OU III AR 517 1-19

Internal Memorandum

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Grand Junction Operations
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A Subsidiary of The Bendix Corporation

MRAP OUIII AR 517 1-19 STREAM SEDIMENT
STREAM SEDIMENT SURVEY OF SOUTH CREEK AND
MONTEZUMA CANYON 11/16/82

Date 16 November 1982 Letter No.

To I. N. Abramiuk

From H. L. Fleischhauer, N. Korte, P.M. Kearl

Subject Stream sediment survey of South Creek and Montezuma Canyon

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Results from samples collected along South Creek and Montezuma Creek are now available. These are summarized on the attached table as site averages with site maxima in parenthesis. Three samples were collected at each site (see attached map) from various positions in the channel and associated depositional features. Site 2 is the one exception, where we obtained scrapings from rocks in the channel to yield one sample. For samples in which Ra and U are below detection limits, values of 0.1 pCi/g ^{226}Ra and 0.1 ppm U were assigned to calculate site averages.

The background values of Ra and U from site 10 are about 1 pCi/g and 1 ppm, respectively. No Ra anomalies were detected within or immediately downstream from the tailings piles. The first anomalous Ra is found at site 12 about 1.5 miles downstream from the disposal area. From here to site 5 just below the confluence of South Creek and Vega Creek, there is anomalous Ra at each site. Sites 6-9 in Montezuma Canyon proper yield approximately background values. The first elevated U values are obtained at site 13 on the Summerville property. Uranium is consistently elevated downstream to site 5. In Montezuma Canyon, the uranium is at approximately background levels.

The August 19 memo from Korte, Fleischhauer, and Kearl reported results from water samples collected on the survey. These samples, which reprsent ground-water baseflow through alluvium, indicate U is several times EPA interim standards. The uranium in water from Montezuma Canyon is evidently derived from the tailings piles since tributary canyons have only background values. The near background Ra activity and U concentration in sediments of Montezuma Canyon are consistent with this. It appears that contaminated sediments of lower South Creek are rapidly diluted once they reach Montezuma Canyon.

The molybdenum and arsenic concentrations show no truly distinct trends. Vanadium tracks uranium.

HLF/ob
xc: D. Emilia
R. Murri
T. Carter

Site	pCi/g ^{226}Ra	ppm U	ppm V	ppm Mo	ppm As
10	0.5 (1)	.7(1)	73.3 (85)	6.0 (7)	4.7 (6)
15	4.6 (8)	7.7(8)	95.0 (100)	4.0 (4)	4.3 (5)
13	4.7 (5)	12.0 (15)	96.7 (105)	4.0 (4)	3.7 (4)
14	5 (6)	14.0 (15)	136.7 (175)	7.0 (7)	5.7 (7)
12	16.1 (25)	15.3 (23)	136.7 (190)	5.0 (7)	4.0 (5)
11	25.1 (54)	21.3 (35)	195.0 (320)	5.0 (7)	5.0 (5)
1	7.9 (11)	8 (11)	93.3 (100)	2.7 (4)	5.3 (7)
2	10.4	66.	185.0	10.0	6.0
3	7.7 (11)	9.3 (11)	106.7 (130)	3.3 (4)	5.3 (7)
4	22.2 (37)	20.7 (24)	155.0 (200)	4.0 (4)	4.7 (5)
5	10.7 (12)	13.0 (21)	103.3 (150)	4.7 (6)	4.7 (5)
6	1.7 (2)	1.0 (1)	61.7 (65)	2.0 (2)	3.0 (3)
7	1.0 (3)	5.3 (10)	61.7 (70)	2.0 (2)	4.3 (6)
8	1.4 (2)	.1 (<1)	31.7 (35)	2.0 (2)	5.0 (6)
9	1.8 (4)	.4 (1)	28.3 (30)	2.7 (4)	3.3 (4)

