Regional Geochemical Results from the Reanalysis of NURE Stream Sediment Samples — Eagle 3° Quadrangle, East-Central Alaska

By J.G. Crock[1], P.H. Briggs[1], L.P. Gough[2], R.B. Wanty[1], and Z.A. Brown[1]

[1] U.S. Geological Survey, Box 25046, MS 964D, DFC, Denver, CO 80225-0046.
[2] U.S. Geological Survey, 12201 Sunrise Valley Dr, MS 954, Reston, VA 20192-0002 .

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Abstract

This report presents reconnaissance geochemical data for a cooperative study in the Fortymile Mining District, east-central Alaska, initiated in 1997. This study has been funded by the U.S. Geological Survey (USGS) Mineral Resources Program. Cooperative funds were provided from various State of Alaska sources through the Alaska Department of Natural Resources. Results presented here represent the initial reconnaissance phase for this multidisciplinary cooperative study. In this phase, 239 sediment samples from the Eagle 3° Quadrangle of east-central Alaska, which had been collected and analyzed for the U.S. Department of Energy's National Uranium Resource Evaluation program (NURE) of the 1970's (Hoffman and Buttleman, 1996; Smith, 1997), are reanalyzed by newer analytical methods that are more sensitive, accurate, and precise (Arbogast, 1996; Taggart, 2002). The main objectives for the reanalysis of these samples were to establish lower limits of determination for some elements and to confirm the NURE data as a reliable predictive reconnaissance tool for future studies in Alaska's Eagle 3° Quadrangle. This study has wide implications for using the archived NURE samples and data throughout Alaska for future studies.

Introduction

A cooperative effort between the U.S. Geological Survey (USGS) and the Alaska Department of Natural Resources (AK-DNR) was initiated in 1997 to provide data for addressing water quality concerns, as well as for establishing regional baseline geochemical and biogeochemical data. The USGS and the AK-DNR have investigated the environmental geochemistry of a portion of the Fortymile River watershed (fig. 1). The management of the region and its resources is complex due to diverse ownership and the many land-use interests. In 1980, the Fortymile River and its major tributaries were designated a Wild and Scenic Corridor by the Alaska National Interest Lands Conservation Act (ANILCA). Jurisdiction of the land bordering the watershed continued to be the responsibility of the U.S. Bureau of Land Management (USBLM). The AK-DNR has jurisdiction over the management of the river's recreation (rafting, canoeing, and fishing) and mining. The U. s. Environmental Protection Agency (USEPA) is also involved because mining discharges require compliance with the National Pollutant Discharge Elimination System (NPDES) of the Clean Water Act. Finally, both sport and subsistence hunting are important in the region and are managed by several Federal and State agencies.

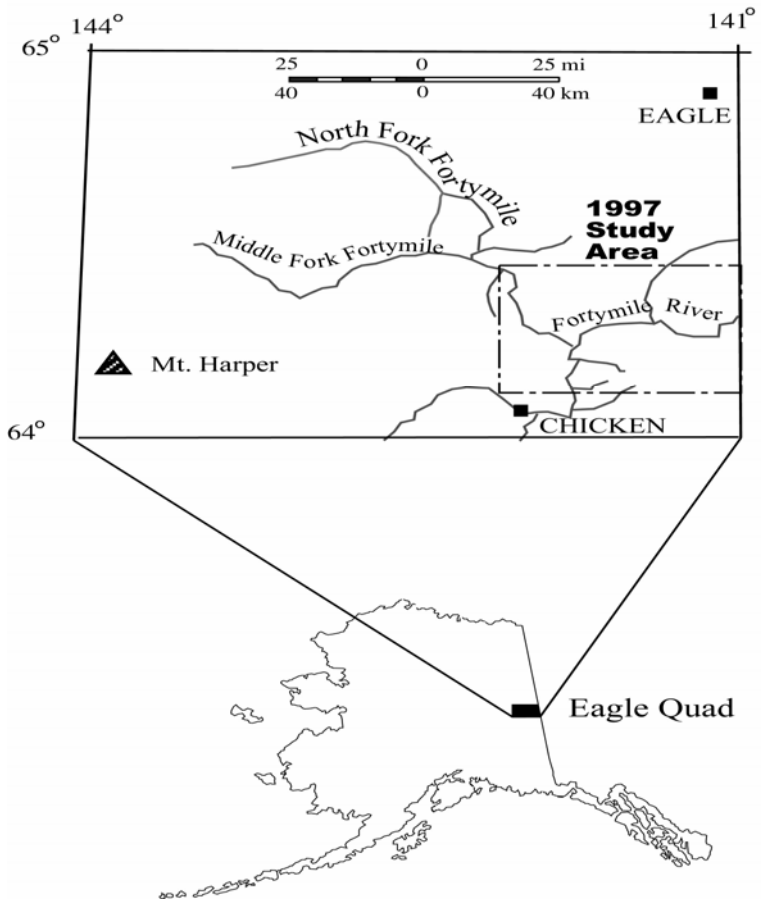

Figure 1. Location of the Eagle 3° Quadrangle and the Fortymile River study area, east-central Alaska.

Placer gold was first discovered in the Fortymile River Mining District in 1886 and has been mined there ever since. Yeend (1996) provides a summary of the gold mining history of the placers of the Fortymile River region. Historically from 1886 to 1995, the Fortymile Mining District has produced about 16,640 kg (534,974 troy oz.) of gold (Swainbank and others, 1998). Along the North Fork of the Fortymile River and just above its confluence with the South Fork, mining is currently limited to a small number of suction dredges; their combined production is only a few hundred ounces of gold per year.

Primary objectives of the completed studies in the Alaska Eagle 3° Quadrangle study were to:

- Determine the regional baseline geochemistry (waters, soils, rocks, sediments, and selected terrestrial vegetation) for a section of the Fortymile River watershed currently being mined for placer gold (suction dredge and "cat" or bulldozer operations).
- Determine regional watershed geochemical fluxes.
- Assess the influence of geology on water-rock signatures, and using these signatures try to differentiate sources of surface and hyporheic water (shallow ground water near a streambed).
- Determine the movement of metals through ecosystems of specific interest, such as permafrost muskeg terrain, upland alluvial forests, and riverine flood-plain shrub systems.
- Using both a geologic and a hydrologic framework, define the relative contribution of the various natural sources of arsenic and cadmium and other environmentally important metals to the landscape.
- Assist the State of Alaska and the USEPA in the arsenic risk-assessment process.

Subsequent to the completion of this reconnaissance phase, the USGS and its cooperators have been successful in publishing results from a multidiscipline study of the Fortymile Mining District. Gough (2003) gives a complete listing of the products for this study area. Individual references for other resultant publications are not listed here. Published studies and analytical results from the Fortymile Watershed study area include baseline and background information for soils, fish, vegetation, rocks, and water. A revised geological map of the area has also been published. Important to this study's assessment was the evaluation of the flux and biogeochemical cycling of arsenic and cadmium between the terrestrial and aquatic phases. In addition to studying water-rock processes that mobilize arsenic and cadmium, this project is also examining other factors that affect their bioavailability to the environment (for example, in sites that are mined versus unmined, vegetated versus barren, saturated (permafrost) versus drained, or forested versus muskeg).

The NURE samples represent an almost complete statewide sampling of Alaska. These samples are archived by the USGS in Denver and are available for future studies. Weaver (1983) presents a geochemical atlas for the state of Alaska based on the samples collected and analyzed. The U.S. Department of Energy's national laboratory at Los Alamos (New Mexico) was charged with the responsibility of sample collection, analysis, data processing, and interpretation for Alaska. Other national laboratories were responsible for other parts of the continental United States. NURE samples in Alaska were collected between 1975 and 1979, when funding stopped. As a result, only about 80 percent of the state was sampled (Weaver, 1983). Sample density of stream and lake sediments and water ranged between one sample per 10 km^2 (4 mi^2) and 23 km^2 (99 mi^2) for a total of 61,923 sediment samples collected; of these, 38,021 are small stream sediment samples and 23,902 are small lake sediment samples (Weaver, 1983). Smith (1997) has a total of 62,670 Alaska NURE sediments (not including special study samples) broken down into 24,227 lake or pond sediments, 38,216 stream sediments, 117 spring sediments, and 110 stream-bank sediments. The total number of Alaska NURE sediments samples (including orientation and detailed follow-up studies) found in Smith (1997) is 65,109, consisting of 24,284 lake or pond sediments, 40,598 stream sediments, 117 spring sediments, and 110 stream-bank sediments. Sample analysis was performed using a variety of analytical methods that had lower detection limits that were usually less than the crustal abundance for most elements. Because uranium was the primary focus of the NURE program, a very sensitive delayed neutron activation analysis method (0.01 mg U/kg, detection limit) was used for its determination. As a result more than 99.9 percent of the samples had detectable uranium. In contrast, both selenium and silver were detected in about 0.3 percent of the samples with a limit of detection of 5 mg Se or Ag/kg. Alaska NURE data are available in digital format from Hoffman and Buttleman (1996) and Smith (1997).

Analytical Results and Discussion

This reconnaissance study of the Eagle 3° Quadrangle of east-central reanalyzed 239 NURE sediment samples by the more sensitive methods currently employed by the laboratories of the USGS, Denver, Colo. (Arbogast, 1996; Taggart, 2002). Table 1 lists the reporting limits of 39 elements as determined by inductively coupled plasma-atomic emission spectroscopy (ICP-AES) in the USGS laboratories after an open vessel, multi-acid digestion. Arsenic and antimony were also determined with a more sensitive hydride generation – atomic absorption technique (Arbogast, 1996; Taggart, 2002). The lower limit of determination for these methods is 0.2 mg/Kg total arsenic or antimony. Table 2 lists the approximate lower determination limits for the NURE data and the methods of analysis for

individual elements (Weaver, 1983). Table 3 is a listing of sample identification, location, and side-by-side listings of the NURE data from Hoffman and Buttleman (1996) and the new data from this study.

Figures 2 – 22 are simple plots of the previously reported NURE data versus the new data of this study. Simple regression equations and regression coefficients were calculated and are listed only for those data pairs where sufficient uncensored data were available. In general, the two data sets compare very favorably. Two indicators of how similar two data sets can be observed with a simple regression analysis by observing the regression equation and the correlation coefficient. The first is the slope of the equation, or the multiplier of the "x" term. The closer the slope is to one, the closer the data ratios are 1:1, thus, the closer the two sets are to each other. The second indicator of data similarity is the square of the correlation coefficient. This is an indication of how much of the variation seen between the two data sets is explained by other data points in the data pair. The closer this number is to one, the more the variation explained, with one indicating 100 percent of the variation explained. Additionally, the magnitude of the constant, or "y" axis intercept, is an indication of method bias - the smaller the constant value, the smaller the bias between the methods. The intercept of the regression line is an indication of method bias. The closer the intercept is to zero, the lower the method's bias will be. Since there is a good agreement between the two data sets for most elements, there should be a high level of confidence in using the original NURE data as an initial assessment of a new study area when the element of interest is at a high enough concentration to be determined by the older NURE methods. An example of an element of concern is zinc. Since the NURE data have a lower detection limit of 100 mg/kg, many samples will have censored values or values not significantly higher than the lower limit of detection, since the crustal abundance of zinc is about 70 mg/kg and is commonly less than that in many soil samples. This concern is shown in figure 22 where the slope is much less that one, the intercept (bias) is large, and the regression coefficient is small. Only cobalt shows an odd-looking plot, possibly showing a bimodal distribution of the original NURE data. This could be explained by a change of methods or some other operational bias in the NURE data. Since the new cobalt data from this study were determined using one method, one operator, and over a relatively short period of time, it is probably more reliable and less problematic than the NURE data.

Acknowledgments

The authors wish to thank Richard O'Leary and Stephen Smith, USGS, Denver, Colo., for their helpful reviews of this work.

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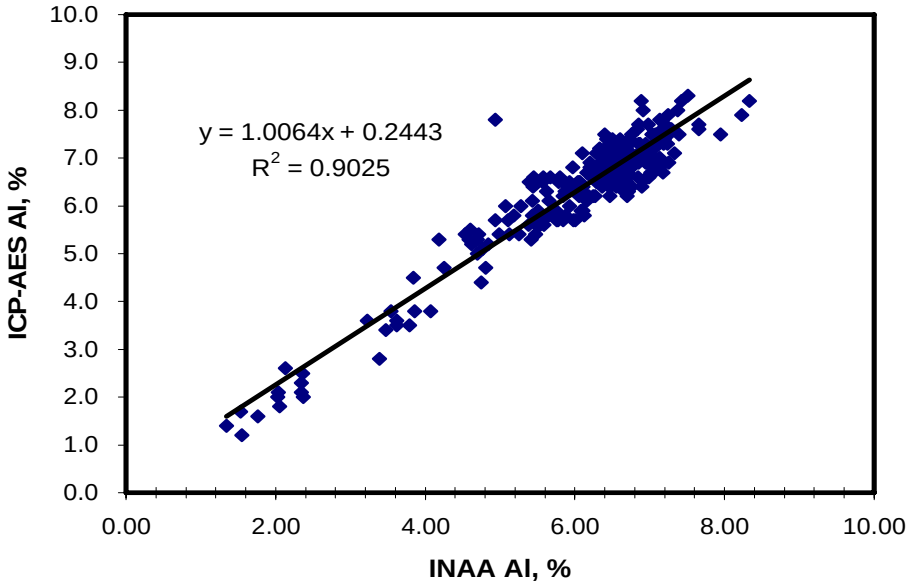

Figure 2. Comparison of Al, % by ICP-AES and INAA.

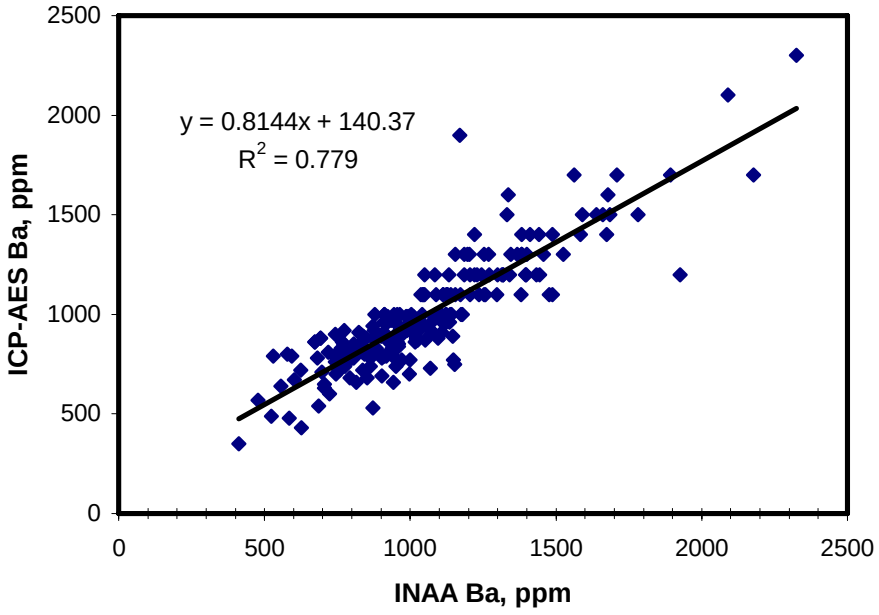

Figure 3. Comparison of Ba, ppm by ICP-AES and INAA

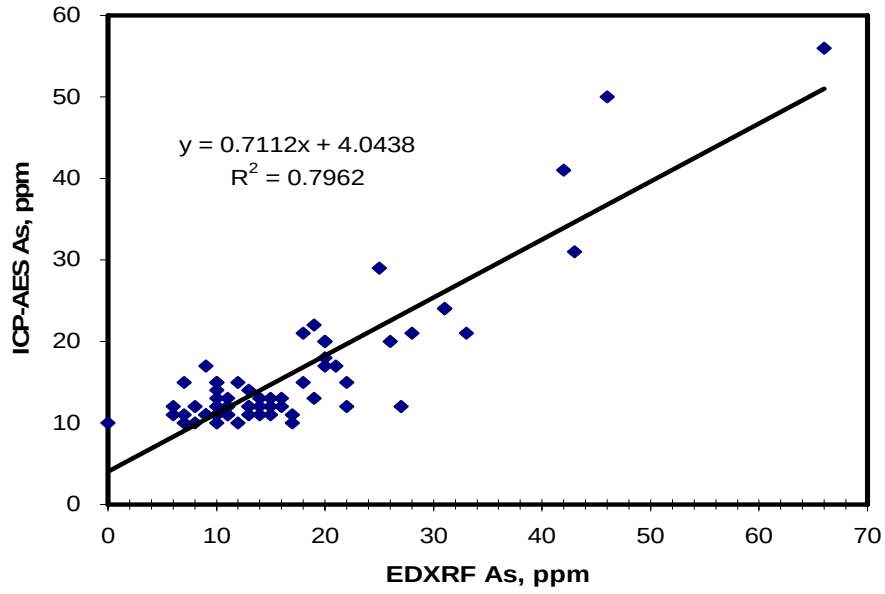

Figure 4a. Comparison of As, ppm by ICP-AES and EDXRF.

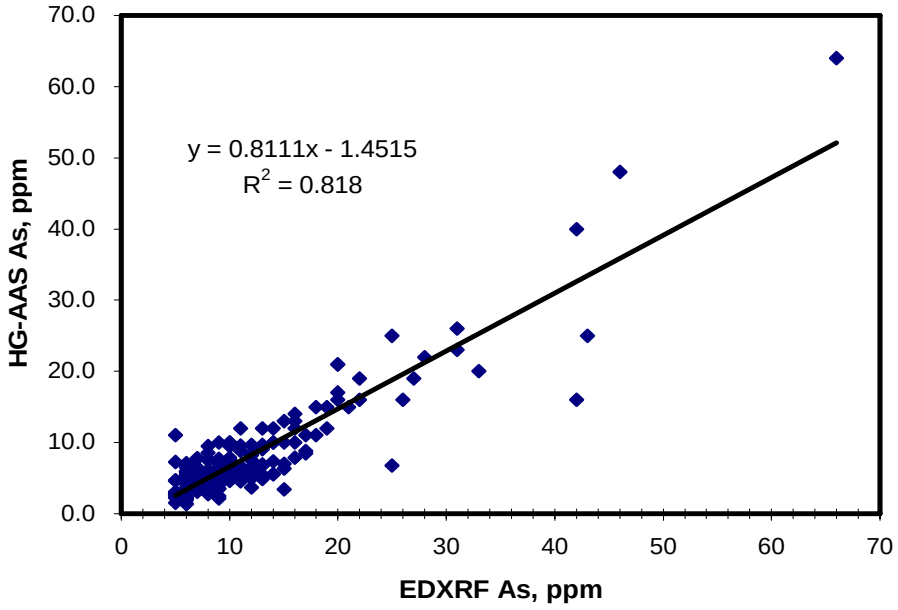

Figure 4b. Comparison of As, ppm by HG-AAS and EDXRF.

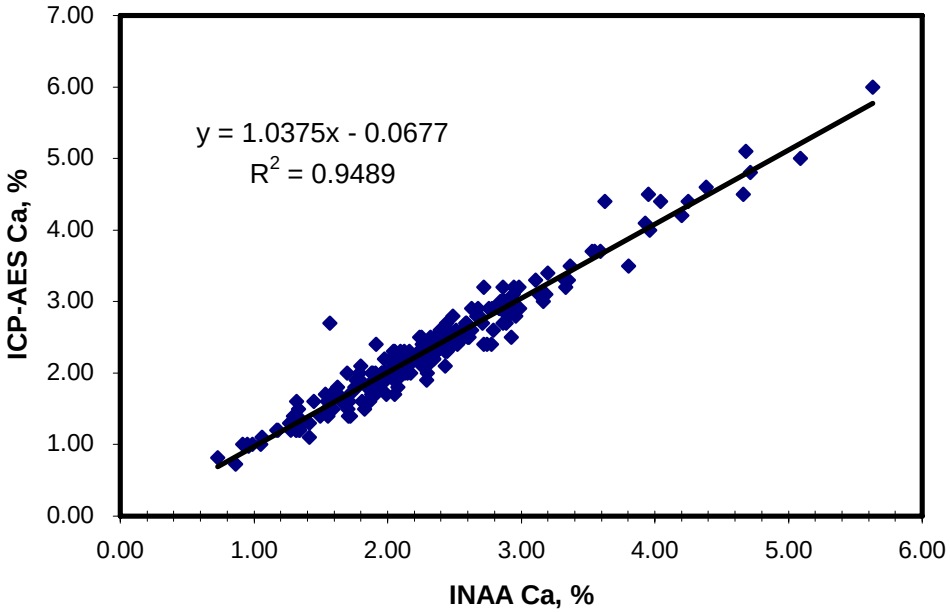

Figure 5. Comparison of Ca, % by ICP-AES and INAA.

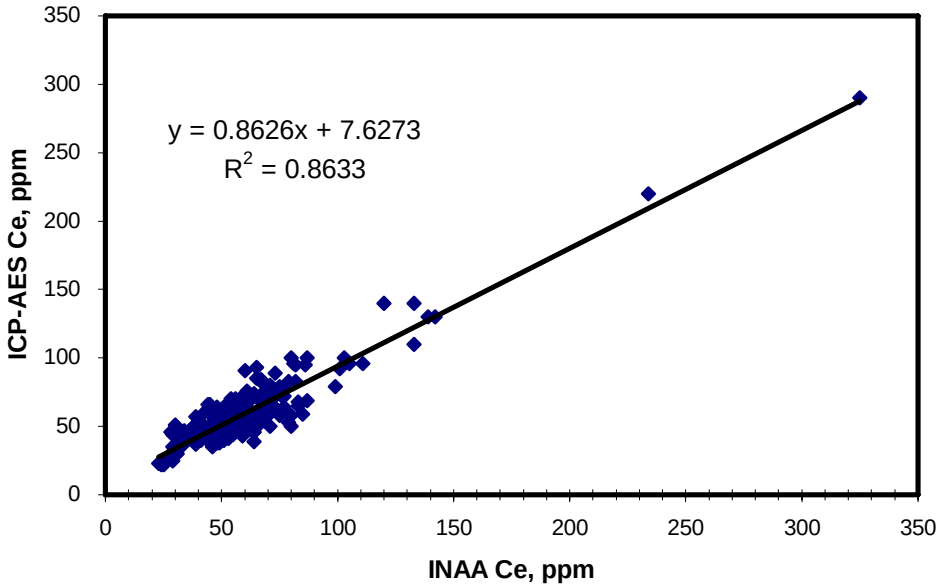

Figure 6. Comparison of Ce, ppm by ICP-AES and INAA.

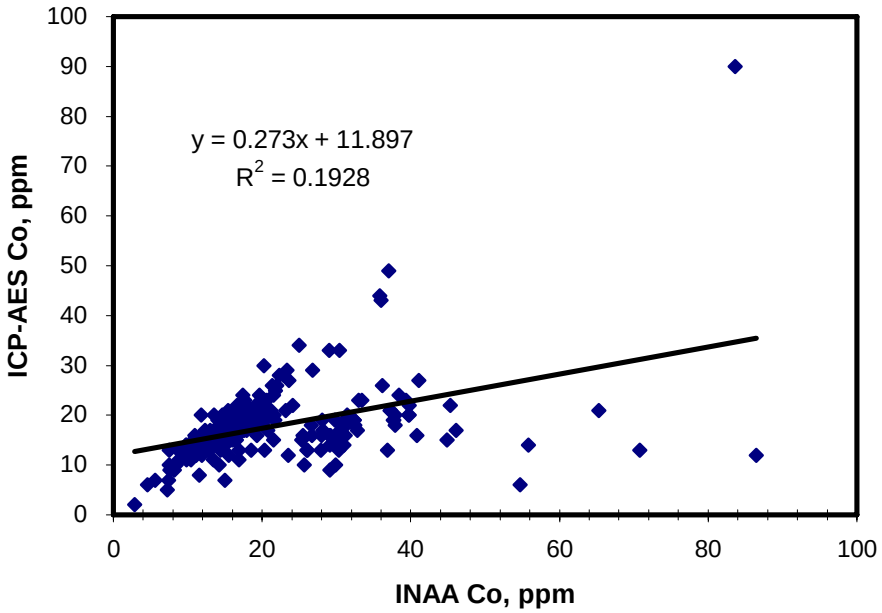

Figure 7. Comparison of Co, ppm by ICP-AES and INAA.

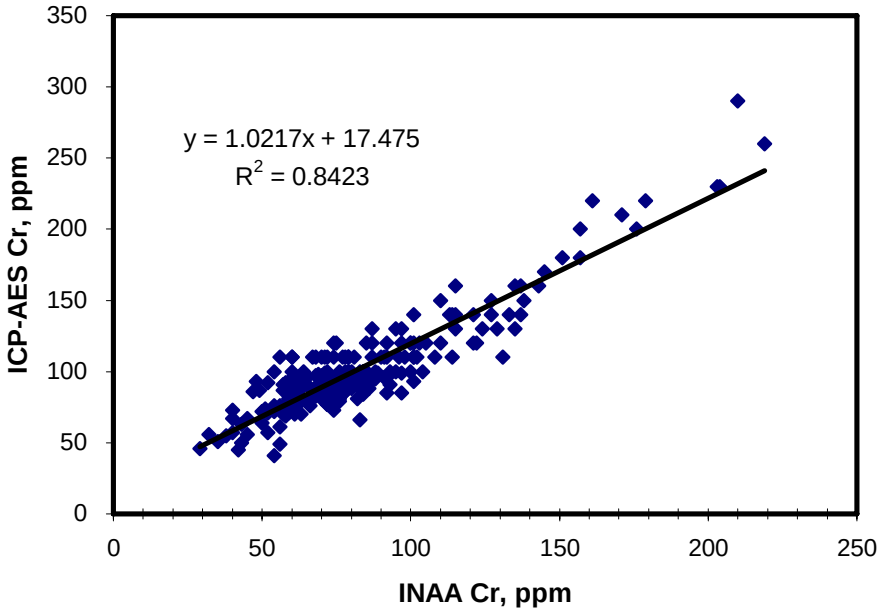

Figure 8. Comparison of Cr, ppm by ICP-AES and INAA.

