

## **QUARTERLY ACTIVITIES REPORT**



PERIOD ENDING 31 MARCH 2011

- Announcement of the upgraded Inferred Resource and Exploration Potential estimates:
  - 87% increase in Inferred Resource to 92Mt @ 320 ppm eU<sub>3</sub>O<sub>8</sub> for 65Mlbs of contained U<sub>3</sub>O<sub>8</sub>
  - Exploration Target of 17 to 39 million pounds U<sub>3</sub>O<sub>8</sub> at a grade of 250 to 350 ppm
- Upgraded resource is based on a combination of new detailed (KORES) mapping, ground radiometrics, costean sampling data and a much greater level of understanding of the local structure and stratigraphy gained largely from recent re-logging of historical drill core.
- Positive Scoping study and excellent preliminary metallurgy results confirm Daejon Uranium Project on track with strong upside potential.
- Scoping study indicates favourable net cash costs of US \$24.50/lb Uranium (U<sub>3</sub>O<sub>8</sub>) with Vanadium credits.
- Leach tests show that > 90% uranium is extracted under weak acidic conditions and a leach temperature of 50°C and that 50% vanadium is extracted from a secondary flow circuit.
- Strong multi-element assays returned from Daejon adit channel sampling.

#### **Detailed Operations and Exploration Review:**

During the Quarter, Stonehenge Metals Limited (**Stonehenge** or the **Company**) made further significant progress in developing its uranium projects in South Korea.

### **Daejon Project Resource Estimate**

The Mineral Resource has been estimated at **92 million tonnes averaging 320 ppm eU**<sub>3</sub> $O_8$  for a contained **65 million pounds of eU**<sub>3</sub> $O_8$  at a lower cut-off grade of 200 ppm eU<sub>3</sub> $O_8$ . The entire resource is classified into the Inferred Resource category.

The Mineral Resource Estimate has been prepared by independent consultants Snowden Mining Industry Consultants Pty Ltd and is reported in accordance with the JORC Code (2004). The resource is summarised in the table below and is reported from the three prospects Chubu, Yokwang and Kolnami. Chubu and Yokwang are hosted by graphitic slate units and Kolnami is hosted by calc-silicate hornfels units. A default density of 2.6 t/m³ has been used in the estimate for mineralisation. Ordinary block kriging was used to interpolate grade into the model based on the current drill database, with a 700 ppm eU<sub>3</sub>O<sub>8</sub> top cut applied to the data. The Inferred Resource classification reflects the lack of industry standard QAQC data, reliance on historic data and the current drill spacing. Snowden is confident that an infill drill programme with

industry standard sampling, assaying and QAQC procedures and protocols together with metallurgical testwork will result in an upgrading of the resource classification.

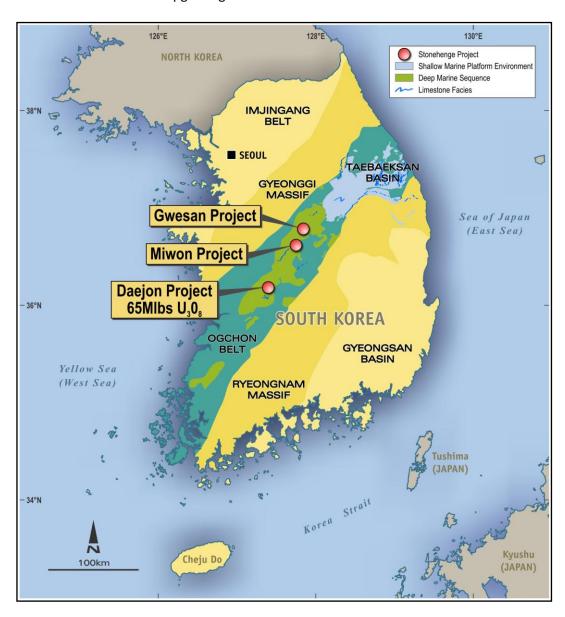


Figure 1: Map of South Korea showing the location of the Daejon Project

Daejon Inferred Resource estimate, February 2011, reported at a 200 ppm eU<sub>3</sub>O<sub>8</sub> cut-off:

