

We are committed to providing [accessible customer service](#).

If you need accessible formats or communications supports, please [contact us](#).

Nous tenons à améliorer [l'accessibilité des services à la clientèle](#).

Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez [nous contacter](#).

Technical Report for Lackner Township, Lackner Carbonatite

Work Type: Taking Samples for Purposes of Geoscience Work / Prospecting

By Maurice Labelle, author of this report

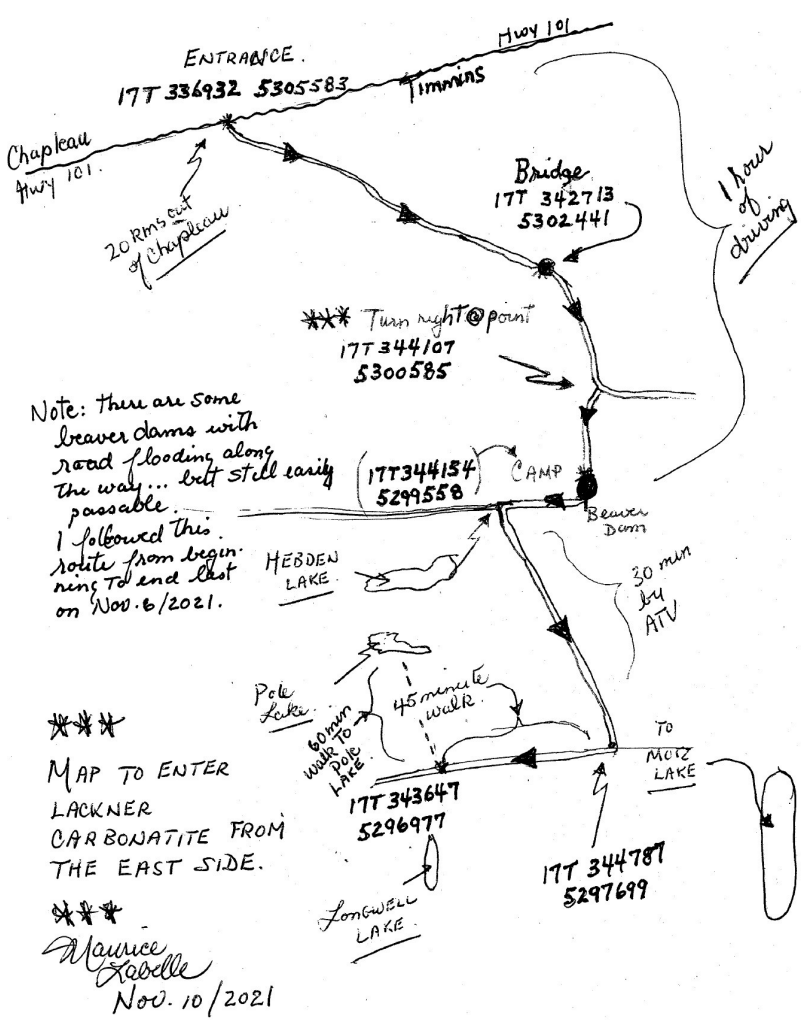
For: Maurice Labelle, owner of the patents

Date of Completion of the report: May 11, 2022

The property includes:

10 Mining Patents: S54097, S54098, S54101, S53643, S53644, S53645, S58584, S58585, S58586, S58587 also described as: PAT-28531, PAT-28532, PAT-28533, PAT-28534, PAT-28535, PAT-28536, PAT-28537, PAT-28538, PAT-28539, PAT-28540

These mining patents are situated approximately 32 km from Chapleau, Ontario. They are accessed from a southern heading logging road approximately 22 km from Chapleau going east on Hwy 101 between Chapleau and Timmins. This logging road leads directly to the Portage Complex and to the east side of the Lackner Carbonatite Complex. The distance from Hwy 101 to the complexes is about 10 km.



Date of Work performed: September 9-12, 2021

Work performed by: Maurice Labelle, Eric Labelle and Aaron Doxtator

Purpose of work performed: Sampling for Rare Earth Minerals, including Niobium, Scandium, Thorium and Uranium. No exploration permits were issued or needed.

Location of Work performed: Lackner Township, Unpatented Mining Claims: Patented Claim: PAT-28535, PAT-28539, PAT-28534



Work Description

Exploration – Sampling 1, September 9-12, 2021

September 9, 2021

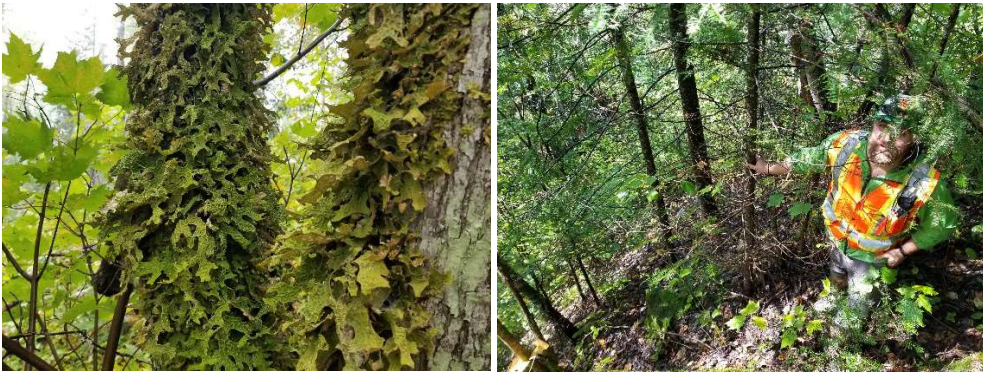
Finished loading up the gear in the motorhome along with the Argo on the utility trailer and travelled from Manitoulin Island to the entrance of the road just off Hwy 101 leading to the property. Since it was already getting dark, we decided to stay at a landing near the highway. The major concern was getting stuck on a bush road that we had not travelled in two years because of Covid.

