Attachment 2 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
8/31/2009	Down Wind	PM10	0.014	0.009	0.020
	Up Wind		0.016	0.011	0.022
	Difference		-0.002	-0.002	-0.002

Note:

National Ambient Air Quality Standard for PM10 is 0.150 mg/m^3

Attachment 1b - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
9/1/2009	Down Wind	PM_{10}	0.014	0.008	0.055
	Up Wind		0.014	0.008	0.029
	Difference		**0.000**	**0.000**	**0.026**
9/2/2009	Down Wind	PM_{10}	0.017	0.009	0.080
	Up Wind		0.011	0.008	0.039
	Difference		**0.006**	**0.001**	**0.041**
9/3/2009	Down Wind	PM_{10}	0.023	0.011	0.052
	Up Wind		0.015	0.009	0.041
	Difference		**0.008**	**0.002**	**0.011**
9/4/2009	Down Wind	PM_{10}	0.017	0.008	0.313
	Up Wind		0.011	0.006	0.081
	Difference		**0.006**	**0.002**	**0.232**
9/8/2009	Down Wind	PM_{10}	0.009	0.008	0.016
	Up Wind		0.007	0.005	0.012
	Difference		**0.002**	**0.003**	**0.004**
9/9/2009	Down Wind	PM_{10}	0.008	0.005	0.038
	Up Wind		0.005	0.003	0.009
	Difference		**0.003**	**0.002**	**0.029**
9/10/2009	Down Wind	PM_{10}	0.005	0.002	0.023
	Up Wind		0.003	0.001	0.006
	Difference		**0.002**	**0.001**	**0.017**
9/11/2009	Down Wind	PM_{10}	0.004	0.001	0.008
	Up Wind		0.006	0.002	0.009
	Difference		**-0.002**	**-0.001**	**-0.001**
9/12/2009	Down Wind	PM_{10}	0.009	0.005	0.039
	Up Wind		0.005	0.002	0.012
	Difference		**0.004**	**0.003**	**0.027**
9/14/2009	Down Wind	PM_{10}	0.008	0.005	0.017
	Up Wind		0.005	0.003	0.012
	Difference		**0.003**	**0.002**	**0.005**
9/15/2009	Down Wind	$PM_{2.5}$	0.004	0.002	0.006
	Up Wind		0.002	0.001	0.003
	Difference		**0.002**	**0.001**	**0.003**
9/16/2009	Down Wind	PM_{10}	0.006	0.002	0.033
	Up Wind		0.003	0.001	0.008
	Difference		**0.003**	**0.001**	**0.025**
9/18/2009	Down Wind	PM_{10}	0.010	0.006	0.016
	Up Wind		0.008	0.004	0.012
	Difference		**0.002**	**0.002**	**0.004**
9/19/2009	Down Wind	$PM_{2.5}$	0.007	0.005	0.011
	Up Wind		0.005	0.003	0.006
	Difference		**0.002**	**0.002**	**0.005**

Attachment 1b - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
9/21/2009	Down Wind	PM_{10}	0.010	0.008	0.015
	Up Wind		0.007	0.006	0.010
	Difference		**0.003**	**0.002**	**0.005**
9/22/2009	Down Wind	$PM_{2.5}$	0.004	0.001	0.013
	Up Wind		0.001	0.000	0.003
	Difference		**0.003**	**0.001**	**0.010**
9/23/2009	Down Wind	PM_{10}	0.004	0.000	0.011
	Up Wind		0.002	0.000	0.004
	Difference		**0.002**	**0.000**	**0.007**
9/24/2009	Down Wind	$PM_{2.5}$	0.005	0.001	0.009
	Up Wind		0.003	0.000	0.021
	Difference		**0.002**	**0.001**	**-0.012**
9/25/2009	Down Wind	PM_{10}	0.006	0.001	0.067
	Up Wind		0.005	0.002	0.037
	Difference		**0.001**	**-0.001**	**0.030**
9/26/2009	Down Wind N	$PM_{2.5}$	0.003	0.000	0.010
	Down Wind W		0.012	-0.007	0.022
	Up Wind		0.003	0.001	0.008
	Difference		**0.009**	**-0.001**	**0.014**
9/28/2009	Down Wind N	PM_{10}	0.020	0.006	0.083
	Down Wind W		0.020	-0.003	0.105
	Up Wind		0.013	0.006	0.017
	Difference		**0.007**	**0.000**	**0.088**
9/29/2009	Down Wind N	$PM_{2.5}$	0.007	0.003	0.031
	Down Wind W		0.003	-0.008	0.019
	Up Wind		0.005	0.003	0.007
	Difference		**0.002**	**0.000**	**0.024**
9/30/2009	Down Wind N	PM_{10}	0.050	0.010	0.339
	Down Wind W		0.056	0.012	0.383
	Up Wind		0.018	0.005	0.066
	Difference		**0.038**	**0.007**	**0.317**

As agreed to by the EPA on September 26, 2009, a second downwind dust monitoring station was placed west of the work area (Down Wind W).