Daejon Project: Inferred Resource Estimate								
Prospect	Classification	Tonnes	Grade eU₃O <sub>8</sub> (ppm)	Contained U₃O <sub>8</sub> (lbs)				
Chubu	Inferred	46,000,000	330	34,000,000				
Yokwang	Inferred	39,000,000	310	26,000,000				
Kolnami	Inferred	7,000,000	340	5,000,000				
Total		92,000,000	320	65,000,000				

Daejon Project: Conceptual Exploration Target <sup>1</sup>							
	Tonnage Range (Mt)	Grade Range eU₃O <sub>8</sub> (ppm)	Contained U₃O <sub>8</sub> Range (Ibs)				
Chubu - Yokwang	30 - 50	250 - 350	17 – 39 million				

N.B. Totals may not add due to rounding of input numbers. Resource estimates have been conducted in accordance with JORC Guidelines.

<sup>&</sup>lt;sup>1</sup>The potential quantity and grade of the Daejon Uranium Project Conceptual Exploration Targets are conceptual in nature and there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.

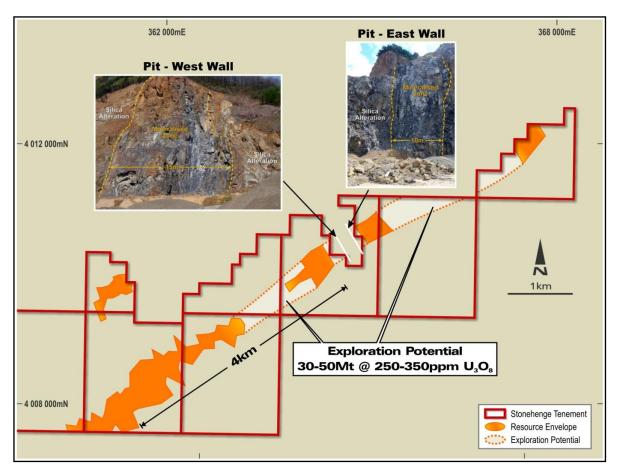


Figure 2: Showing the location of the updated resource estimate and Exploration Potential at the Daejon Project, South Korea.

The increased resource is based on a combination of new information including new detailed (1: 5,000 scale) geological mapping over much of the deposit by KORES in 2009. This mapping was unknown to SHE at the time of the previous resource estimate. KORES also completed ground radiometric traverses at 50 metre, spacings along strike over much of the deposit at the same time. All of this information is contained within a 175 page report prepared on the Project by KORES in 2009. The report also contains a full set of detailed, graphic logs of every drill hole in the Project.

In addition to this information, SHE now has the assay results from a number costeans excavated along the strike of the resource which demonstrate the along strike continuity of the mineralisation.

Recently Stonehenge geologists have been able to gain access to the historic drill core from the original drilling at the Daejon Project through an Access Agreement signed with the Korean government agency,

KIGAM. The drill core is in excellent condition and the re-logging has greatly added to SHE's overall understanding of the structure, lithologies and stratigraphy of the Daejon mineralisation.

#### **Scoping Study Results:**

Preliminary leach tests on two bulk metallurgical samples from the Company's Daejon Project in South Korea consisting of both black graphitic coal and grey slate have delivered excellent uranium recoveries. Uranium extraction of over **90%** was achieved from the samples using weak acidic conditions, atmospheric pressure and a leach temperature of 50°C. Both ore types had very low acid consumptions at <10 kg acid / tonne ore.

Significant work has been undertaken to determine the potential to commercially extract the vanadium present in the deposit. The use of more intensive leach conditions was examined and early test work has demonstrated promising results with approximately 50% vanadium extraction at a leach temperature of 95°C after 8 hours.

Results of the metallurgical test program have been applied to a conceptual flow sheet developed by Clean TeQ to recover uranium and vanadium with an extremely positive outcome.

Clean TeQ has used current Korean power and chemical costing (input costs are shown in the table below) and based on conservative assumptions from the test program, a cash cost of  $US$24.50 / lb U_3O_8$  can be achieved. This cash cost is based upon a vanadium by-product credit – assuming a sale price of US\$13 / lb V A more comprehensive laboratory test work program will commence shortly to target improving vanadium extraction. Preliminary capital cost estimates will also be developed for the processing flowsheet over the next Quarter.

