

January 14, 2009

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Bureau of Construction Services  
625 Broadway, 12<sup>th</sup> Floor  
Albany, New York 12233-7013

Attn: Jeffrey E. Trad, P.E.  
Environmental Engineer II

Re: Sonia Road Landfill Remediation Program  
Site Registry No. 152013  
Post Closure Program

Dear Mr. Trad:

Attached please find the Fourth Quarter Sonia Road Post Closure Monitoring Report for 2008. Also included is the October, November and December 2008 Gas Migration Monitoring Report; the Fourth Quarter Groundwater Monitoring Well Condition Report as well as the total number of cars stored on site.

If there are any questions please contact me at (631) 224-5645.

Sincerely,

*Alan R. Sanchez*

Alan R. Sanchez  
Vice-President of Operations

ARS:lmb

cc: Christopher A. Andrade, President  
Anthony J. Varrichio, P.E., Chief Engineer  
Joe Cosci, Construction Coordinator  
File

lmb\_NYSDEC\_1-14-09\_Trad\_Rpt\_Sonia Rd 4th Quart 2008 PCMR



**POST-CLOSURE MONITORING AND MAINTENANCE REPORT  
SONIA ROAD LANDFILL  
BRENTWOOD, NEW YORK**

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**SITE INSPECTION CHECKLIST**

TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

SOIL COVER

DATE: 12/17/08

Quarterly Inspection  Storm Inspection

INSPECTION BY: FAZIL RAHMAN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
F1, F2	C	7	(Y)N # 2	AROUND LFG RECOVER WELL/VALE VACUUM #13
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	

PROBLEM CODE	
a	erosion damage
b	slope movement
c	ponding (> 10'x10')
d	holes
e	cracking
f	rutting of soils
g	waste breakthrough
h	leachate breakthrough
i	exposed geosynthetics
j	vandalism
k	vector infestation
l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year
7	BEING MONITORED

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If entire site Soil Cover is acceptable, check box and sign below.

Signature: \_\_\_\_\_



TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

REVETMENT MATTING (RIP RAP)

DATE: 12/17/08

Quarterly Inspection  Storm Inspection

INSPECTION BY: FAZIL RAHMAN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Side Slopes</b>				
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
<b>Gabion Curb</b>				
<u>B3/B4</u>	<u>L</u>	<u>4</u>	<u>Y/N # 1</u>	
			Y/N #	
			Y/N #	
			Y/N #	

PROBLEM CODE	
a	vandalism
b	slope movement
c	vector infestation
d	holes
e	holes in wire fabric
f	settlement
g	waste breakthrough
h	leachate breakthrough
i	exposed geosynthetics
j	damaged baskets
k	loose ties
l	<u>DEPRESSION</u>

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If all Revetment Matting (Rip Rap) and Gabion Curbs are acceptable, check box and sign below.

Signature: \_\_\_\_\_

**TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST**

**ACCESS ROADS**

Quarterly Inspection  Storm Inspection

DATE: 12/17/08

INSPECTION BY: FAZIK RAHMAN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
A4, B5, E1	A&G	4	YIN # 3	
E5, F1, F5	A&G	4	YIN # 3	
G1, G5	A&G	4	YIN # 2	
C5	D&G	4	YIN # 2	
A3, H1	C	4	YIN # 3	AROUND OR WELL LOCATED IN ROADWAY BETWEEN FENCE & ACCESS ROAD.
			YIN #	
			YIN #	
			YIN #	
			YIN #	
			YIN #	

**Directions:**  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

PROBLEM CODE	
a	potholes
b	burrow holes
c	erosion gullies
d	loss of stone cover
e	exposed geotextile
f	obstructions/debris
g	depressions
h	
i	
j	
k	
l	

If all Access Roads are acceptable, check box and sign below.

Signature: \_\_\_\_\_

TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (1 of 4)

DATE: 12/17/08

Quarterly Inspection  Storm Inspection

INSPECTION BY: EZZIE RAHAMAN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Perimeter Swales</b>				
E5, E5, C5	D, B	7	Y(N) # 4	
G1, H4	G	6	Y(N) #	RE: TO PHOTO'S FROM Q3 FIRST QUARTER REPORT.
			YIN #	
			YIN #	
<b>Diversion Swales</b>				
B4	F	1	Y(N) # 1	TREE STUMP
G4, H4	K	5	Y(N) #	AROUND CULVERT'S / LOCATED ON SOUTHWEND.
			YIN #	
			YIN #	

PROBLEM CODE	
a	vandalism
b	slope movement
c	silt accumulation
d	ponded water
e	vegetative cover
f	debris / clogging
g	erosion control fabric
h	loss of topsoil
i	exposed geosynthetics
j	wash outs
k	DEAD VEGETATION
l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year
7	BEING MONITORED

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If Perimeter Swales and Diversion Swales are acceptable, check box and sign below

Signature: \_\_\_\_\_

TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (2 of 4)

Quarterly Inspection  Storm Inspection  DATE: 12/17/08 INSPECTION BY: FAZIL RAHMAN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Inlet Structures</b>				
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
<b>Rip Rap Drainway</b>				
<u>B4</u>	<u>L</u>	<u>4</u>	<u>Y/N</u> #	<u>Culvert Outlets REMOVE</u>
			Y/N #	
			Y/N #	
			Y/N #	

PROBLEM CODE	
a	vandalism
b	slope movement
c	silt accumulation
d	ponded water
e	vegetative cover
f	debris / clogging
g	erosion control fabric
h	loss of stone
i	loss of topsoil
j	soil erosion around
k	soil erosion beneath
l	woody vegetation

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

**Directions:**  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If Inlet Structures and Rip Rap Drainway are acceptable, check box and sign below.

Signature: \_\_\_\_\_

TOWN OF ISLIP  
 SONIA ROAD LANDFILL  
 POST CLOSURE MONITORING AND MAINTENANCE PLAN  
 SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (3 of 4)

DATE: 12/17/08

INSPECTION BY: FAZIL RAHMAN

Quarterly Inspection  Storm Inspection

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Energy Dissipators</b>				
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
<b>Downchutes</b>				
B4	L	4	Y(N) #	REMOVE.
B5	M	4	Y(N) #	REMOVE.
			Y/N #	
			Y/N #	

PROBLEM CODE	
a	vandalism
b	slope movement
c	silt accumulation
d	ponded water
e	damage / instability
f	debris / clogging
g	soil erosion around
h	loss of stone
i	soil erosion beneath
j	loose ties on baskets
k	slippage of gabion
l	woody vegetation

M DEAD VEGETATION

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:  
 List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If Energy Dissipators and Downchutes are acceptable, check box and sign below.

Signature: \_\_\_\_\_



TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (4 of 4)

Quarterly Inspection  Storm Inspection \_\_\_\_\_  
DATE: 12/17/08

INSPECTION BY: ERIK RAWANEN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Drywells</b>				
			Y/N #	
			Y/N #	
			Y/N #	
			Y/N #	
<b>Culverts / Outlets</b>				
<u>A3, A5, B5</u>	<u>K</u>	<u>4</u>	<u>Y(N) #</u>	<u>REMOVE.</u>
<u>D1, E1, G1</u>	<u>K</u>	<u>4</u>	<u>Y(N) #</u>	<u>REMOVE.</u>
<u>H1, G4, H4</u>	<u>K</u>	<u>4</u>	<u>Y(N) #</u>	<u>REMOVE.</u>

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

PROBLEM CODE	
a	vandalism
b	slope movement
c	silt accumulation
d	pounded water
e	vegetative cover
f	debris / clogging
g	erosion control fabric
h	soil erosion around
i	exposed geosynthetics
j	damage / instability
k	<u>DEAD VEGETATION</u>
l	

If Drywells and Culverts are acceptable, check box and sign below.

Signature: \_\_\_\_\_

TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

RECHARGE BASINS

Quarterly Inspection  Storm Inspection \_\_\_\_\_ DATE: 12/17/08  
INSPECTION BY: FAZIL RAHMAN

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Recharge Basin No. 1</b>				
A3	A	4	Y/N #	ACCESS ROAD.
			Y/N #	
			Y/N #	
			Y/N #	
<b>Recharge Basin No. 2</b>				
A5	A	4	Y/N #	ACCESS ROAD.
			Y/N #	
			Y/N #	
			Y/N #	

PROBLEM CODE	
a	vegetation / DEAD VEGETATION
b	sideslope erosion
c	sideslope failures
d	silt accumulation
e	overflow conditions
f	debris / clogging

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If both Recharge Basins are acceptable, check box and sign below.

Signature: \_\_\_\_\_

TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

MONITORING WELLS

Quarterly Inspection  Storm Inspection  DATE: 12/17/08  
INSPECTION BY: FAZIL RAHMAN

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Landfill Gas Monitoring Wells				See well condition reports prepared by Town consultants. F.P.M.
			YIN #	ALSO RE: D. ATTACHED MEMORANDUM DATED 11/16/06
			YIN #	
			YIN #	
Groundwater Monitoring Wells				See well condition reports prepared by Town consultants. H.Z.K.
	65, IAD	E	DIN # 2	AROUND PRE-CAST.
			YIN #	ALSO RE: D. ATTACHED MEMORANDUM DATED 11/16/06
			YIN #	

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

PRIORITY CODE
1
2
3
4
5
6

PROBLEM CODE
a
b
c
d
e
f

If all Monitoring Wells are acceptable, check box and sign below.

Signature: \_\_\_\_\_



TOWN OF ISLIP  
 SONIA ROAD LANDFILL  
 POST CLOSURE MONITORING AND MAINTENANCE PLAN  
 SITE INSPECTION CHECKLIST

LANDFILL GAS COLLECTION SYSTEM

Quarterly Inspection  Storm Inspection   
 DATE: 12/17, 12/22/08, 1/9/09  
 INSPECTION BY: FAZIL RAHMAN.

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>LFG Recovery Wells / Valve Vaults</b>				
12	M	1	YIN # 1	RE: TO PG. 14 FOR ADDITIONAL INFORMATION.
13	M	1	YIN # 2	APPROXIMATELY FOUR INCHES.
14	M	7	YIN # 1	FILLED TO THE TOP.
15	M	1	YIN # 1	APPROXIMATELY TWO INCHES.
<b>LFG Collection Wells (GC1 - GC16)</b>				
13, 4, 8	M	1	YIN # 7	RE: TO PG. 14 FOR ADDITIONAL INFORMATION.
2, 7	D	7	YIN # 1	#1=2" H2O, #3=2.6" H2O, #4=3" H2O, #8=3" H2O.
5	D	7	YIN # 1	HEADER PIPE OFF CENTER IN RELATION TO ACCESS COVER & CLOSED PRE-CAST.
6	D	1	YIN # 2	SAND PERCOLATING, THROUGH A SUMP OPENING.
MINIMAL CLEARANCE BETWEEN VALVING STRUCTURE & PRE-CAST.				