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
10/1/2009	Down Wind N	$PM_{2.5}$	0.000	-0.001	0.004
	Down Wind W		0.008	0.000	0.020
	Up Wind		0.001	0.000	0.003
	Difference		**0.007**	**0.000**	**0.017**
10/2/2009	Down Wind N	PM_{10}	0.011	-0.001	0.256
	Down Wind W		0.019	0.000	0.041
	Up Wind		0.006	0.000	0.037
	Difference		**0.013**	**0.000**	**0.219**
10/3/2009	Down Wind N	$PM_{2.5}$	0.003	0.000	0.014
	Down Wind W		0.015	0.020	0.027
	Up Wind		0.002	0.000	0.026
	Difference		**0.013**	**0.020**	**0.001**
10/6/2009	Down Wind N	$PM_{2.5}$	0.006	0.003	0.007
	Down Wind W		0.012	0.001	0.019
	Up Wind		0.003	0.001	0.005
	Difference		**0.009**	**0.002**	**0.014**
10/7/2009	Down Wind N	PM_{10}	0.008	0.007	0.014
	Down Wind W		0.017	0.007	0.043
	Up Wind		0.004	0.003	0.009
	Difference		**0.013**	**0.004**	**0.034**
10/8/2009	Down Wind N	$PM_{2.5}$	0.004	0.003	0.006
	Down Wind W		0.007	0.000	0.015
	Up Wind		0.004	0.003	0.005
	Difference		**0.003**	**0.000**	**0.010**
10/9/2009	Down Wind N	PM_{10}	0.007	0.005	0.015
	Down Wind W		0.014	0.005	0.022
	Up Wind		0.006	0.004	0.021
	Difference		**0.008**	**0.001**	**0.001**
10/10/2009	Down Wind N	$PM_{2.5}$	0.005	0.003	0.009
	Down Wind W		0.009	0.000	0.020
	Up Wind		0.004	0.003	0.006
	Difference		**0.005**	**0.000**	**0.014**
10/12/2009	Down Wind N	PM_{10}	0.012	0.007	0.043
	Down Wind W		0.022	0.008	0.067
	Up Wind		0.007	0.005	0.010
	Difference		**0.015**	**0.003**	**0.057**
10/13/2009	Down Wind N	$PM_{2.5}$	0.004	0.003	0.011
	Down Wind W		0.009	0.001	0.019
	Up Wind		0.003	0.003	0.004
	Difference		**0.006**	**0.000**	**0.015**
10/14/2009	Down Wind N	PM_{10}	0.004	0.002	0.008
	Down Wind W		0.015	0.002	0.065
	Up Wind		0.003	0.002	0.004
	Difference		**0.012**	**0.000**	**0.061**
10/15/2009	Down Wind N	$PM_{2.5}$	0.004	0.002	0.008
	Down Wind W		0.014	0.002	0.020
	Up Wind		0.004	0.002	0.017
	Difference		**0.010**	**0.000**	**0.003**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
10/16/2009	Down Wind N	PM_{10}	0.006	0.003	0.022
	Down Wind W		0.018	0.002	0.059
	Up Wind		0.004	0.002	0.010
	Difference		**0.014**	**0.001**	**0.049**
10/17/2009	Down Wind N	$PM_{2.5}$	0.008	0.002	0.017
	Down Wind W		0.019	0.002	0.045
	Up Wind		0.005	0.001	0.010
	Difference		**0.014**	**0.001**	**0.035**
10/19/2009	Down Wind N	PM_{10}	0.017	0.005	0.337
	Down Wind W		0.029	0.012	0.229
	Up Wind		0.006	0.005	0.017
	Difference		**0.023**	**0.007**	**0.320**
10/20/2009	Down Wind N	$PM_{2.5}$	0.050	0.010	0.115
	Down Wind W		0.005	0.000	0.017
	Up Wind		0.002	0.001	0.004
	Difference		**0.048**	**0.009**	**0.111**
10/21/2009	Down Wind N	PM_{10}	0.004	0.002	0.010
	Down Wind W		0.002	0.000	0.012
	Up Wind		0.005	0.003	0.366
	Difference		**-0.001**	**-0.001**	**-0.354**
10/22/2009	Down Wind N	$PM_{2.5}$	0.006	0.001	0.023
	Down Wind W		0.011	0.001	0.055
	Up Wind		0.004	0.001	0.008
	Difference		**0.007**	**0.000**	**0.047**
10/23/2009	Down Wind N	PM_{10}	0.006	0.002	0.018
	Down Wind W		0.011	0.000	0.034
	Up Wind		0.004	0.003	0.006
	Difference		**0.007**	**-0.001**	**0.028**
10/24/2009	Down Wind N	$PM_{2.5}$	0.006	0.003	0.013
	Down Wind W		0.014	0.003	0.022
	Up Wind		0.005	0.003	0.006
	Difference		**0.009**	**0.000**	**0.016**
10/26/2009	Down Wind N	PM_{10}	0.005	0.002	0.045
	Down Wind W		0.009	0.000	0.073
	Up Wind		0.003	0.002	0.008
	Difference		**0.006**	**0.000**	**0.065**
10/27/2009	Down Wind N	$PM_{2.5}$	0.006	0.002	0.039
	Down Wind W		0.012	0.000	0.125
	Up Wind		0.004	0.002	0.006
	Difference		**0.008**	**0.000**	**0.119**
10/28/2009	Down Wind N	PM_{10}	0.006	0.000	0.047
	Down Wind W		0.004	-0.006	0.056
	Up Wind		0.003	0.002	0.004
	Difference		**0.003**	**-0.002**	**0.052**
10/29/2009	Down Wind N	$PM_{2.5}$	0.001	0.000	0.015
	Down Wind W		0.001	0.006	0.039
	Up Wind		0.003	0.001	0.007
	Difference		**-0.002**	**0.005**	**0.032**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
10/30/2009	Down Wind N	PM_{10}	0.003	0.002	0.007
	Down Wind W		0.004	-0.004	0.058
	Up Wind		0.003	0.002	0.005
	Difference		**0.001**	**0.000**	**0.053**
10/31/2009	Down Wind N	$PM_{2.5}$	0.003	0.002	0.008
	Down Wind W		0.010	0.001	0.020
	Up Wind		0.003	0.002	0.007
	Difference		**0.007**	**0.000**	**0.013**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
11/2/2009	Down Wind N	PM_{10}	0.006	0.001	0.031
	Down Wind W		0.027	0.004	0.077
	Up Wind		0.003	0.001	0.008
	Difference		**0.024**	**0.003**	**0.069**
11/3/2009	Down Wind N	$PM_{2.5}$	0.005	0.001	0.008
	Down Wind W		0.016	0.002	0.024
	Up Wind		0.004	0.001	0.007
	Difference		**0.012**	**0.001**	**0.017**
11/4/2009	Down Wind N	PM_{10}	0.004	0.003	0.004
	Down Wind W		0.011	0.007	0.017
	Up Wind		Battery died during day		
	Difference		-	-	-
11/5/2009	Down Wind N	$PM_{2.5}$	0.008	0.005	0.013
	Down Wind W		0.019	0.006	0.028
	Up Wind		0.006	0.003	0.009
	Difference		**0.013**	**0.003**	**0.019**
11/6/2009	Down Wind N	PM_{10}	0.036	0.009	0.106
	Down Wind W		0.042	0.019	0.112
	Up Wind		0.031	0.007	0.106
	Difference		**0.011**	**0.012**	**0.006**
11/7/2009	Down Wind N	$PM_{2.5}$	0.010	0.006	0.020
	Down Wind W		0.021	0.010	0.030
	Up Wind		0.009	0.005	0.014
	Difference		**0.012**	**0.005**	**0.016**
11/8/2009	Down Wind N	$PM_{2.5}$	0.005	0.004	0.009
	Down Wind W		0.010	0.008	0.014
	Up Wind		0.005	0.004	0.009
	Difference		**0.005**	**0.004**	**0.005**
11/9/2009	Down Wind N	PM_{10}	0.013	0.005	0.079
	Down Wind W		0.018	0.004	0.082
	Up Wind		0.006	0.004	0.025
	Difference		**0.012**	**0.001**	**0.057**
11/10/2009	Down Wind N	$PM_{2.5}$	0.012	0.005	0.026
	Down Wind W		0.033	0.009	0.225
	Up Wind		0.010	0.005	0.027
	Difference		**0.023**	**0.004**	**0.198**
11/11/2009	Down Wind N	PM_{10}	0.015	0.010	0.032
	Down Wind W		0.010	0.008	0.012
	Up Wind		0.024	0.010	0.062
	Difference		**-0.009**	**0.000**	**-0.03**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
11/12/2009	Down Wind N	$PM_{2.5}$	0.011	0.008	0.025
	Down Wind W		0.015	0.011	0.020
	Up Wind		0.009	0.007	0.012
	Difference		**0.006**	**0.004**	**0.013**
11/13/2009	Down Wind N	PM_{10}	0.008	0.003	0.080
	Down Wind W		0.004	0.000	0.015
	Up Wind		0.007	0.004	0.011
	Difference		**0.001**	**-0.001**	**0.069**
11/14/2009	Down Wind N	$PM_{2.5}$	0.007	0.002	0.014
	Down Wind W		0.003	0.000	0.008
	Up Wind		0.008	0.003	0.015
	Difference		**-0.001**	**-0.001**	**-0.001**
11/16/2009	Down Wind N	PM_{10}	0.005	0.001	0.021
	Down Wind W		0.002	-0.004	0.005
	Up Wind		0.004	0.003	0.009
	Difference		**0.001**	**-0.002**	**0.012**
11/17/2009	Down Wind N	$PM_{2.5}$	0.006	0.004	0.013
	Down Wind W		0.013	0.007	0.036
	Up Wind		0.006	0.004	0.008
	Difference		**0.007**	**0.003**	**0.028**
11/18/2009	Down Wind N	PM_{10}	0.021	0.008	0.042
	Down Wind W		0.019	0.006	0.125
	Up Wind		0.008	0.004	0.026
	Difference		**0.013**	**0.004**	**0.099**
11/19/2009	Down Wind N	$PM_{2.5}$	0.008	0.004	0.045
	Down Wind W		0.017	0.008	0.036
	Up Wind		0.007	0.004	0.013
	Difference		**0.010**	**0.004**	**0.032**
11/20/2009	Down Wind N	PM_{10}	0.013	0.003	0.111
	Down Wind W		0.019	0.008	0.044
	Up Wind		0.004	0.003	0.008
	Difference		**0.015**	**0.005**	**0.103**
11/21/2009	Down Wind N	$PM_{2.5}$	0.020	0.004	0.107
	Down Wind W		0.014	0.007	0.017
	Up Wind		0.005	0.004	0.006
	Difference		**0.015**	**0.003**	**0.101**
11/22/2009	Down Wind N	$PM_{2.5}$	0.009	0.003	0.019
	Down Wind W		0.012	0.003	0.034
	Up Wind		0.006	0.004	0.008
	Difference		**0.006**	**-0.001**	**0.026**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
11/23/2009	Down Wind N	PM_{10}	0.003	0.000	0.012
	Down Wind W		0.007	-0.003	0.064
	Up Wind		0.004	0.001	0.010
	Difference		**0.003**	**-0.001**	**0.054**
11/24/2009	Down Wind N	$PM_{2.5}$	0.001	0.000	0.019
	Down Wind W		0.007	-0.001	0.017
	Up Wind		0.001	0.000	0.002
	Difference		**0.006**	**0.000**	**0.017**
11/25/2009	Down Wind N	PM_{10}	0.004	0.000	0.038
	Down Wind W		0.008	-0.001	0.020
	Up Wind		0.002	0.000	0.007
	Difference		**0.006**	**0.000**	**0.031**
11/30/2009	Down Wind N	PM_{10}	0.006	0.002	0.020
	Down Wind W		0.009	0.003	0.027
	Up Wind		0.007	0.004	0.013
	Difference		**0.002**	**-0.001**	**0.014**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
12/1/2009	Down Wind N	$PM_{2.5}$	0.005	0.001	0.032
	Down Wind W		0.007	0.000	0.031
	Up Wind		0.004	0.001	0.010
	Difference		**0.003**	**0.000**	**0.022**
12/2/2009	Down Wind N	PM_{10}	0.007	0.001	0.034
	Down Wind W		0.009	0.001	0.041
	Up Wind		0.003	0.002	0.012
	Difference		**0.006**	**-0.001**	**0.029**
12/3/2009	Down Wind N	$PM_{2.5}$	0.000	0.000	0.002
	Down Wind W		-0.002	-0.007	0.006
	Up Wind		0.002	0.001	0.003
	Difference		**-0.002**	**-0.001**	**0.003**
12/4/2009	Down Wind N	PM_{10}	0.018	0.000	0.093
	Down Wind W		0.009	0.000	0.044
	Up Wind		0.004	0.002	0.017
	Difference		**0.014**	**-0.002**	**0.076**
12/5/2009	Down Wind N	$PM_{2.5}$	0.018	0.001	0.134
	Down Wind W		0.002	0.002	0.018
	Up Wind		0.003	0.002	0.006
	Difference		**0.015**	**0.000**	**0.128**
12/6/2009	Down Wind N	PM_{10}	0.029	0.002	0.151
	Down Wind W		0.005	-0.002	0.040
	Up Wind		0.010	0.001	0.232
	Difference		**0.019**	**0.001**	**-0.081**
12/7/2009	Down Wind N	PM_{10}	0.013	0.000	0.146
	Down Wind W		-0.001	-0.008	0.007
	Up Wind		0.005	0.001	0.007
	Difference		**0.008**	**-0.001**	**0.139**
12/9/2009	Down Wind N	$PM_{2.5}$	0.006	0.002	0.016
	Down Wind W		0.003	-0.001	0.012
	Up Wind		0.005	0.002	0.010
	Difference		**0.001**	**0.000**	**0.006**
12/10/2009	Down Wind N	PM_{10}	0.009	0.003	0.032
	Down Wind W		0.017	0.000	0.090
	Up Wind		0.007	0.002	0.037
	Difference		**0.010**	**0.001**	**0.053**
12/11/2009	Down Wind N	$PM_{2.5}$	0.005	0.001	0.015
	Down Wind W		0.008	0.000	0.021
	Up Wind		0.003	0.002	0.009
	Difference		**0.005**	**-0.001**	**0.012**
12/12/2009	Down Wind N	PM_{10}	0.014	0.002	0.092
	Down Wind W		0.004	-0.001	0.099
	Up Wind		0.003	0.001	0.006
	Difference		**0.011**	**0.001**	**0.093**