September 10, 2021

We proceeded to the area where we setup camp removing fallen trees and logs across the road. This section of unmaintained road is approximately 12 kms long. Once there, we unloaded the Argo and we went by Argo as far as possible on the trail leading to Longwell lake. Then, we walked all the way to the point called Sample2 (17T 344014 5297071, then started to walk towards Patent corner L11 17T 343555 5296955. The walk up the steep hill was strenuous. We picked up a few samples; of which only PS1 was sent for analysis to Actlabs.

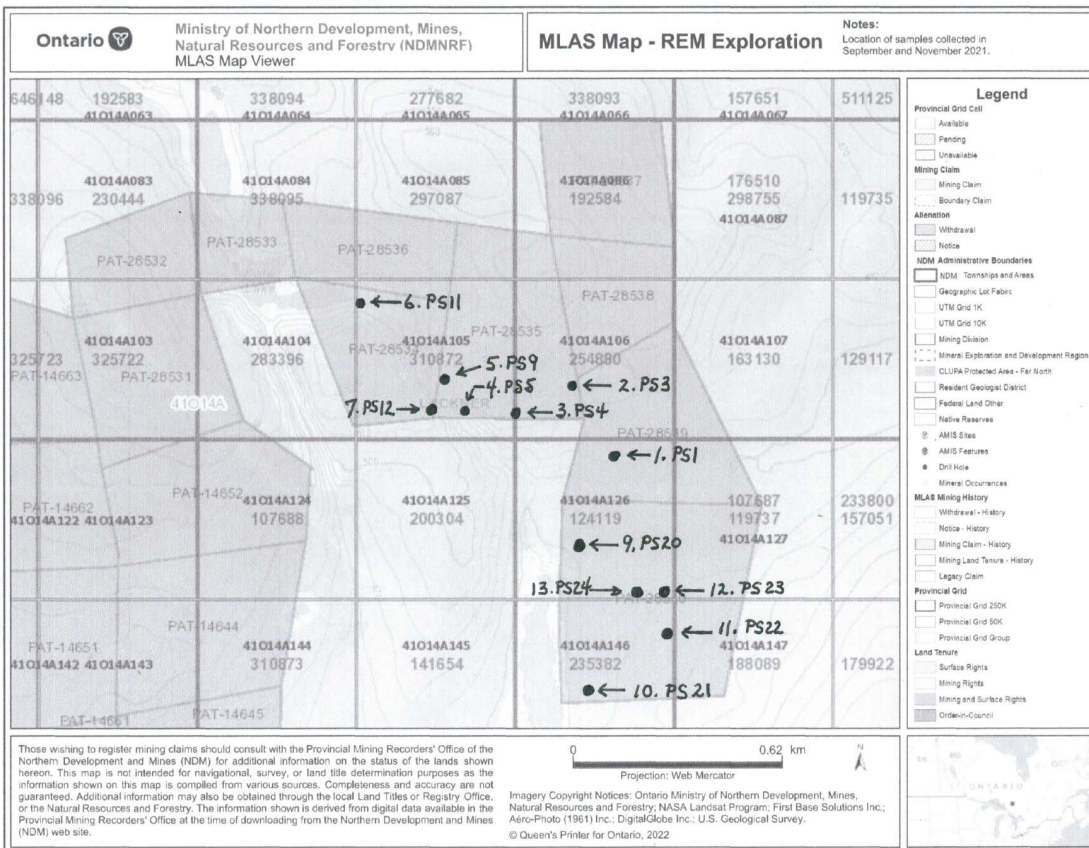
September 11, 2021

Again, we travelled as far as possible by Argo, then we used a different path towards Pole lake. Unfortunately, it rained almost the entire day. A bit more caution had to be exercised as we often walked on slippery ground and wet very uneven rocks. We walked all the way to the mid point north edge of Patent PAT-28540, then headed north until we headed west on the South edge of PAT-28535. We then followed the gorge, and took a sample on the face of the cliff (PS9) until we reached the East end of Pole Lake where we took sample PS11. Along this route, we took Samples PS3, PS4, PS5, PS9, PS11. From Pole lake, we took a different route leading back to the Argo. We took one Soil Sample PS12. During this walk, we saw unusual vegetation not encountered elsewhere. I added a photo.



September 12, 2021

Left the campsite around 7:30 in the morning. Stopped at numerous locations to look at the rock formations. We got back to Manitoulin at 5 pm.



Sample No.1, PS1, Sep10, Job Ref.: A22-03634

Mining Patent: PAT-28539

Provincial Grid Cell: 41O14A126

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM coordinates: 17, 0343508, 5297053

