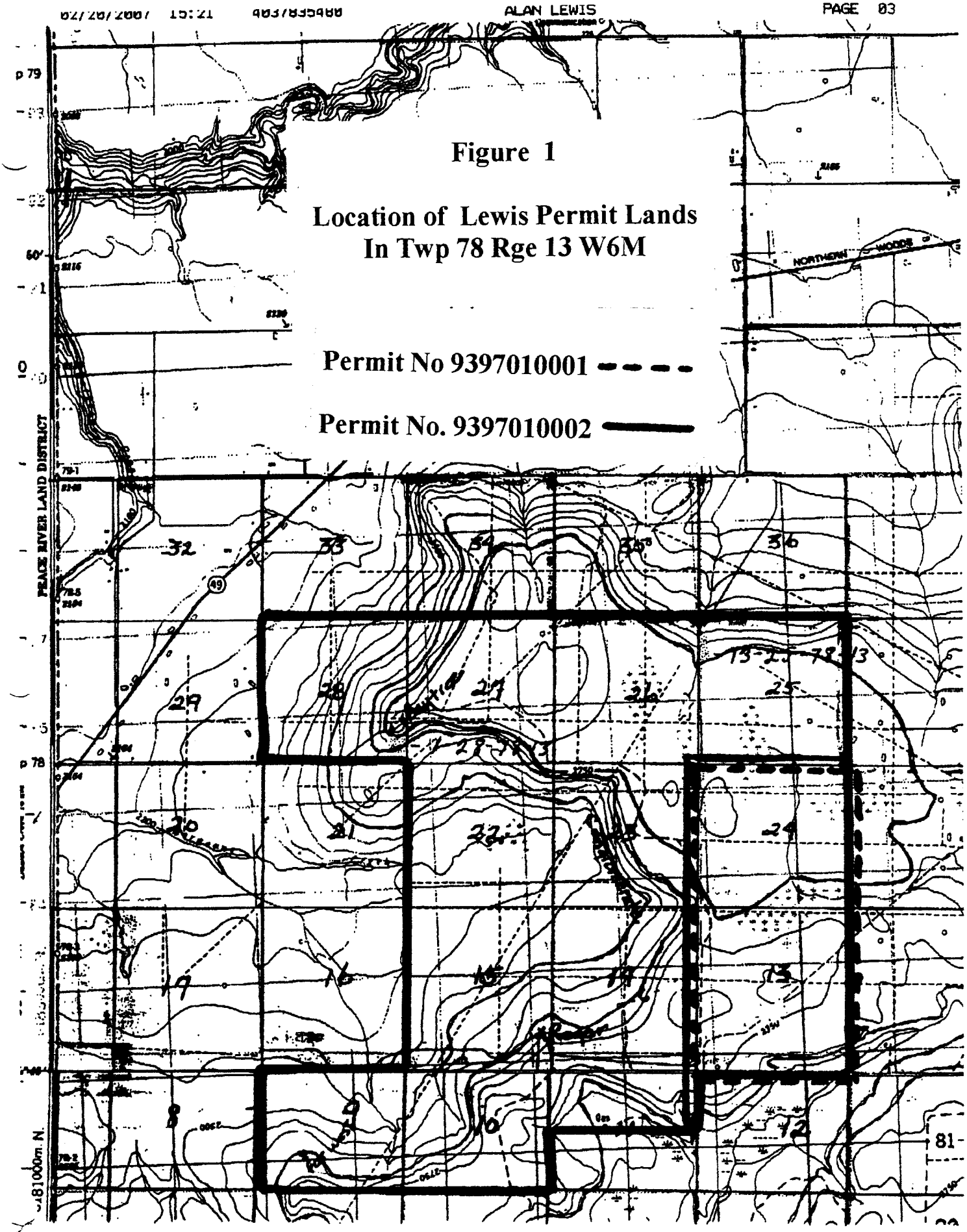


Figure 1

Location of Lewis Permit Lands In Twp 78 Rge 13 W6M

Permit No 9397010001 - - - -

Permit No. 9397010002 ——

ATTACHMENT 2.1.1

Test Procedures and Values

TABLE 2.1
TEST PROCEDURES & VALUES

(1) DATE	(2) TEST	(3) ORE	(4) PROCESS	(5) VALUE	(6) EXT. LAB	(7) HOURS
Apr. 18-21/05	#831	Roger 5 A.T.	Aqua Regia	.03 OPT Au.		17 hrs.
Apr. 29-May 3/05	#832	Roger 5 A.T.	Aqua Regia	.05 OPT Au.		25 hrs.
May 11-17/05	#833	Roger 5 A.T.	NaBr.	.10 OPT Au.		37 hrs.
May 23-26/05	#834	Cong. 5 A.T.	NaBr.	.02 OPT Au.		25 hrs.
Jun. 3-5/05	#835	Roger 5 A.T.	Aqua Regia	.03 OPT Au.		4 hrs.
Jun. 7-11/05	#836	Roger 7 A.T.	Aqua Regia	.03 OPT Au.		14 hrs.
Jun. 17-24/05	#837	Cong. 2 A.T.	Aqua Regia	trace Au.		34 hrs.
Jun. 22-23/05	#838	Cong. 2 A.T.	NaBr.	trace Au.		6 hrs.
Jul. 6-11/05	#839	Cong. 5 A.T.	Chloride	.03 OPT Au.		22 hrs.
Jul. 17-22/05	#840	Cong. 5 A.T.	HNO3/Chloride	.25 OPT Au., Ag & PGM's		17 hrs.
Jul. 29-Aug. 6/05	#841	Far West 5 A.T.	NaBr.	.03 OPT Au.		27 hrs.
Aug. 15-20/05	#842	Far West 15 A.T.	HNO3/Chloride	trace Au.		26 hrs.
Aug. 30 - Sep. 7/05	#843	Far West 7.5 A.T.	Aqua Regia	.02 OPT Au.		20 hrs.
Oct. 17 - 22/05	#844	Roger 2.5 A.T.	Aqua Regia	trace Au.		23 hrs.
Nov. 2-5/05	#845	Roger 10 A.T.	NaBr. / KI	trace Au.		25 hrs.
Nov. 28-30/05	#846	Roger 1 A.T.	H2S04 - pre treat. Aqua Regia	.49 OPT Au.		12 hrs.
Oct. 17 - 22/05	#844	Roger 2.5 A.T.	Aqua Regia	trace Au.		23 hrs.

(1) DATE	(2) TEST	(3) ORE	(4) PROCESS	(5) VALUE	(6) EXT. LAB	(7) HOURS
Nov. 2-5/05	#845	Roger 10 A.T.	NaBr. / KI	trace Au.		25 hrs.
Nov. 28-30/05	#846	Roger 1 A.T.	H2S04 - pre treat. Aqua Regia	.49 OPT Au.		12 hrs.
Dec. 1-10/05	#847	Roger 2 A.T.	H2S04 - pre treat. Aqua Regia	more than .17 OPT Au.		27 hrs.
Dec. 14-16/05	#848	Roger 1 A.T.	H2S04 - pre treat. Aqua Regia	.33 OPT Au.		12 hrs.
Dec. 22-24/05	#849	Cong. 1.5 A.T.	H2S04 - pre treat. Aqua Regia	.35 OPT Au.		8 hrs.
Jan. 1-3/06	#850	Cong. 1.5 A.T.	H2S04 - pre treat. Aqua Regia	.27 OPT Au.		13 hrs.
Jan. 6-8/06	#851	Cong. 1 A.T.	Aqua Regia	.23 OPT Au.		11 hrs.
Jan. 13-16/06	#852	Cong. 1.5 A.T.	Aqua Regia	.11 OPT Au.		9 hrs.
Jan. 17-19/06	#853	Cong. 1.5 A.T.	H2S04 - pre treat. Aqua Regia	0		8 hrs.
Jan. 20-23/06	#854	Cong. 1.5 A.T.	H2S04 - pre treat. Aqua Regia	.10 OPT Au.		7 hrs.
Jan. 24-27/06	#855	Roger 1.5 A.T.	H2S04 - pre treat. Aqua Regia	.16 OPT Au.		14 hrs.
Jan. 29-Feb. 2/06	#856	Roger 1.5 A.T.	Aqua Regia	.17 OPT Au.		15 hrs.
Feb. 3-5/06	#857	Roger 1.5 A.T.	Aqua Regia	Lost		15 hrs.
Feb. 13-15/06	#858	Roger 1 A.T.	H2S04 - pre treat.	.26 OPT Au.	Loring .26 oz. per ton Au.	9 hrs. 9 hrs.
Feb. 26-28/06	#859	Roger 1 A.T.	H2S04 - pre treat. NaBr / KI	.03 OPT Au.		16 hrs.

(1) DATE	(2) TEST	(3) ORE	(4) PROCESS	(5) VALUE	(6) EXT. LAB	(7) HOURS
Mar. 1-3/06	#860	Roger 1 A.T.	H2S04 - pre treat. NaBr / KI	trace Au.		15 hrs.
Mar. 9-11/06	#861	Roger 1 A.T.	H2S04 - pre treat. NaBr / KI	.02 OPT Au.		11 hrs.
Mar. 15-19/06	#862	Roger 1 A.T.	H2S04 - pre treat. NaBr / KI	.04 OPT Au.		15 hrs.
Mar. 25-27/06	#863	Roger 1 A.T.	NaBr	.05 OPT Au.		17 hrs.
Mar. 29-31/06	#864	Roger 2 A.T.	H2S04 - pre treat. NaBr	0		12 hrs.
Apr. 2-5/06	#865	Cong. 2 A.T.	H2S04 - pre treat. NaBr / KI	0		19 hrs.
Apr. 12-15/06	#866	Cong. 1.5 A.T.	H2S04 - pre treat. NaBr / KI	.06 OPT Au.		14 hrs.
Apr. 20-22/06	#867	Far West 4 A.T.	Aqua Regia	.06 OPT Au.		12 hrs.
May 1-4/06	#868	Far West 2 A.T.	NaBr / KI	0		19 hrs.
Aug. 12-14/06	#869	Roger 3 A.T.	NaBr / KI	trace Au.		22 hrs.
Aug. 20-26/06	#870	Roger 5 A.T.	H2S04 - pre treat. Aqua Regia	trace Au.		31 hrs.
Sep. 21-24/06	#871	Roger 1.5 A.T.	H2S04 - pre treat. Aqua Regia	trace Au.		19 hrs.
Sep. 25-27/06	#872	Cong. 2 A.T.	H2S04 - pre treat. Aqua Regia	trace Au.		12 hrs.
Oct. 2-7/06	#873	Roger 3 A.T.	H2S04 - pre treat. Aqua Regia	.03 OPT Au.		17 hrs.
Oct. 9-15/06	#874	Far West 3 A.T.	NaBr / KI	.05 OPT Au.		20 hrs.
Oct. 28 - Nov. 6/06	#876	Cong. 3 A.T.	HNO3 pre treat.	trace Au.		21 hrs.
Nov. 16-20/06	#877	Roger 3 A.T.	pre treat. - oven 1000 degree Fx36hrs NaBr / KI	.03 OPT Aug.		15 hrs.

