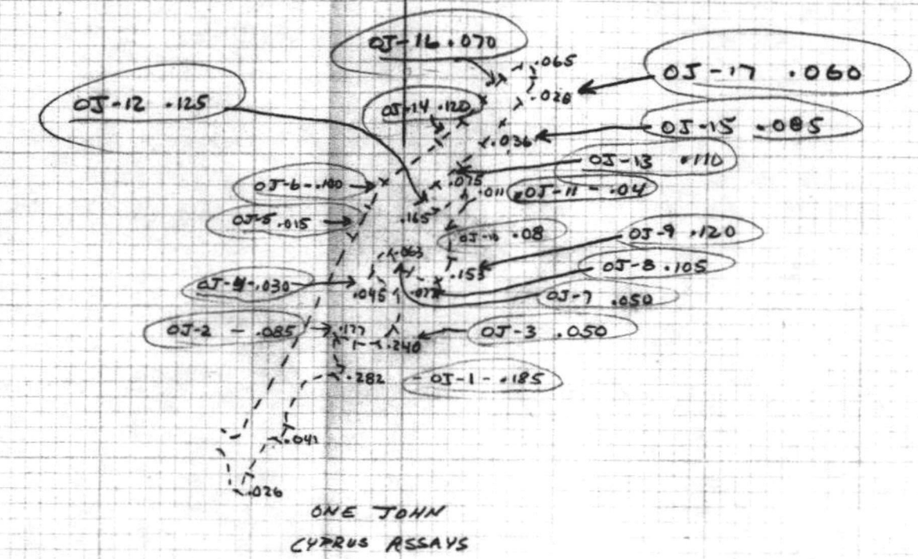
OJ-16 .070
OJ-17 .060
OJ-12 .125
OJ-14 .120
OJ-15 .085
OJ-13 .110
OJ-11 - .04
OJ-6 - .100
OJ-5 .015
OJ-9 .120
OJ-8 .105
OJ-7 .050
OJ-3 .050
OJ-2 - .085
OJ-1 - .185
ONE JOHN
CYPRUS ASSAYS

Monitor Geochemical Laboratory, Inc.
P.O. Box 1901 * Elko, Nevada 89801 * (702) 738-3236

Certificate of Analysis

CLIENT: Lacana Mining Inc.
ATTENTION: Rod MacLeod

DATE: 8-3-84
CLIENT ORDER NO.:
INVOICE NO.: 12527
LAB NO. : 4907
CC: Rith Hall-Id.

ANALYTICAL METHODS: Au, Ag - Fire Analyses (1 A.T.)
Au - No-roast Cy Leach A.A.

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	NR/Cy Au(oz/ton)	
1623	.016	.10		
1624	.052	.20	.035	67.3%
1625	.014	.20		
1627	.014	.05		
1633	.018	.05		
1637	.069	-.05	.049	71.01%
1638	.047	-.05	.037	78.72
1640	.034	.20	.024	70.59%
1641	.018	.15		
1642	.043	.15	.039	90.70%
1643 Main Pit	.021	.10	.018	85.71%
1644	.016	.20		
1645 Area	.025	.10	.022	88%
1646	.031	.05	.025	80.65%
1647	.030	-.05	.028	93.33%
1648	.051	.10	.050	98.04%
1653	.004	.05		
1654	.015	-.05		
1655	.005	.05		
1656	.018	.10		
1657	.007	.05		
1660	.020	-.05	.019	95.00%
1661	.022	.15	.015	68.20%
1662	.038	.05	.027	71.05%
1663	.034	-.05	.028	82.35%
1668	.040	-.05	.031	77.50%
1674	.228	.45	.192	84.21%
1675	.129	.45	.100	77.52%
1678	.021	.30	.017	80.95%
1682**	.018	.15		

SURFACE ROCK CHIP MAIN PIT AREA

Monitor Geochemical Laboratory, Inc.
P.O. Box 1901 * Elko, Nevada 89801 * (702) 738-3236

Certificate of Analysis

CLIENT: Lacana Mining Company
ATTENTION:

DATE: 5-18-84
CLIENT ORDER NO.:
INVOICE NO.: 11828
LAB NO. : 4067
CC:

ANALYTICAL METHODS: Au - Fire Analyses (1 A.T.)
Au - No-roast Cy Leach A.A.