Attachment 1 - Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Respirable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
12/13/2009	Down Wind N	$PM_{2.5}$	0.001	0.000	0.003
	Down Wind W		0.001	-0.002	0.005
	Up Wind		0.001	0.000	0.004
	Difference		**0.000**	**0.000**	**0.001**
12/14/2009	Down Wind N	$PM_{2.5}$	0.005	0.002	0.013
	Down Wind W		0.010	0.000	0.017
	Up Wind		0.004	0.002	0.014
	Difference		**0.006**	**0.000**	**0.003**
12/15/2009	Down Wind N	PM_{10}	0.004	0.002	0.011
	Down Wind W		0.005	-0.002	0.028
	Up Wind		0.004	0.002	0.011
	Difference		**0.001**	**0.000**	**0.017**
12/16/2009	Down Wind N	$PM_{2.5}$	0.005	0.003	0.014
	Down Wind W		0.006	-0.001	0.014
	Up Wind		0.003	0.001	0.023
	Difference		**0.003**	**0.002**	**-0.009**
12/17/2009	Down Wind N	PM_{10}	0.007	0.002	0.022
	Down Wind W		0.010	-0.002	0.097
	Up Wind		0.006	0.002	0.019
	Difference		**0.004**	**0.000**	**0.078**
12/18/2009	Down Wind N	$PM_{2.5}$	0.004	0.000	0.011
	Down Wind W		0.005	-0.005	0.010
	Up Wind		0.004	0.001	0.006
	Difference		**0.001**	**-0.001**	**0.005**
12/19/2009	Down Wind N	PM_{10}	0.011	0.004	0.018
	Down Wind W		0.015	0.001	0.133
	Up Wind		0.011	0.004	0.015
	Difference		**0.004**	**0.000**	**0.118**
12/21/2009	Down Wind N	$PM_{2.5}$	0.011	0.002	0.052
	Down Wind W		0.016	0.005	0.053
	Up Wind		0.004	0.003	0.006
	Difference		**0.012**	**0.002**	**0.047**
12/22/2009	Down Wind N	PM_{10}	0.005	0.001	0.031
	Down Wind W		-0.002	-0.006	0.014
	Up Wind		0.003	0.002	0.005
	Difference		**0.002**	**-0.001**	**0.026**
12/23/2009	Down Wind N	$PM_{2.5}$	0.000	0.000	0.001
	Down Wind W		Meter error - data not recorded		
	Up Wind		0.002	0.001	0.002
	Difference		**-0.002**	**-0.001**	**-0.001**

Northeast Church Rock Mine Site
IRA Perimeter Air Monitoring Results - Resparable Dust

Date	Station	Particle Size	Average (mg/m^3)	Minimum (mg/m^3)	Maximum (mg/m^3)
1/5/2010	Down Wind N	PM_{10}	0.008	0.001	0.031
	Down Wind W				
	Up Wind		0.004	0.001	0.014
	Difference		**0.004**	**0.000**	**0.017**
1/6/2010	Down Wind N	PM_{10}	0.006	0.002	0.025
	Down Wind W		0.009	0.003	0.028
	Up Wind		0.004	0.002	0.016
	Difference		**0.005**	**0.001**	**0.012**
1/7/2010	Down Wind N	$PM_{2.5}$	0.003	0.001	0.011
	Down Wind W		0.005	0.002	0.016
	Up Wind		0.003	0.001	0.005
	Difference		**0.002**	**0.001**	**0.011**
1/8/2010	Down Wind N	PM_{10}	0.003	0.001	0.016
	Down Wind W		0.005	0.002	0.025
	Up Wind		0.004	0.002	0.008
	Difference		**0.001**	**0.000**	**0.017**
1/11/2010	Down Wind N	$PM_{2.5}$	0.006	0.001	0.026
	Down Wind W		0.007	0.003	0.017
	Up Wind		0.006	0.002	0.008
	Difference		**0.001**	**0.001**	**0.018**
1/12/2010	Down Wind N	PM_{10}	0.013	0.003	0.061
	Down Wind W		0.013	0.004	0.044
	Up Wind		0.005	0.002	0.023
	Difference		**0.008**	**0.002**	**0.038**
1/13/2010	Down Wind N	$PM_{2.5}$	0.007	0.001	0.017
	Down Wind W		0.008	0.003	0.021
	Up Wind		0.005	0.002	0.026
	Difference		**0.003**	**0.001**	**-0.005**
1/14/2010	Down Wind N	PM_{10}	0.071	0.002	0.253
	Down Wind W		0.062	0.002	0.227
	Up Wind		0.015	0.002	0.037
	Difference		**0.056**	**0.000**	**0.216**
1/15/2010	Down Wind N	$PM_{2.5}$	0.012	0.002	0.078
	Down Wind W		0.006	0.003	0.017
	Up Wind		0.004	0.003	0.007
	Difference		**0.008**	**0.000**	**0.071**
1/16/2010	Down Wind N	PM_{10}	0.004	0.002	0.011
	Down Wind W		0.005	0.003	0.011
	Up Wind		0.005	0.003	0.014
	Difference		**0.000**	**0.000**	**-0.003**

Attachment 2 - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station	Sample Date	Sample ID	Airborne Particulate Activity (µCi/ml) (1)					DAC (µCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 1	8/18/2009	NECRD1-20090818	2.9E-14	1.4E-14	7.2E-15	7.2E-15	5.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.6%	1.6%	0.8%	36.2%	1.0%	Begin site setup and installation of silt fencing
Upwind 1		NECRU1-20090818	3.0E-14	1.5E-14	7.5E-15	7.5E-15	6.0E-15						1.7%	1.7%	0.8%	37.5%	1.0%	
Difference			**1.1E-15**	**5.6E-16**	**2.8E-16**	**2.8E-16**	**2.2E-16**						**-0.1%**	**-0.1%**	**0.0%**	**-1.4%**	**0.0%**	
Downwind 1	8/20/2009	NECRD1-20090820	1.0E-14	5.1E-15	2.5E-15	2.5E-15	2.0E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	12.7%	0.3%	Site setup, demolition of small tan building, concrete demo, relocation of debris to stockpile area
Upwind 1		NECRU1-20090820	1.2E-14	6.1E-15	3.0E-15	3.0E-15	2.4E-15						0.7%	0.7%	0.3%	15.2%	0.4%	
Difference			**2.0E-15**	**1.0E-15**	**5.0E-16**	**5.0E-16**	**4.0E-16**						**-0.1%**	**-0.1%**	**-0.1%**	**-2.5%**	**-0.1%**	
Downwind 1	8/21/2009	NECRD1-20090821	4.4E-14	2.2E-14	1.1E-14	1.1E-14	8.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	2.4%	2.4%	1.2%	54.7%	1.5%	Site setup, concrete demo, relocation of debris to stockpile area
Upwind 1		NECRU1-20090821	2.7E-14	1.3E-14	6.6E-15	6.6E-15	5.3E-15						1.5%	1.5%	0.7%	33.2%	0.9%	
Difference			**-1.7E-14**	**-8.6E-15**	**-4.3E-15**	**-4.3E-15**	**-3.4E-15**						**1.0%**	**1.0%**	**0.5%**	**21.5%**	**0.6%**	
Downwind 1	8/24/2009	NECRD1-20090824	3.2E-14	1.6E-14	7.9E-15	7.9E-15	6.3E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.8%	1.8%	0.9%	39.6%	1.1%	Clearing & grubbin of NECR-1, concrete demo, relocation of building debris, removed fence north of NECR-1
Upwind 1		NECRU1-20090824	2.1E-14	1.0E-14	5.2E-15	5.2E-15	4.2E-15						1.2%	1.2%	0.6%	26.2%	0.7%	
Difference			**-1.1E-14**	**-5.3E-15**	**-2.7E-15**	**-2.7E-15**	**-2.1E-15**						**0.6%**	**0.6%**	**0.3%**	**13.3%**	**0.4%**	
Downwind 1	8/26/2009	NECRD1-20090826	7.7E-15	3.9E-15	1.9E-15	1.9E-15	1.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.4%	0.4%	0.2%	9.7%	0.3%	Clearing & grubbin of NECR-1, concrete demo, relocation of building debris
Upwind 1		NECRU1-20090826	1.4E-14	6.8E-15	3.4E-15	3.4E-15	2.7E-15						0.8%	0.8%	0.4%	16.9%	0.5%	
Difference			**5.8E-15**	**2.9E-15**	**1.4E-15**	**1.4E-15**	**1.2E-15**						**-0.3%**	**-0.3%**	**-0.2%**	**-7.2%**	**-0.2%**	
Downwind 1	8/28/2009	NECRD1-20090828	4.2E-14	2.1E-14	1.1E-14	1.1E-14	8.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	2.4%	2.4%	1.2%	52.9%	1.4%	Grading NECR-1 slope, relocated debris to stockpile, tree trimming in Zones 1 and 2.
Upwind 1		NECRU1-20090828	2.9E-14	1.4E-14	7.1E-15	7.1E-15	5.7E-15						1.6%	1.6%	0.8%	35.7%	1.0%	
Difference			**-1.4E-14**	**-6.9E-15**	**-3.4E-15**	**-3.4E-15**	**-2.7E-15**						**0.8%**	**0.8%**	**0.4%**	**17.2%**	**0.5%**	
Downwind 1	8/31/2009	NECRD1-20090831	3.0E-14	1.5E-14	7.6E-15	7.6E-15	6.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.7%	1.7%	0.8%	38.0%	1.0%	Relocate debris to stockpile, grading of NECR-1 slope and tree trimming in Zones 1 and 2.
Upwind 1		NECRU1-20090831	7.6E-15	3.8E-15	1.9E-15	1.9E-15	1.5E-15						0.4%	0.4%	0.2%	9.6%	0.3%	
Difference			**-2.3E-14**	**-1.1E-14**	**-5.7E-15**	**-5.7E-15**	**-4.6E-15**						**1.3%**	**1.3%**	**0.6%**	**28.5%**	**0.8%**	

Note:

(1) U-nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ faction of 0.5 for U-nat, 0.25 for Ra-226 and 0.25 for Th-230 of gross alpha activity, Pb-210 activity calculated at 80% Ra-226 based on assumption that 20% of radon (Pb-210 parent nuclides) emanates out of soil.

