Carlsbad Environmental Monitoring & Research Center

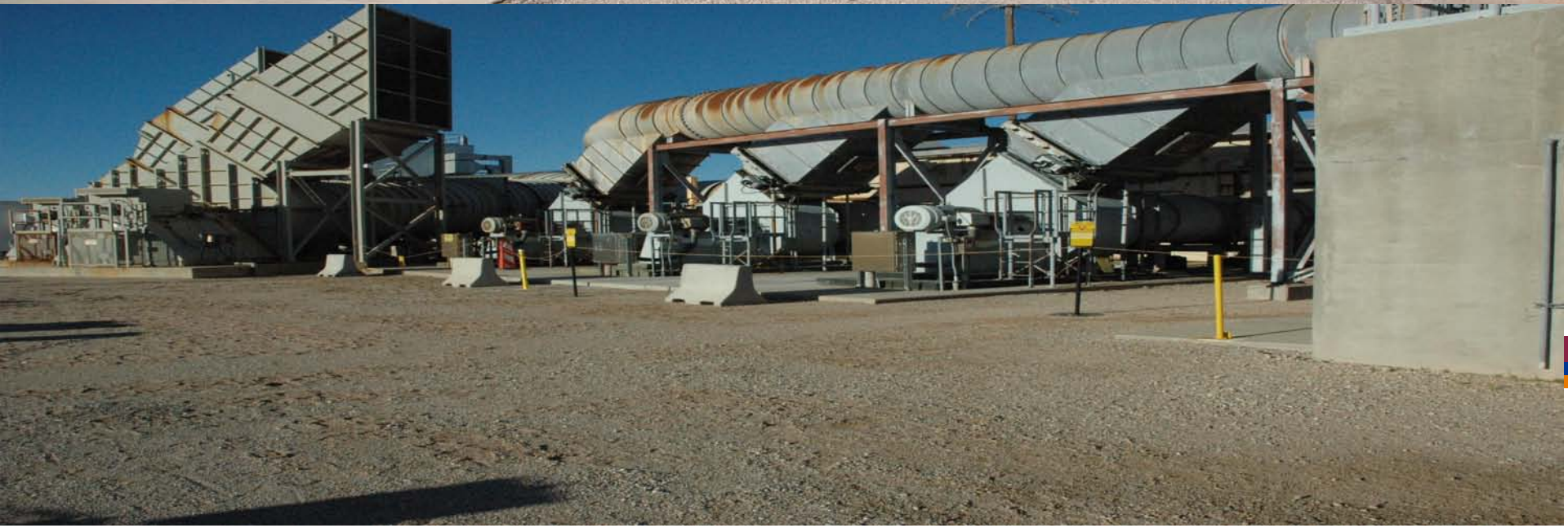
Radioactive and Hazardous Materials Committee