Mineralogy (by scanning electron microscope or SEM) of the metallurgical samples confirmed uranium was present as uraninite ( $UO_2$ ) which can be easily liberated via a conventional crush, SAG and ball mill circuit to a grind size of 150  $\mu$ m. SEM analysis has shown that the vanadium was found to be associated with network silicate minerals, notably calcic feldspars and calcic amphiboles. The calcic feldspars typically carry up to 5-10% vanadium. Occurrence of vanadium in calcic feldspars is contrary to previous understanding, where the vanadium was thought to be associated with white mica. This new information will aid the metallurgists in their design of a process to liberate the vanadium from the mineralisation.

## **Daejon Adit Sampling:**

The Company has recently received the results of selective sampling of a 350 metre long adit that was developed into the central part of the Daejon ore body. The adit extends both through and along the strike of the uranium ore body. No detailed structural mapping has been completed in the adit, consequently the sampled length should not be construed as true widths.

The sampling was designed to reproduce the results of previous historical sampling completed by KORES. The KORES samples were only assayed for uranium and vanadium. The recent SHE samples were assayed for a wide range of elements (35 elements in total) including, uranium, vanadium, molybdenum, nickel, zinc and silver. A complete set of results is included as <u>Appendix 2</u>.

Two coherent zones of multi-element mineralisation have been identified by the adit sampling, these include:

• Samples CB001 – 049:

○ 49m @ 212 ppm  $U_3O_8$ , incl: 10m @ 436 ppm  $U_3O_8$ ○ 49m @ 334 ppm Mo, incl: 10m @ 700 ppm Mo ○ 49m @ 396 ppm Ni, incl: 10m @ 692 ppm Ni ○ 49m @ 546 ppm Zn and incl: 10m @ 1,013 ppm Zn ○ 49m @ 4,754 ppm  $V_2O_5$  incl: 24m @ 7,171 ppm  $V_2O_5$ 

## • Samples CB051 - 113:

63m @ 382 ppm U<sub>3</sub>O<sub>8</sub>, incl: 9m @ 502 ppm U<sub>3</sub>O<sub>8</sub>, and 17m @ 459 ppm U<sub>3</sub>O<sub>8</sub> incl: 22m @ 622 ppm Mo 0 63m @ 491 ppm Mo, 63m @ 533 ppm Ni, incl: 22m @ 606 ppm Ni 0 0 63m @ 842 ppm Zn and incl: 15m @ 998 ppm Zn, and 10m @ 2,201 ppm Zn 60m@ 3,210 ppm V<sub>2</sub>O<sub>5</sub> incl: 12m @ 4,281 ppm V<sub>2</sub>O<sub>5</sub> 10m @ 4,275 ppm V<sub>2</sub>O<sub>5</sub>

The assay results clearly demonstrate the multi-element nature of the deposit. The sampling also shows that the deposit hosts wide zones of uranium mineralisation at grades well above the previously announced bulk grade of the deposit, and that there are wide intervals with significant grades of Molybdenum (Mo), Nickel (Ni) and Zinc (Zn) which could add considerable value to the deposit.

In the near future a comprehensive sampling program will be conducted the whole length of the adit and assayed for an expanded suite of elements. There is strong evidence to suggest that some zones of Rare Earth Elements might also be included in the mineralisation.

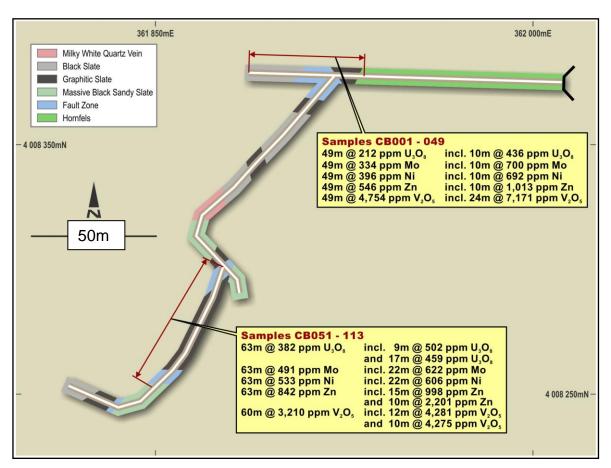


Figure 3: Results of recent channel sampling at the Daejon Adit

#### **Competent Persons Statement**

The geological information contained in this ASX release relating to South Korean Exploration Results has been compiled by Mr. Simon Fleming of Stonehenge Metals Limited. Mr. Fleming is a Fellow of The Australian Institute of Geoscientists and Mr. Fleming has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

