TABLE 1 - FIELD AND ANALYTICAL RESULTS
DUKE ENERGY MCGUIRE NUCLEAR STATION LANDFILL #2 - PERMIT #60-04
GROUNDWATER MONITORING REPORT
S&ME PROJECT 1411-09-047

Facility: McGuire Nuclear Station - Synthetically Lined Solid Waste Landfill No.2 - Permit No. 60-04
Sample Date: June 2, 2009 (Field and Geochemistry Data)

Certificate Codes:

Duke Power Lab #248
Duke Power Field #5193
Pace Lab #12

Parameter	SW ID	Units	Certificate Code	Monitoring Well Identification							SWSL	15A NCAC 2L MCL*
				6004-MW-5	6004-MW-5A	6004-MW-6	6004-MW-6A	6004-MW-7	6004-MW-7A	6004-MW-8		
Field pH	320	Std. Units	5193	NS	**6.3**	**5.9**	**5.5**	**5.8**	6.6	6.6		**6.5-8.5**
Field Spec. Cond.	323	umho/cm	5193	NS	60	116	54	42.0	111	138		
Temperature	325	C	5193	NS	16.8	16.7	17.0	19.6	17.1	19.3		
Top Casing	328	msl-feet		768.31	768.42	728.45	728.98	725.86	724.66	759.60		
Depth to Water	318	feet		62.18	62.63	29.45	28.65	34.25	33.29	63.33		
Water Elevation	319	msl-feet		706.13	705.79	699.00	700.33	691.61	691.37	696.27		
Well Depth	41	feet		63.90	96.00	37.20	47.90	37.30	59.40	71.50		
Arsenic	14	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**10**	**50**
Barium	15	ug/L	12	NS	24.5 J	45.5 J	43.3 J	33.2 J	3.9 J	22.4 J	**100**	**2000**
Cadmium	34	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**1.0**	**1.75**
Chloride	301	ug/L	12	NS	ND U	12500	5670	ND U	ND U	ND U	**NE**	**250000**
Chromium	51	ug/L	12	NS	1.3 J	1.4 J	0.41 J	0.53 J	ND U	0.42 J	**10**	**50**
Lead	131	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**10**	**15**
Mercury	132	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**0.20**	**1.05**
Selenium	183	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**10**	**50**
Silver	184	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**10**	**17.5**
Sulfate	315	ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**250000**	**250000**
TPH(DRO)		ug/L	12	NS	210	ND U	ND U	68	ND U	ND U	**NE**	
VOC's **		ug/L	12	NS	ND U	ND U	ND U	ND U	ND U	ND U	**Varies**	**Varies**
1,2,3-Trichlorobenzene	371	ug/L	12	NS	ND U	ND U	ND U	0.38	ND U	ND U	**NE**	**NE**
Hexachloro-1,3-butadiene	120	ug/L	12	NS	ND U	ND U	ND U	2.5 J	ND U	ND U	**10**	**NE**

*** Maximum Contaminant Level (MCL)**

Notes:

15A NCAC 2L = 15A NCAC 2L .0200, Groundwater Quality Standards for Class GA groundwater
BOLD VALUES indicate a values that attain or exceed the 15A NCAC 2L MCL.
ND = Not detected by Lab at or above adjusted reporting limit.
J = Parameters are estimated values greater than Method Detection Limit (MDL) but less than the SWSL
U = Value below Laboratory Reporting Limit
NS = No Sample - Insufficient volume in well to collect samples.
**** All EPA method 8260 compounds not specifically listed were less than laboratory reporting limits.**

NC SWSL = North Carolina Solid Waste Section Limit
NE = Not established
Values in gray cells indicate values that equal or exceed the SWSL.
TPH(DRO) = Diesel Range Organics

Monitoring well MW-5 was not sampled due to insufficient volume.
Field sampling performed by Duke Energy

Analytical results provided by Duke Energy and are found in
Pace Lab Report 9245667, dated June 18, 2009.