PROBLEM CODE	
a	odor
b	damage
c	vandalism
d	settlement
e	vector infestation
f	no vacuum
g	broken valve
h	broken piping
i	exposed geosynthetics
j	damage / instability
k	soil erosion around
l	access restricted
M	STANDING WATER

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year
7	BEING MONITORED

Directions:  
 List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If entire site Landfill Gas Collection System is acceptable, check box and sign below.

Signature: \_\_\_\_\_

TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST

LANDFILL GAS COMPOUND

Quarterly Inspection  Storm Inspection

DATE: 12/19/08  
INSPECTION BY: FAZIL RAHMAN

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Blower Pad / Blower Nos. 104A and 104B				
104A			Y/N #	DE-ENERGIZED. SCHED. NEED TO BE INJECTED W/ST AIR.
104B	JAK	4	Y/N # 1	TEMP. A OUTLET GAUGES, ALSO OIL LEAK BETWEEN RAILS/HOUSING.
Flare			Y/N #	USED FOR VENTING ONLY.
Condensate Storage			Y/N #	
ACCESS COVER	K	4	Y(N) #	Liquid Volume = 0.3 @ 3 gallons Alarms: Y(N) Test System: OK/ Not Successful REPLACE BROKEN BOLTS ON WITH DEGREE L APE ACCESS COVER.

PROBLEM CODE	
a	odor
b	damage
c	vandalism
d	mechanical noise
e	no vacuum
f	alarms
g	broken valve
h	broken piping
i	broken belts
j	gauges
k	OIL LEAK
l	SEAL/GASKET

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If entire Landfill Gas Compound is acceptable, check box and sign below.

Signature: \_\_\_\_\_

**TOWN OF ISLIP  
SONIA ROAD LANDFILL  
POST CLOSURE MONITORING AND MAINTENANCE PLAN  
SITE INSPECTION CHECKLIST**

**SITE FACILITIES**

Quarterly Inspection  Storm Inspection  DATE: 12/19/08

INSPECTION BY: FAZIL RAHMAN

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
<b>Electrical Panels and Control Panels</b>				
FLARE	G	4	Y(N) #	Lights tested (Y)N
FLARE	C	1	Y(N) #	BLOWER 104A & 104B, SUPP. FUEL, INLET 104A & 104B OPEN. INLET GAS HIGH TEMP., ON DIGITAL SCREEN.
<b>Gates / Locks / Signs</b>				
			Y/N #	
<b>Fencing (Identify location by Grid I.D.)</b>				
EL, F1	I, A, J	7	Y(N) # 1	SEE ATTACHED MEMORANDUM DATED 11/6/06
<b>Site Trailer</b>				
			Y/N #	

**Directions:**  
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year
7	BEING MONITORED

PROBLEM CODE	
a	damage
b	vandalism
c	alarms
d	missing locks
e	missing signs
f	hole in fence fabric
g	replace indicator lights
h	tripped / reset required
i	SLOPE MOVEMENT
j	FENCE MOVEMENT
k	
l	

If all Site Facilities are acceptable, check box and sign below.

Signature: \_\_\_\_\_

TOWN OF ISLIP  
 SONIA ROAD LANDFILL  
 POST CLOSURE MONITORING AND MAINTENANCE PLAN  
 SITE INSPECTION CHECKLIST

COMMENTS

Quarterly Inspection

Storm Inspection

DATE: 12/17, 12/22/08, 1/9/09

INSPECTION BY: FAZIL RAHMAN

ADDITIONAL COMMENTS AS REQUIRED

LEG-RECOVERY WELLS/WELLS #16, 17, 18, WILL BE INSPECTED NEXT QUARTER.

LEG-COLLECTION WELLS #9, 10, 11, 12, 13, 14, 15, 16, WILL BE INSPECTED NEXT QUARTER.

GC-WELL #3 ACCUMULATES WATER, BE TO ATTACHED MEMORANDUM DATED 11/6/06.

GC-WELL'S #1, 4, & 8 ALSO ACCUMULATES WATER, AS PER THIS QUARTER INSPECTION.

GC-WELL'S #14, 15, 16, BEING MONITORED MINIMAL CLEARANCE BETWEEN HEADER PIPE & ACCESS COVER.

GC-WELL'S #8 & 11 BOTH EXTENSION PRESSING UP AGAINST SLUMP OPENING.

GC-WELL #13 MINIMAL CLEARANCE BETWEEN HEADER PIPE & PPE-CAST.

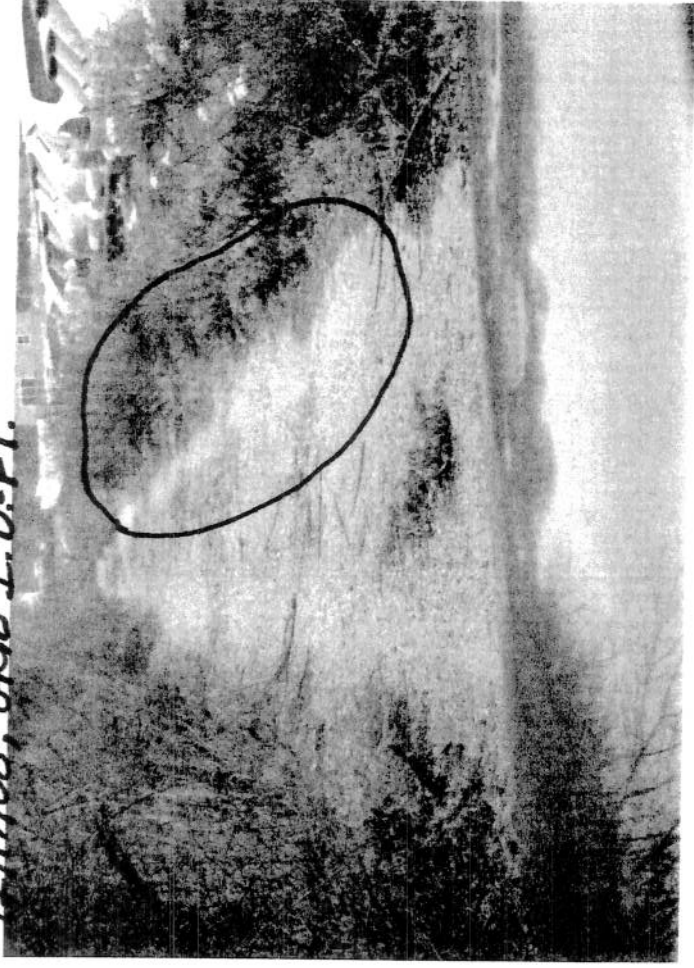
NOTE: ATTACHED ARE 41 PHOTOS, MEMORANDUM DATED 11/6/06, F.P.M. OCTOBER, NOVEMBER  
 DECEMBER OR GAS MONITORING REPORTS, H2M 2008 FOURTH QUARTER REPORT,  
 & ATLANTIC AUTO CAR COUNT DATED 12/20/08.

Site Inspection has been completed, check box and sign below.

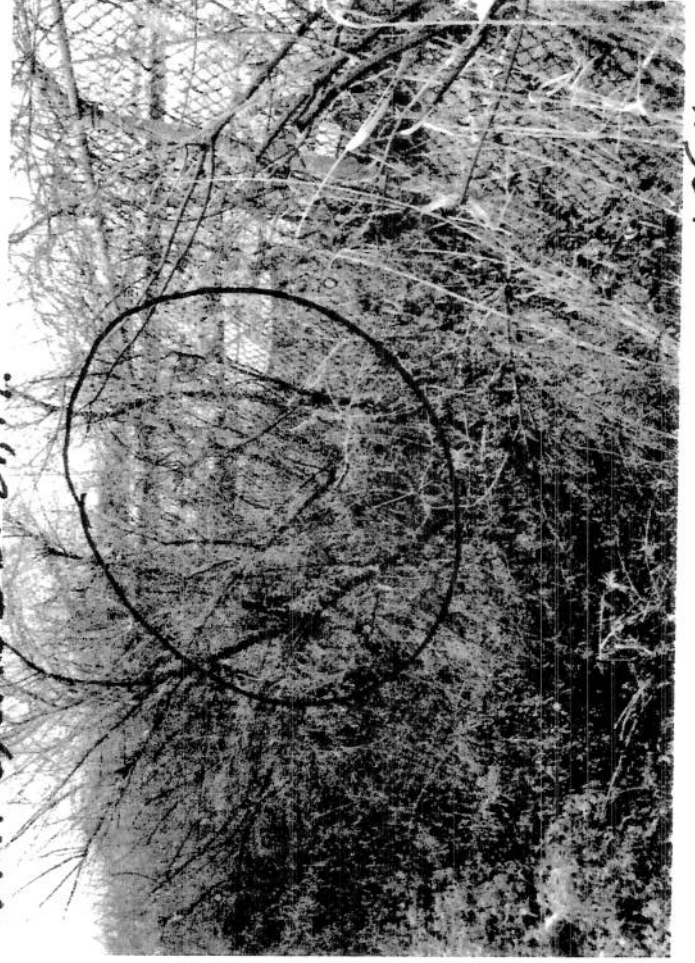
Signature: \_\_\_\_\_



12/17/08, GRID I.D.-E1.



12/17/08, GRID I.D.-E1, F1.



12/17/08, GRID I.D.-E1, F1.



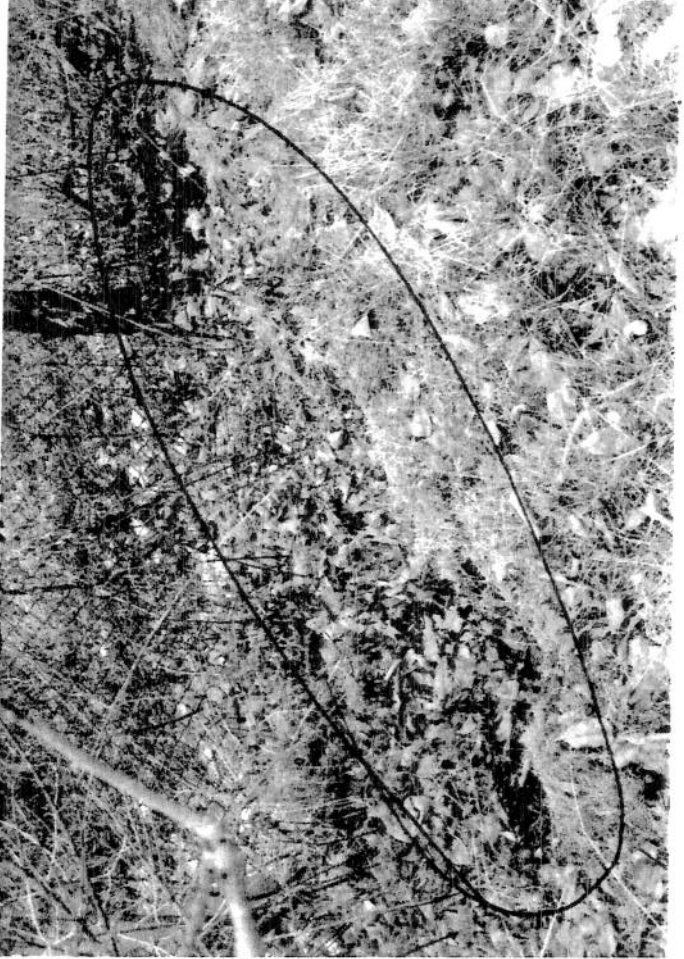
12/19/08, BLOWER 104 B.



