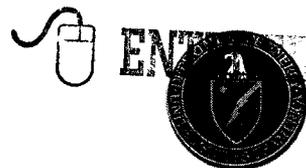




13
DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Field Office
Los Alamos, New Mexico 87544



APR 03 2014

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

John Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

RECEIVED

APR 8 2014

NMED
Hazardous Waste Bureau

Dear Mr. Kieling:

Subject: Formal Notification of Methane at 100 percent of the Lower Explosive Limit at Vent Risers along the North Edge of the Los Alamos Airport Landfill Cap for the Month of March 2014

The purpose of this letter is to provide formal notification to the New Mexico Environment Department-Hazardous Waste Bureau of methane at 100 percent of the Lower Explosive Limit at vent risers along the north edge of the Los Alamos Airport Landfill cap. Enclosed are the four monitoring Landfill Gas Monitoring Reports for the month of March 2014.

If you have comments or questions, please contact Ramoncita N. Massey of my staff at (505) 665-7771.

David S. Rhodes
Federal Project Director
Environmental Projects Office

Enclosures



cc w/enclosures:

Dave Cobrain

Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Neelam Dhawan

Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
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Siona Briley

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Michael Dale

Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

T. Haagenstad, CAP, LANS, MS-M992
Records Center, NA-LA
Official Contract File, NA-LA

EPO-32RM-597-568608

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 3/4/14 Barometric Pressure: 30.09" Temperature: 38° F

Weather conditions: Mostly Cloudy Wind Direction: SE Wind Speed: 2 mph

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1501 Calibration method and date: Pentane gas 3/3/14

March Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	1110	0	20.8	0
HP-02	2 inches above expansion joint*	1109	0	20.8	0
HP-03	2 inches above expansion joint*	1109	0	20.8	0
HP-04	2 inches above expansion joint*	1114	0	20.8	0
HP-05	2 inches above expansion joint*	1113	0	20.8	0
HP-06	2 inches above expansion joint*	1113	0	20.8	0
HP-07	2 inches above expansion joint*	1117	0	20.8	0
HP-08	2 inches above expansion joint*	1117	0	20.8	0
HP-09	2 inches above expansion joint*	1116	0	20.8	0
HP-10	2 inches above expansion joint*	1121	0	20.8	0
HP-11	2 inches above expansion joint*	1110	0	20.8	0
HP-12	2 inches above expansion joint*	1119	0	20.8	0
HP-13	2 inches above expansion joint*	1124	0	20.8	0
HP-14	2 inches above expansion joint*	1124	0	20.8	0
HP-15	2 inches above expansion joint*	1123	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	1107*	NA	NA	NA
TD-02	4 inches below trench grate	1108	0	20.8	0
TD-03	4 inches below trench grate	1111	0	20.8	0
TD-04	4 inches below trench grate	1112	5	20.8	0
TD-05	4 inches below trench grate	1114*	NA	NA	NA
TD-06	4 inches below trench grate	1116	0	20.8	0
TD-07	4 inches below trench grate	1118	0	20.8	0
TD-08	4 inches below trench grate	1119	0	20.8	0
TD-09	4 inches below trench grate	1122	0	20.8	0
TD-10	4 inches below trench grate	1122	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	1142	0	0	0
DC-02	4 inches below grate	1142	4	0	0
DC-03	4 inches below grate	1141	11	0	0
DC-04	4 inches below grate	1140	10	0	0
DC-05	4 inches below grate	1138	8	0	0
DC-06	4 inches below grate	1137	10	0	0
DC-07	4 inches below grate	1136	4	0	0
DC-08	4 inches below manhole lid	1134	0	0	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1106	0	20.8	0
PG-02	2 inches above ground surface	1105	0	20.8	0
PG-03	2 inches above ground surface	1104	0	20.8	0
PG-04	2 inches above ground surface	1103	0	20.8	0
PG-05	2 inches above ground surface	1102	0	20.8	0
PG-06	2 inches above ground surface	1125	0	20.8	0
PG-07	2 inches above ground surface	1126	0	20.8	0
PG-08	2 inches above ground surface	1127	0	20.8	0