TABLE 1 - FIELD AND ANALYTICAL RESULTS
DUKE ENERGY MCGUIRE NUCLEAR STATION LANDFILL #2 - PERMIT #60-04
GROUNDWATER MONITORING REPORT
S&ME PROJECT 1411-09-047

Facility: McGuire Nuclear Station - Synthetically Lined Solid Waste Landfill No.2 - Permit No. 60-04
Sample Date: June 2, 2009 (Field and Geochemistry Data)

Certificate Codes:

Duke Power Lab #248
Duke Power Field #5193
Pace Lab #12

Parameter	SW ID	Units	Certificate Code	Monitoring Well Identification							TRIP BLANK	FIELD BLANK	SWSL	15A NCAC 2L MCL*
				6004-MW-8A	6004-MW-9	6004-MW-9A	6004-MW-10A	6004-Leachate	6004-SW-1	6004-SW-2				
Field pH	320	Std. Units	5193	6.8	**5.6**	**6.3**	**5.3**	7.7	6.5	7.1				**6.5-8.5**
Field Spec. Cond.	323	umho/cm	5193	88	68	97	26	817	151	120				
Temperature	325	C	5193	17.3	21.6	18.8	16.8	19.1	20.4	20.2				
Top Casing	328	msl-feet		759.68	711.87	712.13	755.78							
Depth to Water	318	feet		63.24	25.09	25.47	50.68							
Water Elevation	319	msl-feet		696.44	686.78	686.66	705.10							
Well Depth	41	feet		84.40	30.80	47.80	59.23							
Arsenic	14	ug/l	12	ND U	ND U	3.1 J	ND U	6.9 U	ND U	ND U	-	ND U	**10**	**50**
Barium	15	ug/l	12	21.1 J	15.9 J	7.8 J	48.1 J	64.1 J	52.1 J	18.3 J	-	ND J	**100**	**2000**
Cadmium	34	ug/l	12	ND U	ND U	ND U	ND U	ND U	ND U	ND U	-	ND U	**1.0**	**1.75**
Chloride	301	ug/l	12	ND U	8280	ND U	ND U	22300	ND U	ND U	-	ND U	**NE**	**250000**
Chromium	51	ug/l	12	2.0 J	ND U	0.73 J	0.69 J	ND U	ND J	ND U	-	ND U	**10**	**50**
Lead	131	ug/l	12	ND U	ND U	ND U	ND U	ND U	ND U	ND U	-	ND U	**10**	**15**
Mercury	132	ug/l	12	ND U	ND U	ND U	ND U	ND U	ND U	ND U	-	ND U	**0.20**	**1.05**
Selenium	183	ug/l	12	ND U	ND U	ND U	ND U	ND U	ND U	ND U	-	ND U	**10**	**50**
Silver	184	ug/l	12	0.52 J	0.54 J	0.53 J	0.32 J	0.39 J	0.41 J	0.56 J	-	0.37 U	**10**	**17.5**
Sulfate	315	ug/l	12	ND U	ND U	ND U	ND U	109000 J	ND U	ND U	-	ND U	**250000**	**250000**
TPH(DRO)		ug/l	12	ND U	ND U	ND U	ND U	0.94	ND U	ND U	-	ND U	**NE**	
VOC's **		ug/L	12	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	**Varies**	**Varies**
Acetone	3	ug/L	12	ND U	ND U	ND U	ND U	ND U	6.3 J	ND U	3.4 J	ND U	**100.00**	**700**
Toluene	196	ug/L	12	ND U	ND U	ND U	ND U	ND U	0.46 J	ND U	ND U	ND U	**1**	**1000**

*** Maximum Contaminant Level (MCL)**

Notes:

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BOLD VALUES indicate a values that attain or exceed the 15A NCAC 2L MCL.
ND = Not detected by Lab at or above adjusted reporting limit.
J = Parameters are estimated values greater than Method Detection Limit (MDL) but less than the SWSL
U = Value below Laboratory Reporting Limit
NS = No Sample - Insufficient volume in well to collect samples.
**** All EPA Method 8260 compounds not specifically listed were less than laboratory reporting limits.**
Trip Blank only analyzed for EPA Method 8260 Compounds

NC SWSL = North Carolina Solid Waste Section Limit
NE = Not established
Values in gray cells indicate values that attain or exceed the SWSL.
TPH(DRO) = Diesel Range Organics

Analytical results provided by Duke Energy and are found in
Pace Lab Report 9245667, dated June 18, 2009.