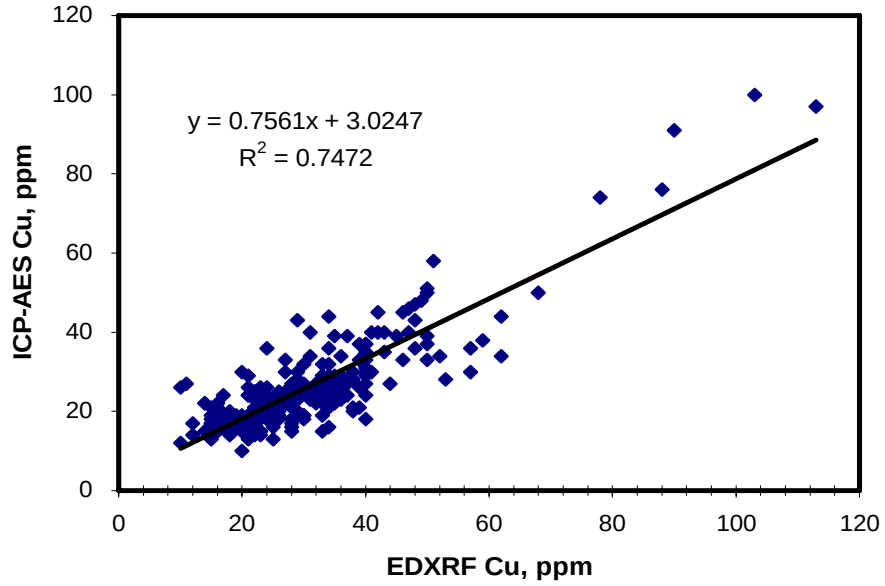

Figure 9. Comparison of Cu, ppm by ICP-AES and EDXRF.

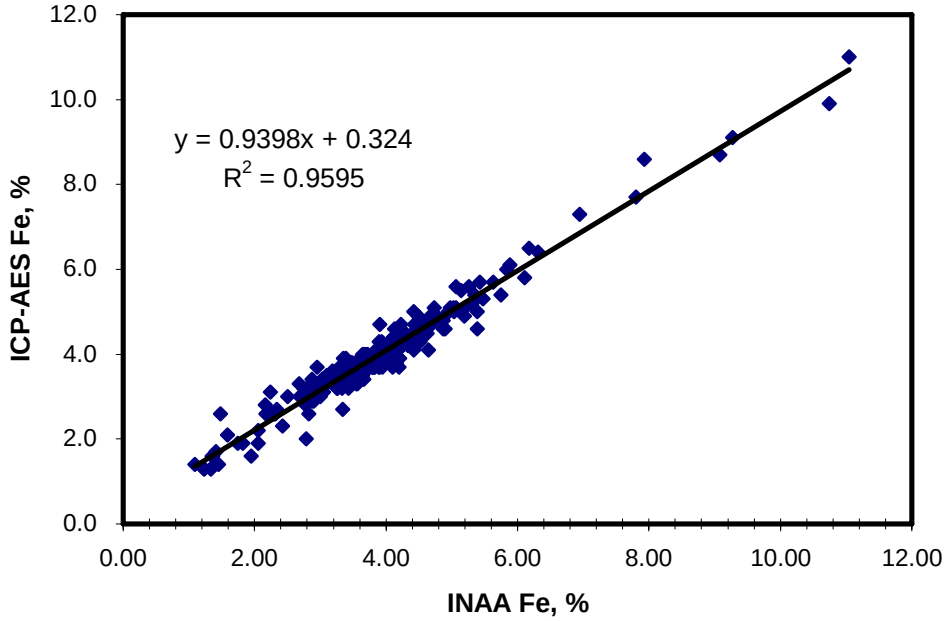

Figure 10. Comparison of Fe, % by ICP-AES and INAA.

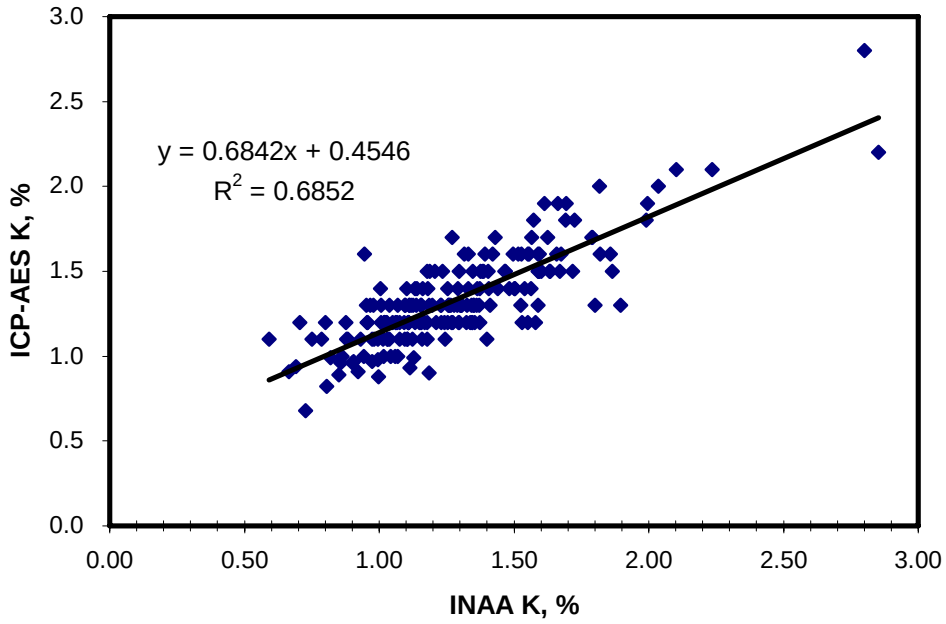

Figure 11. Comparison of K, % by ICP-AES and INAA.

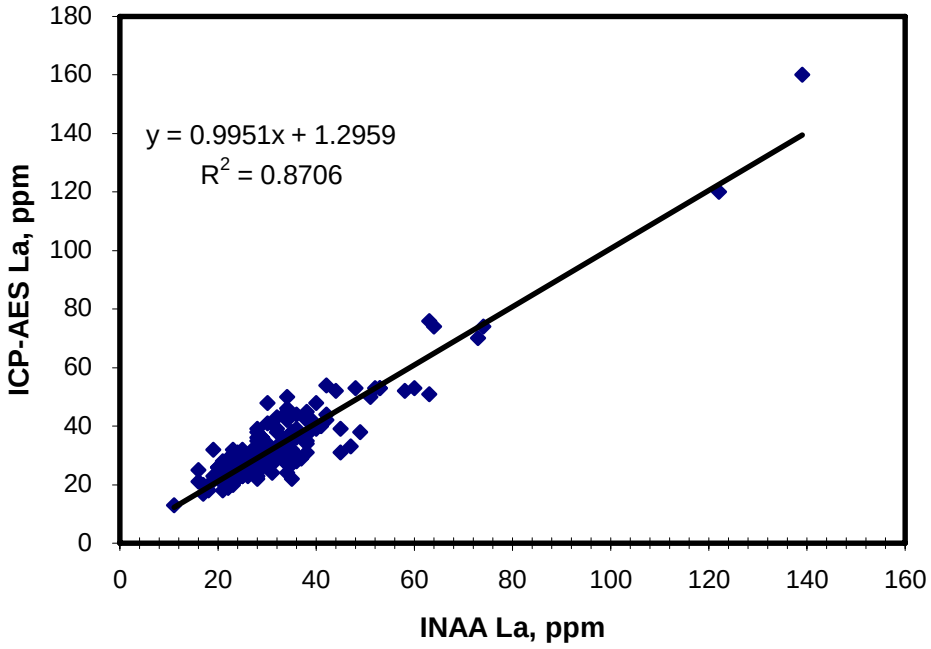

Figure 12. Comparison of La, ppm by ICP-AES and INAA.

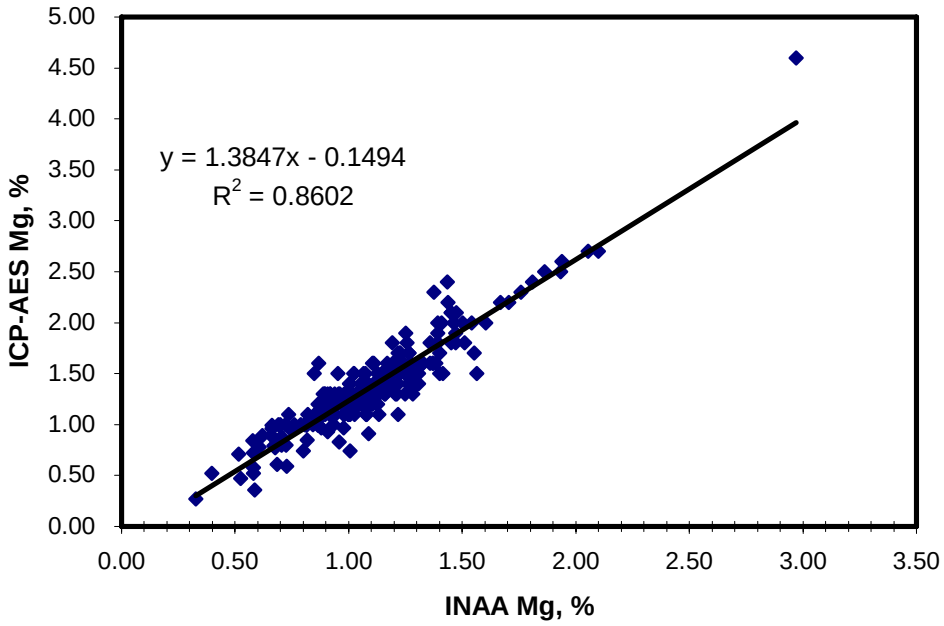

Figure 13. Comparison of Mg, % by ICP-AES and INAA.

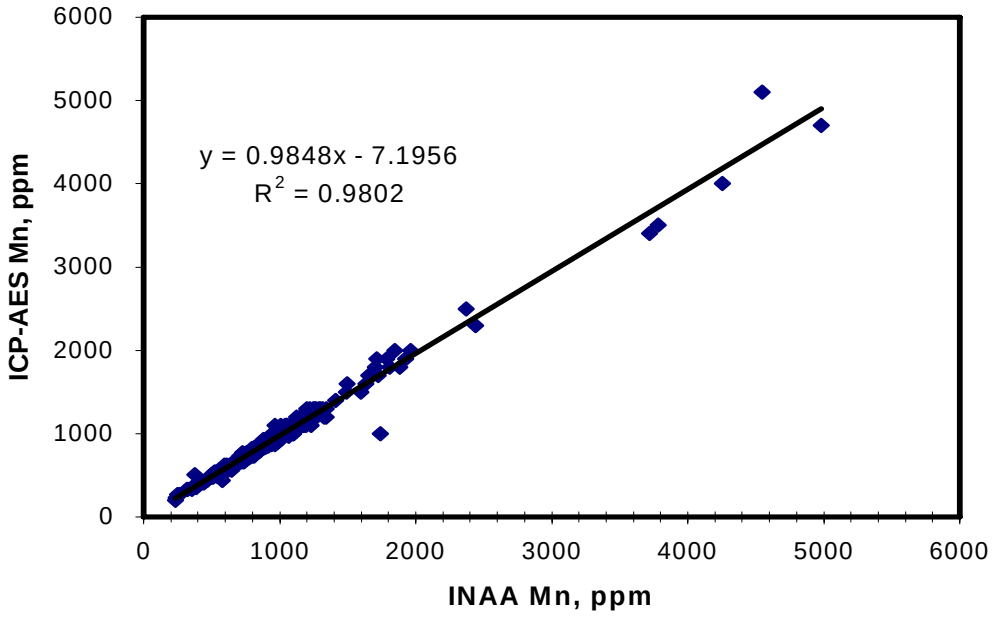

Figure 14. Comparison of Mn, ppm by ICP-AES and INAA.

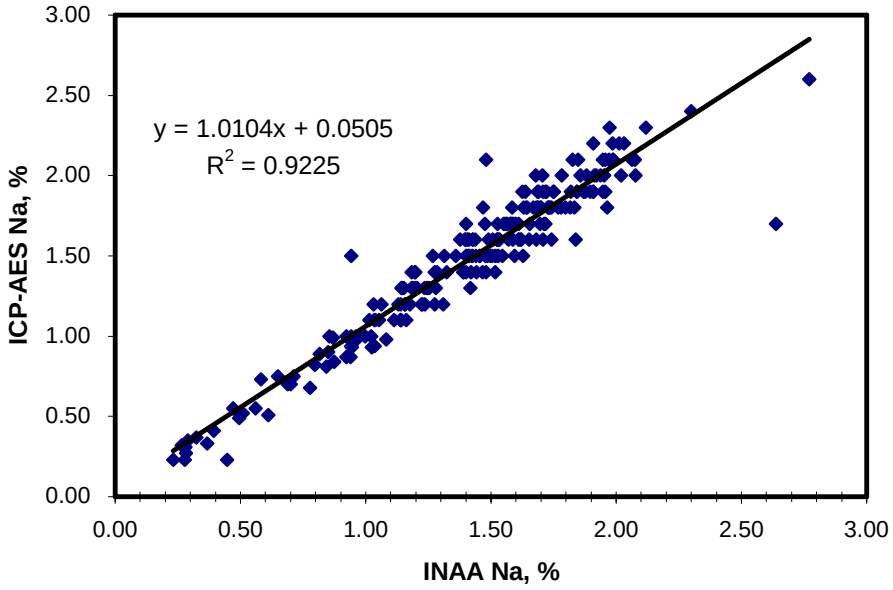

Figure 15. Comparison of Na, % by ICP-AES and INAA.

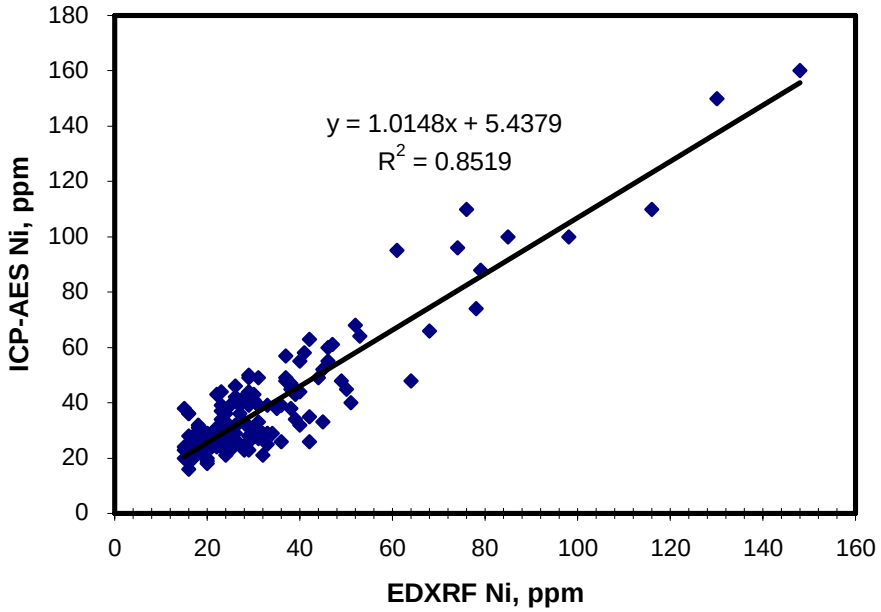

Figure 16. Comparison of Ni, ppm by ICP-AES and EDXRF.

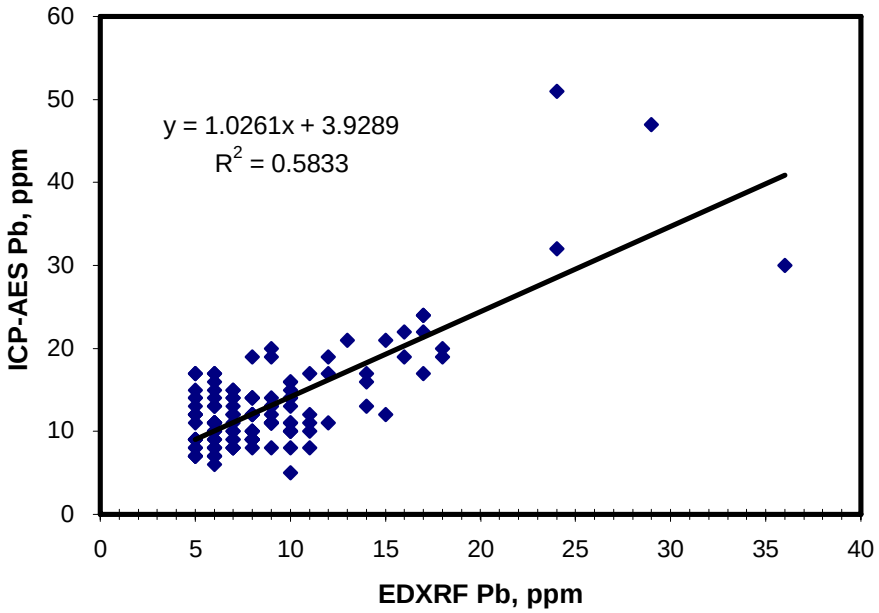

Figure 17. Comparison of Pb, ppm by ICP-AES and EDXRF.

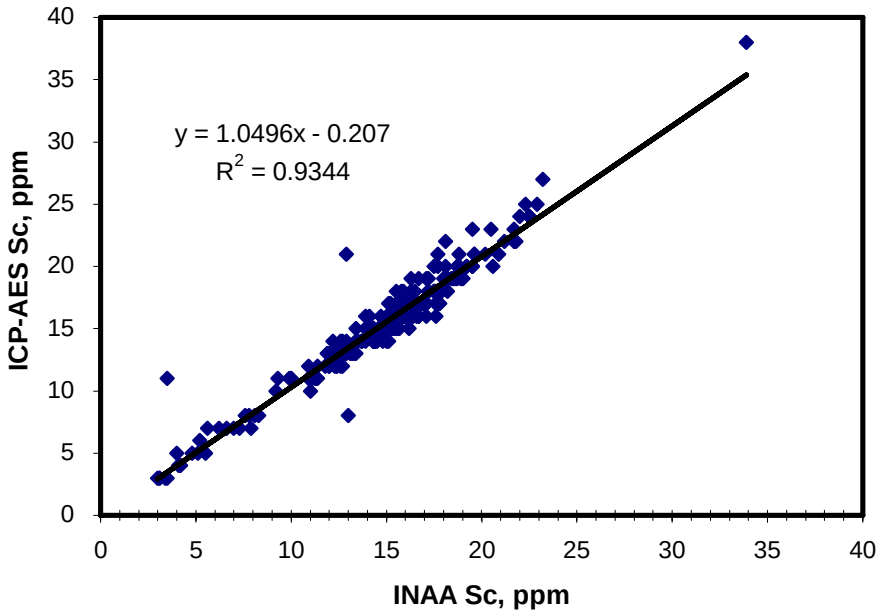

Figure 18. Comparison of Sc, ppm by ICP-AES and INAA.

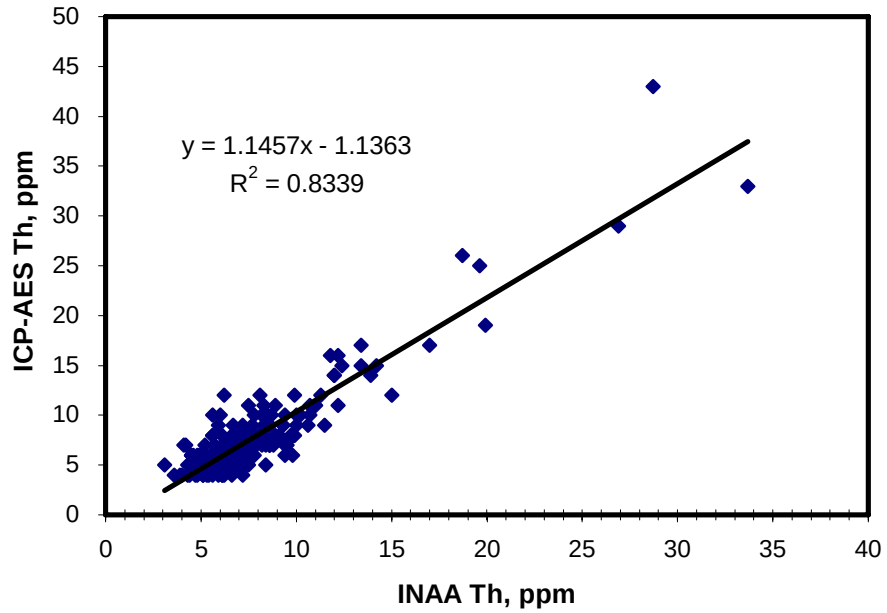

Figure 19. Comparison of Th, ppm by ICP-AES and INAA.

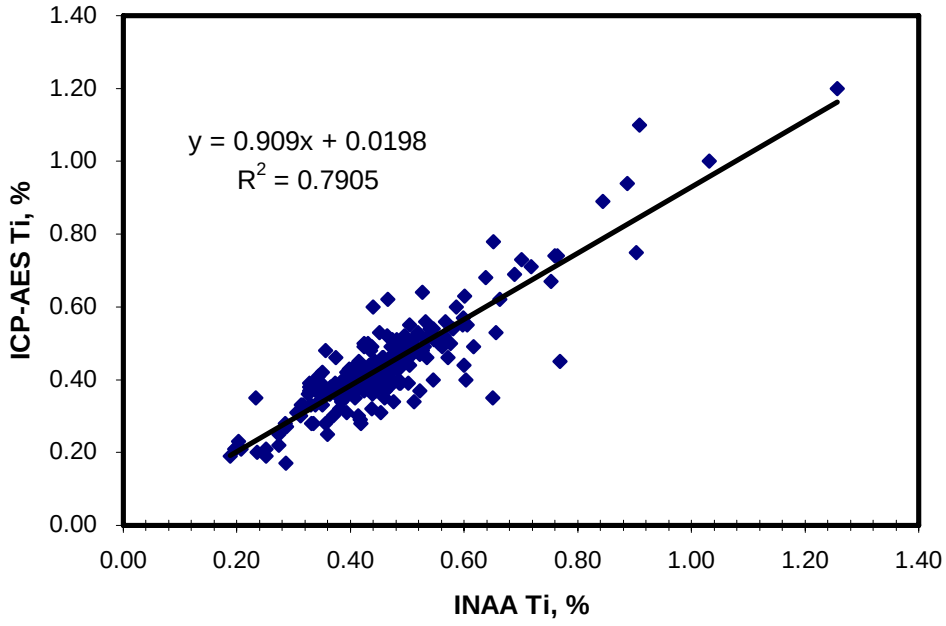

Figure 20. Comparison of Ti, % by ICP-AES and INAA.

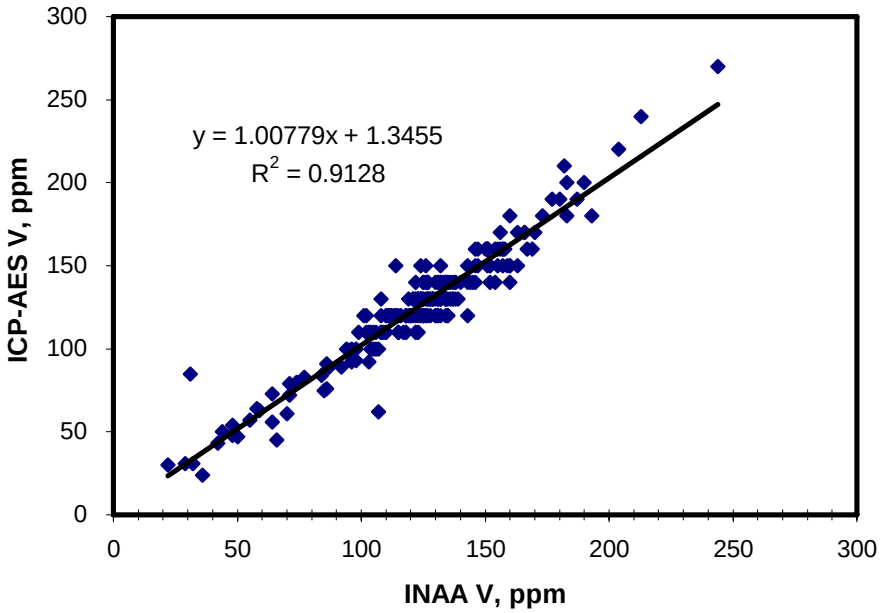

Figure 21. Comparison of V, ppm by ICP-AES and INAA.