Sample Location	Ticket No (MMB)	U (gamma) (ppm)	*Ra-226 (pCi/g)	Mo (ppm)	V (ppm)	As (ppm)	Se (ppm)	U (ppm)
			6	1	5	1	3	4
S1	801	21.2	7.1	4	100	5	<5	11
S1	802	16.4	5.5	2	85	7	<5	4
S1	803	32.8	11.0	2	95	4	<5	9
S2	804	31	10.4	10	185	6	<5	66
S3	805	18.2	6.1	4	75	5	<5	9
S3	806	32.8	11.0	4	130	7	<5	8
S3	807	18.3	6.2	2	115	4	<5	11
S4	808	15.7	5.3	4	110	5	<5	24
S4	809	73.2	24.6	4	155	5	<5	15
S4	810	109.1	36.7	4	200	4	<5	23
S5	811	32.8	11.0	4	65	4	<5	6
S5	812	27.2	9.1	6	150	5	<5	21
S5	813	35.7	12.0	4	95	5	<5	12
S6	814	3.6	1.2	2	60	3	<5	1
S6	815	6	2.0	2	60	3	<5	1
S6	816	5.7	1.9	2	65	3	<5	1
S7	817	8.3	2.8	2	65	6	<5	4
S7	818	**	**	2	70	3	<5	10
S7	819	**	**	2	50	4	<5	2
S8	820	6.7	2.3	2	35	5	<5	<1
S8	821	**	**	2	25	4	<5	<1
S8	822	5.6	1.9	2	35	6	<5	<1
S9	823	**	**	2	25	3	<5	<1
S9	824	10.5	3.5	2	30	3	<5	1
S9	825	5.8	1.9	4	30	4	<5	<1
S10	826	1.1	0.4	7	85	4	<5	1
S10	827	**	**	7	70	4	<5	<1
S10	828	3.1	1.0	4	65	6	<5	1
S11	829	32.3	10.9	7	115	5	<5	12
S11	830	32.1	10.8	4	150	5	<5	17
S11	831	161.4	54.3	4	320	5	<5	35
S12	832	42.3	14.2	4	125	3	<5	12
S12	833	27.1	9.1	4	95	4	<5	11
S12	834	74.7	25.1	7	190	5	<5	23
S13	835	13.2	4.4	4	105	4	<5	10
S13	836	14.7	4.9	4	95	3	<5	15

only need to put location on first sample

Sample Location	Ticket No (MMB)	U (gamma) (ppm)	*Ra-226 (pCi/g)	Mo (ppm)	V (ppm)	As (ppm)	Se (ppm)	U (ppm)
S13	837	14.6 ✓	4.9	4	90	4	<5	11
S14	838	13.6 ✓	4.6	7	115	5	<5	14
S14	839	23.2 ✓	7.8	7	120	5	<5	13
S14	840	7.3 ✓	2.5	7	175	7	<5	15
S15	841	12 ✓	4.0	4	100	4	<5	8
S15	842	12.3 ✓	4.1	4	95	4	<5	8
S15	843	17.1 ✓	5.7	4	90	5	<5	7

* Ra-226 (pCi/g) = U (gamma) x 0.3362

** Results not available

BENDIX FIELD ENGINEERING CORP.

P.O. BOX 1569

Grand Junction, Colorado 81502

CERTIFICATE OF ASSAY

REQUESTED BY L. Fleischhauer REQUISITION NO. 400851 DATE November 8, 1982

Off-pile transport of tailings. Monticello, Ut - South Creek Montezuma Canyon Survey

		Lab No.	ppm Mo	ppm V	ppm As	ppm Se	ppm U
	MMB 801	80329	4	100	5	< 5	11
51	MMB 802	80330	2	85	7	< 5	4
	MMB 803	80331	2	95	4	< 5	9
52	MMB 804	80332	10	185	6	< 5	66
	MMB 805	80333	4	75	5	< 5	9
53	MMB 806	80334	4	130	7	< 5	8
	MMB 807	80335	2	115	4	< 5	11
	MMB 808	80336	4	110	5	< 5	24
54	MMB 809	80337	4	155	5	< 5	15
	MMB 810	80338	4	200	4	< 5	23
	MMB 811	80339	4	65	4	< 5	6
55	MMB 812	80340	6	150	5	< 5	21
	MMB 813	80341	4	95	5	< 5	12
	MMB 814	80342	2	60	3	< 5	1
56	MMB 815	80343	2	60	3	< 5	1
	MMB 816	80344	2	65	3	< 5	1
	MMB 817	80345	2	65	6	< 5	4
57	MMB 818	80346	2	70	3	< 5	10
	MMB 819	80347	2	50	4	< 5	2
	MMB 820	80348	2	35	5	< 5	< 1
58	MMB 821	80349	2	25	4	< 5	< 1
	MMB 822	80350	2	35	6	< 5	< 1
59	MMB 823	80351	2	25	3	< 5	< 1