9/16/2014

Dr. Russell Hardy, Director

WIPP Exhaust Station A

WIPP Exhaust Station B

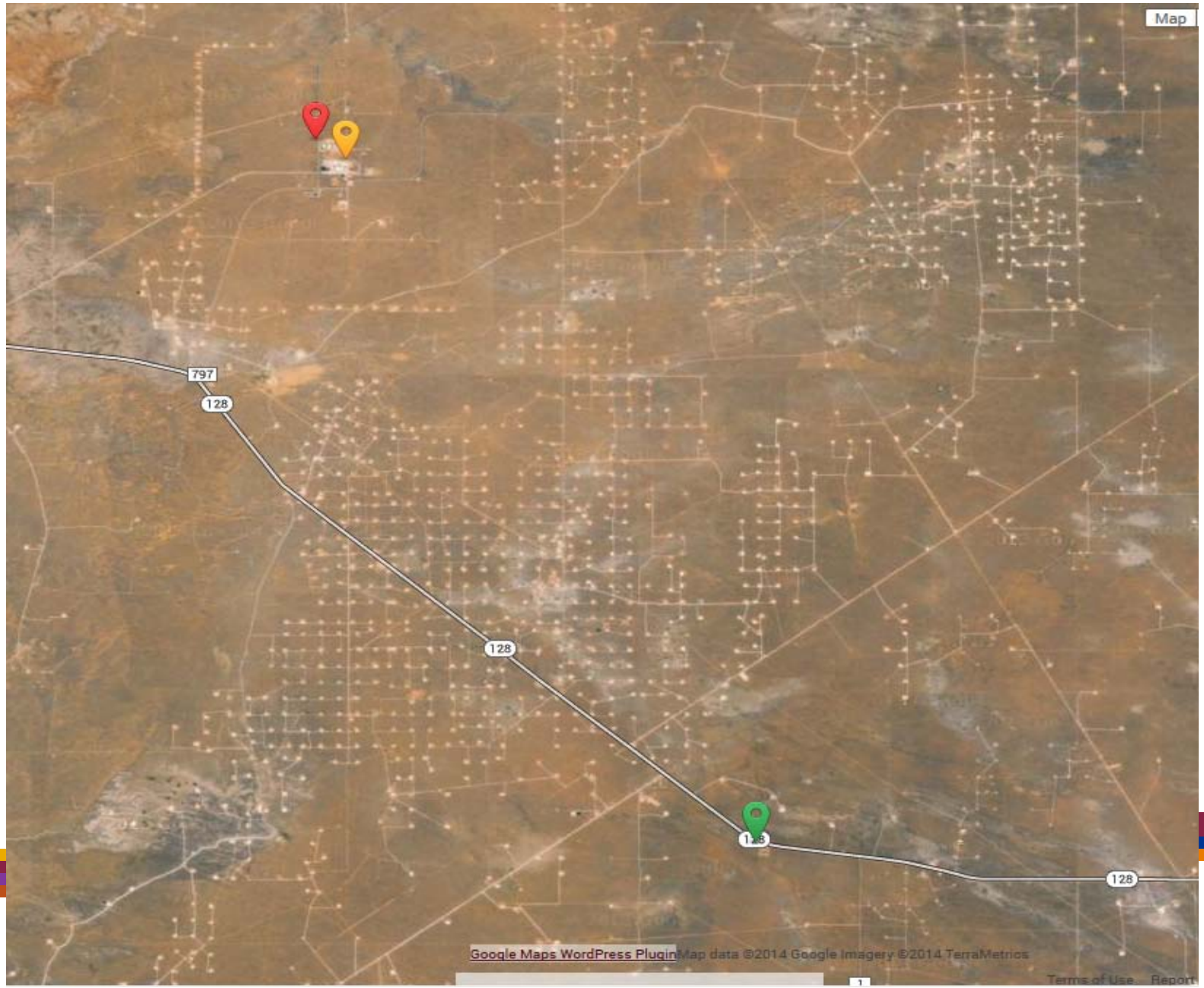


WIPP Exhaust Air Daily Average per Week

		WIPP Exhaust Air - Station A (Pre-HEPA) Bq / Sample			WIPP Exhaust Air - Station B (Post HEPA) Bq/Sample	
	Week	***Am241***	***Pu239+240***		***Am241***	***Pu239+240***
#1	2/14 - 2/21	46,614.18	7,103.16		213.08	20.94
#2	2/21 - 2/28	9.24	1.02		0.94	0.09
#3	2/28 - 3/7	1.51	0.16		0.69	0.08
#4	3/7 - 3/14	1.89	0.17		0.40	0.05
#5	3/14 - 3/21	0.81	0.09		0.16	0.02
#6	3/21 - 3/28	1.12	0.12		0.05	0.004
#7	3/28 - 4/4	0.78	0.08		0.04	0.004
#8	4/4 - 4/11	0.41	0.05		0.04	0.003
#9	4/11 - 4/18	0.21	0.02		0.06	0.01
#10	4/18 - 4/25	0.69	0.08		0.09	0.01
#11	4/25 - 5/1	0.12	0.01		0.01	0.001
#12	5/1 - 5/8	0.10	0.01		0.03	0.003
#13	5/8 - 5/15	0.13	0.01		0.01	0.001
#14	5/15 - 5/22	0.15	0.02		0.003	0.001
#15	5/22 - 6/1	0.42	0.05		0.003	0.0002
#16	6/1 - 6/8	0.10	0.01		0.16	0.02
#17	6/8 - 6/15	0.06	0.01		0.02	0.002
#18	6/15 - 6/22	0.01	0.002		0.02	0.002
#19	6/22 - 6/30	0.03	0.003		0.01	0.001