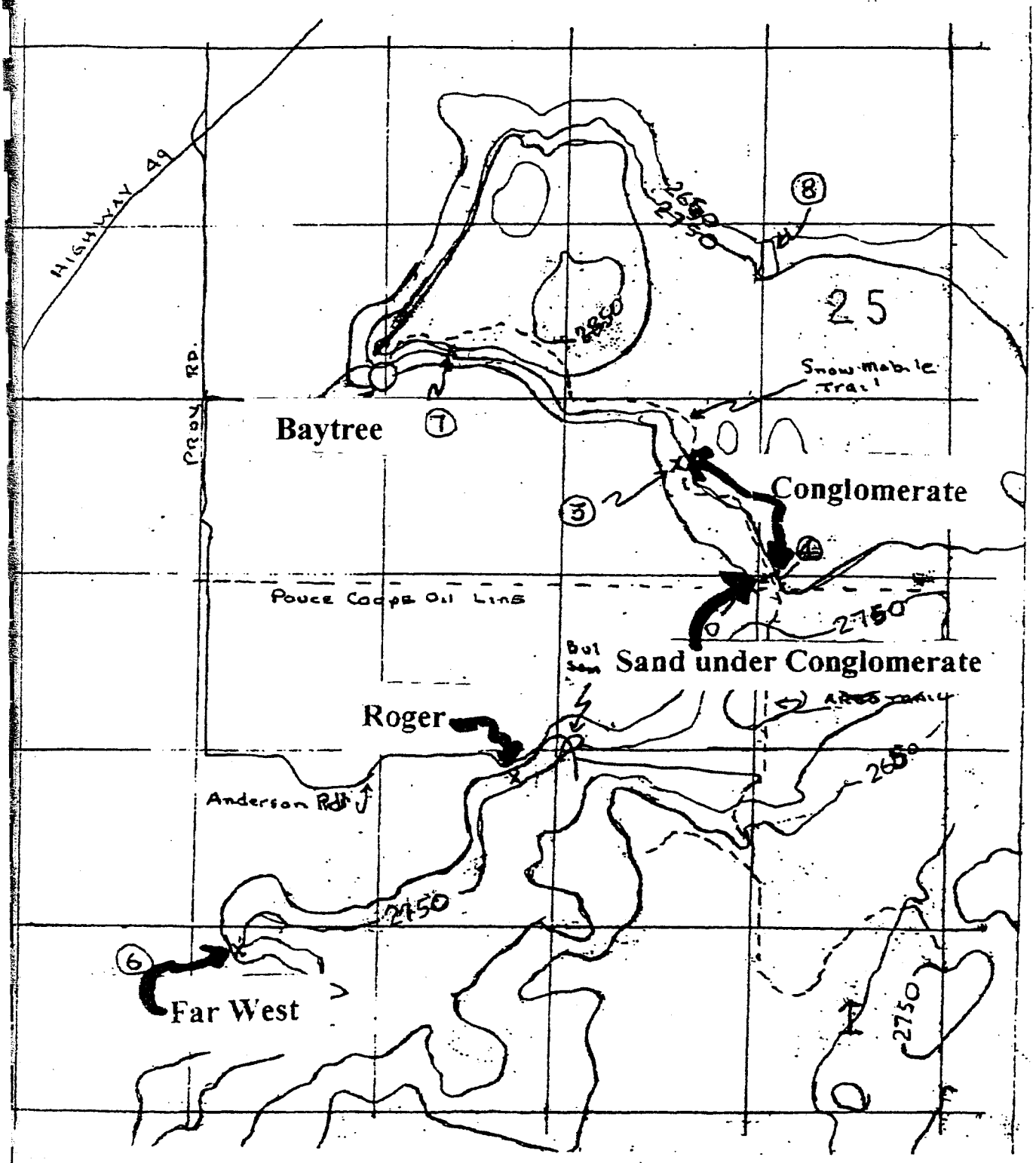
(1) DATE	(2) TEST	(3) ORE	(4) PROCESS	(5) VALUE	(6) EXT. LAB	(7) HOURS
Dec. 31 - Jan. 7/07	#878	Roger 4 A.T.	HNO3 / Chloride	0		24 hrs.
Jan. 8-11/07	#879	Roger 1 A.T.	Aqua Regia	.04 OPT Au.		12 hrs.
Jan. 9-10/07	#880	Cong. 2 A.T.	Aqua Regia	trace Au.		11 hrs.
Jan.22-24/07	#881	Cong. 1.5 A.T.	NaBr / KI	Lost		6 hrs.
Jan. 24-29/07	#882	Cong. 2 A.T.	Roasted -1500 deg. F NaBr / KI	.05 OPT Au.		19 hrs.
Feb. 5-8/07	#883	Cong. 2 A.T.	H2S04 - pre treat. Aqua Regia	trace Au.		16 hrs.
Mar. 10-13/07	#884	Baytree 1 A.T.	H2S04 - pre treat. Aqua Regia	.03 OPT Au.		14 hrs.
Mar. 15-20/07	#885	Baytree 1 1/2A.T.	H2S04 - pre treat. Aqua Regia	.08 OPT Au.		15 hrs.
Mar. 24-28/07	#886	Baytree 1 1/2A.T.	H2S04 - pre treat. Aqua Regia	.05 OPT Au.		15 hrs.

Notes re: source of Ore Samples from areas other than Lewis permit lands
All ore samples from other locations are from locations where ore has similar characterisitics to ore on Lewis permit lands
Note 1: Samples are from the vicinity of gas well and plantsite in Section 26 Twp 79 Rge 9 W6M
Note 2: Samples are from outcrops along Chinchaga River ,160 km N.W.of Hinton, near Alta/B.C border
Note 3: Samples are from a location 7km southwest of Dawson Creek
Note 4: Samples are from Worsley area, 95 km northeast of Baytree along Highway 49

ATTACHMENT 2.1.2

Sample Source Location

Figure 2
Sample Source Location
Twp 78 Rge 13 W6M



– 2750 – SURFACE ELEVATION

ATTACHMENT 2.2.1

Alan Lewis Test Log Notes (Process)

V

Monday April 18/05 Test #831 (Roger5AT)

5gms Nickel dissolved in Aqua Regia
200 ml HCl
200 ml HNO_3
150 ml H_2O

5:30 Started leach — 7 hrs.
10:30 Stopped "

2:00 Started
7:00 Stopped — 5 hrs.
Wed.
11:00 Started — PH 2.2
5 hrs

Put Mercury extractor — Total 17 hrs.

.03 oz per ton Au.

Friday April 29/05 Lot # 832 (5 AT Rogers)

600 ml HCl
200 ml HNO_3
100 ml H_2O

1 hr.

11:00 Start time of leach
1:00 Added 300 HCl & 100 HNO_3 PH -.04
3:45 Stopped leach 4 3/4 hrs., put on hot plate all night
Sun. May 1
2 hrs.
5 hrs.
Added 200 ml Urea. Na OH to 1.3 PH from -0.5. ORP 360
12:00 Started

8:00 Stopped
8:30 Started
1 PM Stopped.
8 hrs.
Zinc percip 1000 ml of liquid, added Bicarbonate to PH 7.2, added 2 tsp Zinc, put on hot plate and left it too long but had got to 200+ F. Put it on griddle added H_2SO_4 (15 ml to 250 ml H_2O) to liquid until PH was at 5.8 from 9.8
5 hrs.
Added H_2SO_4 to 1.9 PH
Decrified 7 gms of residue got 2 beads .07 mgs. each

Friday
2.30 Took 1000 ml of liquid, added 3 tsp Na Hydrosulfite at 135°F. Put on griddle to precipitate
Liquid was PH 2 after added 3 tsps. PH 3.5 after 2 1/2 hrs.
5:00 Added another tsp of Na Hydrosulfite PH 3.9, 105°F
4 hrs.

Lot # 4
Exc. # 2
Exc. # 3

Total 2.5 hrs

.05 gt. au.

Wed. May 11/05 Test # 933 (SA Roger)

Added H_2SO_4 1 to 20 H_2O [-.01]
Circulated for 4 hrs at 135° F, added 5 ml H_2SO_4
in 3½ hrs PH was down to 0.1, went up to -.01
again, raised heat to 150° F for last 3½ hrs
Put both containers to [-0.2 PH] on griddle overnight
5 hrs.

Thursday
8:30 Started leach 1250 ml H_2O
150 gms NaBr
3 tsp Bio-D PH 2.06, ORP 720
12 hrs.

12:45 Injecting air

Fri. 10:45 Started

Stopped in 1.25 hrs. ORP went to 6.5-T Ph. 2.2 2 hrs.
12:30 - Added HCl to 1.6 PH,
Stopped 1.45 (1¼ hrs) c. Cond plate
Added 2a Nitrate 4 tsp+ to liquid after using "BiCarb."
leaving it to PH 6.8. 2 hrs.

Sat:
Siphoned off liquid put residue to dry. on griddle and 2 hrs. 2 hrs.
Sun. 15th. Weighed off ½ of residue 47 gms, put in oven on stainless that had been ekelled. 4 hrs.

2:15 Started
~~Stopped~~

Monday 9:00 Started
Stopped 2:00
1:30
Stopped 7:00

10 hrs.
Total 37 hrs.

Total .50 mgs after parting

.10 g per ton Au.

May 23/05 Test # 834 (SAT Cyg.)
1250 ml H_2O
120 gm NaBr.
Bio-D to 8700 ORP PH 3.8
1:15 Started heat temp 135°F 1 hr.
Stopped at 9:15 (8 hrs total ORP 880) 8 hrs.
Let on griddle all night, drained off in morning
Turn.
1:30 Started
7:00 Stopped PH 7.5, ORP 830. 6 hrs.
Added Urea ORP went to 700., added HCl PH 1.0
9:00 Started
Heat PH 9, ORP 7202 Hrs
10:00 Started
4:00 Stopped (6 hrs total) 6 hrs.
Hours
Added 4 tsp Na Nitrite left to melt until 1st morning. Drained liquid off & dried residue
Added 2 tsp Zinc to remaining liquid. PH 6.2
2 hrs.
(Poor Showing) Total 25 hrs.

• 02 of portion all.

June 3/05 Test # ~~835~~ 835 (5AT Roger)

850 ml H_2O
200 ml H_2SO_4 1 hr.
Circulated
PH-06
Steel time 2:00 3 hrs.

Tuesday June 6/05
11:30 Started leach
4 AT Ore from # 836 (H_2SO_4 1 to 4 treated)
600 ml HCl
200 ml HNO_3
200 ml H_2O from fountain.
12:00 - Heat 135°F, ORP 952, PH-0.4
No Bio-D so far.
1:30 ORP 845 added 2 level tsp Bio D ORP 905
Stopped 8½ hrs. let sit all night.
Added NaOH and ~~NH~~ NH_4OH to PH 7, added zinc and let precipitate. 10 hrs.
12:00 Tri

~~Thursday~~
Put precip on hot plate to dried, then in oven to 149 gms (139 after) 700°F.
4 hrs.