(2) DACs from 10CFR20, Appendix B, Table 2 for control and assessment of dose to the public

(3) Gross Alpha measurments recorded after 72 hours. Approximately 90% of radon daughters have decayed at time of record. If Gross Alpha monitoring criteria are not met, additional reading are taken at longer time intervals to identify radon contribution to results. Latest reading is reported.

(4) Calculated DAC for gross alpha activity by summing U-nat, Ra-226, Th-230 and Th-230 DACs for control measures, not a regulatory DAC.

Attachment 1a - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station [5]	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) [1]					DAC (uCi/ml) [2]					% of DAC [3]					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha [4]	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 1	9/2/2009	NECRD1-20090902	2.8E-14	1.4E-14	7.1E-15	7.1E-15	5.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.6%	1.6%	0.8%	35.4%	0.9%	Grading of NECR-1 slope. Limbing trees on hillside in Zone 2. Install silt fence
Upwind 1		NECRU1-20090902	1.4E-14	7.1E-15	3.5E-15	3.5E-15	2.8E-15						0.8%	0.8%	0.4%	17.7%	0.5%	
Difference			**-1.4E-14**	**-7.1E-15**	**-3.5E-15**	**-3.5E-15**	**-2.8E-15**						**0.8%**	**0.8%**	**0.4%**	**17.7%**	**0.5%**	
Downwind 1	9/4/2009	NECRD1-20090904	3.2E-14	1.6E-14	8.1E-15	8.1E-15	6.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.8%	1.8%	0.9%	40.5%	1.1%	Grading of NECR-1 slope. Limbing trees on hillside in Zone 2. Install silt fence
Upwind 1		NECRU1-20090904	1.6E-14	8.2E-15	4.1E-15	4.1E-15	3.3E-15						0.9%	0.9%	0.5%	20.5%	0.5%	
Difference			**-1.6E-14**	**-8.0E-15**	**-4.0E-15**	**-4.0E-15**	**-3.2E-15**						**0.9%**	**0.9%**	**0.4%**	**20.0%**	**0.5%**	
Downwind 2	9/8/2009	NECRD2-20090908	4.4E-14	2.2E-14	1.1E-14	1.1E-14	8.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	2.4%	2.4%	1.2%	54.4%	1.5%	Excavate step-out area Zone 4. Grading of NECR-1 slope
Upwind 1		NECRU1-20090908	2.8E-14	1.4E-14	7.1E-15	7.1E-15	5.7E-15						1.6%	1.6%	0.8%	35.6%	0.9%	
Difference			**-1.5E-14**	**-7.5E-15**	**-3.8E-15**	**-3.8E-15**	**-3.0E-15**						**0.8%**	**0.8%**	**0.4%**	**18.8%**	**0.5%**	
Downwind 2	9/9/2009	NECRD2-20090909	2.7E-15	1.3E-15	6.7E-16	6.7E-16	5.3E-16	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.1%	0.1%	0.1%	3.3%	0.1%	Excavate step-out area Zone 4. Grading of NECR-1 slope. Limbing trees on hillside in Zone 2
Upwind 1		NECRU1-20090909	1.1E-14	5.5E-15	2.8E-15	2.8E-15	2.2E-15						0.6%	0.6%	0.3%	13.9%	0.4%	
Difference			**8.4E-15**	**4.2E-15**	**2.1E-15**	**2.1E-15**	**1.7E-15**						**-0.5%**	**-0.5%**	**-0.2%**	**-10.5%**	**-0.3%**	
Downwind 2	9/11/2009	NECRD2-20090911	2.5E-14	1.2E-14	6.2E-15	6.2E-15	5.0E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.4%	1.4%	0.7%	31.1%	0.8%	Excavate step-out area Zone 2 hillside and Zone 4. Grading of NECR-1 slope
Upwind 1		NECRU1-20090911	2.1E-14	1.0E-14	5.1E-15	5.1E-15	4.1E-15						1.1%	1.1%	0.6%	25.7%	0.7%	
Difference			**-4.3E-15**	**-2.2E-15**	**-1.1E-15**	**-1.1E-15**	**-8.7E-16**						**0.2%**	**0.2%**	**0.1%**	**5.4%**	**0.1%**	
Downwind 2	9/14/2009	NECRD2-20090914	1.1E-14	5.3E-15	2.7E-15	2.7E-15	2.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	13.3%	0.4%	Excavate step-out area Zone 2 hillside and Zone 4. Grading of NECR-1 slope
Upwind 1		NECRU1-20090914	5.7E-15	2.9E-15	1.4E-15	1.4E-15	1.1E-15						0.3%	0.3%	0.2%	7.2%	0.2%	
Difference			**-4.9E-15**	**-2.4E-15**	**-1.2E-15**	**-1.2E-15**	**-9.8E-16**						**0.3%**	**0.3%**	**0.1%**	**6.1%**	**0.2%**	
Downwind 2	9/16/2009	NECRD2-20090916	1.6E-14	8.2E-15	4.1E-15	4.1E-15	3.3E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.9%	0.9%	0.5%	20.4%	0.5%	Excavate step-out area Zone 2 hillside and flats and Zone 4. Grading of NECR-1 slope
Upwind 1		NECRU1-20090916	1.2E-14	6.2E-15	3.1E-15	3.1E-15	2.5E-15						0.7%	0.7%	0.3%	15.5%	0.4%	
Difference			**-3.9E-15**	**-1.9E-15**	**-9.7E-16**	**-9.7E-16**	**-7.7E-16**						**0.2%**	**0.2%**	**0.1%**	**4.8%**	**0.1%**	
Downwind 2	9/18/2009	NECRD2-20090918	9.4E-15	4.7E-15	2.3E-15	2.3E-15	1.9E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.5%	0.5%	0.3%	11.7%	0.3%	Excavate step-out area Zones 2 and 4
Upwind 1		NECRU1-20090918	-2.8E-15	-1.4E-15	-7.0E-16	-7.0E-16	-5.6E-16						-0.2%	-0.2%	-0.1%	-3.5%	-0.1%	
Difference			**-1.2E-14**	**-6.1E-15**	**-3.0E-15**	**-3.0E-15**	**-2.4E-15**						**0.7%**	**0.7%**	**0.3%**	**15.2%**	**0.4%**	
Downwind 2	9/21/2009	NECRD2-20090921	2.7E-14	1.4E-14	6.8E-15	6.8E-15	5.4E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.5%	1.5%	0.8%	33.8%	0.9%	Grading north slope NECR-1 pile, excavate step-out area Zone 2 and 4
Upwind 1		NECRU1-20090921	5.5E-15	2.7E-15	1.4E-15	1.4E-15	1.1E-15						0.3%	0.3%	0.2%	6.8%	0.2%	
Difference			**-2.2E-14**	**-1.1E-14**	**-5.4E-15**	**-5.4E-15**	**-4.3E-15**						**1.2%**	**1.2%**	**0.6%**	**26.9%**	**0.7%**	
Downwind 2	9/23/2009	NECRD2-20090923	3.3E-14	1.6E-14	8.1E-15	8.1E-15	6.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.8%	1.8%	0.9%	40.7%	1.1%	Excavate step-out area Zones 1 and 2
Upwind 1		NECRU1-20090923	2.5E-14	1.3E-14	6.3E-15	6.3E-15	5.0E-15						1.4%	1.4%	0.7%	31.5%	0.8%	
Difference			**-7.4E-15**	**-3.7E-15**	**-1.8E-15**	**-1.8E-15**	**-1.5E-15**						**0.4%**	**0.4%**	**0.2%**	**9.2%**	**0.2%**	
Downwind 2	9/25/2009	NECRD2-20090925	5.3E-15	2.6E-15	1.3E-15	1.3E-15	1.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.3%	0.3%	0.1%	6.6%	0.2%	Grading slope NECR-1 pile, excavate step-out area Zone 2
Upwind 1		NECRU1-20090925	6.8E-15	3.4E-15	1.7E-15	1.7E-15	1.4E-15						0.4%	0.4%	0.2%	8.5%	0.2%	
Difference			**1.5E-15**	**7.7E-16**	**3.8E-16**	**3.8E-16**	**3.1E-16**						**-0.1%**	**-0.1%**	**0.0%**	**-1.9%**	**-0.1%**	

Note:

(1) U-nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ faction of 0.5 for U-nat, 0.25 for Ra-226 and 0.25 for Th-230 of gross alpha activity, Pb-210 activity calculated at 80% Ra-226 based on assumption that 20% of radon (Pb-210 parent nuclides) emanates out of soil.
(2) DACs from 10CFR20, Appendix B, Table 2 for control and assessment of dose to the public
(3) Gross Alpha measurments recorded after 72 hours. Approximately 90% of radon daughters have decayed at time of record. If Gross Alpha monitoring criteria are not met, additional reading are taken at longer time intervals to identify radon contribution to results. Latest reading is reported.