DGE-5

SAMPLE #	Fire Au(oz/ton)	NR/Cy Au(oz/ton)
730 155-160	.045	.036
731 -165	.073	.068
732 -170	.029	.025
733 -175	.038	.036
	4	4

Janet A Walsh

Janet A. Walsh
Analyst

*Greater than 1000 ppm reported as percent(Assay)
**Break in numerical sequence

Monitor Geochemical Laboratory, Inc.
P.O. Box 1901 * Elko, Nevada 89801 * (702) 738-3236

Certificate of Analysis

copy

CLIENT: Lacana Mining Inc.
ATTENTION: P. Dircksen-R. Hall

DATE: 5-7-84
CLIENT ORDER NO.:
INVOICE NO.: 11753
LAB NO. : 3986
CC:

ANALYTICAL METHODS: Au - Fire Analyses (1 A.T.)
Au - Roasted Acid Digestion A.A.
Au - No-roast Cy Leach A.A.

DGE-10 Dakota Mining Pit Area

SAMPLE #	Fire Au(oz/ton)	R/Acid Au(oz/ton)	NR/Cy Au(oz/ton)	SHMC
1470 - 395-400	.044	.149	.019	.045 OPT Au
1471 - 400-405	.060	.075	.040	.065
1472 - -410	.059	.055	.020	.050
1473 -415	.108	.112	.063	.105
1474 -420	.066	.081	.019	.060
1475 -425	.042	.041	.034	.050
1476 -430	.047	.048	.038	.045
1477 -435	.127	.120	.092	.110
1478 -440	.325	.156	.135	.275
1479 -445	.135	.155	.088	.170
1480 -450	.159	.164	.087	.160 / .135
1481 -455	.167	.163	.133	.175
1482 -460	.050	.050	.037	.045
	13	13	13	

All Sulfide

Janet A Walsh
Janet A. Walsh
Analyst

NOTE: Check analyses indicate free gold.

*Greater than 1000 ppm reported as percent (Assay)
**Break in numerical sequence

Monitor Geochemical Laboratory, Inc.

Certificate of Analysis

Client: Lacana Mining Inc.
2005 Ironwood Parkway, Rm. 105
Coeur d'Alene, Idaho, 83814

Analytical Methods: Au, Ag, Fire Analyses (1 A.T.)
Au, N/R Cy Leach A.A.

Date: Jan. 19, 1984
Client Order No.:
Invoice No.: 11430 Lab #3678
cc: Paul Dircksen

	SAMPLE #	Ave	S.V. Fire	Fire Au(oz/ton)	(S.V. vs. Ave)	Fire Ag(oz/ton)		N/R Cy Au(oz/ton)	%
earthquake	RGE-37-0-5	.022	.008	.037	<.029>	.05		.019	51 %
	5-10**	.039	.044	.034	+.010	.05		.020	60 %
	25-30	.022	.028	.016	+.012	.05		.011	69
	30-35	.022	.014	.033	<.019>	-.05		.025	76
	35-40	.024	.032	.017	+.015	-.05	mixed	.015	88
	40-45	.016	.020	.012	+.008	-.05		.010	83
	45-50	.011	.016	.006	+.010	-.05		.006	100
	50-55	.008	.012	.005	+.007	-.05	ox.	.004	80
	55-60	.008	.012	.004	+.008	-.05		.002	50
pit bottom	60-65	.008	.010	.006	+.004	-.05		.004	67
	65-70	.009	.010	.008		-.05	mixed	.006	75
	70-75	.015	.016	.015		.10		.012	80
	75-80	.016	.018	.015		-.05		.011	73
	80-85	.012	.012	.012		-.05	sul.	.004	33
	85-90	.015	.018	.013		-.05		.010	77
	90-95	.023	.020	.026		-.05	oxide	.023	88
	95-100	.016	.018	.015		-.05		.008	53
	100-105	.051	.052	.051		.05		.022	43
	105-110	.018	.018	.018		.10		.010	56
	110-115	.031	.028	.034		.10	mixed	.020	59
	115-120	.015	.016	.014		-.05		.008	57
	120-125	.015	.016	.014		-.05		.006	43
	125-130	.010	.014	.006		-.05		.003	50
	130-135	.010	.010	.010		.05		.005	50
	135-140	.019	.020	.018		.05	sulfide	.014	78
	140-145	.011	.010	.013		.05		.006	46
	145-150	.004	.002	.006		-.05		.003	50
	150-155	.009	.012	.006		.05		.002	33
	155-160	.022	.024	.020		.05		.013	65
	RGE-37-160-165	.029	.030	.029		.05		.015	52

*Greater than 1000 ppm reported as percent (Assay)
**Break in numerical sequence

P.O. Box 1901 • Elko, Nevada 89801 • (702) 738-3236

7; .015 in pit

Lacana Mining Inc.

