

LOG NO: 1224	RD.
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FILE NO: 87-948-16681	

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

ROCK GEOCHEMISTRY OF WELL CUTTINGS

FROM WELL HOLE MOYIE d-8-c ON THE ML-62,

ALD 2,3,4 AND SANDY 1,3,5,7 CLAIMS

FORT STEELE MINING DIVISION, B.C.

CRANBROOK AREA

N.T.S. 82G/5W

FILMED

- Assessment Report -

LAT: 49°15'^{27"} N

LONG: 115°51'^{50'43"} W

OWNER: Cominco Ltd. and St. Eugene Mining Corporation Ltd.

OPERATOR: Cominco Ltd.

WELL DRILLED BY: Kootenay Bay Exploration Limited Partnership

Report by: D. Anderson
Submitted: December, 1987

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,681

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COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

REPORT ON ROCK GEOCHEMICAL SAMPLING
ON WELL CUTTINGS FROM HOLE MOYIE d-8-c ON ML-62
SANDY 1,3,5,7 CLAIMS AND ALD 2,3, AND 4
FORT STEELE MINING DIVISION

1.00 INTRODUCTION

1.10 Location and Access

The Sandy and Ald claims are a contiguous set of located and grid claims located in the Fort Steele Mining Division about 30 kilometers south of Cranbrook, B.C.

The property straddles Highway 3/95 and different parts of the claims are reached by secondary logging roads. The center of activity was an oil and gas well drilled about one-half kilometer south of the southern extremity of Moyie Lake.

1.20 Property Definition and Current Status of Operations

The Sandy claims owned by St. Eugene Mining Corp. and the Ald 2,3,4 claims (44 units) owned by Cominco Ltd. are subject to an agreement between the two companies. These claims and the agreement extend to the north into the St. Eugene Mine area. Cominco was the operator of the sampling program.

An oil and gas exploratory well hole was drilled on ML-62/Sandy 1 to a total depth of 3476 meters. Operator of the well-drilling project was Duncan Oil Properties. An informal agreement allowed some well cuttings to a depth of 1221 meters to be released to Cominco Ltd. The sampling by Cominco was conducted at the site, under the guidance of Duncan Oil personnel.

1.30 Topography and Vegetation

The claims cover the Moyie river valley and mountainous terrain to the east and west. Relief on the claims ranges from 960 m on the valley floor to 1370 m on the west and to 1615 m on the east.

Vegetation is mainly Lodgepole Pine, Douglas Fir and Larch with Cedar in the creek drainages.

1.40 Objective and Work Done Summary

The sampling of well cuttings was undertaken to provide a rock geochemical profile of a portion of Aldridge Formation stratigraphy.

The work included: procuring of samples from existing well cuttings; sample processing; and placement in storage containers. Sample splits were then taken and sent for laboratory analysis.

2.00 GEOCHEMISTRY

2.10 Sampling Procedure

The samples recovered by the well-hole operators are cuttings collected over 3 meter intervals from down the hole. The samples recovered varied from fine chips (to 5 mm square) using conventional gel drilling fluids to fine dust or powder when using the air-mist procedure for cleaning the hole.

The sample cut taken varied between 50 and 150 grams depending on the volume of the original sample. The average 100 gram sample was washed in water to remove drilling fluids and then air dried. A small split was then taken for laboratory analysis and the remainder placed in plastic vials for storage.

2.20 Analytical Procedure

The samples are crushed, split, and pulverized to -200 mesh. A 0.5 gram sample is placed in a 3 ml hydrochloric and 1 ml nitric acid solution. The test tube is immersed in a hot sand bath for 2 hours, being shaken every 15 minutes. The solution is diluted to 20 mls, mixed, and allowed to settle and then analyzed by atomic absorption. The lead and zinc results are included for the 39 meter to 1221 meter interval sampled to date. An occasional barium analysis is included with the series to check for indications of contamination due to drilling fluid impurities.

3.00 RESULTS AND CONCLUSIONS

The analyses listed as part 4.00 of this report shows numerous single sample anomalies primarily for Pb. There are two cluster anomalies including Pb and Zn values greater than 100 ppm Pb and Zn greater than 300 ppm.