Porcupine Mining Division



Sample No.2, PS3, Sep11, Job Ref.: A22-03634

Mining Patent: PAT-28535

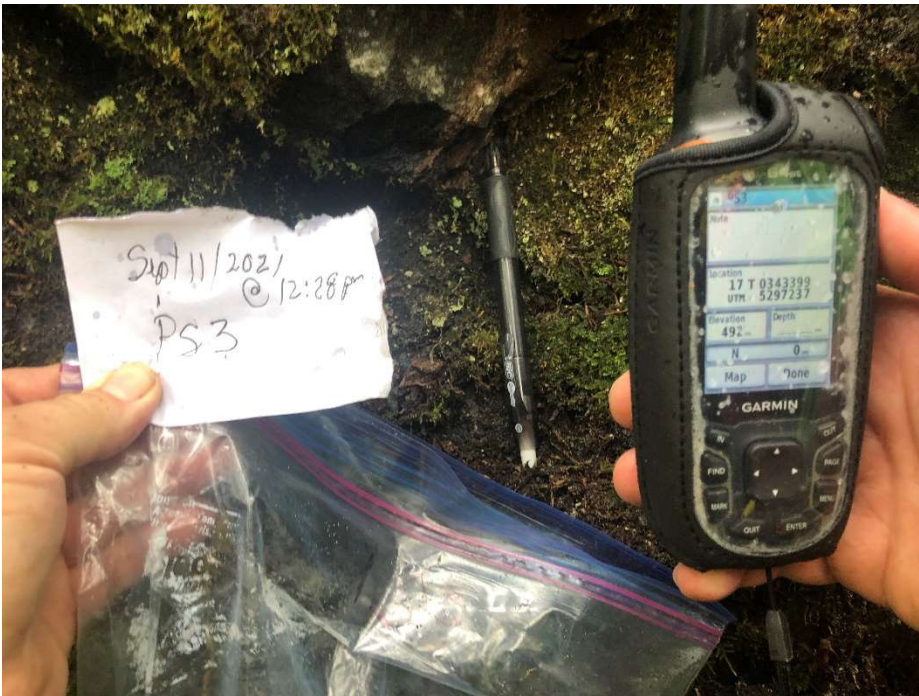
Provincial Grid Cell: 41O14A106

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM coordinates: 17, 0343399, 5297237