Invoice #11430 Lab #3678

Jan. 19, 1984

SAMPLE #	Fire Au(oz/ton) Silyolley	Ave	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)	
RGE-37-165-170	.040 .031	.035	.15	.019	61 %
170-175	.062 .064	.063	.15	.055	86
175-180	.056 .050	.053	.15	.035	70
180-185	.070 .060	.065	.10	.046	77
185-190	.094 .092	.093	.10	.064	70
190-195	.054 .067	.060	.05	.038	57
195-200	.082 .083	.082	.10	.054	65
200-205	.042 .048	.045	.10	.019	40
205-210	.030 .024	.027	.30	.013	54
210-215	.030 .029	.029	.25	.013	45
215-220	.026 .024	.025	.30	.014	55
220-225	.054 .050	.052	.70	.021	42
225-230	.052 .048	.050	.50	.028	58
230-235	.054 .055	.054	.70	.026	47
235-240	.058 .062	.060	.50	.027	44
240-245	.048 .052	.050	.10	.033	[illegible]
245-250	.074 .076	.074	.25	.051	[illegible]
250-255	.082 .078	.080	.10	.061	73
255-260	.052 .054	.056	.05	.034	[illegible]
RGE-37-260-265	.056 .055	.055	.05	.041	75
RGE-37-265-270	.078 .072	.075	.10	.057	74
270-275	.086 .078	.082	.15	.057	73
275-280	.030 .028	.029	.10	.018	64
280-285	.040 .034	.037	-.05	.023	68
285-290	.036 .036	.036	.05	.022	61
290-295	.044 .042	.043	.05	.027	[illegible]
295-300	.042 .042	.042	.25	.027	64
RGE-37-300-305	.064 .060	.062	.35	.043	72

A. L. Koch
Laboratory Manager

*Greater than 1000 ppm reported as percent (Assay)
**Break in numerical sequence

Monitor Geochemical Laboratory, Inc.

Certificate of Analysis

Client: Lacana Mining Inc.
2005 Ironwood Parkway, Room 105
Coeur d'Alene, Idaho 83814

Analytical Methods: Au, Ag, Fire Analyses
Au, N/R Cy Leach A.A.

Date: Jan. 23. 1984
Client Order No.:
Invoice No.: 11440 Lab #3679/3682
CC: Paul Dircksen

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)	
RGE-38- 0- 5	.022	.25	.020	91%
5- 10	.073	.20	.048	66%
10- 15	.098	.30	.088	90
15- 20	.081	.40	.058	[illegible]
20- 25	.041	.55	.031	76
25- 30	.063	.30	.050	79
30- 35	.053	.35	.049	92
35- 40	.019	.35	.017	89
40- 45	.036	.15	.025	69
45- 50	.052	.40	.042	81
50- 55	.050	.25	.039	78
55- 60	.021	.45	.020	95
60- 65	.040	.05	.030	75
65- 70**	.047	.10	.036	77
75- 80	.022	-.05	.018	82
80- 85	.028	.10	.024	86
85- 90	.066	.05	.047	71
90- 95	.033	.10	.031	94
95-100	.034	.10	.020	59
100-105	.030	.10	.023	77
105-110	.028	.05	.020	71
110-115	.037	.10	.028	76
115-120	.023	.10	.030	100%
120-125	.038	.10	.028	74
125-130	.100	.15	.078	78
130-135	.064	.30	.050	78
135-140	.081	.70	.042	52
140-145	.030	.15	.005	17
145-150	.029	.25	.004	14
RGE-38-150-155	.029	.20	.008	28

076
26 samples

79.8%

*Greater than 1000 ppm reported as percent (Assay)
**Break in numerical sequence

P.O. Box 1901 • Elko, Nevada 89801 • (702) 738-3236

Lacana Mining Inc.

Invoice #11440 Lab #3679/3682

January 23, 1984

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)
RGE-38-155-160	.033	.20	.004
160-165	.028	.20	.005
165-170	.016	.15	.004
170-175	.016	.15	.004
175-180	.034	.30	.014
180-185	.110	.80	.043
185-190	.013	.05	.006
190-195	.015	.05	.006
195-200	.014	.05	.005
200-205	.032	.30	.004
205-210	.059	.30	.043
210-215	.033	.10	.018
215-220	.115	.40	.052
220-225	.077	.15	.035
225-230	.066	.10	.022
230-235	.035	.10	.015
235-240	.044	.10	.019
240-245	.019	.15	.009
245-250	.026	.10	.014
250-255	.034	.15	.018
255-260	.019	.05	.005
260-265	.032	.15	.019
265-270	.063	.20	.038
270-275	.155	.20	.044
275-280	.073	.10	.065
280-285	.121	.25	.078
285-290	.052	.20	.042
290-295	.047	.20	.044
295-300	.042	.05	.041
RGE-38-300-305**	.026	.20	.023
RGE-39- 0- 5	.003	.05	.002
5- 10	.014	.50	.013
10- 15	.009	.35	.008
15- 20	.022	.35	.020
20- 25	.010	.75	.008
25- 30	.004	.15	.004
30- 35	.016	.15	.006
35- 40	.019	.20	.013
40- 45	.006	.20	.004
RGE-39- 45- 50	.017	.20	.015

