EBERLINE SERVICES

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July 21, 2010

Penny Bassett
Brown and Caldwell
3264 Goni Road Suite 153
Carson City, NV 89706

CASE NARRATIVE
Work Order # 10-06062-OR

SAMPLE RECEIPT

This work order contains twelve soil samples received 06/14/2010. These samples were analyzed by Gamma Spectroscopy.

CLIENT ID	LAB ID	CLIENT ID	LAB ID
S-20	10-06062-04	S-26	10-06062-10
S-21	10-06062-05	S-27	10-06062-11
S-22	10-06062-06	S-29	10-06062-12
S-23	10-06062-07	S-DUP-1	10-06062-13
S-24	10-06062-08	S-DUP-2	10-06062-14
S-25	10-06062-09	S-DUP-3	10-06062-15

ANALYTICAL METHODS

Gamma Spectroscopy was performed using Method LANL ER-130 Modified.

Laboratory qualifiers are as follows:

J - Indicates a situation where the result minus the error is less than the detection limit but greater than zero.

U - Indicates a situation where the result minus the error is less than or equal to zero.

ANALYTICAL RESULTS

GAMMA SPECTROSCOPY

Samples were dried, homogenized and placed into appropriate gamma spectroscopy geometry containers. Samples were then sealed for 21 days to allow for ingrowth of Radon-222 and progeny. Samples were counted on High Purity Germanium (HPGe) gamma ray detectors. Energy lines from Lead-214 and Bismuth-214 were analyzed for determinations of Radium-226 activity.

ANALYTICAL RESULTS CONTINUED

GAMMA SPECTROSCOPY CONTINUED

Samples demonstrated acceptable results for all gamma-emitting radionuclides as reported. Results for the method blank demonstrated acceptable activity for all radionuclides as reported. Results for the Actinium-228, Bismuth-214 and Lead-212 replicate demonstrated an acceptable relative percent difference and normalized difference. Results for the Cobalt-60 and Cesium-137 laboratory control sample demonstrated an acceptable percent recovery.

CERTIFICATION OF ACCURACY

I certify that this data report is in compliance with the terms and conditions of the Purchase Order, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the cognizant project manager or his/her designee to be accurate as verified by the following signature.

M.R. McDougall
Laboratory Manager

Date: 7/21/2010

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SDG: 1006062
Date Received: 06/14/2010
Matrix: Soil

Sample ID	Lab ID	Result Type	Prep Date	Analysis Date	Method	Analyte	Result	Error	MDA	Qualifier	Units
LCS	10-06062-01	LCS	06/18/2010	07/12/2010	LANL ER-130 Modified	Cobalt-60	163.10	11.96	1.46		pCi/g
LCS	10-06062-01	LCS	06/18/2010	07/12/2010	LANL ER-130 Modified	Cesium-137	95.10	12.13	1.25		pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	-0.03	0.11	0.21	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	0.02	0.08	0.15	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	0.77	3.15	6.39	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	0.02	0.05	0.09	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	-0.01	0.07	0.12	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	0.02	0.08	0.15	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	-0.03	0.11	0.21	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	0.03	0.48	0.88	U	pCi/g
BLANK	10-06062-02	MBL	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	0.04	0.10	0.19	U	pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.06	0.53	0.94	J	pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	2.85	0.45	0.34		pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	21.03	11.06	16.29	J	pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	1.05	0.24	0.26		pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	2.06	0.39	0.30		pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	2.85	0.45	0.34		pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.06	0.53	0.94	J	pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	2.89	2.46	4.49	J	pCi/g
S-20	10-06062-03	DUP	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	0.63	0.33	0.47	J	pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.13	0.53	0.97	J	pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	2.36	0.41	0.31		pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	-3.06	10.04	18.58	U	pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	1.03	0.28	0.27		pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	2.54	0.38	0.29		pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	2.36	0.41	0.31		pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.13	0.53	0.97	J	pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	3.32	3.50	3.44	U	pCi/g
S-20	10-06062-04	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	0.90	0.32	0.48		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	42.59	5.07	3.79		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	43.70	4.46	2.11		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	2.33	64.26	116.20	U	pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	50.90	6.57	1.73		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	48.76	5.83	2.05		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	43.70	4.46	2.11		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	42.59	5.07	3.79		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	44.72	18.95	20.96		pCi/g
S-21	10-06062-05	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	34.88	4.24	3.43		pCi/g