12/17/08, G.W. H.W.-G.S.I., D.



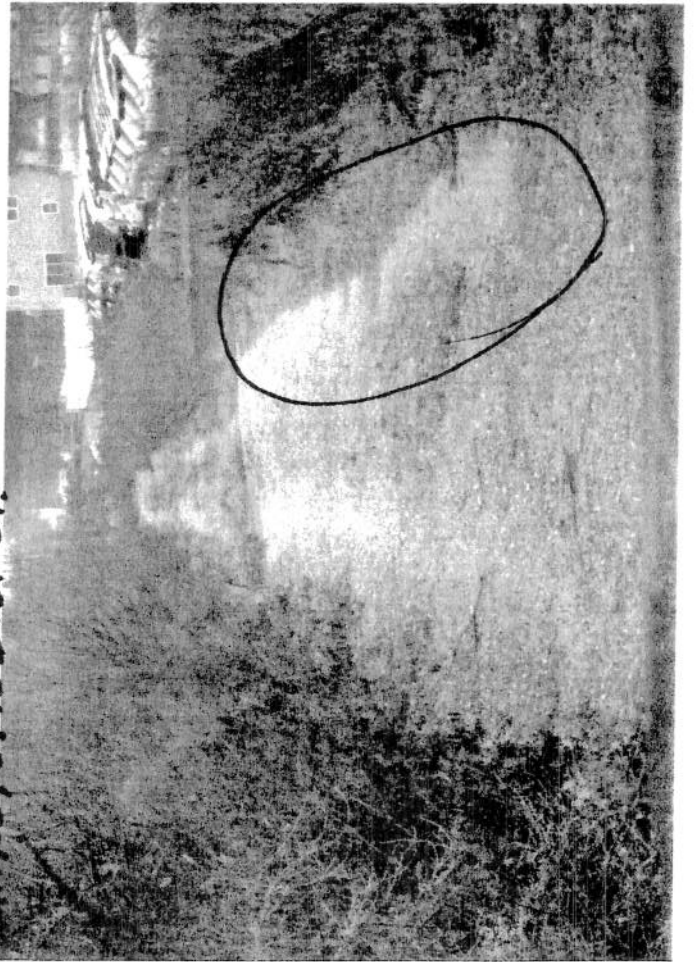
12/17/08, GRID I.D.-H1.



12/17/08, GRID I.D.-H1.



12/17/08, GRID I.D.-G1.

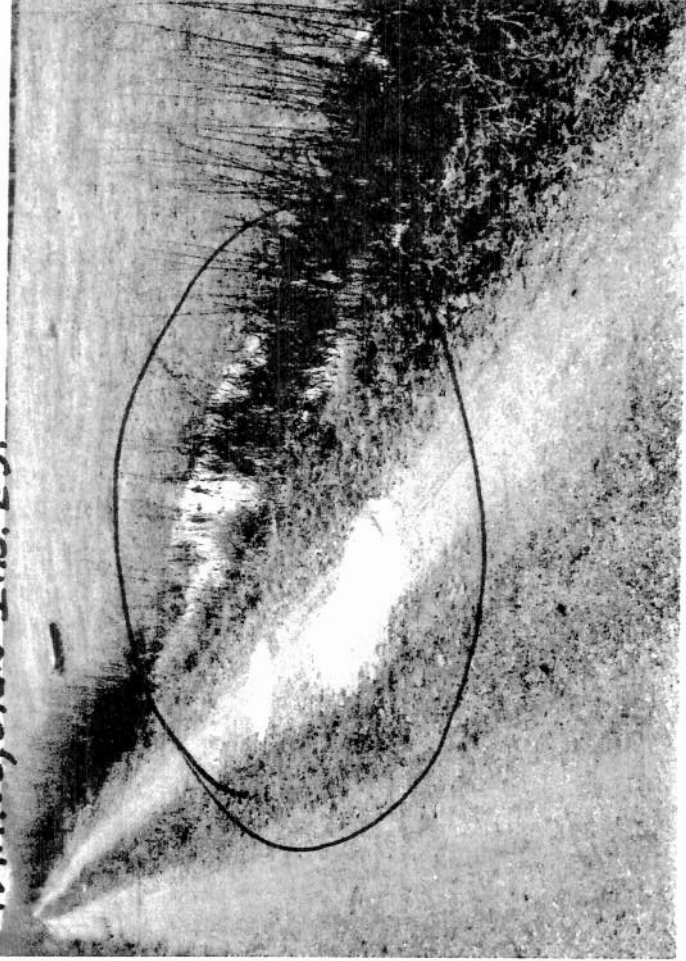




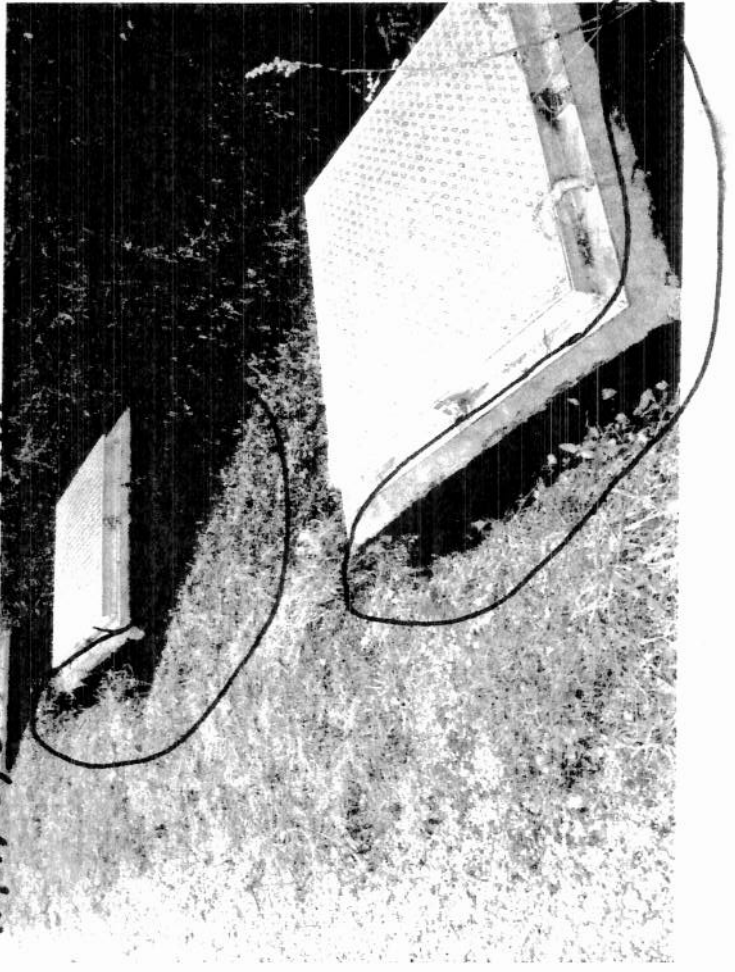
12-17-08, GRID I. D. - G-5.



12-17-08, GRID I. D. - E-5.



12-17-08, GW. M. W. - G I. D.



12-17-08, GRID I. D. - F-5.



12-17-08, GRID I.O. - A4.

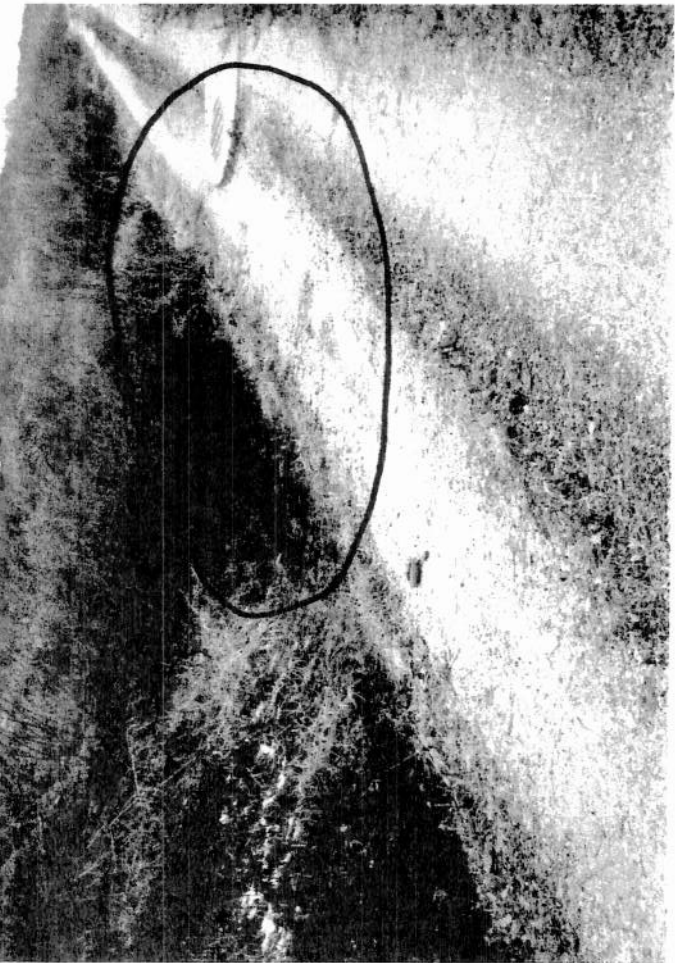


12-17-08, GRID I.O. - E5.



40FM

12-17-08, GRID I.O. - C5.