The results are very difficult to interpret because of the sampling technique used and the depth of the hole. Contamination of individual 3-meter sample intervals is common, so separating samples or establishing lengths of mineralized zones is impossible.

3.00 RESULTS AND CONCLUSIONS (Cont'd)

A few of the anomalous samples were visually checked with no significant amounts of sulfide mineralization indicated by the chips.

4.00 ROCK GEOCHEMISTRY - LISTING OF ANALYSES

The laboratory analyses for Drillhole Moyie d-8-c are included with the three-meter intervals listed from 39 meters to 1221 meters inclusive.

4.00 ROCK GEOCHEMISTRY - LISTING OF ANALYSES (Cont'd)

Drillhole d-8-c

Job V 87-0019R
REPORT DATE 9 MAR 1987

MOYTE

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM
RB700248	39- <i>meters from collar</i>	232	124	
RB700249	42	84	137	
RB700250	45	51	113	
RB700251	48	36	130	
RB700252	51	51	205	
RB700253	54	48	144	
RB700254	57	34	120	
RB700255	60	40	131	
RB700256	63	430	72	
RB700257	66	87	54	
RB700258	69	37	93	
RB700259	72	49	113	
RB700260	75	19	94	
RB700261	78	21	113	
RB700262	81	38	58	
RB700263	84	20	57	
RB700264	87	16	38	
RB700265	90	14	55	
RB700266	93	10	52	
RB700267	96	27	89	
RB700268	99	71	145	
RB700269	102	38	81	
RB700270	105	9	56	
RB700271	108	47	133	
RB700272	111	35	88	
RB700273	114	5	64	
RB700274	117	<4	81	
RB700275	120	<4	66	
RB700276	123	13	59	
RB700277	126	13	53	
RB700278	129	39	58	
RB700279	132	15	64	
RB700280	135	510	152	
RB700281	138	65	70	
RB700282	141	954	131	
RB700283	144	23	86	
RB700284	147	38	90	
RB700285	150	21	92	
RB700286	153	102	96	
RB700287	156	45	85	
RB700288	159	22	84	
RB700289	162	11	95	
RB700290	165	32	100	
RB700291	168	5	43	
RB700292	171	31	100	
RB700293	174	27	98	
RB700294	177	18	94	
RB700295	180	18	73	
RB700296	186	10	82	
RB700297	189	31	125	
RB700298	192	7	75	

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM
RB700299	195 - <i>meters from collar</i>	12	80	
RB700300	198	<4	83	
RB700301	201	11	132	
RB700302	204	5	122	
RB700303	207	7	104	
RB700304	210	22	141	
RB700305	213	26	110	
RB700306	216	10	138	
RB700307	219	284	233	
RB700308	222	7	125	
RB700309	225	12	144	
RB700310	228	12	141	
RB700311	231	7	173	
RB700312	234	16	322	
RB700313	237	<4	155	
RB700314	240	10	135	
RB700315	243	40	113	
RB700316	246	17	104	
RB700317	249	5	90	
RB700318	252	5	109	
RB700319	255	<4	85	
RB700320	258	15	108	
RB700321	261	8	116	
RB700322	264	16	107	
RB700323	267	5	65	
RB700324	270	4	62	
RB700325	273	<4	67	
RB700326	279	5	72	
RB700327	282	7	77	
RB700328	285	8	81	
RB700329	288	10	47	
RB700330	291	19	124	
RB700331	294	19	28	
RB700332	297	9	31	
RB700333	300	16	92	
RB700334	303	4	85	
RB700335	306	<4	87	
RB700336	309	10	106	
RB700337	312	18	106	
RB700338	315	14	110	
RB700339	318	16	96	
RB700340	321	15	109	
RB700341	324	67	85	
RB700342	327	5	51	
RB700343	330	12	33	
RB700344	333	11	87	
RB700345	336	27	105	
RB700346	339	11	48	
RB700347	342	13	49	
RB700348	345	7	71	
RB700349	348	11	60	
RB700350	351	10	88	
RB700351	354	21	71	
RB700352	357	<4	88	