TABLE 2 - FIELD PARAMETERS

DUKE ENERGY MCGUIRE NUCLEAR STATION LANDFILL #2 - PERMIT #60-04 **July 31, 2009**

GROUNDWATER MONITORING REPORT

S&ME PROJECT 1411-09-047

DATE	WELL NO.	WELL DEPTH (feet)	DEPTH TO WATER (feet)	WATER ELEV. (feet)	DEPTH TO PRODUCT (feet)	ODOR	Purge Method	AVG * PMP RATE (ml/min)	WELL VOL (gal)	EVAC VOL (gal)	EVAC (yes/no)	TEMP (deg C)	SPECIFIC CONDUCTANCE (umho/cm)	pH (units)	TURBIDITY (NTU)	ORP (mV-NHE)	DO (mg/l)
6/2/2009	MW-5	63.90	62.18	706.13	N/A	NA	CP	N/A	0.28	0.00		0.0	0	0.0	0.0	N/A	N/A
6/2/2009	MW-5A	96.00	62.63	705.79	N/A	NA	CP	N/A	5.44	16.50	NO	16.8	60	6.3	0.9	N/A	N/A
6/2/2009	MW-6	37.20	29.45	699.00	N/A	NA	CP	N/A	1.26	6.25	NO	16.7	116	5.9	3.3	N/A	N/A
6/2/2009	MW-6A	47.90	28.65	700.33	N/A	NA	CP	N/A	3.14	9.75	NO	17.0	54	5.5	2.5	N/A	N/A
6/2/2009	MW-7	37.30	34.25	691.61	N/A	NA	CP	N/A	0.50	0.50	YES	19.6	42	5.8	21.0	N/A	N/A
6/2/2009	MW-7A	59.40	33.29	691.37	N/A	NA	CP	N/A	4.26	13.50	NO	17.1	111	6.6	1.2	N/A	N/A
6/2/2009	MW-8	71.50	63.33	696.27	N/A	NA	CP	N/A	1.33	1.50	YES	19.3	138	6.6	5.0	N/A	N/A
6/2/2009	MW-8A	84.40	63.24	696.44	N/A	NA	CP	N/A	3.45	10.50	NO	17.3	88	6.8	2.6	N/A	N/A
6/2/2009	MW-9	30.80	25.09	686.78	N/A	NA	CP	N/A	0.93	1.00	YES	21.6	68	5.6	4.8	N/A	N/A
6/2/2009	MW-9A	47.80	25.47	686.66	N/A	NA	CP	N/A	3.64	11.25	NO	18.8	97	6.3	1.4	N/A	N/A
6/2/2009	MW-10A	59.23	50.68	705.10	N/A	NA	CP	N/A	1.39	1.50	YES	16.8	26	5.3	220.0	N/A	N/A
6/2/2009	SW-1	N/A	N/A	NA	N/A	NA	CP	N/A	NA	N/A	NA	20.4	151	6.5	53.9	N/A	N/A
6/2/2009	SW-2	N/A	N/A	NA	N/A	NA	CP	N/A	NA	N/A	NA	20.2	120	7.1	16.5	N/A	N/A
6/2/2009	LEACHATE POND	N/A	N/A	NA	N/A	NA	CP	N/A	NA	N/A	NA	19.1	817	7.7	16.5	N/A	N/A

Purge Methods
LF = Low Flow
CP = Coventional Purge (3 to 5 well vol)
BP = No Purge (HydraSleeve)

Field sampling performed by Duke Energy

TABLE 3 - RADIOLOGICAL ANALYTICAL RESULTS
DUKE ENERGY MCGUIRE NUCLEAR STATION LANDFILL #2 - PERMIT #60-04
GROUNDWATER MONITORING REPORT
S&ME PROJECT 1411-09-047

July 31, 2009
Table 3

Facility: McGuire Nuclear Station Synthetically Lined Solid Waste Landfill No.2 - Permit No. 60-04
Sample Date: June 2, 2009 (Radiological Data)