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S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.55	0.47	0.61		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	1.72	0.39	0.31		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	4.77	9.03	18.21	U	pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	1.64	0.31	0.22		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	1.58	0.36	0.30		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	1.72	0.39	0.31		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.55	0.47	0.61		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	5.81	2.76	2.70		pCi/g
S-22	10-06062-06	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	1.32	0.45	0.75		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	6.32	0.55	0.41		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	2.78	0.35	0.25		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	1.50	8.52	13.74	U	pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	5.72	0.64	0.22		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	2.86	0.34	0.24		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	2.78	0.35	0.25		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	6.32	0.55	0.41		pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	2.76	2.07	3.52	J	pCi/g
S-23	10-06062-07	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	5.39	0.55	0.33		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	9.61	1.25	1.29		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	1.84	0.61	0.70		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	18.96	20.03	40.59	U	pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	10.34	1.46	0.53		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	2.26	0.62	0.63		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	1.84	0.61	0.70		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	9.61	1.25	1.29		pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	7.92	3.93	6.35	J	pCi/g
S-24	10-06062-08	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	8.84	1.21	1.09		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	2.12	0.40	0.51		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	11.66	0.90	0.28		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	4.10	10.54	17.07	U	pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	1.00	0.27	0.26		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	11.42	1.00	0.30		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	11.66	0.90	0.28		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	2.12	0.40	0.51		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	8.03	4.32	3.35		pCi/g
S-25	10-06062-09	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	1.63	0.27	0.39		pCi/g

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Sample ID	Lab ID	Result Type	Prep Date	Analysis Date	Method	Analyte	Result	Error	MDA	Qualifier	Units
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.10	0.40	0.61		pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	3.41	0.48	0.29		pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	-3.42	9.14	16.30	U	pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	0.91	0.23	0.21		pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	3.45	0.49	0.27		pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	3.41	0.48	0.29		pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.10	0.40	0.61		pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	1.30	1.53	2.66	U	pCi/g
S-26	10-06062-10	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	0.87	0.29	0.41		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	102.40	6.09	1.45		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	23.57	2.02	1.08		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	55.90	35.35	43.29	J	pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	121.80	13.54	3.27		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	27.14	2.46	1.10		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	23.57	2.02	1.08		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	102.40	6.09	1.45		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	67.20	13.25	16.13		pCi/g
S-27	10-06062-11	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	92.92	6.92	1.63		pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.49	0.73	1.26	J	pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	1.66	0.40	0.42		pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	9.82	9.11	25.43	J	pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	1.71	0.35	0.28		pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	1.59	0.47	0.37		pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	1.66	0.40	0.42		pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.49	0.73	1.26	J	pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	3.36	1.99	3.60	J	pCi/g
S-29	10-06062-12	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	0.99	0.45	0.86	J	pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.97	0.36	0.38		pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	0.77	0.22	0.23		pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	8.79	7.72	15.95	J	pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	2.00	0.34	0.17		pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	0.57	0.22	0.22		pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	0.77	0.22	0.23		pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.97	0.36	0.38		pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	3.84	2.54	2.54	J	pCi/g
S-DUP-1	10-06062-13	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	1.46	0.27	0.28		pCi/g

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Sample ID	Lab ID	Result Type	Prep Date	Analysis Date	Method	Analyte	Result	Error	MDA	Qualifier	Units
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	0.93	0.40	0.82	J	pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	3.59	0.48	0.27		pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	2.29	9.64	16.48	U	pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	1.16	0.25	0.22		pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	3.50	0.53	0.28		pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	3.59	0.48	0.27		pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	0.93	0.40	0.82	J	pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	1.60	1.57	2.75	J	pCi/g
S-DUP-2	10-06062-14	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	0.83	0.28	0.45		pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Actinium-228	1.91	1.66	2.27	J	pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Bismuth-214	170.50	9.65	0.95		pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Protactinium-234M	3.93	34.27	59.08	U	pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-212	14.02	1.76	1.47		pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Lead-214	57.24	6.67	1.23		pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-226	170.50	9.65	0.95		pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Radium-228	1.91	1.66	2.27	J	pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thorium-234	-3.34	10.24	13.78	U	pCi/g
S-DUP-3	10-06062-15	TRG	06/18/2010	07/12/2010	LANL ER-130 Modified	Thallium-208	1.89	0.47	1.52	J	pCi/g