(4) Calculated DAC for gross alpha activity by summing U-nat, Ra-226, Th-230 and Th-230 DACs for control measures, not a regulatory DAC.

Attachment 1 - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station (5)	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) (1)					DAC (uCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 2	9/28/2009	NECRD2-20090928	2.8E-14	1.4E-14	7.1E-15	7.1E-15	5.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.6%	1.6%	0.8%	35.4%	0.9%	Excavation Zones 2, 3,4 and Unnamed Arroyo, grading NECR-1 top surface & slope
Upwind 1		NECRU1-20090928	2.6E-14	1.3E-14	6.6E-15	6.6E-15	5.3E-15						1.5%	1.5%	0.7%	32.9%	0.9%	
Difference			**-2.0E-15**	**-9.9E-16**	**-4.9E-16**	**-4.9E-16**	**-4.0E-16**						**0.1%**	**0.1%**	**0.1%**	**2.5%**	**0.1%**	
Downwind 2	9/30/2009	NECRD2-20090930	4.0E-14	2.0E-14	1.0E-14	1.0E-14	8.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	2.2%	2.2%	1.1%	50.6%	1.3%	Excavation Zones 2, 3,4 and Unnamed Arroyo, grading NECR-1 top surface & slope
Upwind 1		NECRU1-20090930	2.5E-14	1.3E-14	6.3E-15	6.3E-15	5.0E-15						1.4%	1.4%	0.7%	31.5%	0.8%	
Difference			**-1.5E-14**	**-7.6E-15**	**-3.8E-15**	**-3.8E-15**	**-3.0E-15**						**0.8%**	**0.8%**	**0.4%**	**19.0%**	**0.5%**	
Downwind 2	10/2/2009	NECRD2-20091002	2.3E-14	1.2E-14	5.8E-15	5.8E-15	4.6E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.3%	1.3%	0.6%	28.8%	0.8%	Excavation Zones 1, 4 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091002	3.5E-14	1.7E-14	8.7E-15	8.7E-15	7.0E-15						1.9%	1.9%	1.0%	43.5%	1.2%	
Difference			**1.2E-14**	**5.9E-15**	**2.9E-15**	**2.9E-15**	**2.3E-15**						**-0.7%**	**-0.7%**	**-0.3%**	**-14.7%**	**-0.4%**	
Downwind 2	10/5/2009	NECRD2-20091005	6.1E-15	3.0E-15	1.5E-15	1.5E-15	1.2E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.3%	0.3%	0.2%	7.6%	0.2%	Excavation Zones 1, 4 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091005	2.1E-14	1.0E-14	5.2E-15	5.2E-15	4.2E-15						1.2%	1.2%	0.6%	26.0%	0.7%	
Difference			**1.5E-14**	**7.3E-15**	**3.7E-15**	**3.7E-15**	**2.9E-15**						**-0.8%**	**-0.8%**	**-0.4%**	**-18.4%**	**-0.5%**	
Downwind 2	10/7/2009	NECRD2-20091007	6.3E-14	3.1E-14	1.6E-14	1.6E-14	1.3E-14	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	3.5%	3.5%	1.7%	78.2%	2.1%	Excavation Zones 1 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091007	5.1E-14	2.6E-14	1.3E-14	1.3E-14	1.0E-14						2.9%	2.9%	1.4%	64.1%	1.7%	
Difference			**-1.1E-14**	**-5.6E-15**	**-2.8E-15**	**-2.8E-15**	**-2.3E-15**						**0.6%**	**0.6%**	**0.3%**	**14.1%**	**0.4%**	
Downwind 2	10/9/2009	NECRD2-20091009	2.4E-14	1.2E-14	6.1E-15	6.1E-15	4.9E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.3%	1.3%	0.7%	30.3%	0.8%	Excavation Zones 3, 4 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091009	3.1E-14	1.6E-14	7.8E-15	7.8E-15	6.3E-15						1.7%	1.7%	0.9%	39.1%	1.0%	
Difference			**7.0E-15**	**3.5E-15**	**1.8E-15**	**1.8E-15**	**1.4E-15**						**-0.4%**	**-0.4%**	**-0.2%**	**-8.8%**	**-0.2%**	
Downwind 2	10/12/2009	NECRD2-20091012	4.9E-14	2.5E-14	1.2E-14	1.2E-14	9.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	2.7%	2.7%	1.4%	61.4%	1.6%	Excavation Zones 2, 4 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091012	4.3E-14	2.2E-14	1.1E-14	1.1E-14	8.7E-15						2.4%	2.4%	1.2%	54.3%	1.4%	
Difference			**-5.7E-15**	**-2.8E-15**	**-1.4E-15**	**-1.4E-15**	**-1.1E-15**						**0.3%**	**0.3%**	**0.2%**	**7.1%**	**0.2%**	
Downwind 2	10/14/2009	NECRD2-20091014	1.4E-14	7.0E-15	3.5E-15	3.5E-15	2.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.8%	0.8%	0.4%	17.5%	0.5%	Excavation Zones 1, 2, 4 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091014	2.7E-14	1.4E-14	6.9E-15	6.9E-15	5.5E-15						1.5%	1.5%	0.8%	34.3%	0.9%	
Difference			**1.3E-14**	**6.7E-15**	**3.4E-15**	**3.4E-15**	**2.7E-15**						**-0.7%**	**-0.7%**	**-0.4%**	**-16.8%**	**-0.4%**	
Downwind 2	10/16/2009	NECRD2-20091016	5.5E-14	2.7E-14	1.4E-14	1.4E-14	1.1E-14	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	3.0%	3.0%	1.5%	68.4%	1.8%	Excavation Zones 1, 4 and Unnamed Arroyo, grading NECR-1 top surface
Upwind 1		NECRU1-20091016	5.7E-14	2.9E-14	1.4E-14	1.4E-14	1.1E-14						3.2%	3.2%	1.6%	71.5%	1.9%	
Difference			**2.5E-15**	**1.2E-15**	**6.2E-16**	**6.2E-16**	**5.0E-16**						**-0.1%**	**-0.1%**	**-0.1%**	**-3.1%**	**-0.1%**	
Downwind 2	10/19/2009	NECRD2-20091019	4.8E-14	2.4E-14	1.2E-14	1.2E-14	9.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	2.7%	2.7%	1.3%	60.6%	1.6%	Excavation Zone 4 and Unnamed Arroyo, grading NECR-1 top surface. Backfill of deep excavations in Zone 4
Upwind 1		NECRU1-20091019	4.0E-14	2.0E-14	1.0E-14	1.0E-14	8.0E-15						2.2%	2.2%	1.1%	50.1%	1.3%	
Difference			**-8.4E-15**	**-4.2E-15**	**-2.1E-15**	**-2.1E-15**	**-1.7E-15**						**0.5%**	**0.5%**	**0.2%**	**10.5%**	**0.3%**	
Downwind 2	10/21/2009	NECRD2-20091021	1.0E-14	5.2E-15	2.6E-15	2.6E-15	2.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	13.1%	0.3%	Excavation Zone 1 and Unnamed Arroyo, grading NECR-1 top surface. Backfill of deep excavations in Zone 4
Upwind 1		NECRU1-20091021	3.9E-15	2.0E-15	9.8E-16	9.8E-16	7.8E-16						0.2%	0.2%	0.1%	4.9%	0.1%	
Difference			**-6.5E-15**	**-3.3E-15**	**-1.6E-15**	**-1.6E-15**	**-1.3E-15**						**0.4%**	**0.4%**	**0.2%**	**8.2%**	**0.2%**	
Downwind 2	10/23/2009	NECRD2-20091023	3.9E-15	2.0E-15	9.9E-16	9.9E-16	7.9E-16	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.2%	0.2%	0.1%	4.9%	0.1%	Excavation Zone 1 and Unnamed Arroyo, grading NECR-1. Reconstruction of road through Zone 4.
Upwind 1		NECRU1-20091023	8.0E-15	4.0E-15	2.0E-15	2.0E-15	1.6E-15						0.4%	0.4%	0.2%	10.1%	0.3%	
Difference			**4.1E-15**	**2.0E-15**	**1.0E-15**	**1.0E-15**	**8.2E-16**						**-0.2%**	**-0.2%**	**-0.1%**	**-5.1%**	**-0.1%**	

Attachment 1 - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station (5)	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) (1)					DAC (uCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 2	10/26/2009	NECRD2-20091026						1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13						Generator at the Downwind Station NECRD2 shutoff approximately six minutes after start. Excavation Zone 1 and Unnamed Arroyo, grading NECR-1. Reconstruction of road through Zone 4.
Upwind 1		NECRU1-20091026	7.4E-13	3.7E-13	1.9E-13	1.9E-13	1.5E-13											
Difference																		
Downwind 2	10/28/2009	NECRD2-20091028	1.1E-14	5.3E-15	2.7E-15	2.7E-15	2.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	13.3%	0.4%	Excavation Zone 4, Unnamed Arroyo and petroleum contaminated soils in Zone 1. Grading NECR-1.
Upwind 1		NECRU1-20091028	-1.3E-15	-6.7E-16	-3.4E-16	-3.4E-16	-2.7E-16						-0.1%	-0.1%	0.0%	-1.7%	0.0%	
Difference			**-1.2E-14**	**-6.0E-15**	**-3.0E-15**	**-3.0E-15**	**-2.4E-15**						**0.7%**	**0.7%**	**0.3%**	**15.0%**	**0.4%**	
Downwind 2	10/30/2009	NECRD2-20091030	1.9E-14	9.5E-15	4.8E-15	4.8E-15	3.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.1%	1.1%	0.5%	23.9%	0.6%	Excavation Zone 1, Unnamed Arroyo and petroleum contaminated soils in Zone 1. Grading NECR-1. Hauling borrow material to Unnamed Arroyo.
Upwind 1		NECRU1-20091030	1.1E-14	5.3E-15	2.6E-15	2.6E-15	2.1E-15						0.6%	0.6%	0.3%	13.2%	0.4%	
Difference			**-8.6E-15**	**-4.3E-15**	**-2.1E-15**	**-2.1E-15**	**-1.7E-15**						**0.5%**	**0.5%**	**0.2%**	**10.7%**	**0.3%**	

Note:

(1) U-nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ faction of 0.5 for U-nat, 0.25 for Ra-226 and 0.25 for Th-230 of gross alpha activity, Pb-210 activity calculated at 80% Ra-226 based on assumption that 20% of radon (Pb-210 parent nuclides) emanates out of soil.