.030 per ton all.
Total 18 hrs.

Friday
June 17/05 Test # 837 (Roger TAT)

10:00 Started treatment
1000 ml H_2O
250 ml H_2SO_4
Circulated at 135–150°F 1 hr.

8:00 Stopped H_2SO_4 treatment 7 hrs

Sunday 6-19-05
Poured off 4 gms of TAT that had been treated with H_2SO_4.
After H_2SO_4, 210 gms shrunk to 165 gms (21%)
Head or A.T. is now 23.57 gms 4 hrs.

Sat June 22
2:00 Started leaching, one 5AT of the original TAT
450 ml HCl
150 HNO_3
200 H_2O
Added 150 ml HCl
50 ml HNO_3
10:00 Stopped leach 8 hrs total, at 138°–152°F 8 hrs.

Thurs-23
1:00 Started
Stopped in 2 hrs. 2 hrs.

Fri.
8:30 Started
9:45 Lower
Stopped 3:30 7 hrs.
Added 2 tsp Zinc and let precip.
Drained off water Set. and set to dry on hot plate
Dry matter weighed 146 gms, put in oven @ 170°F (PHT.
matter shrunk to 116 gms. Treated 116 gms with 20cc H_2SO_4
Shrunk to 54 gms.
(over on facing page) 5 hrs. trace au. Total 34 hrs.

Sat. June 22/05 Test # 838 Conglomerate (2AT)
1000 ml H_2O
NaOH to PH 8.5 to 9.5.
120 gms Na Br.
35 gms KI
Leached for 5 hrs at 130°F (160°F for 1 hr. at final)
Sealed on basic side 8.5 to 9.5 PH 6 hrs
Pre treated with NaOH for 3 hrs at 180°F. (stirred constantly)

trace all.

Wed July 6/05 Test # 839 5A Conglomerate

1750 ml "H_2O - 100% Salt"
HNO_3 117 ml 15 to 1 3 hrs.

5:45 started loads 1500 ml liquid (400 to headdel)
added 2 tsp Bio-D
Stopped in 4.5 hrs. 5 hrs.

Thurs
Started 4 hrs.
Fri
10:00
Stopped in 24 hrs.
2:45 Started
Stopped in 20 hrs. 10 hrs.

.03 gpt on all Total 28 hrs.

Sunday - July 17/05 Test # 840 Conglomerate, 5A

1500 ml H_2O
250 ml Salt — 1 hr.
120 ml HNO_3
2 tsp Bio D
3:45 Started leach.

7:00 Stopped.
Added 150 ml salt water
15 ml HNO_3 — 5 hrs.
2 tsp Bio D

5:00 Started
10:00 Stopped — 5 hrs.
Tuesday -
11:00
Thursday
4:30 started

it suspended with peris. pump
(PH 4.5) [illegible] amps barley
on grill

Didn't use acid to take iron out _6 hrs.

1 mg for 4 AT, including trash.

Total 17 hrs.

.250 pt. alloy + PGMs

July 29/65 Test # 841 For West 5 A.T.

120 gms Na Br
30 gms KI
1500 ml H₂O
2 tbs Bio D to start
Retort at 135° F

1:30 Started leach
1:30 Started
2:30 added 1 tbs Bio D (PH 9.5
3:30 added " " "
5:30 - PH 4.7 added NaOH to [redacted] 11.1 PH

8:30 Stopped PH 11.2 Put on hot plate all night 7 hrs.

Set July 30
Skimmed of liquid, put rest through filter PH 11. 1 hr.

Monday Aug 1 '65
10:00 Started
Stopped 4 hrs
Zinc - drained liquid off of residue to dry on hot plate. After drying put in [redacted] at 120° F.
2 Took 300 ml of liquid added HCl [redacted] to PH 5.. with Zinc. 3 hrs
3 - Put rest of liquid 1400 ml, added Zinc PH 11, after an hr plan to add HCl to 5.5 3 hrs.

Wed.
Drained water off of all Zinc precip and put to dry at low heat on hot plate. 3 hrs.

Thurs.
Put ½ of Zinc residue (43 gms) in elect oven at 1750° F
Shrunk to 25 gms 3 hrs.

Fri
Scorified above in elect. furnace 2 hrs.

.03 oz per ton Au Total 21 hr.

Aug 15/05 Lot# 842 Far West 15 AT

Mon. - 1:00 Started wet rod mill 15 A.T., 1500 ml H_2O
Stopped in 3 hrs. (extremely fine) 3 hrs.

Aug 16
1:00 Started leach
3000 ml H_2O
250 HNO_3
15 AT ore
PH .03
Let - 600 ml salt 8 hrs.

12:00 Aug 20 - Started
Stopped 4 hrs. 4 hrs.

6:00 Started elect
Stopped 10:00 A.M. 3 hrs.
11:45 AM Started
Stopped 8:00 PM
8:15 PM started
Stopped 10:00 A.M
8:00 P.M started. 8 hrs.

trace au.

Aug 30/05 Lot# 843 ($\frac{1}{3}$ of 15 AT original #842)
4:00 Started leach 600 ml HCl, 200 ml HNO_3, 300 ml H_2O
Temp. 85°F PH. 02 4 hrs.

Sept 1/05
1:00 Started
7 1/2 hrs (PH. 7 start 1.3 stop)
circulated. 8 hrs.

Sept 7 -
11:00 Started
Stopped in 8 hrs. 8 hrs.

.02 opt. au.

Total - 46 hrs.

Mon. Oct 17/05 Test #844 Roger 2.5 AT Pilot Plant

Ore 2.5 A.T.
300 ml H_2O
600 ml HCl
200 ml HNO_3 1 hr.

2:45 Steel lead 135°F circulator.
6:30 Stopped pump on hotplate till morning. 4 hrs.

~~Tue~~ 2:00 Started

Stopped 1 hr.
4:00 Started

7:00 Stopped 3 hrs.
Thursday
10:00 Started PH 1.5

8:30 Stopped 7 hrs.
Fri.
10:15 Started
7:00 Stopped

trace au.

~~Total 23 hrs.~~ 7 hrs.

Wed. 1/02. 2/05 Test # 845 "Out of Barrel" 10A7
Roger
250 gms Nabr.
50 gms. KI
2500 ml H2O
11:15 Started back PH 7.2
Added 3 bg typ Bio-D
150°F
Stopped inc 8 hrs. 8 hrs.
Monday
11:00 Started
Stopped inc 2 hrs. 2 hrs.
3:00 Started
Stopped in 5 hrs. PH 9.9 5 hrs.
Tuesday
2:00 Started
PH 1.3 7 hrs.
Total 25 hrs.
trace of air.

Iron

Nov. 28/05 Test # 846 1 AT (Roger fine)
.49 gms au per ton

10:15 – Started 250 ml H_2O, 50 ml HCl H_2SO_4, 135° F
Hygelen 2 hrs. .49 pt. au. 2 hrs.
Diluted. Decant 6.5 PH. & dried 2 hrs.
10:30 Started Leach Aqua Regia 3 HCl (new batch) 1 HNO_3
Temp 135° F 348.00 gr tons @ 9:11.00 end (.49 mgs Au weighed)
8 hrs.

Dec 1/05 Test # 847 2 A-T Roger
12:30 750 ml H_2O, 150 ml HCl H_2SO_4 135° F PH – 1.0
added H_2SO_4 after 30 minutes – .06 PH back to PH – .08
Agitated for 3 hrs then put on hot plate to settle
PH after Con – .10
5 hrs.
Drained liquid off, added water twice, got to PH 1
added 2 tsp "Bi Carb." dried. Embalmed with 2 samples
of 28 grams each.
4 hrs.

4:00 Started leach 380 ml HCl 120 HNO_3, in each sample
6 hrs.

Last part of both through crucible in crucible 1 bead of size ~~sample~~ 3# size

More than .17 oz per ton au Total 27 hrs

Wed Dec. 14/05 Test #848 (1AT Regafine)

2:00 250 ml H_2O 50 ml H_2SO_4 135°F
Stopped in 4 hrs, added more acid + water in 2 hrs. 4 hrs.
10:30 Started leach 300 HCl, 100 HNO_3, 50 ml H_2O.
4:30 Started mixer on hot plate
6:00 Stopped and put to set till morning 8 hrs.
.33 oz per ton $235 per ton @ $711.00 (33 mgs Au) 12 hrs.

Dec. 22/05 Test #849 1½ AT Cong. Fine
1:30 Started 300 ml H_2O 100 ml H_2SO_4 3 hrs.
10:00 Started leach 300 ml HCl 100 ml HNO_3
10:45 PH -1.4 ORP 1028 temp 145°F $248.00 per ton @ $711.00
3:35 Stopped ORP 1029 | .52 mgs Au. .35 oz per ton 1½ A.T | 5 hrs.
8 hours

Jan 1/06 Test #850 1½ AT "Cong Fine"
300 ml H2O - 100 ml H_2SO_4 135-150°F 4 hrs
2:00 Jan 3/06 started leach. 300 ml HCl, 100 ml HNO_3
2:40 ORP 1018 added 1 tsp Bio D, ORP 1020 PH 1.3
4:00 Added 80 ml HNO_3, 70 ml HCl, 1 tsp Bio D ORP 1095, PH 1.0
7:00 Stopped circulation, ORP 1030 PH [illegible] 5 hrs.
Put on hot plate until morning
Siphoned liquid off., filtered residue + washed down.
Evaporated in pyrex to PH 0.8. Then put in stainless
added 1 tsp. HCl pan & boiled off 2 waters 4 hrs
.41 mgs Au 13 hours
$194.00 per ton @ $711.00
.27 oz per ton au.