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

COC No. VERS 0400

☒ 3264 Goni Road / Suite 153, Carson City, NV 89706, 775-883-4118 / FAX 775-883-5108
☐ 4425 W. Spring Mountain Road / Suite 225, Las Vegas, NV 89102, 702-938-4080 / FAX 702-938-4082
☐ 201 East Washington Street / Suite 500, Phoenix, AZ 85004, 602-567-4000 / FAX 602-567-4001

10 06062

PROJECT NAME: Transite Pipe Scale
PROJECT NUMBER: 138554.004

LABORATORY NAME & ADDRESS: Eberline Services, 601 Scarboro Rd, Oak Ridge, TN 37830-3849

LINE NO.	SAMPLE – I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESER-VATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC – REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN ---- END	PID READING (ppm)
01	S-12a	6/2/10	17:02	PB	1	1 gal ziplock	NONE	S	Ra-226, Ra-228, U, Th (Gamma spec 901.1 / HASL 300)	NA		STD	Grab	NA	750 g
02	S-13		16:50											----	225 g
03	S-15		16:30											----	400 g
04	S-16	6/3/10	13:40											----	250 g
05	S-17		13:52											----	325 g
06	S-18		13:20											----	375 g
07	S-19		14:15											----	350 g
4 08	S-20		14:23											----	350 g
5 09	S-21		10:07											----	250 g
6 10	S-22		11:00											----	1050 g

RECEIVED JUN 14 2010 BY: KF

COLLECTED & RELEASED BY: Penny Barrett	DATE 6/7/10	TIME 09:00	COOLER I.D.:			COMMENTS (see note on back):
RECEIVED BY: Rayanne Barringer	DATE 6/7/10	TIME 0900	RELINQUISHED BY: R Barringer	DATE 6/7/10	TIME 1325	NOTE: Material may contain asbestos
Kevin Fox	6/14/10	1000				
RECORD RETURNED BY:	DATE / /	TIME :				
COURIER: FedEx Ground			SHIPPING NUMBER: 4131417 10001755			

DISTRIBUTION: WHITE – PROJECT FILE • CANARY – LAB RECEIPT • PINK – DATA MANAGEMENT • GOLDENROD – FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK.

BROWN AND CALDWELL

CHAIN OF CUSTODY RECORD

COC No. YERS 0401

☒ 3264 Goni Road / Suite 153, Carson City, NV 89706, 775-883-4118 / FAX 775-883-5108

☐ 4425 W. Spring Mountain Road / Suite 225, Las Vegas, NV 89102, 702-938-4080 / FAX 702-938-4082

☐ 201 East Washington Street / Suite 500, Phoenix, AZ 85004, 602-567-4000 / FAX 602-567-4001

10 06062

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	LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESER-VATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC - REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN ---- END	PID READING (ppm)
7	01	S-23	6/3/10	11:22	PB	1	1gal Ziplock	None	S	Ra-226, Ra-228, U, Th (Gamma spec 901.1 / HASL 300)	NA		STD	GRAB	-450 g	
8	02	S-24		11:32											-575 g	
9	03	S-25		10:25											-925 g	
10	04	S-26		10:35											925 g	
11	05	S-27		08:54											300 g	
12	06	S-29		09:50											600 g	
13	07	S-DUP-1	6/2/10	16:36											300 g	
14	08	S-DUP-2	6/3/10	10:35											750 g	
15	09	S-DUP-3	6/3/10	13:52											375 g	
	10														----	

RECEIVED
JUN 14 2010
BY: KF

COLLECTED & RELEASED BY: Penny Barrett	DATE 6/7/10	TIME 09:00	COOLER I.D.:			COMMENTS (see note on back):
RECEIVED BY: Royanne Barringer	DATE 6/7/10	TIME 0900	RELINQUISHED BY: R. Barringer	DATE 6/7/10	TIME 1325	NOTE: Material may contain asbestos
Kevin Fox	6/14/10	1000				
RECORD RETURNED BY:	DATE / /	TIME :				
COURIER: FedEx Ground			SHIPPING NUMBER: 4113141710061755			

DISTRIBUTION: WHITE - PROJECT FILE • CANARY - LAB RECEIPT • PINK - DATA MANAGEMENT • GOLDENROD - FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK.