The information contained in this ASX release relating to Mineral Resources has been compiled by Mr. Michael Andrew of Snowden Mining Industry Consultants Pty Ltd. Mr. Andrew is a Member of The Australian Institute of Mining and Metallurgy. Mr. Andrew has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Andrew consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **Corporate Activity**

#### **Tasmania**

The planned divestment of the Heemskirk Tin Project, as outlined in the September 2009 Quarterly report, remains subject to approval by the Department of Infrastructure, Energy and Resources (Tasmania). An inspection of the site was conducted by the Department during the June 30 2010 Quarter in preparation for the finalization of the transfer.

The application for an extension of term over the Stonehenge exploration licence, EL17/2003, has been refused and the refusal is being appealed through the normal appeals process. No field work was conducted on the Company's Tasmanian tenements during the quarter. Stonehenge has had a number of requests to acquire the rights to EL 17/2003 – these are being considered on their relative merits.

Appendix 1

## **Stonehenge Tenement Details:**

Registration Number	Land Register	Number	Area (ha)	Minerals	Registration Date	Registrant	Property
76967	Goesan	114	275	Uranium	28/05//2008	Sim Jae Youl	
76942	Goesan	115	275	Uranium	14/05/2008	Sim Jae Youl	
76965	Goesan	117	275	Uranium	28/05/2008	Sim Jae Youl	
76966	Goesan	118	275	Uranium	28/05/2008	Sim Jae Youl	Goesan
76964	Goesan	124	275	Uranium	28/05/2008	Sim Jae Youl	[Gwesan]
76941	Goesan	125	275	Uranium	14/05/2008	Sim Jae Youl	
76968	Goesan	126	275	Uranium	28/05/2008	Sim Jae Youl	
76969	Goesan	128	275	Uranium	28/05/2008	Sim Jae Youl	
77018	Miwon	36	276	Uranium	11/06/2008	Sim Jae Youl	
77019	Miwon	46	276	Uranium	11/06/2008	Sim Jae Youl	
77020	Miwon	58	276	Uranium	11/06/2008	Sim Jae Youl	
77225	Miwon	37	276	Uranium	21/08/2008	Sim Jae Youl	Miwon
77291	Miwon	47	276	Uranium	23/09/2009	Sim Jae Youl	
77292	Miwon	57	276	Uranium	23/09/2009	Sim Jae Youl	
77010	Okcheon	136	138	Uranium	10/06/2008	Sim Jae Youl, Sim Jun Bo	
77011	Daejon	18	277	Uranium	10/06/2008	Sim Jae Youl, Sim Jun Bo	
77012	Daejon	28	259	Uranium	10/06/2008	Sim Jae Youl, Sim Jun Bo	
77013	Daejon	38	277	Uranium	10/06/2008	Sim Jae Youl, Sim Jun Bo	
77014	Daejon	48	277	Uranium	3/07/2008	Sim Jae Youl, Sim Jun Bo	
77038	Okcheon	147	277	Uranium	19/06/2008	Sim Jae Youl, Sim Jun Bo	Daejon
77039	Daejon	17	103	Uranium	19/06/2008	Sim Jae Youl, Sim Jun Bo	
77114	Daejon	7	190	Uranium	3/07/2008	Sim Jae Youl, Sim Jun Bo	
77115	Daejon	27	56	Uranium	3/07/2008	Sim Jae Youl, Sim Jun Bo	
77363	Daejon	47	242	Uranium	16/10/2008	Sim Jae Youl	

