



UCAR CARBON COMPANY INC.

P.O. Box 887, Niagara Falls, New York 14302-0887

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May 23, 2001

Ms. Mary F. McIntosh  
Engineering Geologist II  
NEW YORK STATE DEPARTMENT  
OF ENVIRONMENTAL CONSERVATION  
270 Michigan Avenue  
Buffalo, NY 14203-2999

Dear Ms. McIntosh:

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

The annual monitoring event for the above-referenced Site was conducted March 19 and 20, 2001. The sample collection and analyses were performed in accordance with the program outlined in the letters from M. McIntosh (New York State Department of Environmental Conservation) to R. Bucci (UCAR), dated January 18, 2000 and February 23, 2000. A sample collection and analysis summary is presented in Table 1, water level elevations measured at the time of sampling are presented in Table 2, and an analytical data summary is presented in Table 3. The analytical laboratory report for this sampling event is enclosed. The data obtained from this monitoring event are consistent with previous data.

The next Post-Closure Monitoring Program event will be conducted in September 2001.

Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Very truly yours,

Robert Bucci  
Site Manager

R. Bucci  
nm  
encl.  
cc: M. Hans, M. Hinton

**TABLE 1**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**UCAR REPUBLIC SWMF #32N03**

<i>Well No.</i>	<i>Purge Date</i>	<i>Sample Collection Date</i>	<i>One Well Volume (Gallons)</i>	<i>No. of Volumes Purged</i>	<i>Volume Purged (Gallons)</i>	<i>Analytical Parameters</i>			
						<i>Turbidity (NTUs)</i>	<i>VOCs</i>	<i>Total Metals</i>	<i>General Parameters</i>
BW-1	03/20/01	03/20/01	9.9	3	30	16	x	x	x
GW-9B	03/20/01	03/20/01	3.3	3	11	13	x	x	x
GW-8B	03/20/01	03/20/01	3.6	3	11	10	x	x	x
BW-5	03/21/01	03/21/01	13.1	3	48	6	x	x	x
MW-2	03/20/01	03/20/01	0.8	<1	0.5	48	x	x	x
MW-3	03/21/01	03/21/01	2.1	5	11	37	x	x	x
BW-2	03/20/01	03/20/01	12.3	2.5	31	33	x	x	x
BW-4	03/20/01	03/20/01	9.5	3	31	16	x	x	x
BW-3	03/20/01	03/20/01	7.8	4	33	20	x	x	x
BW-6	03/20/01	03/20/01	11.8	2.5	30	19	x	x	x
MW-1	03/20/01	03/21/01	5.3	<1	2.5	22	x	x	x

Notes:  
 NTUs Nephelometric Turbidity Units.  
 VOCs Volatile Organic Compounds.

**TABLE 2**  
**SUMMARY OF WATER LEVEL ELEVATIONS**  
**UCAR REPUBLIC SWMU #32N03**

<i>Well No.</i>	<i>TOC Elevation (ft. AMSL)</i>	<i>Water Level Elevation (ft. AMSL)</i>	
		<i>Sep-05</i>	<i>Mar-05</i>
MW-1	612.00	603.77	601.80
MW-2	608.17	585.27	584.57
MW-3	601.89	591.19	599.27
BW-1	610.72	593.02	596.64
BW-2	608.43	595.00	597.18
BW-3	604.72	590.32	598.52
BW-4	607.08	594.83	600.19
BW-5	603.33	590.93	599.21
BW-6	607.04	594.54	595.47
GW-8B	603.90	574.40	596.64
GW-9B	603.40	589.83	591.73

**Notes:**

ft. AMSL    Feet Above Mean Sea Level.