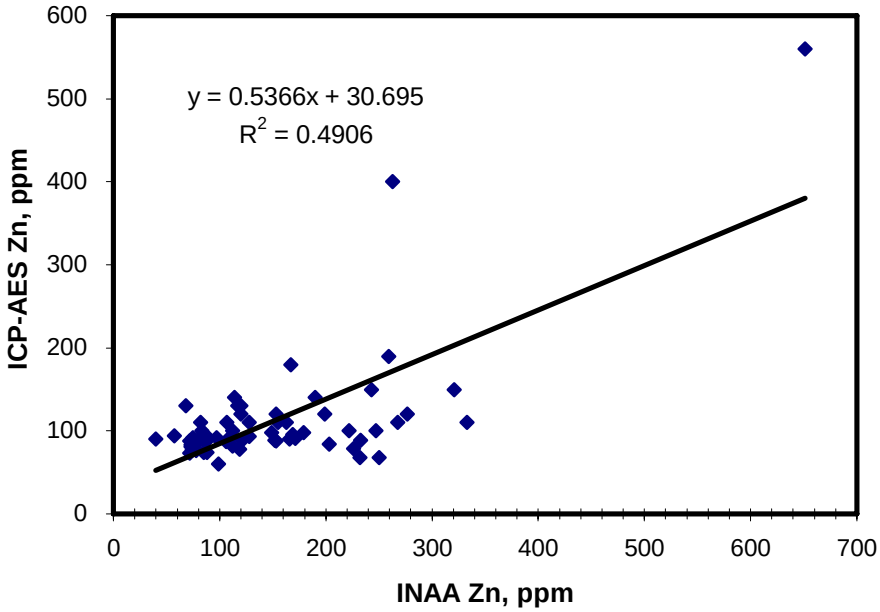

Figure 22. Comparison of Zn, ppm by ICP-AES and INAA.

Table 1. Reporting limits for 39 elements by ICP-AES (Arbogast, 1996)

Element	*Concentration range*	
Silver, Ag	2	10,000 ppm
Aluminum, Al	0.005	50 %
Arsenic, As	10	50,000 ppm
Gold, Au	8	50,000 ppm
Barium, Ba	1	35,000 ppm
Beryllium, Be	1	5,000 ppm
Bismuth, Bi	10	50,000 ppm
Cadmium, Cd	2	25,000 ppm
Calcium, Ca	0.005	50 %
Cerium, Ce	5	50,000 ppm
Cobalt, Co	2	25,000 ppm
Chromium, Cr	2	50,000 ppm
Copper, Cu	2	15,000 ppm
Europium, Eu	2	5,000 ppm
Iron, Fe	0.02	25 %
Holmium, Ho	4	5,000 ppm
Potassium, K	0.01	50 %
Lanthanum, La	2	50,000 ppm
Lithium, Li	2	50,000 ppm
Magnesium, Mg	0.005	5 %
Manganese, Mn	4	50,000 ppm
Molybdenum, Mo	2	50,000 ppm
Sodium, Na	0.006	50 %
Niobium, Nb	4	50,000 ppm
Neodymium, Nd	9	50,000 ppm
Nickel, Ni	3	50,000 ppm
Phosphorous, P	0.005	50 %
Lead, Pb	4	50,000 ppm
Scandium, Sc	2	50,000 ppm
Tin, Sn	5	50,000 ppm
Strontium, Sr	2	15,000 ppm
Tantalum, Ta	40	50,000 ppm
Thorium, Th	6	50,000 ppm
Titanium, Ti	0.005	25 %
Uranium, U	100	100,000 ppm
Vanadium, V	2	30,000 ppm
Yttrium, Y	2	25,000 ppm
Ytterbium, Yb	1	5,000 ppm
Zinc, Zn	2	15,000 ppm

Table 2. Approximate lower determination limits (ppm) for the NURE data (Weaver, 1983)

Element	*Analytical Method**	*Lower Detection Limit (ppm)***
Aluminum, Al	INAA-S	3200
Arsenic, As	EDXRF	5
Gold, Au	INAA-L	0.05
Barium, Ba	INAA-S	150
Bismuth, Bi	EDXRF	5
Calcium, Ca	INAA-S	1000
Cerium, Ce	INAA-L	10
Cobalt, Co	INAA-L	1.7
Chromium, Cr	INAA-L	10
Cesium, Cs	INAA-L	2
Copper, Cu	EDXRF	10
Dysprosium, Dy	INAA-S	0.7
Europium, Eu	INAA-L	0.4
Iron, Fe	INAA-L	1100
Hafnium, Hf	INAA-L	1.3
Potassium, K	INAA-S	3400
Lanthanum, La	INAA-L	7
Lutetium, Lu	INAA-L	0.1
Magnesium, Mg	INAA-S	2700
Manganese, Mn	INAA-S	55
Sodium, Na	INAA-S	1000
Niobium, Nb	INAA-L	20
Nickel, Ni	EDXRF	15
Lead, Pb	EDXRF	5
Antimony, Sb	INAA-L	1
Scandium, Sc	INAA-L	0.9
Strontium, Sr	INAA-S	400
Tantalum, Ta	INAA-L	1
Terbium, Tb	INAA-L	1
Thorium, Th	INAA-L	1
Titanium, Ti	INAA-S	750
Uranium, U	DNC	0.01
Vanadium, V	INAA-S	6
Ytterbium, Yb	INAA-L	1
Zinc, Zn	INAA-L	100
Zirconium, Zr	EDXRF	5

*INNA-L, Instrumental neutron activation analysis, long count; INNA-S, Instrumental neutron analysis, short count; EDXRF, energy dispersive x-ray fluorescence; DNC, delayed neutron counting.
**The lower detection limits for INAA are a complex function of sample composition and weight. Presented here are the lower detection limits that are average values calculated from a typical 4 g sample (Weaver, 1983).

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
438791	64.0731	-141.9706	7.18	7.5	13	<10	9.7	<0.04	1071	920	2	<5	2.25	2.3	<5	<2	67
438792	64.0750	-141.9247	6.76	7.5	<5	<10	5.8	<0.07	842	830	<1	<5	3.55	3.7	<5	<2	65
438793	64.0706	-141.9017	7.29	7.6	15	<10	6.3	<0.06	858	800	<1	<5	2.24	2.5	5	<2	55
438794	64.0750	-141.8689	7.11	7.5	8	<10	7.5	<0.09	478	570	<1	<5	2.98	3.2	<5	<2	51
438795	64.0728	-141.8456	6.73	7.3	17	11	11	<0.05	706	630	<1	<5	2.96	2.8	<5	<2	33
438796	64.0694	-141.8278	6.74	7.4	16	13	10	<0.10	872	530	<1	<5	2.69	2.8	<5	<2	31
438797	64.0500	-141.7839	6.62	6.9	11	<10	4.7	<0.07	911	790	1	<5	2.51	2.5	<5	<2	71
438798	64.0581	-141.7508	6.91	8.0	6	<10	4.2	<0.09	767	860	1	<5	2.88	2.9	<5	<2	60
438799	64.0747	-141.7342	6.75	7.1	8	<10	3.8	<0.04	884	820	<1	<5	1.97	2.0	<5	<2	39
438800	64.0817	-141.6089	7.05	7.2	13	<10	12	<0.12	1399	1300	1	<5	1.91	1.7	<5	<2	67
438801	64.0978	-141.5744	6.58	6.9	10	<10	5.3	<0.07	1081	970	1	<5	1.91	2.0	<5	<2	64
438802	64.1247	-141.5556	7.00	7.0	6	<10	5.8	<0.10	1245	1200	1	<5	2.42	2.4	<5	<2	56
438803	64.0447	-141.9042	7.25	7.9	7	<10	7.8	<0.05	873	940	1	<5	2.44	2.7	<5	<2	60
438804	64.0297	-141.8256	6.98	7.7	5	<10	4.7	<0.08	793	680	<1	<5	2.95	3.2	<5	<2	62
438806	64.0389	-141.1889	6.64	7.2	10	15	10	<0.07	1186	1200	1	<5	2.29	2.1	<5	<2	59
438807	64.0631	-141.2419	6.28	6.6	13	12	9.1	<0.08	1114	1100	1	<5	2.30	2.3	<5	<2	55
438809	64.0639	-141.3667	6.89	8.2	26	20	16	<0.06	1441	1400	1	<5	2.05	1.9	<5	<2	52
438810	64.0544	-141.4125	6.49	6.6	11	12	9.6	<0.09	1125	1100	1	<5	2.15	2.1	<5	<2	56
438811	64.0456	-141.4125	4.08	3.8	8	<10	5.0	<0.11	998	700	<1	<5	1.71	1.6	<5	<2	53
438812	64.0331	-141.4947	6.47	6.2	6	<10	6.0	<0.13	1082	990	1	<5	1.70	1.5	<5	<2	58
438813	64.0347	-141.4756	4.74	4.4	<5	<10	1.8	<0.06	853	680	<1	<5	1.32	1.2	<5	<2	51
438814	64.0425	-141.5756	6.96	6.6	18	15	11	<0.10	1476	1100	1	<5	1.99	1.9	<5	<2	54
438816	64.0694	-141.6186	6.68	7.2	8	<10	8.6	<0.08	1155	1100	1	<5	2.08	2.2	<5	<2	59
438817	64.0694	-141.7631	3.79	3.5	<5	<10	2.3	<0.14	<392	400	<1	<5	1.81	1.6	<5	<2	23
438818	64.0639	-141.8264	7.08	7.5	6	<10	5.9	<0.05	959	850	1	<5	1.77	1.9	<5	<2	46
438819	64.0558	-141.9281	7.24	7.3	<5	<10	5.5	<0.08	837	720	<1	<5	2.89	2.7	<5	<2	43
438820	64.0664	-141.9722	7.03	7.5	<5	<10	5.1	<0.07	864	740	1	<5	3.20	3.4	<5	<2	64
438821	64.0669	-142.0153	7.40	7.5	5	<10	7.3	<0.10	579	800	1	<5	3.34	3.2	<5	<2	76
438822	64.0531	-142.0697	7.03	7.5	<5	<10	4.9	<0.05	806	780	1	<5	2.91	2.9	<5	<2	53
438823	64.0628	-142.1472	6.95	7.3	7	<10	5.0	<0.08	863	780	1	<5	2.59	2.7	<5	<2	46
438824	64.0592	-142.1706	6.91	7.1	6	<10	5.1	<0.07	802	780	1	<5	2.54	2.5	<5	<2	53
438829	64.0647	-141.1686	6.56	6.4	5	<10	11	<0.09	1299	1200	1	<5	1.88	1.7	<5	<2	58
438831	64.0964	-142.0958	2.34	2.3	<5	<10	1.7	<0.19	<313	290	<1	<5	1.76	1.8	<5	<2	<17
438832	64.0786	-142.1392	6.65	6.3	12	<10	7.5	<0.08	942	660	<1	<5	2.22	2.2	<5	<2	43
438833	64.0892	-142.1931	7.14	7.0	6	<10	6.6	<0.10	603	670	1	<5	2.71	2.7	<5	<2	46
438872	64.1306	-142.1886	6.08	5.9	16	<10	13	<0.11	724	600	1	<5	2.37	2.3	<5	<2	<13

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
438791	83	14	14	72	77	3.4	28	16	6	1.1	<2	4.18	4.2	15	8.4	<4	1.39
438792	85	33	23	114	110	<1.9	25	21	7	1.9	<2	5.06	5.1	21	9.7	<4	1.37
438793	64	17	15	77	89	<1.7	38	20	3	1.5	<2	3.96	4.1	17	10.6	<4	1.33
438794	52	15	17	91	96	<2.6	35	29	4	1.3	<2	4.78	4.9	16	6.8	<4	0.82
438795	36	15	19	63	90	<1.4	30	19	4	1.0	<2	4.10	4.2	13	5.4	<4	0.69
438796	36	38	20	101	140	<2.8	45	39	5	1.3	<2	4.23	4.7	22	6.7	<4	<0.49
438797	50	19	21	78	86	<1.9	62	34	4	1.2	<2	3.95	3.7	19	6.0	<4	1.27
438798	52	21	23	72	100	<2.3	50	33	4	1.3	<2	4.43	4.7	16	4.1	<4	0.71
438799	40	11	14	75	89	2.3	31	25	3	0.9	<2	3.60	3.5	18	4.5	<4	1.02
438800	68	45	22	87	120	<3.3	68	50	6	1.7	<2	4.56	4.7	26	4.5	<4	1.56
438801	59	16	15	62	84	<2	23	22	5	1.4	<2	3.71	4.0	11	6.4	<4	1.29
438802	46	18	19	68	83	<2.7	25	23	4	0.9	<2	4.12	4.2	15	4.8	<4	1.40
438803	91	15	17	80	96	<1.4	17	17	5	1.5	<2	4.98	5.1	18	7.9	<4	1.59
438804	50	30	15	86	98	<2.2	21	19	4	1.5	<2	3.65	4.0	20	7.1	<4	1.01
438806	52	23	21	171	210	4.4	29	30	4	1.4	<2	3.65	3.9	14	5.5	<4	1.54
438807	44	15	18	203	230	3.5	15	21	5	1.1	<2	3.49	3.6	11	5.5	<4	1.32
438809	56	22	25	157	200	5.9	50	50	5	1.1	<2	5.14	5.5	22	5.4	<4	1.66
438810	48	32	19	137	160	<2.4	35	24	4	1.3	<2	3.60	3.9	14	5.7	<4	1.53
438811	48	24	22	62	81	<3.1	46	45	<3	1.4	<2	2.75	3.2	9	<2.2	<4	<0.61
438812	49	11	14	124	130	<3.6	37	39	4	1.8	<2	2.88	3.2	22	5.9	<4	1.53
438813	40	10	12	78	89	<1.9	34	32	4	1.0	<2	1.82	1.9	10	3.6	<4	0.81
438814	54	37	21	127	150	<2.8	33	32	6	1.4	<2	3.75	3.9	17	5.7	<4	1.41
438816	48	21	20	110	150	4.2	32	27	5	1.2	<2	3.72	4.0	17	6.2	<4	1.36
438817	23	<2.9	8	<22	47	<3.5	42	40	3	<0.7	<2	1.09	1.4	10	<2.8	<4	<0.56
438818	47	11	15	70	97	2.7	39	33	4	1.1	<2	3.73	3.7	24	4.2	<4	0.95
438819	61	31	16	84	84	<2.3	19	19	4	1.4	<2	3.57	3.7	16	7.5	<4	0.98
438820	74	19	19	71	85	<1.9	15	17	4	1.4	<2	4.70	4.7	15	6.4	<4	1.14
438821	76	18	20	85	100	<2.6	18	19	5	1.5	<2	4.95	5.0	18	6.7	<4	1.44
438822	51	14	16	84	92	3.1	17	24	5	1.1	<2	3.94	4.3	24	6.9	<4	1.10
438823	51	29	14	88	95	<2.3	24	20	4	1.4	<2	3.19	3.6	16	6.1	<4	1.24
438824	49	16	15	79	92	2.1	21	26	5	1.4	<2	3.43	3.7	24	4.8	<4	1.30
438829	51	18	20	176	200	5.6	26	25	5	1.4	<2	3.59	3.6	14	7.1	<4	1.18
438831	19	71	13	<28	40	<4.7	22	24	<2	<0.9	<2	<.01	1.7	6	<3.6	<4	<0.46
438832	42	17	13	78	86	<2.2	31	34	4	1.2	<2	3.68	3.6	19	5.2	<4	1.24
438833	43	13	16	82	81	<2.7	21	29	4	1.1	<2	4.13	4.3	18	4.8	<4	1.08
438872	43	46	17	69	85	<4	21	24	3	0.7	<2	5.39	5.0	13	5.6	<4	1.11

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
438791	1.6	34	43	25	0.5	1.05	1.2	1019	970	<2	1.32	1.4	<20	26	39	16	16
438792	1.3	34	45	17	0.6	1.76	2.3	1013	980	<2	1.91	2.2	<20	21	45	35	38
438793	1.3	30	34	18	0.3	0.76	1.0	907	920	<2	1.84	1.9	<20	18	31	21	24
438794	0.99	21	28	17	0.3	1.31	1.6	841	820	<2	1.99	2.1	<20	13	30	31	27
438795	0.94	22	19	16	0.2	0.90	1.2	1185	1200	<2	2.01	2.2	<20	12	22	32	21
438796	0.93	18	18	17	<0.2	1.33	1.6	1112	1100	<2	1.83	2.1	<20	10	26	38	38
438797	1.2	28	26	22	0.3	1.20	1.5	928	880	<2	1.72	1.9	<20	10	28	30	31
438798	1.2	20	26	23	0.3	1.37	1.6	1493	1500	<2	1.85	2.1	<20	10	29	22	28
438799	1.2	23	22	22	0.2	1.02	1.3	572	550	<2	1.88	2.0	<20	10	23	23	24
438800	1.6	36	36	26	<0.2	1.22	1.6	1229	1100	<2	1.23	1.2	<20	9	37	24	36
438801	1.4	27	32	18	0.4	1.05	1.2	1034	1000	<2	1.58	1.7	<20	14	29	<15	26
438802	1.5	20	24	23	0.3	1.42	1.5	1270	1200	<2	1.95	2.1	<20	11	25	28	23
438803	1.6	30	48	20	0.4	0.96	1.3	1042	1000	<2	1.58	1.7	<20	34	44	17	23
438804	1.1	30	27	17	0.3	1.23	1.5	790	760	<2	2.12	2.3	<20	13	30	36	26
438806	1.4	31	28	31	0.4	1.25	1.9	763	760	<2	1.46	1.5	<20	5	31	61	95
438807	1.2	28	23	28	0.4	1.39	1.9	791	760	<2	1.42	1.4	<20	<4	21	79	88
438809	1.9	31	28	30	0.3	1.86	2.5	1047	1100	<2	1.25	1.3	<20	5	30	42	63
438810	1.3	26	27	24	0.3	1.37	1.6	852	790	<2	1.47	1.4	<20	7	27	46	60
438811	0.69	<12	28	12	<0.2	0.80	0.74	974	960	2	0.70	0.70	<20	<4	31	16	36
438812	1.2	26	26	23	0.3	1.07	1.3	554	520	<2	1.31	1.2	<20	9	27	50	45
438813	0.82	<9	22	17	0.2	0.68	0.83	536	490	<2	1.04	0.94	<20	6	22	<15	28
438814	1.3	33	32	27	0.5	1.24	1.6	981	890	<2	1.41	1.5	<20	8	31	68	66
438816	1.4	27	26	26	0.4	1.10	1.6	899	900	<2	1.58	1.7	<20	7	28	64	48
438817	0.69	<15	13	9	<0.3	0.58	0.58	354	330	<2	1.08	0.98	<20	6	13	20	25
438818	1.3	24	25	25	0.2	0.89	1.1	508	480	<2	1.64	1.8	<20	11	27	<15	27
438819	1.1	25	32	17	0.4	1.16	1.3	756	710	<2	2.07	2.1	<20	13	29	27	25
438820	1.4	32	38	18	0.4	1.23	1.7	1049	1100	<2	1.99	2.2	<20	17	40	23	25
438821	1.4	28	39	19	0.3	1.22	1.7	1256	1200	<2	1.86	2.0	<20	23	38	25	27
438822	1.3	28	26	21	0.3	1.20	1.6	815	840	<2	1.95	2.0	<20	11	29	20	29
438823	1.2	24	27	20	0.3	1.03	1.3	688	650	<2	2.03	2.2	<20	11	29	19	30
438824	1.3	22	26	20	0.4	0.95	1.3	617	600	<2	1.87	1.9	<20	11	27	20	29
438829	1.4	31	27	34	0.3	1.45	1.8	772	720	<2	1.48	1.4	<20	6	29	76	110
438831	0.40	<27	10	6	<0.3	0.52	0.47	317	330	<2	0.56	0.55	<20	<4	11	<15	18
438832	1.1	25	23	18	<0.1	1.13	1.2	642	610	<2	1.72	1.7	<20	9	24	<15	26
438833	1.1	26	23	19	0.2	1.04	1.3	782	730	<2	1.82	1.9	<20	8	25	29	26
438872	1.2	28	23	19	<0.2	0.94	1.2	770	710	<2	1.41	1.5	<20	5	26	<15	27

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
438791	0.10	9	12	<1	0.73	12.6	13	<5	<10	332	360	<1	<1	11.8	16	0.76	0.74
438792	0.21	6	7	<2	0.76	17.7	17	<5	<10	366	470	<1	1	6.7	9	0.89	0.94
438793	0.08	<5	6	<2	0.96	15.0	14	<5	<10	<249	360	2	<1	6.7	7	0.60	0.63
438794	0.08	18	19	<3	1.0	18.8	20	<5	<10	<342	330	<1	<1	5.0	6	0.72	0.71
438795	0.09	14	16	<2	1.2	15.3	15	<5	<10	<222	350	<1	<1	5.1	4	0.61	0.55
438796	0.09	17	17	<3	1.5	19.5	20	<5	<10	<307	290	<3	<1	<1.8	<4	0.69	0.69
438797	0.09	<5	7	<2	0.82	17.1	16	<5	<10	<268	300	<2	<1	6.4	6	0.44	0.49
438798	0.09	9	13	<3	0.60	18.8	20	<5	<10	<401	310	<2	<1	6.6	<4	0.44	0.60
438799	0.06	8	9	<1	0.64	14.6	15	<5	<10	<162	300	<1	--	5.6	4	0.46	0.46
438800	0.09	16	19	<4	1.8	17.8	17	<5	<10	<352	210	<4	<1	9.8	8	0.46	0.45
438801	0.10	5	15	<2	0.90	14.9	15	<5	<10	<290	240	<2	<1	7.2	<4	0.42	0.50
438802	0.10	8	12	<3	0.84	17.8	18	<5	<10	<435	290	<2	<1	4.8	4	0.43	0.44
438803	0.13	10	10	<2	0.80	16.8	17	<5	<10	<198	350	<1	<1	8.1	12	1.26	1.2
438804	0.09	<5	6	<2	0.92	17.6	17	<5	<10	<235	410	<2	<1	5.0	5	0.64	0.68
438806	0.09	11	11	<2	0.88	16.5	17	<5	<10	<253	240	<2	<1	7.0	6	0.41	0.41
438807	0.13	6	10	<3	0.77	15.6	16	<5	<10	<308	220	<1	<1	5.7	<4	0.43	0.39
438809	0.09	<5	13	<2	1.6	22.3	25	<5	<10	<217	190	<1	<1	7.2	9	0.49	0.47
438810	0.09	5	14	<3	0.80	17.5	18	<5	<10	<245	220	<2	<1	6.4	6	0.45	0.40
438811	0.16	<5	7	<4	0.57	10.9	11	<5	<10	<426	150	<4	<1	6.8	5	0.24	0.20
438812	0.08	8	9	<4	0.74	15.7	16	<5	<10	<412	210	<3	<1	6.9	6	0.37	0.37
438813	0.14	6	7	<2	0.57	12.7	12	<5	<10	<224	160	<2	<1	6.9	6	0.27	0.25
438814	0.08	5	12	<3	0.96	17.7	18	<5	<10	<292	230	<2	<1	7.6	6	0.47	0.40
438816	0.09	9	11	<2	0.77	16.5	17	<5	<10	<289	280	<2	<1	6.8	7	0.33	0.39
438817	0.10	<5	<4	<4	0.61	7.3	7	<5	<10	<462	190	<4	<2	3.3	<4	0.20	0.21
438818	0.07	7	11	<2	1.1	15.0	15	<5	<10	<180	280	<1	<1	7.2	4	0.44	0.45
438819	0.08	10	5	<3	0.86	15.8	16	<5	<10	<251	370	<3	<1	4.9	6	0.58	0.50
438820	0.14	5	7	<2	0.96	18.9	19	<5	<10	<272	440	<2	<1	6.1	8	0.53	0.64
438821	0.14	7	8	<3	0.96	18.6	19	<5	<10	<400	400	<2	<1	7.4	8	0.84	0.89
438822	0.11	6	9	<2	0.82	16.3	19	<5	<10	394	380	<1	<1	6.5	6	0.55	0.51
438823	0.08	<5	8	<3	0.76	15.7	16	<5	<10	<245	360	<2	<1	6.2	7	0.50	0.47
438824	0.08	8	8	<2	0.89	14.7	16	<5	<10	<257	340	<2	<1	5.6	8	0.47	0.46
438829	0.10	15	12	<3	0.88	15.8	16	<5	<10	<327	230	<1	<1	6.5	7	0.44	0.39
438831	0.11	<5	4	<5	0.44	5.2	6	<5	<10	<365	140	<6	<2	<3.5	<4	<0.11	0.15
438832	0.09	<5	8	<3	0.68	13.7	14	<5	<10	<287	320	<2	<1	5.0	<4	0.35	0.42
438833	0.11	9	8	<3	0.68	14.9	15	<5	<10	<377	360	<2	<1	6.2	<4	0.40	0.43
438872	0.14	<5	10	<3	0.68	13.7	14	<5	<10	<337	270	<5	<2	6.9	5	0.33	0.39