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM
R8700353	360 - meters from collar	13	102	
R8700354	363	16	94	
R8700355	366	11	90	
R8700356	369	13	90	
R8700357	372	21	85	
R8700358	375	20	85	
R8700359	378	19	92	
R8700360	381	8	71	
R8700361	384	<4	57	
R8700362	387	4	69	
R8700363	390	9	66	
R8700364	393	4	82	
R8700365	396	5	50	
R8700366	399	26	89	
R8700367	402	9	91	
R8700368	405	11	94	
R8700369	408	13	95	
R8700370	411	4	82	
R8700371	414	37	93	
R8700372	417	22	91	
R8700373	420	20	100	
R8700374	423	41	91	
R8700375	426	78	94	
R8700376	429	18	81	
R8700377	432	36	95	
R8700378	435	72	170	
R8700379	438	9	105	
R8700380	441	9	59	
R8700381	444	6	67	
R8700382	447	20	47	
R8700383	450	19	47	
R8700384	453	10	92	
R8700385	456	13	98	
R8700386	459	22	122	
R8700387	462	14	90	
R8700388	465	9	93	
R8700389	468	9	99	
R8700390	471	12	87	
R8700391	474	28	79	
R8700392	477	20	88	
R8700393	480	14	106	
R8700394	483	6	102	
R8700395	486	20	129	
R8700396	489	19	125	
R8700397	492	11	116	
R8700398	495	65	113	
R8700399	498	12	127	
R8700400	501	16	131	
R8700401	504	11	124	
R8700402	507	8	64	
R8700403	510	16	47	
R8700404	513	10	83	
R8700405	516	<4	64	
R8700406	519	<4	59	

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM
R8700407	522 — <i>meters from collar</i>	4	68	
R8700408	525	<4	59	
R8700409	528	5	55	
R8700410	531	6	46	
R8700411	534	11	47	
R8700412	537	9	49	
R8700413	540	8	53	
R8700414	543	9	96	
R8700415	546	5	53	
R8700416	549	7	47	
R8700417	552	5	46	
R8700418	555	10	73	
R8700419	558	24	110	
R8700420	561	18	90	
R8700421	564	6	160	
R8700422	567	8	185	
R8700423	570	4	169	
R8700424	573	10	100	
R8700425	576	<4	120	
R8700426	579	10	90	
R8700427	582	10	74	
R8700428	585	27	93	
R8700429	588	51	170	
R8700430	591	28	129	
R8700431	594	31	131	
R8700432	597	36	109	
R8700433	600	319	251	
R8700434	603	1630	1002	766
R8700435	606	596	488	
R8700436	609	94	121	
R8700437	612	90	243	
R8700438	615	229	320	
R8700439	618	127	282	
R8700440	621	106	255	768
R8700441	624	77	263	
R8700442	627	84	214	
R8700443	630	58	244	
R8700444	633	74	165	
R8700445	636	31	152	
R8700446	639	38	130	
R8700447	642	32	129	
R8700448	645	14	56	
R8700449	648	81	185	
R8700450	651	585	1370	870
R8700451	654	24	93	
R8700452	657	745	1820	
R8700453	660	401	794	
R8700454	663	629	1330	
R8700455	666	480	1090	
R8700456	669	177	309	
R8700457	672	39	80	
R8700458	675	49	96	
R8700459	678	22	105	
R8700460	681	23	98	

