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Large Area Activated Charcoal Canister (LAACC) Radon Flux Report

Project: UNC MINING & MILLING **Date Set:** 09-25-96
Location: Churchrock Mill Site Tailings Cell **Date Remove:** 09-26-96
Report Date: October 7, 1996, revised 01/15/97 **Date Counted:** 09-27-96
Weather: Cloudy, mild wind, slight short shower on 9-25 (p.m.) & 9-26 at 09:00. Min. temp 44°.

Method: UNC's employees placed and retrieved LAACC units. EPA Method 115 per 40 CFR 61 (NESHAPs). Radon Flux results have been corrected for instrument & charcoal background counts.

Lab I.D.	LAACC #	Canister #	Location	09-25-96 Time Set	09-26-96 Time Remove	Radon Flux pCi/m ² s
96- 54354	1	127	31A	9:47	9:14	4.5
Duplicate	-	-	-	-	-	4.4
96- 54355	2	128	33A	9:48	9:15	38.3
96- 54356	3	129	36A	9:50	9:15	20.8
96- 54357	4	131	37A	9:51	9:15	86.8
96- 54358	5	133	39A	9:55	9:16	51.5
96- 54359	6	134	41A	9:56	9:16	2.5
96- 54360	7	136	41C	9:57	9:17	4.6
96- 54361	8	137	39C	10:00	9:17	67.0
96- 54362	9	139	37C	10:01	9:18	1.2
96- 54363	10	142	35C	10:02	9:18	<0.5
Duplicate	-	-	-	-	-	<0.5
96- 54364	11	143	33C	10:04	9:19	<0.5
96- 54365	12	145	31C	10:07	9:19	<0.5
96- 54366	13	147	29.5C	10:09	9:20	0.7
96- 54367	14	148	30E	10:10	9:20	<0.5
96- 54368	15	149	33E	10:11	9:21	0.5
96- 54369	16	150	35E	10:13	9:21	<0.5
96- 54370	17	151	36E	10:15	9:22	<0.5
96- 54371	18	152	39E	10:21	9:23	<0.5
96- 54372	19	153	39D	10:20	9:23	2.2
96- 54373	20	155	36F	10:27	9:24	<0.5
Duplicate	-	-	-	-	-	<0.5
96- 54374	21	158	35G	10:28	9:25	<0.5
96- 54375	22	160	33G	10:30	9:25	<0.5
96- 54376	23	161	31G	10:32	9:26	<0.5
96- 54377	24	162	29G	10:34	9:26	1.9
96- 54378	25	163	31I	10:36	9:27	0.6
96- 54379	26	164	35I	10:39	9:28	<0.5

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96- 54380	27	165	19I	10:43	10:53	<0.5
96- 54381	28	166	19G	10:45	10:55	1.8
96- 54382	29	167	19E	10:47	10:56	<0.5
96- 54383	30	168	19C	10:50	10:58	<0.5
Duplicate	-	-	-	-	-	<0.5
96- 54384	31	170	19A	10:51	10:59	0.8
96- 54385	32	171	17A	10:54	11:01	1.2
96- 54386	33	172	17C	10:57	11:02	7.4
96- 54387	34	174	17E	11:00	11:06	8.9
96- 54388	35	175	17G	11:04	11:08	5.0
96- 54389	36	176	17I	11:06	11:09	0.7
96- 54390	37	180	17K	11:07	11:11	<0.5
96- 54391	38	181	15M	11:10	11:14	4.8
96- 54392	39	182	15K	11:13	11:16	4.0
96- 54393	40	183	15I	11:14	11:17	2.9
Duplicate	-	-	-	-	-	2.9
96- 54394	41	184	15G	11:18	11:19	4.3
96- 54395	42	186	15E	11:20	11:22	20.8
96- 54396	43	187	15C	11:24	11:24	<0.5
96- 54397	44	188	15A	11:25	11:26	<0.5
96- 54398	45	189	13C	11:26	11:39	4.9
96- 54399	46	190	13E	11:28	11:40	<0.5
96- 54400	47	192	13G	11:29	11:41	0.8
96- 54401	48	193	13I	11:31	11:43	<0.5
96- 54402	49	195	13K	11:33	11:44	<0.5
96- 54403	50	196	13M	11:40	11:48	0.9
Duplicate	-	-	-	-	-	0.8
96- 54404	51	197	11O	11:41	11:58	7.4
96- 54405	52	198	11M	11:43	12:00	5.9
96- 54406	53	199	11K	11:45	12:01	<0.5
96- 54407	54	200	11I	11:48	12:04	<0.5