Eberline Services
Analysis Control Chart

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-06062	Gamma	1	pCi	g	Brown & Caldwell

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
CO-60	4.68	121.77%	7.33%	100.00%	2.84%	1.34E+02	3.81E+00	1.63E+02	1.20E+01	GAS-91	1.34E+02	3.81E+00	7.10E+02
CS-137	2.29	117.68%	12.76%	100.00%	2.80%	8.08E+01	2.26E+00	9.51E+01	1.21E+01	GAS-91	8.08E+01	2.26E+00	7.10E+02

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample

Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU
AC-228	0.18	6.14	1.13E+00	5.31E-01	1.06E+00	5.28E-01
BI-214	1.56	18.61	2.36E+00	4.11E-01	2.85E+00	4.49E-01
PB-212	0.12	2.22	1.03E+00	2.77E-01	1.05E+00	2.39E-01

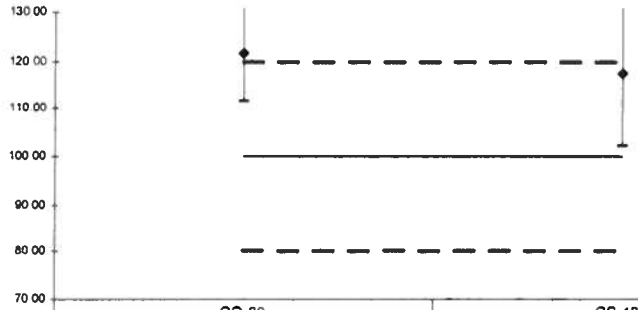
QC Summary

LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
1.22	OK	INV	<CS-137	AC-228>	OK	
1.18	OK	OK	<CO-60	BI-214>	OK	OK
				PB-212>	OK	OK

Version

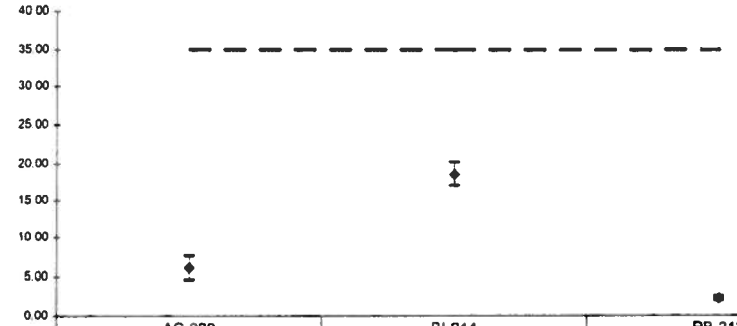
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-06062	Gamma	1	pCi	g	Brown & Caldwell

LCS % Recovery



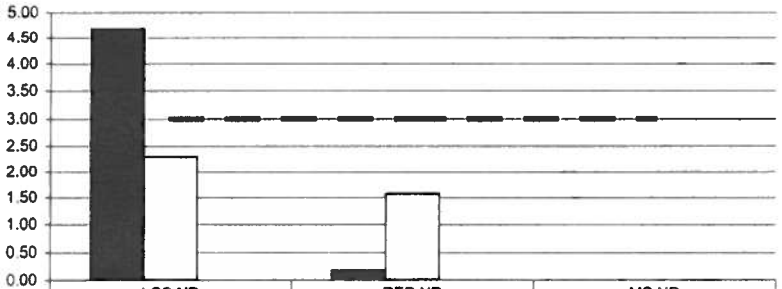
	CO-60	CS-137
Lower Error	111.59	102.13
Upper Error	131.95	133.24
%R	121.77	117.68
LCL	80	80
Mean	100	100
UCL	120	120

Replicate Sample RPD



	AC-228	BI-214	PB-212
Lower Error	7.63	20.14	2.50
Upper Error	4.65	17.07	1.94
RPD	6.14	18.61	2.22
CL	35	35	35

Normalized Difference



	LCS ND	REP ND	MS ND
CO-60	4.68	0.18	0.00
CS-137	2.29	1.56	0.00
	0.00	0.00	0.00
UCL	3	3	3

No Matrix Spike