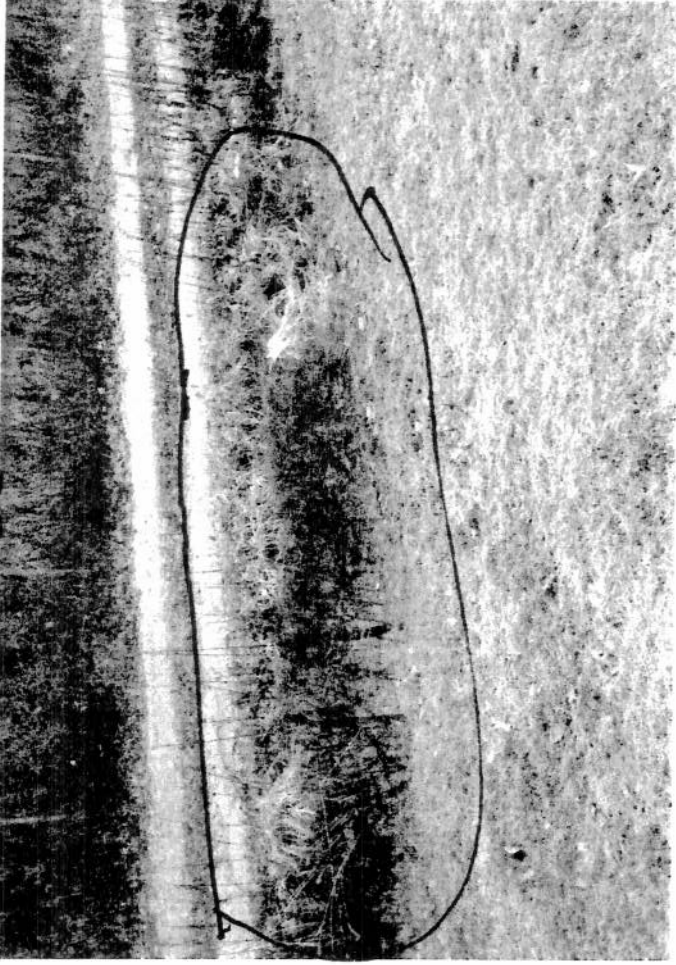


12-17-08, GRID I.O. - C5.





12/17/08 GR10 I.O.-E5

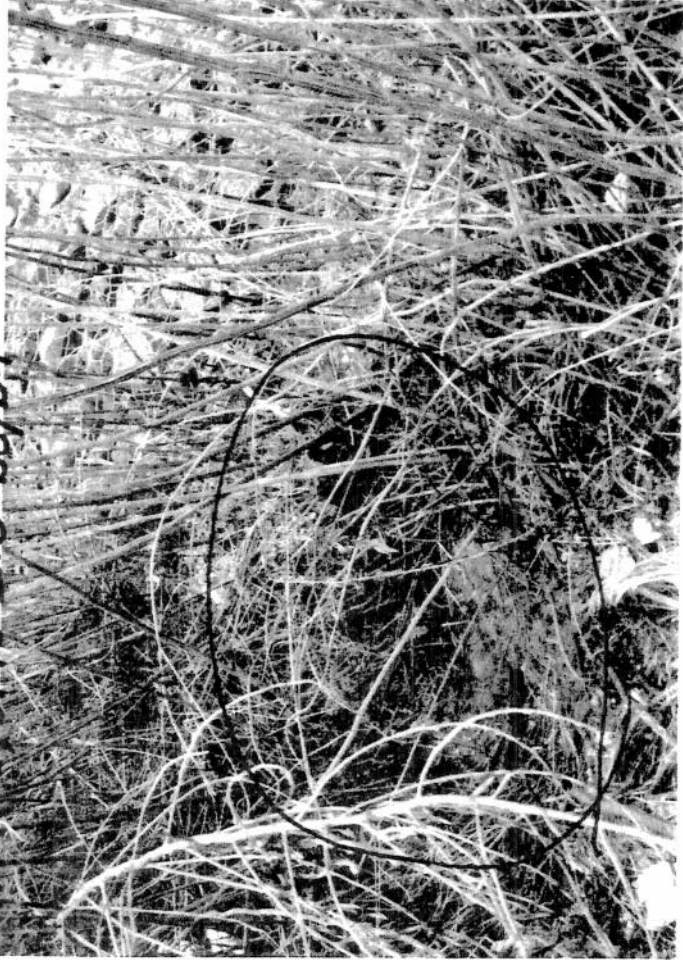


12/17/08, GR10 I.O.-B4



5 OF 11

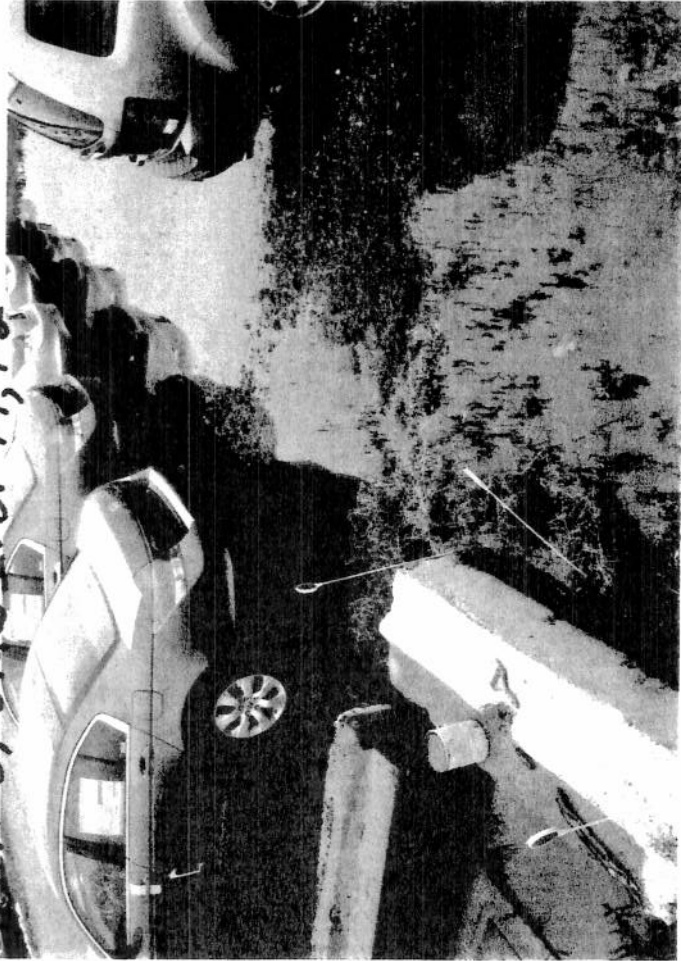
12/17/08 GR10 I.O.-B3/B4



12/17/08, GR10 I.O.-A3



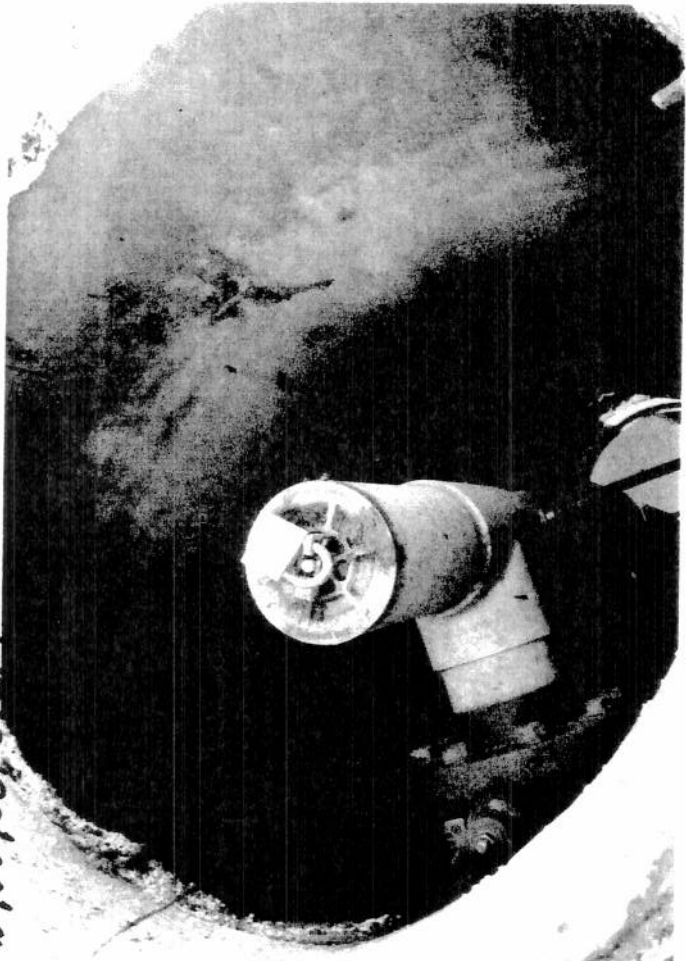
12/17/08, GRID I.O. - F1, F2



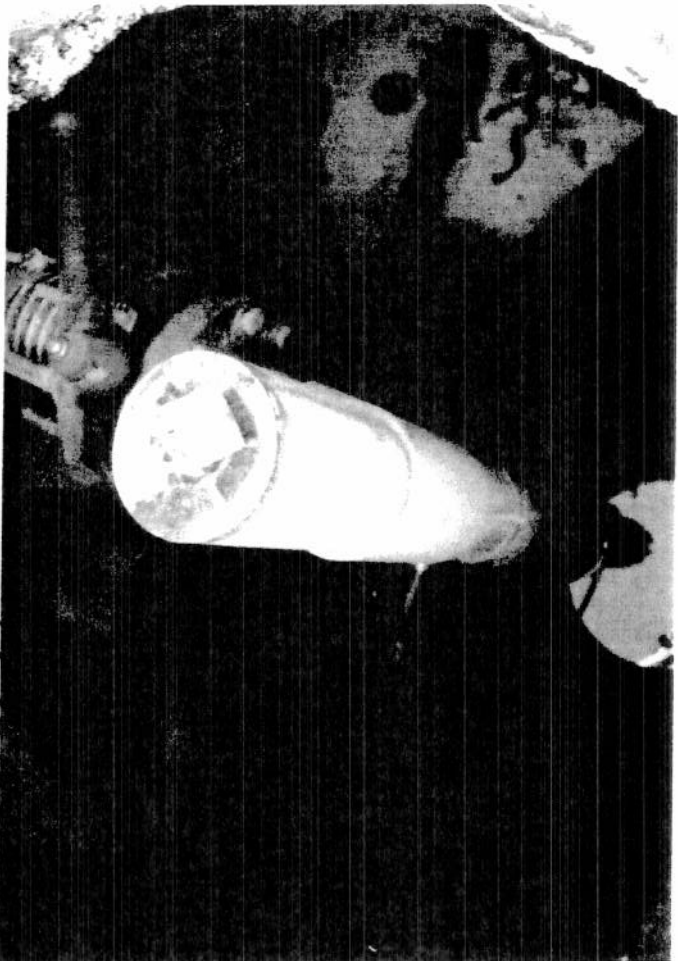
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12/22/08, G.C. 4