		Lab No.	ppm Mo	ppm V	ppm As	ppm Se	ppm U
59	MMB 824	80352	2	30	3	< 5	1
	MMB 825	80353	4	30	4	< 5	< 1
	MMB 826	80354	7	85	4	< 5	1
510	MMB 827	80355	7	70	4	< 5	< 1
	MMB 828	80356	4	65	6	< 5	1
	MMB 829	80357	7	115	5	< 5	12
511	MMB 830	80358	4	150	5	< 5	17
	MMB 831	80359	4	320	5	< 5	35
	MMB 832	80360	4	125	3	< 5	12
512	MMB 833	80361	4	95	4	< 5	11
	MMB 834	80362	7	190	5	< 5	23
	MMB 835	80363	4	105	4	< 5	10
513	MMB 836	80364	4	95	3	< 5	15
	MMB 837	80365	4	90	4	< 5	11
	MMB 838	80366	7	115	5	< 5	14
514	MMB 839	80367	7	120	5	< 5	13
	MMB 840	80368	7	175	7	< 5	15
	MMB 841	80369	4	100	4	< 5	8
515	MMB 842	80370	4	95	4	< 5	8
	MMB 843	80371	4	90	5	< 5	7

CORRECTED

Nic Korte

SENIOR ANALYST

BFE 1412
12/16/80

BENDIX FIELD ENGINEERING CORPORATION
GEOCHEMICAL ANALYSIS DEPARTMENT

REQUESTOR: FLEISCHHAUER
REQUESTOR:
PROJECT ID:7A0001
REQUISITION NUMBER: 400851.
REPORTED 07-OCT-82

DETECTOR: NAI ORANGE

SOFTWARE METHOD: GEOCAL V-01
GEOMETRY:SML
CALIBRATION CHECKED DAILY

GAMMA SPECTROSCOPY ANALYSIS

MMB 801 80329. 21.820 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
2.10 +/- 0.03%	21.20 +/- 0.04%	12.80 +/- 0.09%	23.80 +/- 0.00%

MMB 802 80330. 20.770 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.40 +/- 0.03%	16.40 +/- 0.05%	14.80 +/- 0.08%	15.10 +/- 0.00%

MMB 803 80331. 25.720 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.90 +/- 0.02%	32.80 +/- 0.03%	14.50 +/- 0.07%	38.90 +/- 0.00%

MMB 804 80332. 13.890 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.10 +/- 0.04%	31.00 +/- 0.04%	13.40 +/- 0.10%	35.30 +/- 0.00%

MMB 812 80340. 18.230 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.80 +/- 0.03%	27.20 +/- 0.04%	4.70 +/- 0.14%	30.10 +/- 0.00%

MMB 814 80342. 16.460 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.60 +/- 0.04%	3.60 +/- 0.12%	4.10 +/- 0.17%	8.90 +/- 0.00%

K KOSNAI CALC. K=%,U=PPM,TH=PPM U KOSNAI CALC. K=%,U=PPM,TH=PPM T KOSNAI CALC. K=%,U=PPM,TH=PPM
GRS-U PPM NBL102A(1025+/-10)

UNCERTAINTIES EXPRESSED ONLY AS COUNTING STATISTICS AT THE 2 SIGMA LEVEL BASED ON SAMPLE PEAK AND COMPTON AREAS
RIGORUS ERROR EVALUATION SHOULD NOT BE ATTEMPTED WITHOUT FIRST CONSULTING GAD

BENDIX FIELD ENGINEERING CORPORATION
GEOCHEMICAL ANALYSIS DEPARTMENT

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GAMMA SPECTROSCOPY ANALYSIS

MMB 815 80343. 15.560 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.60 +/- 0.04%	6.00 +/- 0.23%	17.90 +/- 0.09%	5.70 +/- 0.00%

MMB 816 80344. 15.690 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.20 +/- 0.05%	5.70 +/- 0.10%	7.70 +/- 0.13%	3.10 +/- 0.00%

MMB 820 80348. 21.200 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
0.90 +/- 0.04%	6.70 +/- 0.09%	10.30 +/- 0.10%	8.80 +/- 0.00%

MMB 824 80352. 22.770 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.10 +/- 0.04%	10.50 +/- 0.06%	11.70 +/- 0.09%	9.50 +/- 0.00%

MMB 826 80354. 17.170 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.60 +/- 0.04%	1.10 +/- 0.00%	3.90 +/- 0.18%	2.30 +/- 0.00%

MMB 829 80357. 19.450 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.70 +/- 0.03%	32.30 +/- 0.03%	24.10 +/- 0.07%	34.80 +/- 0.00%

K KOSNAI CALC. K=%,U=PPM,TH=PPM U KOSNAI CALC. K=%,U=PPM,TH=PPM T KOSNAI CALC. K=%,U=PPM,TH=PPM
GRS-U PPM NBL102A(1025+/-10)