Ambient Air Monitoring

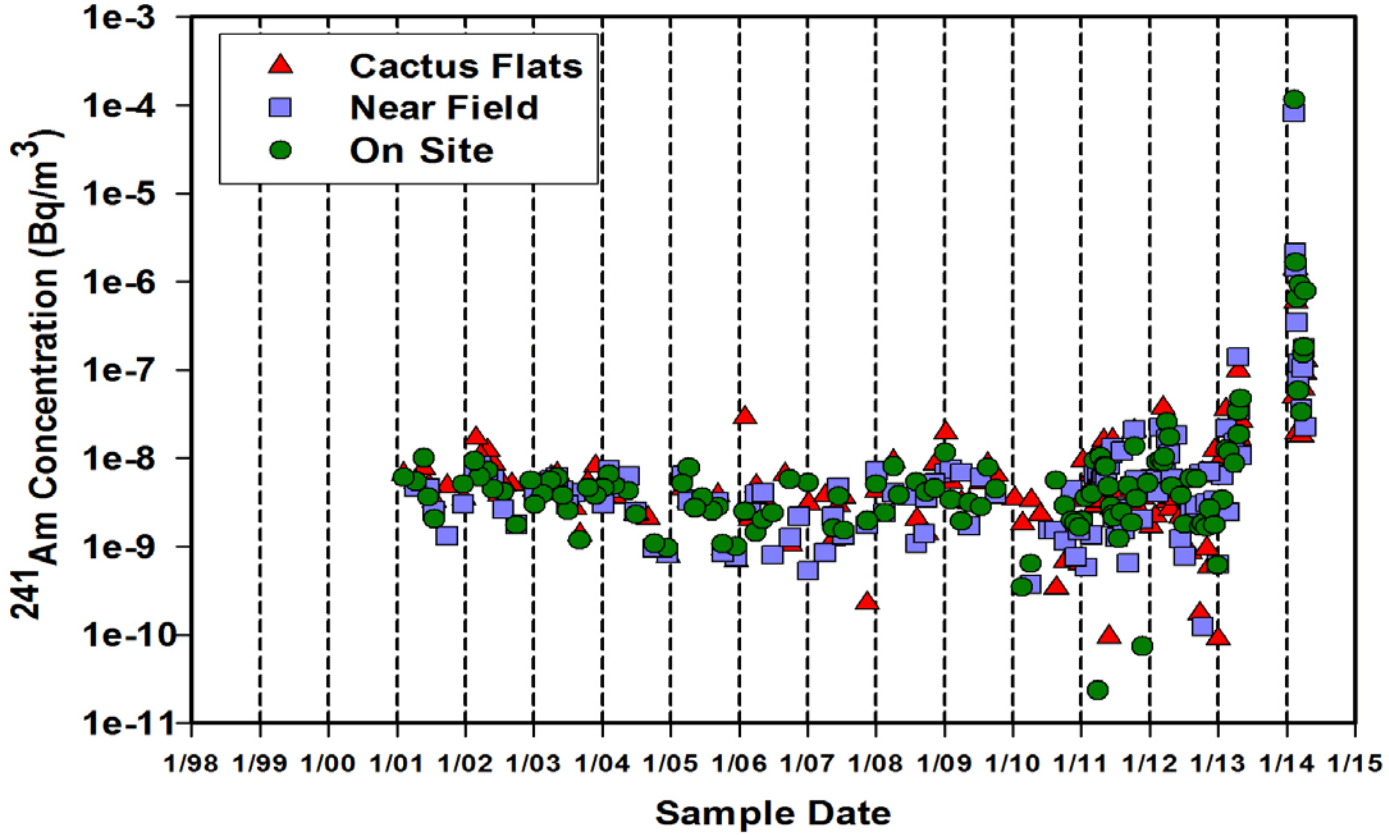
Ambient Air Monitoring Locations



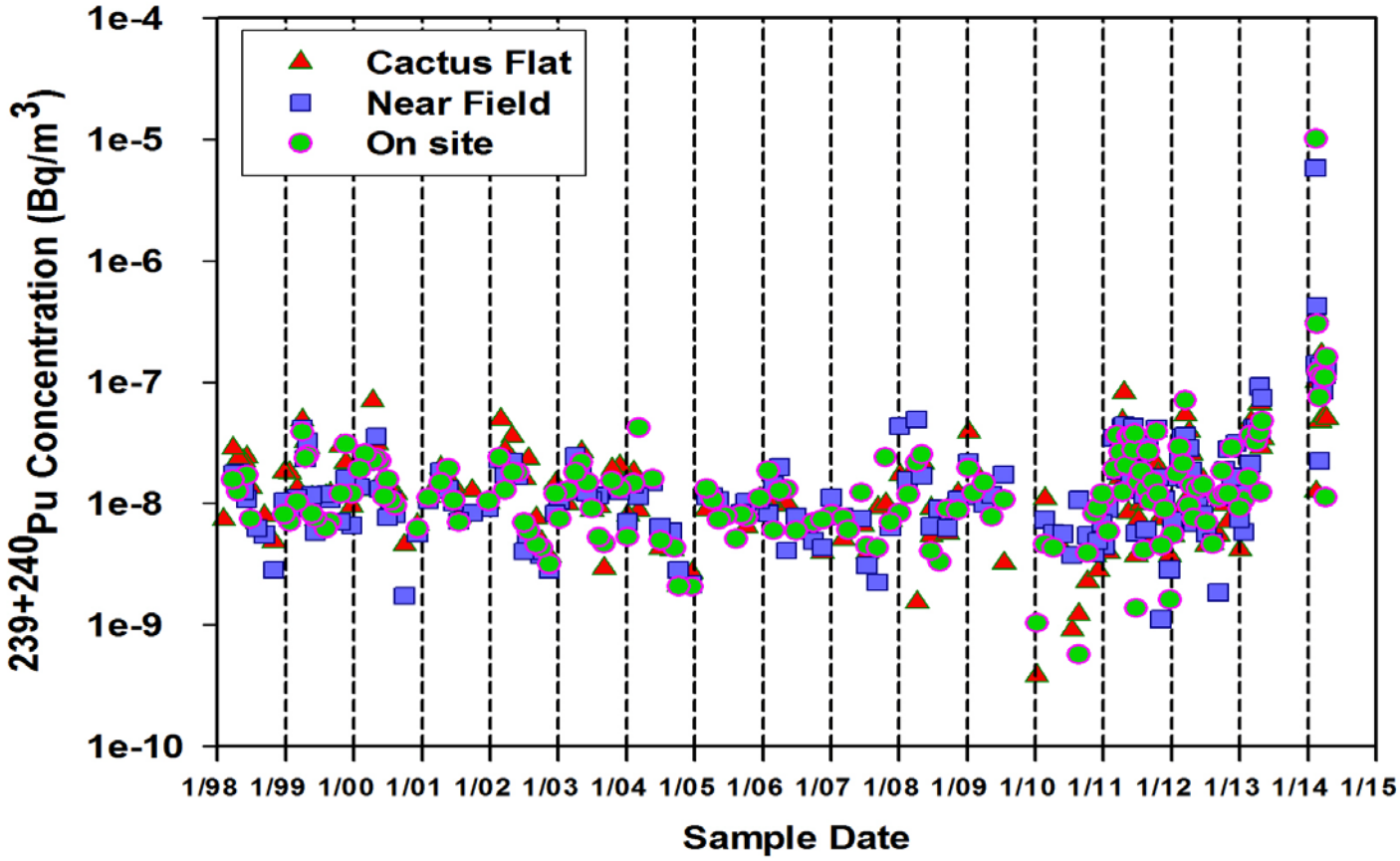
WIPP Ambient Air Weekly Average

		WIPP On-Site Ambient Air - Bq / Sample			WIPP Near Field Ambient Air Bq/Sample			WIPP Cactus Flats Ambient Air Bq/Sample	
Week		*Am241*	*Pu239+240*		*Am241*	*Pu239+240*		*Am241*	*Pu239+240*
#1	2/14 - 2/21	1.300	0.115		0.652	0.046		0.005	n/d
#2	2/21 - 2/28	0.020	0.004		0.017	0.005		0.007	0.001
#3	2/28 - 3/7	0.007	n/d		0.004	0.001		n/d	n/d
#4	3/7 - 3/14	n/d	n/d		n/d	n/d		0.001	n/d
#5	3/14 - 3/21	0.013	n/d		0.002	n/d		0.002	0.002