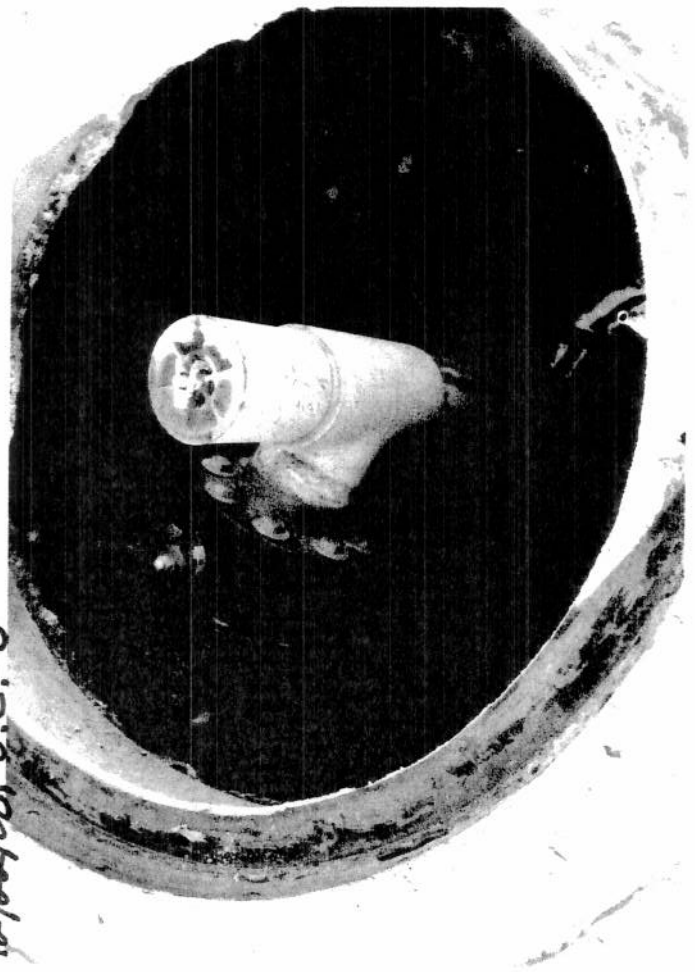


12/22/08, G.C. 4



70F11

12/22/08, G.C. -3

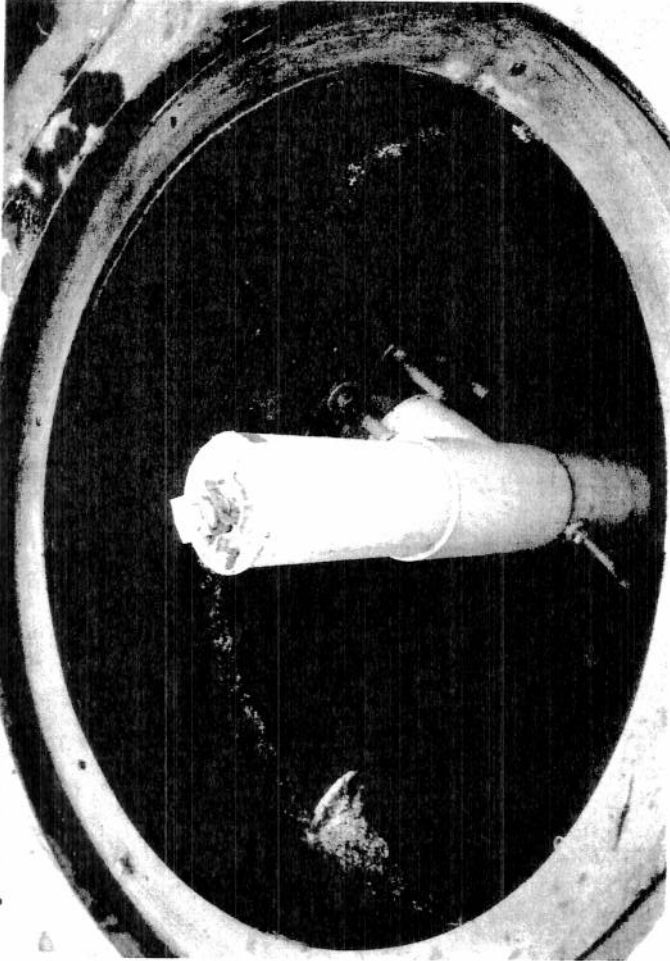


12/22/08, G.C. -3

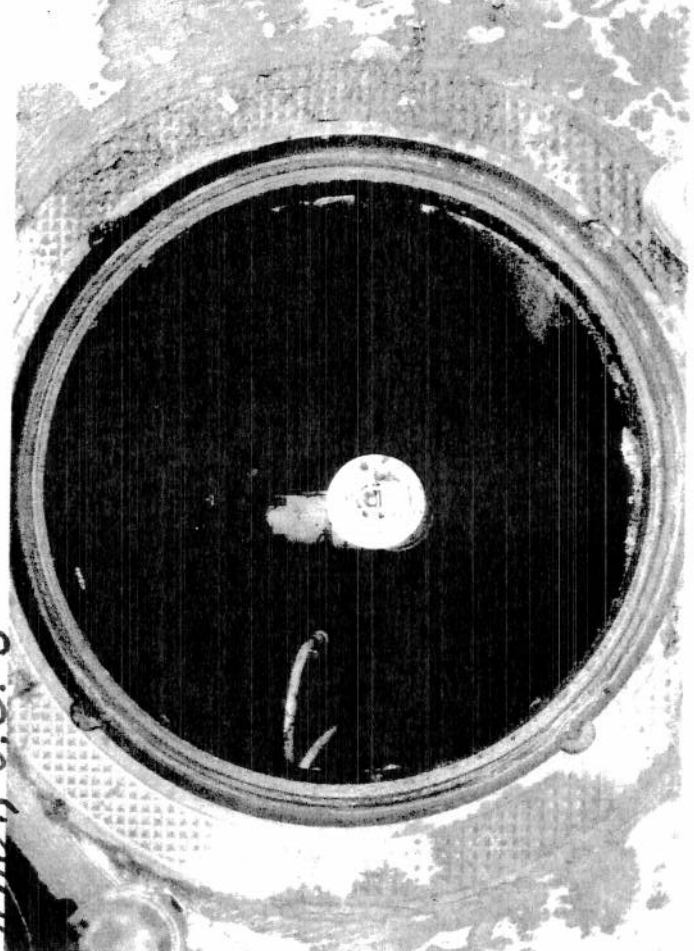




1/9/09, G.C.-6

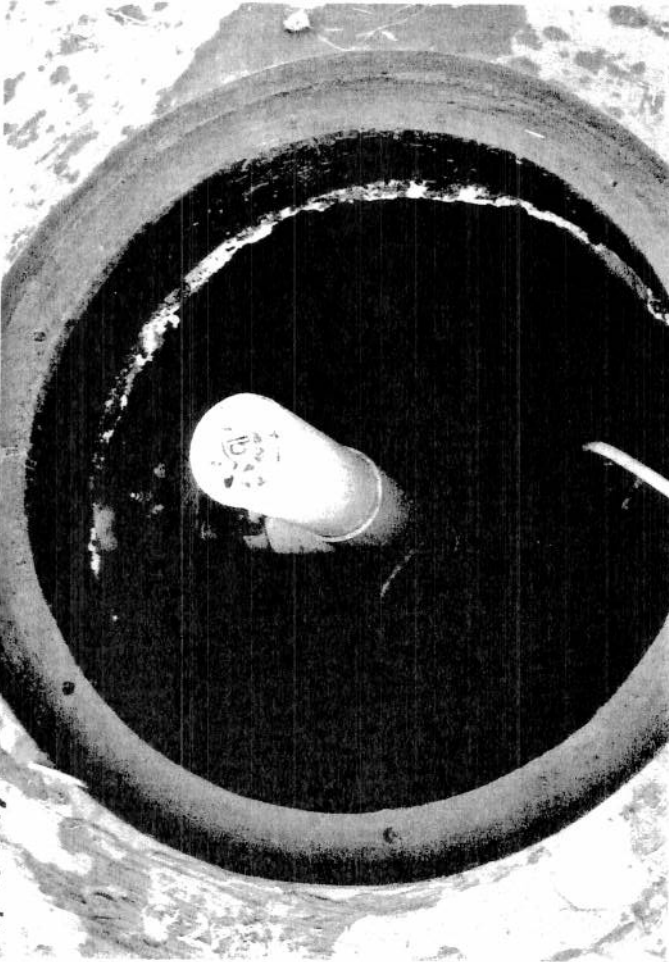


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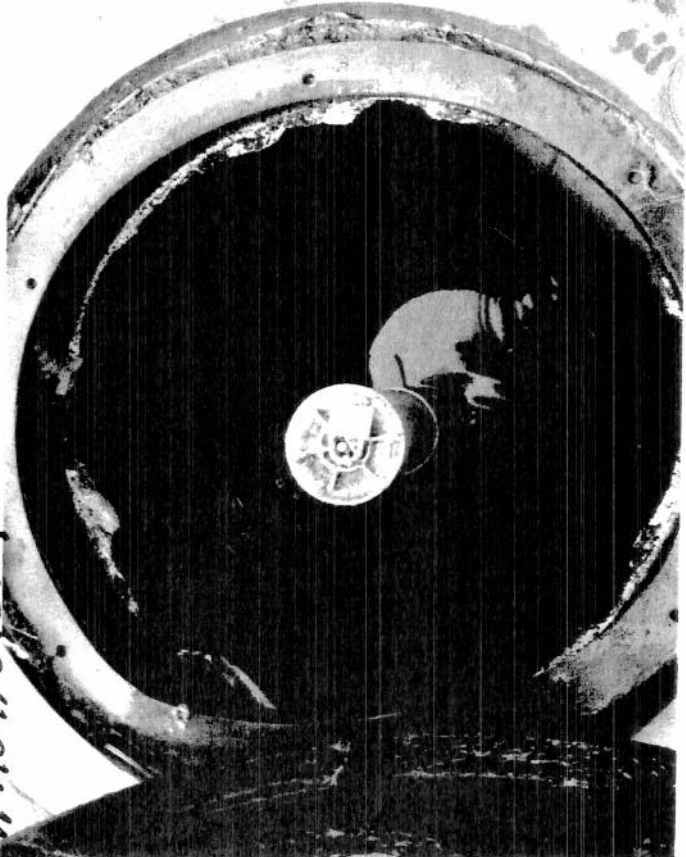