PG-09	2 inches above ground surface	1127	0	20.8	0
PG-10	2 inches above ground surface	1132	0	20.8	0
PG-11	2 inches above ground surface	1131	0	20.8	0
PG-12	2 inches above ground surface	1128	0	20.8	0
PG-13	2 inches above ground surface	1130	0	20.8	0
PG-14	2 inches above ground surface	1129	0	20.8	0
PS-01	at spinner (4 ft above pavement)	1054	0	20.8	0
PS-02	at spinner (4 ft above pavement)	1054	100	18.1	0
PS-03	at spinner (4 ft above pavement)	1057	0	20.8	0
PS-04	at spinner (4 ft above pavement)	1058	1	20.8	0
PS-05	at spinner (4 ft above pavement)	1058	100	17.7	0
PS-06	at spinner (4 ft above pavement)	1101	0	20.8	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

***NA - No measurements collected because section of trench drain held standing water from rains on Saturday, 3/1/14**

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 3/12/14 Barometric Pressure: 30.30" Temperature: 31° F

Weather conditions: Mostly sunny Wind Direction: _____ Wind Speed: Calm

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1500 Calibration method and date: Pentane gas 3/4/14

March Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	1116	0	20.8	0
HP-02	2 inches above expansion joint*	1115	0	20.8	0
HP-03	2 inches above expansion joint*	1115	0	20.8	0
HP-04	2 inches above expansion joint*	1111	0	20.8	0
HP-05	2 inches above expansion joint*	1112	0	20.8	0
HP-06	2 inches above expansion joint*	1112	0	20.8	0
HP-07	2 inches above expansion joint*	1108	0	20.8	0
HP-08	2 inches above expansion joint*	1109	0	20.8	0
HP-09	2 inches above expansion joint*	1110	0	20.8	0
HP-10	2 inches above expansion joint*	1105	0	20.8	0
HP-11	2 inches above expansion joint*	1106	0	20.8	0
HP-12	2 inches above expansion joint*	1106	0	20.8	0
HP-13	2 inches above expansion joint*	1102	0	20.8	0
HP-14	2 inches above expansion joint*	1102	0	20.8	0
HP-15	2 inches above expansion joint*	1103	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	1117	0	20.8	0
TD-02	4 inches below trench grate	1116	0	20.8	0
TD-03	4 inches below trench grate	1114	0	20.8	0
TD-04	4 inches below trench grate	1113	0	20.8	0
TD-05	4 inches below trench grate	1111	0	20.8	0
TD-06	4 inches below trench grate	1110	0	20.8	0
TD-07	4 inches below trench grate	1108	0	20.8	0
TD-08	4 inches below trench grate	1107	0	20.8	0
TD-09	4 inches below trench grate	1105	0	20.8	0
TD-10	4 inches below trench grate	1104	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	1136	0	20.8	0
DC-02	4 inches below grate	1135	0	20.8	0
DC-03	4 inches below grate	1134	0	20.8	0
DC-04	4 inches below grate	1134	0	20.8	0
DC-05	4 inches below grate	1133	0	20.8	0
DC-06	4 inches below grate	1132	0	20.8	0
DC-07	4 inches below grate	1131	0	20.8	0
DC-08	4 inches below manhole lid	1129	0	20.8	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1117	0	20.8	0
PG-02	2 inches above ground surface	1118	0	20.8	0
PG-03	2 inches above ground surface	1118	0	20.8	0
PG-04	2 inches above ground surface	1119	0	20.8	0
PG-05	2 inches above ground surface	1119	0	20.8	0
PG-06	2 inches above ground surface	1120	0	20.8	0
PG-07	2 inches above ground surface	1121	0	20.8	0
PG-08	2 inches above ground surface	1122	0	20.8	0