(2) DACs from 10CFR20, Appendix B, Table 2 for control and assessment of dose to the public

(3) Gross Alpha measurments recorded after 72 hours. Approximately 90% of radon daughters have decayed at time of record. If Gross Alpha monitoring criteria are not met, additional reading are taken at longer time intervals to identify radon contribution to results. Latest reading is reported.

(4) Calculated DAC for gross alpha activity by summing U-nat, Ra-226, Th-230 and Th-230 DACs for control measures, not a regulatory DAC.

Attachment 1 - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station (5)	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) (1)					DAC (uCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 2	11/2/2009	NECRD2-20091102	7.6E-15	3.8E-15	1.9E-15	1.9E-15	1.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.4%	0.4%	0.2%	9.4%	0.3%	Excavate and backfill unnamed arroyo Excavate TPH
Upwind 1		NECRU1-20091102	2.0E-14	9.9E-15	4.9E-15	4.9E-15	3.9E-15						1.1%	1.1%	0.5%	24.7%	0.7%	
Difference			**1.2E-14**	**6.1E-15**	**3.0E-15**	**3.0E-15**	**2.4E-15**						**-0.7%**	**-0.7%**	**-0.3%**	**-15.2%**	**-0.4%**	
Downwind 2	11/4/2009	NECRD2-20091104	1.3E-14	6.7E-15	3.3E-15	3.3E-15	2.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.7%	0.7%	0.4%	16.7%	0.4%	Excavate and backfill unnamed arroyo Excavate TPH
Upwind 1		NECRU1-20091104	6.8E-15	3.4E-15	1.7E-15	1.7E-15	1.4E-15						0.4%	0.4%	0.2%	8.5%	0.2%	
Difference			**-6.6E-15**	**-3.3E-15**	**-1.6E-15**	**-1.6E-15**	**-1.3E-15**						**0.4%**	**0.4%**	**0.2%**	**8.2%**	**0.2%**	
Downwind 2	11/6/2009	NECRD2-20091106	1.4E-14	7.1E-15	3.5E-15	3.5E-15	2.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.8%	0.8%	0.4%	17.7%	0.5%	Excavate and backfill unnamed arroyo Excavate TPH Excavation of hillside materials
Upwind 1		NECRU1-20091106	8.0E-15	4.0E-15	2.0E-15	2.0E-15	1.6E-15						0.4%	0.4%	0.2%	10.0%	0.3%	
Difference			**-6.1E-15**	**-3.1E-15**	**-1.5E-15**	**-1.5E-15**	**-1.2E-15**						**0.3%**	**0.3%**	**0.2%**	**7.7%**	**0.2%**	
Downwind 2	11/9/2009	NECRD2-20091109	1.4E-14	7.0E-15	3.5E-15	3.5E-15	2.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.8%	0.8%	0.4%	17.5%	0.5%	Excavate and backfill unnamed arroyo Excavation of hillside materials
Upwind 1		NECRU1-20091109	2.7E-15	1.4E-15	6.8E-16	6.8E-16	5.4E-16						0.2%	0.2%	0.1%	3.4%	0.1%	
Difference			**-1.1E-14**	**-5.6E-15**	**-2.8E-15**	**-2.8E-15**	**-2.3E-15**						**0.6%**	**0.6%**	**0.3%**	**14.1%**	**0.4%**	
Downwind 2	11/12/2009	NECRD2-20091112	4.6E-15	2.3E-15	1.1E-15	1.1E-15	9.1E-16	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.3%	0.3%	0.1%	5.7%	0.2%	Excavate and backfill unnamed arroyo Excavate haul road east side of unnamed arroyo
Upwind 1		NECRU1-20091112	3.2E-14	1.6E-14	8.1E-15	8.1E-15	6.5E-15						1.8%	1.8%	0.9%	40.3%	1.1%	
Difference			**2.8E-14**	**1.4E-14**	**6.9E-15**	**6.9E-15**	**5.5E-15**						**-1.5%**	**-1.5%**	**-0.8%**	**-34.6%**	**-0.9%**	
Downwind 2	11/13/2009	NECRD2-20091113	1.3E-14	6.4E-15	3.2E-15	3.2E-15	2.6E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.7%	0.7%	0.4%	16.1%	0.4%	Excavate and backfill unnamed arroyo Excavation of hillside materials Excavate haul road east side of unnamed arroyo
Upwind 1		NECRU1-20091113	2.7E-14	1.4E-14	6.8E-15	6.8E-15	5.4E-15						1.5%	1.5%	0.8%	33.9%	0.9%	
Difference			**1.4E-14**	**7.1E-15**	**3.6E-15**	**3.6E-15**	**2.8E-15**						**-0.8%**	**-0.8%**	**-0.4%**	**-17.8%**	**-0.5%**	
Downwind 2	11/16/2009	NECRD2-20091116	1.1E-14	5.3E-15	2.6E-15	2.6E-15	2.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	13.2%	0.4%	Excavate and backfill unnamed arroyo Excavation of hillside materials Excavate haul road east side of unnamed arroyo
Upwind 1		NECRU1-20091116	3.0E-15	1.5E-15	7.6E-16	7.6E-16	6.1E-16						0.2%	0.2%	0.1%	3.8%	0.1%	
Difference			**-7.5E-15**	**-3.8E-15**	**-1.9E-15**	**-1.9E-15**	**-1.5E-15**						**0.4%**	**0.4%**	**0.2%**	**9.4%**	**0.3%**	
Downwind 2	11/18/2009	NECRD2-20091118	2.1E-14	1.0E-14	5.2E-15	5.2E-15	4.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.1%	1.1%	0.6%	25.8%	0.7%	Excavate and backfill unnamed arroyo Excavation of hillside materials Excavate haul road east side of unnamed arroyo
Upwind 1		NECRU1-20091118	1.4E-14	7.0E-15	3.5E-15	3.5E-15	2.8E-15						0.8%	0.8%	0.4%	17.4%	0.5%	
Difference			**-6.7E-15**	**-3.3E-15**	**-1.7E-15**	**-1.7E-15**	**-1.3E-15**						**0.4%**	**0.4%**	**0.2%**	**8.3%**	**0.2%**	
Downwind 2	11/20/2009	NECRD2-20091120	2.1E-14	1.1E-14	5.3E-15	5.3E-15	4.2E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.2%	1.2%	0.6%	26.4%	0.7%	Excavate and backfill unnamed arroyo Excavation of hillside materials Excavate haul road east side of unnamed arroyo
Upwind 1		NECRU1-20091120	Filter holder failure										-	-	-	-	-	
Difference													**-**	**-**	**-**	**-**	**-**	
Downwind 2	11/23/2009	NECRD2-20091123	1.3E-15	6.5E-16	3.2E-16	3.2E-16	2.6E-16	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.1%	0.1%	0.0%	1.6%	0.0%	Backfill unnamed arroyo Excavation of hillside materials
Upwind 1		NECRU1-20091123	1.3E-15	6.6E-16	3.3E-16	3.3E-16	2.6E-16						0.1%	0.1%	0.0%	1.7%	0.0%	
Difference			**2.4E-17**	**1.2E-17**	**6.0E-18**	**6.0E-18**	**4.8E-18**						**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	
Downwind 2	11/24/2009	NECRD2-20091124	1.4E-15	7.2E-16	3.6E-16	3.6E-16	2.9E-16	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.1%	0.1%	0.0%	1.8%	0.0%	Backfill unnamed arroyo Excavation of hillside materials Grading NECR-1
Upwind 1		NECRU1-20091124	1.4E-15	7.0E-16	3.5E-16	3.5E-16	2.8E-16						0.1%	0.1%	0.0%	1.8%	0.0%	
Difference			**-2.5E-17**	**-1.3E-17**	**-6.3E-18**	**-6.3E-18**	**-5.0E-18**						**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Attachment 1 - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station (5)	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) (1)					DAC (uCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 2	11/25/2009	NECRD2-20091125	1.1E-14	5.5E-15	2.7E-15	2.7E-15	2.2E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	13.7%	0.4%	Backfill unnamed arroyo Excavation of hillside materials
Upwind 1		NECRU1-20091125	2.0E-14	9.9E-15	4.9E-15	4.9E-15	4.0E-15						1.1%	1.1%	0.5%	24.7%	0.7%	
Difference			**8.8E-15**	**4.4E-15**	**2.2E-15**	**2.2E-15**	**1.8E-15**						**-0.5%**	**-0.5%**	**-0.2%**	**-11.0%**	**-0.3%**	

Note:

(1) U-nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ faction of 0.5 for U-nat, 0.25 for Ra-226 and 0.25 for Th-230 of gross alpha activity, Pb-210 activity calculated at 80% Ra-226 based on assumption that 20% of radon (Pb-210 parent nuclides) emanates out of soil.