#6	3/21 - 3/28	0.002	n/d		n/d	n/d		n/d	n/d
#7	3/28 - 4/4	0.001	n/d		0.001	n/d		n/d	n/d
#8	4/4 - 4/11	0.002	n/d		0.002	0.001		n/d	n/d
#9	4/11 - 4/18	0.010	0.002		n/d	0.002		0.002	n/d
#10	4/18 - 4/25	n/d	n/d		n/d	n/d		n/d	n/d
#11	4/25 - 5/1	0.005	0.005		n/d	0.003		n/d	0.001
#12	5/1 - 5/8	n/d	n/d		0.001	n/d		0.003	n/d
#13	5/8 - 5/15	n/d	0.001		n/d	n/d		n/d	n/d
#14	5/15 - 5/22	n/d	n/d		n/d	n/d		n/d	n/d
#15	5/22 - 6/1	0.004	n/d		n/d	n/d		n/d	n/d
#16	6/1 - 6/8	n/d	n/d		n/d	n/d		n/d	n/d
#17	6/8 - 6/15	n/d	n/d		n/d	n/d		n/d	n/d
#18	6/15 - 6/22	n/d	n/d		n/d	n/d		n/d	n/d
#19	6/22 - 6/30	n/d	n/d		n/d	n/d		n/d	n/d