TOC        Top of Casing

TABLE 3

ANALYTICAL RESULTS SUMMARY  
SEMI-ANNUAL GROUNDWATER MONITORING  
UCAR REPUBLIC SWMF #32NO3  
MARCH 2001

	<i>Location ID:</i>	<i>BW-1</i>	<i>BW-1</i>	<i>BW-2</i>	<i>BW-3</i>	<i>BW-4</i>	<i>BW-5</i>	<i>BW-6</i>
	<i>Collection Date:</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/20/01</i>	<i>03/19/01</i>
<i>Parameters</i>	<i>Units</i>		<i>(Field Duplicate)</i>					
<b>Volatiles</b>								
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	14	14	7.2	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	180	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	32	5.0 U	5.0 U
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

**TABLE 3**  
**ANALYTICAL RESULTS SUMMARY**  
**SEMI-ANNUAL GROUNDWATER MONITORING**  
**UCAR REPUBLIC SWMF #32NO3**  
**MARCH 2001**

	<i>Location ID:</i>	<i>BW-1</i>	<i>BW-1</i>	<i>BW-2</i>	<i>BW-3</i>	<i>BW-4</i>	<i>BW-5</i>	<i>BW-6</i>
	<i>Collection Date:</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/19/01</i>	<i>03/20/01</i>	<i>03/19/01</i>
<i>Parameters</i>	<i>Units</i>		<i>(Field Duplicate)</i>					
<b><i>Volatiles (Cont'd.)</i></b>								
Trichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	140	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	37	5.0 U	5.0 U
Total Xylenes	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
<b><i>Total Metals</i></b>								
Iron	mg/L	2.25	2.19	1.70	0.252	2.02	1.16	2.55
Potassium	mg/L	7.38	7.59	6.59	2.00 U	9.68	2.13	2.00 U
Zinc	mg/L	0.244	0.208	0.108	0.266	0.0239	0.0848	0.0200 U
<b><i>General Chemistry</i></b>								
Ammonia	mg/L	1.26	1.36	0.777	0.0500 U	1.90	0.118	0.0662
Nitrite Nitrogen	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Total Kjeldahl Nitrogen (TKN)	mg/L	1.55	1.53	1.02	0.200 U	1.94	0.200 U	0.200 U

Notes:

U Non-detect at associated value

**TABLE 3**  
**ANALYTICAL RESULTS SUMMARY**  
**SEMI-ANNUAL GROUNDWATER MONITORING**  
**UCAR REPUBLIC SWMF #32NO3**  
**MARCH 2001**

<i>Parameters</i>	<i>Location ID: γ-6</i>		<i>MW-1</i>	<i>MW-2</i>	<i>MW-3</i>	<i>GW-8B</i>	<i>GW-9B</i>
	<i>Collection Date: 9/01</i>		<i>03/20/01</i>	<i>03/19/01</i>	<i>03/20/01</i>	<i>03/19/01</i>	<i>03/19/01</i>
	<i>Units</i>						
<i>Volatiles</i>							
Acetone	ug/L	U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	ug/L	U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	ug/L	U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	U	5.0 U	5.0 U	5.0 U	18	5.0 U
trans-1,2-Dichloroethene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	ug/L	U	10 U	10 U	10 U	10 U	10 U
Styrene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

**TABLE 3**  
**ANALYTICAL RESULTS SUMMARY**  
**SEMI-ANNUAL GROUNDWATER MONITORING**  
**UCAR REPUBLIC SWMF #32NO3**  
**MARCH 2001**

<i>Parameters</i>	<i>Location ID: J-6</i>		<i>MW-1</i>	<i>MW-2</i>	<i>MW-3</i>	<i>GW-8B</i>	<i>GW-9B</i>
	<i>Collection Date: 9/01</i>		<i>03/20/01</i>	<i>03/19/01</i>	<i>03/20/01</i>	<i>03/19/01</i>	<i>03/19/01</i>
	<i>Units</i>						
<b><i>Volatiles (Cont'd.)</i></b>							
Trichloroethene	ug/L	U	5.0 U	5.0 U	5.0 U	8.0	5.0 U
Vinyl chloride	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Xylenes	ug/L	U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
<b><i>Total Metals</i></b>							
Iron	mg/L		20.2	435	6.76	0.103	0.176
Potassium	mg/L	U	35.5	3.53	3.65	7.49	4.53
Zinc	mg/L	U	0.266	16.7	0.0403	0.181	0.0200 U
<b><i>General Chemistry</i></b>							
Ammonia	mg/L		5.99	0.409	0.0500 U	0.136	0.570
Nitrite Nitrogen	mg/L	U	0.0174	0.0159	0.0133	0.0100 U	0.0100 U
Total Kjeldahl Nitrogen (TKN)	mg/L	U	8.51	4.12	0.488	0.200 U	0.741

## Notes:

U Non-detect at associated value