Porcupine Mining Division



Sample No.3, PS4, Sep11 Job Ref.: A22-03634

Mining Patent: PAT-28535

Provincial Grid Cell: 41O14A106

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343248, 5297171

Porcupine Mining Division



Sample No.4, PS5, Sep11 Job Ref.: A22-03634

Mining Patent: PAT-28535

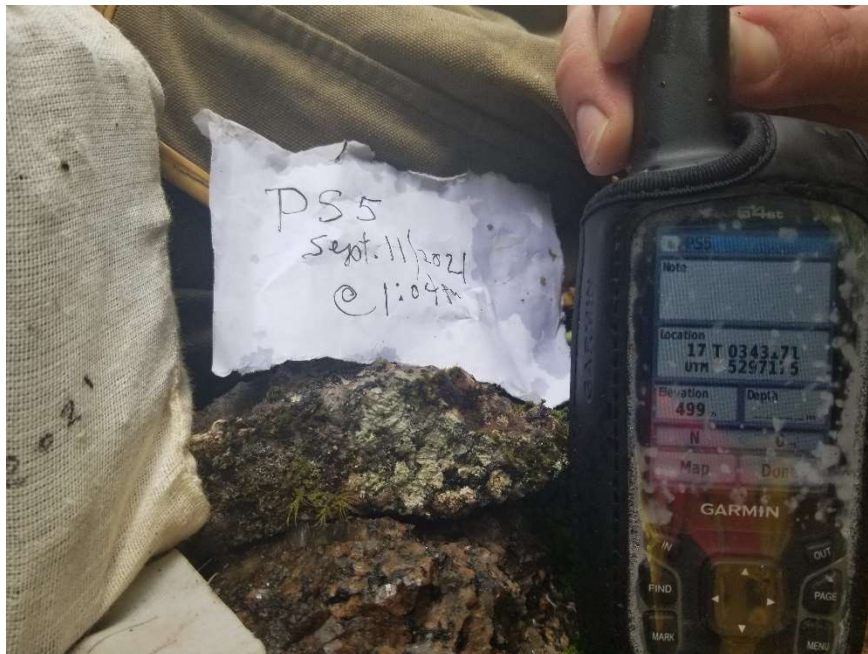
Provincial Grid Cell: 41O14A105

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343171, 5297175

Porcupine Mining Division



Sample No.5, PS9, Sep11 Job Ref.: A22-03634

Mining Patent: PAT-28535

Provincial Grid Cell: 41O14A105

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343058, 5297262

Porcupine Mining Division



Sample No.6, PS11, Sep11 Job Ref.: A22-03634

Mining Patent: PAT-28534

Provincial Grid Cell: 41O14A105

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0342826, 5297530

Porcupine Mining Division



Sample No.7, PS12, Soil Sample, Sep11, Job Ref.: A22-03634

Mining Patent: PAT-28535

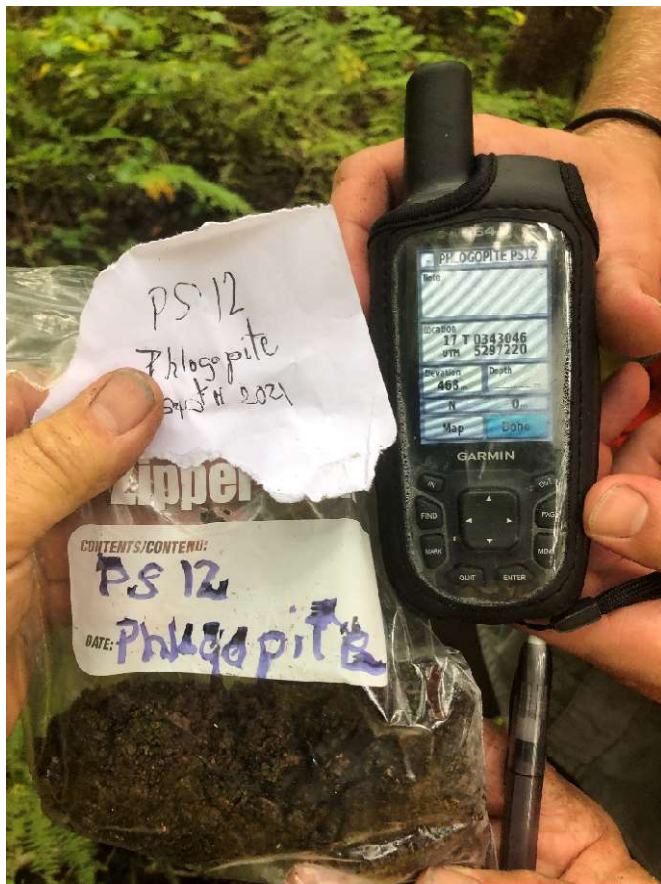
Provincial Grid Cell: 41O14A105

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343046, 5297220

Porcupine Mining Division



Date of Work performed: November 5-7, 2021

Work performed by: Maurice Labelle and Eric Labelle

Purpose of work performed: Sampling for Rare Earth Minerals, including Niobium, Scandium, Thorium and Uranium. No exploration permits were issued or needed.

Location of Work performed: Lackner Township, Unpatented Mining Claims: 511137 and Patented Claim: PAT-28540

Work Description

Exploration – Sampling 2, November 5-7, 2021



November 5, 2011

After completing the usual preparations, we left Manitoulin Island at 11:30 am. We arrived in Chapleau and at the entrance off Hwy 101 at 4:45 pm. It was already getting dark, but we decided to try to make it to the campsite. Even though some sections of the unmaintained road had become more difficult to travel we made it to our destination. We unloaded the ATV and placed our equipment underneath the trailer, getting everything ready for the next morning. During the evening, we connected the GPS to the laptop and planned the walk through the mature cedar forest in Patent Pat-28540. This was a suggestion from Ed Van Hees of Timmins noting the importance of the mature cedar forest. The eventual goal, as suggested by him, is to take channel sampling from bedrock in this area.

November 6, 2011

Using the ATV, we went as far as possible along the east entrance trail leading to Longwell Lake, then continued on foot. We proceeded walking mostly following the West side of Pat-28540, along Longwell Lake. Again, the terrain was rugged and uneven with many boulders available to sample. The cedars were not exactly what would have been expected knowing that this is a mature cedar forest and that gigantic cedars exist on claims just east of this patent. Their sizes ranged from small to a diameter of about 2 feet. We took five rock samples, PS20 to PS24. At 3pm we headed back to the ATV by following a different path just slightly East of the that taken following the lake.

November 7, 2011

Eric and I returned to Pat-28540 to walk the east half of the patent. We took more samples. They resembled the same composition as those taken the previous day (PS20 to PS24). We returned to the campsite at 4pm. Knowing that we had just enough daylight to get out, we quickly loaded the ATV and the equipment and was back out to the highway by 5:15pm.