Fri. Jan 6/06 Test # 851 1 AT "Conq. Fine"

300 ml HCl
100 ml HNO_3
9:00 Started leach
10:00 ORP 1041 PH (offscale) temp 125°F
4:00 Stopped leach ORP 1044 PH -1.9

Experimental, no H_2SO_4 treatment
@ 1630 per ton @ 711 end
-23 mgs Au
7 hrs
4 hrs
Drying to dust
11 hrs

Jan 9/06
10:00 Started wet grinder 1.5 A.T.
Test # 852 1.5 AT "Wet ground Conq." Lost lead in Parting
2:45 - 400 ml H_2O 125 ml H_2SO_4
11:00 Started leach 400 ml HCl 130 ml HNO_3
11:30 ORP 1049 temp 153°F
1:50 ORP 1055 temp 153°F PH -1.2
2:30 Stopped reaction ORP 1061, PH -1.2 temp 150°F

Jan 13/06 # 852 Wet Grind Conq. 1.5 A.T
NO H_2SO_4
@ 1760 per ton @ 711 end.
2:30 Started leach 400 HCl, 125 HNO_3
5:30 added 300 HCl, 100 HNO_3 brought it up to leach
-11 mgs Au
7:30 ORP 1074 PH -1.2 temp 138°F
-16 mgs Au
Drying to dust
again 5 hrs
4 hrs
8 hrs

3:45 Started 300 H_2O, 100 H_2SO_4 1.5 A.T. Conq Fine #853
7:00 Started leach 100 HNO_3 300 HCl Temp. 150°F
3:45 ORP 1070
3 hrs
Took H_2SO_4 filter on grill, burned black. Maybe that led to a low show in the firing
5 hrs
Total 8 hrs

Fri. Jan 20/06 Test # 854, 1.5 AT "Hot Blend Copy"

10:00 Started treatment 300 H_2O, 100 H_2SO_4, 135–150°F
Added H_2O at 12:30 no ~~circulation~~ mixing 3 hrs.
1:15 Stopped AT, put on grille to settle PH [0.9] .10 oz per ton
Dried to dust @ 711.00 prtn @ 711.00 .15 oz per ton 4 hrs.
~~7 hrs.~~

Jan 24/06 Test # 855 "Roger Fine" 1.5 A.T.
2:00 H_2SO_4 100 ml, 300 ml H_2O 150°F mixed steady 3 hrs.
5:00 Stopped mix put on grille to settle
10:00 Started leach 400 ml HCl – 125 ml # HNO_3 (circulated)
10:30 145°F ORP 1068, PH off scale
Added level tip Bio D ORP 1085
11:30 135°F ORP 1106
3:15 Stopped leach 5 hrs ORP 1114, Added 150 ml H_2O, ~~PH~~ ORP rose to 1130. 5 hrs.

#1

#2

PH [0.5] ORP 1118
11:00 Started evaporation at 135°F 2 hrs
4 hrs.
.24 oz per ton
~~11 hrs.~~

1 [illegible] prtn @ 711 Cad.
.16 oz per ton

Jan 29/06 Test # 856 1.5AT Roger Fine

11:00 300 ml H_2O 300 ml HCl temp 135° F 3 hrs.

2:00 Stopped and put to settle.

5:30 Started back 300 HCl, 100 HNO_3 135° F

9:30 Stopped back. ORP 1114 PH 1.08 4 hrs.

Added NH_4OH PH-1.5 added Zinc PH 6, let precipitate at 135° F for ~~two hrs~~, added HCl to PH 1, after 1 hr. filled off residue. Evaporated liquid, ended up 5 hrs with more than a cup full of residue, put it in 3 scorifying dishes & annealed for (2 hrs with air) at 1200° F. 3 hrs

Total 15 hrs

Residue shrunk to 10 grams.

.17 opt au .25 au ÷ 1½ = 17.0 P.T

Fri - Feb. 3/06 Test # 857 1.5AT Roger Fine

3 hrs.

2:00 500 ml. H_2O 80 ml HNO_3 — 135° F

10:15 Started back 400 ml HCl, 125 ml HNO_3, 135-150° F

5:30 Stopped, let set overnight 5 hrs.

~~Filter~~

Aqua Regia on reports 4 hrs. 4 hrs.

NaCl & HNO_2 10 ml

1:30 back 10 to 1 with H_2O 3 hrs.

Lost

Total 15 hrs.

Loring Laboratories Ltd.

829 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax (403)275-0541
e-mail adress : loringlabs@telus.net

FAX COVERING LETTER

DATE : 2006-02-24 PAGES :

ATTN: ALAN LEWIS FROM : GARY

COMPANY : FAX # :

MESSAGE :

Alan

Gold Content of lead in beaker is

Test # 858

0.260 mg @ 1500 Cnd. per ton.

.26 oz au per ton

Gary

IF YOU HAVE NOT RECEIVED ALL PAGES, PLEASE CONTACT :

TEL : (403) 274-2777 FAX : (403) 275-0541

Feb. 13/06 Test # 858 IAT Roger Fine.

~~[illegible]~~
Pre treatment H_2SO_4 & H_2O, 5 to 1 par H_2SO_4
3 hrs

12:00 Leach
100 gms NaBr 20 gms KI
1000 ml H_2O
Temp 135-148°F
Bio-D ~~[illegible]~~ 2 tsp

| Firing .260 ozs / 185 oz per ton at 711 Cal. |

1:15 1 tsp ORP 858 PH 2.5 .26 oz per ton Au
added some distilled water, down about 7/8 of an inch.
4:15 Added 3/4 tsp Bio-D, ORP rose from 765 to 835
added HCl, PH from 3.5 to 2.2
6:00 Added 15 gms. KI, added HCl to 0.7.
7:00 Stopped leach ORP 689 PH 0.4 9 hrs.
Total 12 hrs

Feb. 26/06 Test # 859 IAT Roger Fine
10:30 Started H_2SO_4 treatment 5 to 1 PH -0.8 with
12:30 Stopped H_2SO_4 treatment. ore -0.6
4 hrs
missed
11:00 Started leach 100 NaBr (20 KI) temp 135
7:00 Stopped, liquid was nearly gone 8 hrs

1 hr.
Added Zinc to residue liquid.
after 1 hr added HCl to 1.6 PH from 6.5 3 hrs.
.03 opt Au Total 16 hrs

March 6/06 Test # 860 Roger Fine 1 A.T

12:30 H_2SO_4 treatment 5 to 1 H_2O
3:30 Stopped agitation 3 hrs.
10:30 Started Leach 100 NaBr 20 KI 750 ml H_2O
3:30 Stopped leach. 5 hrs.

trace au

added Lime Ajusted PH to 4.5, then dried. 4 hrs.
Put material in 4 sacrificing dishes & dried to dust. Crushed 3 hrs.
Total 15 hrs.

March 9/06 Test # 861 Roger Fine 1 A.T.
10:30 Started H_2SO_4 5 to 1 H_2O treatment 135-150° F
2:00 Stopped in 3 ½ hrs. 4 hrs.
10:00 started leach 100 NaBr 20 KI, 750 ml H_2O
.02, opt. au.
10:45 PH 1.0 temp 150° F
11:30 1 tsp Bio D Coffee 150 ml water to look to 750 ml on agitator
2:00 added 2 tsp Bio D ORP 860 from H_2SO_4 HCl added to 2
3:48 ORP 870, added ½ tsp Bio-D, ORP went to 892 3 hrs.
Total 11 hrs.

March 15/06 Test # 862 (Roger Fine) 1 A.T.

H_2SO_4 treatment for 3 hrs at 135°-150° F, 165 H_2O 3 hrs.
2:00 Started leach
100 grms. NaBr 20 grms. KI 750 ml H_2O temp 135° F
Bio D - 2 tsp added
4:00 added Bio-D 3 level tsp, ORP went from 560 to 970
PH - 2.4
7:30 added 2 level tsp Bio-D, ORP went from 750 to 905
added HCl, 1 tsp, PH 3.9 to 2-2
10:00 Stopped leach 8 hrs. ORP 824, PH 3.1 8 hrs.
Zinc 2.8
Sunday added ammonia PH to 5.7 4 hrs
.04, opt. au Total 15 hrs

March 25/06
Test #863 "Roger Fine" 1 A.T. Roger
750 ml H_2O
50 grm NaBr 1 hr.
3 hrs later 25 grm NaBr
2 " " 30 " " "
7 " " 20 " " "
Total leach time 9 hrs. 9 hrs.
Added 3 heaping tsp Na Nitrite to precipitate gold
Syphoned water off & dried residue. 3 hrs.

Then used Zinc on all liquid drained off & dried
(Used H_2SO_4 16 to 1 up to PH 2) residue. 4 hrs
Fired them. Na nitrite " 1
" Zinc " 2 .05, opt au Total 17 hrs.

March 29/06 Test # 864 "Roger Fine" 2 A T
5:30 H_2SO_4 treatment 100 ml H_2SO_4 1000 ml H_2O PH=0
9:30 Stopped treatment 4 hrs Total PH -04 Zero 4 hrs

Na Br. 85 grm 1000 ml H_2O
1:00 Started leach ORP 912, PH 6 temp 135°F 8 hrs
Total 12 hrs

April 2/06 Test # 865 "Coxy Fine" 2 A T
4:00 Started H_2SO_4 100 ml, H_2O 1000 ml.
Stopped 9:00 5 hrs.

10:00 Started leach 1000 ml H_2O, 80 grm NaBr, 20 grm KI
Added Bio-D
1:00 - ORP 790 - PH 2.5 Temp 135°F
5:00 Added Bio-D ½ tsp ORP rose from 730 to 800, also PH was 2.
added dilute H_2SO_4 to PH 1.5
9:00 Stopped leach ORP 844 PH 2.4 temp 135°F 11 hrs.
3 hrs
1:30 Started

Zero Total 19 hrs.

April 12/06 Test # 866 1½ AT "Cozy Pat Lime

2:30 Started H_2SO_4 treatment 1061, 135°F
Stopped in 2½ hrs, and let settle 3 hrs.
.06, opt au

10:00 Started leach 75 gms Nalk 20 gms KI, 750 ml H_2O
Temp 135°F Rotated in for Precip. 7 hrs.
4 hrs
14 hrs

April 20/06 Test # 867 4AT For Wet
200 HNO_3 600 HCl
10:30 Started leach revolving with paper abrasion
With no ore PH -1.4 ORP 830 .06, opt. au.
12:00 PH -0.4 ORP 852 temp 100°F
3:30 PH -0.5 ORP 892 100°F 8 hrs.
7:00 Stopped leach + rotation, set to settle all night
8½ hr leach time. Stopped PH -0.4 ORP 810 Precip 4 hrs
½ hrs.

May 1/06 Test # 868 "2AT For Wet

750 ml H_2O
75 gms Nalk
15 gms KI

10:00 Started leach rotary bottle PH 3
9:00 Stopped 11 hrs at 135°F PH 2 ORP 785 11 hrs.

4:10 started

Zero

Precip with Zinc 4 hrs.
4 hrs
Total 19 hrs.

Aug. 12/06 Test #869 3AT "Roger Pile" fine.

120 gms Rabe 20 gm KI

Set. 1500 ml H_2O

11:30 Started heat 135°F 4th type Bio D

12:00 Added 2.4 Thp Bio D ORP 864 PH 4

3:00 Stopped.

4:30 Stopped elect.

6:30 Stopped heat ORP 773 PH 3 7 hrs.

Sunday -

3:18 Started elect

Stopped 2nd ORP 590 PH 4.7 temp. 134° F; circulated with peristaltic.

Monday - cross slide 4 hrs.

2:20 Started. (same as yesterday)

ORP 463 PH was 7.5 added H_2SO_4 PH 3.1

9:00 Stopped elect ORP 550, PH 2.4 7 hrs.

(small amount of Cu)

trace Cu.

Precip with Zinc — 4 hrs.

Total 22 hrs.