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM
R8700461	684 - <i>meters from collar</i>	29	69	
R8700462	687	11	84	
R8700463	690	42	98	
R8700464	693	21	77	
R8700465	696	29	108	
R8700466	699	19	67	
R8700467	702	14	68	
R8700468	705	16	102	
R8700469	708	25	106	
R8700470	711	21	79	
R8700471	714	18	69	
R8700472	717	31	111	
R8700473	720	71	107	
R8700474	723	524	74	
R8700475	726	35	60	
R8700476	729	22	78	
R8700477	732	16	103	
R8700478	735	45	122	
R8700479	738	87	94	
R8700480	741	89	83	
R8700481	744	11	63	
R8700482	747	68	84	
R8700483	750	15	66	
R8700484	753	34	53	
R8700485	756	31	79	
R8700486	759	16	76	
R8700487	762	6	77	
R8700488	765	15	104	
R8700489	768	103	160	
R8700490	771	125	161	
R8700491	774	134	153	
R8700492	777	2440	986	890
R8700493	780	172	173	
R8700494	783	158	126	
R8700495	786	111	101	
R8700496	789	22	67	
R8700497	792	126	152	
R8700498	795	295	2440	610
R8700499	798	44	208	
R8700500	801	23	108	
R8700501	804	22	158	
R8700502	807	19	55	
R8700503	810	16	51	
R8700504	813	7	52	
R8700505	819	55	189	
R8700506	822	23	70	
R8700507	825	20	67	
R8700508	828	10	76	
R8700509	831	27	93	
R8700510	834	26	139	
R8700511	837	27	238	
R8700512	840	10	126	
R8700513	843	12	91	
R8700514	846	11	84	

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM
R8700515	849 - <i>meters from collar</i>	37	129	
R8700516	852	66	311	
R8700517	855	50	169	
R8700518	858	50	165	
R8700519	861	22	111	
R8700520	864	36	166	
R8700521	867	114	158	
R8700522	870	136	116	
R8700523	873	23	81	
R8700524	876	39	87	
R8700525	879	19	122	
R8700526	882	22	100	
R8700527	885	13	72	
R8700528	888	14	63	
R8700529	891	16	53	
R8700530	894	75	116	
R8700531	897	19	46	
R8700532	900	14	61	
R8700533	903	33	70	
R8700534	906	44	138	
R8700535	909	1740	701	
R8700536	912	93	97	
R8700537	915	52	122	
R8700538	918	47	176	

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED
 IF REQUESTED ANALYSES ARE NOT SHOWN RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

Pb AQUA REGIA DECOMPOSITION / AAS
 Zn AQUA REGIA DECOMPOSITION / AAS
 Ba(4) X-RAY FLUORESCENCE/FUSION

Drillhole d-8-c
MOYIE LAKE

Job U 87-0525R

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM
R8717459	918— <i>meters from collar</i>	53	106
R8717460	921	13	65
R8717461	924	28	63
R8717462	927	30	262
R8717463	930	137	146
R8717464	933	31	84
R8717465	936	52	108
R8717466	939	38	60
R8717467	942	46	66
R8717468	945	24	52
R8717469	948	8	66
R8717470	951	34	79
R8717471	954	18	77
R8717472	957	20	64
R8717473	960	12	103
R8717474	963	15	94
R8717475	966	33	185
R8717476	969	91	153
R8717477	972	39	67
R8717478	975	30	65
R8717479	978	31	78
R8717480	981	18	61
R8717481	984	12	44
R8717482	987	28	175
R8717483	990	36	92
R8717484	993	13	54
R8717485	996	18	104
R8717486	999	57	645
R8717487	1002	41	112
R8717488	1005	77	88
R8717489	1008	64	152
R8717490	1011	32	105
R8717491	1014	31	94
R8717492	1017	112	117
R8717493	1020	28	106
R8717494	1023	19	56
R8717495	1026	34	100
R8717496	1029	85	135
R8717497	1032	40	81
R8717498	1035	46	87
R8717499	1038	31	103
R8717500	1041	34	98
R8717501	1044	21	59
R8717502	1047	81	114
R8717503	1050	62	301
R8717504	1053	23	64
R8717505	1056	53	117
R8717506	1059	30	99
R8717507	1062	32	128
R8717508	1065	17	88
R8717509	1068	16	60