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
438791	4.4	98	100	34	4.7	3	84	93	271
438792	2.3	130	140	34	5.5	3	112	82	297
438793	2.8	128	130	21	3.4	2	<40	72	293
438794	1.9	156	160	23	3.4	2	<58	99	223
438795	1.8	134	120	16	3.3	2	<39	110	167
438796	1.6	157	160	20	<3	2	120	120	192
438797	2.7	127	140	19	3.9	2	<47	97	195
438798	2.1	126	150	20	4	2	<50	98	170
438799	2.1	126	120	14	3.4	2	<34	75	161
438800	3.1	138	140	22	<3.5	2	277	120	138
438801	2.6	135	120	19	3.1	2	<120	94	179
438802	2.0	131	130	19	<2.8	2	<55	100	137
438803	3.1	152	150	30	4.4	3	<35	86	212
438804	2.3	132	150	20	<2.6	2	232	68	207
438806	3.3	136	140	18	3.9	2	155	110	149
438807	2.4	124	130	17	3.6	2	75	92	139
438809	2.7	187	190	19	5.2	2	<46	130	130
438810	2.7	133	140	18	<2.2	2	247	100	129
438811	2.3	71	79	20	<3.4	2	<87	66	58
438812	2.7	134	130	18	<3.9	2	<81	100	129
438813	2.2	74	80	16	<1.8	2	<54	73	88
438814	3.4	146	140	20	<3	2	333	110	136
438816	3.2	123	130	18	3.9	2	163	110	138
438817	1.6	64	56	9	<4.4	1	<91	120	80
438818	2.5	132	130	16	3	2	<91	91	115
438819	2.3	123	130	20	<2.2	2	<60	71	182
438820	2.7	151	160	29	4.6	3	<45	86	153
438821	2.8	160	150	29	<3.3	3	<56	88	188
438822	2.8	140	140	20	3.6	2	<35	81	160
438823	2.4	131	130	18	5.8	2	<63	81	142
438824	2.3	129	130	17	<2.3	2	78	76	152
438829	3.2	136	130	18	4.3	2	<55	120	129
438831	0.9	44	50	8	<5.7	<1	<129	42	42
438832	2.1	110	120	15	<2.4	2	<59	73	137
438833	1.9	138	130	16	<3.5	2	<63	82	117
438872	2.5	112	120	16	<3.8	2	<126	93	113

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
438873	64.1247	-142.1294	6.76	6.8	10	<10	5.5	<0.06	903	690	1	<5	3.17	3.0	<5	<2	79
438874	64.1156	-142.0722	6.85	6.6	11	<10	5.8	<0.08	755	720	1	<5	2.16	2.3	<5	<2	68
438875	64.1283	-142.0214	6.48	6.8	11	<10	5.5	<0.04	795	780	1	<5	2.13	2.0	<5	<2	45
438876	64.1253	-141.9789	6.65	6.5	16	<10	14	<0.09	784	780	1	<5	2.02	2.0	<5	<2	67
438877	64.1461	-141.9519	7.06	7.3	17	<10	8.8	<0.06	774	920	2	<5	2.26	2.1	<5	<2	81
438878	64.1367	-141.9175	6.55	6.9	6	<10	6.5	<0.08	682	780	<1	<5	2.86	3.0	<5	<2	75
438879	64.1264	-141.8497	7.43	8.2	<5	<10	12	0.14	1026	950	2	<5	2.46	2.6	<5	<2	65
438880	64.1192	-141.7894	6.95	6.9	10	<10	7.6	<0.09	1153	750	1	<5	2.54	2.5	<5	<2	56
438881	64.1250	-141.7319	2.37	2.5	<5	<10	2.9	<0.09	<281	290	<1	<5	<0.22	0.97	<5	<2	31
438882	64.1219	-141.6028	3.62	3.6	6	<10	3.2	<0.12	524	490	<1	<5	1.72	1.7	<5	<2	25
438883	64.1967	-141.5300	5.45	6.6	13	<10	6.8	1.01	992	990	1	<5	2.67	2.9	<5	<2	142
438884	64.1975	-141.6189	5.97	6.8	6	<10	5.1	<0.07	1122	1000	1	<5	2.63	2.9	<5	<2	53
438885	64.2022	-141.6700	6.40	6.9	<5	<10	5.2	<0.05	1029	920	1	<5	2.37	2.3	<5	<2	71
438886	64.2006	-141.7653	2.37	2.0	<5	<10	2.9	<0.13	<513	330	<1	<5	2.29	1.9	<5	<2	<18
438887	64.1953	-141.8183	6.34	6.7	9	11	7	<0.03	1319	1200	1	<5	2.38	2.4	<5	<2	42
438888	64.1906	-141.8550	6.40	6.5	9	<10	7.5	<0.06	1129	1100	1	<5	1.79	1.9	<5	3	87
438889	64.1897	-142.0178	6.96	6.9	<5	<10	6.2	<0.05	1382	1400	2	<5	1.45	1.6	<5	<2	54
438890	64.1964	-142.0561	6.34	6.7	<5	<10	3.5	<0.08	1086	1000	<1	7	3.80	3.5	<5	<2	44
438891	64.1178	-141.5025	6.58	6.6	7	<10	5.0	<0.04	935	850	1	<5	2.62	2.6	<5	<2	57
438892	64.1258	-141.3997	6.86	6.9	9	<10	10	<0.08	1927	1200	1	<5	2.07	2.1	<5	<2	87
438893	64.1117	-141.1992	7.25	7.5	10	14	9.5	<0.06	1173	1100	1	<5	2.78	2.9	<5	<2	62
438894	64.1464	-141.2189	7.51	8.3	19	22	15	<0.07	1185	1300	1	<5	2.87	2.7	<5	<2	49
438895	64.1372	-141.2614	7.65	7.7	10	12	6.6	<0.09	1140	1100	1	<5	2.45	2.4	<5	<2	34
438896	64.1850	-141.2594	6.73	7.0	<5	<10	5.6	<0.06	828	850	1	<5	2.52	2.4	<5	<2	54
438897	64.1844	-141.2069	6.71	6.7	10	10	6.8	<0.08	771	850	1	<5	3.18	3.1	<5	<2	54
438898	64.2044	-141.2064	7.26	7.6	<5	<10	2.2	<0.04	971	770	1	<5	2.59	2.6	<5	<2	49
438899	64.2192	-141.1978	7.14	7.8	5	<10	2.7	<0.08	1117	980	1	<5	1.96	2.0	<5	<2	52
438900	64.2514	-141.2108	6.53	6.7	10	15	10	<0.06	944	1000	1	<5	2.33	2.3	<5	<2	61
438901	64.2608	-141.2042	6.85	7.1	10	12	6.6	<0.07	1268	1300	1	<5	2.44	2.4	<5	<2	59
438902	64.2708	-141.2589	6.34	7.1	11	13	5.5	<0.03	937	970	1	<5	2.49	2.5	<5	<2	47
438903	64.3206	-141.1981	6.44	6.7	12	<10	3.7	<0.07	950	740	1	<5	2.60	2.6	<5	<2	48
438904	64.3325	-141.1894	6.62	7.3	11	11	5.6	<0.06	754	810	1	<5	2.76	2.9	<5	<2	44
438905	64.3464	-141.2508	6.33	7.2	6	12	4.8	<0.07	1021	880	1	<5	2.91	2.9	<5	<2	64
438906	64.3547	-141.2297	6.29	7.1	10	13	4.8	<0.04	844	800	1	<5	3.14	3.1	<5	<2	103
438907	64.3914	-141.2739	5.43	5.8	5	<10	2.2	<0.06	967	930	1	<5	2.12	2.0	<5	<2	49
438908	64.3931	-141.2481	5.28	6.0	6	<10	3.2	<0.05	672	860	1	<5	2.33	2.4	<5	<2	62

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
438873	53	17	17	61	96	<2.1	31	23	4	1.3	<2	4.42	4.1	21	6.9	<4	1.20
438874	64	13	13	59	71	3.5	31	40	4	1.1	<2	3.89	3.7	23	3.6	<4	1.01
438875	66	8	10	69	84	<1.7	15	13	4	1.1	<2	3.82	3.7	17	4.8	<4	1.15
438876	84	40	22	69	89	<3.2	22	15	4	1.6	<2	5.63	5.7	16	5.6	<4	0.88
438877	96	21	21	63	96	<2.1	26	18	5	1.4	<2	4.63	4.5	12	7.3	<4	1.55
438878	79	17	20	97	130	<2.7	15	17	6	1.7	<2	4.87	4.8	14	9.7	<4	0.96
438879	93	20	24	92	110	3.8	<10	24	6	1.7	<2	5.48	5.3	14	6.0	<4	1.52
438880	49	38	18	102	110	<3.1	48	43	5	1.7	<2	3.90	3.7	22	4.7	<4	1.13
438881	30	15	7	<19	44	<3.2	34	36	4	<0.7	<2	1.45	1.4	6	<2.5	<4	<0.42
438882	22	8	10	<23	62	<3.8	34	44	<3	<0.8	<2	2.05	1.9	10	<3	<4	<0.54
438883	130	19	18	145	170	<1.4	25	20	8	1.7	2	9.08	8.7	14	34.1	<4	1.01
438884	52	32	19	84	100	<2.6	24	26	4	1.6	<2	4.42	4.5	14	7.0	<4	1.37
438885	69	16	16	60	87	<1.8	17	19	4	1.5	<2	4.07	3.9	16	7.4	<4	1.30
438886	17	12	17	43	50	<3.9	<10	20	<4	<0.9	<2	1.95	1.6	<4	<3.1	<4	<.087
438887	46	17	22	69	98	<1.4	22	21	4	1.3	<2	4.45	4.3	16	5.3	<4	1.26
438888	100	28	16	72	77	<2.3	22	21	5	1.5	<2	3.63	3.5	14	8.0	<4	1.72
438889	70	16	16	61	70	3.8	--	27	5	1.3	<2	4.21	3.9	15	7.9	<4	2.04
438890	62	23	28	59	93	<3	41	30	5	1.4	<2	5.20	5.1	14	4.7	<4	1.08
438891	57	13	14	80	88	3.5	28	18	5	1.4	<2	3.67	3.6	17	7.4	<4	1.12
438892	69	40	20	52	71	<2.9	21	19	4	1.6	<2	4.02	4.0	13	5.7	<4	1.41
438893	58	19	16	80	100	<2.3	17	16	7	1.6	<2	4.52	4.3	16	12.4	<4	1.11
438894	43	12	15	45	56	<2.5	18	19	4	1.2	<2	5.39	4.6	13	4.6	<4	1.69
438895	47	40	20	63	92	5.8	10	26	5	2.0	<2	4.35	4.4	11	4.3	<4	1.30
438896	49	16	16	74	94	<2	26	19	4	1.4	<2	3.46	3.6	17	5.5	<4	1.14
438897	45	13	16	76	81	<2.9	24	23	4	1.3	<2	3.86	3.8	15	6.6	<4	1.15
438898	56	9	11	65	79	<1.5	<10	10	4	1.3	<2	3.37	3.3	15	7.5	<4	1.36
438899	47	30	10	59	81	<2.8	<10	10	4	1.7	<2	2.69	3.0	14	9.0	<4	1.59
438900	57	22	20	103	120	3.9	23	26	4	1.6	<2	4.18	4.1	12	8.3	<4	1.01
438901	50	14	17	85	98	<2.4	40	31	4	1.1	<2	3.91	3.9	15	5.9	<4	1.60
438902	55	14	17	74	95	<1.2	40	18	4	1.2	<2	4.01	4.0	16	5.3	<4	1.23
438903	50	29	16	97	85	<2.5	26	20	4	1.0	<2	3.74	3.7	13	7.5	<4	1.18
438904	40	19	18	86	92	<2.2	21	17	5	1.1	<2	4.40	4.5	13	6.9	<4	0.88
438905	46	19	20	114	140	<2.4	35	22	5	1.3	<2	4.57	4.7	11	8.4	<4	0.94
438906	100	15	17	135	130	<1.5	25	13	7	1.8	<2	4.66	4.7	9	22.7	<4	0.79
438907	38	26	13	45	67	<2.2	36	26	4	1.2	<2	3.42	3.6	13	5.1	<4	0.85
438908	48	15	14	59	77	<1.8	53	28	5	1.4	<2	3.49	3.7	7	7.4	<4	1.11

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
438873	1.3	24	27	19	0.3	1.23	1.7	967	920	<2	1.99	2.1	<20	11	31	25	25
438874	1.2	38	37	29	0.3	1.18	1.4	703	650	<2	1.42	1.5	<20	8	31	15	24
438875	1.2	29	36	21	0.2	0.98	1.1	600	590	<2	1.59	1.7	<20	11	32	20	20
438876	1.2	38	45	23	0.4	0.85	1.1	1098	1000	<2	1.62	1.6	<20	10	38	<15	24
438877	1.6	32	43	23	0.3	0.91	0.93	1654	1700	<2	2.06	2.1	<20	18	38	<15	27
438878	1.2	34	42	20	0.4	1.15	1.5	1178	1100	<2	1.74	1.8	<20	23	37	<15	31
438879	1.6	34	46	23	0.3	1.22	1.4	1882	1800	4	1.54	1.6	<20	22	41	<15	38
438880	1.2	23	26	21	0.3	1.26	1.5	769	710	<2	1.75	1.9	<20	8	29	27	33
438881	0.39	<10	15	6	<0.2	<0.22	0.41	250	270	<2	0.50	0.52	<20	<4	19	<15	22
438882	0.69	11	13	11	<0.3	0.73	0.59	367	350	2	0.84	0.81	<20	4	14	<15	24
438883	1.4	74	74	21	0.8	0.85	1.5	1496	1600	<2	1.40	1.7	<20	18	68	24	30
438884	1.2	34	27	23	0.5	1.16	1.4	1288	1300	<2	1.44	1.5	<20	8	29	24	29
438885	1.5	29	36	23	0.4	1.11	1.4	930	910	<2	1.73	1.8	<20	10	36	<15	22
438886	0.39	<10	9	5	<0.3	<0.37	0.51	1342	1200	5	0.61	0.51	<20	<4	10	0	28
438887	1.3	25	24	27	0.4	1.38	1.6	862	810	<2	1.41	1.6	<20	7	27	25	26
438888	1.8	42	54	26	0.3	1.09	1.2	908	870	<2	1.53	1.6	<20	12	41	25	24
438889	2.0	29	36	42	0.3	0.98	1.2	822	800	<2	1.28	1.3	--	14	33	--	28
438890	1.2	19	32	22	0.3	1.54	2.0	1682	1700	<2	1.55	1.7	<20	7	32	34	29
438891	1.1	28	31	19	0.3	0.90	1.3	884	830	<2	1.77	1.8	<20	13	30	<15	23
438892	1.4	35	36	21	0.4	1.01	1.1	1598	1500	<2	1.56	1.7	<20	13	34	19	23
438893	1.2	32	30	21	0.4	0.92	1.3	956	940	<2	1.69	1.9	<20	9	27	20	23
438894	1.9	22	23	19	0.3	1.31	1.5	1040	1000	<2	2.30	2.4	<20	6	32	<15	15
438895	1.2	31	24	25	<0.2	1.25	1.5	1077	1000	<2	1.65	1.6	<20	10	27	17	28
438896	1.3	27	27	22	0.3	1.15	1.4	611	620	<2	1.73	1.8	<20	8	30	30	28
438897	1.2	27	24	26	0.3	1.18	1.4	810	770	<2	1.51	1.6	<20	7	32	21	27
438898	1.2	33	31	17	0.3	0.87	1.1	607	580	<2	2.08	2.0	<20	9	30	<15	20
438899	1.6	29	27	18	0.3	1.09	0.91	451	420	<2	1.91	1.9	<20	11	27	<15	19
438900	1.3	29	29	31	0.4	1.08	1.5	1199	1200	<2	1.36	1.5	<20	7	33	40	55
438901	1.5	26	26	32	0.3	1.20	1.6	906	880	<2	1.49	1.6	<20	8	30	31	39
438902	1.5	29	28	23	0.3	1.02	1.5	879	930	<2	1.69	1.8	<20	8	36	45	33
438903	1.1	25	26	21	0.4	1.16	1.3	737	700	<2	1.74	1.8	<20	7	26	<15	21
438904	1.1	21	21	20	0.3	1.19	1.4	754	770	<2	1.71	2.0	<20	6	27	15	23
438905	1.0	25	23	21	0.4	1.47	1.9	1049	1100	<2	1.68	2.0	<20	6	23	39	45
438906	1.1	53	53	18	0.7	0.95	1.5	1039	1100	<2	1.67	1.8	<20	10	53	42	26
438907	0.89	18	20	20	0.2	0.90	1.1	826	840	<2	1.41	1.6	<20	7	24	25	23
438908	0.93	24	25	19	0.4	0.94	1.3	1009	1100	<2	1.31	1.5	<20	8	32	<15	24

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
438873	0.12	<5	9	<2	0.74	16.9	17	<5	<10	<285	410	<2	<1	6.7	5	0.53	0.51
438874	0.10	<5	9	<2	0.88	14.2	15	<5	<10	<348	270	<2	<1	9.9	12	0.41	0.38
438875	0.11	6	8	<1	1.0	15.0	16	<5	<10	<202	310	<1	<1	6.7	8	0.46	0.42
438876	0.13	<5	12	<3	0.86	14.3	15	<5	<10	<325	310	<3	<1	7.5	11	0.43	0.40
438877	0.12	<5	13	<2	1.0	12.5	13	<5	<10	<383	430	<2	<1	10.2	10	0.34	0.39
438878	0.12	5	7	<2	0.80	17.9	18	<5	<10	<404	340	<2	<1	5.6	8	1.03	1.0
438879	0.16	<5	11	<1	1.1	17.2	18	<5	<10	<285	350	<1	<1	8.9	11	0.70	0.73
438880	0.09	<5	8	<3	1.1	17.6	17	<5	<10	<289	320	<3	<1	5.7	<4	0.51	0.51
438881	0.09	<5	<4	<3	0.47	6.6	7	<5	<10	<299	120	<5	<1	3.1	<4	<0.088	0.15
438882	0.09	<5	5	<3	0.64	8.1	8	<5	<10	<443	180	<4	<2	<2.8	<4	0.29	0.17
438883	0.14	<5	18	<1	0.93	19.2	20	<5	<10	<208	330	3	2	28.7	43	0.91	1.1
438884	0.11	<5	8	<2	0.74	16.6	16	<5	<10	<300	330	<3	<1	7.3	7	0.46	0.44
438885	0.10	7	13	<2	0.81	16.0	16	<5	<10	<251	280	<2	<1	9.9	8	0.44	0.48
438886	0.08	<5	<4	<3	0.34	5.1	5	<5	<10	<713	140	<5	<2	<3.1	<4	<0.2	0.14
438887	0.11	8	10	<1	0.82	19.0	19	<5	<10	<171	230	<1	<1	5.8	<4	0.50	0.44
438888	0.10	6	11	<2	0.86	13.4	13	<5	<10	<249	250	<2	<1	12.2	16	0.38	0.34
438889	0.10	0	14	<2	0.57	15.5	15	<5	<10	<234	190	<2	<1	8.7	10	0.46	0.38
438890	0.14	8	10	<3	0.45	19.2	20	<5	<10	<485	390	<3	<1	4.7	4	0.47	0.46
438891	0.13	10	10	<1	1.4	17.1	17	<5	<10	<199	310	<1	<1	6.6	4	0.52	0.52
438892	0.12	7	14	<2	1.1	14.7	15	<5	<10	<352	320	<3	<1	8.3	9	0.46	0.42
438893	0.11	<5	9	<2	1.9	20.9	21	<5	<10	<277	270	<2	<1	7.7	6	0.51	0.49
438894	0.11	6	14	3	2.2	19.6	21	<5	<10	<368	320	<1	<1	6.0	6	0.40	0.38
438895	0.10	7	9	3	2.6	18.1	19	<5	<10	<310	250	<3	<1	4.4	4	0.52	0.47
438896	0.07	11	8	<2	0.85	15.4	16	<5	<10	<237	300	<2	<1	6.0	6	0.43	0.41
438897	0.09	<5	9	<2	1.3	17.1	17	<5	<10	<375	260	<2	<1	6.1	6	0.43	0.38
438898	0.05	7	10	<1	0.35	17.0	17	<5	<10	<177	310	<1	<1	7.3	7	0.44	0.38
438899	0.06	8	12	<2	0.37	12.8	13	<5	<10	<248	310	<3	<1	8.9	8	0.40	0.36
438900	0.10	6	11	<2	1.6	15.4	16	<5	<10	<302	230	<2	<1	8.8	7	0.42	0.43
438901	0.09	7	12	<2	1.1	15.8	16	<5	<10	<332	260	<2	<1	7.4	6	0.37	0.39
438902	0.10	9	11	<1	0.85	15.4	16	<5	<10	<164	300	<1	<1	8.4	5	0.45	0.43
438903	0.07	<5	6	<2	0.67	19.0	19	<5	<10	<234	260	<3	<1	8.2	7	0.39	0.39
438904	0.07	<5	9	<2	0.64	21.2	22	<5	<10	<247	280	<2	1	5.8	6	0.36	0.37
438905	0.08	8	9	<2	0.89	19.6	21	<5	<10	<333	260	<1	<1	6.1	<4	0.58	0.54
438906	0.09	6	8	<1	0.70	21.7	23	<5	<10	<190	340	<1	<1	12.0	14	0.90	0.75
438907	0.10	5	9	<2	0.34	14.3	15	<5	<10	<227	260	<2	<1	4.9	<4	0.46	0.43
438908	0.10	<5	9	<2	0.64	16.3	17	<5	<10	<246	260	<1	<1	5.8	6	0.49	0.50

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
438873	3.0	137	140	21	4	2	83	90	171
438874	3.5	116	120	18	3.4	2	<114	91	97
438875	2.9	137	130	18	3.5	2	<47	69	135
438876	3.7	122	130	22	<2.9	2	<93	80	144
438877	3.9	118	110	28	4.2	3	<90	82	172
438878	2.9	169	160	25	4.6	2	128	93	250
438879	3.9	122	140	33	3.9	3	<42	100	--
438880	2.0	129	130	19	<2.9	2	<171	82	139
438881	1.2	58	64	13	<3.1	1	<109	49	52
438882	1.3	59	63	11	<3.9	1	<104	76	67
438883	6.3	244	270	35	8.4	4	<38	100	775
438884	2.3	131	140	22	<2.2	3	108	90	170
438885	2.9	127	130	21	3.8	2	<107	88	190
438886	0.9	66	45	6	<4.2	<1	<128	55	--
438887	2.1	147	150	21	3.8	2	<37	95	138
438888	3.2	105	110	22	7.1	2	171	91	196
438889	3.5	120	120	24	4.1	2	<45	110	--
438890	2.0	183	180	23	<2.5	2	<99	99	119
438891	2.9	128	130	21	5.6	2	<43	79	203
438892	5.9	118	120	25	<2.4	3	<96	100	165
438893	2.8	151	160	23	4.8	3	<57	92	238
438894	2.0	160	140	19	6.2	2	<59	73	128
438895	2.2	159	150	19	<2.8	2	268	110	119
438896	2.6	124	130	17	<1.8	2	<51	80	157
438897	2.3	127	140	18	3.7	2	166	90	137
438898	2.6	99	110	20	3.1	2	<36	62	178
438899	2.7	103	92	16	<2.6	2	<54	55	225
438900	2.6	124	130	21	3.1	2	<90	98	206
438901	2.3	128	130	19	<2.2	2	82	110	174
438902	2.5	119	130	19	3.6	2	<31	89	196
438903	2.4	124	130	17	<3	2	226	79	226
438904	2.2	146	150	16	2.8	2	<52	73	194
438905	2.2	158	160	21	3.2	2	<94	83	239
438906	5.1	150	160	29	6.1	3	<39	75	774
438907	1.7	108	110	18	<2	2	<15	73	166
438908	2.3	125	130	20	4.6	2	119	78	255