8 of 11

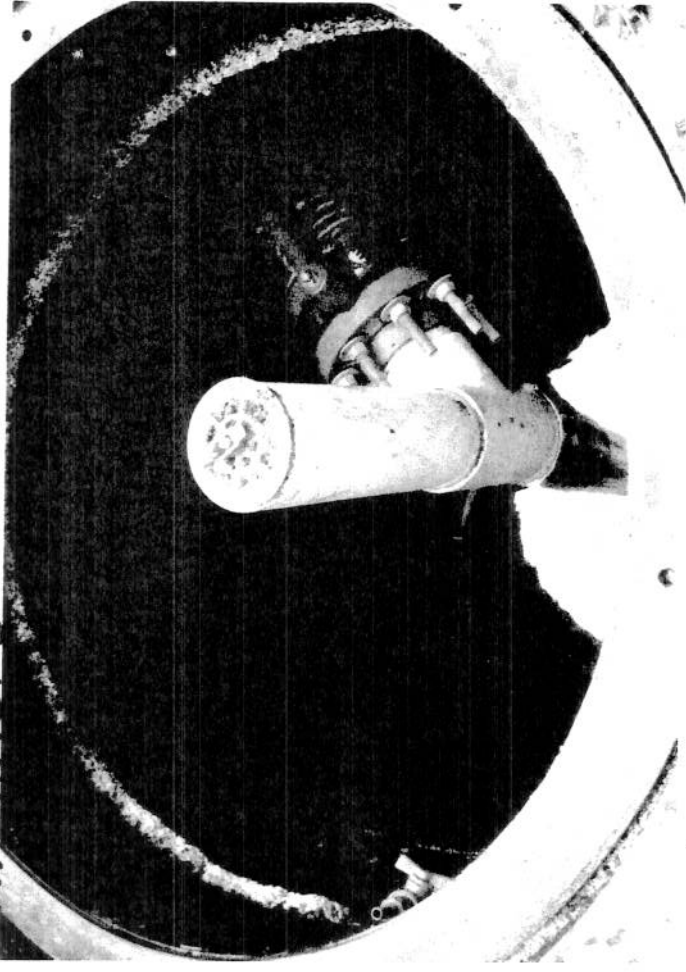
1/9/09, G.C.-2



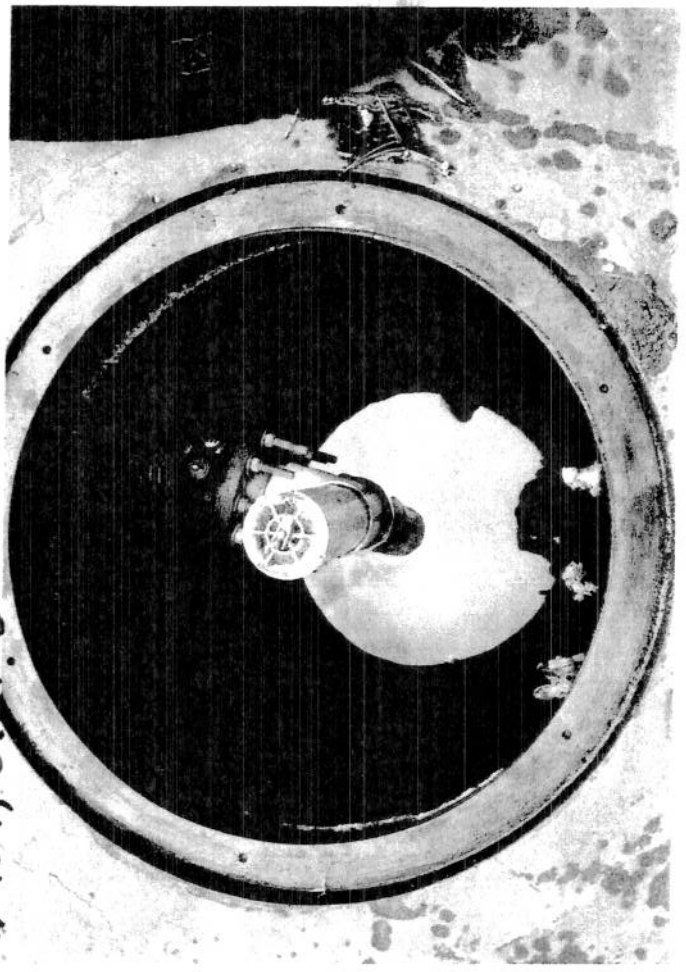
1/9/09, G.C.-1



1/9/09, G.C.-8

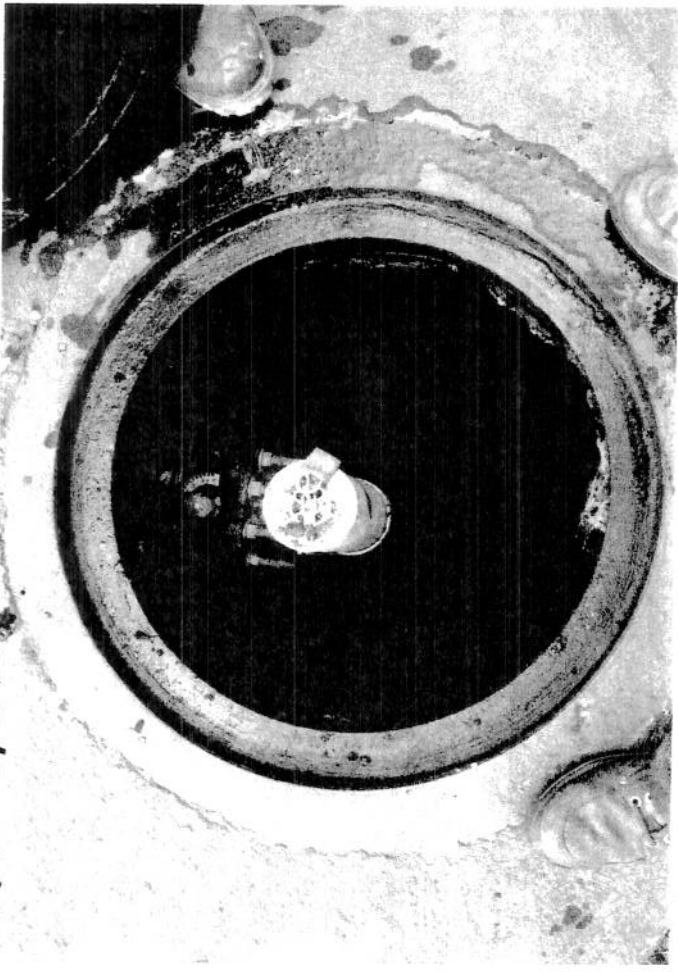


1/9/09, G.C.-8



90F11

1/9/09, G.C.-7



1/9/09, G.C.-6

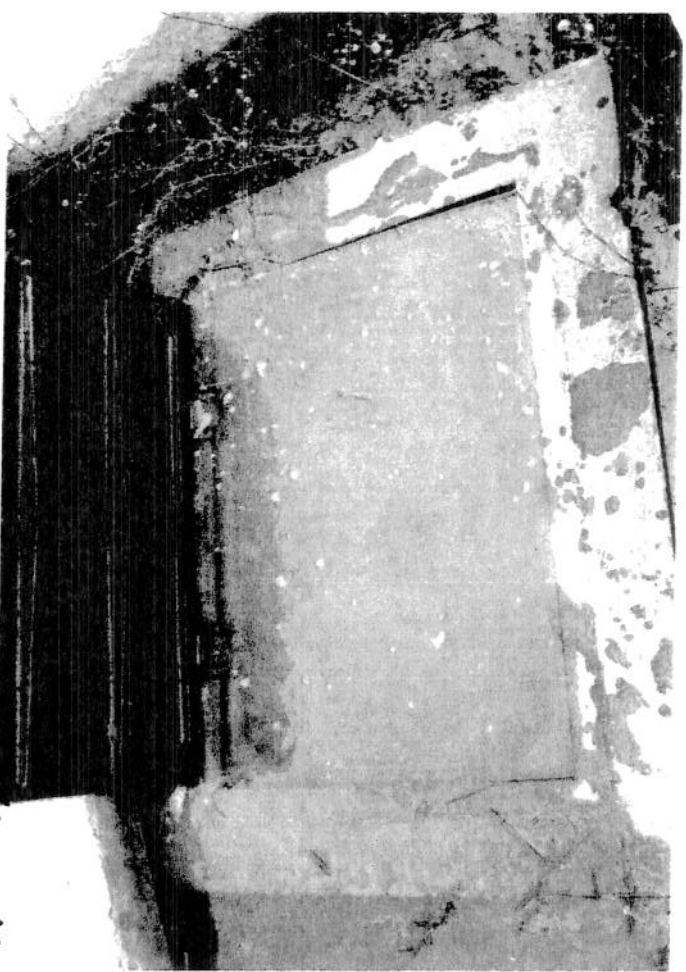




1/9/09, G.V.-13



1/9/09, G.V.-13

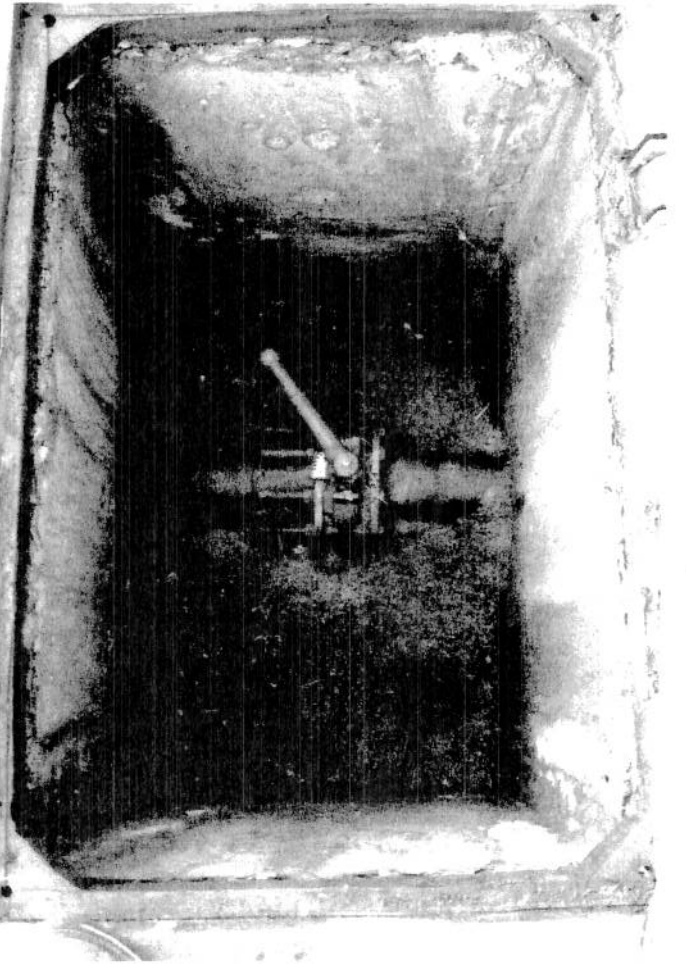


10 of 11

1/9/09, G.V.-12



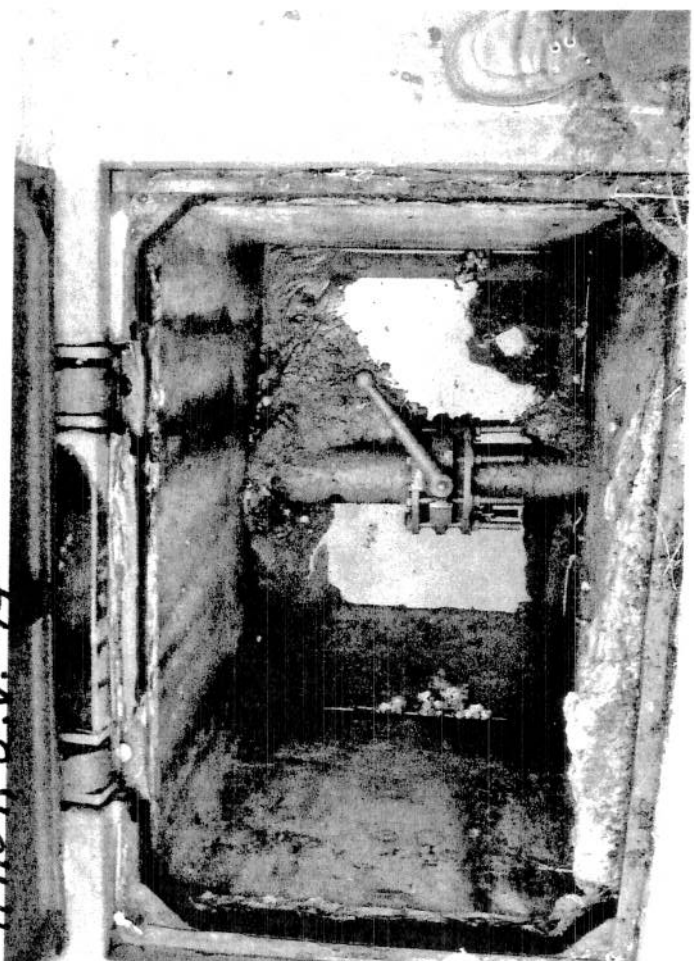
1/9/09, G.V.-11



119109, G.V.-15



119109, G.V.-14



119109, G.V.-10




11 OF 11



## MEMORANDUM

TO: Christopher Andrade, President

FROM: Paul J. DiMaria, PE, Chief Engineer 

DATE: November 16, 2006

RE: Conditions at Sonia Road Landfill

The Post Closure Monitoring Inspection recently completed by Operations personnel revealed several conditions at Sonia Road Landfill and environs that require attention. On the morning of November 14<sup>th</sup> Fazil Rahaman and Francis D. Ribaud, PE visited the site to inspect the areas of concern and later that same day Mr. Ribaud and I visited the site for the same reason. Our observations and recommendations are listed below:

- Condition:** Groundwater monitoring wells MW11S and MW 11D wells ( located near the SCATT Property) are buried.

**Problem:** It is difficult or impossible to get to the well heads for sampling. It must be noted that SCATT has been cooperative in exposing the wells for sampling, but it's an ongoing problem.

**Perceived Cause:** The wells are located in the entrance way of SCATT Industries and their trucks are continually running through that area. Over the course of time rutting of the driveway occurs and SCATT adds fill to the ruts, thus burying the wells. It is not immediately clear as to whether the property on which the wells are located is owned by SCATT or the Town (it may be part of a Town road).

**Recommendations:** Engage the services of a surveyor (an on-call contract already exists) to research the location and determine ownership of the property on which the wells are located. If owned by SCATT, determine whether proper easements have been acquired. Once this information is obtained, have the wells properly raised to grade by the responsible party and instruct SCATT as to future actions.
- Condition:** There appears to be movement of soils on the slope along the north property line in the area between the two entrances used by Atlantic Automall. Slope movement is evident by observation of local settlement and cracking of the soil at the top of slope.

**Problem:** Movement of soil, if continued, can result in a gradual or immediate slope failure. If this happens soil will collapse onto the property below.

**Perceived Cause:** Saturation of the down slope soils due to storm water from the landfill.





**Recommendations:** Engage the services of a Consulting Engineer to determine the cause, evaluate the seriousness of the situation, and recommend and design the most cost effective solution. Then engage the services of a contractor to execute the design.

3. **Condition:** Well caps on Gas Monitoring Wells GM-13 and GM-14 appear to have slid and settled.  
**Problem:** The well caps are bearing, both laterally and vertically, on the wells and may cause a break in the well casings.  
**Perceived Cause:** Settlement of the waste mass in the area of the wells. This type of settlement is typical of landfills and was expected. Similar problems were noted and corrected (by a contractor) on other wells.  
**Recommendations:** Engage the services of a contractor to reset the well caps.
4. **Condition:** The well head on Gas Collection Well GC-13 is set under the concrete slab of the access chamber, unlike on the other wells where it is located under the access chamber cover.  
**Problem:** If the access chamber settles it will damage the well head.  
**Perceived Cause:** Closer inspection reveals that the well was most likely installed the way it is now and that there is no immediate evidence of movement of settlement of the access chamber.  
**Recommendations:** Although there may not be settlement occurring, the access chamber on GC-13 should be monitored for settlement as a precaution.
5. **Condition:** The access chamber on Gas Collection Well GC-3 has settled and is collecting water (2 separate problems, which may be related). The well head was recently shortened by sawing off part of the top.  