Certificate Codes:

Duke Power Lab #248

Parameter	Units	Certificate Code	Monitoring Well Identification											Leachate Pond	Surface Water 1	Surface Water 2
			MW-5	MW-5A	MW-6	MW-6A	MW-7	MW-7A	MW-8	MW-8A	MW-9	MW-9A	MW-10A			
ALPHA	pCi/l	248	NS	< -0.310	< -0.150	<-0.0380	< -0.170	< -0.260	< 0.360	< -0.150	< -0.180	< -0.200	< 0.260	1.1	< -0.120	<-1.5E-4
BALA140	pCi/l	248	NS	< 4.716	< 5.899	< 6.392	< 5.763	< 4.557	< 4.781	< 9.776	< 5.199	< 4.279	< 5.349	< 3.765	< 7.534	< 6.264
BE7	pCi/l	248	NS	< 37.45	< 46.26	< 33.00	< 31.65	< 30.52	< 33.91	< 67.20	< 38.02	< 36.97	< 31.59	< 25.88	< 34.69	< 35.36
BETA	pCi/l	248	NS	< -0.790	< -1.30	< -1.80	< -1.20	< -1.30	< -0.210	< -0.720	< -1.80	< -1.70	< -0.580	11.8	< 0.490	< 0.0380
CO58	pCi/l	248	NS	< 4.899	< 5.574	< 3.684	< 3.596	< 3.039	< 3.988	< 6.352	< 4.213	< 4.566	< 3.592	< 2.585	< 3.831	< 3.829
CO60	pCi/l	248	NS	< 5.551	< 6.857	< 6.296	< 6.070	< 3.904	< 5.092	< 1.915	< 3.546	< 4.366	< 4.240	< 3.869	< 6.830	< 5.644
CS134	pCi/l	248	NS	< 4.389	< 5.085	< 4.687	< 5.013	< 3.160	< 4.375	< 7.396	< 4.057	< 4.918	< 4.170	< 2.575	< 4.069	< 4.002
CS137	pCi/l	248	NS	< 4.690	< 4.337	< 4.009	< 4.991	< 4.185	< 3.571	< 7.429	< 5.889	< 3.738	< 4.371	< 2.919	< 4.320	< 4.548
FE59	pCi/l	248	NS	< 9.071	< 8.812	< 9.702	< 7.786	< 6.905	< 8.114	< 13.80	< 8.920	< 9.165	< 7.690	< 6.310	< 11.21	< 12.22
H3	pCi/l	248	NS	< -30.8	< -28.3	< -32.9	< 28.2	< -21.6	< 4.40	< -37.3	< 88.1	< -16.6	< 55.7	356	< 8.28	< -14.5
I131	pCi/l	248	NS	< 5.044	< 4.847	< 4.399	< 5.334	< 3.897	< 3.848	< 7.528	< 4.078	< 5.762	< 3.875	< 3.127	< 5.508	< 5.023
K40	pCi/l	248	NS	238.3	< 92.92	100.9	< 98.45	96.63	64.69	< 157.5	103.9	108.4	< 77.81	101.7	117.2	78.84
MN54	pCi/l	248	NS	< 2.864	< 5.347	< 4.120	< 4.472	< 3.523	< 3.811	< 6.415	< 4.469	< 5.183	< 4.036	< 3.319	< 4.997	< 5.187
NB95	pCi/l	248	NS	< 4.803	< 6.529	< 5.241	< 4.932	< 4.271	< 3.820	< 3.791	< 4.551	< 4.260	< 4.473	< 2.464	< 5.160	< 4.204
ZN65	pCi/l	248	NS	< 9.248	< 7.956	< 9.331	< 9.934	< 7.505	< 7.828	< 3.280	< 9.726	< 9.789	< 9.882	< 7.081	< 8.840	< 8.972
ZR95	pCi/l	248	NS	< 8.175	< 8.108	< 6.727	< 7.460	< 5.026	< 7.113	< 14.27	< 9.951	< 7.172	< 6.764	< 4.187	< 7.093	< 7.805

NS - Not Sampled / Insufficient Volume In Well

Analytical results provided by Duke Energy.