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
438909	64.4189	-141.3461	5.51	5.9	9	<10	2.5	<0.06	1253	1300	1	<5	1.83	1.5	<5	<2	47
438910	64.3772	-141.3692	4.69	5.0	19	13	12	<0.04	1197	1300	<1	<5	1.92	2.4	<5	<2	40
438911	64.3564	-141.3103	6.45	6.7	<5	<10	3.2	<0.07	1298	1100	1	<5	2.87	3.0	<5	<2	35
438912	64.3483	-141.3731	5.48	5.6	11	<10	4.5	<0.05	999	920	1	<5	2.57	2.6	<5	<2	38
438913	64.3267	-141.2978	6.75	7.0	9	11	4.6	<0.08	1155	1300	1	<5	1.96	2.0	<5	<2	59
438914	64.3239	-141.3228	5.44	6.4	6	11	5.4	<0.04	945	890	1	<5	2.86	3.2	<5	<2	42
438915	64.2861	-141.3439	6.06	6.5	7	11	6.5	<0.06	1381	1100	1	<5	2.26	2.5	6	<2	66
438916	64.2747	-141.3175	6.87	7.3	9	<10	3.5	<0.05	1089	1100	1	<5	2.19	2.2	<5	<2	57
438917	64.1875	-141.3547	8.23	7.9	16	<10	7.9	<0.08	985	990	2	<5	1.71	1.4	<5	<2	99
438918	64.1800	-141.3219	6.83	7.6	33	21	20	<0.04	1099	1000	1	<5	1.58	1.7	<5	<2	56
438919	64.1675	-141.3056	7.01	7.1	7	15	7.8	<0.07	1025	870	1	<5	2.06	2.0	<5	<2	52
438920	64.1453	-141.3081	6.55	7.2	10	11	6.0	<0.05	1040	1000	1	<5	2.52	2.5	<5	<2	56
438921	64.1133	-141.2869	6.41	6.8	6	<10	7.1	<0.10	1368	1300	1	<5	2.20	2.2	<5	<2	80
438922	64.1061	-141.2753	6.86	7.3	10	<10	5.3	<0.04	1179	1000	1	<5	1.77	1.8	<5	<2	48
438923	64.0997	-141.3394	6.85	7.7	13	14	5.5	<0.06	1108	910	1	<5	2.84	2.9	<5	<2	63
438924	64.0856	-141.3733	6.68	6.8	16	12	12	<0.06	955	1000	1	<5	1.79	2.0	<5	<2	63
438925	64.0708	-141.3942	6.72	6.3	12	<10	5.0	<0.07	937	830	1	<5	2.43	2.1	<5	<2	57
438926	64.0858	-141.2706	6.60	7.4	15	13	7.0	<0.03	1044	950	1	<5	2.45	2.6	<5	<2	62
438927	64.3572	-141.4067	4.84	5.2	9	<10	4.9	<0.06	871	880	<1	<5	1.97	2.0	<5	<2	51
438928	64.3736	-141.4122	4.76	5.1	7	<10	4.4	<0.05	1133	1200	1	<5	1.31	1.4	<5	<2	46
438929	64.3997	-141.3903	5.41	5.3	15	12	13	<0.07	1037	1100	1	<5	1.55	1.5	<5	<2	75
438931	64.4197	-141.3772	4.94	7.8	<5	<10	1.9	<0.03	1170	1900	1	<5	1.57	2.7	<5	<2	62
438932	64.4436	-141.3111	3.39	2.8	31	24	26	<0.2	816	660	<1	<5	<0.28	0.82	<5	<2	<23
438933	64.4414	-141.1964	4.94	5.7	<5	<10	3.0	<0.05	1049	1100	1	<5	1.70	2.0	<5	<2	42
438934	64.4508	-141.0836	6.40	6.7	9	<10	7.7	<0.08	1411	1400	1	<5	1.32	1.2	<5	<2	72
438935	64.4431	-141.0911	6.00	6.3	11	<10	8.8	<0.03	1660	1500	1	<5	1.06	1.1	<5	<2	75
438936	64.4578	-141.0717	6.12	5.8	14	<10	10	<0.07	1340	1200	1	5	0.95	1.0	<5	<2	83
438966	64.4964	-141.5456	5.78	6.5	31	24	23	<0.05	911	1000	2	<5	1.63	1.7	<5	<2	82
438991	64.0022	-141.5917	6.10	6.3	17	10	8.5	<0.03	1141	1000	1	<5	1.88	2.0	<5	<2	46
438992	64.0228	-141.5722	7.02	6.7	<5	<10	2.3	<0.08	1019	950	1	<5	2.07	1.9	<5	<2	49
438993	64.0161	-141.7189	3.62	3.5	<5	<10	3.2	<0.09	626	430	<1	<5	1.69	1.6	<5	<2	29
438994	64.0050	-141.7528	8.33	8.2	9	<10	3.5	<0.07	876	920	1	<5	2.08	1.8	<5	<2	59
438995	64.0081	-141.7881	7.13	6.8	7	<10	4.2	<0.08	1052	870	1	<5	1.32	1.6	<5	<2	47
438996	64.0264	-141.8556	6.92	7.1	8	<10	3.7	0.14	851	820	<1	<5	2.90	2.8	<5	<2	58
438997	64.0064	-141.8825	6.27	6.2	27	12	19	<0.08	530	790	<1	<5	2.32	2.2	<5	<2	70
438998	64.0289	-141.9594	6.65	6.8	13	<10	4.9	<0.04	1000	770	1	<5	2.23	2.2	<5	<2	43

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
438909	38	12	16	56	61	<2.1	52	34	3	0.9	<2	3.28	3.4	10	5.4	<4	0.97
438910	41	30	33	69	96	<1.7	43	35	4	1.4	<2	5.75	5.4	<4	3.6	<4	<0.91
438911	40	32	19	74	110	<2.7	47	40	4	1.4	<2	4.14	4.4	12	4.2	<4	1.13
438912	47	27	29	219	260	<1.9	57	36	5	1.2	<2	4.26	4.4	14	5.3	<4	<0.41
438913	50	22	24	179	220	6.0	62	44	4	1.4	<2	4.38	4.4	16	5.0	<4	1.12
438914	49	24	27	97	120	1.7	51	58	3	1.2	<2	5.83	6.0	8	4.1	<4	1.07
438915	51	32	19	121	120	<2.3	40	24	4	1.2	<2	3.70	3.7	14	5.9	<4	1.55
438916	50	19	17	88	100	<1.8	34	16	3	1.2	<2	3.58	3.6	14	6.8	<4	1.26
438917	79	13	15	69	91	<2.8	37	24	6	1.9	<2	3.64	3.5	19	5.5	<4	2.24
438918	59	19	21	50	64	3.9	34	21	4	1.2	<2	4.96	5.0	14	3.8	<4	1.82
438919	52	30	15	77	96	<2.6	35	27	4	1.4	<2	3.27	3.4	17	6.3	<4	1.35
438920	51	15	15	82	93	4.5	39	21	5	1.4	<2	3.64	3.7	13	7.5	<4	1.23
438921	58	17	21	52	71	<3.4	30	26	8	1.6	<2	7.81	7.7	17	4.3	<4	<0.62
438922	48	10	14	66	76	<1.6	33	24	5	1.3	<2	4.12	4.0	17	4.9	<4	1.21
438923	52	25	15	74	87	<2.2	25	16	5	1.6	<2	3.83	4.0	18	7.5	<4	0.96
438924	55	20	19	84	100	4.8	33	19	4	1.4	<2	4.29	4.5	13	6.2	<4	1.07
438925	53	12	13	74	81	<2.3	20	15	5	1.5	<2	3.26	3.2	15	7.3	<4	1.02
438926	54	15	19	91	110	<1.4	30	25	4	1.3	<2	4.21	4.3	15	5.5	<4	0.97
438927	48	26	13	86	88	<2.1	38	21	5	1.4	<2	3.49	3.8	11	10.8	<4	1.00
438928	51	15	14	115	140	<1.7	59	38	3	1.1	<2	3.00	3.2	12	4.6	<4	1.23
438929	58	21	26	96	110	<2.5	46	33	5	1.3	<2	3.91	4.1	11	6.0	<4	1.17
438931	49	20	20	83	66	<1.4	113	97	5	1.4	<2	3.90	4.7	20	4.9	<4	1.27
438932	28	87	12	<38	81	<6.3	48	47	<3	<1.2	<2	3.03	3.4	5	<4.9	<4	<0.70
438933	44	17	17	121	140	<1.8	40	33	4	0.8	<2	3.59	3.7	4	5.2	<4	1.02
438934	78	18	20	108	110	<2.5	34	26	5	1.6	<2	3.43	3.5	10	9.5	<4	1.57
438935	74	19	21	100	120	<1.4	36	28	5	1.0	<2	3.57	3.5	10	8.6	<4	1.43
438936	68	29	16	97	99	7.3	36	27	4	1.6	<2	3.25	3.2	14	9.3	<4	1.66
438966	95	25	34	77	94	6.2	29	26	5	1.7	<2	6.94	7.3	<4	6.4	<4	<1.02
438991	47	16	17	127	140	3.3	32	23	4	1.2	<2	3.79	3.7	15	5.0	<4	1.30
438992	43	29	9	74	87	<2.7	21	17	3	1.5	<2	2.23	2.6	22	5.8	<4	1.64
438993	25	20	13	52	57	<2.9	24	20	<3	<0.6	<2	2.83	2.6	12	3.2	<4	<0.53
438994	43	14	16	63	70	3.6	36	34	4	1.1	<2	3.75	3.7	21	4.7	<4	1.90
438995	49	41	16	69	85	<2.9	34	29	4	1.6	<2	3.04	3.4	23	4.6	<4	1.59
438996	70	16	15	92	96	<1.8	28	17	5	1.4	<2	3.75	3.8	14	9.6	<4	1.05
438997	58	20	23	68	97	<2.9	35	25	4	1.2	<2	6.32	6.4	11	4.9	<4	1.03
438998	42	12	12	85	88	<1.4	30	27	4	1.1	<2	3.33	3.2	18	4.4	<4	1.30

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
438909	0.97	21	18	25	0.4	0.74	1.1	1214	1200	<2	1.25	1.3	<20	6	14	23	27
438910	0.88	24	23	27	0.2	0.81	0.99	3784	3500	<2	1.03	1.2	<20	<4	23	<15	31
438911	0.99	21	21	25	0.2	1.60	2.0	903	920	<2	1.72	1.9	<20	4	30	51	40
438912	0.92	22	27	21	0.2	2.10	2.7	1085	1100	<2	1.15	1.3	<20	<4	27	148	160
438913	1.3	28	26	30	0.3	1.67	2.2	723	700	<2	1.23	1.3	<20	5	29	116	110
438914	1.0	25	24	25	0.3	1.39	2.0	2370	2500	<2	1.20	1.4	<20	<4	30	29	50
438915	1.2	27	26	27	<0.1	1.51	1.8	901	890	<2	1.48	1.7	<20	5	31	44	49
438916	1.3	25	26	20	0.3	1.10	1.3	821	830	<2	1.73	1.8	<20	10	23	<15	27
438917	2.1	51	50	18	0.2	0.94	1.1	966	870	<2	1.28	1.2	<20	11	48	29	26
438918	1.6	27	31	32	0.3	1.04	1.3	1788	1900	<2	1.53	1.5	<20	6	32	<15	23
438919	1.3	29	26	26	0.3	1.21	1.3	637	590	<2	1.63	1.5	<20	9	32	26	26
438920	1.2	27	27	23	0.4	1.13	1.5	711	700	<2	1.60	1.7	<20	11	29	24	29
438921	1.2	29	31	22	0.2	1.28	1.5	1318	1300	<2	1.44	1.6	<20	4	37	<15	24
438922	1.2	25	25	20	0.4	0.92	1.2	643	610	<2	1.91	1.9	<20	9	26	18	22
438923	1.2	27	27	18	0.4	1.28	1.4	857	870	<2	1.94	2.0	<20	12	34	<15	24
438924	1.3	28	29	22	0.4	1.08	1.3	794	750	<2	1.61	1.6	<20	9	29	33	29
438925	1.2	29	29	18	0.3	1.08	1.1	752	690	<2	1.96	2.1	<20	12	28	21	24
438926	1.3	26	27	21	0.4	1.16	1.5	867	900	<2	1.78	2.0	<20	7	35	29	31
438927	0.88	29	26	13	0.4	0.79	1.0	911	880	<2	1.20	1.3	<20	8	26	30	30
438928	1.3	25	29	24	0.2	1.06	1.3	645	640	<2	0.82	0.89	<20	<4	24	47	61
438929	1.2	29	31	23	0.3	0.93	1.1	1810	1800	2	1.01	1.1	<20	6	30	78	74
438931	1.7	26	27	30	0.3	0.87	1.6	1742	1000	<2	0.94	1.5	<20	12	30	22	31
438932	0.72	<25	15	11	<0.4	0.58	0.52	647	560	5	0.50	0.49	<20	<4	15	26	46
438933	1.0	22	23	23	0.3	1.03	1.3	1924	1900	<2	0.92	1.0	<20	5	35	45	52
438934	1.7	41	40	23	0.3	0.93	1.1	1229	1200	<2	1.14	1.1	<20	9	32	26	42
438935	1.7	36	39	21	0.4	1.09	1.2	1111	1100	<2	0.94	0.94	<20	8	41	38	47
438936	1.6	38	35	24	0.4	0.96	0.83	736	660	<2	0.92	0.87	<20	8	33	36	39
438966	1.8	44	52	26	0.4	0.72	0.80	4545	5100	<2	0.87	0.99	<20	5	46	31	39
438991	1.2	23	26	22	0.3	1.02	1.5	873	840	<2	1.53	1.6	<20	6	26	49	48
438992	1.5	23	23	19	<0.1	1.22	1.1	540	490	<2	1.95	1.9	<20	12	23	17	23
438993	0.58	<8	13	12	<0.2	0.68	0.77	623	560	<2	0.94	0.87	<20	<4	14	<15	19
438994	1.3	21	23	26	0.3	1.01	1.2	789	760	<2	1.82	1.8	<20	11	25	<15	21
438995	1.3	30	26	22	0.3	0.84	1.0	798	730	<2	1.70	1.7	<20	11	25	18	26
438996	1.2	28	38	18	0.4	1.19	1.5	699	680	<2	2.02	2.0	<20	14	35	18	26
438997	1.2	23	32	20	0.2	0.94	1.2	1163	1100	<2	1.59	1.6	<20	5	32	25	30
438998	1.3	24	23	21	0.3	1.13	1.1	612	570	<2	1.84	1.9	<20	10	24	<15	27

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
438909	0.07	<5	7	<2	0.44	14.4	14	<5	<10	<351	190	<2	<1	4.8	<4	0.55	0.40
438910	0.13	<5	18	<1	0.78	12.4	12	<5	<10	<435	200	<1	<1	5.9	4	0.31	0.31
438911	0.08	10	8	<2	0.41	18.5	19	<5	<10	<262	270	<3	<1	5.1	5	0.45	0.41
438912	0.08	<5	10	<2	0.72	17.6	16	<5	<10	<262	180	<2	<1	5.5	<4	0.46	0.52
438913	0.09	<5	8	<2	1.2	16.3	17	<5	<10	<337	210	<2	<1	6.5	5	0.46	0.46
438914	0.07	9	13	<1	0.51	18.5	19	<5	<10	<291	210	<1	<1	5.2	7	0.54	0.52
438915	0.08	10	11	<2	0.85	15.5	15	<5	<10	<244	260	<2	<1	7.0	8	0.41	0.42
438916	0.06	<5	9	<1	0.57	15.7	16	<5	<10	<242	260	<1	<1	6.0	5	0.44	0.40
438917	0.10	12	19	<2	0.98	13.7	14	<5	<10	<402	230	<2	<1	15.0	12	0.37	0.37
438918	0.10	<5	11	5	3.2	15.9	16	<5	<10	<258	250	<1	<1	8.5	10	0.33	0.37
438919	0.07	14	13	<2	2.5	16.2	15	<5	<10	<243	230	<3	<1	7.2	7	0.49	0.39
438920	0.15	5	7	7	5.2	15.1	15	<5	<10	<219	260	<2	<1	6.6	5	0.57	0.56
438921	0.12	<5	15	<3	0.82	19.5	20	<5	<10	<470	240	<2	<1	6.7	6	0.41	0.42
438922	0.08	6	11	<1	0.75	17.0	17	<5	<10	<187	240	<1	<1	6.6	6	0.47	0.42
438923	0.17	5	9	<2	1.2	18.0	19	<5	<10	<236	330	<2	<1	6.7	5	0.54	0.54
438924	0.10	7	15	<2	0.84	16.0	16	<5	<10	<274	270	<1	<1	7.0	5	0.39	0.39
438925	0.07	<5	11	<2	0.75	14.8	14	<5	<10	<327	320	<2	<1	6.5	6	0.41	0.45
438926	0.10	7	9	<1	0.93	18.4	19	<5	<10	<185	290	<1	<1	6.7	<4	0.46	0.43
438927	0.07	<5	13	<2	1.0	16.3	16	<5	<10	<225	190	<2	<1	6.6	5	0.56	0.50
438928	0.06	10	16	<1	0.86	12.6	13	<5	<10	<209	150	<1	<1	5.9	6	0.37	0.30
438929	0.07	10	15	<2	0.84	13.3	13	<5	<10	<479	170	<2	<1	7.6	7	0.47	0.38
438931	0.11	<5	9	<1	0.86	12.9	21	<5	<10	<262	250	<1	<1	6.9	5	0.43	0.50
438932	0.13	<5	10	<6	0.88	7.9	7	<5	<10	<496	94	<7	<3	<4.7	6	<0.14	0.16
438933	0.09	12	11	<2	0.56	14.6	15	<5	<10	<344	190	<2	<1	7.1	5	0.42	0.43
438934	0.10	12	17	3	1.9	15.5	17	<5	<10	<404	180	<2	<1	10.7	11	0.49	0.39
438935	0.10	11	17	<1	2.1	15.7	16	<5	<10	<191	150	<1	<1	9.4	10	0.65	0.35
438936	0.08	13	21	<2	2.8	13.9	14	<5	<10	<231	170	<2	<1	10.7	10	0.52	0.37
438966	0.12	24	51	<1	1.7	12.6	12	<5	<10	<486	170	<2	<1	11.3	12	0.41	0.35
438991	0.10	<5	13	<1	0.77	17.0	17	<5	<10	<175	230	<1	<1	7.3	5	0.46	0.37
438992	0.06	6	7	<2	0.54	12.4	12	<5	<10	<270	310	<3	<1	7.5	5	0.46	0.35
438993	0.10	<5	6	<3	0.47	11.0	10	<5	<10	<358	160	<4	<1	4.6	<4	0.25	0.21
438994	0.06	<5	8	<2	0.75	14.5	14	<5	<10	<350	300	<2	<1	7.3	5	0.47	0.45
438995	0.07	9	11	<3	0.68	14.3	14	<5	<10	<309	280	<3	<1	5.4	4	0.43	0.41
438996	0.10	<5	8	<2	0.54	16.5	17	<5	<10	<243	390	<2	<1	6.2	12	0.55	0.54
438997	0.15	<5	13	<3	0.80	13.5	14	<5	<10	<447	300	<3	<1	4.6	6	0.39	0.37
438998	0.07	<5	6	<1	0.84	14.4	14	<5	<10	<184	310	<1	<1	6.5	5	0.48	0.40

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
438909	1.8	102	110	18	2.7	2	106	87	165
438910	2.2	124	120	15	3.5	2	<61	110	122
438911	1.9	151	160	21	3.3	2	179	98	164
438912	1.9	135	140	20	2.5	2	97	92	180
438913	2.2	151	160	18	3.3	2	112	100	161
438914	2.4	177	190	20	3.8	2	<46	94	166
438915	2.4	129	130	19	3.6	2	<62	98	195
438916	2.4	114	120	17	3	2	73	81	215
438917	3.4	96	95	20	3.9	2	<68	84	170
438918	2.7	102	120	19	3.5	2	<41	81	140
438919	2.4	125	120	18	<2.4	2	<50	100	170
438920	2.3	132	130	20	3.6	2	<122	93	244
438921	2.3	154	160	26	5.4	3	<78	97	127
438922	2.3	135	140	19	4.7	2	<78	86	179
438923	2.6	131	140	22	5	2	<152	74	259
438924	2.6	145	140	19	3.3	2	<58	91	181
438925	2.5	130	120	18	3	2	<47	73	219
438926	2.4	143	150	20	3.6	2	<38	83	220
438927	2.5	125	120	19	3.7	2	88	74	276
438928	2.1	106	100	17	3.3	2	<114	85	152
438929	2.8	114	120	21	3.8	2	<58	97	176
438931	2.8	114	150	25	4.2	2	90	91	141
438932	2.8	70	61	12	<6.7	1	<206	110	72
438933	2.0	108	120	22	4.3	3	<91	170	166
438934	3.9	139	130	17	5.2	2	<90	120	270
438935	3.7	132	140	16	4.1	2	<36	120	274
438936	3.3	132	120	14	3.8	2	190	140	240
438966	4.8	105	100	23	5.1	2	<54	200	184
438991	2.6	132	130	19	4.3	2	<35	94	155
438992	2.3	96	92	13	<2.5	1	<76	74	161
438993	1.5	86	76	10	<2.8	1	<84	58	83
438994	2.3	135	120	15	3.7	2	<74	88	139
438995	2.5	130	120	15	<2.7	2	<217	90	144
438996	2.8	127	130	22	4.3	2	74	78	258
438997	2.1	135	130	18	4	2	<70	88	134
438998	2.2	115	110	15	3.2	2	<70	77	141

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
438999	64.0131	-142.0556	7.19	7.3	12	<10	5.6	<0.06	902	780	1	6	2.79	2.6	<5	<2	79
439000	64.0136	-142.1194	3.47	3.4	5	<10	3.0	<0.08	<313	500	<1	<5	1.92	1.8	<5	<2	<11
439001	64.0064	-142.1839	7.00	6.9	8	<10	4.7	<0.07	744	700	1	<5	2.99	2.9	<5	<2	75
439049	64.0125	-141.5258	6.71	6.7	9	<10	5.1	<0.04	945	850	1	<5	2.11	2.0	<5	<2	41
439050	64.0153	-141.4925	6.69	6.5	12	<10	9.6	<0.16	960	840	1	<5	2.10	2.3	<5	<2	52
439051	64.0067	-141.4625	7.13	6.8	22	15	16	<0.10	743	760	<1	<5	2.60	2.5	<5	<2	50
439052	64.0094	-141.4408	7.05	6.7	14	<10	5.6	<0.13	741	790	<1	<5	2.72	2.4	<5	<2	66
439053	64.0153	-141.3667	6.64	6.5	8	<10	9.5	<0.09	1147	890	1	<5	1.42	1.1	<5	<2	61
439054	64.0175	-141.3067	7.17	7.6	<5	<10	3.8	<0.12	1046	1100	1	<5	1.85	1.6	<5	<2	47
439055	64.0142	-141.2153	6.50	7.3	5	<10	4.6	<0.10	1127	1100	1	<5	2.28	2.3	<5	<2	48
439056	64.0156	-141.1925	<1.38	1.3	42	<10	16	<0.26	<2364	2000	<1	<5	<1.09	2.5	10	<2	40
439057	64.0125	-141.1253	6.29	6.5	10	11	7.9	<0.07	1443	1200	1	<5	1.89	2.0	<5	<2	55
439058	64.0136	-141.0944	6.25	6.2	20	17	17	<0.14	1584	1400	1	<5	1.34	1.2	<5	<2	66
439059	64.0261	-141.0375	2.35	2.1	66	56	64	<0.21	<308	550	<1	<5	<0.21	0.94	<5	<2	83
439060	64.0419	-141.0081	5.88	5.8	42	41	40	<0.13	1382	1300	1	<5	1.05	1.0	<5	<2	71
439061	64.0572	-141.0139	5.84	6.5	46	50	48	<0.06	2091	2100	1	<5	1.27	1.3	<5	<2	48
439062	64.0639	-141.0361	5.12	5.4	21	17	15	<0.10	1686	1500	1	<5	0.96	0.98	<5	<2	61
439063	64.1194	-141.0144	6.70	6.2	7	<10	6.1	<0.09	1332	1500	1	<5	1.55	1.5	<5	<2	76
439064	64.1267	-141.0172	7.66	7.6	<5	<10	1.9	<0.10	2325	2300	2	<5	1.50	1.4	<5	<2	82
439065	64.1450	-141.0222	6.49	7.1	14	11	12	<0.06	910	910	1	<5	2.59	2.7	<5	<2	69
439066	64.1847	-141.0417	6.68	6.6	<5	<10	5.0	<0.15	884	830	1	<5	2.11	2.2	<5	<2	73
439067	64.2028	-141.0394	6.67	7.0	<5	<10	4.2	<0.09	594	790	1	<5	2.56	2.6	<5	<2	77
439068	64.2639	-141.0586	6.38	6.7	8	10	6.2	<0.13	692	880	1	<5	2.62	2.6	<5	<2	65
439069	64.2842	-141.0150	5.77	5.7	8	<10	4.7	<0.05	1397	1200	1	<5	1.42	1.3	<5	<2	51
439070	64.3069	-141.0367	5.65	6.1	<5	14	6.2	<0.11	1096	1000	1	<5	3.11	3.3	<5	<2	61
439071	64.3619	-141.0553	6.37	6.4	7	<10	4.9	<0.10	1010	990	1	<5	2.30	2.0	<5	<2	46
439072	64.3908	-141.0483	6.00	5.7	11	12	12	<0.13	1236	1100	1	<5	1.72	1.4	<5	<2	46
439073	64.3989	-141.0339	6.16	6.1	10	<10	7.1	<0.06	1270	1200	1	<5	1.56	1.4	<5	<2	55
439074	64.4033	-141.0881	5.76	5.7	9	<10	7.1	<0.13	1318	1200	1	<5	1.37	1.3	<5	<2	48
439075	64.3914	-141.1153	5.48	5.4	7	10	3.1	<0.09	1114	1100	<1	<5	2.24	2.3	<5	<2	40
439076	64.3786	-141.1531	6.76	6.4	<5	<10	3.0	<0.11	849	880	1	<5	2.34	2.2	<5	<2	41
439077	64.3825	-141.1297	5.80	6.6	5	<10	3.1	<0.05	830	900	1	<5	2.78	2.4	<5	<2	54
439078	64.3492	-141.1708	5.84	6.2	25	29	25	<0.15	837	820	1	<5	2.34	2.2	<5	<2	34
439079	64.3267	-141.1361	5.62	6.3	<5	13	1.6	<0.12	840	890	<1	<5	5.09	5.0	<5	<2	30
439080	64.3128	-141.0958	7.20	7.7	8	12	3.2	<0.13	557	640	1	<5	4.66	4.5	<5	<2	48
439081	64.2614	-141.1067	6.35	6.9	7	<10	4.9	<0.06	814	820	2	<5	3.37	3.5	<5	<2	55