Aug. 20/06 Test #10 SAT "Hoge Pile"

2:00 15000 ml H_2O 300 ml H_2SO_4, pretreatment 135°F

8:00 Stopped 7:00 added 10000 ml more H_2O PH went from .06 to .0 Set to settle all night. 6 hrs.

Monday

Drained off most of liquid, added 95 grms Bicarb PH went to 7.5

11:30 Started leach 300 HNO_3 900 HCl Temperature 135° F, PH at start 0.5 5 hrs.

Tues.

Liquid had settled all night, drained off and put residue one in filter & washed it out.

Tried lowering PH from -0.5 to more basic, used Bicarb. Soda first but had to go to NaOH, lower to 6.5.

1:00 Added Zinc, temp was 135° F PH 7.1 5 hrs

(no values after forged)

0

Monday

5:00 Started PH 4.5 temp 130° F 8 hrs.

Wed. 8 hrs

Thurs. 7 hrs.

trace all.

(trace was all) 7 hrs.

Total 31 hrs.

Wed Sept 21/06 # 871 "Roger Pile" 1½ AT

H_2SO_4 treatment 6 hrs 5 to 1, |-0.6| PH, 500 g/100 ml.
added 20 ml H_2SO_4 after 3 hr
Drained liquid off added some H_2O & = total of 6 hrs
NaOH to PH 2. Dried to dust. 3 hrs

Thursday.

12:00 Started leach. 450 ml HCl, 150 ml HNO_3
After 2 hrs ORP 1095, PH |-0.9| temp 135°F
4:30 Stopped circulation, left on hot plate.
8:00 Drained liquid off, then filtered ore and added wash water. 6 hrs
ORP 1.043 PH |-0.10|
Dried to dust 4 hrs

(Poor results) Total 19 hrs

Trace au.

Sept 25/06 Test # 872 "Corg, Fine" 2 A.T.

1:20 Started treatment 500 ml H_2O, 125 ml H_2SO_4

2:30 Started leach 350 ml HCl, 167 ml HNO_3 trace 3 hrs.

3:45 PH [-1.4] 137°F

Stopped in 4½ hrs. Let sit on grill all night 5 hrs
Syphoned of liquid, filtered but part of residue.
Evaporated liquid off three times to remove HNO_3 4 hrs

~~Sept~~ Oct 2/2006 Test # 873 "Roger Pile" 3 A.T.

10:00 H_2SO_4 treatment 10 to 1 (1000 ml H_2O - 100 ml acid

11:00 Started
PH [-0.3] with ore in liquid.

1:00 - Stopped 3 hrs.

2:30 Stopped agitation and set off heat to settle.

3:00 Started leach 200 HNO_3, 600 HCl - 100 H_2O. PH [-0.8]

5:00 Started

5:20 Stopped.
Added 20 ml HNO_3, 60 ml HCl charged

Tues 6:45 Stopped elect PH [-0.2]

8:30 Stopped agitation and left to set until morning.
PH [-0.7] 6 hrs

Wed.

4:00 Started

Stopped in 2 hrs. 2 hrs.

Thur. 3:00 Started elect - Big iron & 2" carbon +
Stopped 8:30 (5½ hrs) 6 hrs.
Precip with Zinc Total 17 hrs.

.03 opt. Au

Oct 9/06 Test # 874 For West 3AT
1250 ml H_2O
Monday 120 gms Na Br 1 hr.
30 gms KI
Bio-D added
6:00 started heat 135°F PH 7.5 ORP 600 3 hrs.
stopped 9:00 (3 hrs) set on hotplate at 105°F all night
Tues added 100 gms Na Br., H_2O up to 1250 from 900, 2 ml Bio
2:15 PH 4.5, ORP 750

3:45 Stopped 2 hrs.
4:00 Heated back ORP 773 PH 3.5 (agitating) 135°F
9:00 Stopped back (5 hrs) ORP 743 PH 3.1 5 hrs.
Held (nothing)
Thurs 3:45 started .05 opt. all 5 hrs.
8:45 Stopped 5 hrs
Fri. 4 hrs.
12:45 Added 45 gms Zinc to 1250 ml of solution 135°F
Tot 20 hrs

Oct 17/06 Test # 875 For West 2AT
Tues Na OH 1250 ml PH 10.5 for 4 hrs at 150°F+, set off night
Wed - Drained water off 4 hrs
3:00 started heat 120 gms Na Br Bio D to 850 ORP. PH started
out 10.4, dropped to 7.5, 7:30 added HCl ended PH 7.5
8.2 from 7.5, temperature 135-138°F, added more
Bio D ORP 750 6 hrs.
Thurs. overnight PH 7.8, ORP 792 .03 opt all
Fri 11:20 started
stopped ORP -650 3 hrs.
3:00 added ZINC, 7.5 PH, kept adding HCl. but
never less than PH 5.5., at 9:00 added HCl to PH 4.
to let set till morning 4 hrs.
Total 17 hrs.

Oct 28/06 Test # 876 JAT ~~Fuel~~ original

1:00 Treatment 500 ml H_2O 50 ml HNO_3 circulated. 4 hrs.
3:00 PH -0.3 was 0.1 when started, cold
Test: dissolve weight, lead paper in solution. 90 grams shrunk to 79 grams including filter
11:00 Added 30 gms salt & put in electric oven. 800°F

Furn. 24 hrs at 800°F 24 hrs at 500°F then let cool in furnace.

1230 Fr. started leach. 1250 ml H_2O
100 ml HNO_3 1 hr.
1 tsp $BioO$

4:30 Temperature 137°F
ORP 960
PH -1.1 6 hrs.

10:00 Stopped PH -1.1, ORP 1010
Furn.
10:45 Started
3:15 " " " " "
Total 8 hrs. 8 hrs.
Added Zinc & PH went from 3.5 to 6, set in heat all 105°F night
Then Added HCl to PH 2 trace Zinc 6 hrs.
Total 21 hrs.

Nov. 16/04 Isat #877 "Roger Pilo" 3AT
Added 30 grams salt in oven at 1000° F for 36 hrs
12:30 Started leach. 4 hrs.
100 gms NaBr
25 " KI
1000 ml H_2O
Temp. 195°F
2:00 Added 4 tsp Bio-D ORP 750

7:00 Stopped leach PH 8.1 ORP 755 temp 135°F
Put on filter to settle overnight 7 hrs.
Zinc precip 4 hrs.
.03 oz per ton Au. Total 15 hrs.

Sun. Dec. 31/06 Test # 878 "Roger Pile" 4 A.T.

1500 ml 100% salt H_2O — 1 hr.
125 ml HNO_3

Started 11:30
3:00 ~~[illegible]~~ added 2 tsp. bromide 135°F
PH -0.7 ORP 1064
6:00 PH -1.0 ORP 1026 135°F
8:30 Stopped PH -1.0 ORP 976 temp 138°F — 9 hrs
Put to water on hot plate all night.

Monday 1st. 3 hrs 135°F
PH 1.1 — 1½ hrs

Tues 2 — ~~[illegible]~~ (added 500 ml water first)
added bicarbonate to ½ of total liquid. PH to 1.2. 2 hrs.
~~[illegible]~~

11:00 added 2 tsp. Zinc to precipitate 6.6 PH
1:00 added HCl to 5.4 PH 135°F — 2 hrs.

Wed.
Semi dried ½ of total after Zinc precip. — 4 hrs.
added 1750 ml H_2O ~~[illegible]~~ 16.7 l. H_2SO_4 (to dried resin)
circulated on hot plate to remove iron & copper.
Start time 1:15 at 135°F
2:30 PH -0.8 temp. 135°F — 3 hrs.
3:45 Stopped agitation & let settle overnight

Thur. Dried to dust, then out in electric oven to 1500°F for 3 hrs. Then fired remainder.
(no air) 3 hrs.
Total 24 hrs.

Monday Jan. 8/07 Reducing #879 Rock ore
Rogers

10:00 600 cc HCl 1 hr.
200 cc HNO_3
200 cc H_2O
Circulated in glass bottle with paper stone for dissolving silver & blebs off of gold.

Stopped in 5 hrs. 135° F to 150° F, ~~heated~~ warmed with hot bags while rotating. 5 hrs.
Set Set to settle overnight.
Tues Evaporated down to nearly dry.
Repeated 3 times adding more nitric each time 4 hrs
Wed - Fired dry material. .04 oz Au. Total 12 hrs

Tuesday
Jan 9/07 Test #880 2A.T. Comp. Fin. cooled 1500°
125 ml H_2O
150 ml HNO_3
450 ml HCl
1 hr.
11:30 Start time bath
12:45 ORP 900 PH [-1.3] Temp 135° F
6:30 Stopped bath and set all night ORP 1060 PH [-1.0]
6 hrs.
Zinc precip. 4 hrs.
Trace all. Total 11 hrs

Monday
Jan 22/06 Test # 881 1½ A.T Cong.
100 Gram Na Br
20 Gram KI
1250 ml H_2O Last 1 hr.
after warming up to 135°F ORP 867 PH 2, 4th Bottle
2:00 - Put in circulator 5 hr.
Bottle broke after 4 hrs (End of Test Total 6 hrs.

Wed.
Jan 24/06 Test # 882 2. A.T Cong. , cooled to 1500
1250 ml H_2O
100 gram Na Br 1 hr.
20 gram KI
2:00 Started Test added 2 heaping tsp Bio-D, PH 4.4, ORP 750
3:00 added 2 he. tsp Bio D
4:00 ORP - 870, PH 1.3 temp 125° F

7:30 Stopped ORP 778 PH 2.3, Put on grill till 6 hrs.
Thurs ^PH 3.2, ORP 840 morning
2:00 Started , temp 105° F circulating with pump to
7:00 PH 4.1 ORP 650 1 hr.
Fri.
Started temp 105 1 hr.
Let dried residue to dust. 4 hr
~~Mon - Tested~~ Sunday - annealed dust 1500° F -
Mon - #800 ml H_2O 16 to 1 H_2SO_4 PH 1.0 135° F
Dust added to remove iron.
.05 optical 6 hrs
Total 19 hrs.

Monday

Feb. 5/07 Test # 883 Conq. 2AT

Annealed with 20 gram Salt. at 1400°F 3 hrs.

10:30 Started H_2SO_4 150 ml, H_2O 1000 ml at 135°F semi continuous

12:45 Stopped -- added Bicarb. to 4.7 PH & dosed 2 hrs.

Tues

3:30 Started Acid HNO_3 150, H_2SO_4 HCl 150 H_2O

Temp. 115°F rotation with gauge stones

2:00 Stopped Acid, not all night. 5 hrs.

Wed

PH -1.1 ORP 978

2:30 Started E PH 0.0 2 hrs.

Zinc prep. trace Cu. 4 hrs.