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)
RGE-39- 50- 55	.051	.40	.032
55- 60	.049	.25	.031
60- 65	.016	.25	.012
65- 70	.010	.25	.003
70- 75	.010	.20	.010
75- 80	.008	.20	.007
80- 85	.019	.30	.016
85- 90	.023	.25	.022
90- 95	.010	.30	.009
95-100	.011	.25	.010
100-105	.008	.25	.008
105-110	.020	.25	.017
110-115	.008	.20	.006
115-120	.010	.10	.009
120-125	.020	.10	.016
125-130	.025	.15	.014
130-135	.013	.10	.013
135-140	.015	.15	.011
140-145	.015	.25	.011
145-150	.043	.20	.035
150-155	.026	.25	.018
155-160	.013	.15	.011
160-165	.081	.10	.042
165-170	.045	.20	.035
170-175	.065	.10	.064
175-180	.032	.15	.020
180-185	.035	.25	.031
185-190	.014	.35	.005
190-195	.024	.35	.011
195-200	.030	.15	.016
RGE-39-200-205**	.026	.10	.021
RGE-40- 0- 5	.045	.55	.022
5- 10	.064	.60	.050
10- 15	.016	.55	.011
15- 20	.022	.55	.015
20- 25	.014	.35	.009
25- 30	.012	.45	.006
30- 35	.039	.45	.024
35- 40	.039	.45	.024
RGE-40- 40- 45	.094	.40	.080

***Greater than 1000 ppm reported as percent (Assay)**
****Break in numerical sequence**

Lacana Mining Inc.

Invoice #11440 Lab #3679/3682

January 23, 1984

SAMPLE #	Fire Au(oz/to)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)
RGE-40- 45- 50	.011	.15	.007
50- 55	.006	.45	.004
55- 60	.008	.35	.006
60- 65	.009	.35	.007
65- 70	.030	.40	.019
70- 75	.014	.50	.010
75- 80	.037	.40	.015
80- 85	.020	.35	.020
85- 90	.052	.40	.049
90- 95	.028	.40	.018
95-100	.016	.35	.011
100-105	.009	.35	.007
105-110	.008	.35	.005
110-115	.005	.40	.003
115-120	.082	.30	.067
120-125	.010	.25	.006
125-130	.042	.25	.031
130-135	.023	.30	.015
135-140	.028	.40	.022
140-145	.036	.35	.027
145-150	.268	.25	.180
150-155	.207	.40	.106
155-160	.081	.50	.060
160-165	.012	.25	.010
165-170	.059	.30	.047
170-175	.055	.50	.041
175-180	.070	.30	.048
180-185	.020	.20	.016
185-190	.040	.30	.028
190-195	.061	.15	.052
195-200	.027	.50	.022
200-205	.026	.30	.024
205-210	.036	.30	.026
210-215	.025	.35	.021
215-220	.013	.25	.011
220-225	.003	.25	.003
225-230	.003	.20	.002
230-235	.004	.25	.003
235-240	.009	.20	.008
240-245	.033	.25	.018
RGE-40-245-250	.050	.45	.041

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)
RGE-40-250-255	.026	.30	.015
255-260	.026	.35	.017
260-265	.030	.40	.012
265-270	.026	.40	.020
270-275	.010	.25	.007
275-280	.211	.50	.028
280-285	.026	.35	.010
285-290	.045	.30	.045
290-295	.064	.10	.040
295-300	.062	.40	.043
RGE-40-300-305**	.111	.55	.093
RGE-41- 0- 5	.018	.25	.013
5- 10	.012	.40	.009
10- 15	.012	.40	.010
15- 20	.054	.40	.050
20- 25	.084	.30	.074
25- 30	.091	.35	.081
30- 35	.118	.45	.116
35- 40	.218	.35	.175
40- 45	.021	.30	.017
45- 50	.089	.35	.076
50- 55	.068	.35	.064
55- 60	.023	.25	.021
60- 65	.043	.35	.040
65- 70	.035	.40	.035
70- 75	.026	.30	.020
75- 80	.059	.30	.043
80- 85	.042	.30	.034
85- 90	.082	.25	.077
90- 95	.084	.30	.076
95-100	.028	.35	.025
100-105	.037	.45	.028
105-110	.119	.35	.095
110-115	.033	.35	.028
115-120	.059	.35	.051
120-125	.058	.30	.050
125-130	.024	.30	.017
130-135	.033	.25	.029
135-140	.022	.35	.014
140-145	.050	.35	.024
RGE-41-145-150	.043	.40	.037