Sample No.9, PS20, Nov6, Job Ref.: A22-03634

Mining Patent: PAT-28540

Provincial Grid Cell: 41O14A126

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343428, 5296787

Porcupine Mining Division



Sample No.10, PS21, Nov6, Job Ref.: A22-03634

Mining Patent: PAT-28540

Provincial Grid Cell: 41O14A146

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343685, 5296572

Porcupine Mining Division



Sample No.11, PS22, Nov6, Job Ref.: A22-03634

Mining Patent: PAT-28540

Provincial Grid Cell: 41O14A146

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343685, 5296572

Porcupine Mining Division



Sample No.12, PS23, Nov6, Job Ref.: A22-03634

Mining Patent: PAT-28540

Provincial Grid Cell: 41O14A126

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343622, 5296661

Porcupine Mining Division



Sample No.13, PS24, Nov6, Job Ref.: A22-03634

Mining Patent: PAT-28540

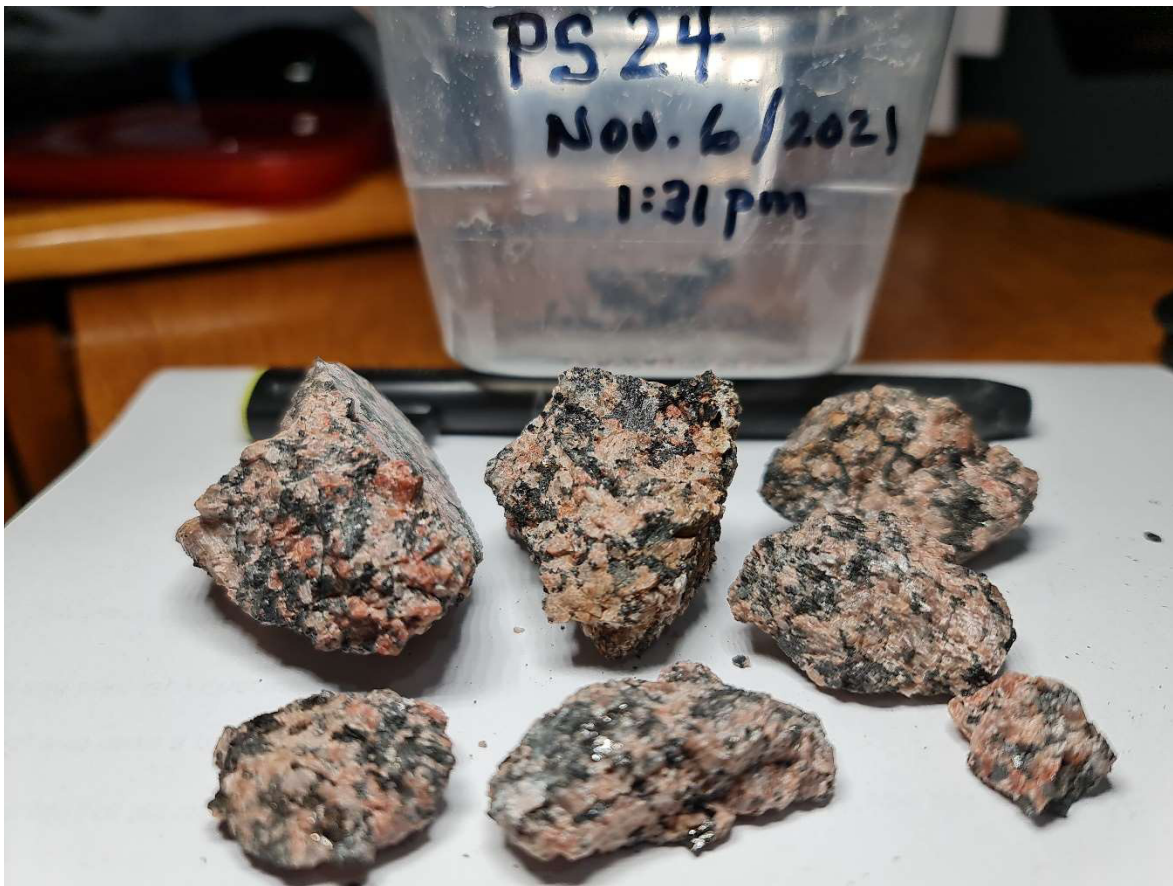
Provincial Grid Cell: 41O14A126

Provincial Grid Group: 41O14A

MNDM Townships and Areas: LACKNER

UTM Grid 1K: 17, 0343573, 5296694

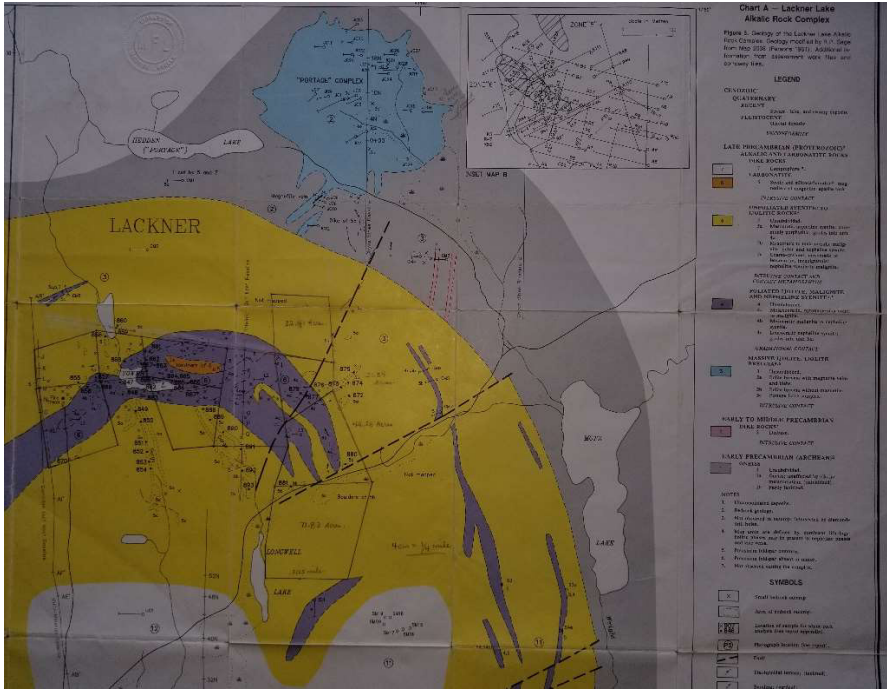
Porcupine Mining Division



Map from Ontario Geological Survey, Study 32

Geology of Carbonatite – Alkalic Rock Complexes in Ontario: Lackner Lake Alkalic Rock Complex, 1988

By Ron P. Sage. Shows lakes, streams, roads and geological features on the claims and patents.



Final notes:

Samples were all taken at random and simply chosen from a visual perspective and ease of availability. We did not have any instruments of any kind. A spectrometer would have been nice to pinpoint more accurately samples containing higher ppms of U or Th. On this property, as it previously has been indicated, these relatively higher concentrations of U or Th have been associated with greater concentration of Niobium and REEs respectively. Also, it has been pointed out that a sample taken at one location could sometimes have a completely different results if taken 15cm to one side or the other. This is why these samples truly represent an average.

A visual identification of the samples was considered but then, I decided to simply photograph them. Note that I have also kept half of the samples, cut with a rock saw, that can be used to re-associate visuals to the Actlabs results, something that I did not do in the past.



Report No.: A22-03634
Report Date: 02-May-22
Date Submitted: 17-Mar-22
Your Reference: Lackner Carbonatite

REM Exploration
75 Honora Lakeshore Rd.
Little Current On
Canada

ATTN: Maurice Labelle

CERTIFICATE OF ANALYSIS

15 Rock samples were submitted for analysis.

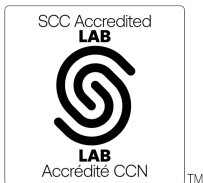
Table with 2 columns: Analytical package requested (8-REE Assay Package, QOP WRA/ QOP WRA 4B2 (Major/Trace Elements Fusion ICPOES/ICPMS)) and Testing Date (2022-03-25 09:02:00)

REPORT A22-03634

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Total includes all elements in % oxide to the left of total.