Total 16 hrs

Sat.
March 10/07 Lot # 884 IAT Baytree
2:30 H_2SO_4 ~~treatment~~ 500 ml H_2O, 100 ml H_2SO_4, 135°F.
Mon 12
10:30 Started leach 400 ml HCl - 125 ml HNO_3 temp 135°F
3:00 Stopped agitation, left on heat at 135°F 14 hrs

.03 opt Au

Thurs.
March 15/07 Test 885 1½ A.T. Baytree

1:00 H_2SO_4 treatment 2 hrs.
11:30 Started leach 400 ml HCl 135 ml HNO_3
Stopped 4:30 on hotplate, put on Jaeger grinders.
Stopped grinder at 7:30, set on hotplate till morning
ORP was 871 7 hrs.

Fri -
10:00 Started evaporation 1st water 2 hrs.
5:00 Started " 2nd water 2 hrs.
Sat finished Evaporation 2 hrs
.08 oz per ton Au. 15 hrs.

Sat.
March 24/07 - Test 886 Baytree 1½ A.T.
11:30 Started H_2SO_4 treatment 1½ A.T. (Long. no Lo.)
3 to one mix temp 175° F 3 hrs.
Lem. Dried residue 92 grms. (Due to Bicarbonate added)
Mixed with 2000 ml H_2O. 3 hrs.
Drew: Drained water off & dried residue 38 grms from 45 grms
1½ A.T.
3:00 Started leach 150 ml HNO_3, 450 ml HCl
After 3 hrs. added Bro D raised ORP from 806 to
10:00 Stopped leach. 7 hrs 902.
PH -1.0 ORP 982, stopped circulation left on
hot plate until morning. 2 hrs
.05 o.p.t. Au 15 hrs.

ATTACHMENT 2.2.2

Alan Lewis Test Log Notes (Firing)

May 5/05

Lab # 831

Annealing

# 1	– reduced from	2 hrs.
# 2	–	4
# 3	– Zinc	4 hrs.
		6 hrs.
		Total 12 hrs

Test # 832

May 10/05 SAT Boger

Cupel A #1 – Na Bi precip – Ag.
scorifier – 5 gms silica 5 gms borax 30 gms lead 60 litharge
2 hrs.

Cupel B #2 – Na Nitrite precip. 1000 ml – Ag
scorifier 4 gms ox, 5 gms silica, 5 gms borax, 30 lead 60 litharge
2 hrs.

Cupel 2 #2 Na Bi annealed 4
14 g. Ag added
15 – 40 – 15 – 15 – 30 – 1 tsp salt mixed 1 on top & bone ash
Cupel 3 #3 – Zinc 16 gms. } cupelling 2 hrs
Ag added
20 – 45 – 20 – 20 – 70 – 1 tsp salt mixed 1 tsp on top & Boro
2 hrs.
Total 8 hrs

May 17/05 Test # 833 Roger

Scorif. #1 - 8.75 mgs. Na Nitrite annealed (½ of 9 mgs original) (¼ of 35 gms 30 gms lead on bottom, 60 gms litharge wiped, ½ top ft after annealing) (Agadel) 5 gms silica 5 gms borax

Scorif. #2 - 5½ gms Na Nitrite (½ of 8 gms original) treated with H_2SO_4 (1-16) 4 hrs.

= 10 #2 Remelted May 21 [redacted]

Same as #1

May 21/05

#3 - [redacted] 15 gms of Na Nitrite annealed.

15 - ~~40~~ 50 - 15 - 15 - 30 - Ag. + flux

#4 15 gms of Na Nitrite annealed

15 - ~~40~~ 50 - 15 - 15 - 30 - Ag [redacted] 2 hrs.

Cupelling 2 hrs.

May 22/05

#3 - 12 gms

20 - 60 - 20 - 20 - 30 - Ag, borax on top 2 hrs.

#4 - 16 gms

30 - 70 - 20 - 20 - 30 - Ag, borax on top

Cupelling 2 hrs

[redacted] 12 hrs.

May 30/05 Test # 834 (5 AT Congo)

Verifications – 11 grms Na_2O_2 precip, redone
(redacted) 30 grms lead on bottom
40 grms mixed
3 grms silica
10 grms Borax
½ tsp flour
Ag added 2 hrs.

#2 ~ same as #1 except no Ag.

#2 1st & 2nd 3 grms.
20 lead on bottom 25 lead mixed
15 grms borax 2 hrs.
2 grms silica Cupelling 2 hrs.
#1 ~ 2a Na_2O_2 after HCl Parting 1 hr
7 hrs.

Put #2 most goldish looking one in #parting cup

May 31/05
Test # 835 (½ AT Cong. head ore.)

#1 15 grms ore
15 grms Soda ash
5 grms silica .13 mgs.
½ tsp flour filtered and annealed.
45 grms lead 2 hrs.
10 grms borax cupelling 2 hrs
Ag parting 1 hr

#2 ~ verify 10 grams Ag
75 lead 25 on bottom, reat mixed 2 hrs
15 borax 7 hrs
Ag .40 mgs (same as #1)

836

June 6/05 Test # ~~836~~ Rogers A.T.

1 10 gms ogt
15 gms borax
Eg
2 Same as # 1

2 hrs
partings 1 hrs
Cupelling 2 hrs.
~~5 hrs~~

June 11/05 Test # 83C

#1 18 gms ~ ½ A T ~~Eg~~ over cured
15 soda
25 ~~lead~~ litha
3 gms silica
#2 30 gms lead
crucible fired

crucible

2 hrs.

#2 Scorif. - 18 gms ½ AT - over cured
#1 30 gms lead on bottom
30 gms mixed
20 gms lead
3 gms silica.

2 hrs.

Cupelling 2 hrs.
partings 1 hrs
~~8 hrs~~

June 13/05 Test 936 continued

#1 - 37 gms (IAT) treated with H_2SO_4
shrunk to 5 gms.
30 lead in bottom
30 gms lead mixed
15 gms borax
3 gms silica (Ag)

#2 - Filter ash (baked in oven) 6 grms. 2 hrs
30 lead in bottom
30 lead mixed
15 gms borax
3 gms silica (Ag)

#3
1st elect. 1.6 Volts.
30 lead in bottom
30 " mixed
15 gms borax
3 gms silica
Ag.

#4 Residue 12 gms from total of #9
30 in bottom
30 mixed
15 gms borax
3 gms silica
Ag. 2 hrs

cupelling 2 hrs
parting 1 hr

~~Tuesday~~

Tuesday June 4/05 #836 continued.

#1 - Residue 18+ grms

#2 - " " " " " "

35 grms lead in bottom
35 grms. lead mixed 2 hrs.
20 grms borax
3 grms silica
Ag

#3 ~ NH_4OH residue 18 grms

#4 " " " " " "

35 lead in bottom
35 " mixed 2 hrs.
20 borax
3 silica
Ag.

#5 NH_4OH residue 18grms each

#6 " " " " " "

Some ingredients as #3 & #4

cupelling 2 hrs
parting 1 hr.
7 hrs.

Tuesday
June 21/05 Test # 837 Began AT

#1 - panned off portion 4 gms.
30 gms lead sin bottom
30 " " mixed 2 hrs
20 gms borax
3 gms silica
Ag.
Cupel 2
parting 1
[redacted] 3 hrs

#2 - revised lead ore [redacted] 11.75 gms ½ AT
same ingredients as #1

Tuesday
June 28/05 Test # 837 continued.
#1 - Sodium nitrite precip. 2 gms.
30 lead sin bottom
20 " mixed
10 borax
2 silica
Ag.

#2 - Zinc precip - annealled - 13.5 gms
(Total was 5¼ gms)
30 lead [redacted] in bottom
30 " mixed 2 hrs.
20 borax
3 silica
Ag.

#3
#4
#5 } same as #2 2 hrs
cupel 2
parting 1
[redacted] 7 hrs

Buck

June 28 #837 from previous page.

#0 test sample
30 lead in bottom
30 " mix
10 borax
10 silica for ore
Ag.

#6 1st & 2nd. 5 grms. } 2 hrs
30 in bottom
20 nickel
10 borax
2 silica
Ag.

Copel 2 hrs
Parting 1 hr

Mon. July 11/05 Test #839 Cony.

#0 - #839 - [redacted] 9 grms
30 in bottom
30 mixed
20 borax
3 silica
Ag.

2 hrs

#1 - 11 grms - #838 test 2
same as #0

#2 - #838 - annealed 9 grms.
same as #0

2 hrs.

July 13 - Zinc precp. #839

#1 & 2 - scorifying dishes - 15 grms each.
Same proportions as #0
& ingredients

Copel 2
Parting 1 hr

Sat.- July 16/05 Test # 839 (Conglomerate)

1 & 2 - Test ½ of # 839 8 gms each.
30 lead on bottom
30 " mixed
20 Borax
3 silica
Eg.

Cupel 2
Parting 1
2 hrs

0 - 4 gms "gold precipitate" test
same as # 1 & # 2
5 hrs.

Mon.- July 25/05 Test # 840 Conglomerate 5 A.T
elect.

1 [redacted] residue after [redacted] 14.16 gms (½ of test)
30 lead on bottom
40 " mixed
20 Borax
3 silica
Eg.
2 hrs.

0 Residue after (8 gms) removed by acid only & # 2 - not all time
30 [redacted] on bottom
30 mixed
15 Borax
3 silica
Eg.
2 hrs

Cupel 2
Parting 1
7 hrs.

2 Lined

Same as # 0

July 27/05 Lot # 840 (Conglomerate)

#1 - Residue from digest after elect.
4 trees 18-25 gms each 2 hrs.
20-45-20-20-70 - 1 tsp salt mixed
(" " or tsp will Boro

#2 - 1 tree 16 grams ½.
Ingredients same as #1

3 Acidified - 16 gms other ½ (same as #2)
30 lead on bottom
35 " mixed 2 hrs.
25 Borax
3 silica
Dg.

4 Zinc plating 8 grams (same as previous #0)
30 on bottom
30 mixed copel 2
20 Borax parting 1
3 silica
Dg.

Aug 5/05 Lot # 841 (For Wet SAT)

#1 - 2 tsp precip HCl to 5.5 pH, then 7 tsp residue
(shrunk from 43 gms to 25 gms) in furnace to 1750° F
30 in bottom 30 mixed, 20 Borax, 3 silica Dg.
2 hrs.

#2 Same as #1
copel 2 hrs
parting 1

Thurs. Aug. 11/05 # 841 Far West SAT

#1 1/2 of Zinc perch, Zinc tetra cat with HCl to PH-.03
Scorified 30 a button
3 gram. 30 mixed 2 hrs.
15 Borax
2 silica
Ag.

#2 Redone after leach no acid 31 gram shrunk to 27 after 1800° F oven for 1 hr.
25 Lab ash
40 litharge
20 Litt on top after liquid
15 gram silica
20 gm Borax 2 hrs.
1 tsp salt mixed
1 " " on top with borax (30 lead)
Ag.

#3 Redone after leach HCl to .03 then 1700° F in oven
30 gram. 2 hrs
Same as # 2

#4 Residue in oven to 1200° F
22 gram cupel 2 hrs.
same as # 2 party 1
7 hrs.