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
438999	83	31	18	79	91	<2.3	21	15	5	1.3	<2	3.77	3.9	15	11.0	<4	1.63
439000	28	17	11	38	55	<2.8	47	46	<3	<0.6	<2	2.34	2.7	6	<2.2	<4	<0.51
439001	75	13	14	131	110	<2.4	16	22	7	1.7	<2	3.94	3.9	18	16.1	<4	0.99
439049	43	10	11	83	91	<1.6	17	18	4	1.1	<2	3.39	3.3	15	4.3	<4	1.23
439050	51	37	13	92	85	<3.3	20	18	4	1.7	<2	4.64	4.1	14	6.0	<4	1.18
439051	56	20	21	110	120	<2.2	22	23	5	1.3	<2	6.10	5.8	15	5.9	<4	1.02
439052	55	16	17	89	99	<2.8	30	19	5	1.4	<2	4.33	4.2	17	9.1	<4	1.06
439053	58	14	19	72	92	3.5	29	28	4	1.3	<2	5.31	5.2	17	4.1	<4	1.58
439054	50	30	15	101	110	<2.7	19	18	4	1.6	<2	3.63	3.6	15	7.0	<4	1.42
439055	50	15	16	71	94	<2.2	40	30	5	1.8	<2	4.49	4.7	14	4.9	<4	1.11
439056	45	84	90	<31	19	<5.2	<10	29	<3	2.7	2	20.18	19	<4	<4	<4	<0.52
439057	57	16	20	93	100	3.0	40	37	5	1.3	<2	4.04	3.8	6	5.4	<4	1.56
439058	58	37	21	204	230	7.1	40	37	5	1.6	<2	4.16	3.8	11	6.4	<4	1.72
439059	65	22	15	<27	54	<4.4	11	27	5	2.0	<2	10.74	9.9	8	<3.5	<4	<0.51
439060	67	17	19	81	110	5.7	27	33	5	2.1	<2	3.56	3.3	12	7.2	<4	1.48
439061	56	23	29	161	220	4.1	29	43	5	1.4	<2	4.68	4.9	6	3.5	<4	1.19
439062	61	28	19	85	120	<2.1	50	51	4	1.7	<2	3.86	3.9	11	3.9	<4	1.25
439063	76	21	17	143	160	2.3	26	24	6	2.0	<2	3.35	2.7	10	7.7	<4	1.35
439064	83	6	7	40	57	4.2	<10	11	4	1.8	<2	2.42	2.3	15	13.5	<4	2.80
439065	68	13	16	113	140	<1.5	18	18	5	1.4	<2	3.93	3.8	10	11.8	<4	1.32
439066	72	38	19	84	94	<3.2	22	20	6	1.6	<2	4.20	3.7	13	6.7	<4	1.30
439067	72	17	16	74	88	<1.9	25	21	5	1.3	<2	3.70	3.7	14	7.0	<4	1.50
439068	58	18	22	76	100	4.2	28	22	4	1.4	<2	4.09	4.2	8	6.1	<4	1.11
439069	64	11	13	84	99	<1.2	16	21	4	1.4	<2	2.78	2.8	15	7.4	<4	1.39
439070	76	27	18	100	120	4.0	20	30	5	1.8	<2	4.90	4.6	10	11.0	<4	1.26
439071	50	17	17	95	100	<2.2	23	25	6	1.2	<2	3.43	3.5	14	5.7	<4	1.07
439072	52	11	12	75	96	<2.7	15	18	4	1.1	<2	3.75	3.7	15	6.0	<4	1.35
439073	62	12	16	92	120	<1.5	20	19	5	1.1	<2	3.87	3.9	17	5.9	<4	1.33
439074	55	30	13	122	120	<2.8	14	22	5	1.6	<2	3.00	3.0	16	5.9	<4	1.13
439075	49	20	19	98	110	<2	18	16	4	1.2	<2	3.43	3.2	11	6.0	<4	0.90
439076	40	12	14	73	83	<2.5	18	18	4	1.3	<2	3.66	3.4	13	7.2	<4	1.04
439077	53	10	13	82	90	<1.3	20	10	5	1.3	<2	3.18	3.4	12	10.2	<4	1.16
439078	43	31	14	93	91	<3.3	<10	10	4	1.6	<2	5.43	5.7	15	5.9	<4	0.91
439079	32	29	33	210	290	<2.7	39	37	3	1.1	<2	4.46	4.7	11	3.8	<4	1.06
439080	38	19	22	78	110	<2.7	14	15	4	1.3	<2	5.34	5.4	15	3.6	<4	<0.51
439081	52	18	20	69	89	<1.5	78	74	4	1.4	<2	4.50	4.4	15	9.8	<4	1.36

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
438999	1.5	42	44	23	0.4	1.07	1.3	1136	1100	<2	1.92	2.0	<20	15	39	23	28
439000	0.61	<9	16	9	<0.2	0.69	0.61	555	520	<2	0.80	0.82	<20	<4	17	20	27
439001	1.1	40	39	18	0.6	1.40	1.5	813	760	<2	1.96	1.9	<20	11	40	33	29
439049	1.3	24	24	23	0.2	1.00	1.1	564	520	<2	1.52	1.6	<20	12	22	<15	29
439050	1.2	<25	29	21	<0.2	0.98	1.3	754	720	<2	1.61	1.6	<20	11	28	27	25
439051	1.2	24	31	21	<0.1	1.40	1.7	957	910	<2	1.59	1.7	<20	5	31	26	32
439052	1.2	32	30	20	0.3	1.31	1.4	1102	1000	<2	1.71	1.6	<20	11	29	26	29
439053	1.2	31	29	24	<0.1	0.58	0.84	645	600	<2	1.14	1.1	<20	6	30	<15	31
439054	1.6	34	27	25	<0.2	1.06	1.2	802	790	<2	1.75	1.9	<20	9	22	39	34
439055	1.3	<13	26	23	0.3	0.92	1.3	727	770	<2	1.59	1.8	<20	7	33	19	29
439056	0.25	<25	35	4	<0.4	<1.87	0.25	18060	16000	<2	0.45	0.23	<20	<4	45	<15	28
439057	1.4	25	29	26	0.3	1.21	1.3	1726	1700	<2	1.40	1.4	<20	7	33	23	39
439058	1.5	<23	32	39	<0.2	1.55	1.7	773	720	<2	0.94	0.93	<20	5	34	130	150
439059	0.26	<34	32	4	<0.3	<0.22	0.31	501	510	<2	0.23	0.23	<20	<4	36	20	27
439060	1.4	38	34	34	0.5	0.70	0.88	825	790	2	0.87	0.84	<20	8	32	37	57
439061	1.3	28	29	33	0.3	1.47	2.1	1715	1900	<2	1.03	1.1	<20	<4	37	74	96
439062	1.4	35	32	23	0.3	0.72	1.0	1255	1300	<2	0.71	0.75	<20	5	31	53	64
439063	1.5	39	42	22	0.4	1.32	1.6	939	870	<2	1.39	1.4	<20	6	38	98	100
439064	2.8	63	51	28	0.4	0.66	0.89	553	530	<2	1.96	1.8	<20	14	40	<15	18
439065	1.6	29	35	21	0.5	1.27	1.7	1153	1200	<2	1.48	1.5	<20	8	40	25	30
439066	1.3	34	36	27	0.4	1.28	1.3	1324	1200	<2	1.55	1.5	<20	8	39	21	26
439067	1.4	42	42	24	0.3	1.10	1.2	930	940	<2	1.71	1.7	<20	9	51	18	29
439068	1.3	34	31	27	0.4	1.13	1.3	1702	1800	<2	1.52	1.5	<20	7	38	16	36
439069	1.5	33	34	20	0.3	1.03	1.2	670	660	<2	1.46	1.5	<20	8	33	23	37
439070	1.3	40	40	24	0.4	1.36	1.6	1248	1300	<2	1.41	1.5	<20	9	43	30	43
439071	1.2	29	27	24	0.2	1.08	1.4	572	570	<2	1.57	1.6	<20	9	28	24	30
439072	1.2	35	27	23	<0.2	0.88	0.97	423	410	<2	1.42	1.3	<20	8	27	31	33
439073	1.6	35	32	25	0.3	1.08	1.4	693	690	<2	1.14	1.1	<20	7	36	<15	32
439074	1.3	32	29	25	<0.2	0.93	1.0	399	380	<2	1.16	1.1	<20	8	32	22	43
439075	0.96	21	26	23	0.2	1.12	1.3	834	820	<2	1.53	1.5	<20	10	32	29	42
439076	1.1	23	20	17	0.3	1.09	1.4	633	580	<2	1.80	1.8	<20	7	29	<15	19
439077	1.2	25	28	16	0.3	0.90	1.2	694	680	<2	1.78	1.8	<20	10	39	<15	21
439078	0.97	<27	22	16	<0.2	0.95	1.2	518	540	<2	1.70	1.8	<20	5	31	<15	26
439079	1.2	17	17	18	0.3	2.97	4.6	727	750	<2	1.28	1.4	<20	<4	29	41	58
439080	0.77	22	19	16	0.2	1.45	2.1	1120	1100	<2	1.90	1.9	<20	<4	33	<15	25
439081	1.3	27	27	16	0.3	1.27	1.7	797	820	<2	1.88	1.9	<20	11	33	<15	28

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
438999	0.12	6	10	<2	0.67	15.4	15	<5	<10	<281	360	<2	<1	12.0	14	0.50	0.46
439000	0.15	<5	8	<2	0.58	7.0	7	<5	<10	<367	190	<4	<1	3.6	4	0.19	0.19
439001	0.11	<5	6	<2	0.81	17.6	18	<5	<10	365	390	<1	<1	9.8	8	0.66	0.62
439049	0.08	<5	11	<1	0.83	14.4	14	<5	<10	<194	270	<1	<1	6.6	7	0.46	0.41
439050	0.08	<5	12	<5	0.86	15.8	16	<5	<10	<266	290	<5	<1	7.6	6	0.49	0.44
439051	0.08	<5	16	<3	0.83	20.6	20	<5	<10	<257	240	<3	<1	6.2	6	0.49	0.49
439052	0.09	<5	12	<4	0.68	18.7	19	<5	<10	<377	270	<3	<1	6.4	5	0.62	0.49
439053	0.13	9	19	<3	0.59	12.7	13	<5	<10	<216	180	<2	<1	7.8	6	0.45	0.31
439054	0.08	6	11	<4	0.49	15.6	15	<5	<10	<241	300	<3	<1	7.9	7	0.42	0.39
439055	0.09	6	11	<3	0.52	15.9	18	<5	<10	<251	280	<3	<1	5.4	5	0.48	0.44
439056	0.11	<5	34	<7	0.29	3.4	3	<5	<10	--	140	<5	<2	<3.8	7	<0.96	0.10
439057	0.10	6	17	<2	0.64	17.5	18	<5	<10	<275	240	<1	<1	6.7	6	0.45	0.37
439058	0.11	9	20	<4	1.5	15.1	14	<5	<10	<247	190	<4	<1	8.4	7	0.46	0.39
439059	0.14	<5	27	<6	0.27	5.5	5	<5	<10	<361	110	<5	<2	<3.3	<4	<0.1	0.09
439060	0.11	15	21	<4	0.83	12.3	13	<5	<10	<337	160	<2	<1	7.5	8	0.51	0.34
439061	0.16	14	17	<2	0.82	17.5	20	<5	<10	<235	160	<1	<1	6.6	8	0.45	0.41
439062	0.11	5	14	<3	0.55	14.3	14	<5	<10	<244	170	<2	<1	7.7	7	0.42	0.28
439063	0.10	18	20	<3	0.40	12.7	13	<5	<10	<268	190	<2	<1	11.0	11	0.41	0.30
439064	0.10	17	24	<3	0.27	7.6	8	<5	<10	<292	320	<2	<1	19.9	19	0.29	0.27
439065	0.08	17	24	<2	0.67	23.2	27	<5	<10	<193	240	<1	<1	9.3	9	0.43	0.39
439066	0.08	8	12	<4	0.72	16.1	17	<5	<10	<332	240	<4	<1	8.6	7	0.43	0.38
439067	0.08	8	14	<3	0.64	15.7	17	<5	<10	<261	270	<2	<1	10.0	10	0.39	0.40
439068	0.10	<5	14	<4	0.96	15.1	17	<5	<10	<479	350	<2	1	6.1	4	0.37	0.38
439069	0.08	10	14	<2	0.85	11.9	13	<5	<10	<159	150	<1	<1	9.7	8	0.36	0.28
439070	0.12	10	13	<3	0.96	17.2	18	<5	<10	<262	380	<3	<1	10.6	9	0.60	0.55
439071	0.06	6	10	<3	0.88	16.5	18	<5	<10	<245	260	<3	<1	6.4	7	0.39	0.38
439072	0.09	9	14	<4	0.98	12.0	13	<5	<10	<294	230	<2	<1	6.5	5	0.40	0.36
439073	0.08	7	15	<2	0.90	15.8	16	<5	<10	<172	150	<1	<1	8.6	9	0.50	0.39
439074	0.07	6	15	<4	1.1	12.9	13	<5	<10	<204	190	<4	<1	8.6	7	0.44	0.36
439075	0.08	<5	7	<3	0.90	13.9	15	<5	<10	<261	230	<2	<1	5.3	4	0.52	0.53
439076	0.06	5	9	<3	0.53	18.7	20	<5	<10	<297	260	<2	<1	5.1	4	0.33	0.38
439077	0.07	<5	10	<2	0.59	17.7	20	<5	<10	454	460	<1	<1	7.2	6	0.53	0.48
439078	0.13	<5	14	<5	0.51	14.1	16	<5	<10	<260	400	<4	<1	6.1	<4	0.42	0.37
439079	0.06	<5	10	<4	0.40	33.9	38	<5	<10	<249	340	<3	<1	3.4	<4	0.39	0.42
439080	0.10	<5	7	<4	0.31	22.9	25	<5	<10	<377	350	<2	<1	3.3	<4	0.48	0.43
439081	0.10	8	14	<2	0.69	22.0	24	<5	<10	365	550	<1	<1	7.0	5	0.57	0.52

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
438999	4.0	134	130	23	5.8	2	73	83	310
439000	1.4	85	75	12	<2.7	1	<93	51	68
439001	3.7	163	150	22	4.6	2	<52	77	375
439049	2.2	108	110	15	2.6	2	<45	94	119
439050	2.3	143	120	17	<4.5	2	<32	92	147
439051	2.3	160	150	21	<2.7	2	<64	96	172
439052	2.6	152	140	21	4.9	2	121	89	211
439053	2.5	132	140	16	<2.2	2	169	96	90
439054	2.3	113	120	15	<3.3	2	<89	82	155
439055	2.5	143	140	20	<2.7	2	<61	87	147
439056	1.3	<107	45	28	<7.2	2	167	180	32
439057	3.3	131	120	20	4.2	2	<45	120	141
439058	4.2	138	140	18	<3.9	2	243	150	154
439059	1.9	96	100	25	<6	2	<153	77	45
439060	4.6	127	130	20	5.6	2	259	190	146
439061	3.7	151	160	18	3.6	2	<55	240	123
439062	3.4	125	130	15	3.4	1	117	130	129
439063	5.1	92	89	19	4.1	2	199	120	210
439064	7.7	48	54	22	<3.3	2	72	73	341
439065	5.3	120	120	24	4.9	3	<37	100	309
439066	5.4	112	120	23	<4.1	2	<148	95	147
439067	5.5	117	110	24	4.4	2	<20	91	179
439068	3.1	121	120	22	<3.5	2	<66	130	156
439069	4.9	77	83	19	3.6	2	114	140	199
439070	2.9	151	150	25	5.8	3	<117	94	243
439071	2.7	126	130	18	3.8	2	<63	94	153
439072	2.5	131	120	15	<3.5	2	<28	100	154
439073	2.5	124	130	15	4.4	2	<43	130	175
439074	2.7	129	130	15	<3.5	2	<89	100	159
439075	2.4	134	140	17	<2.5	2	120	130	169
439076	2.2	120	120	17	4.5	2	<60	73	166
439077	2.9	122	120	20	4.8	2	<36	75	290
439078	2.0	157	150	15	<4.2	1	<112	71	131
439079	1.5	180	190	12	<3.2	1	<70	71	101
439080	1.5	146	160	20	4.9	2	<59	81	100
439081	2.7	173	180	19	3.5	2	<39	100	256

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
439082	64.2617	-141.1542	6.06	6.2	12	15	8.2	<0.12	1002	990	1	<5	2.84	3.0	<5	<2	69
439083	64.2314	-141.1497	6.99	6.6	<5	<10	3.6	<0.09	838	810	1	<5	2.32	2.3	<5	<2	69
439084	64.2069	-141.1242	6.46	6.4	<5	<10	2.9	<0.17	919	790	1	<5	2.75	2.4	<5	<2	60
439085	64.1817	-141.1447	6.05	6.4	9	11	4.9	<0.05	774	780	1	<5	2.63	2.6	<5	<2	45
439086	64.1822	-141.1131	6.36	6.5	6	<10	5.6	<0.12	1124	1000	1	<5	3.33	3.3	<5	<2	60
439087	64.1542	-141.1086	6.83	7.0	11	<10	6.5	<0.10	1043	1100	1	<5	2.50	2.4	<5	<2	51
439088	64.1317	-141.1172	7.33	7.1	18	21	15	<0.13	697	710	1	<5	3.35	3.3	<5	<2	61
439089	64.1103	-141.0964	5.93	6.5	20	20	21	<0.05	1395	1200	1	<5	1.59	1.7	<5	<2	53
439090	64.0972	-141.1078	6.58	6.7	20	20	21	<0.12	1894	1700	1	<5	2.33	2.4	<5	<2	66
439091	64.2539	-141.4258	5.26	5.4	9	<10	6.5	<0.09	1383	1300	1	<5	2.45	2.3	<5	<2	52
439092	64.2547	-141.4517	4.99	5.4	6	<10	4.6	<0.12	1488	1400	1	<5	2.27	2.3	<5	<2	49
439093	64.2436	-141.5003	6.23	6.6	<5	<10	6.6	<0.06	1135	960	1	<5	2.42	2.5	<5	<2	59
439094	64.2381	-141.5581	6.39	6.5	7	<10	6.0	<0.12	920	870	1	<5	2.57	2.5	<5	<2	62
439095	64.2533	-141.6036	6.45	6.8	<5	<10	3.4	<0.09	1117	950	1	<5	2.39	2.4	<5	<2	50
439096	64.2339	-141.6008	6.40	7.5	8	<10	5.4	<0.11	965	1000	1	<5	3.53	3.7	<5	<2	71
439097	64.2542	-141.7208	6.57	7.1	12	<10	6.6	<0.13	900	890	1	<5	2.33	2.4	<5	<2	77
439098	64.2289	-141.7692	6.39	7.1	11	11	5.3	<0.09	672	860	1	<5	2.33	2.4	<5	<2	85
439099	64.2389	-141.7897	7.18	6.7	<5	<10	1.9	<0.12	762	830	1	<5	1.86	1.6	<5	<2	28
439100	64.2192	-141.8097	6.47	6.4	<5	<10	1.7	<0.10	1069	730	1	<5	1.27	1.2	<5	<2	27
439101	64.2322	-142.0678	2.03	2.1	6	<10	2.4	<0.28	<462	680	<1	<5	1.30	1.4	<5	<2	<20
439111	64.4183	-141.5931	4.80	4.7	<5	<10	2.7	<0.11	1562	1700	<1	<5	1.85	1.8	<5	<2	52
439112	64.4133	-141.5367	6.39	6.8	10	<10	4.6	<0.06	1457	1300	1	<5	0.99	1.0	<5	<2	68
439113	64.4175	-141.5539	5.58	5.7	<5	10	5.3	<0.12	1674	1400	1	<5	1.17	1.2	<5	<2	50
439114	64.4569	-141.5344	6.89	6.4	14	12	7.4	<0.12	1345	1300	2	<5	1.66	1.6	<5	<2	105
439115	64.4481	-141.5178	5.65	5.8	14	13	10	<0.11	1336	1600	2	<5	0.86	0.73	<5	<2	70
439120	64.4825	-141.2433	6.45	6.9	9	17	6.4	<0.07	775	740	1	<5	2.88	3.0	<5	<2	56
439121	64.4978	-141.1267	7.25	6.9	20	18	16	<0.13	1782	1500	2	<5	1.37	1.3	<5	<2	139
439123	64.4933	-141.1558	6.11	5.9	13	11	6.8	<0.11	806	850	1	<5	1.93	1.8	<5	<2	64
439133	64.4894	-141.8328	7.38	8.0	<5	<10	4.8	<0.14	1085	1200	2	<5	1.54	1.7	<5	<2	325
439134	64.4856	-141.8575	5.84	5.9	9	12	6.7	<0.12	1161	1200	1	<5	2.04	1.7	<5	<2	62
439136	64.4956	-141.9233	5.87	6.3	10	<10	5.5	<0.07	1526	1300	1	<5	2.13	2.3	<5	<2	48
439137	64.4897	-141.9803	5.07	6.0	10	<10	7.0	<0.13	1433	1200	<1	<5	1.89	1.9	<5	<2	68
439138	64.4956	-142.0083	5.54	5.6	9	<10	7.6	<0.10	1174	1000	<1	<5	1.59	1.5	<5	<2	71
439140	64.4928	-142.1589	6.01	6.4	8	<10	6.0	<0.06	1638	1500	1	<5	1.34	1.2	<5	<2	61
439181	64.4414	-142.1461	1.76	1.6	6	<10	2.0	<0.18	<313	220	<1	<5	<0.21	0.92	<5	<2	<15
439182	64.4586	-142.0947	2.05	1.8	9	<10	2.1	<0.24	<512	210	<1	<5	<0.2	0.92	<5	<2	<20

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
439082	72	33	17	104	100	4.6	39	26	5	1.6	<2	4.29	4.3	12	10.7	<4	1.11
439083	57	14	14	72	93	3.1	22	16	4	1.4	<2	3.55	3.3	14	10.2	<4	1.04
439084	46	18	21	157	180	<3.5	33	29	3	0.7	<2	4.30	4.3	15	4.6	<4	1.80
439085	49	14	15	100	100	<1.3	10	12	5	1.1	<2	4.10	3.7	12	7.7	<4	1.03
439086	53	28	17	133	140	<2.6	29	23	4	1.4	<2	3.82	3.7	14	6.0	<4	1.38
439087	52	18	17	75	120	<2.1	32	22	6	1.4	<2	4.26	4.2	15	5.6	<4	1.13
439088	55	16	19	74	73	5.6	22	25	5	1.2	<2	4.87	4.6	15	6.3	<4	0.98
439089	58	14	17	105	120	4.9	29	20	5	1.5	<2	3.87	4.0	13	9.4	<4	1.16
439090	58	31	19	85	92	<2.5	35	39	6	2.2	<2	5.19	4.9	12	12.4	<4	1.31
439091	46	15	16	64	100	3.0	40	27	5	1.4	<2	3.49	3.5	8	5.5	<4	0.59
439092	46	17	21	60	100	3.0	40	34	3	1.3	<2	3.48	3.6	13	3.7	<4	1.35
439093	65	12	14	70	81	<1.4	29	23	5	1.2	<2	3.83	3.7	13	7.2	<4	1.59
439094	69	31	17	80	93	<2.5	22	25	5	1.5	<2	3.89	4.0	12	9.7	<4	1.33
439095	42	19	21	65	91	<2	33	25	4	1.3	<2	3.80	3.7	20	4.5	<4	1.03
439096	63	16	20	72	110	<2.4	21	18	4	1.1	<2	4.49	4.9	17	6.3	<4	1.53
439097	64	33	18	90	110	<2.7	18	20	5	1.8	<2	4.08	4.1	23	9.2	<4	1.18
439098	59	19	18	77	110	<1.9	28	15	4	1.2	<2	3.75	3.9	22	10.0	<4	1.34
439099	30	3	2	<14	17	<2.2	12	14	<2	0.8	<2	1.34	1.3	17	3.7	<4	2.00
439100	27	37	49	43	63	<2.3	24	36	4	1.0	<2	1.75	1.9	20	3.4	<4	1.34
439101	19	65	21	<33	46	<5.3	38	28	<3	<1	<2	2.06	2.2	<4	<4.1	<4	<1.18
439111	47	10	12	54	76	<2.3	41	40	4	1.3	<2	2.89	2.9	9	6.9	<4	1.19
439112	70	10	12	78	100	3.0	26	21	5	1.3	<2	2.94	3.2	15	5.9	<4	1.99
439113	58	28	13	54	72	<2.5	<10	25	3	1.4	<2	2.90	3.0	14	6.3	<4	1.47
439114	96	22	19	115	130	5.5	35	25	7	2.3	<2	3.37	3.3	13	9.4	<4	1.79
439115	61	22	28	151	180	4.6	50	39	4	1.3	<2	4.11	4.4	14	3.5	<4	1.61
439120	59	16	19	135	160	<1.6	26	22	6	1.4	<2	3.80	4.0	12	7.3	<4	0.88
439121	130	30	16	129	130	5.0	31	25	6	2.4	<2	3.05	3.1	9	11.2	<4	2.10
439123	60	10	14	79	110	<2.3	30	18	5	1.4	<2	2.93	3.0	10	9.2	<4	1.25
439133	290	38	19	115	160	<2.9	27	24	11	3.9	3	3.44	3.8	25	25.8	<4	2.85
439134	64	23	23	93	140	<2.6	47	31	<3	1.9	<2	3.47	3.5	<4	5.9	<4	<0.75
439136	64	12	15	60	110	<1.7	50	37	4	1.3	<2	3.10	3.3	16	5.1	<4	1.50
439137	74	41	27	85	99	<2.8	34	24	<2	1.3	<2	3.78	3.9	<4	6.4	<4	<0.93
439138	80	17	19	83	100	<2.1	17	19	5	1.3	<2	3.90	4.3	10	8.4	<4	1.11
439140	63	14	17	67	110	2.6	57	30	5	1.3	<2	3.10	3.5	16	4.9	<4	1.59
439181	22	12	8	42	45	<3.3	43	40	<3	<0.8	<2	1.36	1.6	<4	<2.8	<4	<0.43
439182	16	9	13	<29	33	<4.2	40	35	<4	<1	<2	1.36	1.6	<4	<3.5	<4	<0.79