LabID: 266

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

CERTIFIED BY:

[Handwritten signature]

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
PS1	34.79	9.78	13.81	0.555	4.61	19.25	4.39	2.18	1.219	1.20	7.34	99.12	14	9	121	80	26	60	90	520	11	< 1	23
PS3	44.15	14.97	10.36	0.461	5.60	10.43	6.62	3.64	0.935	1.48	1.42	100.1	15	24	75	230	28	120	20	260	23	2	12
PS4	52.31	20.08	6.62	0.206	0.47	3.13	7.68	7.31	0.182	0.15	0.51	98.66	< 1	4	9	< 20	4	< 20	< 10	60	19	< 1	< 5
PS5	48.97	20.77	9.62	0.310	1.20	4.40	6.02	6.19	0.628	0.37	1.41	99.88	2	5	14	< 20	9	< 20	10	130	14	< 1	< 5
PS9	51.00	21.11	7.47	0.215	0.94	3.30	7.63	6.96	0.347	0.18	0.67	99.81	3	4	24	30	6	< 20	10	80	16	< 1	< 5
PS11	42.15	15.70	12.98	0.394	4.66	9.96	6.50	3.59	1.261	1.38	0.82	99.39	11	11	152	130	29	70	10	170	16	< 1	5
PS12	51.55	21.62	6.05	0.195	0.79	3.04	6.78	6.69	0.272	0.26	2.90	100.2	2	4	20	< 20	5	20	< 10	60	15	< 1	< 5
PS20	46.70	11.32	15.57	0.426	4.48	12.51	5.55	2.29	1.669	< 0.01	0.01	100.5	38	11	191	90	38	90	30	160	15	1	< 5
PS21	45.33	17.06	12.46	0.411	3.06	7.77	6.27	5.20	0.951	0.94	1.01	100.5	5	6	55	30	19	40	30	160	15	1	< 5
PS22	45.79	17.85	10.81	0.329	3.25	8.02	6.75	5.00	0.954	0.73	0.64	100.1	8	5	102	30	21	50	30	150	15	< 1	< 5
PS23	47.86	19.77	7.22	0.245	1.91	5.58	7.07	7.20	0.334	0.85	1.34	99.39	5	7	33	90	10	30	< 10	110	16	< 1	< 5
PS24	48.36	17.91	10.39	0.346	2.24	6.45	7.03	5.37	0.632	0.50	0.80	100.0	5	6	58	70	14	40	20	140	15	< 1	< 5
CS10	26.44	7.50	4.21	0.305	2.08	28.33	2.85	2.75	0.377	1.14	21.40	97.40	7	4	54	30	6	30	< 10	90	11	< 1	< 5
CS20	66.76	15.76	4.14	0.069	1.65	4.13	4.42	1.21	0.438	0.14	0.95	99.68	7	1	58	40	11	30	20	40	15	< 1	< 5
CS21	64.14	15.81	7.67	0.160	1.93	1.99	3.85	2.35	0.796	0.02	1.01	99.72	26	1	206	150	21	70	60	90	18	1	< 5

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
PS1	80	1543	60	386	315	< 2	7.7	< 0.2	4	25.7	1.4	2002	< 0.4	301	580	60.6	222	31.8	8.90	21.5	2.7	13.8	2.3
PS3	179	1832	60	1024	460	2	0.8	< 0.2	6	0.6	4.4	2220	< 0.4	400	751	81.8	261	37.3	10.0	22.9	2.8	14.1	2.3
PS4	201	1018	6	389	69	< 2	< 0.5	< 0.2	3	< 0.5	1.0	1140	< 0.4	49.9	104	11.6	42.0	5.8	1.60	3.2	0.4	1.9	0.3
PS5	138	2307	18	284	252	< 2	< 0.5	< 0.2	2	< 0.5	1.2	3725	< 0.4	112	229	24.8	90.5	12.2	3.72	7.7	1.0	4.7	0.8
PS9	166	1535	9	206	160	< 2	< 0.5	< 0.2	2	< 0.5	0.6	2223	< 0.4	63.5	125	13.5	49.9	6.5	1.90	4.2	0.5	2.4	0.4
PS11	125	1803	43	415	518	< 2	< 0.5	< 0.2	3	< 0.5	2.7	2520	< 0.4	244	497	52.4	191	27.7	7.60	17.8	2.3	11.0	1.8
PS12	142	1626	13	247	236	< 2	< 0.5	< 0.2	2	< 0.5	0.7	2238	< 0.4	75.2	157	15.9	58.7	8.3	2.47	5.3	0.7	3.3	0.6
PS20	37	1099	14	195	148	< 2	< 0.5	< 0.2	2	< 0.5	0.5	1564	< 0.4	35.1	92.0	12.1	50.1	8.5	2.55	5.6	0.7	4.0	0.7
PS21	151	1533	39	388	640	< 2	< 0.5	< 0.2	2	< 0.5	2.5	1180	< 0.4	224	455	49.2	180	25.0	6.49	15.7	2.0	9.5	1.5
PS22	128	1756	29	338	293	< 2	< 0.5	< 0.2	2	< 0.5	1.0	2016	< 0.4	187	359	37.8	138	19.2	5.24	12.1	1.5	7.4	1.2
PS23	312	1345	26	201	201	2	< 0.5	< 0.2	2	0.6	5.0	583	< 0.4	213	399	41.5	147	18.4	4.51	11.4	1.3	6.3	1.0
PS24	126	1778	24	380	316	< 2	< 0.5	< 0.2	2	< 0.5	0.9	3051	< 0.4	138	279	30.4	112	15.5	4.31	9.8	1.2	5.8	1.0
CS10	53	8772	72	94	56	< 2	< 0.5	< 0.2	3	< 0.5	0.9	1477	< 0.4	325	612	63.3	229	34.6	9.55	23.6	3.1	16.1	2.8
CS20	35	371	11	141	8	< 2	< 0.5	< 0.2	1	< 0.5	< 0.5	1840	< 0.4	19.5	37.9	4.16	16.0	2.7	0.98	2.3	0.3	2.0	0.4
CS21	81	569	20	146	9	2	< 0.5	< 0.2	< 1	< 0.5	4.5	850	< 0.4	14.2	24.7	2.48	9.0	1.2	1.32	1.5	0.3	3.1	0.8