Aug. 22/05 Test # 842 15 AT Far West

#1 - Residue. 2 hrs.
50 lead 3 silica - 15 Borax Ag. Cupel 2 hrs
parting 1 hr.
#2 - 4 hrs.
30 or bottom 20 nickel 15 Boron 3 silica, Ag

Aug 29/05 Test # 842 15 AT Far West

#1 Steel wool & HNO_3
50 lead nickel
20 Borax 2 hrs.
2 silica
Ag.
#2 - 2 grms. Residue treated with HNO_3
60 lead 25 Borax, 2 silica, Ag

#3 - Residue after
60 lead 25 borax, 2 silica, Ag

#4 - Residue after 14 grms.
Same as #3
2 hrs.

#5 - 2 ins
Same as #3 Cupel 2 hrs
parting 1 hr

#6 - Annealed
Same as #3

Sat Sept 3/05 Test # 842 (1 assay ton of lead ore after 100% salt leach)

30 lead on bottom
30 " mixed
25 Borax
3 silica
Cg.

2 hrs.
cupel 2 hr
pasting 1 hr
5 hrs.

Tues. Sept 13/05 Test # 843 ($\frac{1}{3}$ of 15 AT, after 100% Salt-leach, 145 gms.)

Crus. #1 #3 — First steel wool elect 12.5 gms. (annealled)
15-40-15 borax, 10 silica, 30 lead, Cg. $\frac{1}{2}$ salt on top
$\frac{1}{2}$ " mixed

#2 — Second elect steel wool, 19 gms, 8 gms scorified in
Crus. #4 20, 45, 20 borax, 15 silica, 30 lead, Cg $\frac{1}{2}$ tsp salt mixed
(Annealled) $\frac{1}{2}$ tsp " on top of Crus

#3 - Scorified 8 gram same as #2.
30 ox tsp 30 mixed, 3 silica, 20 Borax, Cg

#4 & #5 — $\frac{1}{2}$ of residue after elect. 22.5 gms each.
30-50-20 silica 30 Borax 30 lead. 1 tsp salt mixed
(Cg added) 1 " " on top of Borax

2 hrs
2 hrs
cupel 2 hrs
pasting 1 hr
5 hrs.

Let. Oct 15/05 Test #843 2.5 AT Cong (100% salt)

#1 - steel wool 11 grms.
20-45-20-15-30-Ag. ½ tsp salt mixed
½ " " on tsp & borax
2 hrs.

#2 - same as #1

Reduce #3 25-45-20 silica -25 borax -30 lead, Ag.
after 1st ½ tsp salt mixed
& #4, 2 cruc 20 grms each. " " "
on tsp & borax
2 hrs.

#0 - Zinc precip. scorified 2 hrs.
cupel #0 cupel 2 hrs
#1 + 2 cupels #1 + #1 part 1 hr.
#3 & 4 " #2 + #2

Mon. Oct 24/05 Test #844 - 2.5 A.T. (Valgoud) "Aqua Regia"

#1 - Steel Wool, 60 grms., 4 cruc. 15 grms each.
20 lead
45 lith.
15 silica
20 borax
30 grm. lead
Ag. cupel 2
½ tsp salt mixed ½ on tsp with borax parting 1

#2 - same as #1

#3 & 4 same as #1 except no salt. 2 hrs

#2 - Zinc 20 grms precip & (reduce from .7 grms)
2 cruc. - 13.5 grms each.
25-40-10-20-30 Ag & salt & borax

Nov. 10/05 Test #845 10AT (Out of Barrel) Roger

Elect formed
#1 - 15 grms ann. residue
20 soda 45 lith. 15 silica, 20 boric 30 lead Oxy. 3 hrs.
#2 - 15 grm steel wool ann.
Same as #1

Nov. 14/05 Test 845 Roger "Out of barrel"

gas formed
#1 Steel wool ann. 19 grams 2 hrs.
#2 " " " 19
20, 45, 15, 20, 30 lead Oxy. - ½ tsp salt mixed
½ " " on top & bottom

#3 } 18 grams annealed residue after amm. hydrox.
#4 } 2 hrs.
exped 2 hrs
#5 - 17 gram not annealed " " " NH_4OH
Post 1 hr
10 hrs

Tu. Nov. 18/05

#1 } annealed 2 inches of liquid.
#2 } 18 grm each.
20 - 45 - 15 - 20 - 30 - Oxy. ½ tsp salt mixed 2 hrs
½ tsp flour. ½ " " on top & bottom
exped 2 hrs.
post 1 hr
5 hrs

Dec. 6/05 Roger 1AT Test # [redacted] 846

#1 Aqua Regia leach 12 grms. 2 hrs.
cupel 2 hrs
parting 1 hr.
20-40-15-20-30 Ag ½ tsp salt mixed [redacted]
½ " " on tsp & borax

Dec. 13/05 Test # [redacted] 847 Roger

#1 - lead ore 64 grms with De Carb. Soda.
40-65-25-35-30 lead Ag. ½ tsp salt mixed
½ tsp " on tsp & bo

#2 - #2-1AT 847 test 2 hrs.
2 cruc. 16 grms each. cupel 2 hrs.
part 1 hr.
20-40-15-20-30-Ag ½ tsp salt mixed 2 hrs.
" " " on tsp with borax
[redacted]

#3 - #1 Lot 1AT - 3 cruc. 26 grms each. 2 hrs.
30-50-20-30-30-Ag. ½ tsp salt mixed
" " " on tsp & borax

Dec. 21/05 Test # 848-1AT, Roger Fine

1 Aqua Regia leach 4 grms. 2 hrs.
20-40-15-20-30-Ag. ½ tsp salt mixed
" " " on tsp & borax
cupel 2 hrs
parting 1
[redacted]

Wed. Dec. 28/05 Test # 849, 1½ AT "Conc. Fine"

#1 - 8 grms. Aqua Regia black, (evaporated) 2 hrs
2 hrs
Port 1 hr
20-40-15-20-30-dg. ½ Tsp salt mixed
" " " on top & bone
5 hrs

Thurs. Jan. 5/06 Test # 850, 1½ AT "Conc. Fine"

#1 - 9 grms dried Aqua Regia

20-40-15-20-30 dg. ½ Tsp salt mixed
½ " " on top & bone
2 hrs

#2 - Lower scale - 15 grms ground cupel 2 hrs
Parting 1 hr
25-45-10-20-30, ½ Tsp salt mixed
½ " " on top & bone
5 hrs

Sun. Jan 8/06 Test # 851 1 AT "Conc. Fine"

#1 - Three crus. 15 grms each, dry residue Aqua Regia
2 hrs
25-45-15-25-30-dg Level Tsp salt mixed
¼ Tsp flour on top & bone
cupel 2 hrs
parting 1 hr
5 hrs

Coeval

~~For the 13th of Jan. /06~~ ~~Test # 851~~ 1.5 A.T. ½ st grind

Dusted feed

#1, 6 gms.

20-40-15-20-30 Cy. ½ tsp salt mixed

~~on top of feed~~

Mon. Jan 15/06 Test # 852 1.5 AT "Wet Grind"

2 hrs.

#1 - 12 gms. evaporated to dust. Coeval 2 hrs

part. 1 hr.

20-45-15-20-30 Cy ½ tsp salt mixed

" " " on top of feed

Thur. Jan 19/06 Test #853 Cong Fine

2 hrs.

#1 9 gms evaporated to dust Aqua Regia.

Coeval 2 hrs.

20-40-15-20-30 Cy. ½ tsp salt mixed 1 hr.

" " " on top of feed

Tues. - Jan 24/06 Test #854 "Wet grind Cong." 2 hr.

2 hr

#1 - 20-40-15-20-30-Cy. ½ tsp salt mixed 1 hr

9 gms.

on top of feed

Sat. Jan 28/06 Test # 855 "Roger" H_2SO_4 treated

then Aqua Regia. 2 hrs

2 hr

#1 7 gms.

20-40-10-20-30 Cy. ½ tsp salt mixed 1 hr

" " " on top of feed

Wed. Feb. 1/06 Test # 856 1.5 A.T. Roger.

#1 11 grms -
20-40-15-20-30-Ag ½ tsp salt mixed 2 hrs
" " " on top + borax

#1 Scorified ~~HCl~~ HCl treating water after Zinc
cupel 2 hrs part 1 hr precip. 5 hrs

Feb. 2/06, 2 grms 30 lead in bottom
20 lead mixed 20 borax 2 silica + Ag.

Feb. 8/06 2 hrs
Test # 857 ~~[illegible]~~ Roger Fine
#1 - 4 cruc. of annealled residue after Zinc
18 grms each 2 hrs.
30 lead in bottom 20 lead mixed 25 borax 3 silica
cupel 2 part. 1 hr ~~#~~ Ag 7 hrs

March 3/06 Test # 859 (Roger Fine 1 A.T.)
2 hrs.
#1 - 1 cruc. 7 grms scorification cupel 2 hrs
part. 1 hr.
30 lead in bottom 30 lead mixed 25 borax
3 silica + Ag 5 hrs

March 8/06 Test # 860 "Roger fine"

#1 - 26 grms. Zinc precip dried 2 hrs
20-40-10-20-30 Ag. ½ tsp salt mixed
" " " on top & borax
cupel 2 hrs
part 1 hr
7 hrs

March 3/06 Test # 861 "Roger Fine" 1 A.T.
2 hrs
#1 Dried Zinc residue 54 grms cupel 2 hrs
2 cruc. 26 grms each. part. 1 hr
20 - 40 - 10 - 20 - Ag. ½ tsp salt mixed
(forgot 30 lead not put in) " on top + borax
5 hrs

March 22/06 Test # 862 "Roger Fine" 1 A.T.
2 hrs.
#1 16 grms. annealed Zinc residue after HCl
neutralized
20 - 40 - 10 - 20 - 30 lead - Ag ½ tsp salt mixed
cupel 2 hrs part. 1 " on top + borax
5 hrs

March 23/06 Test # 863 "Roger Fine" 1 A.T.
#1 - Na Nitrite scorified 2 hrs.
Borax 20 Silica 2 - Lead 35
#2 - Zinc precip 7 grms. 2 hrs.
20 - 40 - 10 - 20 - 30 - Ag - ½ tsp salt mixed
cupel 2 hrs part 1" " " on top + borax
7 hrs

April 2/06 Test # 864 Roger Fine 2 A.T.
Leached on basic side.
#1 - Zinc precip 25 grms (blue color) 2 hrs.
cupel 2 hrs
25 - 45 - 10 - 20 - 30 - Ag 1 tsp salt mixed
" " " on top + borax
Part. 1 hr.
5 hrs

April 5/06 Roger Fine
#1 scrification Na Sulfide precip
Ore 5 gms
lead 30 on bottom
" 30 mixed
5 gms silica
Ag 17.68 mgs in Ag Chloride form (liquid on top)
flour end of top

2 hrs
cupel 2 hrs
part 1 hr.
5 hrs.