(2) DACs from 10CFR20, Appendix B, Table 2 for control and assessment of dose to the public

(3) Gross Alpha measurments recorded after 72 hours. Approximately 90% of radon daughters have decayed at time of record. If Gross Alpha monitoring criteria are not met, additional reading are taken at longer time intervals to identify radon contribution to results. Latest reading is reported.

(4) Calculated DAC for gross alpha activity by summing U-nat, Ra-226, Th-230 and Th-230 DACs for control measures, not a regulatory DAC.

Attachment 1 - North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station (5)	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) (1)					DAC (uCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 2	11/30/2009	NECRD2-20091130	1.3E-14	6.5E-15	3.2E-15	3.2E-15	2.6E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.7%	0.7%	0.4%	16.2%	0.4%	Excavation from hillside Haul from borrow to backfill unnamed arroyo
Upwind 1		NECRU1-20091130	6.7E-15	3.3E-15	1.7E-15	1.7E-15	1.3E-15						0.4%	0.4%	0.2%	8.4%	0.2%	
			-6.3E-15	**-3.1E-15**	**-1.6E-15**	**-1.6E-15**	**-1.3E-15**						**0.3%**	**0.3%**	**0.2%**	**7.9%**	**0.2%**	
Downwind 2	12/2/2009	NECRD2-20091202	7.4E-15	3.7E-15	1.8E-15	1.8E-15	1.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.4%	0.4%	0.2%	9.2%	0.2%	Excavation from hillside Haul from borrow to backfill unnamed arroyo
Upwind 1		NECRU1-20091202	9.7E-15	4.9E-15	2.4E-15	2.4E-15	1.9E-15						0.5%	0.5%	0.3%	12.2%	0.3%	
			2.4E-15	**1.2E-15**	**5.9E-16**	**5.9E-16**	**4.7E-16**						**-0.1%**	**-0.1%**	**-0.1%**	**-2.9%**	**-0.1%**	
Downwind 2	12/4/2009	NECRD2-20091204	5.6E-15	2.8E-15	1.4E-15	1.4E-15	1.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.3%	0.3%	0.2%	7.0%	0.2%	Excavation from hillside Haul from borrow to backfill unnamed arroyo
Upwind 1		NECRU1-20091204	8.2E-15	4.1E-15	2.1E-15	2.1E-15	1.6E-15						0.5%	0.5%	0.2%	10.3%	0.3%	
			2.6E-15	**1.3E-15**	**6.5E-16**	**6.5E-16**	**5.2E-16**						**-0.1%**	**-0.1%**	**-0.1%**	**-3.3%**	**-0.1%**	
Downwind 2	12/7/2009	NECRD2-20091207	2.4E-14	1.2E-14	5.9E-15	5.9E-15	4.8E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.3%	1.3%	0.7%	29.7%	0.8%	Haul from borrow to backfill unnamed arroyo Placing riprap in unnamed arroyo Excavate Zone 1
Upwind 1		NECRU1-20091207	8.2E-15	4.1E-15	2.1E-15	2.1E-15	1.6E-15						0.5%	0.5%	0.2%	10.3%	0.3%	
			-1.6E-14	**-7.8E-15**	**-3.9E-15**	**-3.9E-15**	**-3.1E-15**						**0.9%**	**0.9%**	**0.4%**	**19.5%**	**0.5%**	
Downwind 2	12/9/2009	NECRD2-20091209	-1.5E-15	-7.4E-16	-3.7E-16	-3.7E-16	-3.0E-16	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	-0.1%	-0.1%	0.0%	-1.8%	0.0%	Haul from borrow to backfill unnamed arroyo Placing riprap in unnamed arroyo Excavate Zone 1
Upwind 1		NECRU1-20091209	5.8E-15	2.9E-15	1.5E-15	1.5E-15	1.2E-15						0.3%	0.3%	0.2%	7.3%	0.2%	
			7.3E-15	**3.7E-15**	**1.8E-15**	**1.8E-15**	**1.5E-15**						**-0.4%**	**-0.4%**	**-0.2%**	**-9.1%**	**-0.2%**	
Downwind 2	12/11/2009	NECRD2-20091211	8.7E-15	4.4E-15	2.2E-15	2.2E-15	1.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.5%	0.5%	0.2%	10.9%	0.3%	Haul from borrow to backfill unnamed arroyo Placing riprap in unnamed arroyo Excavate Zone 1
Upwind 1		NECRU1-20091211	6.3E-15	3.2E-15	1.6E-15	1.6E-15	1.3E-15						0.4%	0.4%	0.2%	7.9%	0.2%	
			-2.4E-15	**-1.2E-15**	**-6.1E-16**	**-6.1E-16**	**-4.9E-16**						**0.1%**	**0.1%**	**0.1%**	**3.1%**	**0.1%**	
Downwind 2	12/14/2009	NECRD2-20091214	-1.4E-14	-6.9E-15	-3.4E-15	-3.4E-15	-2.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	-0.8%	-0.8%	-0.4%	-17.1%	-0.5%	Haul material from borrow to backfill Zone 4 Excavate Zone 2
Upwind 1		NECRU1-20091214	-8.6E-15	-4.3E-15	-2.1E-15	-2.1E-15	-1.7E-15						-0.5%	-0.5%	-0.2%	-10.7%	-0.3%	
			5.1E-15	**2.6E-15**	**1.3E-15**	**1.3E-15**	**1.0E-15**						**-0.3%**	**-0.3%**	**-0.1%**	**-6.4%**	**-0.2%**	
Downwind 2	12/16/2009	NECRD2-20091216	2.0E-14	9.8E-15	4.9E-15	4.9E-15	3.9E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.1%	1.1%	0.5%	24.5%	0.7%	Backfill TPH excavation Excavate Zone 1 Backfill deep excavations in Zone 4 Grading NECR-1 pile
Upwind 1		NECRU1-20091216	1.4E-15	6.9E-16	3.5E-16	3.5E-16	2.8E-16						0.1%	0.1%	0.0%	1.7%	0.0%	
			-1.8E-14	**-9.1E-15**	**-4.6E-15**	**-4.6E-15**	**-3.6E-15**						**1.0%**	**1.0%**	**0.5%**	**22.8%**	**0.6%**	
Downwind 2	12/18/2009	NECRD2-20091218	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.0%	0.0%	0.0%	0.0%	0.0%	Backfill TPH excavation Excavate Zone 1 Backfill deep excavations in Zone 4 Grading NECR-1 pile Construct sediment pond in Zone 2
Upwind 1		NECRU1-20091218	2.7E-15	1.4E-15	6.8E-16	6.8E-16	5.4E-16						0.2%	0.2%	0.1%	3.4%	0.1%	
			2.7E-15	**1.4E-15**	**6.8E-16**	**6.8E-16**	**5.4E-16**						**-0.2%**	**-0.2%**	**-0.1%**	**-3.4%**	**-0.1%**	
Downwind 2	12/21/2009	NECRD2-20091221	1.3E-14	6.4E-15	3.2E-15	3.2E-15	2.5E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.7%	0.7%	0.4%	15.9%	0.4%	Excavate Zone 1 Backfill deep excavations in Zones 1 &3 Construct by pass in unnamed arroyo south of culverts
Upwind 1		NECRU1-20091221	6.7E-15	3.4E-15	1.7E-15	1.7E-15	1.3E-15						0.4%	0.4%	0.2%	8.4%	0.2%	
			-6.0E-15	**-3.0E-15**	**-1.5E-15**	**-1.5E-15**	**-1.2E-15**						**0.3%**	**0.3%**	**0.2%**	**7.5%**	**0.2%**	
Downwind 2	12/22/2009	NECRD2-20091222	2.3E-14	1.2E-14	5.8E-15	5.8E-15	4.6E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	1.3%	1.3%	0.6%	29.0%	0.8%	Excavate Zone 1 Backfill deep excavations in Zones 1 &3
Upwind 1		NECRU1-20091222	4.6E-15	2.3E-15	1.2E-15	1.2E-15	9.2E-16						0.3%	0.3%	0.1%	5.8%	0.2%	
			-1.9E-14	**-9.3E-15**	**-4.6E-15**	**-4.6E-15**	**-3.7E-15**						**1.0%**	**1.0%**	**0.5%**	**23.2%**	**0.6%**	

Note:

(1) U-nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ faction of 0.5 for U-nat, 0.25 for Ra-226 and 0.25 for Th-230 of gross alpha activity, Pb-210 activity calculated at 80% Ra-226 based on assumption that 20% of radon (Pb-210 parent nuclides) emanates out of soil.

(2) DACs from 10CFR20, Appendix B, Table 2 for control and assessment of dose to the public

(3) Gross Alpha measurments recorded after 72 hours. Approximately 90% of radon daughters have decayed at time of record. If Gross Alpha monitoring criteria are not met, additional reading are taken at longer time intervals to identify radon contribution to results. Latest reading is reported.

(4) Calculated DAC for gross alpha activity by summing U-nat, Ra-226, Th-230 and Th-230 DACs for control measures, not a regulatory DAC.