PG-09	2 inches above ground surface	1123	0	20.8	0
PG-10	2 inches above ground surface	1127	0	20.8	0
PG-11	2 inches above ground surface	1126	0	20.8	0
PG-12	2 inches above ground surface	1124	0	20.8	0
PG-13	2 inches above ground surface	1125	0	20.8	0
PG-14	2 inches above ground surface	1125	0	20.8	0
PS-01	at spinner (4 ft above pavement)	1056	0	20.8	0
PS-02	at spinner (4 ft above pavement)	1057	32	20.8	0
PS-03	at spinner (4 ft above pavement)	1058	0	20.8	0
PS-04	at spinner (4 ft above pavement)	1059	0	20.8	0
PS-05	at spinner (4 ft above pavement)	1100	0	20.8	0
PS-06	at spinner (4 ft above pavement)	1101	0	20.8	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 3/19/14 Barometric Pressure: 30.22" Temperature: 40° F

Weather conditions: Sunny Wind Direction: SE Wind Speed: 9 mph

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1552 Calibration method and date: Pentane gas 2/26/14

March Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	1356	0	20.8	0
HP-02	2 inches above expansion joint*	1355	0	20.8	0
HP-03	2 inches above expansion joint*	1354	0	20.8	0
HP-04	2 inches above expansion joint*	1352	0	20.8	0
HP-05	2 inches above expansion joint*	1352	0	20.8	0
HP-06	2 inches above expansion joint*	1351	0	20.8	0
HP-07	2 inches above expansion joint*	1348	0	20.8	0
HP-08	2 inches above expansion joint*	1349	0	20.8	0
HP-09	2 inches above expansion joint*	1350	0	20.8	0
HP-10	2 inches above expansion joint*	1345	0	20.8	0
HP-11	2 inches above expansion joint*	1346	0	20.8	0
HP-12	2 inches above expansion joint*	1346	0	20.8	0
HP-13	2 inches above expansion joint*	1342	0	20.8	0
HP-14	2 inches above expansion joint*	1343	0	20.8	0
HP-15	2 inches above expansion joint*	1344	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	1357	0	20.8	0
TD-02	4 inches below trench grate	1356	0	20.8	0
TD-03	4 inches below trench grate	1354	0	20.8	0
TD-04	4 inches below trench grate	1353	0	20.8	0
TD-05	4 inches below trench grate	1351	0	20.8	0
TD-06	4 inches below trench grate	1350	0	20.8	0
TD-07	4 inches below trench grate	1348	0	20.8	0
TD-08	4 inches below trench grate	1347	0	20.8	0
TD-09	4 inches below trench grate	1345	0	20.8	0
TD-10	4 inches below trench grate	1344	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	1414	0	0	0
DC-02	4 inches below grate	1414	0	0	0
DC-03	4 inches below grate	1413	0	0	0
DC-04	4 inches below grate	1412	0	0	0
DC-05	4 inches below grate	1412	0	0	0
DC-06	4 inches below grate	1411	0	0	0
DC-07	4 inches below grate	1410	0	0	0
DC-08	4 inches below manhole lid	1406	0	0	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1358	0	20.8	0
PG-02	2 inches above ground surface	1358	0	20.8	0
PG-03	2 inches above ground surface	1359	0	20.8	0
PG-04	2 inches above ground surface	1359	0	20.8	0
PG-05	2 inches above ground surface	1400	0	20.8	0
PG-06	2 inches above ground surface	1401	0	20.8	0
PG-07	2 inches above ground surface	1402	0	20.8	0
PG-08	2 inches above ground surface	1402	0	20.8	0

PG-09	2 inches above ground surface	1403	0	20.8	0
PG-10	2 inches above ground surface	1405	0	20.8	0
PG-11	2 inches above ground surface	1405	0	20.8	0
PG-12	2 inches above ground surface	1403	0	20.8	0
PG-13	2 inches above ground surface	1404	0	20.8	0
PG-14	2 inches above ground surface	1404	0	20.8	0
PS-01	at spinner (4 ft above pavement)	1333	0	20.8	0
PS-02	at spinner (4 ft above pavement)	1334	100	15.2	0
PS-03	at spinner (4 ft above pavement)	1339	0	20.8	0
PS-04	at spinner (4 ft above pavement)	1340	55	19.7	0
PS-05	at spinner (4 ft above pavement)	1341	12	20.8	0
PS-06	at spinner (4 ft above pavement)	1342	0	20.8	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 3/26/14 Barometric Pressure: 29.89" Temperature: 48° F