**Problem:** Settlement of the access chamber can damage the well head. Additionally, the storm water collecting in the access chamber may be being drawn into the gas collection system (which is under vacuum) and could be a source of excess condensate.  
**Perceived Cause:** Settlement of the waste mass in the area of the wells. This type of settlement is typical of landfills and was expected  
**Recommendations:** Engage the services of a contractor to reset the access chambers.

cc: A. Sanchez  
J. Cosci  
F. Rahaman ✓  
FDR

**GAS MIGRATION MONITORING**

FPM Group, Ltd.  
FPM Engineering Group, P.C.  
formerly Fanning, Phillips and Mohr

CORPORATE HEADQUARTERS  
909 Marconi Avenue  
Ronkonkoma, NY 11779  
631/737-6200  
Fax 631/737-2410

November 4, 2008

Mr. Alan R. Sanchez  
Vice President of Operations  
Islip Resource Recovery Agency  
401 Main Street  
Islip, New York 11751

Re: **Sonia Road Landfill  
October 2008 Landfill Gas Monitoring Results  
FPM File No. 631-04-06**

Dear Mr. Sanchez:

On October 23, 2008, FPM Group (FPM) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GA-90 Gas Analyzer, model GA1/1.

Oxygen (O<sub>2</sub>) gas and methane (CH<sub>4</sub>) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH<sub>4</sub> and 15% carbon dioxide (CO<sub>2</sub>) with the balance nitrogen (N<sub>2</sub>) gas, and 4% O<sub>2</sub> with the balance N<sub>2</sub> gas according to the manufacturer's recommendation prior to sampling.

The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for November 18, 2008. Thomas Dudo will be notified several days in advance of the sampling event. **Prior to the next monitoring event, it is requested that all wells be cleared of overgrown vegetation.**

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 229.

Sincerely,



Jessica K. Bluth  
Hydrogeologist

JKB:tac  
Attachment

cc: Thomas Dudo (via fax)  
Fazil Rahaman (via fax)

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**TABLE 1**  
**LANDFILL GAS MONITORING RESULTS**  
**SONIA ROAD LANDFILL**  
**ISLIP, NEW YORK**

**Gas Monitoring Wells**

Location ID	Well Condition	Time & Date	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Atmospheric Pressure	Relative Pressure
SONIBLOW	OK	10/23/2008 12:15	0.0	0.1	20.2	30.6	-37.80
GM-01	OK	10/23/2008 12:17	0.0	3.4	17.0	30.6	0.00
GM-02	OK	10/23/2008 12:24	0.0	5.3	15.5	30.6	-0.10
GM-03	OK	10/23/2008 12:31	0.0	0.1	20.1	30.6	0.00
GM-04	OK	10/23/2008 14:01	0.0	0.2	20.0	30.6	0.00
GM-05	OK	10/23/2008 12:39	0.0	0.5	20.0	30.5	-0.40
GM-06	OK	10/23/2008 12:46	0.0	0.3	20.0	30.5	-0.10
GM-07	*	10/23/2008 12:53	0.0	0.3	20.1	30.5	-0.20
GM-08	OK	10/23/2008 12:58	0.0	1.7	18.8	30.6	-0.10
GM-09	OK	10/23/2008 13:04	0.0	2.5	18.1	30.6	-0.10
GM-10	OK	10/23/2008 13:08	0.0	0.1	20.1	30.6	0.00
GM-11	OK	10/23/2008 13:14	0.0	1.2	19.3	30.6	0.00
GM-12	OK	10/23/2008 13:20	0.0	0.1	20.1	30.5	-0.10
GM-13	*	10/23/2008 13:26	0.0	0.6	19.8	30.5	0.00
GM-14	*	10/23/2008 13:33	0.0	1.1	19.5	30.5	-0.40
GM-15	OK	10/23/2008 13:44	0.0	1.6	19.0	30.6	-0.40
GM-16	OK	10/23/2008 13:49	0.0	1.0	19.6	30.6	-0.10
GM-17	OK	10/23/2008 13:53	0.0	0.2	20.1	30.6	0.00

**Notes:**

CH<sub>4</sub>, CO<sub>2</sub>, and O<sub>2</sub> are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

Recovery System Status - On

NS = Not Sampled

Weather - Clear, 56°F

\* Exterior casing is obstructed by well and will not close.

**FPM**

**FPM** group \_\_\_\_\_ Engineering and Environmental Science

FPM Group, Ltd.  
FPM Engineering Group, P.C.  
formerly Fanning, Phillips and Molnar

CORPORATE HEADQUARTERS  
908 Marconi Avenue  
Ronkonkoma, NY 11779  
631/737-6200  
Fax 631/737-2410

December 1, 2008

Mr. Alan R. Sanchez  
Vice President of Operations  
Islip Resource Recovery Agency  
401 Main Street  
Islip, New York 11751

Re: **Sonia Road Landfill**  
**November 2008 Landfill Gas Monitoring Results**  
**FPM File No. 631-04-06**

Dear Mr. Sanchez:

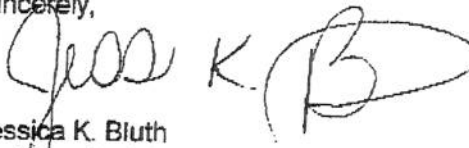
On November 21, 2008, FPM Group (FPM) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GA-90 Gas Analyzer, model GA1/1.