^{241}Am Historical Activity

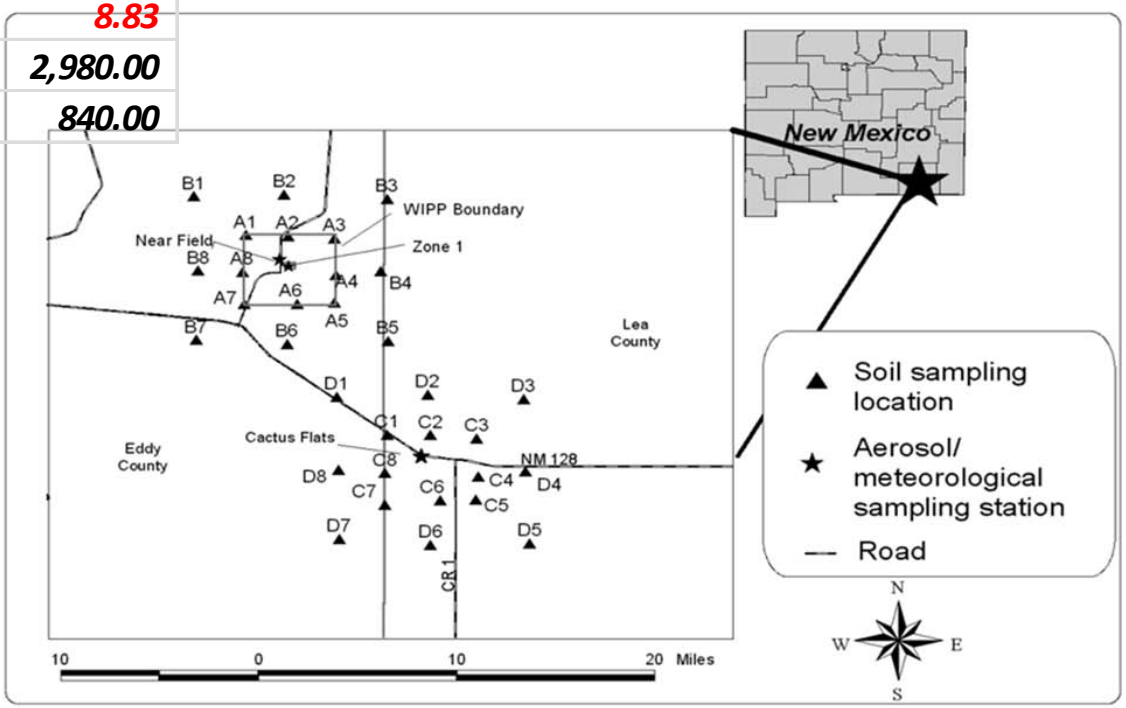


$^{239+240}$Pu Historical Activity



Soil Sampling Activities

Grid Note	241Am Bq/kg	239+240Pu Bq/kg	137Cs Bq/kg
A-2	0.07	0.16 - .07	1.80
A-1	0.30 - .10	0.28	2.68
A-3	0.08	0.15	2.65
A-4	n/d	n/d	1.36
A-5	0.14	n/d	2.79
A-6	n/d	0.11	1.47
A-6 Duplicate	0.09	n/d	0.49
A-7	0.09	n/d	n/d
A-8	0.16 - .08	n/d	3.89
15-year Maximum	***0.11***	***0.40***	***8.83***
Gnome Maximum	***346.00***	***155.00***	***2,980.00***
Gnome Average	***36.10***	***149.00***	***840.00***



In-Vivo (Whole Body Counting)

Making Lemonade out of Lemons!

- CEMRC will be adding three (3) additional ambient air monitoring stations
  - Northeast Corner of WIPP
  - Loving (Fire Station #2)
  - Carlsbad (behind CEMRC)

- CEMRC will soon be announcing the ability to perform WBC on children ages 12-18.

Any Questions?