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Lab I.D.	LAACC #	Canister #	Location	09-25-96 Time Set	09-26-96 Time Remove	Radon Flux pCi/m ² s
96- 54408	55	201	11G	11:50	12:05	9.8
96- 54409	56	202	11E	11:51	12:06	3.1
96- 54410	57	203	11C	11:53	12:07	4.8
96- 54411	58	204	11A	11:55	12:09	1.3
96- 54412	59	205	9I	11:58	12:10	15.7
96- 54413	60	206	9K	12:00	12:16	<0.5
Duplicate	-	-	-	-	-	<0.5
96- 54414	61	207	9M	12:04	12:18	11.6
96- 54415	62	208	9O	12:05	12:19	47.1
96- 54416	63	211	9Q	12:08	12:21	16.4
96- 54417	64	212	7Q	12:09	12:22	1.0
96- 54418	65	214	7O	12:11	12:23	2.3
96- 54419	66	215	7M	12:14	12:24	13.9
96- 54420	67	217	7K	12:17	12:25	6.5
96- 54421	68	218	5M	12:18	12:38	0.6
96- 54422	69	223	5O	12:20	12:39	1.0
96- 54423	70	226	5Q	12:22	12:40	<0.5
Duplicate	-	-	-	-	-	<0.5
96- 54424	71	228	3Q	12:24	12:41	3.0
96- 54425	72	229	3O	12:27	12:42	3.1
96- 54426	73	233	3M	12:29	12:44	16.1
96- 54427	74	234	3K	12:31	12:45	0.6
96- 54428	75	235	1M	12:33	12:46	<0.5
96- 54429	76	237	1O	12:35	12:48	5.5
96- 54430	77	238	0Q	12:38	12:49	11.7
96- 54431	78	239	1Q	12:40	12:50	<0.5
96- 54432	79	240	1S	12:42	12:51	<0.5
96- 54433	80	244	3S	12:43	12:53	<0.5
Duplicate	-	-	-	-	-	<0.5
96- 54434	81	245	5S	12:44	12:54	<0.5
96- 54435	82	246	7S	12:46	12:55	<0.5



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96- 54436	83	253	5U	12:47	12:55	0.6
96- 54437	84	255	3U	12:49	12:57	<0.5
96- 54438	85	257	-1A	12:53	12:59	<0.5
96- 54439	86	258	3A	12:55	13:01	<0.5
96- 54440	87	259	7A	12:56	13:02	0.7
96- 54441	88	260	9C	12:58	13:03	<0.5
96- 54442	89	261	7C	12:59	13:04	0.5
96- 54443	90	262	5C	13:00	13:12	0.9
Duplicate						0.9
96- 54444	91	265	3C	13:00	13:14	1.7
96- 54445	92	266	1C	13:01	13:15	16.7
96- 54446	93	267	-1C	13:02	13:16	<0.5
96- 54447	94	269	-3C	13:04	13:17	<0.5
96- 54448	95	270	-3E	13:06	13:18	<0.5
96- 54449	96	272	-1E	13:07	13:19	0.7
96- 54450	97	273	1E	13:09	13:20	2.8
96- 54451	98	274	3E	13:09	13:22	2.8
96- 54452	99	275	5E	13:11	13:22	0.8
96- 54453	100	276	7E	13:13	13:23	6.4
Duplicate	-	-	-	-	-	6.5
96- 54454	101	277	9E	13:14	13:25	24.0
96- 54455	102	281	9G	13:14	13:25	6.1
96- 54456	103	282	7G	13:15	13:26	<0.5
96- 54457	104	284	5G	13:16	13:27	<0.5
96- 54458	105	285	3G	13:17	13:28	1.6
96- 54459	106	287	1G	13:19	13:29	<0.5
96- 54460	107	288	-3G	13:21	13:30	<0.5
96- 54461	108	289	-5G	13:24	13:31	<0.5
96- 54462	109	290	-5I	13:25	13:32	3.8



Lab I.D.		LAACC #	Canister #	Location	09-25-96 Time Set	09-26-96 Time Remove	Radon Flux pCi/m ² s
96-	54463	110	291	-3I	13:26	13:34	0.7
Duplicate		-	-	-	-	-	0.7
96-	54464	111	292	-1I	13:27	13:35	1.2
96-	54465	112	293	1I	13:28	13:36	0.8
96-	54466	113	298	3I	13:29	13:37	0.5
96-	54467	114	309	5I	13:30	13:38	<0.5
96-	54468	115	310	7I	13:31	13:40	5.4



Large Area Activated Charcoal Canister (LAACC) Radon Flux Quality Assurance Report

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Trip Blank - Lab I.D.	Cannister #	Radon Flux - pCi/m ² s*
96- 54469	9	<0.5
96- 54470	10	<0.5
96- 54471	11	<0.5
96- 54472	12	<0.5
96- 54473	13	<0.5
96- 54474	14	<0.5
96- 54475	15	<0.5
96- 54476	16	<0.5
96- 54477	17	<0.5
96- 54478	18	<0.5
96- 54479	19	<0.5
96- 54480	20	<0.5
96- 54481	21	<0.5
96- 54482	22	<0.5
96- 54483	23	<0.5
96- 54484	24	<0.5
96- 54485	25	<0.5

Blank Charcoal cpm	Standard Number 1 cpm	Standard Number 2 cpm
125	1810	3592

Total Number of Laboratory Duplicates: 12
 Total Number of Field Duplicates: NA
 Total Number of Trip Blank Cannisters: 17
 Total Number of Measurements On Tailings Cell: 112

Average Radon Flux for Tailings Cell, revised: 5.67 pCi/m²s
 Removed -1A, -3C, -5G from average due to samples outside limits of tailings disposal area
 Minimum Radon Flux for Tailings Cell: <0.5 pCi/m²s
 Maximum Radon Flux for Tailings Cell: 86.81 pCi/m²s

* Note: ELI's Radon Flux Practical Quantitative Limit (PQL) is 0.5 pCi/m²s.

Report Approved By: *Sheryl Harley*
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