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM
R8717510	1071 — <i>meters from collar</i>	10	80
R8717511	1074	34	95
R8717512	1077	19	67
R8717513	1080	21	112
R8717514	1083	356	817
R8717515	1086	41	125
R8717516	1089	117	154
R8717517	1092	352	265
R8717518	1095	34	72
R8717519	1098	43	105
R8717520	1101	39	89
R8717521	1104	24	91
R8717522	1107	169	167
R8717523	1110	22	81
R8717524	1113	24	93
R8717525	1116	22	90
R8717526	1119	18	83
R8717527	1122	19	70
R8717528	1125	7	53
R8717529	1128	15	55
R8717530	1131	11	77
R8717531	1134	8	81
R8717532	1137	13	89
R8717533	1140	16	84
R8717534	1143	59	142
R8717535	1146	31	153
R8717536	1149	4930	464
R8717537	1152	80	132
R8717538	1155	125	252
R8717539	1164	348	190
R8717540	1167	517	218
R8717541	1170	97	231
R8717542	1173	136	358
R8717543	1176	329	1640
R8717544	1179	482	2830
R8717545	1182	158	440
R8717546	1185	107	474
R8717547	1188	94	396
R8717548	1191	55	179
R8717549	1194	188	204
R8717550	1197	110	467
R8717551	1200	107	496
R8717552	1203	40	111
R8717553	1206	76	192
R8717554	1209	95	214
R8717555	1212	54	121
R8717556	1215	348	671
R8717557	1218	188	459
R8717558	1221	310	423


I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED
 IF REQUESTED ANALYSES ARE NOT SHOWN RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

Pb AQUA REGIA DECOMPOSITION / AAS

Zn AQUA REGIA DECOMPOSITION / AAS

Report by: 
D. ANDERSON
Project Geologist

Endorsed by: 
J.M. HAMILTON
Manager, Exploration
Western Canada

xc: Mining Recorder (2 copies) ✓
Western District Exploration
Kootenay Exploration

"EXHIBIT A"

STATEMENT OF EXPENDITURES

For Rock Geochemistry - Sampling of Well d-8-c

On the Sandy and Ald Claim Block

Fort Steele M.D.

SALARIES:

D.L. Pighin - Geologist - fieldwork, supervision etc.	12 days @ \$210/day	\$2,520
D.W.C. Calder - sample collection + preparation	4 days @ \$60/day + 31.5 hours @ \$8.50/hour	507

ASSAYS:

Cominco Exploration and Research Lab, Vancouver	403 samples @ \$3.10/sample + 5 samples @ \$5.50/sample	1,276
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TRANSPORTATION:

One 4X4 truck @ \$40/day for 10 days	<u>400</u>
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TOTAL = \$4,703



D. ANDERSON
Project Geologist

IN THE MATTER OF THE
B.C. MINERAL ACT
AND
IN THE MATTER OF A ROCK GEOCHEMICAL SAMPLING PROGRAM
CARRIED OUT ON WELL HOLE MOYIE d-8-c
SANDY AND ALD CLAIMS
CRANBROOK AREA


in the Fort Steele Mining Division of
the Province of British Columbia

More Particularly N.T.S. 82G/5

A F F I D A V I T

I, D. Anderson, of the City of Cranbrook, in the Province of British Columbia, make Oath and say:

1. That I am employed as a Geologist by Cominco Ltd. and as such, have a personal knowledge of the facts to which I hereinafter depose:
2. That annexed hereto and marked as Exhibit "A" to this my Affidavit is a true copy of expenditures incurred on a rock geochem sampling program of well cuttings from the Sandy and Ald claims.
3. That the said expenditures were incurred between the 15th day of December, 1986 and the 11th day of April, 1987 for the purpose of mineral exploration on the above noted claims.


D. ANDERSON
Project Geologist

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

AUTHOR'S QUALIFICATIONS

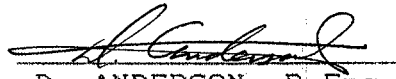
As author of this report I, D. Anderson certify that:

I am employed by Cominco Ltd. as a geologist active in mineral exploration.

I am a graduate of the University of British Columbia with a degree of Bachelor of Applied Science.

I have been continuously engaged in geology and mineral exploration for 17 years.

I am a member of the Association of Professional Engineers of British Columbia.


D. ANDERSON, P.Eng.
Project Geologist

18961