Weather conditions: Mostly Sunny Wind Direction: W Wind Speed: 7 mph

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1584 Calibration method and date: Pentane gas 3/20/14

March Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	1007	0	20.8	0
HP-02	2 inches above expansion joint*	1008	0	20.8	0
HP-03	2 inches above expansion joint*	1009	0	20.8	0
HP-04	2 inches above expansion joint*	1005	0	20.8	0
HP-05	2 inches above expansion joint*	1004	0	20.8	0
HP-06	2 inches above expansion joint*	1004	0	20.8	0
HP-07	2 inches above expansion joint*	1001	0	20.8	0
HP-08	2 inches above expansion joint*	1001	0	20.8	0
HP-09	2 inches above expansion joint*	1002	0	20.8	0
HP-10	2 inches above expansion joint*	0958	0	20.8	0
HP-11	2 inches above expansion joint*	0959	0	20.8	0
HP-12	2 inches above expansion joint*	0959	0	20.8	0
HP-13	2 inches above expansion joint*	0955	0	20.8	0
HP-14	2 inches above expansion joint*	0955	0	20.8	0
HP-15	2 inches above expansion joint*	0956	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	1010	0	20.8	0
TD-02	4 inches below trench grate	1009	0	20.8	0
TD-03	4 inches below trench grate	1007	0	20.8	0
TD-04	4 inches below trench grate	1006	NM**	NM**	NM**
TD-05	4 inches below trench grate	1003	0	20.8	0
TD-06	4 inches below trench grate	1003	0	20.8	0
TD-07	4 inches below trench grate	1000	0	20.8	0
TD-08	4 inches below trench grate	1000	0	20.8	0
TD-09	4 inches below trench grate	0958	NM**	NM**	NM**
TD-10	4 inches below trench grate	0957	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	1034	0	20.8	0
DC-02	4 inches below grate	1033	0	20.8	0
DC-03	4 inches below grate	1032	0	20.8	0
DC-04	4 inches below grate	1031	0	20.8	0
DC-05	4 inches below grate	1030	0	20.8	0
DC-06	4 inches below grate	1029	4	20.8	0
DC-07	4 inches below grate	1028	4	20.8	0
DC-08	4 inches below manhole lid	1025	5	20.8	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1012	0	20.8	0
PG-02	2 inches above ground surface	1012	0	20.8	0
PG-03	2 inches above ground surface	1013	0	20.8	0
PG-04	2 inches above ground surface	1014	0	20.8	0
PG-05	2 inches above ground surface	1015	0	20.8	0
PG-06	2 inches above ground surface	1016	0	20.8	0
PG-07	2 inches above ground surface	1016	0	20.8	0
PG-08	2 inches above ground surface	1017	0	20.8	0

PG-09	2 inches above ground surface	1017	0	20.8	0
PG-10	2 inches above ground surface	1023	0	20.8	0
PG-11	2 inches above ground surface	1022	0	20.8	0
PG-12	2 inches above ground surface	1018	0	20.8	0
PG-13	2 inches above ground surface	1021	0	20.8	0
PG-14	2 inches above ground surface	1020	0	20.8	0
PS-01	at spinner (4 ft above pavement)	0940	0	20.8	0
PS-02	at spinner (4 ft above pavement)	0949	100	18.3	0
PS-03	at spinner (4 ft above pavement)	0952	0	20.8	0
PS-04	at spinner (4 ft above pavement)	0952	18	19.8	0
PS-05	at spinner (4 ft above pavement)	0953	38	19.8	0
PS-06	at spinner (4 ft above pavement)	0954	0	20.8	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

**** NM = No measurements collected because this section of trench held standing water.**

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.