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
439082	1.2	35	38	25	0.4	1.20	1.6	945	910	<2	1.51	1.5	<20	8	38	25	39
439083	1.3	38	31	22	0.4	1.07	1.2	721	690	<2	1.74	1.6	<20	8	28	<15	25
439084	1.3	34	24	30	0.4	1.93	2.5	858	810	<2	1.22	1.2	<20	<4	33	28	42
439085	1.1	22	26	18	0.3	1.29	1.5	783	720	<2	1.84	1.6	<20	7	29	<15	25
439086	1.5	<18	28	26	0.4	1.47	1.8	987	990	<2	1.49	1.5	<20	6	34	19	27
439087	1.4	26	28	22	0.4	1.26	1.8	1058	1100	<2	1.83	1.8	<20	6	30	29	39
439088	1.3	28	28	25	0.5	1.36	1.8	1061	1000	<2	1.68	1.6	<20	7	31	24	24
439089	1.4	34	31	20	0.5	1.19	1.8	726	770	<2	1.62	1.6	<20	5	33	39	43
439090	1.3	37	29	24	0.5	1.18	1.4	1172	1100	<2	1.44	1.4	<20	6	35	<15	35
439091	1.1	26	26	25	0.4	1.25	1.3	983	950	<2	1.05	1.1	<20	6	24	15	38
439092	1.2	22	26	27	0.3	1.25	1.5	1412	1400	<2	0.96	1.0	<20	6	25	29	49
439093	1.5	28	36	23	0.4	1.07	1.3	938	900	<2	1.65	1.7	<20	12	34	19	28
439094	1.4	49	38	22	0.3	1.01	1.4	1014	940	<2	1.70	1.8	<20	12	36	32	29
439095	1.2	19	23	21	0.3	1.00	1.4	879	880	<2	1.63	1.8	<20	8	26	<15	26
439096	1.6	29	33	23	0.3	1.46	2.0	991	1000	<2	1.68	1.8	<20	9	36	33	25
439097	1.5	<18	35	24	0.5	1.30	1.4	979	930	<2	1.69	1.8	<20	11	35	21	27
439098	1.3	28	31	21	0.3	1.19	1.4	855	840	<2	1.71	1.9	<20	11	32	<15	25
439099	1.9	<18	17	19	<0.2	<0.33	0.36	387	350	<2	2.77	2.6	<20	14	14	<15	6
439100	1.2	<16	15	22	0.3	1.26	1.4	597	540	<2	1.24	1.2	<20	7	17	27	36
439101	0.41	<52	10	9	<0.4	<0.43	0.34	3718	3400	2	0.28	0.31	<20	<4	10	23	34
439111	0.90	28	25	23	0.3	0.69	1.0	1636	1600	<2	0.96	0.97	<20	5	25	25	30
439112	1.8	38	42	31	0.3	0.67	0.79	438	410	<2	0.97	1.0	<20	14	35	27	33
439113	1.5	47	33	30	0.4	0.66	0.99	914	850	<2	1.02	1.0	<20	12	28	--	32
439114	1.7	60	53	30	0.4	1.03	1.1	1196	1100	<2	1.11	1.1	<20	14	46	46	55
439115	1.9	30	32	34	0.2	1.16	1.5	1663	1700	<2	0.51	0.52	<20	5	28	85	100
439120	1.1	36	30	26	0.3	0.89	1.3	816	810	<2	1.40	1.5	<20	7	37	37	49
439121	2.1	73	70	35	0.4	0.87	1.2	733	670	4	1.02	0.93	<20	14	61	37	48
439123	1.2	33	31	24	0.3	1.00	1.1	519	520	<2	1.60	1.5	<20	9	36	40	32
439133	2.2	139	160	37	0.9	0.93	1.1	719	660	<2	1.13	1.2	<20	12	140	40	44
439134	1.3	<15	34	26	0.4	0.96	1.1	2295	2200	<2	1.10	1.1	<20	9	28	46	48
439136	1.4	32	39	28	0.3	0.82	1.1	810	730	<2	1.16	1.2	<20	8	33	27	39
439137	1.3	41	40	25	<0.2	0.98	0.97	4252	4000	<2	1.15	1.3	<20	9	32	42	35
439138	1.2	36	44	23	0.3	0.82	0.85	831	810	<2	1.18	1.2	<20	7	36	22	27
439140	1.5	29	34	30	0.3	0.66	0.96	799	790	<2	1.16	1.2	<20	11	34	23	44
439181	0.25	<30	11	4	<0.3	0.33	0.27	266	270	<2	0.28	0.27	<20	<4	15	16	28
439182	0.26	<36	8	4	<0.4	<0.34	0.28	972	910	2	0.37	0.33	<20	<4	10	<15	24

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
439082	0.11	<5	13	<4	2.3	17.1	19	<5	<10	<261	270	<3	<1	11.5	9	0.56	0.49
439083	0.07	7	14	<3	0.74	16.4	16	<5	<10	<239	240	<2	<1	7.8	7	0.47	0.39
439084	0.07	<5	13	<5	0.56	18.8	21	<5	<10	<421	190	<4	<1	5.7	6	0.48	0.34
439085	0.07	7	10	<2	0.80	18.9	19	<5	<10	<169	270	<1	<1	5.9	5	0.50	0.46
439086	0.08	5	12	<4	1.5	18.5	19	<5	<10	<262	270	<3	<1	7.4	6	0.37	0.37
439087	0.10	<5	18	<3	2.6	17.2	19	<5	<10	<297	250	<2	<1	6.1	7	0.39	0.40
439088	0.15	16	22	<4	3.8	18.7	19	<5	<10	<382	380	<2	<1	7.7	6	0.53	0.46
439089	0.19	17	22	5	3.7	15.8	18	<5	<10	<159	210	<1	<1	9.1	8	0.60	0.40
439090	0.18	5	17	<4	1.6	21.7	22	<5	<10	<255	230	<2	<2	9.5	7	0.60	0.44
439091	0.09	<5	10	<3	1.0	13.5	14	<5	<10	<275	230	<2	<1	5.6	5	0.41	0.37
439092	0.08	5	12	<4	0.86	13.4	14	<5	<10	<432	200	<3	<1	4.8	6	0.33	0.33
439093	0.10	8	14	<2	0.93	14.6	15	<5	<10	<196	280	<1	<1	9.3	9	0.57	0.46
439094	0.11	8	19	<4	0.96	15.9	16	<5	<10	<268	300	<3	<1	9.4	7	0.50	0.52
439095	0.07	8	9	<3	0.47	15.2	16	<5	<10	<269	250	<2	<1	4.9	5	0.40	0.38
439096	0.16	<5	9	<3	1.1	18.1	20	<5	<10	<338	430	<2	<1	6.1	7	0.47	0.51
439097	0.11	6	13	<4	0.93	16.4	16	<5	<10	<269	300	<3	<1	12.2	11	0.54	0.54
439098	0.09	6	11	<3	0.82	15.8	17	<5	<10	<254	310	<2	<1	9.5	7	0.56	0.51
439099	0.04	6	6	<3	0.57	3.0	3	<5	<10	<397	460	<2	<1	4.7	5	0.20	0.21
439100	0.08	<5	4	<3	0.49	16.3	18	<5	<10	<243	200	<2	<1	4.3	<4	0.36	0.25
439101	0.19	<5	6	<8	0.68	4.8	5	<5	<10	<775	100	<7	<2	<4.1	<4	<0.21	0.10
439111	0.11	<5	8	<3	0.48	14.3	14	<5	<10	<435	180	<2	<1	4.5	6	0.34	0.37
439112	0.08	24	32	<2	0.64	12.3	12	<5	<10	<166	150	<1	<1	10.0	9	0.40	0.36
439113	0.06	--	14	<4	0.67	11.3	11	--	<10	<261	180	<3	<1	8.6	7	0.36	0.36
439114	0.09	<5	16	<4	1.4	15.7	15	<5	<10	<350	210	<2	<1	12.4	15	0.46	0.46
439115	0.08	6	17	<3	1.2	13.1	13	<5	<10	<404	98	<2	<1	7.1	7	0.38	0.35
439120	0.09	<5	7	<2	1.2	20.2	21	<5	<10	<190	270	<1	<1	7.2	5	0.60	0.57
439121	0.10	10	16	<4	3.6	16.7	16	<5	<10	<235	180	<3	<1	13.9	14	0.66	0.53
439123	0.08	5	9	<3	0.98	14.7	15	<5	<10	<284	250	<2	<1	7.2	7	0.46	0.43
439133	0.13	36	30	<4	1.1	16.6	17	<5	<10	<252	200	<3	<2	26.9	29	0.77	0.45
439134	0.12	8	11	<4	0.86	13.5	13	<5	<10	<488	190	<3	<1	6.8	5	0.31	0.33
439136	0.10	8	10	<2	0.73	12.5	13	<5	<10	<217	310	<2	<1	7.1	6	0.39	0.31
439137	0.08	5	11	<4	0.76	12.8	13	<5	<10	<580	250	<4	<1	8.1	8	<0.15	0.34
439138	0.07	9	11	<3	0.70	11.4	12	<5	<10	<286	230	<2	<1	7.8	10	0.47	0.41
439140	0.08	11	12	<2	0.72	12.3	13	<5	<10	<187	200	<1	<1	7.7	8	0.42	0.39
439181	0.09	<5	<4	<5	0.37	4.2	4	<5	<10	<329	74	<4	<2	<2.6	<4	<0.095	0.08
439182	0.07	<5	<4	<6	0.37	4.1	4	<5	<10	<651	80	<5	<2	<3.5	<4	<0.19	0.09

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
439082	3.0	144	140	23	<3.3	2	233	89	254
439083	3.1	106	110	19	4.9	2	72	88	229
439084	2.4	137	130	16	<4.6	2	<91	97	103
439085	2.4	131	130	18	5.2	2	<36	93	185
439086	2.5	111	120	22	<3.3	2	153	88	141
439087	3.5	119	120	20	<2.4	2	153	120	159
439088	2.5	155	150	20	<3.2	2	263	400	164
439089	3.6	122	130	19	5.4	2	<19	190	248
439090	2.9	166	170	25	<3.4	3	<24	150	271
439091	2.2	125	120	20	3.3	2	<60	94	141
439092	2.1	110	120	19	<3.1	2	<63	110	101
439093	2.7	123	120	20	3.9	2	<39	92	177
439094	3.1	134	130	22	<3.2	2	152	89	227
439095	1.9	114	120	16	<2.5	2	149	98	117
439096	2.5	170	170	21	<3.6	2	<108	93	185
439097	3.8	127	140	21	<3.1	2	<223	97	244
439098	3.2	125	140	19	4.5	2	<52	78	244
439099	2.1	36	24	7	<3.3	<1	<64	49	109
439100	1.5	104	110	22	<2.3	2	<70	110	94
439101	0.9	<24	41	15	<7.7	2	<204	79	41
439111	2.1	95	99	22	<3	3	85	74	170
439112	3.3	126	120	19	4.7	2	<41	110	182
439113	2.7	103	110	17	<3.3	2	222	100	--
439114	4.3	154	140	20	6.7	2	<73	99	286
439115	2.3	152	150	12	<3.6	1	<109	110	124
439120	2.6	166	170	22	4.4	2	<45	100	228
439121	5.3	167	160	21	4.6	2	<89	150	343
439123	2.8	118	120	16	4.8	2	<38	79	284
439133	5.4	128	120	22	<3.8	3	321	150	791
439134	2.5	110	120	17	<3.3	2	163	130	140
439136	3.0	122	110	23	2.8	2	<55	110	138
439137	2.6	101	120	20	<3.7	2	<213	96	183
439138	3.1	118	120	18	5.4	2	<33	81	279
439140	3.2	115	120	19	3.8	2	68	130	188
439181	0.9	50	47	11	<4.9	1	<111	35	43
439182	0.7	48	48	8	<6.4	<1	<128	46	45

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
439183	64.4383	-142.0597	1.55	1.2	6	<10	1.4	<0.11	<164	190	<1	<5	1.18	1.2	<5	<2	<6
439184	64.4628	-141.9894	5.84	5.7	5	<10	2.7	<0.19	706	650	<1	<5	2.15	2.0	<5	<2	29
439291	64.1656	-141.4025	4.18	5.3	43	31	25	<0.17	<595	830	1	<5	2.05	2.3	6	<2	133
439292	64.1703	-141.4117	6.04	6.5	13	<10	9.3	<0.06	952	870	1	<5	2.06	2.1	<5	<2	56
439293	64.2919	-141.4736	6.00	6.4	7	<10	6.4	<0.11	1022	870	1	<5	2.51	2.6	<5	<2	111
439294	64.2967	-141.4572	5.58	6.6	9	<10	6.4	<0.08	781	760	1	5	2.72	3.2	<5	<2	120
439295	64.3214	-141.4256	7.95	7.5	186	160	160	<0.12	756	720	2	<5	1.99	1.7	<5	<2	101
439296	64.2942	-141.5081	6.05	6.3	9	<10	6.2	<0.05	973	900	1	6	2.31	2.4	<5	<2	73
439298	64.2956	-141.5594	3.54	3.8	12	10	9.7	<0.18	<337	200	1	<5	2.04	2.1	<5	<2	53
439299	64.2958	-141.5942	6.20	6.8	14	<10	5.6	<0.10	1004	1000	1	<5	2.32	2.5	<5	<2	61
439300	64.2931	-141.6536	3.22	3.6	<5	<10	1.1	<0.07	585	480	<1	<5	2.40	2.6	<5	<2	24
439301	64.2733	-141.6975	6.40	7.2	<5	<10	6.5	<0.10	912	1000	1	<5	2.04	2.2	<5	<2	74
439302	64.2800	-141.7344	6.70	6.6	6	<10	2.2	<0.09	988	920	1	<5	1.77	1.9	<5	<2	39
439303	64.2711	-141.7856	6.18	6.2	6	<10	2.2	<0.11	950	850	1	<5	2.05	1.7	<5	<2	64
439304	64.2633	-141.8356	6.03	6.4	8	<10	5.9	<0.05	1075	910	1	<5	2.05	2.3	<5	<2	80
439305	64.2714	-141.8994	6.69	7.0	12	<10	6.2	<0.12	782	800	<1	<5	2.02	2.2	<5	<2	68
439306	64.2922	-141.9628	5.84	6.5	10	<10	5.4	<0.08	933	970	1	<5	2.44	2.6	<5	<2	133
439307	64.2992	-141.9761	5.91	6.4	11	<10	6.7	0.39	1203	1300	2	7	1.95	1.9	<5	<2	86
439308	64.3003	-141.9892	6.11	6.4	<5	<10	3.7	<0.05	1258	1100	2	<5	1.60	1.7	<5	<2	47
439309	64.3294	-141.9756	6.10	7.1	6	<10	3.1	<0.11	909	960	<1	<5	4.04	4.4	<5	<2	58
439310	64.3364	-141.9797	5.39	6.5	<5	<10	2.2	<0.08	692	880	<1	<5	3.63	4.4	<5	<2	38
439311	64.3475	-142.0050	5.75	5.9	6	<10	2.0	<0.10	625	720	1	7	2.61	2.5	<5	<2	50
439312	64.3481	-142.0672	6.04	6.3	8	<10	7.6	<0.06	1007	920	1	5	1.80	2.1	<5	<2	43
439313	64.3581	-142.0033	6.16	6.7	5	<10	2.5	<0.12	719	810	<1	7	3.95	4.5	<5	<2	50
439314	64.3831	-142.0025	5.59	5.6	8	<10	3.9	<0.12	1138	1000	1	<5	2.43	2.3	<5	<2	47
439315	64.3975	-142.0203	5.93	6.0	5	<10	1.5	<0.15	1206	1200	<1	<5	1.33	1.4	<5	<2	54
439316	64.4047	-142.0417	2.13	2.6	8	<10	2.7	<0.12	685	540	<1	<5	1.55	1.5	<5	<2	44
439317	64.4119	-142.0536	1.16	0.91	5	<10	0.68	<0.38	<332	180	<1	<5	2.09	1.8	<5	<2	<26
439318	64.4033	-142.0844	5.11	5.7	<5	<10	3.7	<0.10	956	950	1	<5	2.36	2.5	<5	<2	46
439319	64.3961	-142.1631	3.84	4.5	7	<10	3.8	<0.09	1221	1400	<1	<5	0.91	1.0	<5	<2	39
439321	64.3889	-142.1656	2.03	2.0	6	<10	2.2	<0.24	411	350	<1	<5	1.91	1.8	<5	<2	<17
439322	64.3831	-142.1647	1.34	1.4	7	<10	3.9	<0.15	<296	280	<1	<5	2.49	2.8	<5	<2	<13
439364	64.3328	-142.1822	6.48	6.4	7	<10	3.9	<0.09	1488	1100	1	<5	1.63	1.8	<5	<2	53
439366	64.3217	-142.1311	6.63	6.8	9	<10	5.2	<0.06	2178	1700	1	7	1.98	2.0	<5	<2	54
439367	64.3158	-142.1506	6.06	6.5	10	<10	5.4	<0.12	1049	1200	1	<5	1.97	2.2	<5	<2	80
439368	64.2800	-142.1369	5.67	6.6	22	12	19	<0.12	1017	860	1	<5	4.25	4.4	<5	<2	60

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
439183	14	<1.2	5	54	41	<2.3	38	30	<1	<0.3	<2	1.22	1.3	<4	<1.4	<4	<0.40
439184	44	45	15	79	100	<3.9	29	25	3	<0.6	<2	2.25	3.1	12	4.1	<4	0.86
439291	110	36	44	57	91	<3.6	28	27	6	1.8	2	9.27	9.1	<4	<2.5	<4	<1.28
439292	70	14	18	62	81	<1.3	18	15	5	1.1	<2	3.29	3.7	14	6.2	<4	1.35
439293	96	27	16	101	110	<2.4	<10	15	6	1.6	<2	5.04	5.0	16	17.2	<4	1.10
439294	140	17	17	138	150	<1.7	20	16	7	1.5	<2	6.17	6.5	10	24.9	<4	1.16
439295	92	10	11	58	69	14.6	12	17	5	1.6	<2	3.65	3.6	15	21.2	<4	1.82
439296	89	11	14	68	87	<1.1	18	14	5	1.2	<2	3.99	4.2	10	13.1	<4	1.38
439298	41	19	13	62	77	<3.6	23	25	6	<0.8	<2	2.30	2.6	9	<2.9	<4	<0.51
439299	63	13	17	70	110	3.2	27	23	5	1.3	<2	3.66	4.0	23	7.0	<4	1.21
439300	22	5	6	32	56	<1.6	15	19	2	<0.2	<2	1.34	1.3	9	2.0	<4	0.73
439301	62	26	16	73	95	4.1	22	16	4	1.4	<2	4.03	4.0	22	9.1	<4	1.57
439302	57	7	7	<10	97	<1.7	16	20	<2	1.1	<2	1.48	2.6	18	4.2	<4	1.63
439303	39	7	5	56	49	<2.3	21	13	4	1.4	<2	2.79	2.0	18	8.6	<4	1.86
439304	100	13	16	79	110	2.3	24	18	6	1.2	<2	3.69	4.0	16	13.5	<4	1.59
439305	75	31	18	72	96	<2.5	23	14	5	1.6	<2	3.47	3.8	12	9.7	<4	1.28
439306	140	15	14	79	110	<1.8	23	15	7	1.7	<2	4.14	4.3	14	21.3	<4	1.37
439307	95	11	13	63	81	2.9	24	24	6	1.4	<2	3.63	3.8	15	17.0	<4	1.69
439308	56	8	9	51	74	2.7	33	29	5	1.1	<2	2.86	3.2	18	7.0	<4	1.79
439309	68	33	23	79	100	<2.5	26	21	4	1.5	<2	5.26	5.6	17	6.5	<4	1.27
439310	50	17	17	64	95	<1.8	27	25	4	1.1	<2	4.46	4.7	16	3.5	<4	1.04
439311	51	15	20	95	130	<2.1	40	29	3	0.9	<2	3.72	3.9	17	3.8	<4	0.92
439312	48	11	14	58	92	<1.4	36	29	4	1.1	<2	3.36	3.9	20	4.9	<4	1.02
439313	60	30	19	77	94	<2.6	24	20	5	1.9	<2	4.74	5.1	16	9.3	<4	1.16
439314	41	16	12	50	72	<2.5	42	45	4	1.0	<2	2.90	2.9	15	3.4	<4	1.03
439315	53	8	9	47	86	<3.1	34	28	4	1.1	<2	2.32	2.6	14	5.5	<4	1.86
439316	66	8	13	35	51	<2.5	103	100	6	1.2	<2	1.58	2.1	<4	<1.5	<4	<0.73
439317	7	74	3	<45	23	<7.3	18	13	<3	<1.3	<2	--	0.59	<4	<5.5	<4	<0.39
439318	35	13	11	40	73	<2.1	29	27	4	0.9	<2	2.17	2.6	13	4.5	<4	1.09
439319	37	11	15	52	92	<1.8	23	18	3	0.9	<2	2.87	3.4	8	3.8	<4	1.11
439321	14	55	6	<29	29	<4.8	29	25	<2	<0.8	<2	1.24	1.3	5	<3.6	<4	<0.41
439322	11	14	10	<18	35	<2.9	23	15	<3	<0.7	<2	1.42	1.7	<4	<2.4	<4	<0.48
439364	53	15	15	71	99	<1.9	33	23	5	1.1	<2	3.36	3.5	20	5.3	<4	1.47
439366	64	12	16	60	110	3.6	35	23	5	1.2	<2	3.39	3.9	18	6.0	<4	1.67
439367	50	31	20	101	120	<2.5	29	26	5	1.7	<2	3.46	3.8	17	5.5	<4	1.19
439368	61	36	43	73	95	<2.5	24	20	6	1.7	<2	7.93	8.6	14	5.2	<4	<0.62

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
439183	0.23	<21	8	3	<0.1	<.021	0.32	235	200	3	0.28	0.23	<20	<4	8	30	41
439184	1.0	<33	24	17	<0.3	1.04	1.2	596	620	<2	1.52	1.4	<20	7	23	24	33
439291	0.93	53	53	20	0.6	<0.53	0.88	4982	4700	2	0.85	1.0	<20	<4	55	<15	28
439292	1.3	35	38	22	0.2	1.08	1.1	1017	970	<2	1.50	1.5	<20	12	36	29	23
439293	1.4	48	53	20	0.5	0.91	1.3	1089	1100	<2	1.56	1.7	<20	17	48	<15	27
439294	1.3	63	76	18	0.6	1.15	1.5	1199	1300	<2	1.47	1.8	<20	15	66	21	29
439295	2.0	58	52	98	0.6	0.87	0.99	897	840	<2	1.42	1.5	<20	16	40	<15	22
439296	1.5	40	48	22	0.4	1.12	1.3	963	930	<2	1.64	1.8	<20	14	43	21	25
439298	0.85	<29	23	15	<0.3	0.52	0.71	387	400	2	0.65	0.75	<20	5	23	18	32
439299	1.5	28	33	25	0.4	1.05	1.4	917	900	<2	1.58	1.7	<20	9	34	22	27
439300	0.68	<12	12	10	<0.1	0.40	0.52	241	230	<2	0.69	0.70	<20	5	12	<15	15
439301	1.8	45	31	24	0.5	0.99	1.3	1017	1000	<2	1.69	1.9	<20	14	33	20	23
439302	1.7	25	30	22	<0.1	<0.27	0.97	378	510	2	2.64	1.7	<20	13	29	20	19
439303	1.6	35	22	21	0.3	1.01	0.74	578	440	<2	1.48	2.1	<20	11	19	<15	12
439304	1.5	52	53	25	0.4	1.06	1.3	1008	960	<2	1.41	1.6	<20	11	50	<15	22
439305	1.3	30	41	20	0.4	1.04	1.3	938	920	<2	1.97	2.1	<20	11	34	<15	22
439306	1.4	64	74	22	0.4	0.99	1.3	945	1000	<2	1.40	1.6	<20	14	59	18	24
439307	1.8	34	50	32	0.6	0.70	1.0	873	870	<2	1.28	1.4	<20	13	41	20	24
439308	1.7	27	31	31	0.4	0.81	1.0	529	540	<2	1.39	1.4	<20	14	31	19	22
439309	1.3	28	35	19	0.5	1.38	2.3	1301	1300	<2	1.57	1.7	<20	8	37	<15	25
439310	1.0	21	26	17	0.3	1.45	2.1	967	1100	<2	1.27	1.5	<20	7	28	<15	27
439311	0.91	<8	25	22	0.3	1.39	1.8	869	850	<2	1.25	1.3	<20	<4	24	31	49
439312	1.2	16	25	21	0.2	0.89	1.3	523	540	<2	1.53	1.7	<20	10	27	32	28
439313	1.1	34	32	17	0.4	1.81	2.4	1185	1200	<2	1.40	1.6	<20	6	34	17	23
439314	1.1	<17	23	23	<0.2	0.97	1.2	510	500	<2	1.14	1.2	<20	8	25	<15	24
439315	1.5	31	30	27	0.3	0.62	0.89	466	440	<2	1.00	1.0	<20	9	26	<15	23
439316	0.38	<19	35	8	<0.1	<0.27	0.34	1082	1100	3	0.26	0.32	<20	<4	34	18	31
439317	0.19	<67	5	2	<0.6	<0.24	0.28	110	120	<2	0.21	0.22	<20	<4	4	<15	10
439318	1.1	<14	19	17	0.3	0.58	0.72	557	550	<2	1.18	1.4	<20	7	18	<15	26
439319	1.1	17	20	22	0.2	0.61	0.78	1124	1200	<2	0.58	0.73	<20	9	20	28	33
439321	0.33	<45	8	4	<0.3	0.59	0.36	322	330	<2	0.39	0.41	<20	<4	7	<15	17
439322	0.29	<24	6	4	<0.2	<0.21	0.30	494	490	3	0.32	0.37	<20	<4	8	<15	19
439364	1.5	28	29	30	0.4	1.02	1.2	662	660	<2	1.40	1.5	<20	11	28	29	28
439366	1.6	32	33	37	0.3	0.93	1.2	874	850	<2	1.43	1.6	<20	10	33	<15	27
439367	1.5	<18	27	36	<0.1	1.07	1.5	1013	1000	<2	1.19	1.3	<20	7	27	38	45
439368	1.3	<14	31	19	0.3	1.43	2.4	1846	2000	<2	1.38	1.6	<20	<4	39	23	32