Analyte Symbol	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
PS1	6.2	0.77	4.7	0.67	5.2	13.9	< 1	3.3	272	55.5	10.4
PS3	6.3	0.88	5.7	0.90	11.7	15.8	3	0.9	11	97.0	3.0
PS4	0.9	0.16	1.6	0.31	5.3	2.5	< 1	0.6	< 5	2.8	0.9
PS5	2.0	0.29	2.2	0.40	3.7	8.1	< 1	0.3	8	16.2	2.8
PS9	1.2	0.17	1.5	0.30	2.5	5.4	1	0.3	8	11.2	5.0
PS11	4.9	0.62	3.7	0.53	5.6	16.9	1	0.3	9	58.7	5.1
PS12	1.5	0.22	1.6	0.26	2.9	8.6	< 1	0.2	8	13.5	4.6
PS20	2.1	0.37	3.3	0.65	3.3	5.4	< 1	< 0.1	< 5	3.6	0.2
PS21	4.1	0.55	3.7	0.61	4.9	27.5	4	0.1	29	54.2	32.4
PS22	3.2	0.45	2.9	0.50	4.4	12.1	1	< 0.1	12	26.9	13.6
PS23	2.9	0.37	2.4	0.40	2.3	4.1	3	0.2	25	33.1	1.3
PS24	2.6	0.37	2.9	0.52	4.7	11.1	2	0.2	12	24.3	10.2
CS10	8.2	1.13	6.7	0.94	1.9	1.2	1	< 0.1	32	16.9	0.9
CS20	1.3	0.18	1.3	0.20	3.5	0.4	< 1	< 0.1	7	3.2	0.5
CS21	2.5	0.39	2.6	0.46	3.7	0.4	2	0.3	11	1.4	0.6

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	Rb	
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01	0.01	1	1	5	20	1	20	10	30	1	1	5	2	
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
DNC-1 Meas	47.17	18.15	9.54	0.150	9.90	11.50	1.91	0.22	0.470	0.07		31		153										
DNC-1 Cert	47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.480	0.070		31		148										
GBW 07113 Meas	70.19	12.99	3.17	0.140	0.14	0.60	2.44	5.41	0.280	0.04		5	4	< 5										
GBW 07113 Cert	72.8	13.0	3.21	0.140	0.160	0.590	2.57	5.43	0.300	0.0500		5.00	4.00	5.00										
SY-4 Meas	50.05	20.64	6.23	0.110	0.50	8.15	6.95	1.67	0.290	0.13		1	3	6					90	32			54	
SY-4 Cert	49.9	20.69	6.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131		1.1	2.6	8.0		2.8			93	35			55.0	
BIR-1a Meas	48.23	15.78	11.50	0.170	9.60	13.62	1.82	0.01	0.970	0.03		44	< 1	336	400	52	180	130	70	13				
BIR-1a Cert	47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021		44	0.58	310	370	52	170	125	70	16				
ZW-C Meas															60				1070	94			8700	
ZW-C Cert															56.0				1050	99			8500	
OREAS 101b (Fusion) Meas																45		430						
OREAS 101b (Fusion) Cert																47		420						
NCS DC86318 Meas																							387	
NCS DC86318 Cert																							369.42	
AMIS 0129 Meas	9.36	2.62	61.23	0.346	2.00	0.82			22.23						2795									
AMIS 0129 Cert	9.57	2.75	62.31	0.36	2.07	0.80			22.94						2689									
NCS DC19003a Meas	3.86	4.32	74.83	0.358	3.20	1.08			12.83						3345									
NCS DC19003a Cert	3.96	4.40	75.45	0.364	3.17	1.05			12.96						3132									
USZ 25-2006 Meas																35	70		660					
USZ 25-2006 Cert																32.5	70.8		600					
BCR-2 Meas	54.57	13.68	13.78	0.190	3.51	7.20	3.15	1.79	2.240	0.35		33		433										
BCR-2 Cert	54.1	13.5	13.8	0.196	3.59	7.12	3.16	1.79	2.26	0.35		33		416										
USZ 42-2006 Meas																4	< 20	20	470				61	
USZ 42-2006 Cert																7.89	13.18	27.37	469				67.12	
REE-1 Meas															290	1	30	80					133	1050
REE-1 Cert															277	1.58	24.7	79.7					124	1050
W-2b Meas	53.25	15.28	10.83	0.170	6.18	11.11	2.24	0.62	1.070	0.13		36	< 1	275	90	44	80	110	80	17	1	< 5	20	
W-2b Cert	52.4	15.4	10.7	0.163	6.37	10.9	2.14	0.626	1.06	0.140		36.0	1.30	262	92.0	43.0	70.0	110	80.0	17.0	1.00	1.20	21.0	
PS22 Orig	45.82	17.85	10.77	0.330	3.24	8.01	6.79	5.03	0.955	0.75	100.2	8	5	103	40	21	50	30	150	15	< 1	< 5	134	
PS22 Dup	45.76	17.84	10.84	0.327	3.25	8.02	6.72	4.97	0.952	0.72	100.0	8	6	102	30	20	50	30	140	14	< 1	< 5	122	
Method Blank	0.01	< 0.01	0.01	0.003	< 0.01	0.01	< 0.01	< 0.01	< 0.001	< 0.01		< 1	< 1	< 5	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5	< 2	
Method Blank	0.01	< 0.01	< 0.01	0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001	0.02		< 1	< 1	< 5										
Method Blank	0.01	< 0.01	0.01	0.003	< 0.01	0.01	< 0.01	< 0.01	< 0.001	0.01		< 1	< 1	< 5										