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GEOMETRY:SML
CALIBRATION CHECKED DAILY

GAMMA SPECTROSCOPY ANALYSIS

MMB 832 80360. 19.960 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.70 +/- 0.03%	42.30 +/- 0.03%	7.70 +/- 0.11%	48.10 +/- 0.00%

MMB 833 80361. 22.220 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.30 +/- 0.03%	27.10 +/- 0.03%	5.60 +/- 0.12%	29.10 +/- 0.00%

MMB 835 80363. 21.570 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.70 +/- 0.03%	13.20 +/- 0.05%	4.10 +/- 0.15%	15.00 +/- 0.00%

MMB 836 80364. 21.830 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
2.00 +/- 0.03%	14.70 +/- 0.05%	14.00 +/- 0.08%	18.00 +/- 0.00%

MMB 838 80366. 22.990 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
2.10 +/- 0.03%	13.60 +/- 0.05%	11.60 +/- 0.09%	23.00 +/- 0.00%

MMB 839 80367. 11.710 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
3.80 +/- 0.03%	23.20 +/- 0.05%	22.50 +/- 0.09%	31.00 +/- 0.00%

K KOSNAI CALC. K=%,U=PPM,TH=PPM U KOSNAI CALC. K=%,U=PPM,TH=PPM T KOSNAI CALC. K=%,U=PPM,TH=PPM
GRS-U PPM NBL102A(1025+/-10)

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GAMMA SPECTROSCOPY ANALYSIS

MMB 843 80371. 23.280 GRAMS 10000. SEC. COUNTING

K	U	T	GRS-U PPM
1.90 +/- 0.03%	17.10 +/- 0.05%	16.20 +/- 0.07%	22.30 +/- 0.00%

K KOSNAI CALC. K=%,U=PPM,TH=PPM U KOSNAI CALC. K=%,U=PPM,TH=PPM T KOSNAI CALC. K=%,U=PPM,TH=PPM
GRS-U PPM NBL102A(1025+/-10)

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BENDIX FIELD ENGINEERING CORPORATION
GEOCHEMICAL ANALYSIS DEPARTMENT

REQUESTOR: FLEISCHHAUER
REQUESTOR: I
PROJECT ID:7A0001
REQUISITION NUMBER: 400851.
REPORTED 04-OCT-82

DETECTOR: CANBERRA (1) GEL

SOFTWARE METHOD: GEOCAL V-01
GEOMETRY:LRG
CALIBRATION CHECKED DAILY

GAMMA SPECTROSCOPY ANALYSIS

MMB 805 80333. 649.300 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.50 +/- 7.09%	18.20 +/- 11.17%	******** +/- *****	23.60 +/- 0.00%

MMB 806 80334. 677.300 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.20 +/- 7.32%	32.80 +/- 8.32%	5.20 +/- 19.61%	37.60 +/- 0.00%

MMB 807 80335. 583.400 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.70 +/- 7.11%	18.30 +/- 11.58%	******** +/- *****	22.90 +/- 0.00%

MMB 808 80336. 552.900 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.50 +/- 7.42%	15.70 +/- 12.68%	******** +/- *****	22.30 +/- 0.00%

MMB 809 80337. 609.800 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.20 +/- 7.36%	73.20 +/- 5.87%	******** +/- *****	81.50 +/- 0.00%

MMB 810 80338. 627.200 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.40 +/- 6.92%	109.10 +/- 4.78%	******** +/- *****	117.70 +/- 0.00%

K % 56.5% K2CO3 U PPM RAEU 1765KEV NBL101A(10070/130) TH -PPM 2614KEV NBL 106A (10240+/-30)
GRS-U PPM NBL 101A (10070+/-130)

UNCERTAINTIES EXPRESSED ONLY AS COUNTING STATISTICS AT THE 2 SIGMA LEVEL BASED ON SAMPLE PEAK AND COMPTON AREAS
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BENDIX FIELD ENGINEERING CORPORATION
GEOCHEMICAL ANALYSIS DEPARTMENT

REQUESTOR: FLEISCHHAUER
REQUESTOR: I
PROJECT ID:7A0001
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REPORTED 04-OCT-82

DETECTOR: CANBERRA (1) GEL

SOFTWARE METHOD: GEOCAL V-01
GEOMETRY:LRG
CALIBRATION CHECKED DAILY

GAMMA SPECTROSCOPY ANALYSIS

MMB 811 80339. 603.100 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.40 +/- 7.28%	32.80 +/- 8.71%	******** +/- *****	38.70 +/- 0.00%