North East Church Rock Mine Site
IRA Perimeter Air Monitoring Results-Radiological Particulate

Perimeter Air Station (5)	Sample Date	Sample ID	Airborne Particulate Activity (uCi/ml) (1)					DAC (uCi/ml) (2)					% of DAC (3)					Comments
			Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha (4)	U-nat	Ra-226	Th-230	Pb-210	Gross Alpha	U-nat	Ra-226	Th-230	Pb-210	
Downwind 2	1/4/2010	NECRD2-20100104	6.9E-15	3.4E-15	1.7E-15	1.7E-15	1.4E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.4%	0.4%	0.2%	8.6%	0.2%	Backfill and grade step-out area Grade NECR-1 top surface
Upwind 1		NECRU1-20100104	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00						0.0%	0.0%	0.0%	0.0%	0.0%	
			-6.9E-15	**-3.4E-15**	**-1.7E-15**	**-1.7E-15**	**-1.4E-15**						**0.4%**	**0.4%**	**0.2%**	**8.6%**	**0.2%**	
Downwind 2	1/6/2010	NECRD2-20100106	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.0%	0.0%	0.0%	0.0%	0.0%	Backfill and grade step-out area Grade NECR-1 top surface
Upwind 1		NECRU1-20100106	2.6E-15	1.3E-15	6.4E-16	6.4E-16	5.1E-16						0.1%	0.1%	0.1%	3.2%	0.1%	
			2.6E-15	**1.3E-15**	**6.4E-16**	**6.4E-16**	**5.1E-16**						**-0.1%**	**-0.1%**	**-0.1%**	**-3.2%**	**-0.1%**	
Downwind 2	1/8/2010	NECRD2-20100108	1.2E-14	5.9E-15	2.9E-15	2.9E-15	2.4E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.7%	0.7%	0.3%	14.7%	0.4%	Cover NECR-1 top surface
Upwind 1		NECRU1-20100108	-5.6E-15	-2.8E-15	-1.4E-15	-1.4E-15	-1.1E-15						-0.3%	-0.3%	-0.2%	-7.1%	-0.2%	
			-1.7E-14	**-8.7E-15**	**-4.4E-15**	**-4.4E-15**	**-3.5E-15**						**1.0%**	**1.0%**	**0.5%**	**21.8%**	**0.6%**	
Downwind 2	1/11/2010	NECRD2-20100111	1.0E-14	5.2E-15	2.6E-15	2.6E-15	2.1E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.6%	0.6%	0.3%	12.9%	0.3%	Cover NECR-1 side slopes
Upwind 1		NECRU1-20100111	-3.7E-15	-1.9E-15	-9.4E-16	-9.4E-16	-7.5E-16						-0.2%	-0.2%	-0.1%	-4.7%	-0.1%	
			-1.4E-14	**-7.0E-15**	**-3.5E-15**	**-3.5E-15**	**-2.8E-15**						**0.8%**	**0.8%**	**0.4%**	**17.6%**	**0.5%**	
Downwind 2	1/13/2010	NECRD2-20100113	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.0%	0.0%	0.0%	0.0%	0.0%	Cover NECR-1 side slopes
Upwind 1		NECRU1-20100113	-1.3E-14	-6.5E-15	-3.2E-15	-3.2E-15	-2.6E-15						-0.7%	-0.7%	-0.4%	-16.2%	-0.4%	
			-1.3E-14	**-6.5E-15**	**-3.2E-15**	**-3.2E-15**	**-2.6E-15**						**0.7%**	**0.7%**	**0.4%**	**16.2%**	**0.4%**	
Downwind 2	1/15/2010	NECRD2-20100115	8.3E-15	4.2E-15	2.1E-15	2.1E-15	1.7E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.5%	0.5%	0.2%	10.4%	0.3%	Cover NECR-1 side slopes
Upwind 1		NECRU1-20100115	-2.8E-15	-1.4E-15	-6.9E-16	-6.9E-16	-5.5E-16						-0.2%	-0.2%	-0.1%	-3.4%	-0.1%	
			-1.1E-14	**-5.5E-15**	**-2.8E-15**	**-2.8E-15**	**-2.2E-15**						**0.6%**	**0.6%**	**0.3%**	**13.8%**	**0.4%**	
Downwind 2	1/18/2010	NECRD2-20100118	7.0E-15	3.5E-15	1.7E-15	1.7E-15	1.4E-15	1.8E-12	9.0E-13	9.0E-13	2.0E-14	6.0E-13	0.4%	0.4%	0.2%	8.7%	0.2%	Grade NECR-1 side slopes
Upwind 1		NECRU1-20100118	1.1E-14	5.4E-15	2.7E-15	2.7E-15	2.1E-15						0.6%	0.6%	0.3%	13.4%	0.4%	
			3.7E-15	**1.9E-15**	**9.4E-16**	**9.4E-16**	**7.5E-16**						**-0.2%**	**-0.2%**	**-0.1%**	**-4.7%**	**-0.1%**	

Note:

(1) U-nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ faction of 0.5 for U-nat, 0.25 for Ra-226 and 0.25 for Th-230 of gross alpha activity, Pb-210 activity calculated at 80% Ra-226 based on assumption that 20% of radon (Pb-210 parent nuclides) emanates out of soil.

(2) DACs from 10CFR20, Appendix B, Table 2 for control and assessment of dose to the public

(3) Gross Alpha measurments recorded after 72 hours. Approximately 90% of radon daughters have decayed at time of record. If Gross Alpha monitoring criteria are not met, additional reading are taken at longer time intervals to identify radon contribution to results. Latest reading is reported.

(4) Calculated DAC for gross alpha activity by summing U-nat, Ra-226, Th-230 and Th-230 DACs for control measures, not a regulatory DAC.

ENVIRONMENTAL DOSIMETRY REPORT

Location ID Number	Location Identifier	Exposure Period Date	Monitoring Period		Dosimeter Reading (mrem)	Average Exposure Rate @ Station (uR/Hr)	Date Returned For Analysis	Year To Date (mrem)	Comment
			Placement Date & Time	Retrieval Date & Time					
OOOO1	NECR-U1	8/1/2009	8/20/2009 1345	10/8/2009 1042	2.1	15	10/8/2009	2.1	NECR-U1 (Upwind & SW portion of NECR mine Site)
OOOO2	NECR-D1	8/1/2009	8/20/2009 1325	10/8/2009 1015	12.2	41	10/8/2009	12.2	NECR-D1 (Downwind N. & nearby the nearest resident)
OOOO3	NECR-D2	9/1/2009	9/8/2009 1330	10/8/2009 O955	4.0	16	10/8/2009	4.0	NECR-D2 (Downwind N. about 300' W. of Quivira mine pile) 00004 & 00005 were not used for 9-1-09
OOOO3	NECR-U1	10/1/2009	10/8/2009 1042	11/9/2009 1112	3.2	15	11/9/2009	5.3	NECR-D1 is moved closer to the nearby resident
OOOO2	NECR-D1	10/1/2009	10/8/2009 1015	11/9/2009 1132	3.3	13	11/9/2009	15.5	(about 18' from SW Corner of home) on 9-8-09
OOOO1	NECR-D2	10/1/2009	10/8/2009 O955	11/9/2009 1150	2.3	13	11/9/2009	6.3	and out of the construction zone area. Also note that 00003 was placed at NECR-U1 and 00001 at NECR-D2 on 10-8-09
OOOO1	NECR-U1	11/1/2009	11/9/2009 1112	12/15/2009 1618	3.4	15	12/16/2009	8.7	NECR-D2 is moved closer to construction activity, (downwind
OOOO2	NECR-D1	11/1/2009	11/9/2009 1132	12/15/2009 1640	1.8	13	12/16/2009	17.3	N. about 500' SW of Quivira Mine pile) on 11-16-09
OOOO3	NECR-D2	11/1/2009	11/9/2009 1150	12/15/2009 1630	2.7	14	12/16/2009	9.0	
OOOO1	NECR-U1	12/1/2009	12/15/2009 1618	1/19/2010 1145	2.6	15	1/20/2010	11.3	
OOOO2	NECR-D1	12/1/2009	12/15/2009 1640	1/19/2010 1200	1.9	14	1/20/2010	19.2	
OOOO3	NECR-D2	12/1/2009	12/15/2009 1630	1/19/2010 1215	2.0	12	1/20/2010	11.0	

Radtrak® Radon Gas Detector

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586
Telephone: (800) 528-8327 Facsimile: (708) 755-7048

TEST/REPORT ADDRESS:
MAC TEC C/O UNC
ATTN: MIKE MCDONALD
1051 STATE HWY #566
CHURCH ROCK, NM
87305

YOUR STATE AGENCY:
NM ENVIRONMENT DEPT
(505) 827-1093

RADON MONITORING REPORT

Detector Number	Detector Type	Starting Date	Ending Date	Days	Location	Exposure pCi/l-days	Avg. Radon Conc. pCi/l	Note
4798145	OUTDOOR AIR	08/18/09	01/19/10	154			1.2 ±0.08	
4798147	OUTDOOR AIR	08/18/09	01/19/10	154			1.7 ±0.10	
1	2	3	4	5	6	7	8	9

RESULTS RELATED ONLY TO MONITORS AS RECEIVED BY LANDAUER.

	Process No.	Date Rec'd.	Report Date	Acct. No.
DRB	A21822	01/22/10	02/10/10	0400000

KEEP THIS DOCUMENT WITH YOUR IMPORTANT PAPERS
- SEE OTHER SIDE FOR IMPORTANT INFORMATION -

Radon Monitoring Report

MAC TEC
C/O UNC
1051 STATE HIGHWAY #566
CHURCH ROCK, NM 87305

LANDAUER

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586
Telephone: (800) 528-8327 Facsimile: (708) 755-7048

Acct. No. 0410316

Detector Number	Detector Type	Starting Date	Ending Date	Field Data / Comments	Exposure pCi/l-days	Avg. Radon Conc. pCi/l	
4798140	DRNF	08-SEP-09	19-JAN-10	NECR-D2	176.1 ±11.9	1.3 ±0.09	

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RESULTS RELATED ONLY TO MONITORS
AS RECEIVED BY LANDAUER.

Q.C. Release	Process No.	Report Date	Date Received
DRB	A21822	10-FEB-10	22-JAN-10