Analyte Symbol	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
DNC-1 Meas	140	14	38								107												
DNC-1 Cert	144.0	18.0	38								118												
GBW 07113 Meas	41	43	386								496												
GBW 07113 Cert	43.0	43.0	403								506												
SY-4 Meas	1206	111	535	14						1.5	347		60.9	130	15.2	60.0	13.5	1.95	13.9	2.7	19.1	4.4	14.3
SY-4 Cert	1191	119	517	13						1.5	340		58	122	15.0	57	12.7	2.00	14.0	2.6	18.2	4.3	14.2
BIR-1a Meas	109	12	18	< 1							8		0.7	2.0		2.6	1.2	0.54	2.0				
BIR-1a Cert	110	16	18	0.6							6		0.63	1.9		2.5	1.1	0.55	2.0				
ZW-C Meas				215				1350	4.5	270			31.7		10.0	27.0	7.3			4.8			
ZW-C Cert				198				1300	4.2	260			30.0		9.5	25.0	6.6			4.70			
OREAS 101b (Fusion) Meas					20								831	1430	133	413	52.0	8.29		5.7	33.9	6.8	19.9
OREAS 101b (Fusion) Cert					21								789	1331	127	378	48	7.77		5.37	32.1	6.34	18.7
NCS DC86318 Meas										11.3			1990	435	737	3390	1710	19.3	2220	483	3130	591	1710
NCS DC86318 Cert										11.88			1960	432	737	3429	1725	18.91	2168	468	3224	560	1750
AMIS 0129 Meas																							
AMIS 0129 Cert																							
NCS DC19003a Meas																							
NCS DC19003a Cert																							
USZ 25-2006 Meas													19000	30500	2730	8420	868	202					
USZ 25-2006 Cert													19300	29000	2800	8800	900	211.00					
BCR-2 Meas	333	31	187								697												
BCR-2 Cert	346	37	188								683												
USZ 42-2006 Meas				37	37								22000	29800	2420	6760	530	89.0			53.0	7.9	
USZ 42-2006 Cert				31.00	34.40								21100	27600	2300	6500	539	87.22			57.63	7.86	
REE-1 Meas								508		1.1			1740	4190	454	1550	408	24.7	435	112	897	215	708
REE-1 Cert								498		1.07			1661	3960	435	1456	381	23.5	433	106	847	208	701
W-2b Meas	196	19	97	8	< 2				0.5	1.1	180	< 0.4	11.0	25.1		13.8	3.5			0.6			2.3
W-2b Cert	190	24.0	94.0	7.90	0.600				0.790	0.990	182	0.0300	10.0	23.0		13.0	3.30			0.630			2.50
PS22 Orig	1747	29	338	307	< 2	< 0.5	< 0.2	2	< 0.5	1.1	2023	< 0.4	195	375	39.2	143	19.7	5.45	12.5	1.6	7.6	1.3	3.3
PS22 Dup	1765	29	337	279	< 2	< 0.5	< 0.2	2	< 0.5	1.0	2008	< 0.4	179	343	36.4	132	18.7	5.04	11.7	1.5	7.1	1.2	3.1
Method Blank	< 2	< 2	< 4	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	< 3	< 0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 2	< 2	< 4								< 3												
Method Blank	< 2	< 2	< 4								< 3												

Analyte Symbol	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
DNC-1 Meas										
DNC-1 Cert										
GBW 07113 Meas										
GBW 07113 Cert										
SY-4 Meas	2.29	15.0	2.23	9.9	0.8			11	1.3	0.8
SY-4 Cert	2.3	14.8	2.1	10.6	0.9			10	1.4	0.8
BIR-1a Meas		1.8	0.30	0.6				< 5		
BIR-1a Cert		1.7	0.3	0.60				3		
ZW-C Meas					86.1	329	37.1			19.6
ZW-C Cert					82	320	34			20.0
OREAS 101b (Fusion) Meas	2.92	18.6							37.1	406
OREAS 101b (Fusion) Cert	2.66	17.6							37.1	396
NCS DC86318 Meas	266	1760	260						67.4	
NCS DC86318 Cert	271	1844	264						67.0	
AMIS 0129 Meas										
AMIS 0129 Cert										
NCS DC19003a Meas										
NCS DC19003a Cert										
USZ 25-2006 Meas		52.2						1190		
USZ 25-2006 Cert		54.5						1100		
BCR-2 Meas										
BCR-2 Cert										
USZ 42-2006 Meas		18.3						1570	937	
USZ 42-2006 Cert		17.85						1600	946	
REE-1 Meas	110	696		484					773	150
REE-1 Cert	106	678		479					719	137
W-2b Meas		2.1	0.35	2.5	0.5	7	< 0.1	7	2.2	0.5
W-2b Cert		2.10	0.330	2.60	0.500	0.300	0.200	9.30	2.40	0.530
PS22 Orig	0.48	3.0	0.50	4.8	12.6	1	< 0.1	12	28.0	13.9
PS22 Dup	0.42	2.8	0.50	4.2	11.7	2	< 0.1	11	25.8	13.2
Method Blank	< 0.05	< 0.1	< 0.04	< 0.2	< 0.1	< 1	< 0.1	< 5	< 0.1	< 0.1
Method Blank										
Method Blank										