77364 Daejon 57 186 Uranium 16/10/2008 Sim Jae Youl
---

## **Korean Granted Mining Rights (subject to the Sim Acquisition Agreement)**

Registration Number	Land Register	Number	Area (ha)	Minerals	Registration Date	Registrant	Property
77293	Pyeonghae	123	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77294	Pyeonghae	124	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77295	Pyeonghae	125	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77296	Pyeonghae	133	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77297	Pyeonghae	138	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77298	Pyeonghae	103	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77299	Pyeonghae	104	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77300	Pyeonghae	113	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77301	Pyeonghae	114	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	Pyeonghae
77302	Pyeonghae	115	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77303	Pyeonghae	117	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77304	Pyeonghae	118	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77305	Pyeonghae	126	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77306	Pyeonghae	127	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77307	Pyeonghae	128	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77308	Pyeonghae	136	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	
77309	Pyeonghae	137	275	Uranium	23/09/2008	Se Woo Mining Co Ltd.	

# **Korean Mining Right Applications (held directly by Chong Ma)**

Registration Number	Land Register Name	Number	Area (ha)	Minerals	Registration Date	Registrant	Property Location
03673	Daejon	58	277	Uranium	Nov 16, 2010	Chong Ma	
03674	Daejon	59	277	Uranium	Nov 16, 2010	Chong Ma	Danie -
03675	Daejon	68	277	Uranium	Nov 16, 2010	Chong Ma	Daejon
03676	Daejon	69	277	Uranium	Nov 16, 2010	Chong Ma	

Daejon 70 277 Uranium Nov 16, 2010 Chong Ma	2677 Daejon 70 277 Uranium Nov 16, 2010 Chong
---	---

## Korean Mining Rights (held directly by Chong Ma)

Registration Number	Land Register Name	Number	Area (ha)	Minerals	Registration Date	Registrant	Property Location
79161	Goisan	137	275	U, V	Dec 30, 2010	Chong Ma	Gwesan

**Note:** All Mining Rights & Applications (above) have been pegged as standard 1 minute latitude X 1 minute longitude graticules and are approximately 277- 275 ha in size.

### **TASMANIAN TENEMENT SCHEDULE AS AT 20 JANUARY 2011**

Project Name	Tenement	Area	Expiry Date	Holder	Stonehenge Interest
Granville Leases/ Twelve Mile Creek - Granville East, Central Big H, North Heemskirk Alluvial, Heemskirk Tin Mill	21M/2003	68 ha	05-Mar-09	Stonehenge Metals Ltd	100% - Now subject to 100% transfer to McDermott Mining
Granville East Extended Lease	9M/2006	10 ha	09-Oct-11	Stonehenge Metals Ltd	100% - Now subject to 100% transfer to McDermott Mining
Sunshine/ McLean Creek Lease	20M/2001	21 ha	10-Mar-09 (extension application)	Stonehenge Metals Ltd	100%
Stonehenge Creek	EL17/2003	7 km²	09-Jul-10 (extension application)	Stonehenge Metals Ltd	100%

The Heemskirk Extended mining lease application (1M/2009), which was subject to transfer to McDermott Mining upon grant under the terms of the Heemskirk Project divestment lapsed during the June 30 2010 quarter. McDermott Mining will be responsible for a new application, if required, post finalisation of the Heemskirk divestment. The application for an extension of term over the Stonehenge exploration licence, EL17/2003, has been refused and the refusal is currently being appealed through the normal appeals process.

Appendix 2: Complete results of recent channel sampling at the Daejon Adit

Sample Number	Mo ppm	Ni ppm	U <sub>3</sub> O <sub>8</sub> ppm	Zn ppm	V₂O₅ ppm
CB001	153	320	59	473	1,964
CB002	92	146	47	137	910
CB003	48	69	35	155	321
CB004	117	81	94	48	<10
CB005	122	171	83	208	1,428
CB006	487	807	366	2,970	3,767
CB007	293	301	200	136	<10
CB008	310	325	389	125	<10
CB009	354	217	354	679	<10
CB010	1,220	561	413	653	1,321
CB011	569	1,350	354	1,160	6,730
CB012	1,110	1,260	436	1,220	8,676
CB013	527	393	330	955	1,517
CB014	754	515	542	150	2,481
CB015	440	341	460	1,680	1,482
CB016	394	458	377	543	2,749
CB017	748	740	566	1,370	4,106
CB018	742	854	472	1,720	4,749
CB019	493	448	413	297	2,089
CB020	89	161	83	639	500
CB021	97	132	83	178	732
CB022	124	80	130	266	375
CB023	86	78	83	2,240	214
CB024	75	77	71	291	303
CB025	146	209	165	108	250
CB026	653	828	436	701	3,445
CB027	387	442	425	1,410	821
CB028	305	584	283	1,470	3,213
CB029	97	357	165	945	2,749
CB030	418	307	118	296	2,678
CB031	196	341	153	885	3,303
CB032	561	467	236	579	2,196
CB033	353	724	189	236	3,213
CB034	979	559	200	100	4,909
CB035	179	452	94	135	7,783
CB036	156	383	94	16	7,248
CB037	180	282	130	22	9,105
CB038	157	226	118	15	4,052
CB039	135	252	94	79	3,731
CB040	154	273	106	31	4,392