Oxygen (O<sub>2</sub>) gas and methane (CH<sub>4</sub>) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH<sub>4</sub> and 15% carbon dioxide (CO<sub>2</sub>) with the balance nitrogen (N<sub>2</sub>) gas, and 4% O<sub>2</sub> with the balance N<sub>2</sub> gas according to the manufacturer's recommendation prior to sampling.

The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for December 18, 2008. Thomas Dudo will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 229.

Sincerely,

  
Jessica K. Bluth  
Hydrogeologist

JKB:tac  
Attachment

cc: Thomas Dudo (via fax)  
Fazil Rahaman (via fax)

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**TABLE 1**  
**LANDFILL GAS MONITORING RESULTS**  
**SONIA ROAD LANDFILL**  
**ISLIP, NEW YORK**

**Gas Monitoring Wells**

Location ID	Well Condition	Time & Date	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Atmospheric Pressure	Relative Pressure
SONIBLOW	OK	11/21/2008 12:51	3.8	9.5	11.0	29.9	0.00
GM-01	OK	11/21/2008 12:54	0.0	2.5	17.6	29.9	0.00
GM-02	OK	11/21/2008 13:01	0.0	3.4	16.8	29.9	-0.10
GM-03	OK	11/21/2008 13:08	0.0	0.1	20.2	29.9	-0.10
GM-04	OK	11/21/2008 14:46	0.0	0.2	19.9	30.0	0.00
GM-05	OK	11/21/2008 13:15	0.0	0.3	20.1	29.9	-0.20
GM-06	OK	11/21/2008 13:21	0.0	0.3	20.1	29.9	0.00
GM-07	*	11/21/2008 13:28	0.0	0.3	20.1	29.9	0.00
GM-08	OK	11/21/2008 13:35	0.0	1.6	19.0	30.0	0.00
GM-09	OK	11/21/2008 13:41	0.0	2.1	18.2	30.0	0.00
GM-10	OK	11/21/2008 13:46	0.0	0.2	19.9	30.0	0.00
GM-11	OK	11/21/2008 13:51	0.0	1.5	18.9	30.0	0.00
GM-12	OK	11/21/2008 13:57	0.0	0.2	19.8	30.0	0.00
GM-13	*	11/21/2008 14:20	0.0	1.0	19.3	30.0	-0.20
GM-14	*	11/21/2008 14:24	0.0	1.6	18.8	30.0	-0.10
GM-15	OK	11/21/2008 14:29	0.0	1.1	19.2	30.0	-0.10
GM-16	OK	11/21/2008 14:34	0.0	1.6	18.9	30.0	0.00
GM-17	OK	11/21/2008 14:38	0.0	0.6	19.7	30.0	0.00

**Notes:**

CH<sub>4</sub>, CO<sub>2</sub>, and O<sub>2</sub> are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

Recovery System Status - On

NS = Not Sampled

Weather - Partly cloudy, 35°F

\* Exterior casing is obstructed by well and will not close.

**FPM**

FPM Group, Ltd.  
FPM Engineering Group, P.C.  
formerly Fenning, Phillips and Molnar

CORPORATE HEADQUARTERS  
909 Marconi Avenue  
Ronkonkoma, NY 11779  
631/737-6200  
Fax 631/737-2410

December 31, 2008

Mr. Alan R. Sanchez  
Vice President of Operations  
Islip Resource Recovery Agency  
401 Main Street  
Islip, New York 11751

Re: **Sonia Road Landfill**  
**December 2008 Landfill Gas Monitoring Results**  
**FPM File No. 631-04-06**

Dear Mr. Sanchez:

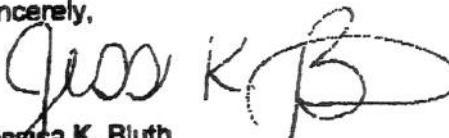
On December 22, 2008, FPM Group (FPM) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GA-90 Gas Analyzer, model GA1/1.

Oxygen (O<sub>2</sub>) gas and methane (CH<sub>4</sub>) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH<sub>4</sub> and 15% carbon dioxide (CO<sub>2</sub>) with the balance nitrogen (N<sub>2</sub>) gas, and 4% O<sub>2</sub> with the balance N<sub>2</sub> gas according to the manufacturer's recommendation prior to sampling.

The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for January 15, 2009. Thomas Dudo will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 229.

Sincerely,

  
Jessica K. Bluth  
Hydrogeologist

JKB:tac  
Attachment

cc: Thomas Dudo (via fax)  
Fazil Rahaman (via fax)

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**TABLE 1**  
**LANDFILL GAS MONITORING RESULTS**  
**SONIA ROAD LANDFILL**  
**ISLIP, NEW YORK**

**Gas Monitoring Wells**

Location ID	Well Condition	Time & Date	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Atmospheric Pressure	Relative Pressure
SON/BLOW	OK	12/22/2008 12:56	2.0	5.1	15.2	29.9	0.00
GM-01	OK	12/22/2008 12:58	0.0	1.7	18.4	29.9	-6.70
GM-02	OK	12/22/2008 13:04	0.0	2.8	17.1	29.9	0.00
GM-03	OK	12/22/2008 13:12	0.0	0.1	20.1	29.9	0.00
GM-04	OK	12/22/2008 14:34	0.0	1.1	19.5	30.0	0.00
GM-05	OK	12/22/2008 13:19	0.0	1.0	19.5	29.9	0.00
GM-06	OK	12/22/2008 13:24	0.0	0.3	19.8	29.9	0.00
GM-07	*	12/22/2008 13:29	0.0	0.1	20.1	29.9	0.00
GM-08	OK	12/22/2008 13:33	0.0	1.3	19.2	29.9	0.00
GM-09	OK	12/22/2008 13:41	0.0	1.9	18.1	29.9	0.00
GM-10	OK	12/22/2008 13:48	0.0	0.1	19.8	30.0	0.00
GM-11	OK	12/22/2008 13:54	0.0	1.1	19.1	30.0	0.00
GM-12	OK	12/22/2008 13:59	0.0	0.1	19.8	30.0	0.00
GM-13	*	12/22/2008 14:05	0.0	0.1	19.8	30.0	0.00
GM-14	*	12/22/2008 14:11	0.0	0.7	18.8	30.0	-0.30
GM-15	OK	12/22/2008 14:16	0.0	0.3	19.5	30.0	-1.30
GM-16	OK	12/22/2008 14:21	0.0	1.5	18.6	30.0	0.00
GM-17	OK	12/22/2008 14:26	0.0	0.5	19.6	30.0	0.00

**Notes:**

CH<sub>4</sub>, CO<sub>2</sub>, and O<sub>2</sub> are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

Recovery System Status - OFF due to activities conducted by the Town of Islip. Verbal permission granted by Tom Dudo to collect landfill gas data despite system status.

Weather - Clear, 25°F

\* Exterior casing is obstructed by well and will not close.

**FPM**



**GROUNDWATER WELL CONDITION**



Engineers | Architects | Scientists | Planners | Surveyors

175 Pinelawn Road | Suite 308  
Melville, New York 11747  
v 631.756.8000 f 631.454.8432  
www.h2m.com

Holzmacher, McLendon & Murrell, P.C. | H2M Associates, Inc.  
H2M Labs, Inc. | H2M Architects & Engineers, Inc.

November 11, 2008

Anthony Varrichio, P.E., Chief Engineer  
Islip Resource Recovery Agency  
401 Main Street  
Islip, New York 11751

Re: **Well Condition Report, Fourth Quarter 2008**  
**Sonia Road Landfill**  
**H2M No. ISLP0701**

Dear Mr. Varrichio:

The purpose of this letter is to provide the Fourth Quarter 2008 well inspection summary report for the 35 monitoring wells at the Sonia Road Landfill. The completed well inspection checklists are enclosed. The well inspection did not reveal any significant damage, security issues or other concerns related to the sampled monitoring wells that would require corrective action, except at seven wells. The following concerns were noted during the inspection:

- The well cap and lock to monitoring well MW-01I were missing.
- The lock for monitoring well MW-02D was missing.
- The vaults to monitoring well MW-02D and MW-02I could not be closed due to contact between the well casing and vault cover.
- The rubber gasket on the vault for monitoring well MW-06I was damaged.
- The lock for monitoring well MW-11D was missing.
- The manhole cover for monitoring well MW-13S was missing.

In addition, although not noted in Table 1, wells MW-11S and MW-11D are often difficult to locate, due to the partial burial of the manholes for these wells, which are located at the western end of South Fourth Street.

If you have any questions or require any additional information, please call me at (631) 756-8000, extension 1606.

Very truly yours,

**HOLZMACHER, McLENDON & MURRELL, P.C.**

Kenneth P. Wenz, Jr., CPG  
Senior Project Manager

Enclosures

X:\ISLP (Town of Islip) - 10560\2008\ISLP0801(Sonia Road Landfill)\01-DRAFT REPORT\Draft Report\4 Qtr 2008 (Baseline)\4Qtr Well Condition Report.docx



CELEBRATING 75 YEARS



**Table 1**  
**WELL INSPECTION SUMMARY - FOURTH QUARTER 2008**  
**SONIA ROAL LANDFILL**

Well	Surface Seal	Cover/standpipe	Lock Intact?	Casing Alignment	Survey Point	Well Labeled?	Well Protected?
MW-01S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-01I	Intact	Missing well cap	No	Straight	Marked	Yes	Yes
MW-01D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-02I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-02D	Intact	Intact	No	Straight	Marked	Yes	Yes
MW-03S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-03I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-03D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-04S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-04I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-04D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-05S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-05I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-05D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-06S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-06D	Intact	Gasket damaged	Yes	Straight	Marked	Yes	Yes
MW-07S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-07I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-07D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-10S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-10I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-10D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-11S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-11I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-11D	Intact	Intact	No	Straight	Marked	Yes	Yes
MW-12S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-12I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-12D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-13S	Intact	Missing manhole cover	No	Straight	Marked	Yes	No
MW-13I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-13D	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-14S	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-14I	Intact	Intact	Yes	Straight	Marked	Yes	Yes
MW-14D	Intact	Intact	Yes	Straight	Marked	Yes	Yes

**APPENDIX A**

# CAR COUNT 12/20/08

<u>Dealership</u>	<u>Car Count</u>
Atlantic Nissan	367
Atlantic Hyundai	369
Atlantic Honda	566
Atlantic Toyota	328
Atlantic Chevy	131
Atlantic Caddy	48
Atlantic Audi	110
Millennium Honda	442
Advantage Toyota	204
Advantage Nissan	106
Advantage Hyundai	59
Lexus Massapequa	18
Lexus RVC	9
<b>Total Hill:</b>	<b>2757</b>
<b>Total Count:</b>	<b>2757</b>

ATTN: Faz