April 11/06 Zinc precip 2 A.T. "Conglomerate"
(Test #865)
#1 — 4.5 gms — precip. 16 to 1 H_2O & H_2SO_4, to dissolve Zinc.
10 gms Soda
56 gms litth. forty mixed, 15 on top. later
10 gms silica
20 gms Borax
20 gms lead mixed, 5 oz top later with litth.
Ag added.
Top flower
Bead after fusing 59 gms.

2 hrs
cupel 2 hrs
part. 1 hr
5 hrs.

April 17/06 Test # 866 1½ A.T. Cong.

#1 scoiped ⅓ of lot 2 hrs.

#2 - 2 cmc. 44 gms each.
20
40 - put 20 in the mix add lot 20 after liquid
10 2 hrs.
20 expel 2 hrs
20 lead . part. ½ hr
Ag. - ½ Tsp salt on top with borax 1 hr.

April 22/06 Test # 867 2 AT from 4 RT lot
for 2 lot.

#1 20-40-10-20-20-Ag. ½ Tsp salt on top with borax
Fine precip (zero) 5 hrs

April 25/06 - portion from 867 dried to powder

#1 5 gms after annealing
scoiped - 30 lead on bottom
15 " mixed 5 hrs
5 gms silica
½ Tsp flour
25 gms borax
Ag

April 27/06 Lot# 867 Far West

#1 - 2 Cruc, 22.5 grms each, residue from dried 2 hrs
dust 105 grms, added 6 to 45 grms
20-40-10-20-30-Cy, ⅓ tsp flour, ½ tsp salt, mixed
½ tsp salt on top with heat
2 hrs

#2 - Heat ore 18 grms
20-40-[redacted]-25-30-Cy. ⅓ flour ½ tsp salt mixed (he-
" " " on top & lower
5 hrs.

May 7/06 Lot# 868 2AT Far West

#1
20-40-10-20-30-Cy & flour. ½ tsp salt mixed
" " " on top & four
2 hrs

#2 Residue — Zinc
same as #1
caped 2 hrs
part 1

#3 Ammonia Hydroxide precip of liquid after Zinc
same as #1
5 hrs

Aug 18/06 #869 "Roger Pile" fine.

#1 - 1 grms.
15-30-10-15-30-, Ag. ½ tsp salt mixed
½ " on top & bottom

#2 - Zinc precip. 25 grms.
25-45-15-25-30, Ag. ½ tsp salt mixed 5 hrs.
½ " " on top & bottom

Aug 27/06 #870 "Roger Pile" fine.

#1 - Zinc precip. 38 grms.
30-45-15-30-30-Ag. 1 tsp salt mixed
1 " " on top & bottom
5 hrs.

#2 - Residue from last part of Zinc precip after 27 grms. Zinc residue removed
15-45-15-25-30-Ag. ⅔ tsp salt mixed
" " " on top & bottom

Sept 3/06 #870 treatment

#1 Wed & Thurs.
27 grms. -, 30-45-15-25-30-Ag. ½ tsp salt mixed
" " " on top & bottom

#2 - Residue & (Second 8 hrs.)
28 grms. - 30-45-15-25-30-Ag ½ tsp salt mixed
" " " on bot tom
5 hrs.

Sept. 18/06 Test # 870 "Roger Pile" 3 AT

#1 - as marked on work sheet 25 gms
25-45-15-25-30-Ag ½ tsp salt mixed ½" on top & loop 2 hrs

#2 - Test samples 2 exec., 22 gms each.
25-45-15-25-30-Ag. ½ tsp salt mixed on top & loop cupel 2

#3 - Zinc 2 exec 26.5 each.
25-45-15-25-30-Ag. ½ tsp salt mixed on top & loop Cupel 2 hrs

Sept 23/06 Test # 871 "Roger Pile" 1½ AT

1 - ½ of residue after drying off liquid (lead) annealed (turned to liquid) shrunk from 37.5 to 20 gms.
20-45-15-25-30-Ag ½ tsp salt mixed on top & loop ⅓ to floor

#2 - ½ of residue not annealed 37.2.
25-50-15-25-30-Ag ½ tsp salt mixed on top & loop ⅓ tsp. floor

Sept 30/06 Lot # 872 "Coryo. Fine" 2 A.T.

#1 - Aqua Regia evaporated 19 grms.

20-45-15-~~10~~-25-30-Dg. ½ tsp salt mixed on tsp & borax

Oct 7/06 Lot # 873 "Roger Pile" 3 A.T.

#2 Zinc precip 15 grms

20-~~45~~ 45-~~10~~ 10-~~20~~ 20-30-Dg ½ tsp salt mixed on tsp & borax

#3 Same as # 2 except no salt.

#1 - 4 grms.

15-35-~~5~~ 5-~~15~~ 15-~~20~~ 20-Dg. borax on tsp.

Oct 9/06 Lot # 873 - ¼ of last residue

#1 - 30-45-15-30-30-Dg ½ tsp salt mixed level tsp flour on tsp & borax

#2 - same as # 1 except no salt, borax on tsp level tsp flour

~~Started~~

~~Stopped at 8:45~~

Oct 16/06 Set # 874 Far West 3 A.T.

#1 - 2 inc precip. 32 gms + 10 gms elect.
50 - 50 - 30 - 30 - 30 - Og - 1rd. tsp flour. Salt ½ tsp with ½ tsp salt on top & bot

#2 - Same as #1 - 32 gms.

#3 Same as #1 except only 40 gms. Soda 32 gms.

Oct 23/06 Set # 875 Far West 2 A.T.

#1 - ⅓ of residue 35 gms.

50 - 50 - 30 - 25 - 30 - Og. - 1rd. tsp flour
(added in part Acc 4.15 mag) ½ tsp salt mixed
" " " on top & bags

Oct 25/06 # 875 Far West 2 A.T.

#1 - ⅓ of residue, treated with H_2SO_4 (16-1) for three hrs., then annulled. 35 gms shrunk to less than 2 gms.

15 - 25 - 5 - 10 - 20 - Og - ⅓ tsp flour. ½ tsp salt on top

Nov. 7/06 Test #876 Wet Sand Cong. 3 A T

#1 35 gms. Zinc pwdr.
40 Soluble
45 Litharge
20 Silica
30 Borax
3 lead.
Aq. ½ tsp salt mixed
½ tsp salt on tip of loop
1rd tsp. flour.

Nov 9/06 Test # 876 Cong.

#4 – 4 gms. off Zinc strip.
10 - 20 - 5 - 10 - 20 Lead Aq. ½ tsp salt on tip of loop

#2 - Head cra after heat – ⅓ of 75 gms left.
25 gms.
25 - 45 - 10 - 20 - 20 - Aq ⅓ tsp salt on tip of loop

Nov. 13/06 Test # 876 Test liquid dried
26 gms after anneal, (60 gms at start)

#1 30 - 45 - 10 - 25 - 10 - Aq: ½ tsp salt mixed
½ tsp flour. " " " on tip of loop

Nov. 22/06 Test # 877 Roger Pile 3AT

#1 Dried Zinc precip. ... liquid to dust.
2 Cruc. 31 grms each. 2 hrs.
25-45-15-25-20-Ag ½ tsp salt + borax
2 hrs 9 ...

#2 - Same as #1 except ... solids Zinc
25-45-15-25-20-Ag. [illegible]
1 hr 5 hrs.

Thur. Jan 3 2007 Test # 878 "Roger Pile"

#1 - Zinc precip. ½ of 4 A.T. treatment
6 grms. 5 hrs

15-35-5-15-20-Ag - ½ tsp salt mixed
½ " on top no borax

121 before
88÷2
44

Tues.
Jan 16/06 Redo of test # 878 Roger.

#1 - ½ of total residue 121 grms after annealling
2 cruc. 44 grms each.

30-50-15-30-20 lead Ag. 1 level tsp salt mixed
½ tsp on top & borax
5 hrs.

2.54
2.50
3 1/4 after [illegible]
6.0 grams after annealing

3-15-0 30

Jan 20/07 Test #879 2 A.T. pre-cooked 1500°F

#1 2 - Cruc. 26 grams each.
25 - 45 - 15 - 25 - 20 - Ag ½ tsp salt mixed
½ tsp " on top & [illegible]
5 hrs

Jan 23/07 Test # 880 lot ½ A.T. [illegible] cooked

#1 1 - 17.5 grams.
20 - 40 - 10 - 20 - 30 Ag [illegible] ½ tsp flour.
½ tsp salt on top & borax
5 hrs

Jan 31/07 Test # 881

#1 - 7 grams

15 - 40 - 10 - 15 - 20 - Ag ½ tsp salt mixed
(add flour ex tsp) borax ex tsp

#2 - 2 crucibles 34 grams each, dried residue from
2 [illegible] - annealled before H_2SO_4
treatment & afterwards.
35 - 50 - 20 - 30 - 30 - Ag. 1 tsp salt mixed
[illegible] " " on top & borax
add flour ex tsp
5 hrs

Feb. 15/07 Test #882 Conglomerate 2AT

#1 - ~~Annealed~~. 2 crucs.
15-40-15-20-~~20~~20-Ag. ½ tsp salt mixed between or top.

#2 - 26 grms. 2 inco pieces.
(#1 cruc)
25-45-20-30-30-Ag. 1 tsp salt mixed between or top.

= 35 2 crucs., 23.5 grms each.
first ½ annealed 25-45-20-30-30 Ag. 1 tsp salt mixed between or top. Use

Feb. 16/07 Test #893 Conglomerate 2AT

#1 second half not annealed
2 crucs 29 grms each.
30-~~30~~-50-25-30-30-Ag. 1 tsp salt mixed
(½ tsp flour in each) " " " or top & Bcap
Flour

March 14/07 Test # 884 Baytree 1 A.T.

+/- 44 grms.
35-50-20-30-30 Cg ~~tsp~~ salt mixed
½ " " on tp & brax 5 hrs.

March 23/07 Test # 885 Baytree 1½ A.T.

#1 - 17 grms
10-40-10-20-30 Cg. ½ tsp salt mixed
¼ tsp flour ½ tsp salt on tp with brax
5 hrs

March 28/07 Test # 886 Baytree 1½ A.T.

#1 - 24 grms
20-45-15-20-30-Cg. ½ tsp salt mixed
¼ tsp flour. ½ " on tp & brax 5 hrs.

ATTACHMENT 2.3.1

Loring Test Analysis

Loring Laboratories Ltd.

629 Beaverdam Road. NE Calgary Alberta
Tel: (403)274-2777 Fax (403)275-0541
e-mail adress : loringlabs@telus.net

FAX COVERING LETTER

DATE : 2006-02-24 PAGES :

ATTN: ALAN LEWIS FROM : GARY

COMPANY : FAX # :

MESSAGE :

Alan

Cold Content of

Test lead in beaker is

#858 0.260 mg @ 1500 Cnd. per ton.

.26 oz per ton

Gary

IF YOU HAVE NOT RECEIVED ALL PAGES, PLEASE CONTACT :

TEL : (403) 274-2777 FAX : (403) 275-0541