CB041	284	313	130	231	10,122
CB042	313	440	142	74	10,908
CB043	414	440	165	94	14,317
CB044	309	345	142	48	18,566
CB045	196	317	118	55	18,923
Sample Number	Mo ppm	Ni ppm	U <sub>3</sub> O <sub>8</sub> ppm	Zn ppm	V₂O₅ ppm
CB046	80	271	83	84	13,407
CB047	85	268	59	40	14,799
CB048	78	244	71	120	16,531
CB049	89	179	59	715	14,853
CB050	13	17	35	215	571
CB051	333	379	354	364	536
CB052	306	223	248	558	571
CB053	74	48	59	225	428
CB054	342	598	212	2,700	4,284
CB055	480	483	531	405	2,749
CB056	422	691	436	498	2,714
CB057	367	490	354	789	2,071
CB058	484	585	483	869	2,481
CB059	327	487	342	301	2,035
CB060	327	476	366	389	2,356
CB061	548	638	436	443	1,892
CB062	579	562	637	625	2,035
CB063	398	558	436	608	2,517
CB064	498	717	377	488	3,374
CB065	478	595	377	229	3,160
CB066	553	643	377	150	3,713
CB067	337	444	295	361	1,892
CB068	429	579	377	115	2,874
CB069	434	572	377	188	2,981
CB070	372	463	342	1,760	1,910
CB071	580	525	719	159	2,107
CB072	467	427	625	173	2,321
CB073	463	457	413	217	3,338
CB074	605	783	507	120	9,051
CB075	407	569	448	289	1,714
CB076	421	463	401	188	2,517
CB077	414	207	354	185	446
CB078	450	366	554	193	1,250
CB079	478	335	495	60	946
CB080	432	231	366	194	<10
CB081	327	152	236	229	1,803
CB082	538	861	318	153	7,034
CB083	441	782	307	186	5,766
CB084	380	477	236	445	3,606
CB085	736	540	330	368	5,463
CB086	448	415	283	749	3,178
CB087	692	720	413	1,540	7,177

CB088	476	548	401	1,010	3,428
CB089	1,390	812	719	328	2,481
CB090	1,350	546	436	237	1,625
CB091	1,000	907	542	1,470	5,141
CB092	790	636	436	1,220	3,695
Sample Number	Mo ppm	Ni ppm	U₃O <sub>8</sub> ppm	Zn ppm	V <sub>2</sub> O <sub>5</sub> ppm
CB093	396	746	283	1,550	2,767
CB094	322	308	342	182	1,000
CB095	516	461	649	201	625
CB096	463	422	318	281	1,232
CB097	436	595	330	795	2,374
CB098	594	948	531	2,990	4,374
CB099	388	439	271	1,620	2,124
CB100	503	650	413	950	3,910
CB101	583	638	413	603	2,678
CB102	636	409	660	47	<10
CB103	596	463	637	47	<10
CB104	418	439	259	2,090	5,016
CB105	236	302	165	1,760	1,178
CB106	313	486	165	3,130	3,017
CB107	370	429	189	4,590	6,212
CB108	403	476	307	2,500	4,088
CB109	489	809	259	1,440	4,338
CB110	459	508	212	1,890	6,052
CB111	379	581	189	1,370	5,195
CB112	544	917	271	1,590	3,963
CB113	501	569	259	1,650	3,695