Greater than 1000 ppm reported as percent (Assay)

****Break in numerical sequence***

Lacana Mining Inc.

Invoice #11440 Lab #3679-3682

January 23, 1984

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)		SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	N/R Cy Au(oz/ton)
RGE-41-150-155	.028	.40	.015	54%				
155-160	.018	.35	.017	94				
160-165	.032	.35	.029	91				
165-170	.038	.35	.024	63				
170-175	.025	.35	.017	65				
175-180	.076	.30	.073	96				
180-185	.126	.30	.100	79				
185-190	.246	.25	.205	83				
190-195	.087	.20	.079	91				
195-200	.072	.45	.064	89				
200-205	.084	.35	.069	82				
205-210	.030	.35	.019	63				
210-215	.055	.55	.027	49				
215-220	.082	.40	.020	24				
220-225	.021	.25	.010	48				
225-230	.010	.15	.003	30				
230-235	.011	.20	.007	64				
235-240	.030	.35	.018	60				
240-245	.012	.45	.010	83				
245-250	.018	.40	.013	72				
250-255	.012	.40	.007	58				
255-260	.018	.30	.007	39				
260-265	.050	.35	.022	44				
265-270	.026	.35	.009	35				
270-275	.022	.20	.006	27				
275-280	.024	.20	.005	21				
280-285	.012	.25	.008	67				
285-290	.017	.20	.009	53				
290-295	.011	.30	.007	64				
295-300	.031	.25	.008	26				
RGE-41-300-305	.051	.30	.021	41				

A. L. Koch
Laboratory Manager

*Greater than 1000 ppm reported as percent (Assay)
**Break in numerical sequence

Monitor Geochemical Laboratory, Inc.
P.O. Box 1901 * Elko, Nevada 89801 * (702) 738-3236

Certificate of Analysis

CLIENT: Lacana Mining Inc.
ATTENTION: Rich Hall

DATE: 7-19-84
CLIENT ORDER NO.:
INVOICE NO.: 12357
LAB NO. : 4771
CC: MacLeod-S.D.

ANALYTICAL METHODS: Au, Ag - Fire Analyses (1 A.T.)
Au - No-roast Cy Leach A.A.

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	NR/Cy Au(oz/ton)	
1563	.007	-.05		NORWICH
1564	.010	.15		
1567	.012	.10		
1570	.019	.25		
1574	.024	.05	.007	
1575	.019	.10		
1576	.020	.10	.013	
1577	.010	-.05		
1582	.015	.10		
1590	.003	-.05		
1601	.093	.10	.083	MAIN PIT AREA
1602	.035	.15	.024	
1603	.032	.05	.018	
1604	.028	.10	.024	
1605	.024	.10	.023	
1606	.025	.10	.013	
1607	.003	.20		
1608	.006	.20		
1609	.126	.05	.089	
1611	.010	-.05		
1612	.008	-.05		
1613	.031	.05	.024	
1614	.013	-.05		
1615	.002	-.05		
1616	.011	-.05		
1617	.007	-.05		
1619	.070	.20	.057	
1620	.100	.40	.075	

Monitor Geochemical Laboratory, Inc.
P.O. Box 1901 * Elko, Nevada 89801 * (702) 738-3236

Certificate of Analysis

CLIENT: Lacana Mining Inc.
ATTENTION: Rich Hall

DATE: 7-19-84
CLIENT ORDER NO.:
INVOICE NO.: 12357
LAB NO. : 4771
CC: MacLeod-S.D.

ANALYTICAL METHODS: Au, Ag - Fire Analyses (1 A.T.)
Au - No-roast Cy Leach A.A.

SAMPLE #	Fire Au(oz/ton)	Fire Ag(oz/ton)	NR/Cy Au(oz/ton)
1621	.010	.45	} [illegible]
1622	.011	.30	
	30	30	12

MAIN PIT AREA

Joseph D. Koch
General Manager

*Greater than 1000 ppm reported as percent (Assay)
**Break in numerical sequence