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
439183	0.13	<5	<4	<3	0.20	3.5	3	<5	<10	<230	82	<3	<1	<1.5	<4	<0.064	0.07
439184	0.11	5	7	<6	0.67	13.2	13	<5	<10	<324	260	<5	<2	<2.7	5	0.44	0.32
439291	0.17	<5	25	<5	0.98	11.8	12	<5	<10	<989	220	<3	<2	8.0	8	<0.27	0.31
439292	0.09	<5	13	<2	1.2	12.7	14	<5	<10	<205	270	<1	--	7.7	9	0.45	0.43
439293	0.14	6	16	<3	0.92	17.1	17	<5	<10	<254	300	<2	<1	17.0	17	0.76	0.74
439294	0.12	5	17	<2	0.98	16.7	19	<5	<10	<256	320	<2	<1	18.7	26	0.65	0.78
439295	0.09	29	47	<4	1.8	15.1	15	<5	<10	<357	220	<2	<1	33.7	33	0.33	0.36
439296	0.13	5	13	<2	0.99	13.9	16	<5	<10	<168	310	<1	<1	13.4	15	0.59	0.60
439298	0.10	<5	10	<5	0.70	7.8	8	<5	<10	<371	140	<5	<2	7.1	<4	0.21	0.21
439299	0.11	<5	11	<3	0.91	14.6	15	<5	<10	<329	310	<1	<1	8.2	10	0.41	0.42
439300	0.08	<5	<4	<2	0.54	6.2	7	<5	<10	<178	120	<2	<1	3.2	<4	0.25	0.19
439301	0.11	9	11	<3	0.91	15.2	15	<5	<10	<233	310	<2	<1	9.8	6	0.42	0.49
439302	0.09	6	9	<3	0.67	3.5	11	<5	<10	<287	300	<3	<1	4.1	7	0.23	0.35
439303	0.07	<5	7	<3	0.61	13.0	8	<5	<10	<295	360	<1	<1	9.4	6	0.42	0.29
439304	0.12	7	12	<2	0.85	13.4	15	<5	<10	<197	290	<1	<1	14.2	15	0.51	0.50
439305	0.07	<5	10	<3	0.68	15.8	16	<5	<10	683	280	<3	<1	8.3	11	0.49	0.45
439306	0.15	<5	9	<3	0.73	16.1	17	<5	<10	<245	310	<2	<1	19.6	25	0.50	0.55
439307	0.13	10	14	<3	0.57	15.1	15	<5	<10	<286	200	<1	<1	13.4	17	0.45	0.40
439308	0.11	10	11	<2	0.47	12.9	14	<5	<10	<142	210	<1	<1	8.6	9	0.45	0.40
439309	0.17	<5	8	<3	0.41	22.5	24	<5	<10	<266	440	<3	<1	4.3	4	0.45	0.53
439310	0.10	<5	7	<3	0.38	20.5	23	<5	<10	<231	380	<2	<1	4.5	6	0.36	0.48
439311	0.08	8	9	<3	0.20	14.3	15	<5	<10	<303	310	<1	<1	4.8	<4	0.38	0.32
439312	0.09	7	8	<2	0.75	12.6	14	<5	<10	<167	290	<1	<3	5.5	6	0.43	0.42
439313	0.16	5	8	<4	0.38	21.8	22	<5	<10	450	410	<2	<1	6.1	5	0.48	0.51
439314	0.11	<5	6	<4	0.61	12.0	12	<5	<10	<281	230	<3	<1	6.1	4	0.31	0.30
439315	0.09	<5	10	<5	0.48	12.0	12	<5	<10	<360	150	<3	<1	6.3	7	0.28	0.28
439316	0.14	<5	6	<4	0.35	5.6	7	<5	<10	<387	80	<3	<1	6.0	10	<0.1	0.09
439317	0.10	<5	<4	<10	<0.20	1.8	<2	<5	<10	<343	110	<11	<3	<5.5	<4	<0.1	0.05
439318	0.08	<5	8	<3	0.65	9.2	10	<5	<10	<260	220	<3	<1	5.0	5	0.33	0.28
439319	0.08	<5	7	<3	0.68	9.9	11	<5	<10	<320	130	<1	<1	5.3	<4	0.35	0.36
439321	0.10	<5	<4	<7	0.30	3.1	3	<5	<10	<298	97	<7	<2	<3.6	<4	<0.85	0.10
439322	0.10	<5	5	<4	0.27	3.1	3	<5	<10	<339	170	<3	<1	<2.2	<4	<0.96	0.09
439364	0.07	7	12	<3	0.57	14.3	15	<5	<10	<240	230	<2	<1	5.7	7	0.34	0.41
439366	0.08	6	13	<2	0.61	15.5	18	<5	<10	355	230	<1	<1	6.3	7	0.40	0.39
439367	0.09	<5	14	<4	0.51	16.7	16	<5	<10	<253	290	<3	<1	6.7	6	0.36	0.36
439368	0.21	<5	18	<4	0.50	17.7	21	<5	<10	<398	470	<3	<1	6.5	5	0.53	0.49

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
439183	1.1	32	31	7	<2.8	<1	<85	43	34
439184	2.2	107	100	15	<5.3	1	<141	84	124
439291	3.4	124	150	29	<4.3	3	<109	130	115
439292	3.0	125	120	19	5	2	<37	93	191
439293	4.6	155	160	26	6.5	3	77	89	471
439294	4.8	182	210	31	5.8	3	77	84	571
439295	17.9	95	99	26	5.9	3	<59	89	416
439296	3.6	125	140	25	5	3	<30	83	358
439298	2.6	64	73	15	<4.9	1	<109	95	74
439299	2.7	121	130	21	5.1	2	86	86	197
439300	1.3	55	57	8	<1.8	<1	<52	64	69
439301	2.8	120	120	19	5.6	2	203	84	220
439302	2.0	31	85	15	<2.4	2	<60	71	262
439303	2.8	107	62	11	4.7	1	99	60	142
439304	3.8	131	130	21	4.4	2	<33	84	415
439305	2.8	112	120	22	<3.3	2	<81	75	295
439306	4.8	126	140	27	5.7	3	<44	89	582
439307	4.4	109	110	31	5.1	3	57	94	447
439308	3.2	94	100	22	5	2	40	90	223
439309	2.3	183	200	27	<2.7	3	<79	91	249
439310	1.6	156	170	25	<2.7	2	<45	78	123
439311	1.7	114	120	18	<2.7	2	<84	81	133
439312	2.2	127	140	17	3.6	2	<37	85	160
439313	2.5	160	180	27	7.9	3	<78	88	226
439314	2.8	104	100	18	<3.2	2	<78	99	110
439315	2.4	110	110	17	<4.2	2	128	110	129
439316	2.1	42	43	31	<3.1	3	<82	150	51
439317	0.4	<9	17	2	<10.1	<1	<313	22	29
439318	2.0	84	84	16	<2.7	1	<102	92	118
439319	2.3	118	120	16	3.9	2	83	100	154
439321	0.8	29	31	5	<6.6	<1	<200	57	45
439322	2.0	22	30	5	<4	<1	<95	73	42
439364	2.7	123	130	17	<2.2	2	<55	99	196
439366	3.3	127	120	22	4.8	2	<37	110	212
439367	2.6	130	130	18	<3	2	107	110	158
439368	2.3	213	240	23	<3.1	3	<71	92	166

Table 3: Analytical results for the Eagle 3 ^{o} Quadrangle, Fortymile Study Area, AK (previous NURE data and new data).

Sample ID	Latitude	Longitude	Al, % INAA	Al, % ICP-AES	As, ppm EDXRF	As, ppm ICP-AES	As, ppm HG-AAS	Au, ppm INAA	Ba, ppm INAA	Ba, ppm ICP-AES	Be, ppm ICP-AES	Bi, ppm EDXRF	Ca, % INAA	Ca, % ICP-AES	Cd, ppm INAA	Cd, ppm ICP-AES	Ce, ppm INAA
439369	64.3178	-141.8031	6.19	6.7	15	11	10	<0.14	796	810	1	<5	2.67	2.8	<5	<2	64
439370	64.3278	-141.7914	6.46	7.4	15	<10	3.4	<0.06	1204	1100	1	<5	4.38	4.6	<5	<2	41
439371	64.3153	-141.7561	6.42	7.4	<5	<10	3.5	<0.12	1000	960	1	<5	4.68	5.1	<5	<2	52
439372	64.3242	-141.7383	6.20	6.9	9	<10	5.2	<0.09	1096	880	1	<5	3.13	3.1	<5	<2	46
439373	64.3219	-141.6136	6.50	7.4	9	<10	6.6	<0.13	823	910	1	<5	2.94	3.1	<5	<2	54
439374	64.3758	-141.5006	1.53	1.7	6	<10	1.4	<0.09	1590	1500	<1	<5	2.92	2.5	<5	<2	<5
439375	64.3797	-141.5661	3.86	3.8	8	<10	4.5	<0.26	1148	770	<1	<5	2.93	2.9	<5	<2	<17
439376	64.3672	-141.5972	6.23	6.8	8	<10	4.2	<0.09	1220	1200	1	<5	2.85	2.9	<5	<2	57
439377	64.3781	-141.6342	4.58	5.3	9	<10	7.5	<0.12	742	900	1	<5	4.71	4.8	<5	<2	46
439378	64.3797	-141.6844	4.53	5.4	6	<10	3.7	<0.05	1120	960	<1	<5	4.20	4.2	<5	<2	32
439379	64.3719	-141.8119	5.38	5.6	6	<10	4.3	<0.11	941	790	<1	<5	2.49	2.5	<5	<2	40
439380	64.3703	-141.7914	5.57	6.5	8	<10	4.7	<0.09	955	860	<1	<5	3.96	4.0	<5	<2	37
439381	64.3697	-141.8833	4.62	5.2	6	<10	3.5	<0.13	922	960	<1	<5	5.63	6.0	<5	<2	49
439382	64.3747	-141.8953	5.43	6.1	9	<10	4.0	<0.06	1315	1200	<1	7	3.93	4.1	<5	<2	30
439383	64.3936	-141.8892	4.70	5.3	8	<10	4.5	<0.10	879	1000	<1	<5	2.84	2.9	<5	<2	38
439384	64.4036	-141.9039	5.19	5.8	28	21	22	<0.08	1230	1200	<1	<5	3.59	3.7	<5	<2	29
439385	64.4300	-141.8250	6.27	6.8	10	<10	5.3	<0.11	922	990	1	<5	2.17	2.0	<5	<2	76
439386	64.4281	-141.8494	4.25	4.7	7	<10	5.4	<0.04	1710	1700	<1	<5	0.73	0.82	<5	<2	28
439387	64.4231	-141.7681	4.71	5.4	13	12	6.9	<0.14	1254	1100	1	<5	1.55	1.6	<5	<2	67
439388	64.4264	-141.7183	5.98	5.7	25	<10	6.8	<0.17	<2123	2300	1	<5	<1.3	1.3	<5	3	234
439390	64.4022	-141.6206	4.60	5.5	<5	<10	3.9	<0.11	1679	1600	<1	<5	1.33	1.5	<5	<2	39
439391	64.1736	-142.1278	6.80	7.0	<5	<10	3.8	<0.06	882	830	1	<5	2.26	2.4	<5	<2	50
439392	64.1867	-142.1617	7.20	7.4	8	<10	7.5	<0.12	1107	1000	1	<5	2.38	2.5	<5	<2	39

Sample ID	Ce, ppm ICP-AES	Co, ppm INAA	Co, ppm ICP-AES	Cr, ppm INAA	Cr, ppm ICP-AES	Cs, ppm INAA	Cu, ppm EDXRF	Cu, ppm ICP-AES	Dy, ppm INAA	Eu, ppm INAA	Eu, ppm ICP-AES	Fe, % INAA	Fe, % ICP-AES	Ga, ppm ICP-AES	Hf, ppm INAA	Ho, ppm ICP-AES	K, % INAA
439369	46	22	26	65	96	<3	22	14	5	0.9	<2	5.02	5.1	15	5.3	<4	1.40
439370	53	18	23	71	110	2.4	14	22	4	1.3	<2	5.07	5.6	24	6.2	<4	1.50
439371	60	36	26	87	110	<2.6	33	15	5	1.4	<2	5.88	6.1	25	8.2	<4	0.94
439372	41	17	17	68	110	3.6	33	23	4	1.3	<2	4.08	4.1	22	6.0	<4	0.75
439373	44	17	24	87	130	4.6	36	23	4	1.5	<2	4.01	4.2	20	5.5	<4	1.29
439374	19	20	30	<10	34	<2	49	48	<1	1.0	<2	2.82	3.2	<4	<1.2	<4	<0.96
439375	32	56	14	57	70	<5	88	76	7	1.5	<2	2.17	2.8	6	<3.8	<4	<0.67
439376	53	14	13	59	84	2.2	28	18	6	1.2	<2	3.35	3.4	14	7.4	<4	1.11
439377	38	11	16	48	93	<2.3	21	24	4	1.2	<2	2.79	3.2	19	4.7	<4	<0.47
439378	41	10	14	49	87	<1.2	24	24	4	1.0	<2	2.68	3.3	16	4.1	<4	0.97
439379	43	26	10	59	81	<2.3	16	15	3	1.1	<2	2.26	2.6	19	5.2	<4	0.99
439380	42	18	17	57	87	<2	22	19	4	1.2	<2	3.85	4.1	17	3.9	<4	0.80
439381	49	11	15	56	76	<2.5	33	22	4	1.2	<2	3.17	3.5	14	3.7	<4	<0.51
439382	51	15	21	40	67	<1.5	48	36	4	1.2	<2	4.42	5.0	14	3.7	<4	0.67
439383	50	24	12	57	75	<2.1	18	18	3	1.4	<2	2.18	2.6	11	5.1	<4	0.86
439384	35	13	13	29	46	<1.6	30	32	3	0.9	<2	2.50	3.0	11	3.0	<4	1.27
439385	72	11	12	101	93	<2.3	23	15	6	1.2	<2	3.46	3.4	18	13.1	<4	1.67
439386	46	12	20	54	100	2.1	44	27	3	1.1	<2	2.95	3.7	5	3.3	<4	1.09
439387	54	39	23	74	120	<2.9	37	27	5	1.7	<2	4.13	4.6	9	4.8	<4	1.06
439388	220	579	820	56	110	<3.6	90	91	28	5.2	5	11.05	11	<4	<2.4	4	<0.59
439390	42	14	20	137	140	<2.1	33	28	4	1.3	<2	3.24	3.5	15	5.1	<4	0.93
439391	53	12	16	63	88	2.5	28	21	5	1.1	<2	3.64	4.0	18	5.6	<4	1.10
439392	44	38	24	76	79	<2.7	27	30	4	1.4	<2	4.56	4.7	13	5.4	<4	1.16

Sample ID	K, % ICP-AES	La, ppm INAA	La, ppm ICP-AES	Li, ppm ICP-AES	Lu, ppm INAA	Mg, % INAA	Mg, % ICP-AES	Mn, ppm INAA	Mn, ppm ICP-AES	Mo, ppm ICP-AES	Na, % INAA	Na, % ICP-AES	Nb, ppm INAA	Nb, ppm ICP-AES	Nd, ppm ICP-AES	Ni, ppm EDXRF	Ni, ppm ICP-AES
439369	1.1	23	26	23	<0.2	1.33	1.6	1009	940	<2	1.54	1.6	<20	6	28	22	24
439370	1.6	22	29	26	0.4	1.94	2.6	1215	1200	<2	1.61	1.7	<20	6	33	17	26
439371	1.6	31	32	21	0.3	2.06	2.7	1341	1300	<2	1.63	1.9	<20	5	37	25	27
439372	1.1	23	22	24	0.3	1.28	1.6	992	980	<2	1.60	1.7	<20	8	27	25	26
439373	1.3	28	22	26	0.3	1.11	1.6	1261	1200	<2	1.56	1.7	<20	6	28	19	28
439374	0.31	<15	14	5	0.2	<0.31	0.40	2438	2300	<2	0.29	0.35	<20	<4	16	17	26
439375	0.76	<48	34	14	<0.4	<0.31	0.68	1066	970	3	0.85	0.90	<20	4	31	<15	28
439376	1.1	36	28	22	0.4	0.90	1.2	922	930	<2	1.64	1.9	<20	9	29	<15	20
439377	1.0	21	22	20	0.2	1.44	2.2	870	870	<2	1.15	1.3	<20	<4	23	24	26
439378	1.1	24	22	19	0.2	1.71	2.2	703	730	<2	1.18	1.3	<20	<4	25	<15	25
439379	0.98	<19	23	19	0.4	0.92	1.1	578	530	<2	1.25	1.3	<20	8	24	15	20
439380	1.2	24	23	21	0.3	1.17	1.6	1221	1300	<2	1.14	1.3	<20	6	26	24	21
439381	0.92	23	26	17	0.3	1.41	2.0	1130	1100	<2	1.06	1.2	<20	<4	27	<15	20
439382	0.91	22	27	21	0.3	1.50	2.0	1961	2000	<2	1.20	1.4	<20	6	30	<15	22
439383	0.96	<16	29	17	0.3	1.07	1.2	779	770	<2	1.21	1.3	<20	5	24	17	20
439384	1.2	16	21	22	0.2	1.13	1.3	708	710	<2	1.19	1.3	<20	4	20	20	18
439385	1.5	45	39	24	0.5	0.98	1.1	917	850	<2	1.43	1.6	<20	17	37	21	26
439386	1.2	20	26	27	0.2	0.71	0.80	1269	1300	2	0.47	0.55	<20	8	23	33	39
439387	1.0	<22	27	23	<0.2	0.75	0.94	1042	980	<2	0.94	1.0	<20	6	31	29	44
439388	1.4	122	120	40	0.9	<2.11	1.0	24070	21000	5	0.78	0.68	<20	<4	130	575	790
439390	1.1	20	22	23	0.3	1.18	1.4	1181	1200	<2	1.04	1.1	<20	6	25	52	68
439391	1.3	28	28	21	0.3	1.16	1.5	828	840	<2	1.91	2.0	<20	10	30	16	23
439392	1.3	<18	23	21	0.4	1.56	1.5	1063	1000	<2	1.97	2.3	<20	9	27	<15	25

Sample ID	P, % ICP-AES	Pb, ppm EDXRF	Pb, ppm ICP-AES	Sb, ppm INAA	Sb, ppm HG-AAS	Sc, ppm INAA	Sc, ppm ICP-AES	Se, ppm INAA	Sn, ppm INAA	Sr, ppm INAA	Sr, ppm ICP-AES	Ta, ppm INAA	Tb, ppm INAA	Th, ppm INAA	Th, ppm ICP-AES	Ti, % INAA	Ti, % ICP-AES
439369	0.15	<5	11	<4	0.67	15.7	16	<5	<10	<426	370	<3	<1	7.2	7	0.40	0.43
439370	0.18	<5	8	<2	0.99	19.5	23	<5	<10	<216	540	<1	--	4.5	6	0.53	0.56
439371	0.21	<5	11	<4	0.64	22.5	24	<5	<10	479	550	<3	<1	4.6	5	0.47	0.62
439372	0.11	6	8	<3	0.99	18.2	18	<5	<10	<264	440	<2	<1	3.9	4	0.43	0.49
439373	0.10	<5	10	<4	0.84	18.2	19	<5	<10	<418	310	<2	<1	4.9	6	0.40	0.41
439374	0.19	<5	8	<3	0.48	4.0	5	<5	<10	<484	120	<2	<1	<1.3	<4	<0.13	0.09
439375	0.09	<5	10	<7	1.1	8.3	8	<5	<10	<449	230	<6	<2	<3.6	<4	0.27	0.22
439376	0.10	7	8	<3	0.64	15.4	16	<5	<10	<271	470	<2	<1	6.4	6	0.42	0.42
439377	0.10	<5	9	<4	1.3	12.4	13	<5	<10	<353	300	<2	<1	4.3	5	0.31	0.33
439378	0.09	<5	8	<2	0.91	12.2	14	<5	<10	<171	300	<1	<1	5.2	<4	0.35	0.38
439379	0.08	<5	8	<3	0.99	11.1	11	<5	<10	<220	310	<3	<1	5.2	5	0.34	0.33
439380	0.11	<5	8	<3	0.85	15.9	16	<5	<10	<292	370	<2	<1	3.9	<4	0.35	0.39
439381	0.10	<5	8	<4	0.64	15.9	16	<5	<10	<396	370	<2	<1	5.6	10	0.36	0.36
439382	0.12	<5	9	<2	0.32	18.1	22	<5	<10	<266	340	<1	<1	4.2	7	0.37	0.46
439383	0.07	<5	7	<3	0.64	11.3	11	<5	<10	<231	260	<3	<1	5.9	9	0.33	0.28
439384	0.07	<5	6	<2	0.50	10.9	12	<5	<10	<227	220	<2	<1	3.1	5	0.20	0.23
439385	0.11	<5	10	<3	0.82	14.4	14	<5	<10	<339	240	<1	<1	8.3	8	0.75	0.67
439386	0.08	<5	9	<1	0.67	9.3	11	<5	<10	<187	100	<1	<1	4.0	4	0.32	0.33
439387	0.09	<5	10	<4	0.82	11.4	11	<5	<10	<295	170	<4	<1	6.2	4	0.35	0.33
439388	0.08	<5	24	<5	1.0	10.0	11	<5	<10	--	190	<5	3	5.1	<4	--	0.27
439390	0.08	5	8	<3	0.60	13.4	14	<5	<10	<361	170	<2	<1	5.8	<4	0.41	0.44
439391	0.10	10	10	<2	0.54	15.2	17	<5	<10	<188	300	<1	<1	5.2	6	0.47	0.49
439392	0.10	11	10	<4	0.75	18.2	19	<5	<10	<288	330	<2	<1	5.3	<4	0.40	0.42

Sample ID	U, ppm DNC	V, ppm INAA	V, ppm ICP-AES	Y, ppm ICP-AES	Yb, ppm INAA	Yb, ppm ICP-AES	Zn, ppm INAA	Zn, ppm ICP-AES	Zr, ppm EDXRF
439369	2.3	193	180	16	<3.8	2	<71	77	145
439370	2.5	190	200	22	3.7	3	<40	93	207
439371	2.6	204	220	23	<3.2	3	<77	99	251
439372	2.3	147	160	21	<2.4	2	<48	92	190
439373	2.2	134	140	21	4.7	2	<60	110	146
439374	2.1	<19	32	17	<2.4	2	<76	68	46
439375	21.4	71	72	41	<7	4	<226	79	88
439376	3.0	111	120	20	<2.6	2	<91	71	249
439377	2.5	111	120	17	<3.2	2	<60	84	122
439378	2.2	108	130	16	2.7	2	<32	77	160
439379	2.8	98	93	15	<3.1	2	250	68	164
439380	2.2	134	140	18	<2.2	2	<54	91	151
439381	2.2	134	130	22	<3.4	2	<64	78	143
439382	1.7	163	170	27	<2	3	<40	89	134
439383	2.2	87	89	19	<2.8	2	<69	72	172
439384	1.5	86	91	17	<2	1	<45	73	99
439385	3.7	123	110	20	6.4	2	<51	83	365
439386	2.5	124	130	18	<1.2	2	<14	120	121
439387	2.8	115	110	18	<3.8	2	<234	110	162
439388	12.0	<121	110	150	8.6	8	651	560	99
439390	2.1	112	120	19	4.5	2	<26	94	179
439391	2.6	121	130	20	3.3	2	<36	110	204
439392	2.5	157	160	19	<3.4	2	<82	85	148