MMB 813 80341. 525.900 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.40 +/- 7.54%	35.70 +/- 8.81%	******** +/- *****	41.40 +/- 0.00%

MMB 817 80345. 663.600 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.20 +/- 7.68%	8.30 +/- 15.73%	******** +/- *****	11.60 +/- 0.00%

MMB 818 80346. 612.100 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.30 +/- 7.56%	******** +/- *****	******** +/- *****	11.20 +/- 0.00%

MMB 819 80347. 676.700 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
0.80 +/- 8.36%	******** +/- *****	******** +/- *****	8.60 +/- 0.00%

MMB 821 80349. 701.800 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
0.80 +/- 8.39%	******** +/- *****	******** +/- *****	5.20 +/- 0.00%

K % 56.5% K2CO3 U PPM RAEU 1765KEV NBL101A(10070/130) TH -PPM 2614KEV NBL 106A (10240+/-30)
GRS-U PPM NBL 101A (10070+/-130)

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DETECTOR: CANBERRA (1) GEL

SOFTWARE METHOD: GEOCAL V-01
GEOMETRY:LRG
CALIBRATION CHECKED DAILY

GAMMA SPECTROSCOPY ANALYSIS

MMB 822 80350. 697.200 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
0.40 +/- 9.64%	5.60 +/- 18.00%	******** +/- *****	8.70 +/- 0.00%

MMB 823 80351. 694.200 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
0.70 +/- 8.75%	******** +/- *****	******** +/- *****	5.70 +/- 0.00%

MMB 825 80353. 669.700 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
0.70 +/- 8.68%	5.80 +/- 18.29%	******** +/- *****	9.20 +/- 0.00%

MMB 827 80355. 619.800 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.70 +/- 7.01%	******** +/- *****	******** +/- *****	10.80 +/- 0.00%

MMB 828 80356. 581.300 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.50 +/- 7.35%	3.10 +/- 23.75%	******** +/- *****	10.90 +/- 0.00%

MMB 830 80358. 501.000 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.80 +/- 7.18%	32.10 +/- 9.43%	2.60 +/- 22.48%	40.80 +/- 0.00%

K % 56.5% K2CO3 U PPM RAEU 1765KEV NBL101A(10070/130) TH -PPM 2614KEV NBL 106A (10240+/-30)
GRS-U PPM NBL 101A (10070+/-130)

UNCERTAINTIES EXPRESSED ONLY AS COUNTING STATISTICS AT THE 2 SIGMA LEVEL BASED ON SAMPLE PEAK AND COMPTON AREAS
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DENSITY CORRECTION INCORPORATED

BENDIX FIELD ENGINEERING CORPORATION
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REPORTED 04-OCT-82

DETECTOR: CANBERRA (1) GEL

SOFTWARE METHOD: GEOCAL V-01
GEOMETRY:LRG
CALIBRATION CHECKED DAILY

GAMMA SPECTROSCOPY ANALYSIS

MMB 831 80359. 665.300 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.50 +/- 6.55%	161.40 +/- 3.81%	******** +/- *****	176.40 +/- 0.00%

MMB 834 80362. 576.000 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.40 +/- 7.27%	74.70 +/- 5.94%	******** +/- *****	89.20 +/- 0.00%

MMB 837 80365. 554.000 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.70 +/- 7.16%	14.60 +/- 13.09%	******** +/- *****	22.00 +/- 0.00%

MMB 840 80368. 553.800 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.90 +/- 6.86%	7.30 +/- 17.58%	10.70 +/- 17.15%	15.10 +/- 0.00%

MMB 841 80369. 523.000 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.70 +/- 7.21%	12.00 +/- 14.56%	8.30 +/- 18.38%	18.30 +/- 0.00%

MMB 842 80370. 601.700 GRAMS 3500. SEC. COUNTING

K %	U PPM	TH -PPM	GRS-U PPM
1.70 +/- 6.93%	12.30 +/- 13.64%	******** +/- *****	20.10 +/- 0.00%

K % 56.5% K2CO3 U PPM RAEU 1765KEV NBL101A(10070/130) TH -PPM 2614KEV NBL 106A (10240+/-30)
GRS-U PPM NBL 101A (10070+/-130)

UNCERTAINTIES EXPRESSED ONLY AS COUNTING STATISTICS AT THE 2 SIGMA LEVEL BASED ON SAMPLE PEAK AND COMPTON AREAS
RIGORUS ERROR EVALUATION SHOULD NOT BE ATTEMPTED WITHOUT FIRST CONSULTING GAD

DENSITY CORRECTION INCORPORATED